00:00

Every year, humans change 10 million hectares of land, and not for the better. Right now, there are more than two billion hectares of degraded land around the world. We need to fix this fast, and technology can help. Restoration is an enormous, complex challenge. It cannot be done by simply planting trees. We need to bring native, complex ecosystems back to life, and it requires deep ecological expertise. Until now, we have been limited to poor facsimiles, like vast plantations of a single kind of tree. But drones change that by allowing us to gather data and plant the right mix of vegetation quickly, at enormous scales. And machine-learning analysis enables us to plan the planting and then monitor our restoration work.

00:49

For example, in Australia, we're using drone-based planting and ecology-trained AI to restore thousands of hectares of land mined for coal. Not just planting trees, but bringing back biodiverse, complex ecosystems. On a larger scale, native forests here in Australia have been decimated by catastrophic bushfires and land-clearing for agriculture. This means diminished food sources and safe habitats for koalas. A new project would allow us to accelerate the restoration of thousands of hectares of koala forests over the next few years.

01:28

With these combined technologies, we're able to scale up restoration from a small island to an entire continent. We can return forests to land where a mine used to be, or recreate ecosystems like the one we're hoping to restore on Lord Howe Island, birthplace of one of the world's largest insects. This unique island is plagued by imported species, where we're helping to eradicate the undesirable plants to allow endemic species to thrive.

01:59

It's not just billions of trees. It's restoring nature in all its complexity and beauty.

02:06

Thank you.