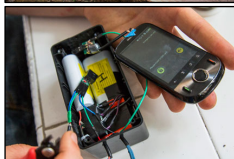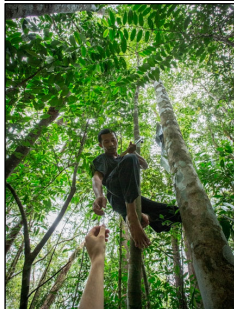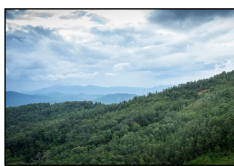# RAINFOREST CONNECTION

PROTECTING RAINFORESTS WITH REAL-TIME DATA

A Novel, Low-Cost Approach

Rainforest Connection (RFCx) is the first system to generate real-time data on deforestation in the tropical rainforest.

We turn old cell phones into security guards, leveraging existing infrastructure to accomplish something unprecedented: detect and stop deforestation before it occurs, and to make the data available to individuals and orgs around the world.

A Game-Changing Advantage

Currently, most illegal logging and poaching occurs under the radar, and is not discovered until after the damage is done—usually weeks or months later.

Our technology pinpoints deforestation **as it is happening**, alerting local partners to the precise location of illegal logging and poaching so they can intervene in real-time **before the damage is done**.

Getting the World Involved

The importance of our system doesn't end in the forest.

All data generated are made freely available on the internet, empowering a global community of software developers and scientists to build real-time applications.

"In the next 24 hours, deforestation will release as much CO_2 into the atmosphere as 12 million people flying from London to New York. Stopping the loggers is the fastest and cheapest solution to climate change. So why are global leaders turning a blind eye to this crisis?"
-Daniel Howden

- **Nature Conservancy:** Every year, the world loses an estimated 56,000 square miles of natural forest

- **United Nations FAO:** Today, less than half of earth's tropical rainforests remain.

- **Interpol:** Worldwide, 50%-90% of rainforest logging is illegal, resulting in billions of dollars in lost annual revenue.

- **United Nations:** Due to deforestation and climate change, we are now experiencing the highest species extinction rate since the age of the dinosaurs.
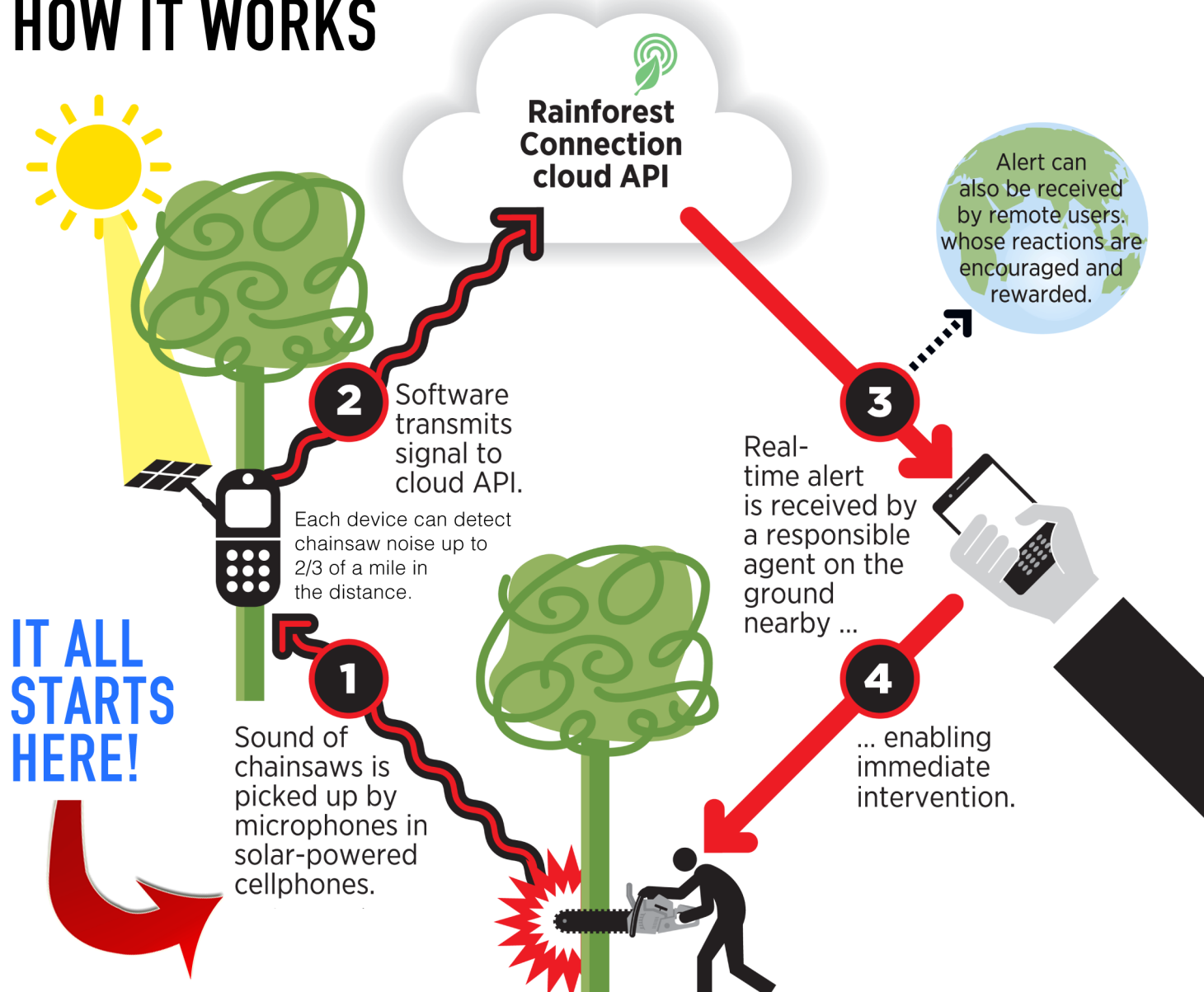
How Does It Work?

Used cell-phones are re-purposed, up-cycled and installed sporadically in trees in threatened areas. Each device—solar-powered and able to operate autonomously—constantly monitors audio frequencies over an entire square mile, listening for the sounds of illegal activity (chainsaws, gunshots, animal distress calls). Alerts are automatically generated and sent to responsible agents in the forest, pinpointing the location of the activity and enabling real-time intervention.

Field-Tested & Proven

In June, the *Rainforest Connection* platform was tested in Western Sumatra, Indonesia, where it successfully detected illegal logging, triggering intervention by local authorities. The illegal logging was halted, and the covered area successfully protected.
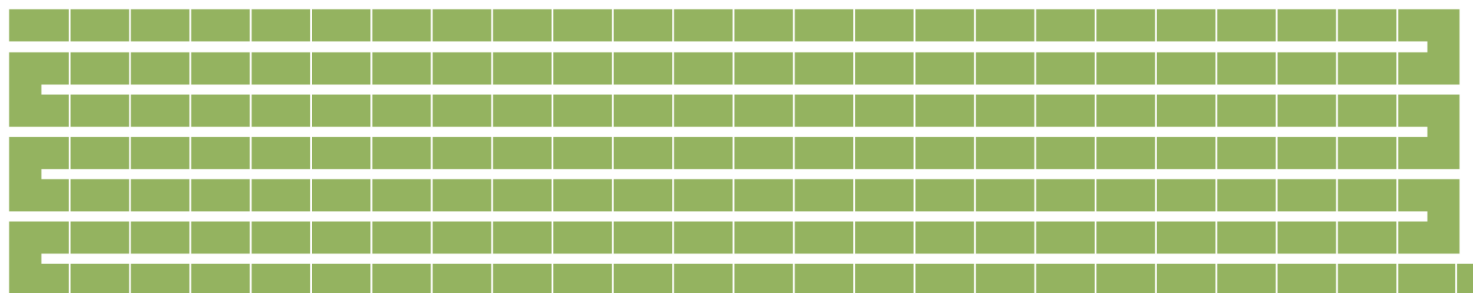
RAINFOREST CONNECTION: HOW IT WORKS

Rainforest Connection cloud API

Alert can also be received by remote users. whose reactions are encouraged and rewarded.

2 Software transmits signal to cloud API.

Each device can detect chainsaw noise up to 2/3 of a mile in the distance.

3 Real-time alert is received by a responsible agent on the ground nearby ...

IT ALL STARTS HERE!

1 Sound of chainsaws is picked up by microphones in solar-powered cellphones.

4 ... enabling immediate intervention.

How detection of illegal logging by the Rainforest Connection compares to detection by satellite imagery.

RFCX DETECTION: **5 MINUTES**

LOGGING AND REMOVAL: **5 HOURS**

SATELLITE DETECTION: **1 WEEK +**