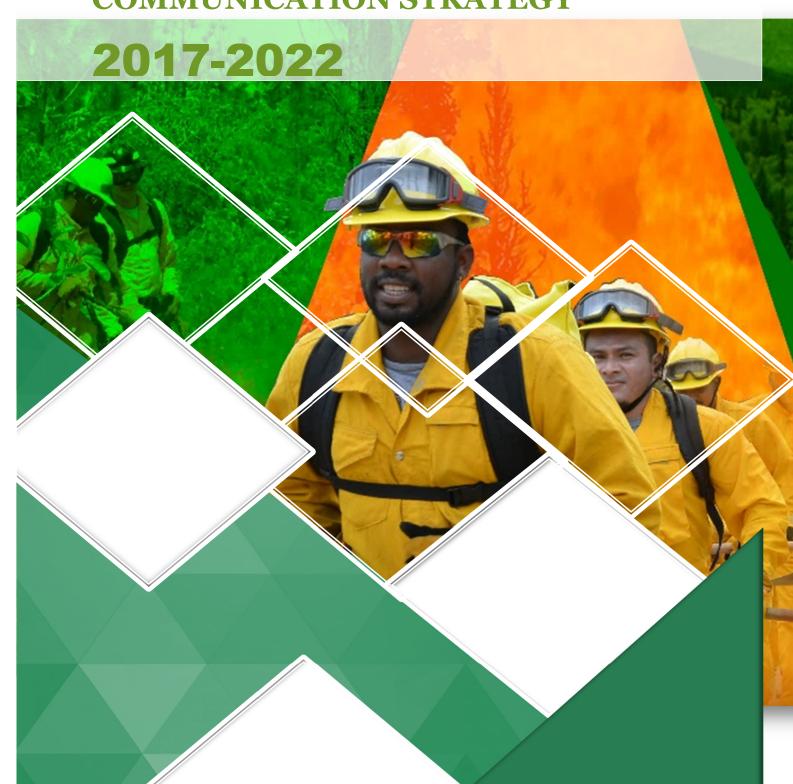
A National Cohesive

FOREST FIRES

COMMUNICATION STRATEGY



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FOREST FIRES

COMMUNICATION STRATEGY

2017-2022

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BACKGROUND

In Belize, Forest Fires ravage approximately 97,260 acres of forests annually 1 and remains one of the major causes of biodiversity loss, deforestation and forest degradation.

Belize's forests are important to the social, economic and environmental viability and development of many local communities, providing goods and services and act as a safety net for forest-dependent people. As they are highly valuable, so are they plagued by a myriad of pressing threats, such as deforestation, desertification, biodiversity loss, weak institutional capacity, and poverty. However, no threat has more profound and lasting impacts on forests and people than the one posed by forest fires. Deemed as a growing threat to sustainable forest management, forest fires have been attributed to human carelessness and result in severe environmental, social and economic consequences, particularly for forest dependent people and local communities. It is an escalating problem contributing to global warming and further fuelled by Climate Change. It has become a complex problem that has huge implications and unequivocally requires a collective solution.

CAUSES

Each year, many land use changes continue to affect forest and rural interface, resulting in a high exposure to human-

induced fires. It increases the reoccurrence of forest fires. Studies indicate that although there are multiple sources of forest fires, the single most likely cause has been directly attributed to human negligence. According to experts, escaped agricultural fires account for more than 60% of the forest fires in Belize have been triggered by increasing land clearing for agriculture. Although slash and burn is a widely accepted practice, the lack of knowledge and expertise of controlled fire techniques, coupled by farmers' limited awareness of fire regulations and enforcement, have contributed to higher incidents of forest fires over recent years. Illegal hunting fire practices and illegal burning of solid waste and poor camping practices have also contributed to high fire risks.

¹ Selva Maya Project. (2015). Forest Fires in the Selva Maya.

The intensity and impact is further exacerbated by climactic conditions, particularly increasing dry spells, droughts and the massive fuel load left after hurricanes. As agents of forest disturbance, hurricanes and forest fires proved to be a devastating combination in 2011 and 2016. Of the 213,500 acres of forest burned in 2011, the principal affected area was the central region ravaged by Hurricane Richard (1). Hurricane Earl, in 2016, created similar destructive fires in 2017 fire season, as fire management efforts proved inadequate t mitigate scourging forest fires countrywide. These increasing frequency of hurricanes and dry spells caused by Climate Change are expected to continue to promote greater incidences of forest fires (2).

CONSEQUENCES

While there is still uncertainty as to the extent of the damages of forest fires, the timber industry continues to record large annual economic losses due to uncontrolled fires. The destruction is more than just merchantable trees however. When forest fires ravage a forested area, it has direct social and economic impact on forest-dependent people and rural communities. These singe of wildfires threaten lives and livelihood. Increasing and repeated forest fires ravage forests areas that are potential source of non-timber forest produce, such as medicinal plants, rattan, fodder and recreational areas. Such resources are essential for indigenous and local community people either for supplementary purposes or direct income.

Apart from socio-economic impacts, forest fires have devastating ecological consequences. As fires increase both in frequency and severity, recurrent wildfires decrease the recovery rate of forest species, whereby the frequency and intensity of wildfires alters forest structure, composition and cover in several critical areas, as well as remain the greatest threat to the long-term survival of Belize's forest. Belize's forest fires have been known to impact on soil and watersheds, causing soil erosion, removing forest vegetation from around waterways, eventually impacting water quantity and quality.

Belize, like many developing countries, is vulnerable to the impacts of Climate change, where the frequency and severity of forest fires is projected to greatly increase over the next decades. Warmer temperatures and drier climate can potentially lead to more severe forest fires and increased carbon emissions. These conditions will make sustainable forest management even more challenging. Forest fire management practices will need to be greatly improved to maintain forest productivity and ensure that forests continue to support indigenous and local communities.

CURRENT SITUATION & GAPS

Increasing intensity of forest fires over the years have disrupted and continue to impact local communities countrywide. Often times, the communities most likely affected are those adjacent forested areas or within forests. Some 190 rural communities are presently vulnerable to forest fires. While some communities are at a higher risk than others, none of the communities have resilience plans or are equipped with the resources to address high intensity forest fires that threaten to engulf nearby communities. Many rural communities are less likely to have human and financial resources to manage forest fires in their area. In fact, most community residents viewed land for agricultural purposes and community expansion a far greater necessity than addressing or acknowledged forest fires as a primary issue.

At the national level, inadequate human capacity and resources leave many of these communities vulnerable to the impacts of forest fires. The most profound disadvantage has been limited governmental interest in addressing forest fires, fragmented awareness campaigns, lack of instruments for exchange of ideas, unclear land tenure policies, no common legal framework and a clear lack of involvement of communities in forest fire management. If forests are to continue to play a crucial role in the sustainable development of these communities and fulfilment of meeting socio-economic needs of rural people, there is a need for greater urgency in ensuring sufficient investments in forest fire management activities and wider emphasis on public awareness and participation.

SOLUTIONS

Clearly there is considerable room for improvement, especially since forest fire management is a crucial part of sustainable forest management. As the frequency and intensity forest fires grow, so does difficulties in addressing widespread forest fires, and implementing cost-efficient measures with limited available resources. Efforts are slowly being made to conscientiously and deliberately address forest fires. A Wildland Forest Fire Policy & Strategy 2009 is being revised and this communication plan is a reflection of renewed determination to increase community awareness.² Recognizably, the Forest Department has taken the lead in instituting a comprehensive national forest policy and strategy, implementing the Fire Incidents Rapid Response Team (FIRRT) plan to reduce incidents of forest fires, developing a national forest fire warning system, and building institutional and local communities' capacity.

 $^{^2}$ According to the National Wildland Fire Policy and Strategy, forest fires are the "Abundant, unwanted, and uncontrolled Wildland fires that occur in Belize causing damage to the environment, human health, and property."

The Key Biodiversity Areas Management & Protection Project (KBA project), under the Ministry of Agriculture, Forestry, Fisheries, the Environment and Sustainable Development aims to improve forest fire management by developing and implementing; (i) a forest fire prevention and awareness raising program; and (ii) a sustainable forest management awareness campaign at the national level. The ultimate goal is to achieve: (i) a reduction in deforestation rates and fragmentation pressure in targeted KBAs, (ii) enhancement of sustainable forest management practices; (iii) improvement in the protection of forest reserves and reduction of forest fire incidents; and (iv) the improvement of local livelihoods through community-based sustainable use of ecosystem goods and services, among others.

Forest fire risk communication is at the heart of these efforts and one of the foremost approach to mitigate forest fires and manage forest fire threats to local communities. Emerged from risked management studies, risk communication seeks to inform people about the potential danger of uncontrolled fires and the consequences. It sets out public education goals and approaches that are more interactive and take into account people's perceptions of fires. As such, it seeks to engender greater relationship between government and local communities, and emphasizes the need for credible information, the importance of interaction and collaboration among people, community-based groups and relevant government agencies.



INTRODUCTION

This communication strategy is part of a larger Sustainable Forest Management communication framework and represents a culmination of literature review, survey, interviews, and consultation with key stakeholders. As a result, the strategy is a blueprint for how the Forest Department will engage relevant inter-government agencies, local communities, forest CBOs and NGOs, and other management entities in forest fire management. It also recommends appropriate communication approaches and actions that may be used to effectively engage key stakeholders. At the end of the strategy, a communication plan provides details of actions and tactics that will be taken to implement the strategy.

So far, communication campaigns on Forest Fire Management have been minimal, except in the Southern region, where CBOs and Forest NGOs have been active in creating a Southern Forest Fire Working Group and training forest workers and farmers in forest fire management. Other CBOs and NGOs located in other regions of the country have done some educational campaigns but limited resources have resulted in inconsistent and fragmented campaigns. Clearly, the development and implementation of an effective communication strategy is a critical component of an Integrated Forest Fire Management programme.

COMPONENTS

The communication strategy outlines the communication strategic objectives, identify key stakeholders, define key messages, pinpoint principal approaches and identify communication tools and resources. It is supported by monitoring and evaluation plan which tracks successes and expected outcomes. The annexes attached includes Stakeholder Analysis, Implementation plan and the Monitoring and Evaluation plan. Although the communication plan provides strategies and defines communications paths, it offers flexibility to address

emerging trends, evolving institutional changes, and shifting communication technological realities.

This strategy was influenced by a variety of sources, primarily the Belize Wildland Forest Fire Strategy & Policy 2009, the Forest Fire Response Incidents Team (FIRRT) Implementation Plan, National Forest Policy 2015, the Sustainable Forest Management Communication Plan, other resources with historical context derived from more than 90 years of traditional and institutional knowledge of fire management in Belize. The strategy is also influenced by two Forest Sector consultations, a public perception survey, expert interviews conducted between July 2016 and May 2017, and a Wildland Forest Fire survey conducted with farmers held in 2009. To ensure that the communication strategy meets objectives and remains relevant and realistic, a Strength, Weakness, Opportunities, and Threats (SWOT) model was used during the development. Key stakeholders were instrumental in reviewing the present on-the-ground situation, identifying their challenges, selected priorities, recognizing potential risks and offering recommendations, all of which have helped to shape this document.

OBJECTIVE

To achieve the goal to build resilience to forest fires, the FFM Communication Strategy is part of the overall SFM Communication Strategy, seeking to increase community involvement in sustainable forest management. The FFM Communication Strategy creates a road map to elevate a national response to forest fires by: (1) providing information, (2) increasing awareness, (3) encouraging actions, (4) building consensus, and (5) promoting community participation. With these communication objectives, the strategy is designed to empower interest groups, local communities and people to understand forest fire dangers and take action to reduce the threat.

STAKEHOLDERS (ACTORS)

The strategy identifies diverse stakeholders, including political leaders, public sector, private sector, civil society and local and indigenous communities. At the community level, however, the integration of forest fire management practices is categorized under three major actors. These actors are:

- (1) **Those at risk**: actors vulnerable to forest loss and forest fires,
- (2) **Those putting themselves & others at risk**: actors who are engaged in unsustainable behaviours, and;
- (3) Those embracing fire-safe practices to reduce their risk: actors adopting sustainable practices to mitigate forest fires.

By categorizing actors, it becomes easier for local community residents to examine which role they presently play in forest fire management. In examining forest fire prevention efforts, local farmers in San Antonio village, Cayo District, similarly described these three actors: "the ones affected, the ones causing the problem and those trying to fix the problem". The description served to inspire community stakeholders. Each actor requires different communication objectives and different approaches. For instance, actors at risks are those vulnerable to forest fires. This can further be categorized by their level of risk attributed mainly to their geographical location, climatic conditions and human interventions. Their vulnerability increases if they are highly dependent on forest for their livelihoods. Subsequently, the communication objective will be to increase awareness of the risks of forest fires and discuss strategies to reduce the risks. On the other hand, those actors who trigger fires, may need to understand their negligent actions and the regulations, the conditions that trigger forest fires, and be given support or incentives for changing these negative practices. Finally, those actors who are already actively monitoring, engaging in forest fire prevention practices, may need reinforcement or build confidence in their positive actions and be encouraged to motivate or share their experiences with others.

GUIDING PRINCIPLES

The strategy is based on several principles, such as:

- (i) The strategy promotes **two-way communication** as a rudimentary approach to foster greater understanding, increase risk perceptions and reduce unsustainable fire practices. Such dialogue and interactive activities, uses a more problem-based approach, and ruminates the degree of which people are affected (experiences), and whether or not people could relate it to their daily lives (connection & relevance).
- (ii) Apart from engaging communities in dialogue about the risks, the strategy also recognizes the need for **professional capacity development of government personnel** and its partners to communicate risks, designing messages to be culturally sensitive, strengthening collaboration and cooperation in forest fire management and improving access to clear and credible information.
- (iii) It recognizes a *people-centred approach*, which values sustainability, inclusiveness and justice. Since people are integral to the survival of forests, the communication strategy encourages more "people-centered" strategies for greater public awareness and public participation. This is a departure from the prevailing technical-focused communication strategies and essentially seeks to promote people as central to sustainable forest management.

This approach engages citizens in determining how they would like to be included in forest fire management, interdisciplinary stakeholders in discussions and working together, and developing localized messages for both internal and external stakeholders.

(iv) It borrows from the Communication for Development theory, which also adopts a people-centered philosophy, and identifies a multiplicity of communication approaches to achieve meaningful public participation, amplify people's voices and foster social change. With these theories as the basis for the strategy, communication is not merely an instrument but is also a catalyse for promoting community voices, empowering communities to develop and implement community-driven actions, and supporting sustainable forest management. It is certainly a departure from the traditional "top-down" communication approaches often used by government agencies. Adopting a more bottom-up approach provides a 'win-win' situation.

Table 1: Communication approaches- People & Government

PEOPLE

FOR PEOPLE: It does not only put people at the core, this paradigm-shift builds people's capacity to communicate, negotiate and influence decisions about their own quality of life.

Simply put, it is a "Think-Talk-Act" change process for communities and external stakeholders, which empowers people to reflect on their behaviours or identify priority issues (Think), suggest solutions and dialogue with government (Talk), and act upon their decisions (Act).

While it allows people to begin to see themselves as part of the solutions, the most profound and fundamental benefit is that local and indigenous communities see themselves as "rights holders" and "duty bearers". As such, they gain a sense of ownership, often lacking previous in communication strategies.

GOVERNMENT

FOR GOVERNMENT: This communication strategy encourages government to act as an enabler of the 'people's agenda', by being more transparent, providing relevant information for people to make informed decisions and facilitating change.

that relevant It ensures government agencies will adopt "Inform-Listen-Assist" approach, whereby they are responsible inform people of forests conditions and issues (Inform), listen to people share their on-the-ground realities (Listen) and give guidance and support to ensure that key stakeholders meet their goals (Assist). In essence, it reframes from a technical focus to a social focus and builds a bridge between people and policymakers.

It is a radical transformation where government reexamines its values, technology, and practices to be consistent with local communities' ecological and social realities.

- (v) It seeks to *maintain consistent communication* with internal and external audiences to foster greater understanding of policies, improve information exchange, and strengthen collaboration at all levels. They will engage in community dialogues, training opportunities, fire demonstrations, annual review, and feature stories. Most importantly, it involves establishing a Communication and Education unit that will spearhead and maintain communication activities within the Forest Department.
- (vi) Another significant component of the strategy is that it emphasizes **positive communication**, showcasing successes and concrete results of local communities, key stakeholders and government. This communication strategy empowers local communities, indigenous people, forest licensees and government to consistently promote their forest fire management activities aimed at protecting people, property, biodiversity, aesthetic and cultural resources, and maintaining the role of fire in ecosystems. Within the Forest Department, employees have an opportunity to tell their story of how they contribute to forest fire management in Belize. This extends beyond the senior managers or experts but includes forest officers and auxiliary staff working on the ground tackling forest fires. To promote the message in a more people-friendly manner, partners, local community residents, and FD employees become messengers of Forest Fire, by presenting their story about their efforts to combat forest fires and making forests more resilient to Climate Change.

EXCEPTED RESULTS

The aim of the Communication strategy looks at three main outcomes based on the recommendations made by key stakeholders. One of its main outcome is for government and local communities to recognize their shared responsibility in forest fire management thereby creating a push for improved collaboration. Next, it encourages greater community participation in the decision-making process and involvement of communities to explore and eventually adopt measures that can help them to reduce their fire risks. Also, it seeks to strengthen the professional capacity of the Forest Department staff to dialogue with local communities on forest fire management. As a product, the implementation of this communication strategy could lead to the development and implementation of regional forest fire plans. To do so, this strategy uses various consultation processes to help identify the concrete steps to be taken in forest fire management, ensuring that local communities are seen as legitimate partners and their concerns are reflected in future plans.

This communication strategy identified priority actions for the next five years. It is considered a living document and while guiding the engagement and outreach activities, it is also adaptive to evolving processes. Therefore, the document can also be updated to reflect the changing conditions as it relates to SFM and FFM, stakeholder needs and best practices for specific projects and programs.



METHODOLOGY

In developing this strategy, literature review, this communication strategy was influenced by a variety of sources. The primary sources were the Belize Wildland Forest Fire Strategy & Policy 2009, the Forest Fire Response Incidents Team (FIRRT) Implementation Plan, National Forest Policy 2015, the Sustainable Forest Management Communication Plan, other resources with historical context derived from more than 90 years of traditional and institutional knowledge of fire management in Belize. The direction of this strategy was also influenced by two Forest Sector consultations, a public perception survey, expert interviews conducted between July 2016 and May 2017, and a Wildland Forest Fire survey conducted with farmers held in 2009. To ensure that the communication strategy meets objectives and remains relevant and realistic, a Strength, Weakness, Opportunities, and Threats (SWOT) model was used during the development. Key stakeholders were instrumental in reviewing the present on-the-ground situation, identifying their challenges, selected priorities, recognizing potential risks and offering recommendations, all of which have helped to shape this document.

Initially, focus group sessions, consultation meetings and public perception studies on Sustainable Forest Management helped to shape understanding of the level of awareness and community knowledge, behaviour and practices pertaining to Forest Fires in Belize. Two consultation workshops on Forest Fires Prevention and Management were held on 29th September 2016 and 28th March 2017. Both sessions involved key policy-makers, forest sector stakeholders and forest NGOs and CBOs.

Consultation meetings and expert interviews gathered the largest data on forest fires. These meetings included key government personnel, fire experts, members of Community Based Organizations (CBOs) and Co-managers. Ultimately, all the collected information was compiled and interpreted by the Communication Survey Team to develop meaningful criteria and indicators to guide the SFM and FFM communication strategy and Implementation plan. In addition, a simultaneous online survey was conducted for forest officers and their counterparts, such as Department of Environment, Agriculture Department, Fisheries and Lands and Surveys departments, Ministry of Education (MoE), National Metrological Office (NMO), National Emergency Management Organization (NEMO), the Belize Tourism Board (BTB), the

National Association of Village Council Organization (NAVCO) and forest conservation and forest sector groups, such as Pine Lumber Company, Community Forestry, Thomas & Gomez Lumber, and Yalbac Enterprise.



SITUATIONAL ANALYSIS

The overall situational analysis highlights people's awareness, opinions, behaviours and participation in sustainable forest management and forest fires management. It was developed based on desk review, Sustainable Forest Management Public Perception study, Forest Fire Communication Consultation Meetings, and staff consultation meetings.

The situational analysis uncovered diverse circumstances that account for a lack of inclusiveness in forest fire management. At the local community level, the primary issues that were noted were the lack of involvement of village leaders in forest fire monitoring and enforcement, and residents were widely unaware of their land tenure rights and responsibilities, forest fire laws and regulations and forest fire risks. At the organizational level, there were limited enforcement of fire laws and regulations, lack of cohesive legislations, limited understanding of departmental roles, lack of coordination among inter-government agencies in forest fire management, lack of collaboration between government and its partners; insufficient funding for forest fire management and unclear forest fire management processes.

PUBLIC PERCEPTIONS

USE OF TERMINOLOGIES

The SFM Public Perception study revealed that forest terminologies widely used, such as "Biodiversity", "Climate Change", and "Sustainable Forest Management" are unfamiliar to people in rural communities. These terminologies have been customarily and frequently used at community meetings or in the media but are widely unknown or misunderstood by residents. Only about 37% of community residents were aware of forest terms and concepts, such as "Sustainable Forest Management", "Forest conservation", "Protected Areas", "Biodiversity, Key Biodiversity Areas" and "Climate Change". The concepts that were the least known were "Sustainable Forest Management", "Biodiversity" and "Key Biodiversity Areas". The concept of 'Protected Areas' received the highest number of respondents with knowledge and awareness of this forest term and issue. The lack of awareness of these issues and clear misconceptions of basic terms signal that there is a need for increasing environmental education or/and forest education in forest adjacent communities. In addition, these terminologies may need to be

simplified (without oversimplifying) for people to gain a better understanding of the terms.

The broad meaning and frequent use of the term "forests" need to be clearly defined and assigned as to avoid misleading people or creating confusion. The term "forest" held different meaning for different groups of people. In some local communities, "forest" meant any area where there is any type of trees and shrubs, including agricultural trees such as citrus and bananas, farmlands being used for monoculture crops and includes private forest lands. There is a need to clearly define a forest and the characteristics of forests, as well as differentiating between private and public forests.

RIGHT-HOLDERS

Studies have shown that when people have rights to forest resources, it can contribute to effective, efficient and equitable management of forests. Unfortunately, many rural community citizens believed that they have no rights to forests and therefore have no stake in forest. Indeed, government-managed forests are the most prominent form of forest land management system and a lack of clarity regarding the rights of indigenous and local communities to forest resources undermines efforts of sustainability. People do not see themselves as having any rights to access or harvest forest resources despite being the primary users of forest resources in their area. A notable 27.5% did not know who really owned or managed forests in their area. In the study, 25.4% perceived that most forests in their area was owned and managed by government agencies, including areas that were privately owned. There were 20.5% who believed that private land owners and farmers owned and managed the forests in their area, including public forest lands, and 10.6% said that forests are largely owned and managed by their Village Council Leaders. Community-Based Organizations and Logging Companies were the least selected as forest owners or managers of forests, representing 8.6% and 7.4% respectively.

Community residents could not differentiate between private forested areas and public forests. There was a common misconception that any forest lands (even though these lands were privately owned by absentee landowners) belonged to government. It presents difficulties as government is occasionally accused of mismanaging forests when they are "privately-own" lands. In fact, Forest Department noted that majority of the reported cases of forest fires, illegal logging, illegal farming and illegal settlements in 2015 and 2016 occurred on private lands. When this was explained to residents, they suggested that there should be more effort by the Lands and Surveys Department to provide a map of private-owned lands and for the Forest Department to clearly delineate public forests, as well as build awareness of the areas managed by the department. Majority agreed that there is a need to differentiate between public forests and private forests, which are guided by different legal frameworks.

There was a general feeling that people have limited say pertaining to the management of public forest resources. During interviews, respondents noted that village leaders lacked legal authority to address land management issues and to a lesser extent, villagers were unable to have a say how forests should be managed in their area. Subsequently, local community leaders are not engaged

in any form of forest fire management in their local communities. Village leaders believe that they have no authority to manage and supervise on forest issues. They viewed that there should be inclusiveness beyond just consultations and that they should play a more active role in management decisions pertaining to forest in their area. For example, some village leaders expressed contempt for consultation processes that did not engage local leaders.

Residents developed a feeling of alienation to forests as they perceived all their forest actions as illegal or harmful. Most profoundly, they did not see themselves as having rights to forest resources. Consequently, it has led to village residents feeling disconnected from forest and its stewardship. They ignore and reject messages directed at them by government, who they hold responsible for their loss of access. It presents a new set of challenges in encouraging these stakeholders who have been excluded to now become involved in forest fire management. To do so, there is a need to first restore their sense of "ownership" of forest resources, develop relationships between village leaders and government agencies and build meaningful partnerships between government agencies and these communities to address forest fires in their area.

The public were largely unaware that the Forest Department shares management of 19 terrestrial protected areas with (12) Community-Based Organizations or Forest-based Non-governmental organizations. In addition, majority were also unaware that there were fourteen (14) Forest Reserves being managed by long-term forest licensees. In areas where there is no visible comanagement presence, people believed that there should be greater dialogue between forest management and local communities to discuss joint management arrangements. Despite this, villagers expressed that they did not view forest Community-based groups or Non-government organizations as representing public interests. They perceived these groups to emphasize primarily ecological dimensions and often overlooked social and economic realities. Most village leaders viewed these interest groups as private businesses or private entities, with their own agenda.

ATTITUDES VS ENVIRONMENTAL ACTIONS

According to the study, rural communities expressed high positive attitudes towards ecological value of forests but still engaged in environmentally harmful actions. For instance, people expressed high concern for forest loss but residents continued to employ uncontrolled agricultural burning and engaged in unsustainable forest practices such as illegal logging, farming, improper burning and unsustainable hunting in protected areas. Their high demand for land resources for food production and farming signalled that their social needs far outweighed their desire to engage in forest conservation. These forest users were identified as the most vulnerable groups to be affected by forest degradation and desertification. It was suggested that their lack of awareness and limited access to resources often pushed them to engage in these unsustainable practices. This issue should be seriously considered as any

awareness effort must be supported by social incentive programs that will motivate changes in practices.

NATIONAL BENEFIT VS LOCAL BENEFITS

Rural residents in the study recognized the significant social and economic benefits of forest protected areas. While they were highly satisfied living near to a protected area and expressed strong support for protected areas management, they were dissatisfied by their restricted access and little or no economic benefits for local communities. Rural community residents largely believed that all "protected" areas implied that the area is "locked-up". In addition, residents felt that economic benefits did not trickle down to local communities. During consultation meetings, village leaders were keen to explain that hardly, if any, benefits are seen at the local community level.

Another issue mentioned was that it was common practice that government grant concessions for Forest Reserves without consulting local communities that are dependent on forest resources. They explained that rural people are often overlooked by government and that decisions are made at government level without consideration for how they impact on the lives of local people.

SFM encourages communities to take a more active role in sustainable forest management in order to ensure sustainable usage of forests for community development. By informing and engaging communities to participate in the management of forest resource, these local communities will not only be better able to take part in the decision making process but could contribute solutions to issues affecting them, gain better understanding of management issues and benefit directly from sustainable forest harvesting.

LIMITED FOREST EDUCATION

Citizens had low knowledge of sustainable forest management practices. Although majority of older persons within communities had informal knowledge of traditional forest uses, both younger and old generations found that formal education of forest education inadequate. Qualitative studies showed that teachers have minimal knowledge of forest-related issues and are unaware of what are sustainable forest management initiatives, forest threats, as well as cause and effect relationship of forest loss on local communities. Many school leaders expressed difficulties in executing an already overloaded curriculum and lack capacity to present forest-issues without access to relevant and accurate information and training. As a result, students showed a low understanding of forest issues and misconceptions about forest conservation. One such misconception was that forest should remain intact in order to prevent forest fires.

PUBLIC PERCEPTIONS VS REALITIES

 Perception of Sustainable Harvesting: The study revealed that local communities had high forest use but were widely unaware of and uninvolved in sustainable forest management. Residents of rural communities still rely heavily on forest resources for timber for building homes, rattan for fencing livestock, firewood for cooking, subsistence game produce for sustenance and income, plants for traditional medicinal purposes, and many other forest produce for subsistence uses. Others depend on forest for recreational purposes and see it as a source of national pride. Despite their high level traditional forest uses, they had minimal knowledge of forms of long-term management activities in their area. Many rural residents were largely unaware of forest-fire prevention practices, selective harvesting techniques, and basic forest regulations. In fact, they believed that their forest harvesting impact was minimal as compared to larger logging companies or SFM licensees. In reality, SFM licensees are required to conduct research, develop 5-year management plans, employ low-impact sustainable timber harvesting techniques, undergo rigorous monitoring and set other safeguards against unsustainable timber-harvesting.

- 2. **Perception of Causes**: Forest Sector stakeholders and local community residents agreed that there is increasing frequency and intensity of forest fires. The intensity and frequency of forest fires cause alarm for those closer in proximity to forested areas and for those dependent on forest resources. Only few saw forest fires as a natural and random occurrence. People perceive that majority of forest fires are caused by farmers, hunters, arsonists and increasing dry spells for forest fires. According to the SFM public perception study, most of the respondents believed that forest fires are caused by escaped agricultural fires (46.7%), 18.5% disagreed (said "no") and 34.7% were not sure or did not know the source of forest fires. Majority of the respondents (44.1%) were not sure if forest fires were triggered by other factors, such as burning for hunting purposes, camping, arson or lightening.
- 3. **Perception of Effects**: Although there are variations as to which are the most likely effects of forest fires, majority believed that forest fires primarily affect forests and endanger wildlife. The second most likely effect and threat of forest fires were the loss of crops and food production. The third most likely impact of forest fires was the destruction of culturally important, scenic and/or recreational areas. A large percentage of people also said that forest fires contributes to air pollution and global warming. Though many of them still were not sure about the many connections between forests and Climate Change, most agreed that global warming will increase fire incidents and intensity. In regards to the knowledge of forest fires releasing carbon emissions, 44.2% of the respondents did not know, 19.1% disagreed and only 36.7% agreed with this statement. The public was least aware of how forest fires damaged soil, where 49.4% are not sure or do not know, 29.2% disagreed and only 21.4% agreed with this statement.
- 4. **Perception of Forest Recovery**: When asked if respondents knew if forest can be recovered after forest fires, only 31.3% agreed, 25.6% disagreed and majority (43.1%) did not know if forest can recover after forest fires. When asked about some forest fires being helpful for forest, 44.7% were not sure or did not know if forest fires can be helpful, but rather, 31.8% disagreed and only 23.4% said that some forest fires can be helpful forests. The survey revealed that rural communities were more aware of forest fire risks than the causes. Majority identified loss of trees as the most likely effect of forest fires.

- They were also perceptive of the loss of wildlife and wildlife habitats. Farmers were also cognizant that forest fires threatening agricultural crops and farm homes.
- 5. *Fire Practices*: Slash and burn methods are widely used for agriculture and is the fastest and cheapest method for agricultural land clearing. Although they demonstrated high traditional practice of slash and burn, majority said they were unaware of forest fire and agricultural fire regulations. Based on focus group discussions, majority of the small farmers admitted that they lacked the knowledge and skills to conduct controlled agricultural burning but were willing to learn. Majority were unaware of fire prevention and suppression techniques, including fire-breaks, pruning, thinning, and prescribe burning. Many residents also use fire for burning of solid waste. They expressed that a lack of established garbage collection services is one reason why they resort to burning of refuse. Fire has also been widely used for traditional fire-hearth stoves and camping.
- 6. Law Enforcement: Community responses confirm an absence of law enforcement and monitoring which also sends a message that forest fires are not a crime. It directly contributes to low receptivity for anti-fire messages and leads to residents regarding forest fires as inconsequential. For example, enforcement of Agriculture Fires Act was done in the past but there has been none such enforcement for more than a decade. Farmers reported that they had loss agricultural produce and homes as a result of neighbours setting uncontrolled fires but there has been no investigation and no compensation to date. In addition, there arsonists go unpunished or punishment is lenient.
- **Perceptions of Forest Fire Solutions**: Because most people associated fires with destruction and loss, people believed that forest fires need to be prevented at all cost. The surveys and focus group discussions revealed that people see no difference between 'forest fire' and 'fire'. Both are immediately perceived as something negative for both the environment and people. "Fire" messages presence a complex and confusing basis when any "fire" is viewed as negative and harmful. When the public is bombarded with constant messages associating "fire" with danger, it is difficult for them to see fires as helpful. Based on public opinion studies, all forest fires are perceived as harmful and should be extinguished immediately to protect forest resources. In reality, fire play an important role in forest ecology and natural wildlife recovery cycle. Forest fires are part of a natural process that allows regeneration of vegetation, eliminates diseases, improve wildlife habitats and reduce existing fuel-loads. Also, decades of forest fire suppressions can leave large amount of fuel loads and trigger catastrophic forest fire incidents.
- 8. Studies showed that majority of community residents believed that forest should be left untouched and intact to prevent forest fires. In reality, forests are renewable and human interventions are necessary to prevent and reduce catastrophic fires. When forests are managed sustainably it can build forest resilience to changes and multiple disturbances, such as harvesting of timber and non-timber forest products, fires, pest infestations, droughts, and hurricanes, and the impacts of Climate Change. Public perception is that logging and forest fires are the primary contributors of deforestation. While unsustainable harvesting and uncontrolled forest fires are contributors to deforestation, it is the conversion of forest to

- agricultural land that is actually the largest deforestation contributor in Belize. Sustainable harvesting of timber and forest fire management interventions have helped to reduce deforestation rates and build more forest resiliency, particularly in public forested areas.
- **Perception of Government Agencies**: People were dissatisfied with both the Agriculture and Forest departments' response. They indicated that as regulatory agencies, the departments are slow to respond or effectively communicate with partners and stakeholders on many forest matters, including forest fires. The public indicated that they measured the departments performance based on the number of agricultural and forest fire incidents. For instance, they explained that less forest fires incidents meant more successful reduction in forest fire hazards and more forest fires, whether it was prescribed burns or not, signalled that forest management is inefficient. They recognized that the Forest Department as the lead agency responsible to respond to forest fire incidents but accuse the department of doing little to manage forest fires. Although the response to forest fires is a collective responsibility, the Forest Department is presently the only agency that invests heavily in responding to forest fires. External forest stakeholders agreed that the Forest Department cannot operate alone and more active involvement by other government agencies, such as the Agriculture Department, Department of the Environment and the National Emergency Management Organization is necessary to better respond to forest fires.

There is a clear gap between public perception and the realities of forest management issues. In the study, the public understanding of sustainable forest management is low as most forest-users are unaware of what is sustainable forest management and the role it plays in the conservation of forest resources. In fact, the studies revealed that although people are concerned about forest loss, forest issues are not well understood by local communities. It signals an urgent need for forest managers and key partners to communicate these ongoing realities of forest management at local community level to reduce misconceptions and raise public understanding.

FOREST FIRE MANAGEMENT

MANAGEMENT

Although forest fire management is a collective responsibility, the Forest Department is presently the only agency that invests heavily in responding to forest fires. Forest stakeholders noted that more active involvement by other government agencies such as the Agriculture Department, Department of the Environment and the National Emergency Management Organization is necessary to better respond to forest fires. Stakeholders suggested that the departments take stock, recognizing that: (1) the damages and losses are extensive to forest and agricultural lands, and (2) the responsibility for forest fire management requires a more cohesive approach.

At the national level, key government departments were vaguely aware of their role and shared responsibilities in Forest Fires Management. Since this was not considered a priority mandate for government departments, many key agencies did not include forest fire management components in their management plans and had not designated any lead personnel to assist in forest fire management activities. Local government authorities, similarly, were unaware of the role they played in forest fire management and consequently had not incorporated any forest fire management planning and activities for their areas.

During consultation sessions, forest sector stakeholders recognized there is a need for the Forest and Agriculture departments to first jointly develop forest fire management plans. In doing so, these lead government agencies can work together towards strengthening partnerships with other government and non-government organisations. They recommended that the Forest Department improve its management of forest fires and the Agriculture Department take a more serious interest in managing and addressing agricultural fires.

LEGISTATION

There is presently a lack of cohesive and harmonized forest fire legislation. Stakeholders expressed that although there are regulations that prohibit the use of fire in forests, near boundaries and on agricultural lands, there is a serious concern that there is need for a comprehensive legal mandate to address forest fires. The three (3) main pieces of legislations (Forest Fire Act, Agriculture Fires Act, and the Forest Act) lack a comprehensive approach for Forest Fire Management. In noting the legislative inadequacy and ineffectiveness, stakeholders commented that such gaps and legal deficiencies made unclear the organizational structure for forest fire management, which also undermines any prevention, suppression, and communication efforts at all levels. Without a clear legal mandate, the relevant authorities such as the Forest Department, Agricultural Department, Fire Department, Department of the Environment, NAVCO and NEMO assume limited responsibilities for forest fire management. Without this concerted effort by government to address the issue of forest fire management, there is also minimal obligatory assistance from non-government agencies and communities. Stakeholders noted that legislative changes are necessary for determining who takes the lead in the development of muchneeded community-based-fire management initiatives. They called for key agencies and stakeholders dialogue to revise legislation, clearly identifying the lead agencies, outlining each legal responsibilities, as well as strengthen local authority powers to take lawful action against perpetrators.

CAPABILITY & CAPACITY

Forest Managers, Licensees, Inter-government agencies, Forest-based NGOs and CBOs, Local government leaders recognized their need to build their capacity (expertise and resources) to manage forest fires at government and community levels. Since both organizational and community capacity are lacking, efforts need to be made to build understanding of the challenges, identify the existing capacity needs, and enhance their capabilities at all levels.

At the government level, majority of FD officers had only basic knowledge and skills of forest fire management. During the consultative workshops, majority of stakeholders explained that they had limited or no training in forest fire management, fewer had intermediary training in Forest Fire Management, and only two had accessed high level training. Local communities have the least knowledge and resources to manage or even minimally address the problem of forest fires in their areas.

A Fire Management Consultant International team that conducted a needs assessment mission in Belize, identified some of the fire management needs in April 2016. Assessments were conducted in four key areas, including Mountain Pine Ridge Forest Reserve and Rio Bravo Conservation and Management Areas. It recognized the efforts of the Southern Belize Fire Working Group that consisted of the Toledo Institute for Development and Environment, Ya'axche, Woodstock, and Thomas Gomez and Sons to promote community capacity building in southern Belize. The assessments led to the development of a Fire Incidence Rapid Response Team (FIRRT) structure, functions, and standard operating procedures that will guide the Forest Department in collaboration with the local communities, long-term license holders and co-managers. Although the FIRRT has been prepared, there is presently minimal move towards the establishment of a forest fire response team and thereby coordination efforts are lacking.

Trainings could serve not only to increase technical knowledge and abilities of key persons from both government and non-government agencies but also to strengthen collaboration among stakeholders. In addition, trainings should also be better tailored for local authorities and private companies, who are also interested in training their employees to be qualified at all levels of forest fire management (fire line suppression operations to overall incident management).

Stakeholders suggested that an updated inventory of qualified and available personnel and resources accompany the FIRRT plan. This can help determine the knowledge and skill gaps and mobilize key personnel during emergency situations. A further benefit of such an inventory is that it allows allocation of resources on a priority needs basis as they become available.

Apart from institutional strengthening and capacity building, the development and implementation of an effective communication strategy is a critical component of an integrated Fire Management programme. However, a primary challenge is organizational capacity, willingness, readiness, and ability to collaborate. Previous communications initiatives failed to bridge these gaps and utilize public concern for forest fires as an opportunity to build awareness and change behaviour. People hold varying views on how to respond to forest fires. Some thought that government can equip communities with the capacity to respond to fires, while others thought that management of agricultural fires and penalties for farmers were a better approach. Majority agreed that there is a need for educating, demonstrating and facilitating farmers were better approached. Additionally, only men saw themselves being actively involved in forest fire prevention, while women could not recognize how they can help in forest fire management. These differences were examined in building this communications strategy and audience segmentation was critical to ensure that the messages and approaches are for different audiences.

LACK OF INFORMATION

Data and information can facilitate critical communication approaches and actions, such as establishing consistent reliable reporting systems, instituting early warning systems, identifying priority groups, determining best communication approaches and key messages, as well as selecting the most suitable time for communication activities. One of the primary issues of forest fire management has been the lack of critical information on forest fire

conditions, impacts, and risks. Daily fire weather and fire behaviour maps annually and forest fire hotspot maps during the fire season (February to June) can be instrumental. There is presently no dedicated website for Forest Fire Information System, which should include background information on forest fire conditions in Belize, current fire dangers, forest fire weather and behaviour maps, hotspot maps, historical data analysis and other relevant features. Additionally, there is presently no Forest Fire Threat Rating system that determine the fire threats and make predictions. Although daily weather forecasting is done, it does not predict potential forest fire threats or advise people of the potential risks living in fire-prone areas. Such relevant information can critically assist both internal and external stakeholders, as well as form part of the country's early forest fire warning system.

Notably, the National Meteorological Service (NMS) provides daily forecast on conditions that can promote forest fires but there is need for interpreting and simplifying technical data for people to understand and prepare for potential forest fire conditions. In addition, NMS's daily weather forecasting, particularly during the dry season, does not include reporting on forest fire warnings and prevention tips. Stakeholders recommended that there is an urgent need to establish reporting and warning systems, particularly since these systems can facilitate the work of relevant agencies, facilitate risk reduction, inform and warn local communities, and increase media reporting. They added that once a rating system is established, signs of flags can be placed at key points within communities and at the entrance of protected areas to indicate the fire risk level.

FOREST FIRE COMMUNICATION SYSTEM

Presently, a nationwide forest fire communications system is currently non-existent. Although some government and private two-way radio systems are in place at various locations, these are non-integrated and generally considered ineffective for operational fire-fighting. There is a need to develop a comprehensive and integrated communications system for forest fire suppression. Therefore, the stakeholders recommended that all considerations should be made to set standards for appropriate and adequate communication systems and procurement of equipment, as well their distribution and maintenance when responding to forest fires.

LACK OF COORDINATION & COLLABORATON

Lack of coordination among government and stakeholders presents many challenges, resulting in the duplication, confusing messages, and fragmented efforts. The lack of coordination and collaboration in forest fire management has resulted in CBOs, NGOs and government inter-agencies often running parallel operations. One group of farmers explained that they were given similar trainings by two different groups silviculture practices. Consequentially, apart from it being an inconvenience for farmers, it demonstrated the clear lack of coordination between co-management groups and government agencies. According to residents, the lack of coordination is most often seen in the process of conducting surveys. Because the information is not shared with other agencies and organizations, surveys become repetitive and communities grow disinterested. Partnership between public and private sectors needs to strengthen collaboration to maximise financial and human resources and avoid duplication.

By collaborating, government and key stakeholders can develop more cohesive messages as compared to problematic diverse campaigns carrying mixed and confusing messages. Past awareness campaigns for prevention of forest fires often failed to target behavioural changes. Some carried contradictory messages that frequently missed opportunities to distinguish between harmful and helpful forest fires, promote both traditional and technical approaches and take cultural perspectives into considerations. Such unclear and sometimes contradictory messages created confusion about forest fire management issues.

Under current arrangements, the forest fire management effort is dissipated across many players and there appears to be no proper coordination, reporting or accountability. Under current arrangements, there is no district or regional panel and national response panel of key stakeholders to coordinate forest fire management effort. Consequently, there appears to be no proper reporting system, information sharing opportunities or accountability. Inter-agency coordination is crucial to respond to extreme fire events, especially those that can escalate rapidly. Stakeholders noted that there is a need to properly mobilize human and material resources and ensure that response operations are effectively managed to protect communities and the environment. Establishing a National Forest Fire Working group, Regional Committees and a Forest Fire Emergency Response & Command System were mentioned. Stakeholders also suggested that NEMO should take up the responsibility of the coordination of all relevant agencies in the suppression and prevention of wildfires by mobilizing responsible agencies and resources for fire suppression. They explained that it must be anticipated that a future fire event will occur that is of such proportions that a disaster situation or state of emergency may need to be declared. In anticipation of such an event, NEMO should have access to emergency funding in case of a declared disaster, establish clear roles of various agencies in response to forest fires, and assist in mobilizing all agencies to respond to forest fire disaster.

TOP-DOWN COMMUNICATION

Awareness campaigns are traditionally launched from the top down, "targeting" residents but not involving or engaging them in dialogue. Studies suggests that traditional top-down approaches have been ineffective, particularly since it fails to engage local communities. Forest Department awareness campaigns have been limited and rarely enable local community residents to connect with the information or provide feedback. When it is a top-down approach, there is little substantive and sustainable change at the community level. Another approach has been present experts' perspectives through talk shows appearances or radio and television campaigns but these are unlikely to engage audiences or encourage them to take action or influence behavioural change. Consequently, messages fail to "connect" with audiences or challenge core beliefs, necessary to bring about meaningful change. A public participatory process, on the other hand, engages two-way communication, encouraging agencies to listen first and respond to what they may want to know.

LACK OF MEDIA COVERAGE

The mass media is an important and influential stakeholder in forest fire prevention. They acquire information from relevant sources and disseminate rapidly to their audience base. The information they provide can help people define public uses of fires, the risks, impacts and consequences. Despite the prevailing evidence of increasing forest fires, however, the media provides limited education and coverage on forest fires risks, responses and readiness prior to, during and after forest fire occurrences.

According to media personnel, all forest fires are viewed negatively and messages revolve around prevention. What's more, media personnel often mischaracterize forest fires and forest fire incidents largely because it is not understood and there are conflicting views on forest fires from experts. There is a need to facilitate trainings for media personnel to report on forest fires appropriately. The confidence and competency they build now on reporting on forest fires may also help them to understand their role in forest fire emergencies.

Apart from trainings, field trip or familiarization visits to areas ravaged by fires, talk show guest appearances, community stories, feature stories and news briefings can facilitate media organizations in understanding forest fires and the forms of interventions.

RISK COMMUNICATION

There is presently no established systematic approach to communication before, during and after forest fire incidents. For each phase, the communication needs, channels and the messages are very different and may require specific approaches. In the event of forest fires near to local communities, people need to be prepared and may need to engage in a series of actions, such as preparedness and evacuation. In view of this, it is imperative that a communication emergency response system be developed. The system must ensure that there is a reliable source of information, there is a planned and coordinated response among all key players, and that actors understand their roles and responsibilities before, during and after forest fires.

As mentioned, the media plays an important role in managing information. Before a disaster strikes, the media can inform residents of the responses for each stage, the processes, responsibilities of key players, and solutions. Helping people to understand these issues before the event of a catastrophic forest fire facilitates anticipation, coordination, and appropriate actions, which increases a sense of security and avoids behaviour caused by panic. These measures, apart from improving communication, also help increase credibility for the department and the media.

Communication of the forest fire risk must aim to reduce uncertainty about the dangers of living in areas vulnerable to forest fire, prevention and protection measures to minimise the vulnerability of a community, and emergency preparedness. Communication during the emergency is complex and many variables are at play which interfere with the correct diffusion and assimilation of the message by the public. Establishing a National Forest Fire Response Center is important to facilitate the management of information prior to, during and after the emergency.

SITUATIONAL ANALYSIS SUMMARY

There are several communication difficulties that were identified. Each challenge has been capsulated and recommendations have been assigned.

CHALLENGE

Management.

I. Although forest fire management is a collective responsibility, the Forest Department is presently the only agency that invests heavily in responding to forest fires. At the national level, key government departments were vaguely aware of their roles and shared responsibilities in Forest Fires

- II. Lack of coordination among government and stakeholders presents many challenges, resulting in the duplication of efforts, confusing messages, and fragmented efforts. In fact, there has been limited opportunities for the Forest and Agriculture departments to collaborate on forest fire management.
- III. There is presently a lack of cohesive and harmonized forest fire legislation. Stakeholders noted that the legal deficiencies made unclear the organizational structure for forest fire management, which also undermines any prevention, suppression, and communication efforts at all levels.
- At the government level, majority of officers had only basic knowledge and skills of forest fire management, there is limited organizational capacity development for government agencies, co-managers and forest nongovernmental organizations (NGOs). Majority of stakeholders had limited or no training in forest fire management, only few had intermediary training in Forest Fire Management, and only two had accessed high level training. Local communities have the least capacity to manage or even minimally address the problem of forest fires in their areas.

RECOMMENDATION

- Maximize outreach effectiveness by engaging inter-government agency employees in the shared responsibility of forest fire communications;
- Organize stakeholder meetings for dialogue among key government agencies on forest fires management planning
- Organize information sessions for key agencies to gain and share experiences on forest fire management
- 4. Support departments in the development of national forest fire management plans
- In particular, there needs to be stronger coordination and collaboration between the Forest and Agriculture departments in developing forest fire management plans. There is a need for local, regional and national forest fire committees to be established.
- Engage relevant agencies in identifying legal framework and their roles and responsibilities in forest fire management
- 7. Support in the development of regional and national panels on forest fire management
- Forest Managers, Licensees. Intergovernment agencies, Forest NGOs and CBOs. Local government leaders need to build their capacity to manage forest fires at government and community levels. Trainings could serve not only to increase technical knowledge and abilities but also to strengthen collaboration among stakeholders. In addition, trainings should also be better tailored for local authorities and private companies
- Empower effective Forest Department communications by strengthen employee capacity and confidence to develop and implement forest fire communication and education activities in their zone
- 10. Create advocates for forest fire management by sharing authentic, relevant, and diverse stories of employee, stakeholders and residents on an ongoing basis

Communication campaigns are 11. Identify and establish Community traditionally launched from the top Engagement teams, including representation down, "targeting" residents but not form local communities. Identify and provide information sessions for involving or engaging them in dialogue. Such communications initiatives failed key stakeholder groups to determine the best to build awareness and change community involvement approach for their behaviour. These campaigns were often region. short-lived, vague, were not results-13. Encourage discussions and engagement opportunities between village leaders and based, and did not target specific stakeholder groups and/or behaviours residents of local communities. that needed to change. 14. Encourage dialogue between Forest Department, Agriculture Department and local community leaders. There is a lack of information on forest There is a need to develop a comprehensive fire conditions, impacts, and risks. Daily and integrated communications system, fire weather and fire behaviour maps including current fire dangers, forest fire annually and forest fire hotspot maps weather and behaviour maps, hotspot maps, during the fire season (February to June) historical data analysis and other relevant can be instrumental. There is presently features. no dedicated website for Forest Fire Increase access to information on forest fire 16. Information System and currently no management for media and key stakeholder Forest Fire Threat Rating system that groups to utilize in their planning and determine the fire threats and make decisions making processes. predictions. VII. Coordinate strategic communications with Very few departments have ever 17. interdisciplinary forest fire management developed comprehensive engagement strategy for staff and representatives at the national, regional, and stakeholders for addressing forest fires local levels at the national and local levels. 18. implement comprehensive emplovee engagement strategy and stakeholder engagement strategy on forest fires in collaboration with relevant stakeholder groups. VIII. Local community leaders are currently 19. Increase local community leaders' not engaged in any form of forest fire knowledge of forest fires social, economic management in their local communities. and environmental impact Village leaders believe that they have no 20. Encourage local community leaders to share authority to manage and supervise on knowledge and experiences via multimedia forest issues. They viewed that there outlets on forest fires as a catalyst for change should be inclusiveness beyond just Identify communication needs and resources consultations and that they should play for community capacity development on a more active role in management forest fire management decisions pertaining to forest in their IX. Rural community residents developed a Support local community forest conservation feeling of alienation to forests as they activities that allow residents to see perceived all their forest actions as themselves as rights-holders illegal or harmful. Most profoundly, they 23. Provide opportunity for local community did not see themselves as having rights residents to discuss cultural and traditional forest uses and potential sustainable forest to forest resources. harvesting initiatives. 24. Engage local and neighbouring communities in planning forest fire management activities Community responses confirm an Increase support for and understanding of forest fire management through dialogue with absence of law enforcement and local community leaders and community monitoring which also sends a message

residents.

that forest fires are not a crime. It directly

contributes to	low recept	ivity for	anti-
fire messages	and leads	to resi	dents
regarding	forest	fires	as
inconsequentia	al.		

- XI. Because most people associated fires with destruction and loss, people believed that forest fires need to be prevented at all cost. People saw no difference between 'forest fire' and 'fire danger'.
- 26. Increase support for community monitoring and reporting of forest fires by local residents.
- 27. Support the development of reporting system
- 28. Develop educational programs for residents to distinguish myths from realities and harmful and helpful fire practices.



STAKEHOLDER ANALYSIS

A comprehensive stakeholder analysis was developed for this strategy. Kammi Schmeer defines stakeholder analysis as a process of systematically gathering and analysing qualitative information to determine whose interests should be taken into account when developing programs and policies (1). The stakeholder analysis list key stakeholders and includes their characteristics based on their level of knowledge of forest-related issues, attitudes towards forest issues, potential alliances and influences and how they can be affected by forest programs and policies. As a result, the Stakeholder analysis has been useful in identifying the priority and key stakeholders, determining the degree of interaction needed, and level of support for policies and programs. The analysis has subsequently resulted in vital and helpful resources to guide the development of forest fire management plans, development and implementation of a national forest strategy and this communication strategy.

There were several steps taken in defining the stakeholders. To begin, a desk review enabled a review of relevant information pertaining to forest fires and sustainable forest management, which initially helped to develop a list of identified internal and external stakeholders. A consultation meeting with several key stakeholders helped to identify priority stakeholders. These groups were categorized by four major sectors: international donors, national political sector, public sector, labour sector, commercial or private sector, and civil society and non-governmental organizations. These sectors also had subcategories, based on administrative or geographic areas.

	National Political Leaders 1.1. National Assembly Representatives 1.2. Senate Representatives 1.3. Cabinet members 1.4. Political parties Public Sector 3.1. Ministry of Agriculture, Forestry, Fisheries, the		Community Leaders 2.1. NAVCO & DAVCO leaders 2.2. Community Village Council Members 2.3. Toledo Alcalde Association 2.4. Maya Leaders Alliance 2.5. Religious Leaders Commercial & Private Sector 4.1. SFM Forestry Licensees
	Environment, and Sustainable Development 3.2. Ministry of Economic Development 3.3. Ministry of Local Government & Rural Development 3.4. Ministry of Lands and Surveys 3.5. Belize Tourism Board 3.6. Law Enforcement Agencies 3.6.1. Judiciary 3.6.2. Police 3.6.3. Military 3.6.4. Immigration & Customs 3.7. Ministry of Education 3.8. Fire Department 3.9. Fisheries Department 3.10. Agriculture Department 3.11. National Meteorological Service 3.12. National Climate Change Center 3.13. Department Genter 3.13. Department Judiciary Judicia	5.	 4.2. Logging Companies 4.3. Forest workers 4.4. Honey producers 4.5. Hoteliers 4.6. Tour Operators 4.7. Sawmills 4.8. Public Utilities & Services
6.	Education Sector 6.1. Belize Association of Principals 6.2. Catholic Diocese 6.3. Primary Schools 6.4. High Schools 6.5. Students 6.6. Teachers	7•	Communities 7.1. Rural Communities 7.2. KBA adjacent communities 7.3. Indigenous Groups 7.4. Young people 7.5. Farmers 7.6. Ranchers 7.7. Hunters 7.8. Harvesters of Traditional Medicine 7.9. Residents

8. International Donors 8.1. Global Environment Facility 8.2. World Bank 8.3. United Nations Development Programme 8.4. IUCN 8.5. GIZ		9.	Media 9.1. Radio 9.2. Television 9.3. Social Media 9.4. Newspaper 9.5. Advertising agencies 9.6. Government Press Office
10. Staff (F 10.1. 10.2. 10.3. 10.4. (OII 10.5. 10.6. 10.7.	Employees) Forest Rangers Forest Guards Foresters Forest Managers Cs) Program Managers Administrative Staff Auxiliary Staff	11.	(<u>Please See ANNEX</u> Stakeholder Characteristics Table)

SEGMENTATION

The strategy identifies diverse stakeholders, including political leaders, public sector, private sector, civil society and local and indigenous communities. At the community level, however, the integration of forest fire management practices is categorized under three major actors. These actors are:

- (1) **Those at risk**: actors vulnerable to forest loss and forest fires,
- (2) **Those putting themselves & others at risk**: actors who are engaged in unsustainable behaviours, and;
- (3) Those embracing fire-safe practices to reduce their risk: actors adopting sustainable practices to mitigate forest fires.



Figure 1: Three Main Types of Actors in Forest Fire Risk Management

By categorizing actors, it becomes easier for local community residents to examine where they are presently in forest fire management. In examining forest fire prevention efforts, local farmers in San Antonio village, Cayo District, had similarly described these three actors: "the ones affected, the ones causing the problem and those trying to fix the problem". They recognized that they are both at risk and putting others at risk.

By using these categorizations, actors could determine for themselves where they are. In many instances, villagers were both at risk and putting others at For communication purposes, each actor requires different communication objectives and different approaches. For instance, actors at risks are those vulnerable to forest fires. This can further be categorized by their level of risk attributed mainly to their geographical location, climatic conditions and human interventions. Their vulnerability increases exponentially if they are highly dependent on forest for their livelihoods. Subsequently, the communication objective will be to increase awareness of the risks of forest fires and discuss strategies to reduce the risks. On the other hand, those actors who trigger fires, need to understand their negligent actions and the regulations, the conditions that trigger forest fires, and be given support or incentives for changing these negative practices. Finally, those actors who are already actively monitoring, engaging in forest fire prevention practices, may need reinforcement or build confidence in their positive actions and be encouraged to motivate or share their experiences with others.

Based on consultations, the communication strategy focusses on the following key priority audiences for greatest impact. These include:

- 1. National and local community leaders, ministers and policymakers;
- 2. Key Public Sector agencies
- 3. Forest CBOs & NGO's and SFM licensees
- 4. Education system teachers and students
- 5. Community residents
- 6. Media
- 7. Employees



COMMUNICATION PRINCIPLES

The Forest Department recognize that to effectively inform and engage key stakeholders, it needs to embrace guiding communication principles and maximize opportunities to build trust and regain credibility with its partners.

To do so, there are several principles that form the basis for communication approaches and actions identified in this strategy. These guiding principles are:

INCREASE AWARENESS

Communicators first need to build awareness of existing or emerging fire threats or benefits. If people are not aware of the fire risks, they will not act to protect themselves or others. To achieve the benefits of new behaviours and policies, both internal and external stakeholders first need to know what are the desired behaviours and policies. Communicators can build awareness using a variety of methods.

- Increase the level of understanding of forest fire risks and promote the steps that secure people's livelihood, life and property.
- Widely disseminate messages that are simple, easy to recall, repeated and attention-getting.
- Use mass media and social media channels.
- Widen the reach of social media by designing messages that can be shared by partners and networks of friends, family members and co-workers.
- identify which information sources the target audience believe are credible.

SUPPORT UNDERSTANDING OF THE RISK

Decision- makers need to believe that a forest fire risks are real and that they are vulnerable. The target audience and authorities will not take action if they think the risk only affects other groups or is not important. Communicators can use the following approaches to increase personal relevance of the issue.

- Create a connection between forest fire issues and the life and livelihood of people at the community level.
- ❖ Show how forest fire problem's impact people
- Create a sense of urgency to prompt decisions and action.
- Direct media attention to an incident which the target audience can relate to
- Use messages to show the threat is close to home by highlighting community members who have experienced or are susceptible to forest fires.

PROMOTE KNOWLEDGE OF SOLUTIONS

Communities at-risk of forest fires are more likely to identify solutions. Unless communicators offer effective solutions, the target audience may act in ways that are counterproductive, causing harm or using resources unnecessarily. In these cases, communicators need strategies to match the perception of susceptibility to the real magnitude of forest fire risk.

Support the implementation of prescribe burns, thinning, buffers and other measures by using messages that describe the desired action

- Explain where to find information and resources that support implementation.
- Use interpersonal communication channels to enhance learning of skills.
- Encourage community dialogue so people can ask questions and offer feedback.
- recognize that there are diverse learning differences
- recognize that community residents have different levels of education and different socioeconomic backgrounds
- Plain language and visuals enhance understanding of solutions and speed adoption of the recommended behaviours.
- Use photographs and infographics to show a sequence of required steps or statistics.

REINFORCE BENEFITS TO OVERCOME BARRIERS

If people think that the barriers to the recommended actions are too high, they may not act. Communicators can help the target audience see the benefits of forest fire management and lower the barriers for their uptake in the following ways.

- Increase confidence in institutional support for recommended behaviours and policies and lower the barriers to their adoption.
- Design communications materials and activities at individual and community levels to address barriers. Examples of barriers can include lack of time, problems with logistics, costs, lack of urgency and lack of awareness.
- ❖ Focus communications on midpoint milestones and rewards to close the time gap between adopting the behaviour and the reward.
- Promote all the benefits that result from the recommended behaviour.

EMPHASIZE WHAT IS BEING DONE TO REDUCE FOREST FIRE RISKS

For effective risk communication messages, communicators must carry out the following steps.

- Evaluate the target audience's level of concern for forest fire risks.
- Outline what are resident's ability at the individual or community level to protect themselves and others;
- present the roles of government, stakeholders and community in reducing forest fire risks.
- make visible the Forest Department and its actions to reduce forest fire risks;

- encourage people to take actions they know they can do
- demonstrate how the actions and/or policies will make a difference.
- Direct special attention to the needs of those who may be more vulnerable. Show how community leaders or other organizations are meeting their needs.
- Provide frequent information updates through partners and global channels.

INCORPORATE EFFECTIVE RISK COMMUNICATION PRINCIPLES

Risk communication need to be able to:

- ❖ Analyse rapidly changing communications needs.
- Create and broadly share talking points and answers for frequently asked questions.
- Coordinate communication planning and execution with internal and external partners. Develop proactive messages for news and social media outlets.
- * Respond to media enquiries.
- Develop multiple-channel dissemination tactics.
- ❖ Update website content with the most recent information.

COORDINATE MESSAGES WITH PARTNER ORGANIZATIONS

The Forest Department and its partners should speak as one voice to maintain trust and encourage appropriate action. In an emergency, messaging must be consistent, requiring coordination among:

- inter-agencies involved in forest fire management
- partners conducting risk communication through community engagement
- * rapid response incident management teams
- ❖ Forest Department staff through internal communication systems, e.g. intranet.

USE UNIFIED MESSAGES

Consistent and unified messages and good internal communications are part of effective communication practice. Promoting the same message from all areas and at all levels builds credibility and trust. Communicators are encouraged to regularly share technical content, key messages, narratives and media responses. As news breaks or activities are planned, well-informed communicators are better able to ensure consistency, avoid conflict, and coordinate information.

SUPPORT COMMUNITY ENGAGEMENT

Timely community engagement is particularly significant in the development of national forest fire preparedness plans and operational plans, and Community-based forest fire management. To support community involvement, communicators can:

- coordinate with institutions, community networks and partner organizations to reach the target audience; and
- use toolkits to create well-timed local messages.

MEET WITH INTER-GOVERNMENT AGENCIES & PARTNERS REGULARLY

To promote collaboration, communicators must work closely with technical experts to ensure the accuracy of messages and materials. The government agencies and its partners will need to assign specific focal points or leads as liaisons for forest fire management. These focal points become familiar with their specific forest fire topics. To support the technical units' communication initiatives, they:

- participate in regular meetings with the respective technical teams;
- integrate communications considerations from the beginning of discussions on research, policies, interventions and initiatives; and

MAINTAIN A NATIONAL EVENT CALENDAR

The event calendar is one of the key tools that the Forest Department and its partners need to ensure that staff and stakeholders are adequately informed of upcoming events and that there is coordination of events. Entries should include activities at national, district and community levels. This event calendar will be accessible on the Forest Department website and be placed as part of the intranet. The following are advantages of this calendar:

- increases awareness of upcoming events and communications activities;
- offers opportunities to leverage channels and broaden outreach for scheduled events; and
- * shows current schedule of events to avoid scheduling conflicts.

LISTENING

Communicators can listen in a variety of ways to gain insight into whether people find forest fire topics relevant. Listening can identify:

- their level of interest in the issue;
- their perceptions and attitudes about the topic or risk and the promoted action (behaviour change, policy adoption, etc.);
- their current position or behaviours responding to forest issues;
- the concerns of at-risk audiences and the organizations that support them;
- how the media portrays the issue;
- the focus of conversations on social media; and
- any inaccurate coverage or misinformation.

VOICES

There is no better way to have people understand and connect to the issue of forest fires than using storytelling to make the information more understandable and compelling. The narratives to be considered are:

those people vulnerable or affected by forest fires

- forest-fire fighters who risk their lives to protect people, property and forests.
- the successes of local people that would motivate others to take action;
- showcase of those who have changed behaviour and are now experiencing positive outcomes
- specific people within organizations who have special connection to issues and people.
- Photo stories are a good way to make issues concrete to demonstrate the effects of the positive work the Forest Department and its partners.
- reinforcing the authenticity of a story by including quotes from people highlighted in the narrative.
- Use infographics, graphics, and graphics interchange format (GIFS)

DISTRIBUTE MESSAGES IN RELEVANT LANGUAGES

People are more likely to understand messages presented to them in their local languages. To increase multilingual messaging, communicators can carry out the following steps.

- Publish information in two main languages (English & Spanish).
- ❖ Personalize the message by using the local languages when possible.

BE CLEAR AND TRANSPARENT

Presenting clear messages and being transparent are important to build credibility and trust. It is therefore essential that communicators of this strategy be able to present information in a logical and understandable manner. Where possible, information or research needs to be presented in a manner that allows people to use for the decision-making process. There will be times that communicators will be uncertain and should be able to expressed this to audiences. Where there is misconceptions or inaccuracies, communicators will need to address them quickly and clearly. The idea or message to be communicated should be clearly spelt out. It should be worded in such a way that the receiver understands the same thing which the sender wants to convey. There should be no ambiguity in the message. It should be kept in mind that the words do not speak themselves but the speaker gives them the meaning. A clear message will evoke the same response from the other party. It is also essential that the receiver is conversant with the language, inherent assumptions, and the mechanics of communication. The National Forest Fire Working Group can serve as a credible and trusted source.

CONSISTENT AND HELPFUL

This principle states that communication should always be consistent with the policies, plans, programmes and objectives of the organization and not in conflict with them. If the messages and communications are in conflict with the policies and programmes then there will be confusion in the minds of subordinates and they may not implement them properly. Such a situation will be detrimental to the interests of the organization. There is a greater need for consistency between departments, partners and key stakeholders.

COMMUNICATION STRATEGIC OBJECTIVES

The strategic objectives were formed based on the national Forest Policy and Strategy 2015 and the National Wildland Forest Fire Policy and Strategy 2009 (Draft). While these strategies helped to define the national and regional conditions and context, the stakeholders and situational analysis helped to identify opportunities and potential actions. The primary communication objectives for this strategy are: 1) providing information, (2) increasing awareness, (3) encouraging actions, and (4) promoting community participation.

The four key national strategic objectives identified are:	The communication strategic objectives identified are:
1. To minimize the inappropriate use of fire in socio-cultural practices including traditional uses;	 1.1. increase awareness among local community residents of forest fire risks, prevention and protection measures against forest fires. 1.2. develop and implement firewise curricula to increase awareness of forest fire risks, prevention and preparedness among primary and secondary school students.
2. To increase the fire resiliency of at-risk communities in and adjacent to forested areas.	2.1. Promote greater participation of community residents and landowners in at-risk local communities in fire management planning, preparedness, prevention, suppression and proper fire use.
3. To improve the organizational capability of all stakeholders to manage wildland fires;	3.1. Enhance the professional capabilities and confidence of FD staff to communicate forest fire management information with partners and local communities. 3.2. Improve Forest Department's internal communication mechanisms to report, share, and exchange information and experiences on forest fire management. 3.3. Strengthen collaboration and communication between Forest Department and external stakeholders to improve forest fire management.

4. To strengthen the 4.1. Maximize outreach operational capacity of all effectiveness by encouraging stakeholders to manage greater collaboration between wildland fires; and Forest Department staff and fire forest management in fire partners communications 4.2. Engage community leaders in building community awareness, conducting monitoring and enforcement in forest fire management. 5. To develop adequate fire greater media 5.1. encourage prevention capability at engagement in reporting on forest fire risks, fire laws and all levels. procedures, forest fire forecast warning system, particularly during the fire seasons 5.2. identify potential funding sources both internationally nationally and for the implementation of the national forest fire communication strategy.

INTERNAL COMMUNICATION

1. COMMUNICATION STRATEGIC OBJECTIVE

National Strategic Objective 2: To improve the organizational capability of all stakeholders to manage wildland fires;	Communication Objective 1: To improve the professional capabilities and confidence of FD staff to make better fire management decisions and communicate forest fire management information with partners and local communities.
Tactical Objective 2.7 : Strengthen the capacity of FD to provide fire management support to communities through forest fire training and acquisition of equipment.	Target: increase professional development of FD staff to communicate forest fire management issues to relevant stakeholders from 0% to 50% by 2022.

Tactical Objective 3.2: Develop and deliver training materials and courses based on the national wildland fire doctrine.

Audience: Fire Managers, FIRRT Fighters Volunteers

Audience: Fire Managers, Program Managers, FIRRT members, FD Fire-Fighters Volunteers

Activities:

- 1.1 Conduct a series of *sensitization sessions* with staff on forest fire management, fire behaviour patterns, laws, enforcement activities and monitoring procedures in Belize;
- 1.2 Organize and conduct a series of trainings for FD managers and staff on *forest fire risk* communication;
- 1.3 conduct inter-personal skills and public speaking trainings for forest managers as it pertains to forest fire management;
- 1.4 Develop the capacity of FD staff to develop and utilize *fire information reporting* tool for each area;
- 1.5 encourage FD staff to develop and share reliable, clear and straightforward monthly information materials to relevant stakeholders;
- 1.6 engage staff in the development of a forest fire communication protocol for internal stakeholders.
- 1.7 Conduct training for staff on communication protocol for fire program
- 1.8 Strengthening *fire managers' capacity to communicate* on forest fire programs and incidents with their staff and local communities.

Key Messages:	
MESSAGE (1)	Sharpening our knowledge and communication skills can give us
	the confidence we need to effectively communicate about forest
	fire management within our area of responsibility.
MESSAGE (2)	We must educate within our own agency to ensure staff
. ,	understand and support forest fire management.
MESSAGE (3)	We need to clearly communicate the benefits and risks of fires.
MESSAGE (4)	We all have a responsibility to enhance our knowledge and understanding of forest fire policies, laws, and practices through
	internal and external programs.

Monitoring & Evaluation: training sessions evaluation feedback, Interviews, Staff surveys, Focus Groups, Reports, Event Evaluation

Implementation Indicators:

- Number of communication training programs
- Number of trainings for fire managers
- Number of staff trained by fire managers
- Number of information materials produced on fire program
- Collection of pictures of forest fire activities
- Number of reports generated

Success Indicators:

- number of staff informed and up-todate on forest fire management
- Percentage of staff aware of forest fire initiatives and programs
- Percentage of staff confident about communicating on forest fire management issues to local communities
- Number of staff satisfied with information received from managers
- Number of managers providing information and feedback.

2. COMMUNICATION STRATEGIC OBJECTIVE

National Strategic Objective 2: To improve the organizational capability of all stakeholders to manage forest fires;

Tactical Objective 2.5: Develop and apply mechanisms for collaboration between and among stakeholders responsible for forest fire management. (INTERNAL STAKEHOLDERS)

Communication Objective: Improve Forest Department's internal communication mechanisms to report, share, and exchange information and experiences on forest fire management.

Target: improve communication flow and information sharing on forest fire management internally from 0% to 50% by 2022.

Audience: Fire Managers, Program Managers, FIRRT members, staff, FD Fire-Fighters Volunteers

Activities:

- create and establish Forest Communication Unit to develop and provide consistent information at all levels internally and externally;
- **2.** Conduct communication workshops for the development of forest fire communication protocols;
- **3.** provide timely and updated forest fire information on the FD official website.
- 4. establish information sharing mechanisms such as weekly briefings, monthly meetings, quarterly newsletters for the dissemination of forest fire information;
- **5.** promote the achievements of the fire program.
- **6.** share minutes of meetings with staff to be informed of on-going actions
- engage staff in consultation meetings and workshops to review obstacles inhibiting the integration of forest fire management innovative ideas, tools, and practices in the planning process.
- **8.** develop reporting standards and procedures for fire programs
- **9.** establish repository platform for forest fire information that can be utilized by FD staff

- **10.** ensure that fire communication components are incorporated in annual work plans
- 11. motivate staff to utilize various communication systems for reporting
- **12.** develop reward program for staff providing reliable and timely reports on forest fire management initiatives.

Key Messages:

MESSAGE (5) Forest Fires Communication is an important tool in the

development of the necessary technical, legal, and other supportive structures to spearhead local forest fire management initiatives including the capability for a quick response to forest fire threats.

MESSAGE (6) We all have the responsibility to share reliable and forest fire

information among all internal and external stakeholders.

MESSAGE (7) Establishing sound internal communication systems is critical for

effectively managing forest fire risk and crisis communications.

Monitoring & Evaluation: Interviews, Staff surveys, Focus Groups, Reports, Event Evaluation

Implementation Indicators:

- Report template reviewed and approved
- Number of weekly or monthly briefings held
- Number of Forest Fire meetings with staff held
- Number of communication tools used for dissemination
- Number of information materials produced on fire program
- Collection of pictures of forest fire activities
- Number of reports generated
- Creation and maintenance of webpage on forest fires

Success Indicators:

- number of staff informed and up-todate
- Number of staff providing information and feedback
- Forest Fire Communication Protocol document
- Number of staff providing information feedback regarding forest fire management programs
- Number of staff satisfied with information received from managers
- Percentage of staff aware of forest fire initiatives and programs

EXTERNAL COMMUNICATION

3. COMMUNICATION STRATEGIC OBJECTIVE

National Strategic Objective 2: To improve the organizational and operational capability of all stakeholders to manage wildland fires.

Communication Objective:

(a) Strengthen collaboration and communication between Forest Department and external stakeholders to improve forest fire management

	(b) Maximize outreach effectiveness by encouraging greater collaboration between Forest Department staff and forest fire management partners in fire communications
Tactical Objective 2.5: Develop and apply mechanisms for collaboration between and among stakeholders responsible for forest fire management. (EXTERNAL STAKEHOLDERS)	Target : increase collaboration between internal and external stakeholders (inter-governmental agencies, partners, forest sector managers) for forest fire management from 0% to 50% by 2022.
Tactical Objective 2.4: Strengthen the capacity of the Ministry and the Forest Department to coordinate all forest fire management activities at a national level in close collaboration with all stakeholders.	Primary Audience: key inter-governmental agencies, partners, forest sector managers Secondary Audience: Fire Managers, Program Managers, FIRRT members, Fire-Fighters

Activities:

Communication Structures:

- Conducting consultations with national forest management partners annually to review capacity and training needs, and strategies to address these needs;
- * Facilitating consultations for establishing a National Forest Fire Working Group (NFFWG) that will guide the implementation of the national wildland fire policy and strategy;
- Facilitating the establishment of District (regional) and Local Communities Forest Fire Management Committees to meet regularly to determine forest fire risks levels, identify capacity needs, review strategies and policies and submit recommendations to improve forest fire management at their levels;
- assist with the collaboration between the National Wildland Fire Working Group and Regional Forest Fire Management Committees.

Communication Guidelines:

- Developing communication matrix for the National Forest Fire Working Group to strengthen national collaboration in forest fire management;
- Conducting consultation sessions to develop national communication protocols for forest fire quick response;
- conducting consolation sessions with key stakeholders to identify and develop common terminologies to be used locally and internationally

Collaboration

- Develop risk prevention program in consultation with the National Emergency Management Organizations, Department of the Environment, CBOs/NGOs and local community leaders
- enhance stakeholders' knowledge and understanding of wildland fire policies, laws, and practices through communication programmes.
- Expand stakeholders understanding on forest fire fundamentals through trainings and information sessions

- Provide opportunities for dialogue between researchers, program managers, specialists, stakeholders implementing the national strategy
- Encourage supporting conditions for consistent collaborative dialogue among internal and external stakeholders to enhance understanding of roles, responsibilities and maximise sharing of resources;

Communication Mechanisms:

- Develop and utilize a smart collaborative tool for working group and committees to become informed, keep up-to-date, and give feedback to improve forest fire management;
- promote discussions, decisions and recommendations of an established NFFWG to relevant internal and external stakeholders through multiple communication channels.
- * promote discussions, decisions and recommendations of the established District (regional) Forest Fire Management Committees and the local zone-based Forest Fire Management Committees through multiple channels:
- Organize and conduct collaboration sessions with inter-governmental agencies, such as NEMO, DoE, Agriculture Department, National Fire Service, National Meteorology Service, Lands & Surveys Department, Police Department, Belize Defence Force, and other key agencies for the development of a collaborative response to forest fires disaster, disaster criteria, and national preparedness plan for catastrophic forest fires.
- Develop link between forest fire management data base and existing website to increase access to information;
- Host annual "Resilience" seminar for inter-government agencies, protected areas partners, forest sector stakeholders (e.g. forest licensees), community leaders, researchers, donor agencies and other relevant partners to assess forest fire management efforts and provide recommendations for improvement;
- * Create a platform for continued dialogue among key stakeholder group on forest fire management services, planning, communication, risk culture, research and development.
- develop standard fire warning system for rural communities in consultation with fire experts;
- Develop Forest Fire quarterly newsletters, reporting on diverse ways organizations and communities are overcoming forest fire management challenges;
- Facilitate technical exchanges and opportunities for sharing of information on forest best practices or lessons learnt between and among key stakeholders;
- ❖ Increase communication between Forest Department and stakeholders on forest fire management initiatives via online social media networks such as Facebook, Instagram, and YouTube channel.

Key Messages:

- MESSAGE (1) Forest Fire Management requires the participation and involvement of all actors involved;
- MESSAGE (2) FD and its forest fire management partners directly network to share data, knowledge, experiences and best practices on forest fire management;
- MESSAGE (3) The NFFWG is an inclusive mechanism to facilitate the national coordination of forest fire management and guide the implementation of the national forest fire policy and strategy.
- MESSAGE (4) Forest fire management could only be improved if there are sound mechanisms for collaboration and coordination between and among stakeholders;
- MESSAGE (5) Forest Fire Management Committees (FFMCs) at the village and district/regional levels are comprised of community leaders, the Forest Department, other relevant government agencies with

responsibility for land management, fire prevention and suppression, community development, CBOs/NGO's and private sector.

MESSAGE (6) The latest Forest Fire information can be accessed online at the Forest Department website.

MESSAGE (7) The Forest Department update its stakeholders regularly on current and ongoing forest fire management initiatives countrywide.

MESSAGE (8) Together educating communities about forest fires!

Monitoring & Evaluation: Interviews, Staff surveys, Focus Groups, Reports, Event feedback

Implementation Indicators:

- Seminar plan developed
- Number of invites for "Resilience" Seminar
- Number of inter-government agencies collaborating on forest fire community programs
- Number of staff involved in community engagement on forest fire programs
- Percentage of information shared with media personnel against number of information disseminated by media on forest fire program
- Collection of pictures of forest fire activities
- Number of reports generated
- Number of stakeholders sharing resources for the development of fire communication

Success Indicators:

- Number of stakeholders attending Resilience Seminar
- Seminar Report generated
- Number of active members of the national working group
- % of the degree of awareness of roles and obligations of key actors
- Percentage of stakeholders satisfied with collaborative communication activities
- Number of stakeholders participating in developing community forest fire programs
- Number of communities satisfied with information received from managers
- Number of managers providing information and feedback
- Percentage of media reporting on forest fire initiatives and programs

4. COMMUNICATION STRATEGIC OBJECTIVE

National Strategic Objective 1: To minimize the inappropriate use of fire in socio-cultural practices including traditional uses;	Communication Objective : educate rural community residents of the role of forest fires, forest fire risks, prevention and protection measures against forest fires.
Tactical Objective 1.1: Improve the awareness of community and rural stakeholders to safely and responsibly manage agriculture and other land use management fires.	fires, forest fire risks, prevention and protection
Tactical Objective 4.1: Develop and launch a forest fire awareness campaign.	Primary Audience: R ural community residents, farmers, women

Secondary Audience: Forest Department,
Agriculture Department, Lands & Surveys
Department, Department of the Environment,
personnel, SFM Licensees, CBOs and NGOs,

Activities:

Preparation

- Consult with key government agencies and partners to develop and review appropriate forest fire prevention information for rural community residents;
- Develop and disseminate information materials on forest fire risks and responsible and safe fire practices;
- inform communities of fire regulations and residents role and responsibilities in the management of fires

Development

- Develop and provide easy to recall, clear, cohesive and consistent radio and television forest fire prevention programs before and during forest fire seasons;
- create a connection between forest fires and socio-economic and health issues
- develop multimedia materials, including infographics, of the socio-economic and environmental losses that occur from escaped fires and the positive effects of controlled fires.
- utilize storylines to showcase the efforts of rural men, women or children in forest fire prevention;
- develop and support exchange programmes to expose communities ongoing and successful best practices initiatives;
- organize and provide annual agricultural fires demonstration of best practices in rural communities at high risks of forest fires;
- create community dialogue platform to improve relationship among Forest Department, partners and local communities;
- create and provide community resilience chart presenting annual average of acres burnt and number of forest fires;

Implementation

- organize and host community dialogues to discuss harmful and helpful fires in rural communities in partnership with local community leaders, government and nongovernment agencies responsible for forest fire management.
- promote local communities, government and non-government agencies using sustainable traditional or innovative forest fire prevention practices;
- promote stories of how local community residents adopt non-fire alternatives to prevent forest fires;
- establish community award programs in recognition of communities successfully implementing forest fire prevention measures;
- organize and conduct forest fire education trainings for volunteers in communities at risk.

Key Messages:

Forest Fire Role

Forest Fires can be a natural helpful process or a harmful destructive event if not properly managed:

- o fire is a natural process that has helped to shape forests for centuries
- o naturally occurring fires (lighting) are either suppressed of left to burn
- o fires can be important for the survival of some wildlife species
- periodic small fires can stimulate forest growth, reproduction of plants and provide home for some wildlife
- o fires behave differently in different areas of the country
- o fires can be affected by fuel loads, climate and weather, and the type of vegetation
- o fires kill young trees that may later compete with older trees for water and nutrients in the soil.
- fires kill trees that are old, sick or infested with diseases from spreading to other healthy trees.

Forest Fires Risks

- ❖ The way we use fire has resulted in destruction of forests
- ❖ Bigger wildfires -Burn More Forest –Destroy livelihoods
- ❖ Better managed fires burn less forests- support livelihoods
- Unwanted harmful fires destroy our future, but managing fires can help to secure it!
- ❖ The higher the fuel load the greater the devastation and threat of forest fires
- The closer you are to fire prone areas, the higher the risk and greater your responsibility to reduce that risk
- The closer you live to fire-prone areas, the greater the need for you to understand and join efforts to proactively manage fires in your area.
- We reduce the risks to human health and safety when we reduce the adverse effects of fires.
- ❖ Forest fires do not recognize community boundaries, the difference between public or private lands or communal land. A concerted effort is needed to address it.
- ❖ Agencies, CBOs/NGOs, indigenous and local communities are working together to understand and address forest fires.

Fire Prevention

- Prescribed fires are steps to reduce risks and benefit from fires.
- ❖ Safety first, especially during the fire season
- Our health and safety improve when we prevent forest fires.
- ❖ We can save lives and property if we prevent forest fires.
- * By better managing forest fires, we increase our opportunities for sustainable livelihoods!

Forest Fire Preparedness

- ❖ Be aware of conditions that can lead to intense forest fires red flag warning, listen to the forest fire forecast or visit www.forest.gov.bz.
- ❖ Managing Forest Fires is a collective responsibility
- ❖ Do your part to prevent forest fires learn and practice proper fire use!
- Climate Change is just another reason why we need to prevent, be better prepared, and protect our love ones from forest fires.
- Communities can reduce forest fire risks by taking actions that will protect homes, farms, and communities from forest fires
- * Reducing the loss of lives, property, infrastructure, and natural and cultural resources from forest fires depends on long-term collaborative community action.
- ❖ Let's prevent, prepare and protect our love ones from forest fires
- Prescribe fires across broad landscapes restore or maintain natural fire regimes, facilitate land management and reduce the risk of large-scale, destructive forest fires

- ❖ The Forest Department works closely with other partners to predict and mitigate the impacts on individuals and communities during forest fire season
- ❖ The Forest Department reduces risks associated with severe wildfires by conducting treatments such as mechanical thinning and prescribed fire and managing wildfires to achieve multiple objectives.

Monitoring & Evaluation: focus groups, pre-testing of information materials, interviews and surveys

Implementation Indicators:

- Collection of pictures of forest fire activities
- Number of reports generated
- Number of stakeholders sharing resources for the development of fire communication
- number of information materials on forest fire risks and responsible and safe fire practices
- number of rural residents who received messages
- number of communities informed of fire regulations
- number of radio and television programs on forest fires before and during forest fire seasons;
- number of storylines showcasing rural men, women or children in forest fire prevention;
- number of annual agricultural fires demonstrations of best practices in rural communities at high risks of forest fires;
- number of feature stories on local communities, government and nongovernment agencies
- number of community award programs
- minutes of community meetings
- number of forest fire education trainings for communities at risk

Success Indicators:

- percentage of residents who recall forest fire messages
- percentage of residents who can identify at least three responsibilities in the management of fires.
- percentage of residents who recalls at least three points of the forest fire regulations
- percentage of communities satisfied with information received from managers
- percentage of residents aware of forms of responsible and safe fire uses among rural community residents
- Percentage of media reporting on forest fire initiatives and programs

5. COMMUNICATION STRATEGIC OBJECTIVE

National Strategic Objective 1: Communication Objective:

Minimize the inappropriate Use of Fire in Socio-Cultural Practices Including residents and landowners in at-risk local

Traditional Uses.	communities in fire management planning, preparedness, prevention, suppression and proper fire use.
Tactical Objective 1.3: Educate landowners, users, and managers on the rights, privileges, and responsibilities of land ownership.	Target : increase the involvement of landowners in at-risk rural communities in forest fire management from 0% to 40% by 2022.
Tactical Objective 3.13: Promote village and community participation in monitoring and law enforcement for forest fire management.	Primary Audience: community residents, landowners, farmers, hunters, campers, community leaders, women, children Secondary Audience: NAVCO, DAVCO, Alcalde Associations, CBOs, NGOs, SFM licensees, DoE, Attorney General Office, Agriculture Department, NEMO, Lands & Surveys Department, Police Department

Activities:

Awareness

- ❖ Design and disseminate clear, coherent and cohesive educational materials on land owners' rights, privileges, and responsibilities based on their land tenure status.
- ❖ Inform farmers and landowners of the forest fire risks and consequences of forest fires
- inform farmers and landowners about fire laws and regulations to both inform of proper burning procedures and discourage the inappropriate use of fires.
- design and disseminate educational materials on forest fire laws and regulations.
- encourage absentee landowners to use online website to gather information on forest fires in their area and what they can do to manage private forested areas;
- develop an online-detailed brochure for landowners that explains prescribe burns and the long-term benefits;
- develop a tell-a-friend program for community to share messages with family, friends and peers;

Dialogue

- conduct open community meetings and presentations to explain land rights, responsibilities, privileges and opportunities for farmers and landowners
- ❖ facilitate establishing Community-based fire management groups
- conduct consultation meetings with at-risk communities to identify challenges and potential approaches to responsibly manage fires.
- Organize and maintain community dialogue with village leaders and residents of at-risks communities to identify and spearhead local forest fire management initiatives
 - Dialogue with farmers and landowners on the critical role fires play in forestry and agriculture
 - Dialogue with farmers for incentives for engaging in proper use of fires or nonfire alternatives.

Trainings

- facilitate in local community training on forest fire risk communication and responding to forest fire events.
- educate farmers and landowners to distinguish between improper and proper fire practices

- provide peer-trainings to encourage farmers and landowners to demonstrate proper fire practices with other members of the community
- Conduct training for farmers and landowners on forest fires management techniques

Key Messages:

Proper Fire Use

- ❖ Fire is a management tool that we need to learn to use wisely
 - Fire is an important component of the Belizean rural and agricultural landscape and has been used as an important tool in the pursuit of rural and traditional livelihoods.
 - When fire is used inappropriately, it is a threat to rural livelihoods.
- Fire laws are not only to protect forests but also protect you, your property and your family!
 - o Landowners are required by law to know the and adhere to fire laws
 - Persons found burning illegally will be subjected to penalties
- ❖ Landowners need to know their rights and responsibilities in reducing fire hazards and supporting fire management efforts.
 - o landowners may need to conduct controlled fires or prescribed fires to prevent catastrophic forest fires.
 - o There are also non-fire treatments that can be used to prepare land.
 - We can use fire responsibility for sustainable silviculture, agriculture, livestock and watershed management and biodiversity conservation.
 - Stop Escape Fires before they become extreme fires
 - Know the risks and take steps to prevent forest fires

Monitoring & Evaluation: training evaluations, reports, surveys

Implementation Indicators:

- number of stakeholders' attending meetings
- number of consultation sessions held in at-risk communities
- number of consultation meetings with rural farmers of at-risk
- them to responsibly manage fires.
- report on discussions regarding the drafting of by-laws by Villages Councils to address forest fire management for their communities
- conduct necessary trainings for village council leaders to gain technical, legal systems to enable community governance and the capability for a quick response to wildland fire threats.
- Number of residents attending consultation meetings within at-risk communities
- number of community leaders organizing consultation sessions

Success Indicators:

- percentage of residents aware of their legal land rights and responsibilities
- number of participants submitting input for preparedness planning
- number of community residents submitted written recommendations to government regarding forest fire management
- Percentage of stakeholders actively engaged in forest fire community preparedness activities
- percentage of stakeholders participating in developing community forest fire prevention programs
- percentage of community residents satisfied with information received

- number of village council leaders involved in drafting by-laws
 number of farmers attending
- number of farmers attending consultation sessions
- Report regarding recommended incentives to encourage village councils to engage in law enforcement
- Meeting Reports generated
- Collection of pictures of forest fire activities

6. COMMUNICATION STRATEGIC OBJECTIVE

National Objectives 1: To strengthen the operational capacity of all stakeholders to manage wildland fires;	Communication Objective: Engage community leaders in improving capacity, monitoring and enforcement in forest fire management.
Tactical Objective 3.13 : Promote village and community participation in monitoring and law enforcement for forest fire management.	Target : increase community leaders involvement in awareness efforts, monitoring and enforcement in forest fire management from 0% to 40% by 2022
Action: 2.3.2: Village Councils are assisted to draft by-laws to address wildland fire management for their areas	Primary Audience: NAVCO, DAVCO, community leaders, village councils, Alcalde associations
	Secondary Audience: FD, CBOs, NGOs, SFM licensees, DoE, Attorney General Office, Agriculture Department, NEMO, Lands & Surveys Department, Police Department

Activities:

Awareness

- provide community leaders with regular information on forest fire management initiatives and programs
- ❖ facilitate community leaders in developing and implementing standard consultation processes that allows stakeholders of different backgrounds and cultures (including indigenous and traditional rural communities) to be included;
- ❖ increase the capacity of community leaders to communicate with community residents regarding fire laws and regulations, inform of proper burning procedures and discourage the inappropriate use of fires.
- host one-on-one meetings with forest rangers and community leaders to plan and discuss fire demonstrations;
- provide copies of information materials to community leaders for their distribution to community residents;
- develop talking points for community leaders and forest managers for community meetings;

- * assist in supporting community awareness and participation activities for increasing awareness of fire regulations.
- Create leader advocates for forest fire management by sharing their authentic, relevant, and diverse stories of forest fire management in their areas.

Collaboration

- outline clear actions and steps in community involvement in forest fire management;
- facilitate meeting of community leaders to discuss and identify knowledge and resources needed to manage forest fires in their area;
- collaborate with community leaders in forest fires management initiatives to strengthen relationships between forest department and the community leaders to understand risks, impacts, needs and capabilities to respond to forest fires;
- host forum for village leaders to share and exchange ideas regarding forest fire management;
- encourage community leaders to become part of a coordinated approach to effective fire management in areas where multiple organizations and stakeholders have responsibilities and interests in the fire programme.

Monitoring & Enforcement

- conduct information sessions to increase awareness of community leaders on forest fire risks and consequences, laws and sanctions, roles and responsibilities, monitoring and reporting;
- promote the participation of community leaders in fire management monitoring and enforcement;
- ❖ facilitate discussions to identify incentives to encourage village councils to engage in monitoring and enforcement.

Drafting By-laws

- consult with community leaders to determine benefits from identifying, prioritizing and recommending improvements to fire laws
- ❖ facilitate in the development of necessary trainings for community leaders to gain knowledge of technical, legal systems to enable community governance of fire management
- conduct a series of workshops with NAVCO, DAVCO and village leaders in the drafting of by-laws to address forest fire management for rural communities.
- promote community leaders' efforts to draft by-laws through diverse media channels.

Key Messages:

- Forest fire management requires participatory approaches, involving public and private landholders, community leaders and the relevant authorities mandated by legislation or policies.
- ❖ The management of forest fire is promoted and developed at the community level in general as an integral component of community resource management.
- ❖ The necessary technical, legal, and other necessary supportive structures will be created and maintained to enable community governance systems to spearhead local wildland fire management initiatives including the capability for a quick response to wildland fire threats
- ❖ Every area with burnable vegetation under a land use management plan or resource management plan must have an approved Fire Management Plan.
- Community leaders recognize their leadership role in fire management and other landuse issues;
- Community leaders ensure a coordinated approach to effective fire management in areas

- where multiple organizations and stakeholders have responsibilities and interests in the fire programme;
- ❖ Community leaders ensure that consultation processes are open and accessible to stakeholders of different backgrounds and cultures (including indigenous and traditional rural communities);

Implementation Indicators:

- Working group framework developed
- Number of stakeholders accepting participation in working group
- Number of information sessions held with working group
- Number of discussions with community leaders
- Number of collaborative meetings with community leaders
- Number of community leaders trained in forest fire management
- Collection of pictures of forest fire activities
- Number of reports generated

Success Indicators:

- Percentage of Community leaders degree of understanding of fire laws
- number of community by-laws drafted
- Number of community leaders aware of forest fire program
- Number of fire-prone communities aware of fire regulations
- * % of reduction of escaped fires in the area.
- % of community leaders monitoring and enforcing fire laws.
- % of community residents satisfied with information received from managers
- Number of managers providing information and feedback

7. COMMUNICATION STRATEGIC OBJECTIVE

National Objectives 4: Promote Adequate Fire Prevention Through Awareness at All Levels.	Communication Objective: increase the engagement of women in forest fire management, prevention and preparedness initiatives within communities.
Tactical Objective 3.16.1 : Promote and support the role of women in wildland fire management.	Target : increased percentage of rural women actively engaged in forest fire prevention and preparedness initiatives from 0% to 40% by 2022
Tactical Objective 4.1.1: Develop clear messages for community education for women.	Primary Audience: rural women, women's group or associations Secondary Audience: FD, NAVCO, DAVCO, Ministry of Human Development (Women's Department), Ministry of Health, Ministry of Agriculture, Department of the Environment, Lands & Surveys Department, CBOs & NGOs

Activities:

- Develop information materials featuring the role of women in fire management.
- Develop and disseminate clear messages for rural women through diverse channels

- conduct training of women on the forest fire ecological role, potential forest fire risks, fire regulations, prevention and preparedness
- ❖ Educate women on proper use of fires or fire wise practices
- promote the benefits of using appropriate fire practices
- Use stories and messages of rural women to engage others in forest fire prevention.
- Engage rural women in awareness programs for fire prevention and preparedness messages as part of community education programmes.
- Strengthen management commitment to the inclusion of gender issues in programme and project design
- ❖ Establish a targeted capacity building plan to ensure staff have the necessary tools and knowledge to integrate gender issues in their work
- ❖ Encourage the inclusion of gender issues in climate change adaptation plans
- ❖ Mainstream gender issues in initiatives of Forest Fire Partnership
- Foster the involvement of women's groups/associations in all phases of the project cycle
- ❖ increase visibility of gender related work in the Forest Department
- ❖ Promote gender balance in images present in Forestry publications
- ❖ Include gender considerations in technical guidelines developed by the Department as appropriate.
- support the development of women's radio program on best practices.
- establish community women's volunteer groups to motivate and monitor fire management practices.

Key Messages:

- Empowering women can drive forward the initiates to encourage better fire management practices and discourage destructive burning practices.
- ❖ Give voice to women in forest-related issues
- * The participation of women is important in forest fire management
- Women are often guardians of forest resources
- Women know that forest fires threaten their forest resources
- Women feel losses when forest fires destroy crops and homes.
- * Women have a right to participate in forest fire risk reduction, readiness and response
- Women hold important chores related to collection forest products and activities such as tree nurseries establishment, plantations, harvesting and farming
- Women officers working in the field are more conscious of the gender implications of their work.
- Women are particularly sensitive to gender issues which are considered as crucial factors in the planning and the implementation phase and in the identification of partnerships.

Implementation Indicators: Success Indicators: percentage of women participating in rural community meetings women in fire management percentage of women engaged in public awareness of forest fires

- number of meetings with rural women's groups and association
- number of rural women educated about forest fire ecological role, potential forest fire risks and the important role they play in forest fire prevention;
- number of stories and messages of rural women engaged in forest fire prevention.
- Collection of pictures of forest fire activities
- Number of reports generated

- percentage of women adapting alternative practices
- Percentage of women aware of the role they play in forest fire management
- Percentage of women aware of fire regulations
- Percentage of women who educate children about preventing forest fires and being prepared

8. COMMUNICATION STRATEGIC OBJECTIVE

National Objectives Strategic Objective 4: Promote Adequate Fire Prevention Through Awareness at all Levels.	Communication Objective: increase awareness of forest fire ecology, prevention and preparedness among primary and secondary school students.
Tactical Objective 4.3 : Develop curriculum materials for fire-wise education in schools.	Target: increase number of school children aware of forest fire risks, prevention and preparedness from 0% to 40% by 2020
Tactical Action 4.3.1 : Increase awareness between fire and climate change and land degradation in wildland fire awareness programmes and fire wise curricula for schools.	Primary Audience: primary and secondary school students, teachers Secondary Audience: CBOs, NGOs, Ministry of Education, key Inter-government agencies

Activities:

Curriculum Development

- Develop and implement a national forest fire education curriculum for primary and secondary school students on forest fires ecology, prevention and preparedness in Belize
- hire consultant to facilitate the development of the curriculum in consultation with local community teachers
- provide local information for the curriculum development to include local examples of 'good' and 'bad' fires, causes and effect relationship of forest fires, forest fires and wildlife,

forest fires and climate change, the fire triangle, the role of fires, forms of forest fire prevention and management, proper management fires and forest fire preparedness.

Curriculum Delivery

- encourage students to develop scientific skills of observing, experimenting, predicting and validating in learning about fundamentals of forest fire behaviours.
- educate students on the concepts related to health and disease prevention
- design and implement a national photo and art competition for school children and young people promoting forest fire prevention messages
- identify and use appropriate and relatable information resources for students on forest fires
- ❖ incorporate drama and digital media to educate students on the forest fires control legislations
- engage students in live and healthy debates and discussions on forest fires helpful and harmful effects.

Resources

- prepare teacher's guide to facilitate professional and non-professional instructors on curriculum delivery
- develop additional curriculum resources or collateral resources for students
- develop colouring book for primary school students
- develop short mini-series videos for school age students on forest fire risks and readiness.
- * personal stories of stakeholders and staff to have students connect with information
- Develop a national mascot and movement to inspire young people interest and support for forest fire prevention, especially amongst young people.
- ❖ Increase students' awareness of the consequences of illegal burning through a primary and high school poster competition on fire laws.
- conduct interviews of students to gather information about their perspectives of forest fires and the proper use of fires
- engaged students in telling their stories about forest fires to raise awareness
- conduct school visits to demonstrate and assist teachers in forest fire education.

Key Messages:

Fire Ecology

- Fire has a natural role in the ecosystem
- All components of the forest function as dynamic, inter-dependent systems
- The study of fire behaviour is important
- Fires need heat, fuel and oxygen to burn. Dead leaves and branches burn easily.
- The Forest Department uses science and ecology to understand and manage forest ecosystems
- People's actions can have serious effects on nature.
- Large amounts of fuel loads place us at risk of extreme and intense forest fires.

Management

- The Forest Department manages forest fires for biodiversity protection.
- The Forest Department cannot do so alone. It needs help of our people and local communities.
- The Forest Department wisely cut trees to reduce the fire risks in some areas, enhance forest stands, restore grasslands, improve wildlife health and habitat.

- Understanding forest fire suppression methods is important in forest fire management
- Prescribe fires is only one tool forest managers and fire-fighters use to manage forest ecosystems
- Public forests are valuable resources for which we have a shared responsibility to protect
 it.
- Private land owners have a responsibility to conduct fire management techniques.

Prevention

- We need to be careful with fires
- leaving forest untouched has its consequences, risks and trade-offs
- frequent, high intensity fires will only increase with Climate Change we need to be prepared.
- Doing nothing is not the best solution.
- The cost of prevention is far less than the cost of suppression and the value of damage attributed to wildfires.
- Obey fire laws
- Report forest fires
- Be forest-friendly
- Be fire-wise (prepare, prevent, protect)
- Help us protect forest for the future!

Monitoring & Evaluation: meeting evaluations, interviews, training evaluations, surveys

Implementation Indicators:

- number of teachers engaged in curriculum development
- number of teachers being trained to train others on use of curriculum
- number of schools piloting the forest fire curriculum
- curriculum on forest fire risk reduction and readiness
- number of students participating in forest fire education programs
- number of school visited
- number of schools in poster competition
- number of school participating in field trips
- number of schools in national photo and art competition
- number of resource materials utilized at schools
- number of drama and digital media products
- resource guide for teachers
- number of teachers using resource guide
- number of mini-series videos

Success Indicators:

- Percentage of teachers aware of forest fire reduction and readiness
- percentage of teachers satisfied with curriculum
- percentage of teachers using the curriculum
- percentage of teachers engaged in promoting forest fire awareness
- percentage of students aware of forest fire risks and preparedness
- percentage of students engaged in forest fire student activities
- percentage of students satisfied with curriculum delivery

*	number of feature stories	of
	stakeholders and staff	
*	a national mascot	
*	number of interviews of students	
*	number of students contributing	
	stories about forest fires.	
*	photo collection	
	reports generated	

9. COMMUNICATION STRATEGIC OBJECTIVE

National Objectives 4: Promote Adequate Fire Prevention Through Awareness at all Levels.	Communication Objective : provide media personnel and organizations with the knowledge, resources, tools, and motivation to communicate on forest fire risks, fire laws and procedures, forest fire forecast and warning system, particularly during the fire seasons.
Tactical Objective 4.4: Develop and apply a national fire weather warning system for use in both operations and prevention.	Target : increase number of community leaders aware of community forest fire programs from 0% to 40% by 2020
Action 4.4.1: Use local media delivered weather reports to emphasize hazardous fire weather conditions.	Audience: journalists, radio stations, television stations, press office.

Activities:

Knowledge

- Provide reliable, accessible, regular and updated information on forest fires to the media;
- Proactively communicate about the benefits of well managed fires and the risks of uncontrolled fires.

Resources

- Provide information materials and resources for communication engagement with key stakeholders;
- conduct news briefings with media to make aware the benefits of prescribe fires and other approaches to address forest fires in Belize.
- coordinate with weather forecasters to promote forest fire education tips and forest fire forecasting during fire season
- Develop guide for media to communicate on forest fire issues before, during and after extreme forest fire incidents;

Tools

- Develop forest fire management reporting program with the Press Office quarterly;
- Build partnerships with media on reporting on regular reporting on forest fires during the fire season;
- conduct media training for pre-crisis communication, to engage media in assisting with responding to forest fires crisis, informing and warning audiences, reassuring the

- public, and repudiating rumours.
- prepare and disseminate public service announcements to inform and remind audiences about fire regulations, fire risks and approaches to proper fire uses;
- Use diverse forms of communication methods to attract media attention, such as media invites, pitch letters, letters to editors, photo reporting, and news conferences.

Motivation

- encourage media to follow-up on forest fire stories in their constituencies;
- * Facilitate familiarization tours for media personnel to highlight communities ongoing and successful best practices initiatives.
- develop media reporting award programme for media persons coverage of forest fire issues.

Key Messages:

- MESSAGE (1) Forest Fire Management requires the participation and involvement of all actors involved;
- MESSAGE (2) FD and its forest fire management partners directly network to share data, knowledge, experiences and best practices on forest fire management;
- MESSAGE (3) The NFFWG is an inclusive mechanism to facilitate the national coordination of forest fire management and guide the implementation of the national forest fire policy and strategy.
- MESSAGE (4) Forest Fire Management Committees (FFMCs) at the village and district/regional levels are comprised of community leaders, the Forest Department, other relevant government agencies with responsibility for land management, fire prevention and suppression, community development, CBOs/NGO's and private sector.
- MESSAGE (5) The latest Forest Fire information can be accessed online at the Forest Department website.
- MESSAGE (6) The Forest Department update its stakeholders regularly on current and ongoing forest fire management initiatives countrywide.
- MESSAGE (7) Together educating communities about forest fires!

Monitoring & Evaluation: media content analysis, news items, radio programmes, television programs, media partnership agreements, media evaluations, interviews, meetings, training evaluations

Implementation Indicators:

- Reporting program established with the Press Office quarterly.
- number of media organizations forming partnerships officially
- number of media partnerships formed unofficially
- number of media personnel reporting on forest fires during the fire season;
- number of information accessible

Success Indicators:

- Number of media positive coverage of government and community response to forest fires
- Number of media interviews with lead fire personnel
- number of media personnel conducting follow-up stories on forest fires
- number of media trained on forest fire ecology, risks, prevention and preparedness;

- to media
- number of media trainings for media
- different communication methods to attract media attention,
- number of familiarization tours for media personnel
- media reporting award programme
- percentage of media personnel satisfied with information received on forest fires
- number of media personnel nominated for award programs

10. COMMUNICATION STRATEGIC OBJECTIVE

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National Objective 4: Promote Adequate	Communication Objective : identify potential			
Fire Prevention Through Awareness at all	funding sources both internationally and			
Levels.	nationally for the implementation of the national			
	forest fire communication strategy.			
Tactical Objective 4.6: Seek support	Target : acquire funding for the implementation			
	of the National Forest Fire Communication			
regional/international organizations, to				
facilitate the implementation of fire				
management strategies, programmes, and	agencies			
plans.				

Activities:

- FD in close collaboration with its wildland fire management partners to identify potential sources of assistance
- * prepare proposals to leverage funding and assistance from environmental facilities and other sources including internally available sources for the implementation of the national forest fire communication strategy.

Key Messages:

- MESSAGE (1) Forest Fire Management requires the participation and involvement of all actors involved;
- MESSAGE (2) FD and its forest fire management partners directly network to share data, knowledge, experiences and best practices on forest fire management;
- MESSAGE (3) The NFFWG is an inclusive mechanism to facilitate the national coordination of forest fire management and guide the implementation of the national forest fire policy and strategy.
- MESSAGE (4) Forest Fire Management Committees (FFMCs) at the village and district/regional levels are comprised of community leaders, the Forest Department, other relevant government agencies with responsibility for land management, fire prevention and suppression, community development, CBOs/NGO's and private sector.
- MESSAGE (5) The latest Forest Fire information can be accessed online at the Forest Department website.
- MESSAGE (6) The Forest Department update its stakeholders regularly on current and ongoing forest fire management initiatives countrywide.

MESSAGE (7) Together educating communities about forest fires!

Implementation Indicators:

- Number of meetings with intergovernment agencies regarding funding opportunities
- Number of collaborative meetings external stakeholders
- Collection of pictures of forest fire activities
- Number of reports generated

Success Indicators:

 amount of funding allocated for communication activities for forest fires



COMMUNICATION APPROACHES

Communication approaches identified are based on the core principles such as openness, inclusiveness, positivity, accuracy, transparency and sustainability. The principles form the basis for the development of these approaches, which seeks to create more open dialogue between the Forest Department and stakeholders, engage employees and stakeholders in sustainable forest management and forest fire management and apply behavioural change techniques.

The communication approaches are developed based on the 5 Rs approaches of integrated forest fire management. These approaches are research, risk reduction, readiness, response and recovery.



Figure 2: The 5 Rs of Integrated Forest Fire Management

Communication Core Approaches

Based on the International Association for Public Participation's (IAP2) schema for public engagement, the Communication Strategy draws from fire core approaches for engaging the public, which are:

- Inform: Provide the public and key stakeholders with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions;
- Consult: Obtain public feedback on analysis, alternatives and/or decisions, which will be done through public comments, focus groups, surveys, community meetings and other appropriate consultation meetings;
- 3. Involve: Work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered, which will include workshops, capacity development trainings, and establishing guidelines for committees;
- 4. Collaborate: Partner with the public in identifying preferred solutions, which includes developing and implementing small-scale community projects, community advisory committees, consensus building, and participatory decision making processes.
- 5. Empower: this is to place final decision making into the hands of the public to implement what people have decided.



dialogue,
discussions,
public
comments,
focus groups,
surveys,
community
meetings
Obtain public
feedback on
analysis,
alternatives
and/or
decisions;

Work directly with the public throughout the process, e.g. workshops, trainings, committees ensure that public concerns and aspirations are consistently understood and considered,

Partner with the public, e.g. projects, advisory committees identifying preferred solutions, implementin g small-scale community projects, and participatory decision making

this is to place final decision making into the hands of the public to implement what people have decided.

EXTERNAL COMMUNICATION

The Communication Strategy is aimed at improving external stakeholder engagement. The approaches listed were recommended by both internal and external stakeholders as the more appropriate tools and activities to engage the wider community. Majority of the communication activities are not in isolation and form part of the large goal of the Forest Department to increase public participation in SFM and FFM.

- 1. Stakeholder Engagement -An inclusive people-centered approach- People are at the core of all communication activities, enabling them to form common goals and gain mutual understanding. On this premise, key stakeholders are encouraged to become involved in decision-making processes in forest management. The ultimate goal is to ensure that stakeholder engagement is embedded into forest management planning and stakeholders' views are reflected in the sustainable management of forest resources. This process will follow a consistent approach using a stakeholder engagement framework. It will guide the Forest Department to identify the engagement cycle, and know when and how stakeholders should be engaged in forest management. The engagement framework should include a range of best practices, tools and tactics for communication and engagement teams to build trust dialogue with communities. As a result, the process of engagement must go beyond consultations and should encourage respectful and meaningful dialogue with key stakeholders throughout the implementation process.
 - 1.1 Dialogue: Too often past approaches were 'top-down' approaches that did not allow communities to share their concerns or for government to get and give feedback. During consultation meetings, village leaders, farmers, women and young people expressed willingness to discuss issues that affected them. For instance, people expressed general concern for "slash and burn" methods and uncontrolled fires in their areas. They would like to gain deeper insight into alternative agricultural fires practices, understand more about soil depletion and discuss other socio economic opportunities. Moreover, these community residents have been known to offer helpful recommendations to address environmental concerns but receive very little opportunities to discuss them or follow-up support to implement them. Dialogue with key stakeholders can prove to the be the most effective way to empower stakeholders. Forums with village leaders and community groups can help to trigger discussions on what people could realistically and collectively achieve at their district level. During these forums, government role is to listen and answer questions when possible.
 - 1.2 Building Partnerships: Dialogue can help to form understanding but it is hardly an indicator of strong relationships. By forging partnerships in forest activities, it can help to promote stakeholders' sense of responsibility, build social capital, and maintain relationships between government employees and community residents. Although these partnerships could be informal, they are more effective if they are formal agreements

- made between communities and government agencies and must be seen as providing benefits for both parties.
- 1.3 Forest Fire Management Seminar: Seminars can provide a forum for different interest groups to learn about each other's goals, attitudes and concerns. They can also provide the agency with valuable insights into public values. The public at large can learn about many diverse viewpoints. If a seminar is communityled, issues can be identified through discussions. The downside may be that the general audience may have difficulty separating facts from concepts. Using a discussion leader can help to guide discussions and keep to topic and objectives. Since an annual seminar should be established, ensure that sufficient notice is given and that the date is established annually. Identify speakers and have them submit outline of their presentations a month prior to meeting. Request written copies of the presentations so they may be sent to all participants. After each presentation, allow a question and answer period. Let the public know about how the information obtained from the seminars will be used.
- 2. Rights Holders—People have both rights to and responsibility for forests yet this is not the general feeling or belief held by residents of rural communities. When people don't have a sense of ownership and see themselves as rights holder of forests, they do not feel obligated to manage forests. To address this, the strategy looks beyond sensitization. Its goal is to foster a sense of ownership and responsibility to better manage forest resources through public participation activities. Both communication and operational activities must help to build people's sense of ownership.
 - 2.1 Forest & Community Panels: To facilitate this, there is need to establish local, regional and national Forest & Community Panels (e.g. National Forest Fire Working Group and the District (Regional) Forest Fire Management Committees) to ensure that people are being consulted and remain engaged. The panels should consist of key stakeholder representation. The initial phase involves establishing a national working group, which will be tasked to identify goals, methods, resources, management and monitoring stakeholder engagement processes.
 - 2.2 Community-Based Fire Management 3: This is an effective fire management approach being adopted by the Forest Department. Since many communities often use fires as a traditional form of livelihood activities, such as farming, hunting, land clearing, improving pastures and managing non-timber forest produce, it is important that they have a stake in fire management issues. This approach recognize that people depend on fires and engage local people in the process of development, implementation and monitoring of fire management strategies. Studies have proven that when local people directly engaged in designing their

³ The term community-based fire management (CBFiM) was coined by Sameer Karki at the Regional Community Forestry Training Centre (RECOFTC) in Bangkok in 2000.

own strategies to prevent, control and utilise fires, they benefit by reducing threats, improving and securing life and livelihoods. There are three major activities of this approach. The first involves the incorporation of traditional and local knowledge. The second is the community involvement of local actors. Local communities receive government support in analysis of fire problem, technical capacity development, regulatory framework or logistical assistance. Thirdly, community volunteers join the Forest Department in fire management across public and private lands. Volunteer members will form part of the association of Community Volunteer Forest Fire Brigades.

- 2.3 Forest Fire Briefings: The Forest Department has opportunities to present information to various stakeholder groups. Using standardized information media and print packages, it can encourage managers at different district level to conduct information briefings with other stakeholders in their district. Training of OICs to use the information packages is necessary to build confidence and competence of officers to respond to questions and concerns. This activity allows agencies to present information and inform groups on specific subject matter (example: the risk of wildfire and mitigation techniques to a local communities or the benefits of a prescribed fire to a hunting club). It provides a way for everyone to contribute, no matter how large the group. These outreach activities can serve to open the lines of communication with interested and affected stakeholder groups. Some of the information briefings can be held at Village Council Meetings, Co-operatives, Association Meetings, CBOs/NGOs meetings, Educational Institutions, Town/City Council Meetings, Tourism Association Meetings, Lion's Club Meetings, Rotary Club Meetings, Government Agencies meetings and conferences, Technical Advisory Committee meetings, Working Group meetings, etc.
- Technical 2.4 Traditional & Forest Knowledge Exchange: Although a link between indigenous or local knowledge and sustainable forest management is recognized, community residents' participation in sustainable forest management is still low. There is a need to highlight indigenous people specific contributions to biodiversity conservation and their present efforts to mitigate and adapt to Climate Change. Indigenous peoples and local communities are also recognizing the value of technical knowledge to identify risk and vulnerability and monitoring strategies. It is hoped that over the next three years, both indigenous and technical or scientific groups can work together to share ideas and make informed decisions in an effort to collectively combat Climate Change. Special conferences and forums could facilitate discussions and build awareness of the contributions of Indigenous people to sustainable manage forest resources in the face of Climate Change.
- 2.5 Forest for Life Teams: Used by many other countries, this engagement team are community volunteers who will be

- responsible for building awareness on all forest-related issues. These volunteers will identify dialogue opportunities, establish linkages and help to represent the community on forest issues on media programs. The Forest for Life volunteers will be supported with trainings, resources and also serve as part of the community consultative committee.
- 2.6 Voices: When presenting forest-related issues, personalizing messages are far more effective than non-personalized or technical messages. The views of all our stakeholders are critical. Although surveys, focus groups and consultation meetings are obvious ways to involve stakeholders, there are other methods that can allow others to hear voices that are otherwise silent. This involves five major groups: young people, villagers, women, co-managers and Forest Department employees. These stakeholders can share their views with other audiences and groups via multimedia channels. Using storyline techniques, individuals can share their knowledge and experiences on sustainable forest management and forest fire management. This can be a powerful way to carry messages. Young people, who are becoming disconnected from forests, will hear and see other young people connect with forest issues, promoting forests as integral for their future. Their voices have often been ignored on forest issues but by allowing them to speak on these forest resources opportunities and forest solutions, they can become ambassadors of forests for their school or village community. Regular video/audio interviews with villagers or guest talk show appearance can help to highlight issues and showcase the work of local communities. Often times, the voices of women are the least heard when it relates to forests. They are willing to share with other women how they have wisely used forest resources and helped to educate their children about cultural and traditional forest uses. Finally, the employees of both co-managers and the Forest Department have been silent about their heroic efforts. Their voices can serve to present the humanize certain issues and the work of key agencies and interest groups.
- 3. Learning by Doing: Existing communication approaches often provide information, hoping that this will change behaviour but it has proven to be ineffective. One behavioural change approach will be to engage village leaders and communities in determining by-laws or actions that can enable forest fire management at the local level. This enables villagers to become more involved in discussing forest management issues at a community level. Another approach is to conduct peer-teaching for farmers to share their knowledge with other farmers. Even youths can gain a better appreciation for forests, if they are directly engaged in specific community projects, field trips, nurseries, beautification and tree-planting projects. These mini-projects can serve as models of conservation practices and demonstrate the commitment of people to better manage forested areas. Capacity development training for government personnel, community leaders, farmers and teachers can also help to strengthen their understanding of forest policies and develop strategies to address problems within their communities.

- 3.1 FIRE-wise DEMO: This is a field demonstration that can be staged for community farmers. A field demonstration shows an activity such as mechanical fuel reduction, firewise landscaping, prescribed burning, etc. This will increase knowledge of techniques that farmers can use and expose the audience to various aspects of fire management. The approach is for local communities and forest managers to work together and demonstrate their collaboration as well. Together, government and local officials will select an appropriate method to notify the public. They will need to decide on a location with easy access, if possible or coordinate to get farmers and residents to the specific location. They may also need to rehearse the demonstration to work out the time needed and to solve any problems ahead of time that may occur.
- 3.2 Forest Fire Public Education Officers: Forest Fire Public Education Officer should be assigned to educate local communities in each district about causes and impacts of wildfire. Their main responsibilities will include educating students about forest fire causes, risks and what is being done to address forest fires. They will need to ensure that consideration is given to the social context and use cultural sensitive messages. These persons will also need to keep local stakeholders and other incident personnel (FIRRT team) updated about forest fire management efforts in their area. They may need to present on local media channels the forest fire prevention messages from time to time.
- 3.3 Community Forest Fire Trainings: Community leaders and farmers will receive specific trainings in forest fire management. Community leaders will be engaged in legal trainings, helping them in drafting by-laws for fire management. Farmers from various communities will gain specific trainings to be able to facilitate training and guiding other farmers in their areas.
- 3.4 Forest Fire Education Curriculum: The need to improve environmental education in schools is increasingly important as communities become more at risk of forest fires. Teacher trainings, co-op education and school visits can be helpful but there is also a need to develop standard education guides and resources for students. Officers can use opportunities from the school curriculums and participate in interagency and CBOs' education programs. A forest education curriculum can guide Forest Department staff or facilitate high school and primary school teachers in educating young people about the value of forests, forest fire prevention and sustainable forest practices. This can be daunting but much needed and worthwhile undertaking. Here are some elements needed for the forest education program:
 - Developing the forest education curriculum could involve building relationship with teachers to formulate syllabus and lesson plans for primary and secondary level students. Each topic must be based on the pedagogical level and should look at meeting

- specific learning objectives within a given (40 mins) time frame.
- It is an opportunity to have teachers engage in the development of a forest curriculum that could be piloted in schools in rural communities.
- In addition, experiential learning strategies could be employed, such as visits to protected areas, where they can learn about the benefits of forest fires and its natural role in ecosystems.
- Resources such as videos, audio books, e-books, forest clubs, incentive programs, school competition, fire prevention week can also help to facilitate curriculum delivery.
- 4. Be Fire-Wise- This is an awareness approach to inform key players of their role in forest fire management. It involves building awareness about fire risks and identify actions for readiness. The information is supported by multiple communication approaches targeting residents, stakeholders, media and community leaders. Be Firewise encourages people to recognize fire risks, and take steps to prevent forest fires. Also important, the Firewise campaign enables residents to recognize that they play a major role in protecting their lives and property.
 - 4.1 FIRE-WATCH —local forecasting system: Links with the National Meteorological Service is important in helping to provide daily media reporting on forest fires, particularly during the fire season. Considering the fact that the majority of uncontrolled and destructive wildfires are caused by humans as a consequence of inappropriate use of fire in agriculture, pastoralism and forestry, it is crucial that a fire early warning systems is developed to enhance warnings applied or generated at the local (community) level (people-centered early warning systems) 4. FIRE-WATCH provides forecasting of specific local conditions for rural residents for fire prevention. Fire danger rating should be developed to support early warning of the potential for serious wildfires based on daily weather data. Normally, fire danger rating systems provide a 4- to 6-hour early warning of the highest fire danger for any particular day that the weather data is supplied. However, by using forecasted conditions from advanced numerical weather models, extended early warning (i.e., 1-2 weeks) can be provided.
 - 4.2 *Collateral Materials*: These are various print publication materials developed such as a detailed brochure/flyer for residents affected and landowners explaining exactly where and why a prescribed burn will occur. It can provide background on forest fire ecology, forest fire risks and the long-term benefits of the prescribed burn.
 - 4.3 TELL-A-FRIEND Cards: This "Tell-a-Friend" cards and supply four to five cards in each packet so the residents can share

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⁴ UN Secretary General and as laid down in the Hyogo Framework for Action 2005–2015: "Building the Resilience of Nations and Communities to Disasters")

- with family, friends, or colleagues. The front of each card will include the projected date, time, and location of the prescribed burnings. The back of the card will include facts about the benefits this specific burn will have on the area, as well as tips for managing smoke impact and other potential adverse effects. The card also will direct readers to the Web-site for more information.
- 4.4 Media Relations & Reporting: Media coverage for forestrelated issues have increased over the last year but there is still need for greater informational and educational media programs on forests. This can reduce the number of inaccurate reporting and facilitate the media in including Climate Change solutions in their reporting. More regular forest and people oriented stories and more prompt communication can also assist improving communication. To build credibility, the Forest Department needs to provide accurate statistical data to support information. This can help to build credibility with the media and the public. To achieve all this, all media communications can be centrally coordinated through the Communication Unit. Engagement with the media can be facilitated through press releases, press conferences, press briefings, expert interviews, and other activities. Media trainings and familiarization tours of protected areas and other site visits is also a valuable opportunity to improve media reporting on forest issues. Conduct briefings with news media to make them aware of the benefits of the prescribed burn as well as the risk. Provide background information and online resources. Invite local morning television talk shows, weather forecasters, or radio drive-time shows to conduct an on-air interview with a representative of the entity about a forest fires techniques and the benefits. Suggest the location of the planned burn to show viewers the need. When sufficient time has passed to begin to see noticeable effects from the prescribed burn, encourage media to do follow-up stories about the benefits.
- 4.5 National Forest E-Magazine: The magazine will be published on the Forest Department Website. It will first aim to capture interest groups, SFM licensees, forest workers and government agencies but could eventually expand to young people studying natural resources management and local community leaders. The E-magazine can also carry advertising of local forest produce and feature stories on residents volunteering as firefighters. The online magazine can also contain editorial calendar, partners' featured articles and infographics on forest fires.
- 4.6 Web-based Outreach: Presently, the Forest Department website is under reconstruction, but once finalized, the website can serve to provide both basic and technical information for web visitors. Eventually the importance of the website will increase significantly as it will serve as a tool to share information. There is a need to develop the capabilities of the website to not only provide written texts, but also graphics, infographics, charts, maps, videos, and audio files with the public. A unique feature that should be included is an online survey, which will allow tracking of visitors and their level of satisfaction with the online information.

INTERNAL COMMUNICATION

Internal communication is essential to help our employees understand the mission, vision, core values, and communication and operational culture. Internal communication provides opportunities for greater staff involvement in day-to-day operations, assessing, planning, implementing and monitoring operations. A part from keeping staff abreast of ongoing activities and milestones, it can serve to build capacity and orient new staff with procedures and policies.

- 1. Practice what we preach: This became a common statement made by farmers and villagers during consultations. They looked at three existing trends: (1) As increasing allegation of corruption and mismanagement of forest resources smeared communication efforts, it became evident that the Forest Department needs to conduct internal self-assessments and embrace this concept in order to regain credibility and trust. (2) What officers say and do have direct bearing on communications and relationship with key stakeholders. To avoid contradictions and conflicts, forest interventions should take into consideration the social realities and are aligned with forest policies. (3) Communication must complement all activities. Community leaders and residents expressed concern that once consultations are over, there is hardly any follow-up or feed-back or involvement of communities in programs and projects, limiting concrete results or rarely bringing about social changes.
 - 1.1 Forest Fire Management Guide: It is difficult for the Forest Department to lead forest fire campaigns and encourage greater participation when there is a lack of information on forest fires. A local guide on forest fires to be used by partners, farmers, forest workers, community leaders, volunteers, staff and media personnel would be helpful way to present information. The document can give a basic concept of fire ecology in Belize, areas prone to forest fires, difference between harmful and helpful fires, causes and consequences, and local strategies to address forest fires. One of the key aspect of this guide is to keep it simplistic and include local stories of people that are relatable. Most importantly, the guide can help readers to accept that forest fires are not a foreign concept, that it is a collective responsibility and that there are cost-effective measures to prevent or manage fires.
 - Forum this forum is intended to discuss a plan of action for forest fire management. Such as forum could serve as springboard for collaboration of key government agencies in forming a national working group. The forum could discuss the ongoing realities, inventory of existing resources, information dissemination mechanism, identification of types of information to be shared/disseminated, establishment of procedures for monitoring and reporting of fires, development of a national fire danger rating system, and establishment of mechanisms for cooperation in combating forest fires.
 - 1.3 Ask Senior Managers: It is an opportunity for staff members to present questions anonymously to senior managers via team

- briefing meetings or intranet. This will require that Managers will receive capacity development on interviewing, public speaking, interpersonal skills, negotiation and conflict resolution skills. In turn, staff members will be guided on operations, management, monitoring and other relevant elements within the legal framework.
- 1.4 *Employee Appreciation Awards*: An employee appreciation day will be established, where regional offices will gather to celebrate the work of forest-fire fighters and other supporting members. The occasion will allow others to recognize core values being practiced by team members and give tangible recognition for their work and professionalism. Micro-bonuses or small monetary rewards can be presented by government to honour employees valuable contribution and motivate and encourage other members of staff.
- 2. Clear & Consistent Communication: Previous communication strategies and awareness campaigns failed to meet objectives and were shortlived, fracturing sustained links between government and people. A communication unit needs to be established as a single point of contact and primary source of information and communication with the general public. Internally, this unit will ensure that staff understand the organization priorities, recognize that effective communication is integral to professionalism, performance and productivity, encourage the right communication culture and foster cross-team collaboration. Externally, the unit will strengthen stakeholder relations and seek to improve the overall credibility of the department. A communication unit will comprise of a communication coordinator and an information officer, who will be responsible for managing internal and external stakeholder communication. One of the key responsibility is to manage community engagement, helping to direct and track feedback. The unit will provide regular information to the public, design result-based communication campaigns and implement, monitor and update the department's communication strategy.
 - 2.1 Staff Forum: Staff engagement is presently low and engagement primarily occurs at the senior management level. True communication allows two-way communication. An integral part of staff engagement is providing forums for staff to voice their concerns and submit recommendations. This is vital to help management to identify weaknesses and strengths, which supports the decision making process. Quarterly round-table sessions form part of the process leading up to the annual Staff forum. The quarterly round-table session invites about 15 to 20 staff members to informal sessions to share their views on ongoing programs and projects with the Chief Forest Officer (CFO).
 - 2.2 Collaborative Communication Tools: As the Department's work expand, so does its need to interface with multiple players at one given time and do so more frequently and efficiently. Often times, email messages can become cumbersome and delayed responses can impact on the quantity and quality of work. A workplace collaboration

tool is needed to share files, data, ideas, and provide updates on multiple devices. It should be able to combine formal and informal information sources in one location for greater real-time information-sharing. Several software products are available and could be used on desktop, websites and mobile phones. This will allow staff to be constantly engaged and remain in-tune to tasks, actions, and events. One of the most important features is file-sharing and conferencing capabilities, which can be linked to other information sharing platforms, such as Dropbox, Google Drive, and SharePoint. As a full-service collaboration platform, e.g. Bitrix, Smartsheet, Slacs, FD teams will have one integrated communication system for employees. It counters the reply-all e-mail chain scenario and provides persistent chatrooms or channels organised by topic. This can reduce internal emails by almost 40% and increase employee engagement by 50%.

- 2.3 Department Development Day (3D Day): This is a biannual event that offers an opportunity for staff to learn about two specific topics related to the work of the department. This event can help to share best practices, identify and review case studies in forest management. It is also an opportunity for the staff to make recommendations on policies and operations in a formal manner. Officers will be responsible for contributing ideas and representing their unit, bridging staff understanding and practices.
- 2.4 Stakeholder Directory: The Forest Department will develop a national stakeholder contact list that provides information on all interested and affected stakeholder groups, commercial companies and institutions. The list will also provide information on who will be engaged and at what stage of the engagement process will certain groups become more involved. This list can help to track how the Forest Department engage stakeholders and help indicate which groups have not been sufficiently engaged.



COMMUNICATION CHANNELS

This section outlines the array of existing and future communication channels that the Forest Department will use to engage internal and external stakeholders. The tools are dependent on stakeholders' communication needs, content, nature, and cultural and time-sensitivity of the information. Notably, this list is representative but not exhaustive of the available communication resources.

Rural communities

- Communication tool
- Community conversation
- Soap opera placement
- Traditional entertainment
- Media entertainment, e.g. folk stories, folk music, drama and play
- Storyboards and testimonials
- Face to Face interaction forums, e.g. workshops, trainings, demos
- Community Radio programs, morning talk shows, discussion programmmes, jingles, radio features using rural and
- community FM stations
- Local festivals
- * Traditional and religious associations
- Marketplaces
- Peer to-peer information exchange
- Organizing Events and direct dialogue.
- Community education
- School-based competitions
- Loud speaker for special announcement
- Visual materials-posters and videos

Urban Areas

- Radio Shows
- Television News Programs
- School Visits
- Billboards
- Social Media
- School-based Competition
- School minim media
- Organized events =, e.g. Seminars, Conferences
- Collateral Materials

Partners, Interface Stakeholders

- Websites
- ❖ Social Media
- Emails
- ❖ E-Newsletters
- Meetings
- Briefings
- Workshops
- Trainings
- Conferences
- Video Chats
- Reports
- Annual General Meeting

Media	* Tra	inings
		rkshops
		nillirizations Tours
	Med	dia Briefings
		eWatch partnerhsips
		dia Award Program
	Med	dia Invite
Community Leaders	• NA	VCO/DAVCO meetings
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MESSAGES

Messages is the cornerstone of any communication program, setting a set of consistent, compelling messages for use in all proactive and reactive communications. Messages are informative and actionable where appropriate so that, in addition to educating, they will motivate the audiences to act on what they have learned. In several of the messages, it asks the audiences to become informed and be supportive of agencies' forest fire efforts. The messages are designed to encourage local residents to get involved in forest fire risk reduction activities or preparedness activities.

These key messages are general concepts that agencies and organizations are encouraged to incorporate into their discussions, print materials, and other resources used in communication, education, information, and prevention efforts. Key messages are umbrella statements that require additional supporting points and examples for context. Supporting points provide detail for the key messages and enable communicators to further explain the roles of: wildland fire in the ecosystem, land management agencies, tribes, and partners.

(See Annex IV: Messages)



MONITORING & EVALUATION

The main objective of this Monitoring and Evaluation plan is to identify mechanisms necessary to ensure monitoring and compliance with the communication objectives, and to establish the necessary directives for assessing communication actions. This built-in monitoring and evaluation component has been included as a means of checking accountability and making adjustments and improvements over time. To do so, the evaluation plan compares the communication objectives and baselines to its campaign results.

Key objectives were listed and evaluation points were assigned. The evaluation varies based on the specific activity being covered. In some instances, while some indicators are identifiable, some are not easily quantifiable. In these cases, the mechanisms for measurement depends on the metric they are being compared against.

Roles & Responsibilities Ministry of Agriculture, Forestry, Fisheries, the Environment, Sustainable Development and Climate Change: Define a common assessment framework of the communication plan ☐ Identify funding for the communication evaluation process participate in group consultation on the communication plan review final performance reports to include in future development planning Forest Fire Working Group manages continuous dialogue for collaboration among key stakeholders serves as the information source for forest fire communications Act as a monitoring committee for the communication plan ☐ Initiate the assessment of the communication plans Examine the system of monitoring and assessment indicators of the communication by applying instructions and mechanisms ☐ Monitor the developments and changes in the communication plan Forest Department Communication Unit Provide monitoring of the development and implementation of the communication plan Coordinate the assessment process by setting meetings and assessment send information to the monitoring committee as needed ☐ systematically monitor communication efforts and make adjustments as needed

legional Committees
develop communication plans for their area
☐ collaborates with other regional committees and National Working Group
on implementing communication strategy
1 0 0
artners in Forest Fire Communication
☐ Ensure the compilation of necessary information and documentation
☐ To send quantification of their own indicators of their activities
☐ Take part in development and implementation of specific communication
assessments
☐ Take part in discussions on lessons learnt and good practices.
Take part in discussions on ressons rearrit and good practices.

Evaluation Processes

There are three major forms of evaluation that were used:

- (i) Process evaluation has been applied to measure how well the communication plan is being implemented. It involves having regular review of communication activities and evaluation of overall performance, collaboration, development and implementation of activities in the plan. An approach that have been suggested is the use of lessoned learnt sessions.
- (ii) Direct evaluation, process evaluation and outcome analysis. The direct evaluation, which are measures against quantifiable goals, identified the number of activities as it relates to the goals.
- (iii) Because direct evaluation does not measure impact on the target audience, short-term and long-term outcome analysis have been included to help measure the impact of the effort. For instance, focus groups and surveys of rural residents will track unaided and aided awareness and public tendency to be influenced by a message. Surveys will also be conducted among special audiences such as farmers and community leaders as part of the evaluation process. Some other evaluation activities include pre-testing information materials, monitoring shifts in public opinion, policy changes, increased organizational and stakeholder participation, and improved institutional capacity.
- (iv) Other: Evaluations such as media analysis will be conducted.

The assessments can examine information, connections, timing, response or difficulties encountered in engaging internal and external stakeholders. The findings will be used to make changes as needed.



Figure 3: Evaluation Framework

LOGICAL FRAMEWORK

Logic frames have been developed to outline the steps and resources needed to achieve communication goals for this strategy. These frames help to identify the appropriate communication resources and steps that can be strategically integrated with other national forest activities. These help to identify points of evaluation, and help technical experts understand the role that communication efforts support national goals.

- Inputs include communication resources put into the project to support its implementation. These include assets such as personnel, finances, and equipment, as well as experience and expertise.
- Activities include actions to perform to achieve the project's goals. Activities could include adapting messages to key audiences or creating messages, materials, and their dissemination.
- Outputs are first-level results including quantification of activities. Outputs could include the number of posters disseminated, number of staff trained, or numbers of websites linking to FD content.
- Outcomes include second-level results that occur from communication outputs. These are usually changes in audience knowledge, attitudes, or behaviours taken by target audiences based on exposure to the communication messages or materials. These changes are necessary to achieve impact.
- Impact refers to longer term goals of reducing poor fire practices, increasing community involvement in managing forest fires and forest fire resilience. These impacts require, but routinely transcend, communication inputs, activities, outputs or outcomes.

(See Annex VI: Logical Framework attached)

ANNEX I: Situational Analysis- Belize's Causes, Impacts & Challenges of forest fire risk

Drivers of forest fire risk

- Climate variability
- Biofuel accumulation
- Pest infestations
- Longer dry seasons
- Land clearing for agriculture
- Inadequate areas being used for agriculture
- Fragmented protected areas
- Heavy reliance on fire

Causes

- Fires for land-use purposes:
 - pasture rejuvenation,
 - o agricultural clearing,
 - crop harvesting or annual crop preparation
 - o controlling pests.
- Anti-social behaviour:
 - Escaped agricultural fires
 - Illegal burning of waste disposal
 - careless disposal of cigarettes,
 - o arson
 - o illegal use of fires for hunting
 - o accidental camp fires
- Natural causes: lightning fires

Impacts

Social

- Loss of veld products negatively affecting rural livelihoods loss of property including huts, harvested crops, fences and loss of livestock, Wildlife and human lives
- Economical:
 - Loss of commercial trees for harvesting
 - Impact on national and local economic due to loss of resources
 - Loss of feed and habitat with negative effects on wildlife and tourism and also the livestock industry
- Ecological
 - Frequent burning leads to land degradation
 - negative effect on water resources
 - negative effect on soil productivity

Challenges

- planning:
 - lack of endorsement of forest fires policy and strategy
 - lack of planned forest management techniques
- Legislations:
 - Lack of harmonized legislations
 - Lack of clear roles & responsibilities of agencies
- Research & Information
 - lack of research, data and records on causes, impacts and cost of fire suppression and burning
 - o lack of fire map
 - o lack of updated forest fire risk assessment
- Coordination:
 - Poor coordination of forest fire management
 - o lack of coordination on response plan

Drivers of forest fire risk	Causes	Impacts	Challenges
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- forest Uncoordinated burning in communal areas.
- Capacity
 - o lack of human and financial resources
 - limited capacity for effective fire-fighting response
 - o risk of human life and property
 - Low capacity to establish the cost of fire damage in monetary value
 - Limited key infrastructure e.g., roads, making access and monitoring difficult to achieve
- Monitoring & Enforcement:
 - Low monitoring and enforcement efforts
 - Lack of skills and capacities to investigate causes of fires

ANNEX I (A): PUBLIC PERCEPTIONS OF FOREST FIRES

A unique feature of the strategy is highlighting two sides of the coin in relation to public perceptions on forest fires. For instance, these perspectives are mainly divided by misconceptions and the realities. They can be differentiated by the ecological perspective of harmful and helpful forest fires. Throughout the Communication Strategy these fundamental issues remained a pertinent basis for the development of key strategies. The perspectives are divided in the table below:

• FACTORS	HARMFUL FOREST FIRES	HELPFUL FOREST FIRES
Suppression	 In the past, forest fires were prevented and suppression efforts were taken immediately. 	 Today, experiences with forests worldwide and scientific data have uncovered that fires regularly suppressed can burn much hotter and more dangerously when a fire finally does break out.
• Causes & Effects	 Although four out of five wildfires are started by people, they can occur naturally. A combination of factors can ignite forests, such as dry weather and drought, strong winds; and warm temperatures. However, it is human activities that present the most harmful forest fires. Hunters poor fire practices, uncontrolled agricultural burning, poor management of campfire or cigarettes are all harmful conditions to ignite longer and stronger forest fires. 	 Naturally occurring wildfires play an integral role in nature by returning nutrients to the soil by burning dead or decaying matter. Forest Firefighters fight these fires using a combination of techniques, such as deliberately starting fires in a process called controlled burning and reducing fuel loads, enabling a new generation of seedlings to grow and many other benefits.

A unique feature of the strategy is highlighting two sides of the coin in relation to public perceptions on forest fires. For instance, these perspectives are mainly divided by misconceptions and the realities. They can be differentiated by the ecological perspective of harmful and helpful forest fires. Throughout the Communication Strategy these fundamental issues remained a pertinent basis for the development of key strategies. The perspectives are divided in the table below:

• FACTORS	HARMFUL FOREST FIRES	HELPFUL FOREST FIRES
Controlled vs Uncontrolled Fires	 When fires are uncontrolled, they are damaging and dangerous, resulting in: Damaged or destroyed trees Charred, damaged soils Floods or landslides in areas where the soil is most severely burned Damaged crops, homes and other structures Health problems due to smoke, which can irritate the eyes and respiratory system and worsen chronic heart and lung diseases, including asthma. 	Controlled Forest fires help in the natural cycles, such as: Release seeds or otherwise encourage the growth of certain tree species, e.g. pine trees Clear dead trees, leaves, and competing vegetation from the forest floor, so new plants can grow Break down and return nutrients to the soil Remove weak or disease-ridden trees, leaving more space and nutrients for stronger trees Keep tree stands thin and open, letting more sunlight in so trees stay healthier Improve wildlife habitat
Perceptions of 'fires'	 There are many confusing messages about forest fires. Constant messages pertaining to "fire prevention" campaigns preach the dangerous destruction of fires. They have come to see no difference between forest fire and fire. Both are immediately perceived as something negative for both the environment and people. Forest fire is only measured through the ecological losses, which is perceived as irreparable, regardless of the degree of intensity with which forest fire may burn. 	• This misconceptions regarding fires have not been dispelled. Fires are hardly ever seen as helpful except for the farmers, who welcome fires as the cheapest and fastest method to clear forested land, and foresters, who see prescribe burning as a necessary technique for forest management. When efficiently used as a management tool both for agriculture and forests sectors, fires can serve build resilient forest ecosystems, provide opportunities for biodiversity conservation, and reduce forest fuel loads that prevent of forest fires.

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ANNEX II: FOREST FIRES STAKEHOLDER ANALYSIS

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
Private Landowners (forested areas)	Primary External	Low	Low	High	Lack understanding of the difference between helpful and harmful fires Although there is strong support for proper management, there is less support for coordinating forest management outside personal property boundaries. Use of Poor fire techniques	Increase community acceptance of prescribed fire impacts and the positive benefits of managed fire Increase knowledge about steps landowners can take to reduce risk of fires Increase landowner participation in creating (desired actions) in (location).	awareness support training consultancy input to policies/strategies social marketing facilitation of efficiency/productivity improvement	Sectorial Meetings Community Meetings Emails Television Radio Letters
Private Developers & Land investors	Primary External	Low	Low	High	Lack understanding of the difference between prescribed fire and wildfire Strong support for proper management, but less support for coordinating forest management outside personal property boundaries. Poor fire management techniques	Increase knowledge about steps landowners can take to reduce risk of fires Increase landowner participation in creating (desired actions) in (location).	awareness support training consultancy input to policies/strategies social marketing facilitation of efficiency/productivity improvement	Sectorial Meetings Community Meetings Emails Television Radio Letters
Forest Licensees	Primary External	Medium	High	High	Negligent use of fires Indifference unless they are directly affected. Poor relationship and attitude towards fire management.	Increase understanding of fire-dependent forest systems Increase understanding of wildfire risks	awareness support training consultancy	Sectorial Meetings Community Meetings Emails Television Radio Letters

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
					Lack of knowledge regarding the causes and effects of fire Lack understanding of the difference between harmful and helpful forest fires.		input to policies/strategies social marketing facilitation of efficiency/productivity improvement	
Agricultural Landowners/ Industrial farming (large scale)	Primary External	Low	Low	High	 set fires for forage improvement or crop residue removal and land clearing. Commonly set fires during hot and dry periods of high fire risk, leading to large, uncontrolled wildfires Poor fire management techniques or negligent use of fire Lack of knowledge regarding fire management techniques 	 Increase understanding of wildfire risks Increase knowledge about steps landowners can take to reduce risk Increase awareness of laws pertaining to forest fires Increase participation in preventive measures and better land management practices 	 awareness support training input to quality enhancement facilitation of efficiency/productivity improvement awareness of pedagogic options 	Radio (local) Community Meetings Workshops Trainings
Subsistence, Milpa and Traditional Farmers	Primary External	Low	Low	High	burning of household or garden refuse Poor fire management techniques or negligent use of fire Lack of knowledge regarding fire management techniques Reluctance to use alternative agricultural practices Lack of resources Inability to invest in resources for alternative practices	Increase knowledge about steps farmers can take to reduce risk Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies marketing inputs into design studio input to quality enhancement facilitation of efficiency/productivity improvement	Radio (local) Community Meetings Workshops Trainings

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
							awareness of pedagogic options	
Sugarcane Farmers	Primary External	Low	Low	High	Poor fire management techniques or negligent use of fire Lack of knowledge regarding fire management techniques Reluctance to use alternative agricultural practices Inability to invest in resources for alternative practices	Increase knowledge about steps farmers can take to reduce risk Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies marketing inputs into design studio input to quality enhancement facilitation of efficiency/productivity improvement awareness of pedagogic options	Radio (local) Community Meetings Workshops Trainings
Mennonite Communities	Primary External	Low	Low	High	Poor fire management techniques or negligent use of fire Lack of knowledge regarding fire management techniques Lack of knowledge regarding the impacts of fires on socio-economy Reluctance to use alternative agricultural practices	Increase knowledge about steps farmers can take to reduce risk Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires	 awareness support training consultancy input to policies/strategies social marketing input to quality enhancement 	Radio (local) Community Meetings Workshops Trainings

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
					Inability to invest in resources for alternative practices Lack understanding of the difference between prescribed fire and wildfire	Increase involvement in forest fire prevention and suppression activities	facilitation of efficiency/productiv ity improvement	
KBA Buffer Communities	Primary External	Low	Low	High	 unattended or improperly extinguished campfires carelessly thrown cigarettes Poor fire management techniques view fires that affect them to be urgent threats that need to be addressed Fire is perceived by most with caution, if not outright fear. 	Increase knowledge about steps farmers, hunters and residents can take to reduce risk of forest fires in their area. Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training consultation input to policies/strategies marketing inputs into design studio input to quality enhancement facilitation of efficiency/productiv ity improvement	Radio (local) Community Meetings Presentations
Hunters	Primary External	Low	Low	High	fires started by illegal hunters to aid hunting operations Indifference unless they are directly affected. When they are affected forest fires becomes an issue.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	 awareness support training mentoring consultancy input to policies /strategies input to quality enhancement 	Radio (local) Community Meetings Presentations

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
							facilitation of efficiency/productiv ity improvement	
Rural Women	Primary External	Low	Low	High	Concern for health and safety aspect but do not recognize their roles in use of fire and management of fires Poor fire uses view fires that affect them to be urgent threats that need to be addressed Fire is perceived by most with caution, if not outright fear.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies social marketing input to quality enhancement facilitation of efficiency/productivity improvement	Radio (local) Community Meetings Presentations Craft Meetings
Village Councils and Alcaldes	Primary External	Low	Low	High	Lack of knowledge regarding forest fires Lack of capacity and resources to deal with local fires Understanding their roles and responsibilities in forest fires	Partake in leadership roles as it relates to forest fires Increase involvement in building public awareness on fire prevention and suppression Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productivity improvement	NAVCO Meetings Community Meetings Workshops Trainings

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
							awareness of pedagogic options	
Protected Areas Recreational Users and Tourists	Primary External	Low	Low	Average/High	Lack of knowledge regarding forest fires Lack of understanding of impacts of wildfire on environment and natural resources Indifference unless they are directly affected.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awarenessinformation	Brochures Pamphlets Postcards Signs
Hoteliers/Resort Owners & Managers	Primary External	Low	Low	Average/High	 Lack of knowledge regarding forest fires Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Indifference unless they are directly affected. Lack of understanding of their roles and responsibilities in forest fire prevention and suppression. 	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training input to quality enhancement facilitation of efficiency/productiv ity improvement	Brochures Meetings Trainings Workshops Video presentations Radio ads Social media
Eco-Tour Guides	Primary External	Low	Low	High/average	Lack of knowledge regarding forest fires Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Indifference unless they are directly affected.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires	 awareness support training mentoring input to quality enhancement 	Brochures Meetings Trainings Workshops Video presentations Radio ads Social media

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
					Poor fire management techniques (campfires)	Increase involvement in forest fire prevention and suppression activities	facilitation of efficiency/productiv ity improvement awareness of pedagogic options	
Primary School Students	Secondary External	Low	Low	Low	Lack of knowledge regarding forest fires Lack of understanding of impacts of wildfire on socio-economy Low risk perceptions Lack of understanding of fire management systems Indifference unless they are directly affected. When they are affected forest fires becomes an issue. Overburden with curricula Lack of training in environmental education Limited relevant socio-cultural sensitive resources for use in the classroom.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring input to policies/strategies social marketing input to quality enhancement facilitation of efficiency/productivity improvement awareness of pedagogic options	Class presentations Guest speaker visits Field trips and tours Exhibits Cultural presentations Video presentations Informational materials Competitions
Secondary School Students	Secondary External	Low	Low	Low	Lack of knowledge regarding forest fires Lack of understanding of impacts of wildfire on socio-economy Low risk perceptions Lack of understanding of fire management systems Indifference unless they are directly affected. When they are affected forest fires becomes an issue. Overburden by other environmental issues Limited training on this topics and other environmental topics	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring input to policies/strategies social marketing input to quality enhancement facilitation of efficiency/productivity improvement	Class presentations Guest speaker visits Field trips and tours Exhibits Cultural presentations Video presentations Informational materials Competitions

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
					Limited relevant socio-cultural sensitive resources for use in the classroom.		awareness of pedagogic options	
Tertiary School Students/Academ ia Vocational Institutions	Secondary External	Medium	Low	Average	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	 awareness support training mentoring awareness of pedagogic or andragogic options 	Class presentations Guest speaker visits Field trips and tours Exhibits Cultural presentations Video presentations Informational materials Competitions
Political Leaders & Organizational Policy makers	Secondary Internal	Medium	Medium	High	 Inability to establish clear legislation about tenure and land use failure to establish and apply managerial regulations for agriculture practices lack of planned development and incorporation of fire hazard in sectoral policies, especially in land use planning Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression 	 Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities Increase understanding of the alteration of natural fire regimes and its role in current fire events. 	awareness input to quality enhancement facilitation of efficiency/productiv ity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
NEMO/DEMO/DA NA	Secondary External	Medium	Low	Average	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities Increase Collaborate effectively with other governments and local partners Engage in the development of national emergency plan	awareness support training consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productivity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
NAVCO/DAVCO	Primary External	Low	Low	High	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities Collaborate effectively with other governments and local partners Engage in the development of local emergency plan	awareness support training mentoring consultancy input to policies/strategies enhancement facilitation of efficiency/productivity improvement awareness of pedagogic options	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
Agriculture Department	Secondary External	Medium	Low	High	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression lack of serious investigation of agricultural fire causes Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productivity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
National Fire Service	Secondary External	Medium	Low	Low	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities Increase understanding of the alteration of natural fire regimes and its role in current fire events.	training mentoring consultancy input to policies/strategies input to quality enhancement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
Law Enforcement Agencies	Secondary External	Low	Low	Low	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Roles and responsibilities in forest fire prevention and suppression lack of serious investigation of agricultural and forest fire causes	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productivity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
BTB and BTIA	Secondary External	Low	Low	High	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productiv ity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
Department of Environment	Secondary External	Medium	Medium	Average/high	 Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression 	Increase understanding of the alteration of natural fire regimes and its role in current fire events. Increase awareness of the direct and indirect impacts of forest fires on communities	 awareness support training consultancy input to policies/strategies 	Emails Newsletters Meetings Workshops, Conferences, Seminars

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
					Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	input to quality enhancement facilitation of efficiency/productiv ity improvement awareness of pedagogic options	Working Groups Trainings Video presentations Information materials
Forest Department staff	Primary Internal	Medium	Medium	High	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. lack of serious investigation of forest fire causes limited data on forest fires in Belize inability to calculate the real cost of forest fires direct and indirect impacts. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities Increase understanding of the alteration of natural fire regimes and its role in current fire events.	awareness support training mentoring consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productivity improvement awareness of pedagogic options	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
Ministry of Finance, Economic Development	Secondary	Low	Low	Average	limited data on forest fires in Belize inability to calculate the real cost of forest fires direct and indirect impacts. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management	 awareness support input to policies/strategies input to quality enhancement 	Emails Newsletters Meetings Workshops, Conferences, Seminars

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
						Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	facilitation of efficiency/productivity improvement	Working Groups Trainings Video presentations Information materials
Ministry of Education	Secondary	Low	Low	Low	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention Lack of involvement in public education on fire prevention.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies inputs into design studio input to quality enhancement facilitation of efficiency/productiv ity improvement awareness of pedagogic options	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
Public Utilities Companies (e.g. BEL)	Secondary	Low	Low	Low	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Lack of involvement in public awareness of fire prevention.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training input to policies/strategies input to quality enhancement facilitation of efficiency/productivity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	Dependency on Forest Resources	What is the present behavior? (Behavioral or Psychographic)	What is the desired behavior? Outreach Goal	Communication Needs	What media channel do they mostly use? Gatekeepers
Rural Communities	Primary	Low	Low	High	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of roles and responsibilities in forest fire prevention and suppression	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies community behaviour marketing input to quality enhancement facilitation of efficiency/productivity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
Media	Secondary	Low	Low	Average	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected.	Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	 awareness support training mentoring consultancy marketing input to quality enhancement 	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials

Stakeholder group	Primary or Secondary	Awareness Level	Involvement	What is the present behavior? (Behavioral or Psychographic) What is the desired behavior? Outreach Goal Communication Needs			What media channel do they mostly use? Gatekeepers	
					 Lack of understanding their roles and responsibilities in reporting and informing the public on forest fires. 		facilitation of efficiency/productivity improvement	
Forest CBOs & NGOs	Primary	Medium	Medium	High	Lack of understanding of impacts of wildfire on socio-economy Lack of understanding of fire management systems Lack of knowledge regarding forest fire prevention and suppression Lack of knowledge regarding fire uses and techniques Indifference unless they are directly affected. Lack of understanding of Roles and responsibilities in forest fire prevention and suppression	Increase understanding of the alteration of natural fire regimes and its role in current fire events. Increase awareness of the direct and indirect impacts of forest fires on communities Increase awareness of their roles and responsibilities in forest fire management Increase awareness of laws pertaining to forest fires Increase involvement in forest fire prevention and suppression activities	awareness support training mentoring consultancy input to policies/strategies input to quality enhancement facilitation of efficiency/productiv ity improvement	Emails Newsletters Meetings Workshops, Conferences, Seminars Working Groups Trainings Video presentations Information materials
Donors	tertiary	High	High	High	Lack of information and data on forest fires in the region	Increase data and information on the direct and indirect impacts of forest fires on communities Increase access to funding for forest fires management activities Influence the economic and political direction	Information sharing	Emails Newsletters Meetings Workshops, Conferences, Seminars Trainings Video presentations Information materials

ANNEX III: Communication Tools Frequency Chart

ТО	OLS/RESOURCES	INTENDED AUDIENCE	DAILY	WEEKLY	MONTHLY	QUARTERLY	ANNUALLY	AS NEEDED REGULARLY
EX	FERNAL COMMUNICATION TOOLS							
1.	COMMUNITY MEETINGS	Community						•
2.	COMMITTEE/PANEL MEETINGS	Partners, Community Leaders		•	•			
3.	SOCIAL MARKETING EFFORTS:	Public			•	•		
4.	EVENTS	Public						•
5.	PARTNERSHIP AGREEMENTS	Partners, Community Leaders, GoB agencies, Donors, Sponsors						•
6.	SIGNAGE/BANNERS/POSTERS	Public, Partners, Communities, Staff						•
7.	MEDIA BRIEFINGS	Press, Public		•				
8.	VOLUNTEER PROGRAMS	Public, Community						•
9.	WEBSITE UPDATE	Public	•					
10.	SOCIAL MEDIA POSTINGS (FACEBOOK, TWITTER, INSTAGRAM)	Public	•					
11.	SURVEYS	Community, partners, staff					•	
12.	VIDEO PROJECTS (STORYLINE)	Staff, community residents, partners		(•			
INT	ERNAL COMMUNICATION TOOLS							
13.	•	Staff, partners						
14.	ANNUAL REPORTS	Staff, partners					•	
15.	EVENT CALENDAR:	Staff, partners, public					•	
16.	STAFF REPORTS	Staff			•			

17. FOREST DEPARTMENT AGM	Staff •
18. TEAM-BUILDING EXERCISES	Staff
19. STAFF TRAININGS	Staff, inter-government agencies, partners
20. WEEKLY STAFF MEETINGS	Staff at district and program level •
21. MONTHLY MEETINGS	Senior Management •
22. QUARTERLY MEETINGS	Program and Ranges •
23. ANNUAL MEETINGS	All Staff •

ANNEX IV: KEY MESSAGES

General	Risk Reduction	Readiness
 Forest Fires Communication is an important tool in the development of the necessary technical, legal, and other supportive structures to spearhead local forest fire management initiatives including the capability for a quick response to forest fire threats. We all have the responsibility to share reliable and forest fire information among all internal and external stakeholders. 	Establishing sound internal communication systems is critical for effectively managing forest fire risk and crisis communications.	 Prescribed fires are steps to reduce risks and benefit from fires. Safety first, especially during the fire season Our health and safety improve when we prevent forest fires. We can save lives and property if we prevent forest fires. By better managing forest fires, we increase our opportunities for sustainable livelihoods!
 Forest Fire Management requires the participation and involvement of all actors involved; FD and its forest fire management partners directly network to share data, knowledge, experiences and best practices on forest fire management; NFFWG is an inclusive mechanism to facilitate the national coordination of forest fire management and guide the implementation of the national forest fire policy and strategy. 	 Forest Fires can be a natural helpful process or a harmful destructive event if not properly managed: fire is a natural process that has helped to shape forests for centuries naturally occurring fires (lighting) are either suppressed of left to burn fires can be important for the survival of some wildlife species periodic small fires can stimulate forest growth, reproduction of plants and provide home for some wildlife fires behave differently in different areas of the country fires can be affected by fuel loads, climate and weather, and the type of vegetation fires kill young trees that may later compete with older trees for water and nutrients in the soil. fires kill trees that are old, sick or infested with diseases from spreading to other healthy trees. 	 forest fires – red flag warning, listen to the forest fire forecast or visit www.forest.gov.bz. Managing Forest Fires is a collective responsibility Do your part to prevent forest fires – learn and practice proper fire use! Climate Change is just another reason why we need to prevent, be better prepared, and protect our love ones from forest fires.

The Forest Department reduces risks associated with severe wildfires by conducting treatments such as mechanical thinning and prescribed fire and managing wildfires to achieve multiple objectives

- or maintain natural fire regimes, facilitate land management and reduce the risk of large-scale, destructive forest fires
- The Forest Department works closely with other partners to predict and mitigate the impacts on individuals and communities during forest fire season

- Forest fire management could only be improved if there are sound mechanisms for collaboration and coordination between and among stakeholders;
- Forest Fire Management Committees (FFMCs) at the village and district/regional levels are comprised of community leaders, the Forest Department, other relevant government agencies with responsibility for land management, fire prevention and suppression, community development, CBOs/NGO's and private sector.
- The latest Forest Fire information can be accessed online at the Forest Department website.
- The Forest Department update its stakeholders regularly on current and ongoing forest fire management initiatives countrywide.
- Together educating communities about forest fires!

- The way we use fire has resulted in destruction of forests
- Bigger wildfires -Burn More Forest -Destroy livelihoods
- Better managed fires burn less forests- support livelihoods
- Unwanted harmful fires destroy our future, but managing fires can help to secure it!
- The higher the fuel load the greater the devastation and threat of forest fires
- The closer you are to fire prone areas, the higher the risk and greater your responsibility to reduce that risk
- The closer you live to fire-prone areas, the greater the need for you to understand and join efforts to proactively manage fires in your area.
- We reduce the risks to human health and safety when we reduce the adverse effects of fires.
- Stop Escape Fires before they become extreme fires
- Know the risks and take steps to prevent forest fires

- Fire is a management tool that we need to learn to use wisely
- Fire is an important component of the Belizean rural and agricultural landscape and has been used as an important tool in the pursuit of rural and traditional livelihoods.
- When fire is used inappropriately, it is a threat to rural livelihoods.
- Fire laws are not only to protect forests but also protect you, your property and your family!
- o Landowners are required by law to know the and adhere to fire laws
- o Persons found burning illegally will be subjected to penalties
- Landowners need to know their rights and responsibilities in reducing fire hazards and supporting fire management efforts.
- landowners may need to conduct controlled fires or prescribed fires to prevent catastrophic forest fires.
- There are also non-fire treatments that can be used to prepare land.
- We can use fire responsibility for sustainable silviculture, agriculture, livestock and watershed management and biodiversity conservation.

- Forest fire management requires participatory approaches, involving public and private landholders, community leaders and the relevant authorities mandated by legislation or policies.
- The management of forest fire is promoted and developed at the community level in general as an integral component of community resource management.
- The necessary technical, legal, and other necessary supportive structures will be created and maintained to enable community governance systems to spearhead local wildland fire management initiatives including the capability for a quick response to wildland fire threats
- Every area with burnable vegetation under a land use management plan or resource management plan must have an approved Fire Management Plan.
- Community leaders recognize their leadership role in fire management and other land-use issues;
- Community leaders ensure a coordinated approach to effective fire management in areas where multiple organizations and stakeholders have responsibilities and interests in the fire programme;
- Community leaders ensure that consultation processes are open and accessible to stakeholders of different backgrounds and cultures (including indigenous and traditional rural communities);

- Forest fires do not recognize community boundaries, the difference between public or private lands or communal land. A concerted effort is needed to address it.
- Agencies, CBOs/NGOs, indigenous and local communities are working together to understand and address forest fires.
- Management
- The Forest Department manages forest fires for biodiversity protection.
- The Forest Department cannot do so alone. It needs help of our people and local communities.
- The Forest Department wisely cut trees to reduce the fire risks in some areas, enhance forest stands, restore grasslands, improve wildlife health and habitat.
- Understanding forest fire suppression methods is important in forest fire management
- Prescribe fires is only one tool forest managers and fire-fighters use to manage forest ecosystems
- Public forests are valuable resources for which we have a shared responsibility to protect it.
- Private land owners have a responsibility to conduct fire management techniques.

- Empowering women can drive forward the initiates to encourage better fire management practices and discourage destructive burning practices.
- Give voice to women in forest-related issues
- The participation of women is important in forest fire management
- Women are often guardians of forest resources
- Women know that forest fires threaten their forest resources
- Women feel losses when forest fires destroy crops and homes.
- Women have a right to participate in forest fire risk reduction, readiness and response
- Women hold important chores related to collection forest products and activities such as tree nurseries establishment, plantations, harvesting and farming
- Women officers working in the field are more conscious of the gender implications of their work.
- Women are particularly sensitive to gender issues which are considered as crucial factors in the planning and the implementation phase and in the identification of partnerships.

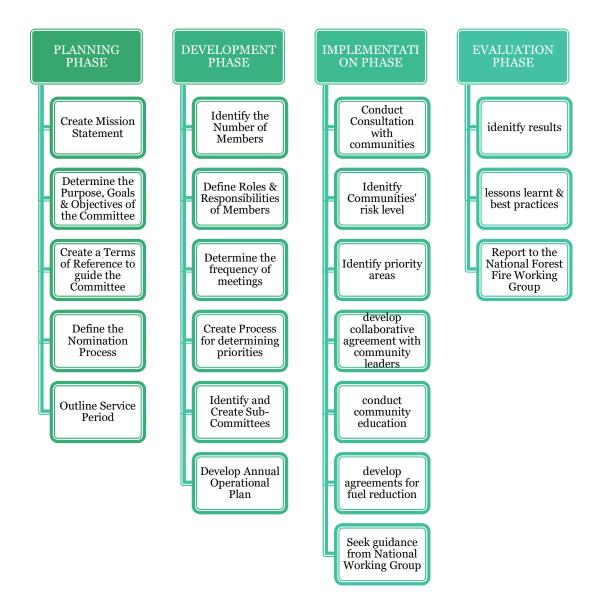
- Fire has a natural role in the ecosystem
- All components of the forest function as dynamic, inter-dependent systems
- The study of fire behaviour is important
- Fires need heat, fuel and oxygen to burn. Dead leaves and branches burn easily.
- The Forest Department uses science and ecology to understand and manage forest ecosystems
- People's actions can have serious effects on nature
- Large amounts of fuel loads place us at risk of extreme and intense forest fires.

- We need to be careful with fires
- leaving forest untouched has its consequences, risks and trade-offs
- frequent, high intensity fires will only increase with Climate Change we need to be prepared.
- Doing nothing is not the best solution.
- The cost of prevention is far less than the cost of suppression and the value of damage attributed to wildfires.

ANNEX V: COMMUNITY DIALOGUE GUIDE

VILLAGE LEADER	COMMUNITY-BASED ORGANIZATION OR NGO	FOREST DEPARTMENT STAFF
	BEFORE COMMUNITY DIALOGUI	E
 determine appropriate date identify venue and make logistical arrangements, (e.g. seating, moderator, translator) discuss the meeting agenda in consultation with FD and NGOs ensure that residents are invited to the meeting encourage residents to attend meetings 	 Coordinate activities for the meeting Ensure Village leader is informed and has given formal consent for meeting Support village leader in making arrangements for the meeting Support village leader to mobilize participation Provide updated and reliable information on the purpose of the meeting Collaborate with the Forest Department to maximise resources 	 prepare information resources that are culturally sensitive provide and introduce process and tools support agenda review liaison with CBOs/NGOs and Village Leaders
	DURING COMMUNITY DIALOGUE	
 Lead the dialogue If leader is not comfortable leading dialogue, introduce CBO or FD staff to present on forest fire topic Encourage residents to offer comments and concerns display points visibly for all participants to review 	 Explain the role of the CBO/NGO in forest fire management Introduce discussions on behaviours that are desired Lead a discussion on what can be done to achieve it. Provide answers to questions where possible. 	 utilize meeting registration sheet to record number of participants Set-up presentations and/or demonstration conduct presentation on GoB role in forest fire management and/or topic record questions, concerns and recommendations Take pictures of event as part of documentation (where and when possible)

VILLAGE LEADER	COMMUNITY-BASED ORGANIZATION OR NGO	FOREST DEPARTMENT STAFF
		 Ensure the agenda is followed and support facilitation when needed. Provide answers to questions where possible
	AFTER COMMUNITY DIALOGUE	
 Record summary or key points of the meeting Review meeting points with village council to determine follow-up activities or response Place information charts and posters for others to visibly see Visit with other community residents not present to ensure that they receive printed information Support follow-up dialogue and 	 Update community leaders on follow-up actions Track commitments of landowners and farmers Champion community residents for next dialogue 	 Provide meeting report to CFO Check with CBOs/NGOs to ensure that follow-up activities are being implemented Track commitments made at meeting



ANNEX VI: LOGICAL FRAMEWORK

ACT	IVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
1.	Communication Objective 1: To improve the management information with partners and		lities and confide	nce of FD staff to make better fire manageme	nt decisions and communicate forest fire
1.2. 1.3. 1.4. 1.5.	Conduct a series of sensitization sessions with staff on forest fire management, fire behaviour patterns, laws, enforcement activities and monitoring procedures in Belize; Organize and conduct a series of trainings for FD managers and staff on forest fire risk communication; conduct inter-personal skills and public speaking trainings for forest managers as it pertains to forest fire management; Develop the capacity of FD staff to develop and utilize fire information reporting tool for each area; encourage FD staff to develop and share reliable, clear and straightforward monthly information materials to relevant stakeholders; engage staff in the development of a forest fire communication protocol for internal stakeholders. Conduct training for staff on communication protocol for fire program Strengthening fire managers' capacity to communicate on forest fire programs	increase professional development of FD staff to communicate forest fire management issues to relevant stakeholders from 0% to 50% by 2022.	Knowledge, expertise networks, funding	 Number of communication training programs Number of trainings for fire managers Number of staff trained by fire managers Number of information materials produced on fire program Collection of pictures of forest fire activities Number of reports generated 	 number of staff informed and up-to-date on forest fire management Percentage of staff aware of forest fire initiatives and programs Percentage of staff confident about communicating on forest fire management issues to local communities Number of staff satisfied with information received from managers Number of managers providing information and feedback.
		epartment's internal	communication	mechanisms to report, share, and exchange in	nformation and experiences on forest fire
	management.	I	Managara data	. Deposit to replace various discret	
2.1.	create and establish Forest		Knowledge,	Report template reviewed and	number of staff informed and up-to-
	Communication Unit to develop and		expertise	approved	date
	provide consistent information at all		networks,	Number of weekly or monthly	 Number of staff providing
	levels internally and externally;		funding	briefings held	information and feedback

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
 2.2. Conduct communication workshops for the development of forest fire communication protocols; 2.3. provide timely and updated forest fire information on the FD official website. 2.4. establish information sharing mechanisms such as weekly briefings, monthly meetings, quarterly newsletters for the dissemination of forest fire information; 2.5. promote the achievements of the fire program. 2.6. share minutes of meetings with staff to be informed of on-going actions 2.7. engage staff in consultation meetings and workshops to review obstacles inhibiting the integration of forest fire management innovative ideas, tools, and practices in the planning process. 2.8. develop reporting standards and procedures for fire programs 2.9. establish repository platform for forest fire information that can be utilized by FD staff 2.10. ensure that fire communication components are incorporated in annual work plans 2.11. motivate staff to utilize various communication systems for reporting 2.12. develop reward program for staff providing reliable and timely reports on 	IARGEIS	INPUIS	 Number of Forest Fire meetings with staff held Number of communication tools used for dissemination Number of information materials produced on fire program Collection of pictures of forest fire activities Number of reports generated Creation and maintenance of webpage on forest fires 	 Forest Fire Communication Protocol document Number of staff providing information feedback regarding forest fire management programs Number of staff satisfied with information received from managers Percentage of staff aware of forest fire initiatives and programs
forest fire management initiatives.				
			ernal stakeholders to improve forest fire man aff and forest fire management partners in fire	
Communication Structures: 3.1. Conducting consultations with national forest management partners annually to review capacity	: increase collaboration between internal and external stakeholders	Knowledge, expertise networks, funding	 Seminar plan developed Number of invites for "Resilience" Seminar 	 Number of stakeholders attending Resilience Seminar Seminar Report generated Number of active members of the national working group

ACT	IVITIE	S	TARGETS	INPUTS	OUTPUTS	OUTCOMES
	3.2.	and training needs, and strategies to address these needs; Facilitating consultations for establishing a National Forest Fire Working Group (NFFWG) that will guide the implementation of the national wildland fire policy and	(intergovernmental agencies, partners, forest sector managers) for forest fire management from 0% to 50%		 Number of inter-government agencies collaborating on forest fire community programs Number of staff involved in community engagement on forest fire programs Percentage of information shared with media personnel 	 % of the degree of awareness of roles and obligations of key actors Percentage of stakeholders satisfied with collaborative communication activities Number of stakeholders participating in developing
	3.3.	strategy; Facilitating the establishment of District (regional) and Local Communities Forest Fire Management Committees to meet regularly to determine forest fire risks levels, identify capacity needs, review strategies and policies and submit recommendations to improve forest fire management at their levels;	by 2022.		against number of information disseminated by media on forest fire program Collection of pictures of forest fire activities Number of reports generated Number of stakeholders sharing resources for the development of fire communication	 community forest fire programs Number of communities satisfied with information received from managers Number of managers providing information and feedback Percentage of media reporting on forest fire initiatives and programs
	3.4.	assist with the collaboration between the National Wildland Fire Working Group and Regional Forest Fire Management Committees.				
		Communication Guidelines:	: increase	Knowledge,	 Seminar plan developed 	 Number of stakeholders
	3.6.	Developing communication matrix	collaboration	expertise	Number of invites for	attending Resilience Seminar
		for the National Forest Fire Working Group to strengthen national	between internal and external	networks, funding	"Resilience" Seminar Number of inter-government	 Seminar Report generated Number of active members of
		collaboration in forest fire	stakeholders	runuing	agencies collaborating on forest	the national working group
		management;	(inter-		fire community programs	 % of the degree of awareness of
	3.7.	Conducting consultation sessions to	governmental		Number of staff involved in	roles and obligations of key
		develop national communication	agencies,		community engagement on	actors
		protocols for forest fire quick	partners, forest		forest fire programs	 Percentage of stakeholders
	20	response; conducting consolation sessions	sector managers) for forest fire		 Percentage of information shared with media personnel 	satisfied with collaborative communication activities
	J.O.	with key stakeholders to identify and develop common terminologies to be used locally and internationally.	management from 0% to 50% by 2022.		against number of information disseminated by media on forest fire program Collection of pictures of forest	 Number of stakeholders participating in developing community forest fire programs Number of communities
4.					fire activities	satisfied with information
					 Number of reports generated Number of stakeholders sharing resources for the development of fire communication 	received from managers Number of managers providing information and feedback

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
				 Percentage of media reporting on forest fire initiatives and programs
Collaboration 4.1. Develop risk prevention prograconsultation with the National Emergency Management Organizations, Department of Environment, CBOs/NGOs and community leaders 4.2. enhance stakeholders' knowled and understanding of wildland policies, laws, and practices the communication programmes. 4.3. Expand stakeholders understate on forest fire fundamentals the trainings and information sesses 4.4. Provide opportunities for dialous between researchers, program managers, specialists, stakeholders implementing the national strates. 4.5. Encourage supporting condition consistent collaborative dialog among internal and external stakeholders to enhance understanding of roles, responsibilities and maximise sharing of resources;	between internal and external stakeholders (intergovernmental agencies, partners, forest sector managers) for forest fire management from 0% to 50% by 2022.	Knowledge, expertise networks, funding	 Seminar plan developed Number of invites for "Resilience" Seminar Number of stakeholders attending Resilience Seminar Seminar Report generated Number of inter-government agencies collaborating on forest fire community programs Number of staff involved in community engagement on forest fire programs Percentage of information shared with media personnel against number of information disseminated by media on forest fire program Collection of pictures of forest fire activities Number of reports generated Number of stakeholders sharing resources for the development of fire communication 	 percentage of active members of the national working group % of the degree of awareness of roles and obligations of key actors Percentage of stakeholders satisfied with collaborative communication activities percentage of stakeholders participating in developing community forest fire programs Number of communities satisfied with information received from managers Number of managers providing information and feedback Percentage of media reporting on forest fire initiatives and programs
Develop and utilize a smart collaborative tool for working and committees to become informed, keep up-to-date, and feedback to improve forest fire management; Develop and utilize a smart collaborative tool for working and committees to become informed, keep up-to-date, and feedback to improve forest fire management; Develop and utilize a smart collaborative to become	and external stakeholders (inter- governmental agencies, partners, forest	Knowledge, expertise networks, funding	 Seminar plan developed Number of invites for "Resilience" Seminar Number of stakeholders attending Resilience Seminar Seminar Report generated Number of inter-government agencies collaborating on forest fire community programs 	 percentage of active members of the national working group % of the degree of awareness of roles and obligations of key actors Percentage of stakeholders satisfied with collaborative communication activities percentage of stakeholders participating in developing community forest fire programs

ACTIVITIE	S	TARGETS	INPUTS	OUTPUTS	OUTCOMES
5.3.	external stakeholders through multiple communication channels. promote discussions, decisions and recommendations of the established District (regional) Forest Fire Management Committees and the local zone-based Forest Fire Management Committees through multiple channels;	management from 0% to 50% by 2022.		 Number of staff involved in community engagement on forest fire programs Percentage of information shared with media personnel against number of information disseminated by media on forest fire program Collection of pictures of forest 	 Number of communities satisfied with information received from managers Number of managers providing information and feedback Percentage of media reporting on forest fire initiatives and programs
5.4.	Organize and conduct collaboration sessions with inter-governmental agencies, such as NEMO, DoE, Agriculture Department, National Fire Service, National Meteorology Service, Lands & Surveys Department, Police Department, Belize Defence Force, and other key agencies for the development of a collaborative response to forest fires disaster, disaster criteria, and national preparedness plan for catastrophic forest fires.			fire activities Number of reports generated Number of stakeholders sharing resources for the development of fire communication	
5.5.	Develop link between forest fire management data base and existing website to increase access to information:				
5.6.	Host annual "Resilience" seminar for inter-government agencies, protected areas partners, forest sector stakeholders (e.g. forest licensees), community leaders, researchers, donor agencies and other relevant partners to assess forest fire management efforts and provide recommendations for improvement;				
5.7.	Create a platform for continued dialogue among key stakeholder group on forest fire management services, planning, communication, risk culture, research and development.				

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
 5.8. develop standard fire warning system for rural communities in consultation with fire experts; 5.9. Develop Forest Fire quarterly newsletters, reporting on diverse ways organizations and communities are overcoming forest fire management challenges; 5.10. Facilitate technical exchanges and opportunities for sharing of information on forest best practices or lessons learnt between and among key stakeholders; 5.11. Increase communication between Forest Department and stakeholders on forest fire management initiatives via online social media networks such as Facebook, Instagram, and YouTube channel. 				
6. Communication Objective: educate rural co	nmunity residents of t	the role of forest 1	fires, forest fire risks, prevention and protection	n measures against forest fires.
Preparation	Target: increase	Knowledge,	 Collection of pictures of forest 	percentage of residents who
 6.1. Consult with key government agencies and partners to develop and review appropriate forest fire prevention information for rural community residents; 6.2. Develop and disseminate information materials on forest fire risks and responsible and safe fire practices; 6.3. inform communities of fire regulations and residents role and responsibilities in the management of fires 	awareness of the role of forest fires, forest fire risks, prevention and protection measures against forest fires among rural community residents from 0% to 40% by 2022.	expertise networks, funding	fire activities Number of reports generated Number of stakeholders sharing resources for the development of fire communication number of information materials on forest fire risks and responsible and safe fire practices number of rural residents who received messages number of communities informed of fire regulations number of radio and television programs on forest fires before and during forest fire seasons;	recall forest fire messages percentage of residents aware of responsibilities in the management of fires. percentage of communities satisfied with information received from managers percentage of residents aware of forms of responsible and safe fire uses among rural community residents Percentage of media reporting on forest fire initiatives and programs

ACTIVITIE	S	TARGETS	INPUTS	OUTPUTS	OUTCOMES
				 number of storylines showcasing rural men, women or children in forest fire prevention; number of annual agricultural fires demonstrations of best practices in rural communities at high risks of forest fires; number of feature stories on local communities, government and non-government agencies number of community award programs minutes of community meetings number of forest fire education trainings for communities at risk 	
Developm		Target: increase awareness of the	Knowledge, expertise	 Collection of pictures of forest fire activities 	 percentage of residents who recall forest fire messages
6.4.	Develop and provide easy to recall, clear, cohesive and consistent radio and television forest fire prevention programs before and during forest fire seasons;	role of forest fires, forest fire risks, prevention and protection measures	networks, funding	 Number of reports generated Number of stakeholders sharing resources for the development of fire communication number of information materials 	 percentage of residents aware of responsibilities in the management of fires. percentage of communities satisfied with information
6.5.	create a connection between forest fires and socio-economic and health issues	against forest fires among rural community		on forest fire risks and responsible and safe fire practices	received from managers
6.6.	develop multimedia materials, including infographics, of the socio- economic and environmental losses that occur from escaped fires and the positive effects of controlled fires.	residents from 0% to 40% by 2022.		 number of rural residents who received messages number of communities informed of fire regulations number of radio and television programs on forest fires before 	fire uses among rural community residents Percentage of media reporting on forest fire initiatives and programs
6.7.	utilize storylines to showcase the efforts of rural men, women or children in forest fire prevention;			and during forest fire seasons; number of storylines showcasing rural men, women or children in	
6.8.	develop and support exchange programmes to expose communities ongoing and successful best practices initiatives;			forest fire prevention; number of annual agricultural fires demonstrations of best practices in rural communities at	
6.9.	organize and provide annual agricultural fires demonstration of best practices in rural communities at high risks of forest fires;			high risks of forest fires; number of feature stories on local communities, government and non-government agencies	

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
6.10. create community dialogue platform to improve relationship among Forest Department, partners and local communities; 6.11. create and provide community resilience chart presenting annual average of acres burnt and number of forest fires;			 number of community award programs minutes of community meetings number of forest fire education trainings for communities at risk 	
Implementation 6.12. organize and host community	Target: increase awareness of the	Knowledge, expertise	 Collection of pictures of forest fire activities 	 percentage of residents who recall forest fire messages
dialogues to discuss harmful and helpful fires in rural communities in partnership with local community	role of forest fires, forest fire risks, prevention	networks, funding	 Number of reports generated Number of stakeholders sharing resources for the development 	 percentage of residents aware of responsibilities in the management of fires.
leaders, government and non- government agencies responsible for forest fire management.	and protection measures against forest		of fire communication number of information materials on forest fire risks and	 percentage of communities satisfied with information received from managers
6.13. promote local communities, government and non-government agencies using sustainable	fires among rural community residents from		responsible and safe fire practices number of rural residents who	 percentage of residents aware of forms of responsible and safe fire uses among rural community
traditional or innovative forest fire prevention practices; 6.14. promote stories of how local	0% to 40% by 2022.		received messages number of communities informed of fire regulations	residents Percentage of media reporting on forest fire initiatives and
community residents adopt non-fire alternatives to prevent forest fires;			 number of radio and television programs on forest fires before 	programs
6.15. establish community award programs in recognition of communities successfully implementing forest fire prevention			 and during forest fire seasons; number of storylines showcasing rural men, women or children in forest fire prevention; 	
measures; 6.16. organize and conduct forest fire education trainings for volunteers in			 number of annual agricultural fires demonstrations of best practices in rural communities at 	
communities at risk.			high risks of forest fires; number of feature stories on local communities, government and non-government agencies	
			 number of community award programs minutes of community meetings 	
			 number of forest fire education trainings for communities at risk 	

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
 Communication Objective: Promote greater prevention, suppression and proper fire use. 		unity residents	and landowners in at-risk local communities in f	 fire management planning, preparedness,
7.1. Design and disseminate clear, coherent and cohesive educational materials on land owners' rights, privileges, and responsibilities based on their land tenure status. 7.2. Inform farmers and landowners of the forest fire risks and consequences of forest fires 7.3. inform farmers and landowners about fire laws and regulations to both inform of proper burning procedures and discourage the inappropriate use of fires. 7.4. design and disseminate educational materials on forest fire laws and regulations. 7.5. encourage absentee landowners to use online website to gather information on forest fires in their area and what they can do to manage private forested areas; 7.6. develop an online-detailed brochure for landowners that explains prescribe burns and the long-term benefits; 7.7. develop a tell-a-friend program for community to share messages with family, friends and peers; 7.8.	Target: increase the involvement of landowners in at-risk rural communities in forest fire management from 0% to 40% by 2022.	Knowledge, expertise networks, funding	 number of stakeholders' attending meetings number of consultation sessions held in at-risk communities number of consultation meetings with rural farmers of at-risk them to responsibly manage fires. report on discussions regarding the drafting of by-laws by Villages Councils to address forest fire management for their communities conduct necessary trainings for village council leaders to gain technical, legal systems to enable community governance and the capability for a quick response to wildland fire threats. Number of residents attending consultation meetings within at-risk communities number of community leaders organizing consultation sessions number of village council leaders involved in drafting by-laws number of farmers attending consultation sessions Report regarding recommended incentives to encourage village councils to engage in law enforcement Meeting Reports generated Collection of pictures of forest fire activities 	 percentage of residents aware of their legal land rights and responsibilities number of participants submitting input for preparedness planning number of community residents submitted written recommendations to government regarding forest fire management Percentage of stakeholders actively engaged in forest fire community preparedness activities percentage of stakeholders participating in developing community forest fire prevention programs percentage of community residents satisfied with information received

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
Dialogue 7.9. conduct open community meetings and presentations to explain land rights, responsibilities, privileges and opportunities for farmers and landowners 7.10. facilitate establishing Community-based fire management groups 7.11. conduct consultation meetings with at-risk communities to identify challenges and potential approaches to responsibly manage fires. 7.12. Organize and maintain community dialogue with village leaders and residents of at-risks communities to identify and spearhead local forest fire management initiatives 7.13. Dialogue with farmers and landowners on the critical role fires play in forestry and agriculture 7.14. Dialogue with farmers for incentives for engaging in proper use of fires or non-fire alternatives.	Target: increase the involvement of landowners in at-risk rural communities in forest fire management from 0% to 40% by 2022.		 number of stakeholders' attending meetings number of consultation sessions held in at-risk communities number of consultation meetings with rural farmers of at-risk them to responsibly manage fires. report on discussions regarding the drafting of by-laws by Villages Councils to address forest fire management for their communities conduct necessary trainings for village council leaders to gain technical, legal systems to enable community governance and the capability for a quick response to wildland fire threats. Number of residents attending consultation meetings within atrisk communities number of community leaders organizing consultation sessions number of village council leaders involved in drafting by-laws number of farmers attending consultation sessions Report regarding recommended incentives to encourage village councils to engage in law enforcement Meeting Reports generated Collection of pictures of forest fire activities 	 percentage of residents aware of their legal land rights and responsibilities number of participants submitting input for preparedness planning number of community residents submitted written recommendations to government regarding forest fire management Percentage of stakeholders actively engaged in forest fire community preparedness activities percentage of stakeholders participating in developing community forest fire prevention programs percentage of community residents satisfied with information received
Trainings 7.15. facilitate in local community training on forest fire risk communication and responding to forest fire events.	Target: increase the involvement of landowners in at-risk rural communities in	Knowledge, expertise networks, funding	 number of stakeholders' attending meetings number of consultation sessions held in at-risk communities 	 percentage of residents aware of their legal land rights and responsibilities

ACTIVITIES		TARGETS	INPUTS	OUTPUTS	OUTCOMES
7.17. 7.18.	educate farmers and landowners to distinguish between improper and proper fire practices provide peer-trainings to encourage farmers and landowners to demonstrate proper fire practices with other members of the community Conduct training for farmers and landowners on forest fires management techniques	forest fire management from 0% to 40% by 2022.		 number of consultation meetin with rural farmers of at-risk them to responsibly manage fires. report on discussions regarding the drafting of by-laws by Villag Councils to address forest fire management for their communities conduct necessary trainings fo village council leaders to gain technical, legal systems to enable community governance and the capability for a quick response to wildland fire threat Number of residents attending consultation meetings within a risk communities number of community leaders organizing consultation session number of village council leader involved in drafting by-laws number of farmers attending consultation sessions Report regarding recommende incentives to encourage village councils to engage in law enforcement Meeting Reports generated Collection of pictures of forest fire activities 	submitting input for preparedness planning number of community residents submitted written recommendations to government regarding forest fire management Percentage of stakeholders actively engaged in forest fire community preparedness activities percentage of stakeholders participating in developing community forest fire prevention programs percentage of community residents satisfied with information received
8. Comm	nunication Objective: Engage commun	ity leaders in improv	ing capacity, mor	itoring and enforcement in forest fire mana	gement.
8.2. 8.3.	Awareness provide community leaders with regular information on forest fire management initiatives and programs facilitate community leaders in developing and implementing standard consultation processes	increase community leaders involvement in awareness efforts, monitoring and enforcement in	Knowledge, expertise networks, funding	 Working group framework developed Number of stakeholders accepting participation in working group Number of information session held with working group 	 Percentage of Community leaders degree of understanding of fire laws number of community by-laws drafted Number of community leaders aware of forest fire program

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
that allows stakeholders of different backgrounds and cultures (including indigenous and traditional rural communities) to be included; 8.4. increase the capacity of community leaders to communicate with community residents regarding fire laws and regulations, inform of proper burning procedures and discourage the inappropriate use of fires.			 Number of discussions with community leaders Number of collaborative meetings with community leaders Number of community leaders trained in forest fire management Collection of pictures of forest fire activities Number of reports generated 	 Number of fire-prone communities aware of fire regulations % of reduction of escaped fires in the area. % of community leaders monitoring and enforcing fire laws. % of community residents satisfied with information received from managers
8.5. host one-on-one meetings with forest rangers and community leaders to plan and discuss fire demonstrations;			Trumber of reports generated	 Number of managers providing information and feedback
 provide copies of information materials to community leaders for their distribution to community residents; 				
8.7. develop talking points for community leaders and forest managers for community meetings;				
8.8. assist in supporting community awareness and participation activities for increasing awareness				
of fire regulations. 8.9. Create leader advocates for forest fire management by sharing their authentic, relevant, and diverse stories of forest fire management in their areas.				
8.10. Collaboration 8.11. outline clear actions and steps in	increase community	Knowledge, expertise	 Working group framework developed 	 Percentage of Community leaders degree of understanding
community involvement in forest fire management;	leaders involvement in	networks, funding	 Number of stakeholders accepting participation in 	of fire laws • number of community by-laws
8.12.facilitate meeting of community leaders to discuss and identify knowledge and resources needed to manage forest fires in their area;	awareness efforts, monitoring and enforcement in forest fire		 working group Number of information sessions held with working group Number of discussions with community leaders 	drafted Number of community leaders aware of forest fire program

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
8.13. collaborate with community leaders in forest fires management initiatives to strengthen relationships between forest department and the community leaders to understand risks, impacts, needs and capabilities to respond to forest fires; 8.14. host forum for village leaders to share and exchange ideas regarding forest fire management; 8.15. encourage community leaders to become part of a coordinated approach to effective fire management in areas where multiple organizations and stakeholders have responsibilities and interests in the fire programme. 8.16. Monitoring & Enforcement 8.17. conduct information sessions to increase awareness of community leaders on forest fire risks and consequences, laws and sanctions, roles and responsibilities, monitoring and reporting; 8.18. promote the participation of community leaders in fire management monitoring and enforcement; 8.19. facilitate discussions to identify incentives to encourage village councils to engage in monitoring and enforcement.	management from 0% to 40% by 2022		 Number of collaborative meetings with community leaders Number of community leaders trained in forest fire management Collection of pictures of forest fire activities Number of reports generated 	 Number of fire-prone communities aware of fire regulations % of reduction of escaped fires in the area. % of community leaders monitoring and enforcing fire laws. % of community residents satisfied with information received from managers Number of managers providing information and feedback
Drafting By-laws 8.20. consult with community leaders to determine benefits from identifying, prioritizing and recommending improvements to fire laws 8.21. facilitate in the development of necessary trainings for community leaders to gain knowledge of technical, legal systems to enable	increase community leaders involvement in awareness efforts, monitoring and enforcement in forest fire management	Knowledge, expertise networks, funding	 Working group framework developed Number of stakeholders accepting participation in working group Number of information sessions held with working group Number of discussions with community leaders 	 Percentage of Community leaders degree of understanding of fire laws number of community by-laws drafted Number of community leaders aware of forest fire program Number of fire-prone communities aware of fire regulations

ACT	TIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
	community governance of fire management 8.22. conduct a series of workshops with NAVCO, DAVCO and village leaders in the drafting of by-laws to address forest fire management for rural communities. 8.23. promote community leaders' efforts to draft by-laws through diverse media channels.	from 0% to 40% by 2022		 Number of collaborative meetings with community leaders Number of community leaders trained in forest fire management Collection of pictures of forest fire activities Number of reports generated 	 % of reduction of escaped fires in the area. % of community leaders monitoring and enforcing fire laws. % of community residents satisfied with information received from managers Number of managers providing information and feedback
9.	Communication Objective: increase the eng	agement of women i	n forest fire man	agement, prevention and preparedness initiativ	es within communities.
_	Develop information materials featuring the role of women in fire management.	increased percentage of rural women	Knowledge, expertise networks.	o number of information materials developed featuring the role of	 Number of women participating in rural community meetings percentage of women engaged
	9.2. Develop and disseminate clear messages for rural women through diverse channels	actively engaged in forest fire prevention and	funding	women in fire management • number of meetings with rural	in public awareness of forest fires ❖ percentage of women adapting
	9.3. conduct training of women on the forest fire ecological role, potential forest fire risks, fire regulations, prevention and preparedness	preparedness initiatives from 0% to 40% by 2022		women's groups and association number of rural women educated about forest fire ecological role, potential forest	 percentage of women adapting alternative practices Percentage of women aware of the role they play in forest fire management
	9.4. Educate women on proper use of fires or fire wise practices 9.5. promote the benefits of using	2022		fire risks and the important role they play in forest fire prevention;	 Percentage of women aware of fire regulations Percentage of women who
	appropriate fire practices 9.6. Use stories and messages of rural			 number of stories and messages of rural women engaged in forest 	educate children about preventing forest fires and being
	women to engage others in forest fire prevention.			fire prevention. Collection of pictures of forest	prepared
	 Engage rural women in awareness programs for fire prevention and preparedness messages as part of community education programmes. 			fire activities Number of reports generated	
	Strengthen management commitment to the inclusion of gender issues in programme and project design				
	9.9. Establish a targeted capacity building plan to ensure staff have the necessary tools and knowledge				

CTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
to integrate gender issues in their work 9.10. Encourage the inclusion of gender issues in climate change adaptation plans 9.11. Mainstream gender issues in initiatives of Forest Fire Partnership 9.12. Foster the involvement of women's groups/associations in all phases of the project cycle 9.13. increase visibility of gender related work in the Forest Department 9.14. Promote gender balance in images present in Forestry publications 9.15. Include gender considerations in technical guidelines developed by the Department as appropriate. 9.16. support the development of women's radio program on best practices. 9.17. establish community women's volunteer groups to motivate and monitor fire management practices.				
O. Communication Objective: increase awarene	ss of forest fire ecolo	gy, prevention a	nd preparedness among primary and secondar	y school students.
10.1. Curriculum Development 10.2. Develop and implement a national forest fire education curriculum for primary and secondary school students on forest fires ecology, prevention and preparedness in Belize 10.3. hire consultant to facilitate the development of the curriculum in consultation with local community teachers 10.4. provide local information for the curriculum development to include local examples of 'good' and 'bad' fires, causes and effect relationship of forest fires, forest fires and	increase number of school children aware of forest fire risks, prevention and preparedness from 0% to 40% by 2020	Knowledge, expertise networks, funding	 number of teachers engaged in curriculum development number of teachers being trained to train others on use of curriculum number of schools piloting the forest fire curriculum curriculum on forest fire risk reduction and readiness number of students participating in forest fire education programs number of school visited number of schools in poster competition number of school participating in field trips 	 Percentage of teachers aware of forest fire reduction and readiness percentage of teachers satisfied with curriculum percentage of teachers using the curriculum percentage of teachers engaged in promoting forest fire awareness percentage of students aware of forest fire risks and preparedness percentage of students engaged in forest fire student activities

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
wildlife, forest fires and climate change, the fire triangle, the role of fires, forms of forest fire prevention and management, proper management fires and forest fire preparedness.			 number of schools in national photo and art competition number of resource materials utilized at schools number of drama and digital media products resource guide for teachers number of teachers using resource guide number of mini-series videos number of feature stories of stakeholders and staff a national mascot number of students contributing stories about forest fires. 	percentage of students satisfied with curriculum delivery
10.5. Curriculum Delivery 10.6. encourage students to develop scientific skills of observing, experimenting, predicting and validating in learning about fundamentals of forest fire behaviours. 10.7. educate students on the concepts related to health and disease prevention 10.8. design and implement a national photo and art competition for school children and young people promoting forest fire prevention messages 10.9. identify and use appropriate and relatable information resources for students on forest fires 10.10. incorporate drama and digital media to educate students on the forest fires control legislations 10.11. engage students in live and healthy debates and discussions on forest fires helpful and harmful effects.	increase number of school children aware of forest fire risks, prevention and preparedness from 0% to 40% by 2020	Knowledge, expertise networks, funding	 number of teachers engaged in curriculum development number of teachers being trained to train others on use of curriculum number of schools piloting the forest fire curriculum curriculum on forest fire risk reduction and readiness number of students participating in forest fire education programs number of school visited number of schools in poster competition number of schools in national photo and art competition number of resource materials utilized at schools number of drama and digital media products resource guide for teachers number of teachers using resource guide 	 Percentage of teachers aware of forest fire reduction and readiness percentage of teachers satisfied with curriculum percentage of teachers using the curriculum percentage of teachers engaged in promoting forest fire awareness percentage of students aware of forest fire risks and preparedness percentage of students engaged in forest fire student activities percentage of students satisfied with curriculum delivery

ACTIVITIES		TARGETS	INPUTS	OUTPUTS	OUTCOMES
				 number of mini-series videos number of feature stories of stakeholders and staff a national mascot number of interviews of students number of students contributing stories about forest fires. 	
	Resources prepare teacher's guide to	increase number of school children	Knowledge, expertise	 number of teachers engaged in curriculum development 	 Percentage of teachers aware of forest fire reduction and
10.14.	facilitate professional and non- professional instructors on curriculum delivery develop additional curriculum resources or collateral resources	aware of forest fire risks, prevention and preparedness from 0% to 40%	networks, funding	 number of teachers being trained to train others on use of curriculum number of schools piloting the forest fire curriculum 	readiness percentage of teachers satisfied with curriculum percentage of teachers using the curriculum
10.15.	for students develop colouring book for primary school students	by 2020		curriculum on forest fire risk reduction and readiness number of students participating	 percentage of teachers engaged in promoting forest fire awareness
10.16.	develop short mini-series videos for school age students on forest fire risks and readiness.			in forest fire education programs number of school visited number of schools in poster	 percentage of students aware of forest fire risks and preparedness
10.17.	personal stories of stakeholders and staff to have students connect with information			competition number of school participating in field trips	 percentage of students engaged in forest fire student activities percentage of students satisfied
10.18.	Develop a national mascot and movement to inspire young people interest and support for forest fire prevention, especially amongst young people.			 number of schools in national photo and art competition number of resource materials utilized at schools number of drama and digital 	with curriculum delivery
10.19.	Increase students' awareness of the consequences of illegal burning through a primary and high school poster competition on fire laws.			media products resource guide for teachers number of teachers using resource guide number of mini-series videos	
10.20.	conduct interviews of students to gather information about their perspectives of forest fires and the proper use of fires			 number of feature stories of stakeholders and staff a national mascot number of interviews of students 	
10.21.	engaged students in telling their stories about forest fires to raise awareness.			 number of students contributing stories about forest fires. 	

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOM	MES			
11. Communication Objective: provide media pe				motivation to communication	ate on forest fire risks, fire laws			
and procedures, forest fire forecast and warning system, particularly during the fire seasons.								
Knowledge	increase number		Reporting program		Number of media positive			
11.1. Provide reliable, accessible, regular	of community		with the Press Office		coverage of government and			
and updated information on forest	leaders aware of		• number of media o		community response to forest			
fires to the media;	community forest		forming partnership		fires Number of media interviews with			
11.2. Proactively communicate about the	fire programs		number of media p					
benefits of well managed fires and	from 0% to 40%		formed unofficially		lead fire personnel			
the risks of uncontrolled fires.	by 2020		number of media p		number of media personnel			
Resources			reporting on forest	fires during	conducting follow-up stories on			
11.3. Provide information materials and			the fire season;	tion 🌣	forest fires			
resources for communication			 number of information accessible to media 		number of media trained on			
engagement with key stakeholders;				-	forest fire ecology, risks,			
11.4. conduct news briefings with media to make aware the benefits of			number of media to	rainings for	prevention and preparedness;			
prescribe fires and other			media ❖ different communic	•	percentage of media personnel satisfied with information			
			methods to attract		received on forest fires			
approaches to address forest fires in Belize.			attention,		number of media personnel			
11.5. coordinate with weather forecasters			• number of familiari		nominated for award programs			
to promote forest fire education tips			for media personne		noninated for award programs			
and forest fire forecasting during fire			 media reporting aw 					
season			programme	7414				
11.6. Develop guide for media to			programme					
communicate on forest fire issues								
before, during and after extreme								
forest fire incidents:								
iorose ino morasina,								
Tools	increase number		 Reporting program 	established	Number of media positive			
11.7. Develop forest fire management	of community		with the Press Office	ce quarterly.	coverage of government and			
reporting program with the Press	leaders aware of		number of media o	organizations	community response to forest			
Office quarterly;	community forest		forming partnershi	ps officially	fires			
11.8. Build partnerships with media on	fire programs		 number of media p 	partnerships *	Number of media interviews with			
reporting on regular reporting on	from 0% to 40%		formed unofficially		lead fire personnel			
forest fires during the fire season;	by 2020		 number of media p 	personnel *	number of media personnel			
11.9. conduct media training for pre-crisis			reporting on forest	fires during	conducting follow-up stories on			
communication, to engage media in			the fire season;		forest fires			
assisting with responding to forest			number of informa		number of media trained on			
fires crisis, informing and warning			accessible to medi		forest fire ecology, risks,			
audiences, reassuring the public,			number of media to	rainings for	prevention and preparedness;			
and repudiating rumours.			media					

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
prepare and disseminate public service announcements to inform and remind audiences about fire regulations, fire risks and approaches to proper fire uses; 1.11. Use diverse forms of communication methods to attract media attention, such as media invites, pitch letters, letters to editors, photo reporting, and news conferences.			 different communication methods to attract media attention, number of familiarization tours for media personnel media reporting award programme 	 percentage of media personnel satisfied with information received on forest fires number of media personnel nominated for award programs
Motivation 11.12. encourage media to follow- up on forest fire stories in their constituencies; 11.13. Facilitate familiarization tours for media personnel to highlight communities ongoing and successful best practices initiatives. 11.14. develop media reporting award programme for media persons coverage of forest fire issues.	increase number of community leaders aware of community forest fire programs from 0% to 40% by 2020		 Reporting program established with the Press Office quarterly. number of media organizations forming partnerships officially number of media partnerships formed unofficially number of media personnel reporting on forest fires during the fire season; number of information accessible to media number of media trainings for media different communication methods to attract media attention, number of familiarization tours for media personnel media reporting award programme 	 Number of media positive coverage of government and community response to forest fires Number of media interviews with lead fire personnel number of media personnel conducting follow-up stories on forest fires number of media trained on forest fire ecology, risks, prevention and preparedness; percentage of media personnel satisfied with information received on forest fires number of media personnel nominated for award programs
12. Communication Objective: identify potential f	unding sources both	internationally a	nd nationally for the implementation of the na	ational forest fire communication strategy.
12.1.FD in close collaboration with its wildland fire management partners to identify potential sources of assistance 12.2.prepare proposals to leverage funding and assistance from environmental facilities and other sources including internally available	acquire funding for the implementation of the National Forest Fire Communication Strategy from 0% to 100% by 2022		 Number of meetings with intergovernment agencies regarding funding opportunities Number of collaborative meetings external stakeholders Collection of pictures of forest fire activities Number of reports generated 	 amount of funding allocated for communication activities for forest fires

ACTIVITIES	TARGETS	INPUTS	OUTPUTS	OUTCOMES
sources for the implementation of the national forest fire				
communication strategy.				

EVALUATION QUESTIONS

What is the negative action that is being conducted?

what is the desired action?

Do the target audience understand what is forest fires, forest fire risks, recommended behaviours?

Do they understand the policies or fire regulations?

Do they perceive that forest fires are relevant to them?

Do target audience understand the benefits of adopting the recommended behaviours or adhering to regulations?

Do they understand the consequences of not adopting behaviours?

what social norms exists that influences the behaviour negatively or positively?

How confident are stakeholders in communicating fire messages?

How confident are actors in participating in forest fire management?

Is the target audience able to act independently?

What is the role of the Forest Department in forest fires?

What do members of the department know about Forest Fire management?

To what extent are stakeholders aware of their role in forest fire management?

to what extent are local community leaders aware of their role in forest fire management?

Are the government agencies and partners considered credible source for at-risk communities?

Which other organizations are trusted in forest fire management?

Can the department align themselves with these organizations?

Who is the best spokesperson for forest fire issues?