# **IIASA Overview**

The International Institute for Applied Systems Analysis (IIASA) is an independent, international research institute with National Member Organizations in Africa, the Americas, Asia, and Europe. Through its research programs and initiatives, the institute conducts policy-oriented research into issues that are too large or complex to be solved by a single country or academic discipline.

This includes pressing concerns that affect the future of all of humanity, such as:

**Pollution Biodiversity** 

Climate change **Population** 

**Equity and justice** Food and water security

More info:

www.iiasa.ac.at/infokit

Sustainable development

### **National Member Organizations**

IIASA was established in 1972 during the Cold War to build scientific bridges between East and West. Today, its members and funders span the globe. Countries are represented by their National Member Organizations which are part of the IIASA governing Council and provide or facilitate the core funding of the institute.



### **Annual budget**

The total annual budget in 2020 was €22.1 of which 50% was from prestigious funding agencies in member countries spanning Africa, the Americas, Asia, and Europe.

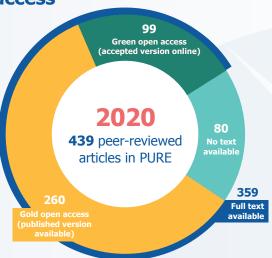
€11.1m

€11.3m

Combined with other member contributions.

Supplemented by additional contracts and grants and other

# **Publications and open** access



In 2020, IIASA published more widely than any other year, with 439 peer-reviewed journal articles written in collaboration with 2,702 coauthors from 1,089 institutions in 81 countries and regions around the world.

### Our people

In 2020, 367 researchers from 52 countries worked at IIASA



224 advisory boards and steering committees included **IIASA** researchers



and 4,337 alumni from 100 countries



Together, they made up a global network with over 681 partner institutions.

Strategic

Initiatives

Advancing Systems Analysis

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**IIASA** research strategy: Reducing footprints, enhancing resilience

IIASA aims to become the primary destination for integrated systems solutions and policy insights into the emergent challenges and threats to global sustainability and the opportunities that they can uncover. Research is conducted by six research programs whose research encompasses the following principles: systemic, policy-relevant, state-of-the-art, inclusive, participative, collaborative, and open.

### **Young Scientists Summer** Program (YSSP)

The renowned IIASA YSSP allows students to work alongside distinguished IIASA researchers for three months, gaining new insight into their own

field of research as well as those of the institute.

Since 1977

**2,038** young scientists from 90 countries

> have benefitted from the program.

In 2020 there were

19 postdocs at IIASA

O RESS THATE THE WAY STATE **Economic Frontiers** 

**Population Societies** 

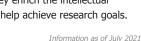
### **Postdoctoral program**

The IIASA postdoctoral program aims to encourage and promote the development of early-career researchers. The fellowships offer them the opportunity to gain hands-on professional research experience in a highly international scientific environment. In return, they enrich the intellectual environment at IIASA and help achieve research goals.



and Natural

Resources



# **Selected impacts**



IIASA co-developed and hosts the **Representative Concentration Pathways** (RCPs) database, equipping the climate change research community with common greenhouse gas emissions data. (2011)



IIASA published the **Global Energy Assessment**, the first ever fully integrated assessment of its kind that went on to provide the scientific basis and key objectives for the UN Sustainable Development Goal #7 on ensuring access to sustainable energy for all. (2012)



IIASA and partners launched a revamped **Geo Wiki** to harness the power of citizen science to collect and verify land cover data, thereby dramatically improving the quality of the data. (2013)



IIASA science contributed to talks leading up to the Paris Agreement, providing the only study to show that it was technologically feasible **to limit global warming to 1.5°C** above pre-industrial levels. (2015)



A decade of IIASA **demographic research** demonstrating why education should be the priority investment for development budgets, informed the German Federal Ministry for Development's decision to allocate 25% of its entire funding for education. (2017)



The Zambezi River Basin Commission developed a **strategic plan for water, energy, and food management** based on findings from an IIASA-led study. (2018)



The Zurich Flood Resilience Alliance renewed its partnership with IIASA to apply its research into **systemic risks** to help render two million people around the globe resilient against flooding. (2018)



The Chinese Government officially adopted an IIASA model to strengthen **air quality management** in the country. (2019)



IIASA modeling informed the European Union Member States on **clean air measures** that could reduce premature deaths due to air pollution by 55% in 2030 in the European Commission's Second Clean Air Outlook. (2020)



# **Selected publications**

pure.iiasa.ac.at

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 statisitics are also included to show the number of IIASA publications in recent years.

#### **Environmental Research Letters**

## The Australian wildfires from a systems dependency perspective

Handmer, J., Hochrainer-Stigler, S., Schinko, T., Gaupp, F., & Mechler, R. (2020). *Environmental Research Letters* 15 (12) e121001. DOI: 10.1088/1748-9326/abc0bc [pure.iiasa.ac.at/16777]

#### **Nature**

## Bending the curve of terrestrial biodiversity needs an integrated strategy

Leclere, D., Obersteiner, M., Barrett, M., Butchart, S.H.M., Chaudhary, A., De Palma, A., DeClerck, F.A.J., Di Marco, M., et al. (2020). *Nature* 585 551-556. DOI: 10.1038/s41586-020-2705-y [pure.iiasa.ac.at/16699]

### **Nature Climate Change**

## Global hunger and climate change adaptation through international trade

Janssens, C., Havlík, P., Krisztin, T., Baker, J., Frank, S., Hasegawa, T., Leclere, D., Ohrel, S., et al. (2020). *Nature Climate Change* DOI:10.1038/s41558-020-0847-4 [pure.iiasa.ac.at/16575]

#### **Nature Communications**

## Drought and climate change impacts on cooling water shortages and electricity prices in Great Britain

Byers, E.A., Coxon, G., Freer, J., & Hall, J.W. (2020). *Nature Communications* 11 (1) e2239 DOI: 10.1038/s41467-020-16012-2 [pure.iiasa.ac.at/16460]

### **Nature Energy**

Capital cost subsidies through India's Ujjwala cooking gas programme promote rapid adoption of liquefied petroleum gas but not regular use

Kar, A., Pachauri, S., Bailis, R., & Zerriffi, H. (2020). *Nature Energy* 5 125-126. DOI: 10.1038/s41560-019-0536-6 [pure.iiasa.ac.at/16270]

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

### Population aging, migration, and productivity in Europe

Marois G , Bélanger A, & Lutz W (2020). *Proceedings of the National Academy of Sciences*: e201918988. DOI:10.1073/pnas.1918988117. [pure.iiasa.ac.at/16389]

#### **Science**

#### Granular technologies to accelerate decarbonization

Wilson C , Grubler A , Bento N, Healey S, De Stercke S, & Zimm C (2020). *Science* 368 (6486): 36-39. DOI:10.1126/science.aaz8060. [pure.iiasa.ac.at/16400]

