

Fire Smart Territory

An innovative conceptual model for wildfire management



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Context

- *Mega-fires or catastrophic fires are not solely a fire management problem, they are a **societal problem** and a **political issue***

(Attiwell & Adams, 2013; Ryan & Opperman, 2013)

- *The wildfire **threat will worsen** as long as the **current approach** to wildfire management continues. By always aggressively **suppressing fires** now, we are transferring the **worst fire risks** into the future*

(Olson & Bengston, 2015)

Current approach

Since the majority of wildfires in Europe has **anthropogenic causes** (EFFIS, 2015), **without addressing the wildfires SOCIAL ROOTS** the problem remains unsolved

but in the current approach

Fire is considered and mainly treated as a **suppression problem rather than a symptom** underlying wicked social, economic, and management issues

Challenge

Humans cannot completely control the fires they set, nor always limit the spread of fires caused by natural ignitions (Bowman, et al. 2011)

but

they can **reduce wildfire risk** to an **acceptable level** by



to build wildfire resilient societies able to coexist with fire

Need for an alternative paradigm

A shift of paradigm is inevitable

from

“war against fire”
(suppression model)

to

“coexist with fire”
(holistic approach)

Our assumptions

1. **WILDFIRES** are a complex issue with interactions and feedback loops between human and natural systems

2. **FIRE** is a dual process :

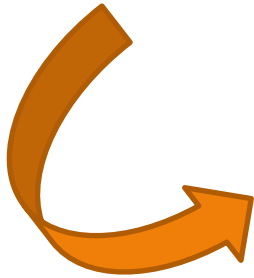
- a force of **destruction** and a conservation **threat**

or, if properly managed,

- a **conservation tool**
- a **life-sustaining tool** for rural communities
- and a **tool against wildfire risk**

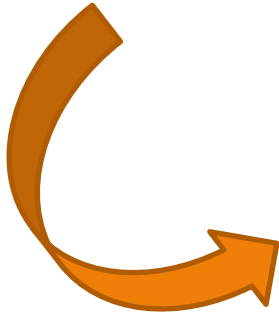
Our proposal: Fire Smart Territory (FST)

1. Wildfire is a complex issue



TO ADOPT A SOCIAL-ECOLOGICAL APPROACH

2. Fire is a dual process

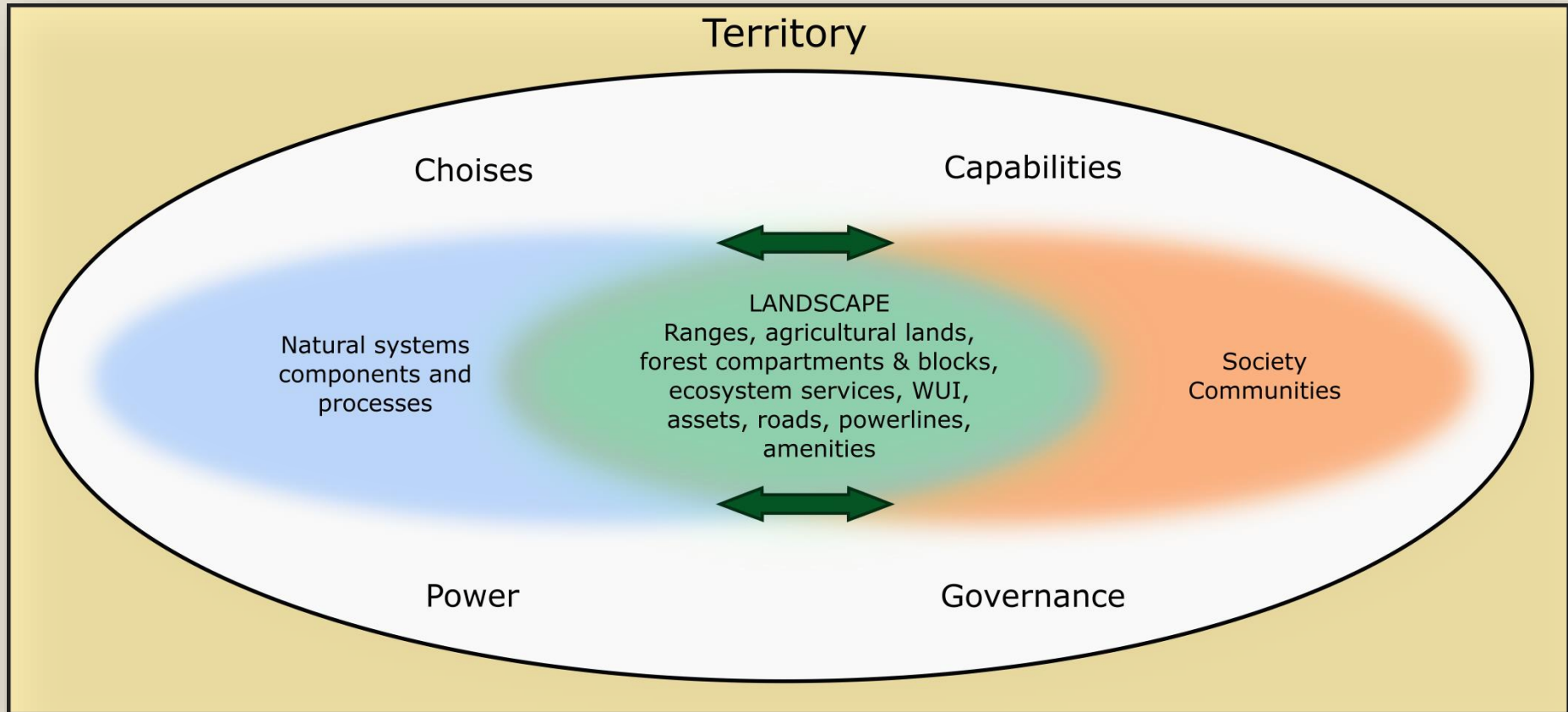


TO REDUCE NEGATIVE IMPACTS

TO SUSTAIN BENEFICIAL ASPECTS

Scale of intervention of FST: TERRITORY

TERRITORY is a processual and relational, socially produced reality, and is the dynamic reflection of communities activities and choices in the geographical space



FST driving forces

- The centrality of **social solutions**
- The interaction between institutions and communities and the **share of resources and responsibilities**; establishment of a **new governance model**
- The adoption of the mixed-use principle (Grant 2007), based on increased diversity of land uses, where **traditional uses** and **innovative productive activities synergically** cooperate to reduce wildfire risk

FST: an operational definition

ACTORS

A **territory** where **wildfire risk** is reduced to an **acceptable level**:

- by an **empowered** and **trained** society , assuming a **leading role** in containing wildfires through **actions in the daily life** and not as an extra and dedicated activity
- by **collaboration** between **communities** and **institutions** based on **shared** and **complementary responsibilities** and not as imposed and frequently inadequate top-down procedures

FST: an operational definition

GOALS

Reducing fuel hazard in forest and agricultural areas

Abating wildfire risk to an acceptable level:

- mitigating fire behavior (potential ROS and intensity)
- reducing the potential of fire ignitions
- reducing the occurrence of unwanted wildfires
- increasing the capability and efficacy of fire suppression resources
- decreasing vulnerability

Enhancing resilience



BUILD WILDFIRE RESILIENT TERRITORY

Fire Smart Territory

- FST **is not a “one size fits all” check list** of procedures
- FST proposes **tailored solutions** for building resilience, **empowering people**, and creating **new models of governance**
- Territories where wildfire problems are solved could be classified as **FST** by a **certification system**

Conclusion

The current wildfire challenges cannot be solved by:

- **Imposed top-down procedures**, without territorial attention, and adaptation, often inspired by an urban-centric bias
- **criminalization of traditional fire use** without offering alternative solutions and opportunities

but by

- **Locally interpreting and understanding** the wildfire problem and **engaging communities** in the selection and implementation of adequate measures
- **Preparing territory** to be less wildfire prone by **attributing a lead role to the communities**, supported and reinforced by public institutions

Conclusion



Fire Smart Territory can be defined as a fire prone territory in which the integration of economic and social activities, aimed at risk reduction and conservation of natural values and ecosystem services, is accomplished by aware and well trained empowered communities, able to decide the objectives and practices for preventing, controlling or utilizing fire in view of building wildfire resilient societies

(Tedim, Leone, Xanthopoulos, 2015, 2016)

Conclusion



www.firextr.pt

Fire Smart Territory

Is an innovative conceptual framework for wildfire adaptive management supported by a new governance model, and low-cost, social and nature-based solutions, in view of **building wildfires resilient societies** and sustainable development, safety and well-being

**Thank you
for your
attention!**

