NATIONAL FOREST FIRE MANAGEMENT ACTION PLAN (2025-2030)

2025

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Background

The escalating incidence of forest fires has emerged as a critical environmental and economic concern in Bhutan, particularly during the arid winter months. The nation's steep topography, dense accumulation of ground fuel, and persistent high-velocity winds exacerbate the rapid propagation of fires, causing extensive damage to forest ecosystems, biodiversity, and critical infrastructures. Between 2020 and 2024, Bhutan documented 261 forest fire incidents, impacting approximately 70,696.19 acres of forested terrain, with resultant severe degradation of natural resources and substantial economic losses. Given the increasing frequency and severity of these events, the reinforcement of fire prevention measures is imperative to uphold Bhutan's constitutional mandate to maintain at least 60% forest cover in perpetuity.

The National Forest Fire Management Action Plan establishes a comprehensive and structured framework for addressing forest fires in Bhutan, ensuring that interventions are systematically adapted to the unique conditions of each region. The strategy delineates interventions into three principal domains: prevention, suppression, and post-fire management. Prevention initiatives are designed to minimize fire risks through proactive measures, including public awareness campaigns, the implementation of early detection systems, and the enhancement of preparedness at both institutional and community levels. Suppression efforts are focused on strengthening response capabilities by improving inter-agency coordination, optimizing the deployment of resources, adopting latest technologies and building technical capacity. Post-fire management is dedicated to the restoration of affected landscapes, the mitigation of ecological damage, and the promotion of long-term resilience to future fire risks.

In alignment with the National Forest Fire Management Action Plan, fire-prone districts are now required to develop Dzongkhag-wise Fire Management Plans. These district-level plans will provide a comprehensive and region-specific approach, capturing all targeted interventions under the categories of Prevention, Suppression, and Post-Fire Management. It is imperative that the strategies articulated in the national action plan are systematically integrated into the Dzongkhag-level plans to ensure consistency, coherence, and effectiveness across all districts. This approach is intended to strengthen Bhutan's capacity to mitigate forest fire risks, foster long-term environmental resilience, and enhance community engagement, thereby supporting the overarching objectives of sustainable forest management and disaster risk reduction.

The National Forest Fire Prevention and Response Strategy has integrated targeted interventions proposed by the Bhutan Power Corporation to address forest fires caused by electrical short circuits. These measures, which include a dedicated allocation of Nu. 405.73 million for Thimphu Dzongkhag, form part of the strategic framework aimed at mitigating fire risks associated with power infrastructure. The strategy outlines a phased implementation approach for these interventions, with provisions for scaling and replication in other fire-prone districts based on operational effectiveness and regional requirements. As a result, measures to enhance power infrastructure for forest fire prevention is not incorporated into this action plan.

1. Strengthening Forest Fire Prevention Measures

This comprehensive action plan has been formulated to enhance forest fire prevention by integrating community engagement, regulatory improvements, and ecological resilience. Recognizing the importance of community participation, 54 Community-Based Forest Fire Management Groups will be established in fire-prone regions, equipping communities with the necessary tools to actively mitigate fire risks. This plan will also explore on finding alternative solutions other than burning agriculture debris since most of the fires are reported from this cause. A nationwide awareness campaign—comprising mass media outreach, advocacy initiatives, consultation meetings, and educational programs—will be launched to promote fire-safe practices. To reinforce these efforts, 100 fire safety signage installations and informational posters will be strategically placed across the country. Additionally, targeted interventions in the Wildland-Urban Interface, particularly within Thromdes and urban settings will focus on scientific thinning, prescribed burning, and green belt plantations, effectively reducing fire susceptibility while strengthening ecological stability.

Enhancing the regulatory framework remains a priority, necessitating amendments to the Forest and Nature Conservation Rules and Regulations (FNCRR 2023). This revision will incorporate stricter penalties for fire-related offenses, introduce a reward mechanism to incentivize informers and facilitate the establishment of defensible space around private infrastructures. In safeguarding cultural heritage, fire lines will be constructed around 31 religious sites vulnerable to fire risks, ensuring their continued protection.

Furthermore, collaborative efforts between the National Center for Hydrology and Meteorology (NCHM) and the Department of Forests and Park Services (DoFPS) will facilitate timely meteorological alerts, improving preparedness and response capabilities. Collectively, these measures will form a structured, region-specific framework for effective fire prevention, fostering resilience and sustainability in forest management. Implementing these strategies is estimated to require Nu. **122.71 million**, with some costs being recurring in nature and expected to add significantly to long-term financial commitments.

2. Strengthening Forest Fire Detection, Response, and Suppression

A strategic and technology-driven approach has been developed to enhance forest fire detection and suppression capabilities, integrating advanced surveillance systems, interagency coordination, and improved resource allocation. To strengthen early detection mechanisms, a geospatial fire modeling system utilizing remote sensing and satellite technology will be established, enabling real-time fire monitoring and predictive analysis. AI-powered surveillance cameras with automated detection and reporting functionalities will be deployed in high-risk Wildland-Urban Interfaces (WUI), ensuring swift identification of fire outbreaks and smoke detection. Additionally, drone technology will be incorporated into forest fire surveillance, with the procurement of thermal drones to enhance monitoring accuracy and facilitate rapid assessment of fire-prone areas.

Operational efficiency in fire response will be reinforced through the strengthening of Interagency Forest Fire Coordinating Groups (IFFCG) by improving coordination between relevant agencies for more effective suppression efforts. Capacity-building programs will be expanded to include advanced forest fire suppression training, safety protocol reinforcement, and improved coordination mechanisms. Rapid Response Teams (RRTs) will be established and enhanced through specialized training and equipment provisioning to ensure swift containment of forest fire incidents.

Investigative capacity for determining fire causes will be strengthened through targeted training programs for foresters and Royal Bhutan Police personnel. Furthermore, to address water resource limitations, strategically located fire-prone areas will see the construction of reservoirs (3,000–5,000 liters) to facilitate effective fire suppression operations. The estimated cost for implementing these strategies over the five-year tenure is Nu. **112.8 million**, with some expenses being recurring in nature, contributing significantly to long-term operational sustainability.

3. Post Fire Management and Recovery

Following a forest fire, it is crucial to conduct thorough mopping operations across all burnt areas to ensure that no residual fire or embers remain. This step is essential for preventing re-ignition and ensuring the safety of both the ecosystem and surrounding communities. The comprehensive SoP for standard firefighting operation and Mopping exercise will be developed to guide effective suppression of fires. Additionally, a systematic extraction of fire-burnt timber should be carried out promptly as part of salvage operations, allowing for the efficient utilization of resources and minimizing further ecological damage. For this extraction modality will be developed to improve the existing practice of timber disposal from burnt areas.

To restore ecological balance and enhance future fire resilience, reforestation efforts should focus on the establishment of plantations using fire-resistant species. Priority should be given to both previously burnt areas and the wildland-urban interface (WUI), where the risk to human settlements is highest. Ensuring the maintenance and protection of these plantations is vital for their long-term success. The estimated cost for establishing plantations in burnt areas is approximately Nu. **25.2 million** over the span of five years.

4. Detailed Action Plan for Forest Fire Management in Bhutan

Objective	Strategies	Activities	Activity description	Target	Unit	Unit cost	Total Costing	Timeline (Implementation)					Lead Agency	Collaborator	Remarks
								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
Prevention of forest fire	Engagement of local communities in forest fire management through active participation.	Establish Community based Forest Fire Management Groups (CBFFMG) in fire prone areas.	CBFFMG will be established under a 10-year management plan, ensuring long-term sustainability and structured operations. This plan will provide governance frameworks, capacity-building initiatives, and locally driven strategies to enhance fire prevention and response. To encourage participation and foster stewardship, the strategy will incorporate incentive mechanisms, including financial support for equipment, skill-based training, and recognition programs, alongside integrating traditional knowledge and implementing fire management practices.	54 CBFFMGS to be established: Thimphu (4) Paro (4); Haa (2); Wangdue (3); Chukha (2); Tsirang (3); Dagana (3); Bumthang (6), Trongsa (2); Mongar (11); Lhuntse (5); Trashigang (3); T/Yangtse (6)	no. s	150,000	8100000	8100000	-	-	-	-	DoFPS	Field Offices, LGs and Dzongkhag administration.	Thimphu- 4 (Kawang, Chang, Mewang & Geney); Paro- 4 (Dogar, Shaba, Tsento & Lango); Haa - 2 (Katsho & Eusu); Wangdue -3 (Rinchengang, Phangyul & Athang); Chukha -2 (Bjacho & Chapcha); Tsirang -3 (Sergithang, Tsirangtoe & Tsholingkhar); Dagana -3 (Tseza, Tsangkha & Lajab); Bumthang-6 (Dawathang, Dorjibi, Kashingtsawa, Tamshing, Pesiling & Tekarshong); Trongsa -2 (Langthel & Drakten); Mongar- 11 (Mongar, Chaskhar, Drametse, Narang, Balam, Thangrong, Drepong, Saling, Kengkhar, Chali & Tsakaling); Lhuntse - 5 (Tsengkhar, Menbi, Menji, Serzhong & Khoma); Trashigang - 3 (Udzorong, Bartsham & Yangneer); T/Yangtse - 6 (Yallang, Tongzhang, Jamkhar,Ramjar,Toetsho & Khamdang).
		Provision of forest firefighting equipment (Water backpack pump & Fire rake) to formulated CBFFMGs.	Based on the practical experience, the most efficient tools for forest fire suppression on ground has been water back pack pump (Nu. 25000) and fire rake (Nu. 1000). This two equipment will be supplied to formulated CBFFMGs.	54 CBFFMGs	no. s	35000	14580000	14580000	-	-	-	14580000	DoFPS	DLGDM, Dzongkhag administrations & CBFFMGs	(10) Water back pack pumps and (20) Fire rakes will be given to each CBFFMG.
		Reduce agricultural debris burning through sustainable alternatives.	Since agricultural debris burning is a major contributor to forest fires, this initiative aims to minimize crop residue burning by promoting climate-friendly practices. Alternative solutions such as composting, biochar production, and other sustainable agricultural methods will be encouraged to enhance soil health while reducing fire risks.	Nationwide	-	-	-	-	-	-	-	-	DoFPS	Department of Agriculture	The DoFPS will work closely with the DoA to explore and advocate for climate-friendly agricultural practices that can substitute agricultural debris burning. This collaboration will focus on policy reviews and ongoing discussions to integrate sustainable solutions, such as composting, biochar production, and other eco-friendly farming methods, into national agricultural policies/guidelines.
	Raising awareness through mass media, advocacy programs, consultation meetings, educational campaigns, and the installation of signage and posters.	Enhance public awareness on forest fires by leveraging mass media, print publications, and social media platforms to ensure widespread sensitization and engagement.	Before the onset of the dry season, awareness campaigns will be conducted at both the department level and field level using mass media, print publications, and social media platforms. The department will lead nationwide outreach efforts, while field offices will implement localized initiatives to engage communities directly. This multi-tiered approach ensures widespread sensitization, encourages responsible fire management practices, and strengthens public preparedness against forest fires risks.	13 field offices - DFO Thimphu, Paro, Wangdue, Gedu, Tsirang, Dagana, Bumthang, Mongar, Trashigang, P/Gatshel, Zhemgang, JKSNR, BWS	no. s	200,000	2,600,000	2,600,000	2,600,000	2,600,000	2,600,000	2,600,000	DoFPS	Field Offices & LGs	Since awareness programs must be conducted annually, the associated costs will be recurring each year.

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								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
		Development of a digital interactive Forest Fire Prevention video series.	A forest fire prevention video will be designed using a digital interactive format featuring a mascot and episodic content. The mascot will serve as a recognizable and engaging figure to promote fire safety, while the episodes will provide informative and compelling narratives to educate the public on fire prevention measures. These episodes will be broadcast nationally, leveraging various media platforms to ensure widespread reach and sustained awareness.	-	no. s	2,500,000	2,500,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	DoFPS	-	Development of this video will cost around Nu. 1000000 however the airing cost if it is BBS would cost around Nu. 1500000 annually.
		Conduct fire safety programs in schools, colleges, and institutes to educate children the negative impact of forest fires (mascot/ symbol).	Before the onset of the dry season, field offices will conduct fire safety programs in those schools and institutes in fire prone areas to educate students about the negative impacts of forest fires and the importance of prevention. These programs will include interactive sessions, visual demonstrations, and awareness materials to instill responsible fire practices and encourage proactive involvement from younger generation.	13 field offices - DFO Thimphu, Paro, Wangdue, Gedu, Tsirang, Dagana, Bumthang, Mongar, Trashigang, P/Gatshel, Zhemgang, JKSNR, BWS	no. s	200,000	2,600,000	2,600,000	-	2,600,000	-	2,600,000	DoFPS	Field Offices & School administrations	
		Install signages and posters with prevention messages in strategic locations to draw attention and reinforce the fire prevention messages.	Fire prevention signage and posters will be installed in strategic locations, including high-risk fire zones and road sides to raise awareness and reinforce forest fire prevention messages. These visual tools will serve as constant reminders, ensuring communities remain informed and vigilant.	100 signages: Thimphu (10); Paro (10); Wangdue (10); Mongar (10); Trashigang (10); Bumthang (5); Trongsa (5); Haa (5); Lhuntse (5); Chukha (10), Tsirang (5), Dagana (5), P/Gatshel (5), Zhemgang (5)	no. s	13000	1300000	1300000	-	-	-	1300000	DoFPS	DLDGM & Field Offices	
	Enhancing forest health in the Wildland-Urban Interface to reduce forest fire risks and improve ecological resilience.	Implement Prescribed Burning exercise in identified fire prone Wildland-Urban Interfaces (WUI).	Prescribed burning will be conducted in identified fire-prone Wildland-Urban Interfaces (WUI) to reduce fuel loads and minimize forest fires risks. The understory fuel of within a 30-meter perimeter of forested area situated adjacent to infrastructures will be burnt.	90 acres: Paro (10), Thimphu (10), Wangdue (30), Mongar (30), Trashigang (10)	acres	50000	4500000	4500000	-	4500000	-	4500000	DoFPS	Field Offices, Dessups, RBP and Dzongkhag administration	A total of 10 acres of Wildland-Urban Interface (WUI) areas will be identified in each of the selected dzongkhags. Additionally, Wangdue will have an extra 20 acres designated between Pinsa and Kamichu, while Mongar will include an additional 20 acres within Orphung Community Forest (CF) to enhance fire mitigation efforts. This intervention will be done once in every three years thus associated cost will increase.

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								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
		Establishing Green Belt Plantations in high-risk Wildlife-Urban Interfaces (WUI) to mitigate fire risks and enhance ecological resilience.	Green Belt Plantations will be developed in forest fire-prone Wildlife-Urban Interfaces to serve as natural firebreaks and strengthen ecosystem stability. These plantations will incorporate fire-resistant native vegetation, strategically placed to reduce fire spread and create buffer zones between urban areas and forested landscapes.	100 acres: Paro (20), Thimphu (20), Wangdue (20), Mongar (20), Trashigang (20)	acres	130,000	13,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	DoFPS	GBCL, Field Offices, Dzongkhag administration.	The plantation of fire-resistant species in Wildland-Urban Interfaces will initially be implemented in five high-risk dzongkhags where forest fire incidents are most frequent. The primary focus will be on Thromdes and Yenla Throms, ensuring urban areas near forested landscapes are better protected against forest fire risks. For creation the estimated amount is Nu. 100,000, Nu. 30,000 for procurement of seedlings from nursery and maintenance cost of Nu. 20000 for 5 years for each acre.
		Implement scientific thinning operations in identified fire-prone Wildland-Urban Interfaces (WUI).	Targeted thinning operations will be conducted in fire-prone Wildland-Urban Interfaces to remove excessive vegetation and reduce fuel accumulation, minimizing forest fire risks.	60 acres; Paro (10), Thimphu (10), Wangdue (10), Mongar (10), Trashigang (10), Chukha (10)	acres	100,000	6,000,000	6,000,000	-	6,000,000	-	6,000,000	DoFPS	NRDCL/Private Parties, Field Offices, Dzongkhag administration.	The scientific thinning operations in Wildland-Urban Interfaces will first be carried out in six high-risk dzongkhags (specific areas), with plans to gradually expand the initiative to other fire-prone districts. This intervention will be done once in every three years thus associated cost will increase.
	Review and amend the Forest and Nature Conservation Rules and Regulations (FNCRR) to strengthen forest fire mitigation measures nationwide.	Revision of Fire-Related Offense Penalties and Reward Mechanism.	To strengthen enforcement against forest fire-related offenses, the reward mechanism for reporting violations will be introduced, incentivizing public participation in fire prevention efforts. Additionally, a formal amendment of regulations will be undertaken to revise fines and penalties, ensuring that stricter provisions are framed to deter negligence and intentional fire-setting aligning with the Penal code of Bhutan.	-	no. s	500000	500000	-	-	-	-	-	DoFPS	Field Divisions & Ministry	Consultation meetings needs to be conducted (with field offices and Ministry, other relevant stakeholders).
		Establishment of Defensible Space Around Private Infrastructure.	To mitigate forest fires risks and enhance structural protection, defensible spaces will be created around private infrastructure in fire-prone areas. This initiative will involve strategic vegetation management, fuel reduction, and the establishment of buffer zones to minimize fire spread and improve suppression efforts. The policy revision under the Forest and Nature Conservation Rules and Regulations (FNCRR 2023) will formally integrate defensible space requirements, ensuring systematic implementation and enforcement to safeguard properties from potential fire hazards.												

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								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
		Amendment of FNCRR 2023 for Fire Regulation.	The FNCRR 2023 will be revised to introduce a structured approval process for agricultural burning permits and fire lighting (sangs) for religious purposes. This amendment will ensure regulated and controlled fire usage, reducing forest fires risks while accommodating cultural and agricultural needs. The process will incorporate clear guidelines, monitoring mechanisms, and compliance requirements to enhance accountability and minimize fire-related hazards.												
	Safeguard significant monuments from forest fire risks to ensure their preservation and protection.	Creation of fire lines around important monuments.	Fire lines will be created around significant monuments to serve as protective barriers, preventing forest fires encroachment and reducing fire risks. These buffer zones will be strategically designed to safeguard cultural and historical sites while ensuring fire resilience in vulnerable areas.	31 monuments: DFO Thimphu (4); DFO Paro (8); DFO Wangdue (4); DFO Gedu (2), DFO Tsirang (4); Mongar (9)	no. s	50000	1550000	1550000	1550000	1550000	1550000	1550000	DoFPS	DLGDM, DoC, Dzongkhag administration, LGs, Dratshang Lhentshog.	Thimphu - 4 (Tharana, Tandin Ney, Choekhortse & Wangditse); Paro 4 - (Sangchokhor, DoChorten Drolma Lhakhang, Pangbisa Lhakhang); Haa - 4 (Takchu Goenpa, Katsho Goenpa, Yangtho Goenpa, Jamtoe Goenpa); Wangdue - 4 (Chungdu Goenpa, Nyezergang, Woolakha & Nobgang); Chukha -2 (Tsamdra Goenpa, Paga Goenpa); Tsirang - 4 (Sergithang, Tsirangtoe); Mongar - 9 (Thangrong Lhakhang and Anim Dratsang, Drepongwab Lhakhang, Gyalposhing Lhakhang, Pongchula Lhakhang, Nangaezor Anim Dratsang, Autsho Namdroling Goenpa, Droelmashong Lhakhang at Gorgon, Dorshong Goenpa). The associated cost will be recurring each year.
	Establish collaboration between NCHM and DoFPS for timely meteorological alerts to enhance forest fire preparedness and risk mitigation.	Facilitate the timely provision of meteorological data and alerts on erratic weather events from the NCHM to the DoFPS.	The National Center for Hydrology and Meteorology (NCHM) will ensure the prompt sharing of meteorological data and alerts on erratic weather events with the Department of Forests and Park Services (DoFPS). This initiative aims to strengthen early warning mechanisms, enhance fire preparedness, and support proactive forest fire management strategies.	-	-	-	-	-	-	-	-	-	DoFPS	MoENR & NCHM	This will support effective decision-making, enhance fire preparedness, and strengthen risk mitigation strategies against climate-related forest fire threats.
	Comprehensive Dzongkhag Forest Fire Management Planning.	All Fire prone dzongkhags to develop holistic forest fire management plan.	Fire-prone Dzongkhags will develop detailed forest fire management plans, ensuring strategic preparedness and response measures. These plans will incorporate risk assessments, prevention strategies, emergency response frameworks, and stakeholder engagement, post fire recovery efforts tailored to each region's unique environmental and socio-cultural context.	13 Fire prone districts	no. s	300000	3900000	3900000	-	-	-	3900000	DoFPS	Field Offices, Dzongkhag Administration, LGS, IFFCG	The Department will initially develop the Dzongkhag Forest fire management framework to guide the formulation of plans for following dzongkhags; Thimphu, Wangdue, Punakha, Paro, Haa, Tsirang, Dagana, Bumthang, Trongsa, Mongar, Trashigang, T/Yangtse, Lhuntse and on 5th year conduct revision.

Objective	Strategies	Activities	Activity description	Target	Unit	Unit cost	Total Costing	Timeline (Implementation)					Lead Agency	Collaborator	Remarks
								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
Effective Forest fire suppression	Adoption of advanced technology for enhanced forest fire detection and efficient suppression.	Develop an early detection and fire modeling geospatial system utilizing remote sensing and satellite technology for enhanced forest fire monitoring and response.	Geospatial system integrating remote sensing and satellite technology will be established to improve forest fire early detection and predictive modeling. This system will enable real-time monitoring of fire-prone areas, assess fire behavior, and support informed decision-making for effective suppression strategies. By leveraging advanced technology, the initiative aims to enhance fire preparedness, minimize fire impacts, and optimize resource allocation for rapid response efforts.	Nationwide	1	15000000	15000000	15000000	100,000	100,000	100,000	100,000	DoFPS	DLGDM	Maintenance cost of Nu. 100,000 for the period of five years.
		Deploy AI-powered surveillance cameras with automated detection and reporting capabilities in strategic locations, prioritizing high-risk Wildland-Urban Interfaces (WUI).	These systems will utilize automated analytics to identify fire incidents in real time, enabling swift response and minimizing fire spread. By leveraging advanced technology, this initiative aims to strengthen monitoring efforts, improve situational awareness, and ensure timely early response.	4 no. s in Thimphu (Talakha Goenpa, Thadra Goenpa, Kabesa, Tsewgang Lhakhang	no. s	1500000	6000000	6000000	-	-	-	-	DoFPS	DLGDM	This initiative will be piloted in Thimphu and if successful will be replicated to other fire prone dzongkhags.
	Strengthen Interagency Forest Fire Coordinating Groups (IFFCG) modality for effective fire response.	Enhance capacity building on forest fire suppression, safety protocols, and coordination mechanisms to strengthen forest fires response efforts.	The training programs will be conducted to improve forest fire suppression techniques, reinforce safety protocols, and strengthen inter-agency coordination for effective forest fire response. These sessions will equip frontline responders with the necessary skills and knowledge to manage fire incidents safely and efficiently.	12 IFFCGs	no. s	300000	3600000	3600000	-	-	-	3600000	DoFPS	Field Offices, IFFCG	(Dessups, RBP, RBA, Foresters); The international expert can also be outsourced to provide training. The training will be given once in every three years, thus the cost associated will increase.
	Strengthening Rapid Response Teams for Forest fire Management.	Establish and enhance Rapid Response Teams (RRTs) to ensure swift forest fires suppression in fire prone districts.	Rapid Response Teams (RRTs) will be formulated and reinforced to enable early suppression of forest fires. These teams will undergo comprehensive training in fire suppression techniques, safety protocols, and emergency coordination. Additionally, they will be equipped with firefighting tools and protective gear to enhance effectiveness in active fire situations. RRTs will be deployed promptly to fire incidents, ensuring rapid containment and minimizing impacts.	(200 RRT) from Thimphu, Paro, Wangdue, Mongar, Trashigang	no. s	-	5300000	-	-	-	-	-	DoFPS	Dessups	Once the Rapid Response Team (RRT) list is finalized, a centralized training program will be conducted at headquarters to ensure standardized forest fires suppression skills. Additionally, an incentive mechanism will be established to ensure long-term engagement and continuity of the teams. And it will be piloted for 5 high risk dzongkhags and later replicated.
		Procurement of Forest firefighting equipment for RRT (Water back Pack Pumps and fire rake, Portable water pump and large mobile suppression pumps, radio handsets	The RRT must be equipped with firefighting tools and protective gear to enhance effectiveness in active fire situations. RRTs will be deployed promptly to fire incidents, ensuring rapid containment and minimizing impacts.	(200 RRT) from Thimphu, Paro, Wangdue, Mongar, Trashigang	no. s	33200000	33200000	16600000	-	16600000	-	-	DoFPS	Dessups	All firefighting equipment, including basic personal protective equipment (PPE), will be provided to enhance operational readiness. Water back pack pump (100 no. s - Nu. 25000/-); fire rakes: (100 no. s - NU. 1000/-); Portable pump (5 each for each dzongkhag- 25 no. s - Nu. 500000); Mobile Pump (1 no. s each to each dzongkhag - Nu. 2500000); Handsets (100 no. s - Nu. 30000)

Objective	Strategies	Activities	Activity description	Target	Unit	Unit cost	Total Costing	Timeline (Implementation)					Lead Agency	Collaborator	Remarks
								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
	Strengthen the Investigative skills in determining the cause of forest fires.	Conduct capacity building on improving the investigative skills of the foresters and RBP personnels (ToT).	A Training of Trainers (ToT) program will be conducted to strengthen investigative skills among foresters and RBP personnel, equipping them with advanced techniques for forest fire incident analysis, enforcement, and legal documentation. The training will cover evidence collection, fire cause determination, and enforcement procedures to ensure effective investigation and accountability in fire-related offenses. This initiative aims to enhance inter-agency coordination and establish a strong legal framework for forest fire management.	50	no. s	-	2000000	2000000	-	-	-	2000000	DoFPS & DLDGM	RBP	This training will be conducted as a Training of Trainers (ToT) program, with an external expert hired as the instructor, as there is currently a lack of in-house technical expertise. Refresher course will be given on Year 5.
	Integrate drone technology into forest fire surveillance to enhance early detection and monitoring capabilities.	Procure Thermal Drones for efficient forest fire detection and surveillance ensuring real-time assessment of fire-prone areas.	Thermal drones equipped with advanced imaging technology will be procured and deployed to improve forest fires detection and monitoring. These drones will provide real-time aerial surveillance, enabling precise identification of fire outbreaks and potential hotspots. The initiative will enhance situational awareness, support rapid response coordination, and optimize resource allocation for effective fire suppression.	10	no. s	500000	5000000	5000000	-	-	-	-	DoFPS	-	Recommended drone: DJI Mavic 3T enterprise (thermal).
	Improving water resources for dry areas for effective forest fire suppression.	Construction of water reservoirs (3000-5000 Liters) in fire prone areas in the strategic locations to refill fire tankers.	This water reservoir /tank of capacity 3000-5000 L will be built in strategic locations selectively in place near to frequently reported forest fires.	Thimphu (4), Paro (4), Haa (2), Wangdue (3), Mongar (5), Trashigang (3)	no. s	2000000	42000000	21000000	-	21000000	-	-	DoFPS	Dzongkhag Administration /Thromde/LGs	
	Enhancing Ground Operations through coordinated Firefighting approach.	Development of Standard Operating Procedures (SOP) for Firefighting and Mopping Exercises.	A comprehensive SOP will be established to streamline and enhance coordinated firefighting efforts. This framework will outline systematic approaches for mobilizing firefighting teams, integrating applicable technologies—including drone surveillance—and utilizing advanced applications for efficient fire suppression. Additionally, the SOP will include structured guidelines for mopping exercises, ensuring thorough post-fire assessments and recovery operations to prevent reignition and mitigate residual fire risks.	-	-	1000000	1000000	-	-	-	-	-	DoFPS	Field Offices	Workshop will be conducted bringing focal officers from field offices and the document will be produced.

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								Y1 (2026)	Y2 (2027)	Y3 (2028)	Y4 (2029)	Y5 (2030)			
Post Fire management	Ensure timely extraction of fire burnt timber (salvage operation).	Conduct Systematic Extraction and Utilization of Fire-Burnt Timber.	A structured salvage operation will be conducted to extract fire-burnt timber efficiently, preventing further degradation and maximizing its sustainable use. The process will involve rapid mobilization of resources, assessment of burnt forests, and strategic timber recovery efforts.	Fire burnt areas of this current dry season (Nov 2024-March 2025)	-	-	-	-	-	-	-	-	NRDCL or Third Party	DoFPS	The Department will develop the Timber extraction modality for the extraction of timber from burnt areas to ensure timely extraction of timber from fire-affected areas by implementing strict conditions for extractors to complete operations within the designated timeframe.
	Reforestation/Plantation of fire-resistant species in already burnt area and Wildland urban interface (WUI) and ensuring maintenance of the plantation.	Implement reforestation of fire-resistant species in forest fire burnt areas.	Fire-burnt forested areas will be restored through the plantation of fire-resistant species, enhancing ecosystem resilience and reducing future fire risks. This initiative will involve site assessment, selection of suitable native species, and systematic plantation efforts to regenerate degraded landscapes.	Thimphu (20), Paro (20), Wangdue (20), Trashigang (20), Mongar (20 acres), Chukha (20)	acres	130,000	15600000	15600000	2400000	2400000	2400000	2400000	DoFPS	Field Divisions & GBCL	Focus on fire burnt areas of current dry season (Nov-2024-March 2025). For creation the estimated amount is Nu. 100,000, Nu. 30,000 for procurement of seedlings from nursery and maintenance cost of Nu. 20000 for 5 years for each acre.
							189830000	132930000	9650000	60350000	9650000	48130000			
				Year Wise Projection of Budget (in M):				**132.93**	**9.65**	**60.35**	**9.65**	**48.13**	**Total Budget for 5 Years:**		**Nu. 260.71 million (USD 3.06 M)**