

HUMAN IMPACT AND SUSTAINABILITY READINGS BUNDLE

6TH, 7TH, 8TH GRADE

Improve students' literacy skills

Sub Plan

Science
Applicability



Reading Buyer Comment



★★★★★ Extremely satisfied - Great resource to work on student reading comprehension and it tied into the topic I was teaching. My students have been struggling with reading and I've been incorporating more reading into my lessons. Thank you for the resource.



SCROLL
to take a look inside!

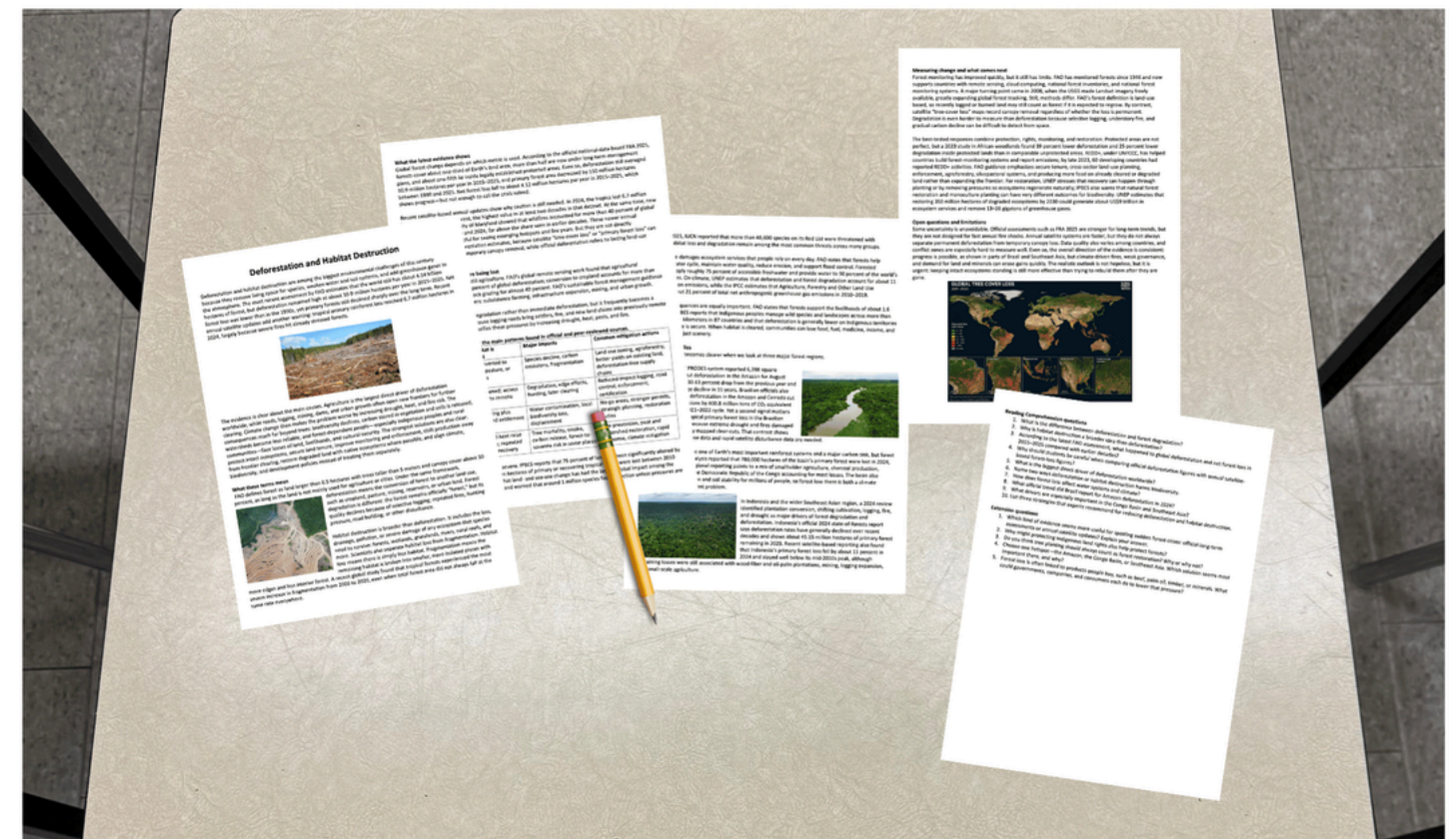


THE PROBLEMS YOU FACE

- Limited time to teach scientific literacy and strengthen students' reading and analysis skills.
- Need meaningful extension activities to engage fast-moving learners.
- Difficulty creating effective last-minute sub plans that still support student learning.

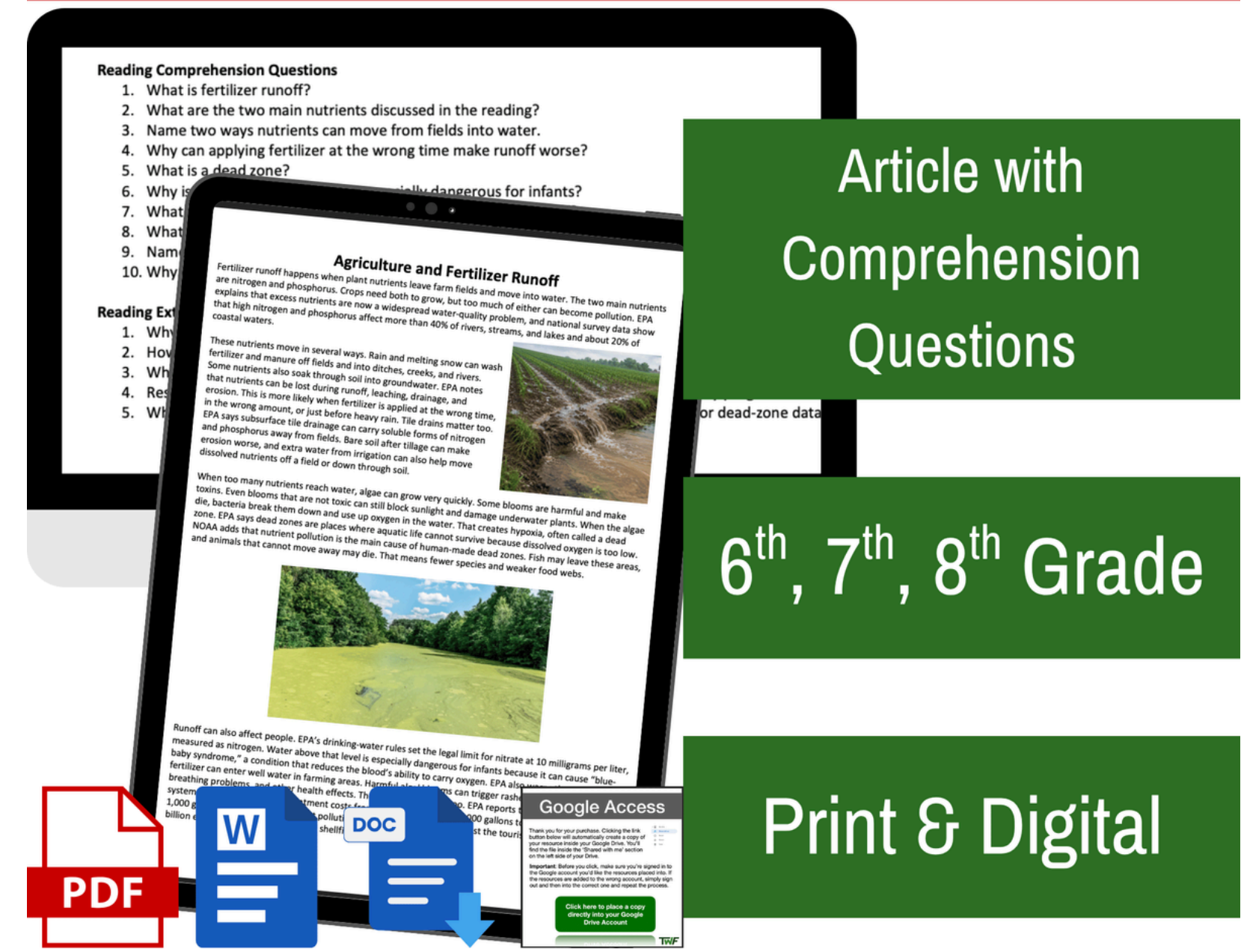
NO-PREP - PRINT/UPLOAD

- Questions and Answer Key
- No Prep, Ready-to-Use: Print or assign digitally with Google Docs, Microsoft Word, and PDF formats for flexible classroom use
- Includes Varied Question Types: Knowledge, thinking, connecting, application, and open-ended questions.



What Will Your Students Learn?

READING COMPREHENSION ARTICLES & QUESTIONS



- **Climate Change and Greenhouse Gases**
- Fossil Fuels and Energy Production
- **Air Pollution**
- Water Pollution
- **Agricultural Runoff and Nutrient Pollution**
- Algal Blooms and Dead Zones
- **Deforestation and Habitat Fragmentation**
- Biodiversity and Species Loss
- **Mining and Resource Depletion**
- Landfills, Waste, and Recycling
- **Plastic Pollution and Microplastics**
- PFAS and Persistent Chemicals
- **Ocean Acidification**
- Coral Reef Decline
- **Overfishing and Marine Food Webs**
- Conservation and Sustainable Solutions

Classroom Fit Guarantee

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Your Readings

Deforestation and Habitat Destruction

Deforestation and habitat destruction are among the biggest environmental challenges of this century because they remove living space for species, weaken water and soil systems, and add greenhouse gases to the atmosphere. The most recent assessment by FAO estimates that the world still has about 4.14 billion hectares of forest, but deforestation remained high at about 10.9 million hectares per year in 2015–2025. Net forest loss was lower than in the 1990s, yet primary forests still declined sharply over the long term. Recent annual satellite updates add another warning: tropical primary rainforest loss reached 6.7 million hectares in 2024, largely because severe fires hit already stressed forests.



The evidence is clear about the main causes. Agriculture is the largest direct driver of deforestation worldwide, while roads, logging, mining, dams, and urban growth often open new frontiers for further clearing. Climate change then makes the problem worse by increasing drought, heat, and fire risk. The consequences reach far beyond trees: biodiversity declines, carbon stored in vegetation and soils is released, watersheds become less reliable, and forest-dependent people—especially Indigenous peoples and rural communities—face losses of land, livelihoods, and cultural security. The strongest solutions are also clear: protect intact ecosystems, secure land tenure, improve monitoring and enforcement, shift production away from frontier clearing, restore degraded land with native ecosystems where possible, and align climate, biodiversity, and development policies instead of treating them separately.

What these terms mean

FAO defines forest as land larger than 0.5 hectares with trees taller than 5 meters and canopy cover above 10 percent, as long as the land is not mainly used for agriculture or cities. Under the same framework, deforestation means the conversion of forest to another land use, such as cropland, pasture, mining, reservoirs, or urban land. Forest degradation is different: the forest remains officially “forest,” but its quality declines because of selective logging, repeated fires, hunting pressure, road building, or other disturbance.



Habitat destruction is broader than deforestation. It includes the loss, drainage, pollution, or severe damage of any ecosystem that species need to survive: forests, wetlands, grasslands, rivers, coral reefs, and more. Scientists also separate habitat loss from fragmentation. Habitat loss means there is simply less habitat. Fragmentation means the remaining habitat is broken into smaller, more isolated pieces with more edges and less interior forest. A recent global study found that tropical forests experienced the most severe increase in fragmentation from 2000 to 2020, even when total forest area did not always fall at the same rate everywhere.

What the latest evidence shows

Global forest change depends on which metric is used. According to the official national-data-based FRA 2025, forests cover about one-third of Earth’s land area, more than half are now under long-term management plans, and about one-fifth lie inside legally established protected areas. Even so, deforestation still averaged 10.9 million hectares per year in 2015–2025, and primary forest area decreased by 110 million hectares between 1990 and 2025. Net forest loss fell to about 4.12 million hectares per year in 2015–2025, which shows progress—but not enough to call the crisis solved.

Recent satellite-based annual updates show why caution is still needed. In 2024, the tropics lost 6.7 million hectares of primary rainforest, the highest value in at least two decades in that dataset. At the same time, new research from the University of Maryland showed that wildfires accounted for more than 40 percent of global forest disturbance in 2023 and 2024, far above the share seen in earlier decades. These newer annual numbers are especially useful for seeing emerging hotspots and fire years. But they are not directly comparable with FAO deforestation estimates, because satellite “tree-cover loss” or “primary forest loss” can include fire damage and temporary canopy removal, while official deforestation refers to lasting land-use conversion.

Why forests and habitats are being lost

The biggest direct driver is still agriculture. FAO’s global remote sensing work found that agricultural expansion drives almost 90 percent of global deforestation; conversion to cropland accounts for more than half of forest loss, and livestock grazing for almost 40 percent. FAO’s sustainable forest management guidance adds other major direct drivers: subsistence farming, infrastructure expansion, mining, and urban growth.

Logging is often a driver of degradation rather than immediate deforestation, but it frequently becomes a gateway to later clearing because logging roads bring settlers, fire, and new land claims into previously remote forests. Climate change intensifies these pressures by increasing drought, heat, pests, and fire.

The table below summarizes the main patterns found in official and peer-reviewed sources.

Driver	How habitat is destroyed	Major impacts	Common mitigation actions
Agricultural expansion	Forest converted to cropland, pasture, or plantations	Species decline, carbon emissions, fragmentation	Land-use zoning, agroforestry, better yields on existing land, deforestation-free supply chains
Logging and roads	Canopy opened; access expands into remote areas	Degradation, edge effects, hunting, later clearing	Reduced-impact logging, road control, enforcement, certification
Mining and infrastructure	Direct clearing plus pollution and settlement growth	Water contamination, local biodiversity loss, displacement	No-go areas, stronger permits, strategic planning, restoration duties
Fires and climate stress	Drought and heat raise flammability; repeated burns block recovery	Tree mortality, smoke, carbon release, forest-to-savanna risk in some places	Fire prevention, peat and watershed restoration, rapid response, climate mitigation

The biological consequences are severe. IPBES reports that 75 percent of land has been significantly altered by human activity and that 32 million hectares of primary or recovering tropical forest were lost between 2010 and 2015. IPBES also concluded that land- and sea-use change has had the largest global impact among the direct drivers of biodiversity loss and warned that around 1 million species face extinction unless pressures are

reduced. In 2025, IUCN reported that more than 48,600 species on its Red List were threatened with extinction. Habitat loss and degradation remain among the most common threats across many groups.

rest loss also damages ecosystem services that people rely on every day. FAO notes that forests help regulate the water cycle, maintain water quality, reduce erosion, and support flood control. Forested watersheds supply roughly 75 percent of accessible freshwater and provide water to 90 percent of the world’s 10 largest cities. On climate, UNEP estimates that deforestation and forest degradation account for about 11 percent of carbon emissions, while the IPCC estimates that Agriculture, Forestry and Other Land Use contributed about 21 percent of total net anthropogenic greenhouse gas emissions in 2010–2019.

Other social consequences are equally important. FAO states that forests support the livelihoods of about 1.6 billion people. IPBES reports that Indigenous peoples manage wild species and landscapes across more than 1 million square kilometers in 87 countries and that deforestation is generally lower on Indigenous territories where land tenure is secure. When habitat is cleared, communities can lose food, fuel, medicine, income, and cultural ties—not just scenery.

Regional case studies

The global picture becomes clearer when we look at three major forest regions.

Brazil, the official PRODES system reported 6,288 square kilometers of clear-cut deforestation in the Amazon for August 23 to July 2024, a 30.63 percent drop from the previous year and the largest percentage decline in 15 years. Brazilian officials also estimated that lower deforestation in the Amazon and Cerrado cut greenhouse gas emissions by 400.8 million tons of CO₂ equivalent compared with the 2021–2022 cycle. Yet a second signal matters: satellite-based tropical primary forest loss in the Brazilian Amazon rose in 2024 because extreme drought and fires damaged forests beyond officially mapped clear-cuts. That contrast shows why both official land-use data and rapid satellite disturbance data are needed.



The Congo Basin remains one of Earth’s most important rainforest systems and a major carbon sink, but forest loss is rising. Satellite analysis reported that 780,000 hectares of the basin’s primary forest were lost in 2023 from 2023. Recent regional reporting points to a mix of smallholder agriculture, charcoal production, logging, and fires, with the Democratic Republic of the Congo accounting for most losses. The basin also provides rainfall regulation and soil stability for millions of people, so forest loss there is both a climate problem and a development problem.



In Indonesia and the wider Southeast Asian region, a 2024 review identified plantation conversion, shifting cultivation, logging, fire, and drought as major drivers of forest degradation and deforestation. Indonesia’s official 2024 state-of-forests report says deforestation rates have generally declined over recent decades and shows about 45.15 million hectares of primary forest remaining in 2023. Recent satellite-based reporting also found that Indonesia’s primary forest loss fell by about 11 percent in 2024 and stayed well below its mid-2010s peak, although remaining losses were still associated with wood-fiber and oil-palm plantations, mining, logging expansion, and small-scale agriculture.

Measuring change and what comes next

Forest monitoring has improved quickly, but it still has limits. FAO has monitored forests since 1980 with supports countries with remote sensing, cloud computing, national forest inventories, and national monitoring systems. A major turning point came in 2008, when the USGS made Landsat imagery available, greatly expanding global forest tracking. Still, methods differ. FAO’s forest definition is based, so recently logged or burned land may still count as forest if it is expected to regrow. By contrast, satellite “tree-cover loss” maps record canopy removal regardless of whether the loss is permanent. Degradation is even harder to measure than deforestation because selective logging, understory removal, and gradual carbon decline can be difficult to detect from space.

The best-tested responses combine protection, rights, monitoring, and restoration. Protected areas are perfect, but a 2023 study in African woodlands found 39 percent lower deforestation and 25 percent degradation inside protected lands than in comparable unprotected areas. REDD+, under UNFCCC countries build forest-monitoring systems and report emissions; by late 2023, 60 developing countries reported REDD+ activities. FAO guidance emphasizes secure tenure, cross-sector land-use planning, enforcement, agroforestry, silvopastoral systems, and producing more food on already cleared land rather than expanding the frontier. For restoration, UNEP stresses that recovery can happen naturally or by removing pressures so ecosystems regenerate naturally; IPBES also warns that natural regeneration and monoculture planting can have very different outcomes for biodiversity. UNEP estimates that 350 million hectares of degraded ecosystems by 2030 could generate about US\$9 trillion in ecosystem services and remove 13–26 gigatons of greenhouse gases.

Open questions and limitations

Some uncertainty is unavoidable. Official assessments such as FRA 2025 are stronger for long-term trends than for fast annual fire shocks. Annual satellite systems are faster, but they do not separate permanent deforestation from temporary canopy loss. Data quality also varies among regions, and conflict zones are especially hard to measure well. Even so, the overall direction of the evidence is clear: progress is possible, as shown in parts of Brazil and Southeast Asia, but climate-driven fires, weak enforcement, and demand for land and minerals can erase gains quickly. The realistic outlook is not hopeless. The most urgent action is keeping intact ecosystems standing; it is still more effective than trying to rebuild them after loss.



Reading Comprehension questions

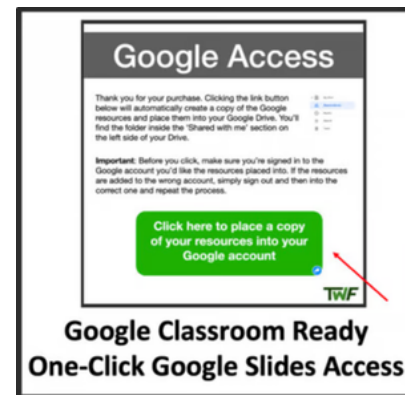
1. What is the difference between deforestation and forest degradation?
2. Why is habitat destruction a broader idea than deforestation?
3. According to the latest FAO assessment, what happened to global deforestation and net forest loss in 2015–2025 compared with earlier decades?
4. Why should students be careful when comparing official deforestation figures with annual satellite-based forest-loss figures?
5. What is the biggest direct driver of deforestation worldwide?
6. Name two ways deforestation or habitat destruction harms biodiversity.
7. How does forest loss affect water systems and climate?
8. What official trend did Brazil report for Amazon deforestation in 2024?
9. What drivers are especially important in the Congo Basin and Southeast Asia?
10. List three strategies that experts recommend for reducing deforestation and habitat destruction.

Extension questions

1. Which kind of evidence seems more useful for spotting sudden forest crises: official long-term assessments or annual satellite updates? Explain your answer.
2. Why might protecting Indigenous land rights also help protect forests?
3. Do you think tree planting should always count as forest restoration? Why or why not?
4. Choose one hotspot—the Amazon, the Congo Basin, or Southeast Asia. Which solution seems most important there, and why?
5. Forest loss is often linked to products people buy, such as beef, palm oil, timber, or minerals. What could governments, companies, and consumers each do to lower that pressure?

Full Answer Key

Comprehension and Extension Questions



Thanks
**for your interest
in this resource!**

I am a real person and if
you have any questions,
suggestions, or concerns,
please reach out.



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Connect!*

