



Conducting research for a changing society: This is what drives us at Forschungszentrum Jülich. As a member of the Helmholtz Association, we aim to tackle the grand societal challenges of our time and conduct research into the possibilities of a digitized society, a climate-friendly energy system, and a resource-efficient economy. Work together with around 7,400 employees in one of Europe's biggest research centres and help us to shape change!

Are you curious about the question of how the development of our dietary preferences and food consumption patterns will affect our climate and the planet's ecosystems in the future? Are you fascinated by the bigger picture of our world and wonder which types of food could be considered as an alternative to animal-based products and at the same time contribute to reducing global GHG emissions? Then join our team at the Institute of Energy and Climate Research - Jülich Systems Analysis (JSA) and help us find possible alternatives to current global dietary practices and investigate their effect on the emissions of global food production and demand.

We are offering an exciting

Master Thesis - Exploring the Impact of Dietary Patterns on Global Food Production

Your Job:

A significant portion of land is allocated to produce animal-based food products, and the arable land utilized for fodder production could potentially be utilized for direct food production. Simultaneously, the sector responsible for animal-based food production is one of the leading contributors to greenhouse gas emissions. As the global population continues to grow, there is a corresponding increase in the demand for animal-based food products, further exacerbating the strain on already limited resources. This prompts the question: What viable alternatives exist to substitute animal-based food products? Furthermore, what effect would reducing or increasing the demand for animal-based foods trigger? Your tasks in detail:

- Work out an overview of possible alternative protein sources.
- Identify the techno-economic parameters as well as the land and water requirements for these protein sources.
- You have the opportunity to develop different scenarios from your results in order to model and analyze the effects of these different diets in an existing energy system model

The job will be advertised until the position has been successfully filled. You should therefore submit your application as soon as possible. We look forward to receiving your application via our

Online-Recruitment-System!

Questions about the vacancy?

Get in touch with us by using **our contact form**.

Please note that for technical reasons we cannot accept applications via email.

www.fz-juelich.de

Your Profile:

- You have good written and spoken English skills
- You are interested in analyzing data and processing it in Python
- You are interested in developing scientific modelling approaches and dealing with complex issues
- You are highly motivated and able to work independently and analytically and have a high degree of self-organization and time management skills

Even if you have no previous experience in modelling with Python, we look forward to receiving your application if you are enthusiastic about the topic and willing to familiarize yourself with complex topics in a short time.

Our Offer:

As a Master's student, you will work as part of a team of experts with different scientific backgrounds. You will be involved in the development of global transformation pathways to realize a greenhouse gas-neutral energy system. We offer you a high degree of flexibility, insights into the processes of a leading scientific institute and the opportunity to work on highly relevant environmental and energy topics. Further we offer our students:

- Collaboration in a diverse, highly motivated working group with an international character in one of the largest research institutions in Europe
- An excellent scientific infrastructure and intensive supervision -Professional technical equipment for remote work and the opportunity to work 100% from home
- A reasonable remuneration

The position is initially for a fixed term of 6 months.

In addition to exciting tasks and a collegial working environment, we offer you much more: <https://go.fzj.de/Benefits>

We welcome applications from people with diverse backgrounds, e.g. in terms of age, gender, disability, sexual orientation / identity, and social, ethnic and religious origin. A diverse and inclusive working environment with equal opportunities in which everyone can realize their potential is important to us.