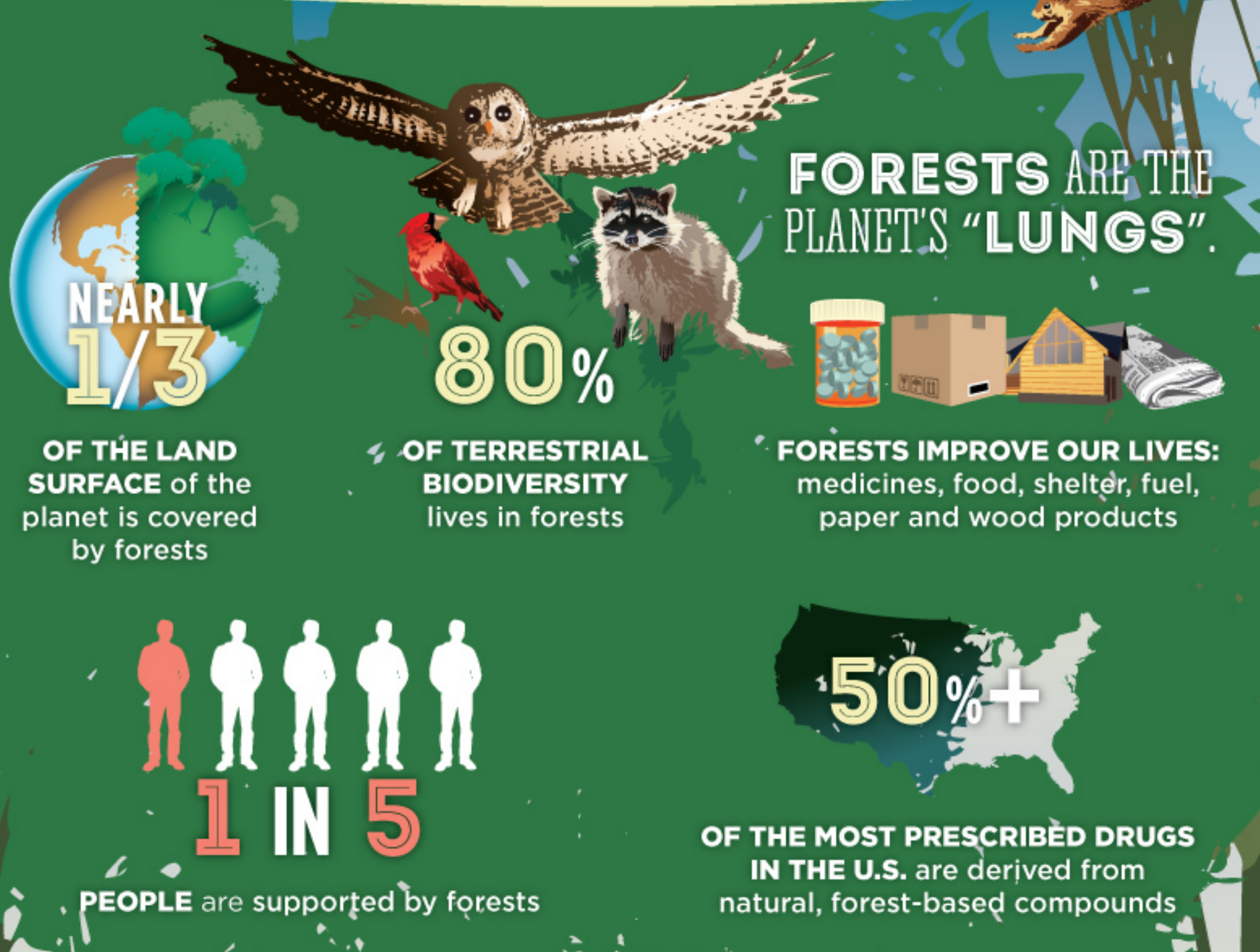


TRADE-OFF DECISIONS FOR FORESTS

HEALTHY AND PRODUCTIVE FORESTS ARE VITAL TO THE SURVIVAL OF NEARLY EVERY SPECIES ON THE PLANET. BUT HUMAN ACTIVITIES, PESTS AND A CHANGING CLIMATE ARE THREATENING THEM.

FORESTS ARE IMPORTANT TO LIFE ON EARTH



FORESTS ARE IN DANGER

POPULATION: MORE PEOPLE = MORE PRESSURE ON NATIVE FORESTS

CONVERSION:

Forests are cut down and converted to other uses such as agricultural fields and grazing lands -

13 MILLION HA

Every year

FRAGMENTATION:

More houses, infrastructure, roads, where forests used to be -

232 MILLION HA

of forest lost by 2050

DEMAND:

Unsustainable harvesting of native forests will accelerate as:

World population eclipses

9 BILLION

by 2050

WHAT'S THE BOTTOM LINE?

We're exerting **TOO MUCH PRESSURE** on native forests

PESTS: GLOBAL TRADE = MORE MOBILITY

EASY ENTRY:

We move non-native **pests** in shipping crates and airplanes **every day**.

NO RESISTANCE:

Native trees have no resistance and die. There are no natural predators for the new pests, so **the pests thrive**.

MILD WINTERS:

Pests get a boost because **they don't freeze out and die**.

CLIMATE CHANGE: RAPIDLY CHANGING CLIMATE = DYING TREES

UNNATURAL MIGRATION:

Trees can naturally adapt and **migrate less than 1/2 a kilometer per year**. Yet ecological regions are predicted to move at 10 times that rate.

WILDFIRES:

More extreme weather events are likely to **increase the intensity** of wildfires.

WARM WEATHER:

Warmer winters allow pests to **expand devastation area faster**.



WHAT'S THE BOTTOM LINE?

Climates are changing, and **TREES CAN'T MOVE FAST ENOUGH** on their own. As a result, many will be outpaced and die.

WHAT TECHNOLOGIES CAN BE USED RESPONSIBLY TO HELP OUR FORESTS?

IMPROVE FOREST HEALTH

INCREASE FOREST PRODUCTIVITY



Protecting and restoring species



Use forest resources more efficiently



Stopping pests through early detection



Finding trees with natural resistance to extreme climates



Planting more trees for sustainable wood production



Designing trees that are healthier and produce more wood

SOURCES

WWF Living Forests Report 2011
Jouzel and Debroise 2007
United Nations Environmental Programme
Groombridge and Jenkins 2002, World Atlas of Biodiversity