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Forest Fire Situation in Nepal

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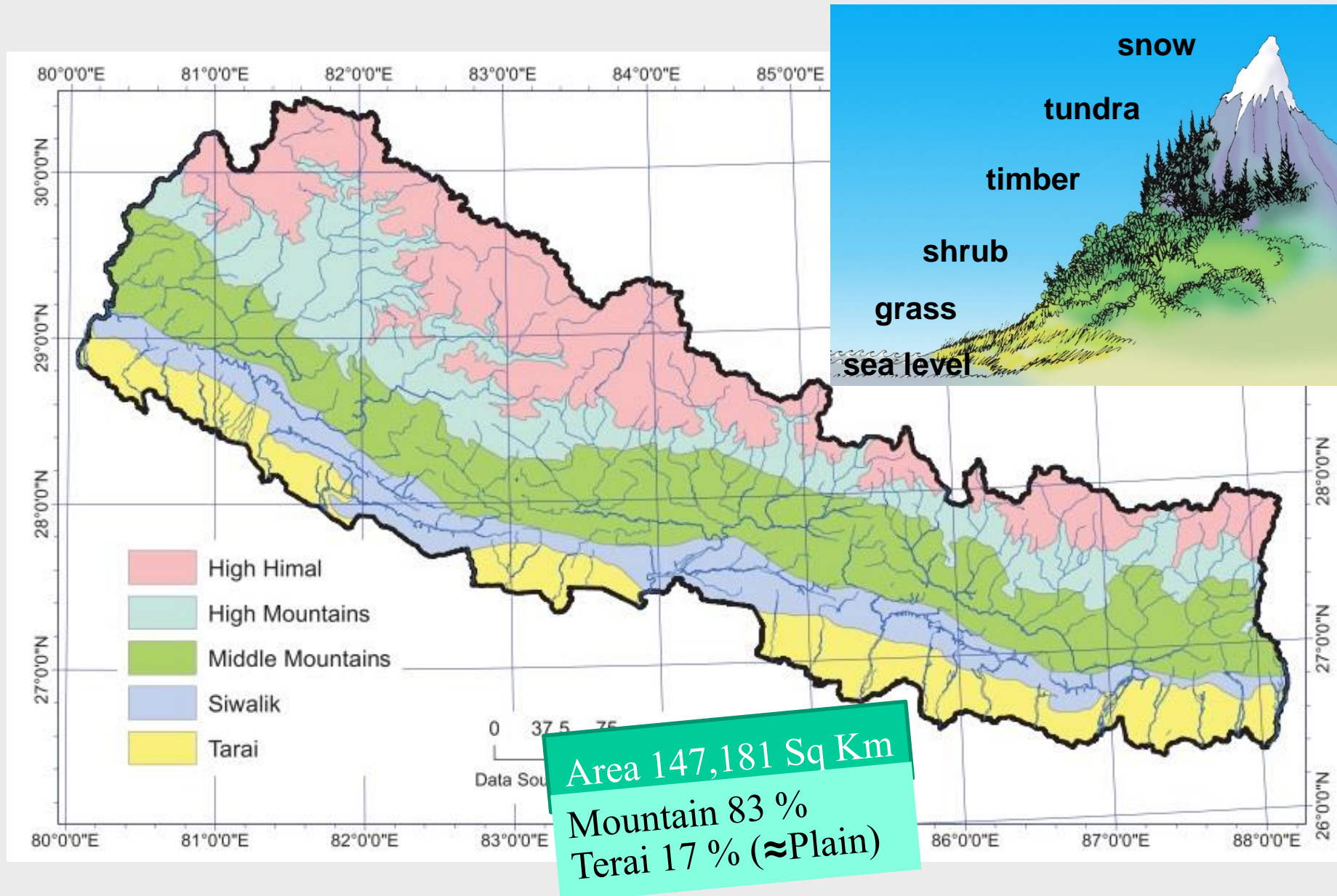
Conclusion and Way Forwards

- Forest Area
- Forest Management Regime

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**Forest area and forest
management regime in Nepal**

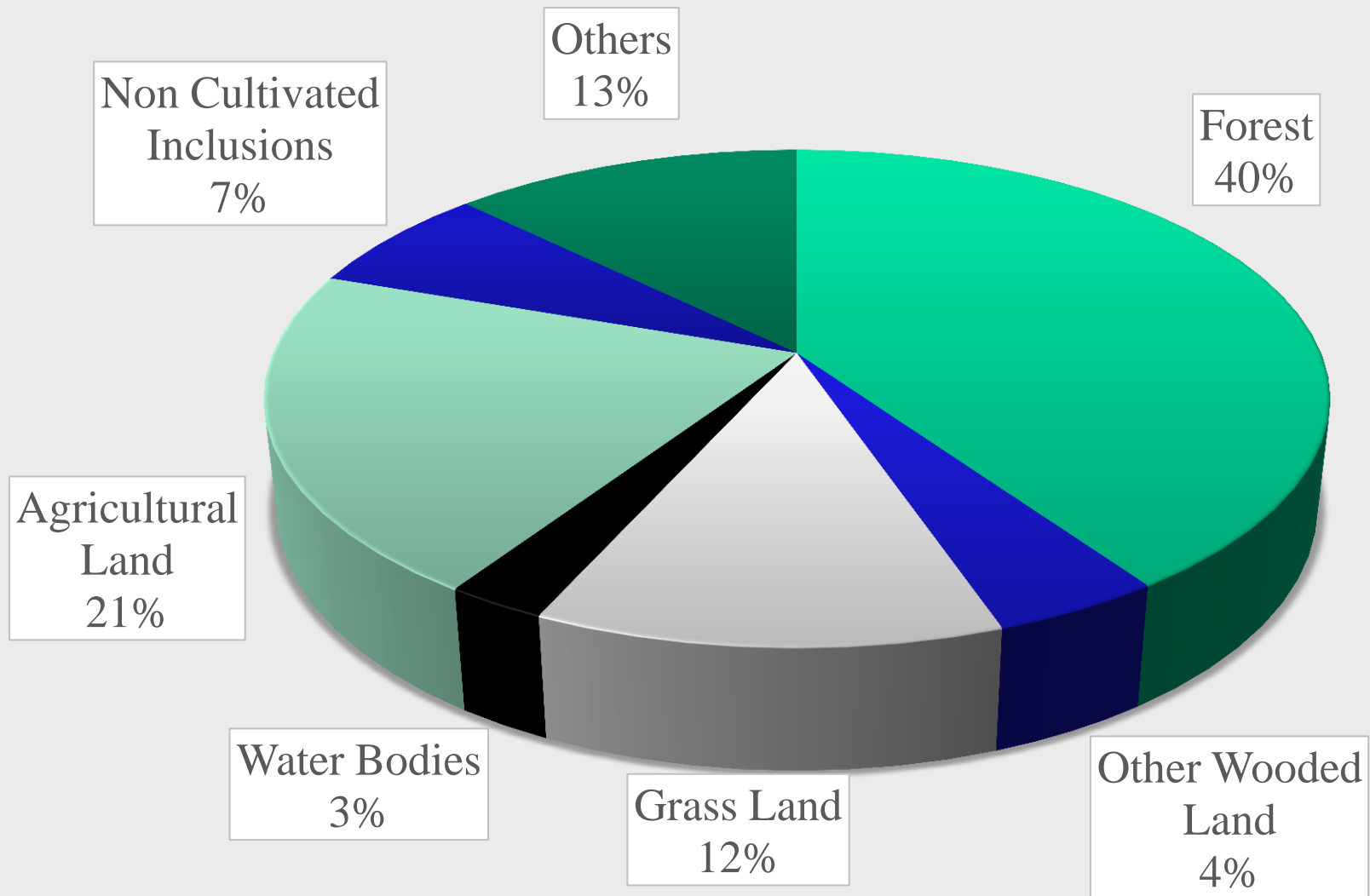
Forests Area and Forest Management Regimes



Forests Area and Forest Management Regimes ... Contd

- 44.74% of total land area is under forests and shrubland
- Growing stock is 164.76 m³/ha.
- Tropical climate in the south and temperate and alpine climates in the north
- 118 ecosystems
- 75 vegetation types and 35 forest types (Jackson 1994)
- 8 forest management regimes
 - Government Managed forests,
 - Community Forests,
 - Leasehold Forests,
 - Religious Forests,
 - Private Forests,
 - Protected Areas,
 - Conservation Areas and
 - Protected Watershed.
- 18,960 Community Forest Users group, 1.8 million hectares of forests are being managed by CFUGs

Land use pattern in Nepal



- Forest fires in Nepal
- Causes of fires
- Consequences of fires
- Institutional, Legal and policy framework

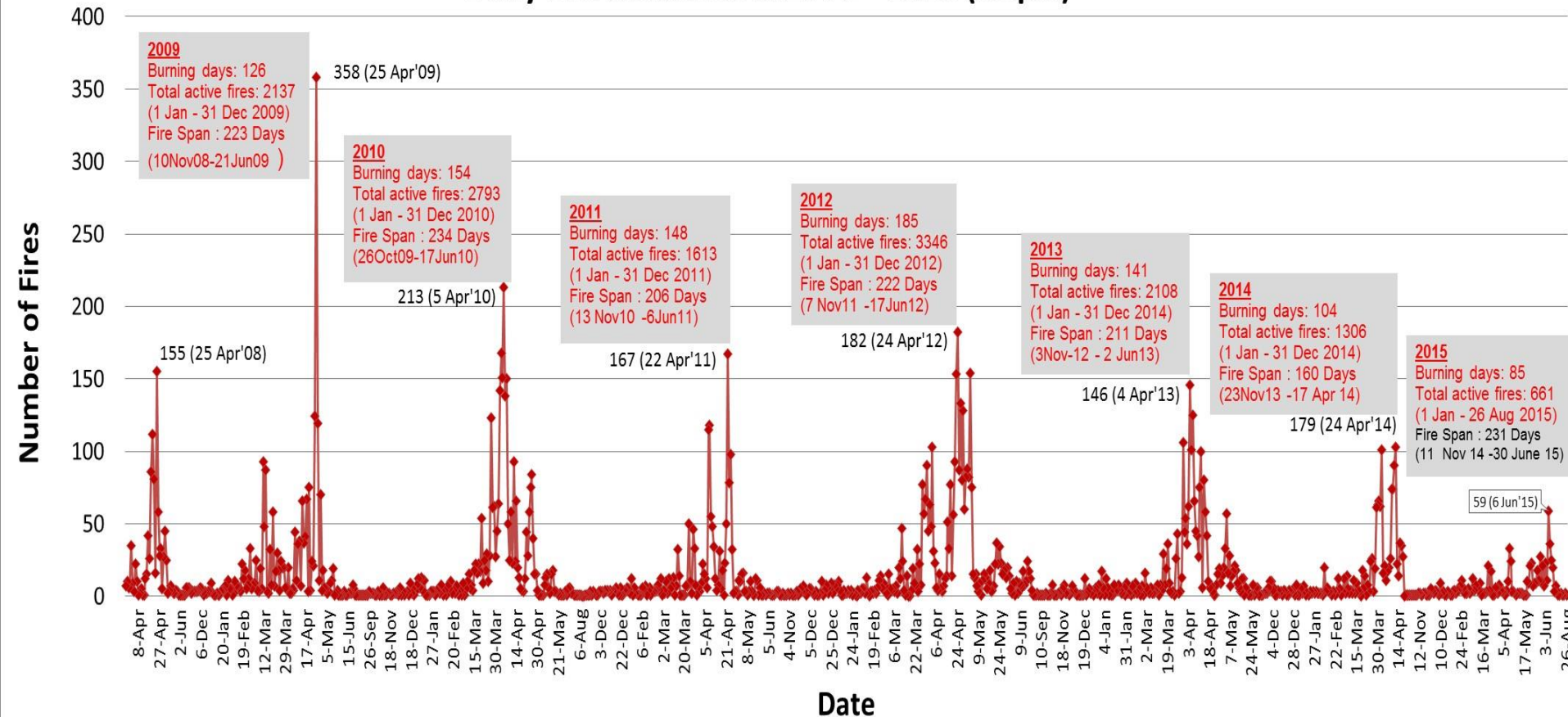
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Fire Situation in Nepal

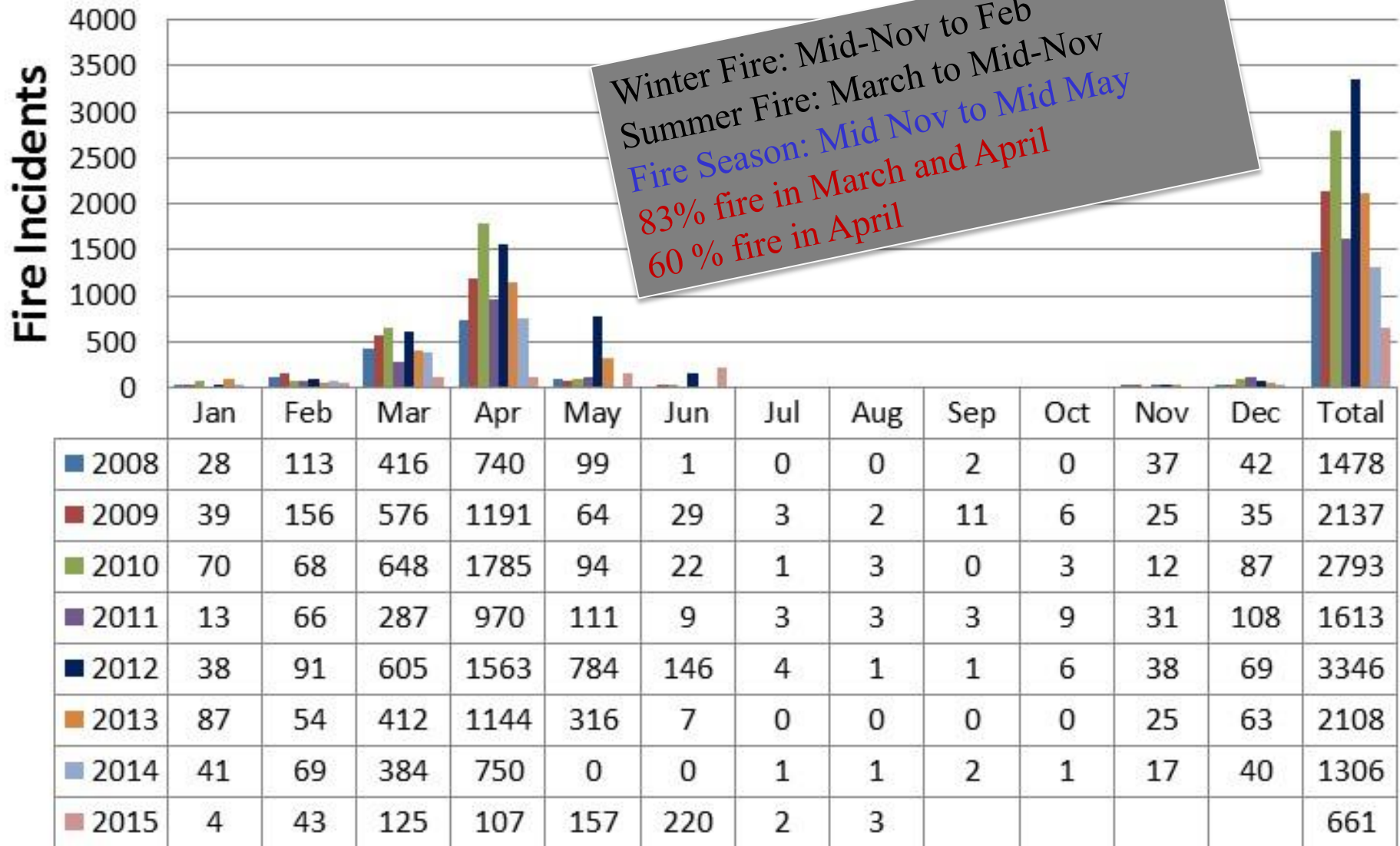
Fires in Nepal

Active fire incidents and total burning days are increasing in Nepal from the recent past

Daily Fire Incidence in 2008 - 2015 (Nepal)

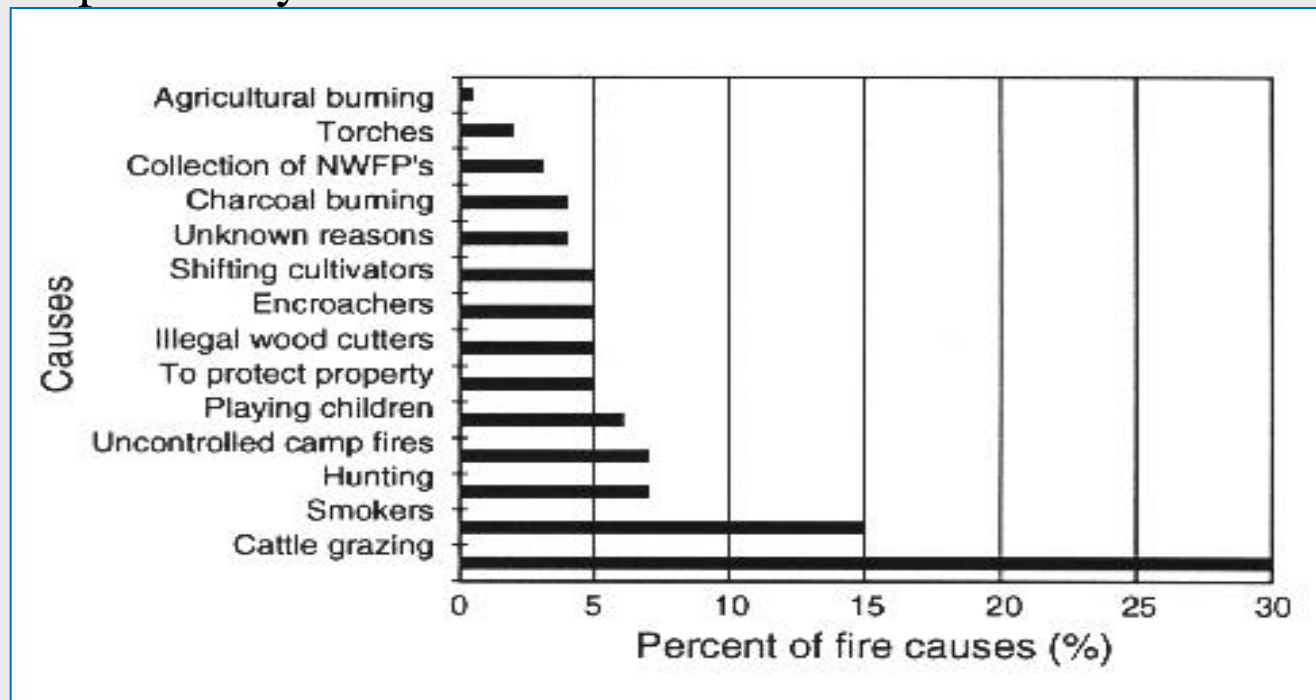


Monthly Comparision of Fire Incidents from 2008 to 2015 (Nepal)



Causes of Fires

- Almost all fires are human-induced
- Burning for stimulation of new grass (intentional) and smokers (negligence) alone share about 45 percent of fires among all known causes of forest fires
- Natural causes (e.g. thunderstorms) of fire are not reported.
- About 64 percent of fires are set by people intentionally
- About 32 percent of fires are due to accidental/carelessness, and
- About 4 percent by unknown causes



Consequences of forest fires

Fatality 2009 (Nepal)

Nepal	Fatalities	Injuries		
Firefighters	9	0		
Civilians	27	9		
Militaries	13	0		
Total	49	9		
Country Total	58			

Source: Global Wildland Fire Fatality Report 2009 (GFMC 2010)/
UNISDR-RSAWFN Record 2009

Area Burnt (ha.)	Affected Family (No.)	Animal Loss (No.)	House Destroyed (No.)	
			Complete	Shed
146,742	516	371	64	22

Source: UNISDR-RSAWFN Record 2009



Consequences of forest fires

Fatality 2010 (South Asia)

	Nepal		India		Pakistan		Bhutan	
	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries	Fatalities	Injuries
Firefighters	1	5	0	0	0	0	0	0
Civilians	8	29	11	0	5	0	2	0
Militaries	0	1	0	0	0	0	0	0
Total	9	35	11	6	5	0	2	0
Country Total	45		17		5		2	



Area Burnt (ha.)	Affected Family (No.)	Animal Loss (No.)	House Destroyed (No.)	
			Complete	Shed
82,087	624	92	376	15

*Data Source: UNISDR-RSAWFN Record 2010
Photo courtesy: B. Gurung (Nepal Fire Mgmt Chapter), 3 Apr 2010*

Consequences of forest fires

Year	Fatalities	Injured	House destroyed
2011	1	8	20
2012	4	6	74
2013	Missing		
2014	13	11	Missing
2015	3	2	Missing
2016	11	11	Missing
2017	0	0	Missing

Institutional, Legal and Policy Frameworks for Forest Fire Management in Nepal

Institutional Arrangement

- Ministry of Home Affairs (MoHA) is focal agency for all kinds of disaster
- Ministry of Forest and Soil Conservation is a focal agency for forest fire disaster
- Forest Management Section within the National Forest Division of DoF is a focal unit to look after a forest fire disaster in general
- District Forest Offices under DoF, PAs Offices under DNPWC and DSCOs under DSCWM are responsible units in their jurisdiction areas
- A Fire Focal Person is appointed in the DoF.
- DoF and DNPWC are in the process of establishing ‘Fire Control Room’ in this FY 2073/74

BUT,

There is no any dedicated Section/ Unit/ Cell to look after Forest Fires in Nepal Yet.

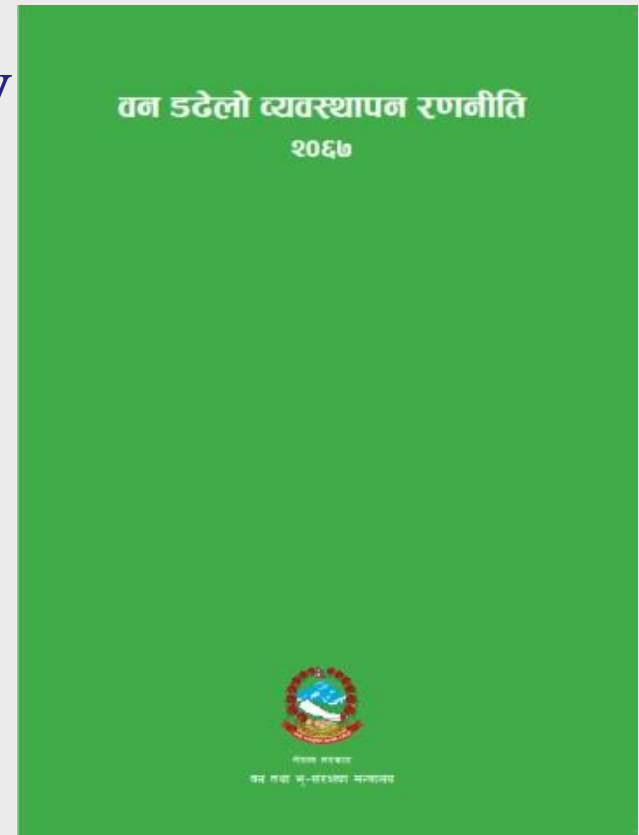
‘Everyone is responsible but no one is accountable !’

Policy Frameworks: Forest Fires

‘Forest Fire Management Strategy 2010’ of Nepal

Four pillars of the Strategy

1. Policy, legal and institutional development and improvement;
2. Education, awareness raising, capacity building and technology development;
3. Participatory (involving local community) fire management and research; and
4. Coordination, collaboration, networking, international cooperation, and infrastructure development.



Forest Policy 2015

Forest Policy 2015 has following strategic working policies (fire specific) on it:

- Existing ‘Forest Fire Management Strategy 2010’ should be implemented effectively focusing on **preventive measures**.
- Establishment and mobilization of **multi-stakeholders participatory mechanisms** to control forest fires.
- Certain amount of revenues arises from the sales and uses of forest products should be allocated to ‘forest fire management’ programs to promote **carbon sequestration**.
- With people’s participation incorporating recent scientific technology, forest fires should be managed by implementing **preventive and control measures**.
- People, government officials and firefighters, working in risky environment like ‘firefighting’ should be secured with reliable **professional security, life insurance and other benefits**.

Legal Provision: Forest Fires

Forest Act 1993 & Forest Rules 1995

- In Clause (b), Section 49 of Forest Act 1993, "**setting fire, or do anything that may cause a fire accident**" in national forests is prohibited.
- In Clause 1. (b), Section 50 of the Act, any person who commits such offence shall be punished with a fine of not **more than NRs. 10,000** or with imprisonment for a term **not exceeding one year, or both**. (GoN, 1995).

National Parks and Wildlife Conservation Act 2029 (NPWC Act 1973)

- Setting fire, or do anything that may cause a fire is prohibited- fine of up to NRs. 10,000 or with imprisonment for up to one year, or both

- Promotion of CBFiM by NFMC in Nepal



3

**NFMC initiatives in community
based fire management in Nepal**

Promotion of CBFiM

by

Nepal Forest Fire Management Chapter (NFFMC)



www.nffmc.org

- It is an autonomous, non-profit, non-governmental organization registered in Nepal government and affiliated with Social Welfare Council Nepal in 2008.
- It has been established in accordance with the works and objectives of UN-ISDR Wildland Fire Advisory Group (WFAG) / the Global Wildland Fire Network (GWFN) and its secretariat the Global Fire Monitoring Center (GFMC) and the Regional South Asia Wildland Fire Network (RSAWFN).

Services

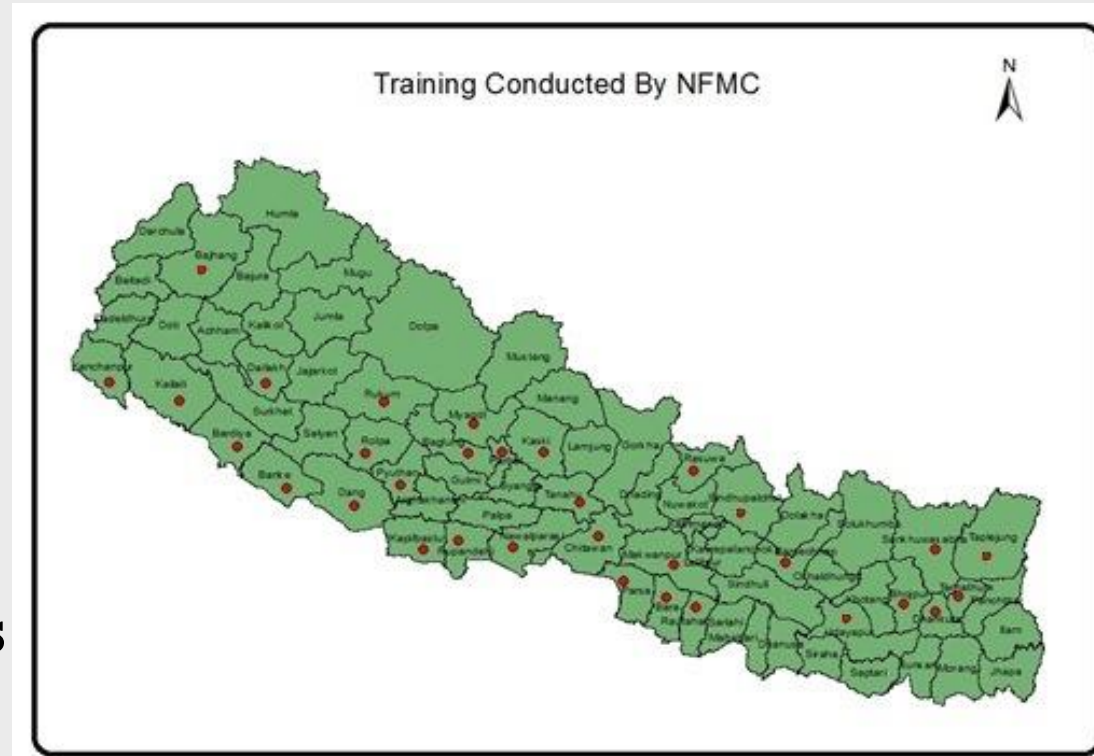
- **Platform:** NFMF provides platform for discussion, **policy dialogue, research and development** in wildland fire management in the country.
- **Awareness:** NFMF raises awareness about beneficial and harmful effects of **wildland fires** at all levels.
- **Cooperation:** NFMF helps support to enhancing cooperation among local institutions and countries within the region, aimed at sharing technology, expertise and data for coordinated and collective action in fire management.
- **Empowerment:** NFMF helps support government, non-government organizations and civil societies **for legal, institutional and policy frameworks development** by mobilizing local resources and training people.
- **Action:** NFMF **implement** wildland fire management programmes targeting at **preparedness** (awareness, arrangement of fire-fighting tools and the training of fighting groups, controlled burning etc.), **response** (fire fighting, fire fighter safety etc.), and **recovery** (damage assessment, revegetation of burnt areas, shelter, food, water, medicine, counseling to the victims etc.), national fire monitoring and national fire assessment.

Formation of Community-Level Forest Fire Management Groups in Nepal

At Community Level

Formed **71** fire management volunteer groups (20-30 persons in each groups) with fire fighting hand tools and safety gears in different forest management regimes in Nepal till 2017

- Gender balanced community groups
- Forestry staffs
- Security personnel



Fire fighting hand tools and safety gears (arranged and developed by NFMC appropriate to each group (most of the cases) are listed below:

S.N.	Types	Unit	Number
1	Swatter	Sets	10
2	Shovel	Sets	5
3	Rake	Sets	5
4	Rake-hoe	Sets	5
5	Axe-hoe	Sets	2
6	First-Aid Kit	Set	1
7	Jump-suit	Sets	20
8	Gloves	Pairs	20
9	Helmet	Sets	20
10	Boot	Pairs	20
11	Torch	Sets	20
12	Socks	Pairs	20
13	Water Bottle	Sets	20
14	Face Mask	Sets	20
15	Back Pack Pump	Sets	5
16	Water Pump (3.5 hp)	Set	1
17	Hose with reel	Set	1

NFMC (www.nffmc.org) provides orientation training with fire fighting tools/equipment



- Conclusions
- Way Forwards

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Conclusions and Way Forwards

Conclusions

- Nepal is taking a lead in CBFiM.
- Need for international cooperation (coordinated and collaborative actions) for effective fire management.
- All most all fire in Nepal are human induced
- March, April and May are sensitive months
- Very few community based fire fighting volunteer have been trained
- Institutional mechanism for forest fire is still lacking
- Yet government is trying to make effective legal mechanism to control forest fire

Way Forwards

- Awareness and capacity building for fire fighting
- Promote local level expert
- No separate institution to deal with forest fire
- Insurance scheme to the fire fighter and victims
- Institutional development
- Sanction more budgets on fire fighting tools, equipment's and modern technology
- Adequate research in fire behavior and ecology
- Wider dissemination of FAO Fire management voluntary guideline and International Multi-Lingual Fire Management Terminology in Nepali Language