OUR IMPACT ON NATURE: WHAT ON EARTH IS LEFT?

Humans have transformed the Earth. We've impacted the land surface with multiple forms of development, including urbanization, agriculture, energy, mining and infrastructure expansion. These maps show where 50% of the planet has been highly or moderately modified. They show that to truly save nature for its sake and our own, the moderately modified places-where humans have left a mark but some wild land still exists—are just as critical to conserve as the last remaining pristine areas.



NOTE: DATA DOES NOT INCLUDE ANTARCTICA



DATA SUPPORTED BY

Christina M. Kennedy, James R. Oakleaf, David M. Theobald, Sharon Baruch-Mordo and Joseph Kiesecker, Managing the middle: A shift in conservation priorities based on the global human modification gradient, *Global Change Biology*, 25, (2019).

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FUTURE LAND PRESSURE: How to make space?

Global economic output is expected to double over the next two decades, and trillions of dollars will be invested in new energy, mining and infrastructure projects around the world. Can we balance this growth and meet human needs while still conserving the nature on which all life depends?





future development to avoid further loss and degradation of natural areas.

¹High development pressure lands are those mapped with high suitability for development expansion for a given sector.



DATA SUPPORTED BY

- Christina M. Kennedy, James R. Oakleaf, David M. Theobald, Sharon Baruch-Mordo and Joseph Kiesecker, Managing the middle: A shift in conservation priorities based on the global human modification gradient, Global Change Biology, 25, (2019).
- James R. Oakleaf, Christina M. Kennedy, Sharon Baruch-Mordo, James S. Gerber, Paul C. West, Justin A. Johnson and Joseph Kiesecker, Mapping global development potential for renewable energy, fossil fuels, mining and agriculture sectors, *Sci Data* 6, 101 (2019).

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PLANNING FOR A BETTER PLANET

We need to plan if we want a balance between nature and development. That means we need to understand what's driving land change and where. While agriculture is expected to remain a major driver, future energy and infrastructure development could impact more lands than agriculture and urban growth combined.

Protecting nature can no longer fall to environmentalists alone. Better planning will require collaboration across all society and in particular across economic sectors and the government ministries that regulate them.

AND WITH HIGH PRESSURE¹

FUTURE PRESSURES FROM FOR FUTURE ENERGY AND ENERGY AND INFRASTRUCTURE **INFRASTRUCTURE** DEVELOPMENT

PACIFIC OCEAN OCEAN



PRESSURED AREAS

In North America and South Asia, increasing energy needs will likely drive new development. This development, including much-needed renewables, must be sited wisely to avoid lands that naturally store carbon and provide wildlife habitat.

FUTURE PRESSURES FROM AGRICULTURE







In South America and Sub-Saharan Africa, agriculture is expected to be a major driver of land-use change, especially for commodity crops like soy. But science, economics and conservation practice prove that it is feasible to increase global food production without converting more natural habitat into farmland.

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