



## RESPONSE – Open PhD Position

### Open PhD Position in

#### RESPONSE (GA No. 847585)

«RESPONSE - to society and policy needs through plant, food and energy sciences»

H2020-MSCA-COFUND-2018

#### ESR 20

### Legacy effects of land-use on tropical soils as constraints on Ecosystem restoration success

Within the European Union's Horizon 2020 research and innovation programme under the Marie Skłodowska-Curie grant agreement No 847585, ETH Zurich is offering a 36-month PhD position for an early-stage researcher (ESR) in the area of sustainable land-use decisions.

#### Job Description

We are looking for a doctoral candidate working on legacy effects of land use change on the success of recovery of ecosystem services during tropical forest restoration. The doctoral candidate is supposed to work with state-of-the-art remote sensing technology to bridge the gap between plot-scale analysis and landscape-scale mapping of degraded tropical soils. Additionally, the student is supposed to conduct field assessments and a range of laboratory analyses to evaluate soil fertility, soil degradation, carbon sequestration and biodiversity along tropical secondary forest successions in Western Uganda.

A planned secondment of twelve months at our partnering NGO (Face the Future) working in the field of forest revitalisation projects in East Africa is an integral part of this project. During this secondment, the ESR will gain skills on forest carbon assessments, plot and site selection, revenue sharing and generation calculations, financial assessments of natural resources and international project management. To achieve this, the ESR will be working closely with the Ugandan Wildlife Authority.

The anticipated results/outcomes of this project are to better understand the boundaries of land degradation i.e. at what point are soil systems so degraded that they fail to allow the recovery of a forest ecosystem. With this, the intended project is at the crossroads between fundamental and applied sciences with the clear aim to create advice on land management and restoration strategies for policy makers and stakeholders. The results will be communicated and shared with the scientific community in form of peer-reviewed publications and conference presentations, and additionally presented to NGO's and government agencies working on forest health in Uganda and countries with comparable ecosystems in tropical East Africa through reporting and participation in workshops.



### Interested / Your profile

To perform successfully, potential candidates should have a very good university degree (Master/Diploma) in environmental sciences or a closely related field. Understanding of tropical ecology, soil science and a thrive for interdisciplinary work are mandatory requirements. For the successful implementation of the project, a solid background in at least two fields of expertise of the following list are required: Remote sensing techniques, chemical soil analyses, geophysical prospection techniques, reforestation efforts, Geostatistics or GIS. Good scientific writing, communication and interpersonal skills are also essential.

Experience with forest restoration projects, project management with a background in developing countries (preferentially tropical Africa) and training in UAV surveying are important assets. The candidate must be willing to spend at least eleven month in Uganda to conduct field work and for the secondment at our partner institution.

**Eligibility:** Early stage researcher in the first 4 years (full-time equivalent) of their research careers, including the period of research training, starting at the date of obtaining the degree which would formally entitle them to embark on a doctorate either in the country in which the degree was obtained or in the country in which the initial training activities are provided.

At the time of recruitment (for call 3 = December 1, 2020) by the host organisation, researchers must not have resided or carried out their main activity (work, studies, etc.) in Switzerland for more than 12 months in the 3 years immediately before the reference date. Compulsory national service and/or short stays such as holidays are not taken into account.

**Language requirement:** Candidates must be fluent in written and spoken English. Skills in French or an East African language are a strong asset.

**Main Research Field:** Forest ecosystem sciences

**Sub Research Field:** Soil system sciences

RESPONSE is open to applicants of any nationality.

**For submitting your online application:** <https://join.lszgs.uzh.ch/> (select PhD Program Science and Policy). The online application should contain all information as indicated by the application portal. Moreover, the following documents have to be uploaded under “further documents”: 1) one letter of motivation to join a) the RESPONSE Doctoral Programme and b) to apply for the specific position (ESR xx) or multiple positions, 2) a comprehensive tabular CV, and 3) transcripts of records. If you apply for more than one RESPONSE position, please refer



to them in your letter of motivation. Please note that we exclusively accept applications submitted through our online application portal. Applications via email or postal services will not be considered. The deadline is December 1, 2020.

### Benefit

We are offering an interesting position at the interface of science and policy. While working in an international, interdisciplinary and innovative research environment at ETH Zurich, the ESR will be integrated and jointly co-supervised by the Soil Resources Group at ETH Zurich's Department of Environmental Systems Science ([www.soilres.ethz.ch](http://www.soilres.ethz.ch)) and our secondment partner, NGO "Face the Future" ([www.facethefuture.com](http://www.facethefuture.com)).

The complete 36 months will be under 100% working contracts.

The PhD salary follows the regulations of ETH Zurich and will be according to EU regulations for Marie Skłodowska-Curie Early Stage Researchers. The monthly gross salary will not be lower than CHF 3920.

The successful candidate will be matriculated and will have a working contract at ETH Zurich. He/she will work in Switzerland. The secondment will take place for 11 month in Uganda and 1 month in the Netherlands.

Expected starting date of the working contract: **01.03.2021**

For questions and further information on the position, please contact (Prof. Dr. Sebastian Doetterl ([sdoetterl@usys.ethz.ch](mailto:sdoetterl@usys.ethz.ch)) and Dr. Florian Wilken ([florian.wilken@usys.ethz.ch](mailto:florian.wilken@usys.ethz.ch))), no applications.

### Further information

**RESPONSE Doctoral Programme (DP):** «RESPONSE - to society and policy needs through plant, food and energy sciences» is funded by the European Union's Horizon 2020 research and innovation program under the Marie Skłodowska-Curie Grant Agreement No 847585. RESPONSE DP builds on the academic expertise of three world-leading institutions - ETH Zurich, University of Zurich and University of Basel. The successful candidate will be integrated in the research network and infrastructure of the internationally renowned competence center [Zurich-Basel Plant Science Center](#).

All RESPONSE ESRs will follow the [PSC PhD Program Science and Policy](#) that is unique in its kind. Through the curriculum of this program, ESR will be trained in the communication of scientific evidence to policy-makers and the public; the involvement of different stakeholder groups as well as in policy development and endorsement in Europe and at global scale.

**For project, programme and application details:**

<https://www.plantsciences.uzh.ch/en/research/fellowships/response.html>



**Working location:**

ETH Zurich  
Dep. of Environmental Systems Science  
Institute of Terrestrial Ecosystems  
Professorship Soil Resources  
Universitätstrasse 16  
8092 Zürich  
Switzerland



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