## Europe's wildfires also driven by rural flight

It's not just drought and strong winds driving the catastrophic wildfires in southern Europe, fire expert Johann Goldammer says in an interview with DW.

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Many people have lost all their belongings because of the fires. Will even more people leave their rural homes now?

<u>Residents and firefighters in southern and southeastern Europe</u> are in a desperate, often futile, battle against wildfires.

As is often the case, the catastrophic fires we're seeing now are being helped by high temperatures, extreme drought and strong winds. And some of that is down to extreme weather, which, according to scientists, climate change is bringing to areas that have been spared in the past.

But Johann Georg Goldammer says it's not just climate change that's raising the risk and threat of these fires.

Goldammer, an international fire expert who heads the Global Fire Monitoring Center, says rural flight has also done its damage. He says that with large numbers of young people leaving rural areas for cities in the Mediterranean, landscapes are changing as they get abandoned — often with grave consequences.

DW: There have always been wildfires in the Mediterranean. Why is rural flight increasing the risk of them now?

Johann Georg Goldammer: This exodus from rural areas in the Balkans, <u>Greece</u> and Turkey is an uninterrupted trend. Younger generations are moving to the cities to find work and a better quality of life. And as they move away, those rural areas are getting neglected and rundown, and bit by bit, the old towns are dying away.



Goldammer heads the Global Fire Monitoring Center

All that land used to be farmed, for instance. When it's left, it gets overgrown with grass, shrubs and bushes, trees and eventually turns into woodland. And that's more fuel for fires than we ever got from farmed landed.

So, if we want to do anything to stop the increasing threat of wildfires, then we'll have to focus our efforts on stopping rural flight in southern Europe.

Some countries have already reacted to the effects of rural flight by restructuring wooded areas. Some, for instance, are trying reforestation. Is that a good thing?

It depends on the type of reforestation. In Portugal, for example, they have planted fast-growing trees over vast areas, with the aim of supplying pulp and wood.

That can be exotics, such as pine and eucalyptus trees. Those are high-risk trees because they burn more easily than olive groves or cork oaks that may have been there before. They are cared for intensively and there was usually very little fuel for the fires in between the olive or oak trees.

When it was very hot, animals would take cover in the shade of the trees and at the same time graze on the ground, keeping it free of leaves or grass that might otherwise burn.

And, right now, we are seeing massive fires on the Iberian peninsula, where previously there weren't any, and it's because of these eucalyptus and pine plantations.



Pine and eucalyptus trees burn easily and wildfires in huge plantations are hard to control

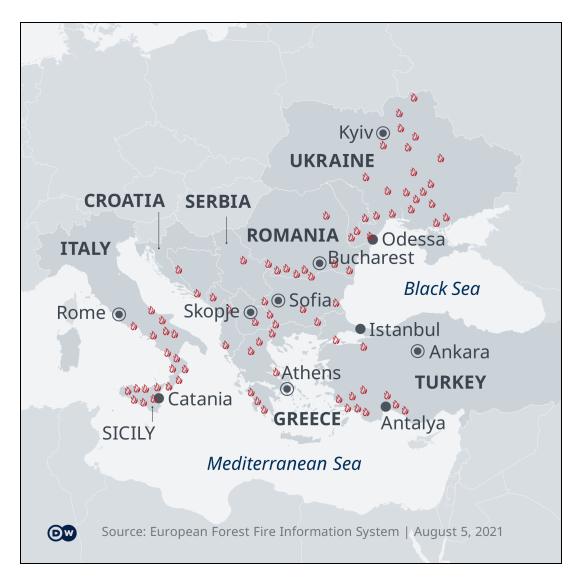
<u>In Turkey, a lot of the fires now are in pine plantations</u>. Those wildfires are very hard to control or stop because they burn very intensively. When there's strong, dry wind, it is virtually impossible to stop them.

Aside from these monocultures, there's another approach, where people want to let forests grow as undisturbed as possible. Aren't these "natural" woodlands more resilient against extreme weather and fire?

There's a high level of diversity of vegetation and insect species in undisturbed woodlands, but also a lot of deadwood.

Those woodlands can be extremely vulnerable if there's a heatwave or a fire.

If we want these woodlands to be less at risk of fire, we have to start cultivating them so that there is less fuel for the fires. That will make it easier to control fires. And that's largely possible through agricultural farming and ranching, including controlled grazing.



Granted, that gives us less plant-based biomass, perhaps even less biodiversity than in a species-rich ancient, mixed woodland.

But, for that, these woodlands are more resilient against stress factors, such as fire, drought and storms.

Extreme weather events aren't exclusive to the Mediterranean. We're seeing extreme weather through climate change in many other regions as well. How should we adapt to the new reality?

Well, we've just had heavy rainfall and floods in Germany. On top of that, we're seeing extreme wind events, including tornadoes that we've never had before, and long dry-spells and fire.

All that is having an impact on forests and woodland. We're just going to have to free ourselves of this image of forests as being areas where things grow in a measured and balanced climate and where these extremes hardly ever happen.

We need to make it a priority to turn these areas over to the kind of agricultural farming that will increase a woodland's resilience against drought, strong winds and heavy rainfall.



what's left to save. The fires will worsen things for people in structurally weak regions.

So, if we're heading for those climate conditions, such as the ones we're seeing in the Mediterranean or in the subtropics, then we're going to have to take a look at their forests and woodlands.

What do they look like? Are they as dense and rich and high in biomass as our spruces, firs and beechwood? No. They are often open woodlands with very few trees per unit area.

That means that each tree has more ground and water to feed on, and their roots grow deeper. That kind of stability is very important in dry spells and strong winds. Forest pastures can help maintain these stable, "light" woods and reduce fuel for fire.

But it's not only underdeveloped countries that lack the financial means or even the sociopolitical will to adapt to the new realities.

I agree. We're all going through a collective process of learning how to deal with climate change. The whole world, but especially in southern and southeast Europe, those old cultural landscapes are going through a process of change. And a lot of that has to do with the way land is used. That is what's leading to these dangerous and destructive fires.

It is, however, incredibly difficult to get it through to the expedient, fast-paced world of politics that we need long-term solutions. Quickly buying in new technology, like fire engines or water-bomber planes, is so much easier and attractive to politics.

Prof. Dr. Johann Georg Goldammer is a fire ecologist. His research group is part of the Forest Science Faculty at the University of Freiburg and the United Nations University. He is a senior scientist at the Max Planck Society for Chemistry, Biogeochemistry and heads the UN's Global Fire Monitoring Center.

This interview was adapted from German and conducted by Alexander Freund.