IIASA produces world class science, which is regularly published in high-impact publications. A selection of articles (co)authored by IIASA researchers and published in *Nature* and selected other Nature Publishing Group (NPG) journals, *Proceedings of the National Academy of Sciences of the United States of America* (PNAS), and *Science* is presented here. Publication statistics are also included to show how much IIASA publishes and how this has increased in recent years.

**Nature**
- *Impacts and mitigation of excess diesel-related NO X emissions in 11 major vehicle markets*
- *Groundwater depletion embedded in international food trade*
- *Energy policy: Renewables targeted before Fukushima*
- *Carbon tracking: Limit uncertainties in land emissions*
- *Paris Agreement climate proposals need a boost to keep warming well below 2°C*
- *Reduced carbon emission estimates from fossil fuel combustion and cement production in China*
- *Five priorities for the UN Sustainable Development Goals*
- *Climate modelling: Community initiative tackles urban heat*

**Nature Climate Change**
- *Improving poverty and inequality modelling in climate research*
- *Forecasting societies’ adaptive capacities through demographic metabolism models*
- *Climate policy: Transparency for Loss and Damage*
- *Key indicators to track current progress and future ambition of the Paris Agreement*
- *Sensitivity of projected long-term CO₂ emissions across the Shared Socioeconomic Pathways*
- *Greenhouse gas emissions intensity of global croplands*
- *Equitable mitigation to achieve the Paris Agreement goals*
Similar estimates of temperature impacts on global wheat yield by three independent methods

Regional disparities in the beneficial effects of rising CO₂ concentrations on crop water productivity

Mapping the climate change challenge

Greenhouse gas mitigation potentials in the livestock sector

Reaching peak emissions

Emission effects of the Chinese–Russian gas deal
Orlov A, Deppermann A, Wei T, & Glomsrød S (2016). Nature Climate Change 6(2): 114

Differences between carbon budget estimates unravelled

Science and policy characteristics of the Paris Agreement temperature goal

Biophysical and economic limits to negative CO₂ emissions

Multiple carbon accounting to support just and effective climate policies

How insurance can support climate resilience

Power-generation system vulnerability and adaptation to changes in climate and water resources

Fate of water pumped from underground and contributions to sea-level rise

Greenhouse-gas payback times for crop-based biofuels

Reply to ‘Uncertain effects of nutrient availability on global forest carbon balance’ and ‘Data quality and the role of nutrients in forest carbon-use efficiency’

National post-2020 greenhouse gas targets and diversity-aware leadership

Energy system transformations for limiting end-of-century warming to below 1.5°C

Long history of IAM comparisons

Nature Communications
Reconciling irrigated food production with environmental flows for Sustainable Development Goals implementation

Understanding the origin of Paris Agreement emission uncertainties

Water scarcity hotspots travel downstream due to human interventions in the 20th and 21st century
Consistent negative response of US crops to high temperatures in observations and crop models

Pathways for balancing CO₂ emissions and sinks

Climate analogues suggest limited potential for intensification of production on current croplands under climate change

Uncertainty in soil data can outweigh climate impact signals in crop yield simulations

*Nature Geoscience*

Quality matters for water scarcity

Emission budgets and pathways consistent with limiting warming to 1.5°C

Global aquifers dominated by fossil groundwaters but wells vulnerable to modern contamination

Relative contribution of monsoon precipitation and pumping to changes in groundwater storage in India

A scientific critique of the two-degree climate change target

Geosciences after Paris

Biomass production efficiency controlled by management in temperate and boreal ecosystems

*Proceedings of the National Academy of Sciences of the United States of America (PNAS)*

Reduction of solar photovoltaic resources due to air pollution in China
Global Sustainable Development priorities 500 years after Luther: Sola schola et sanitate

Adaptive self-organization of Bali’s ancient rice terraces

Kinship structures create persistent channels for language transmission

Air quality, health, and climate implications of China’s synthetic natural gas development

Enhanced groundwater recharge rates and altered recharge sensitivity to climate variability through subsurface heterogeneity

Multitrait successional forest dynamics enable diverse competitive coexistence

Siberian Arctic black carbon sources constrained by model and observation

Meeting the Sustainable Development Goals leads to lower world population growth

Roles of density-dependent growth and life history evolution in accounting for fisheries-induced trait changes.

Air pollutant emissions from Chinese households: A major and underappreciated ambient pollution source

Science

A climate policy pathway for near and long-term benefits

A roadmap for rapid decarbonization

Identifying the policy space for climate loss and damage

Can Paris pledges avert severe climate change?

Transport: A roadblock to climate change mitigation?