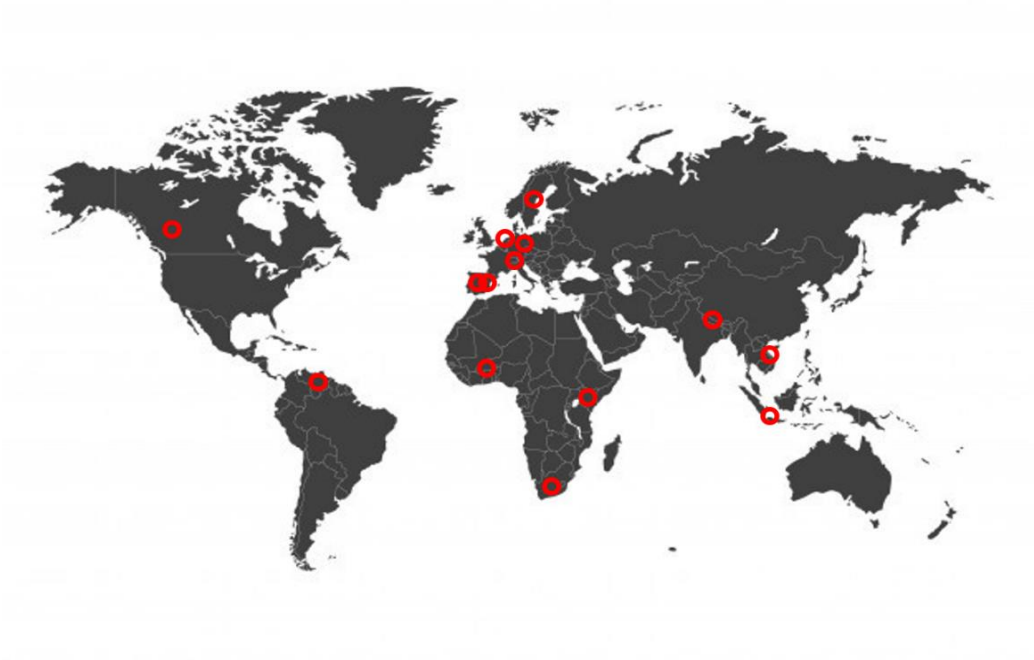
LANDMARC kicks-off!

A new EU-funded project on land-based climate change mitigation

Delft, The Netherlands, 17 July 2020

What is the realistic potential for agriculture, forestry, and other land use sectors to enhance the uptake of CO_2 from the atmosphere? This question will be answered by the LANDMARC research project, which officially started on the 1st of July. Funded by the European Commission, the nineteen LANDMARC consortium partners will spend the next four years (2020-2024) working to:

- Estimate the climate impact of land-based negative emission solutions, for example in agriculture, forestry, and other land-use sectors
- Assess the potential for regional and global upscaling of negative emission solutions
- Map their potential environmental, economic, and social co-benefits and trade-offs



Land-based negative emission solutions are expected to play a pivotal role in future climate actions and policy scenarios. To date most climate actions have focussed on phasing out fossil fuels and reducing greenhouse gas emissions in, for example, industry, electricity, and transport. While zero emission trajectories in these sectors will remain a priority for decades to come, it is expected that some residual GHG emissions will remain. To be able to fulfil the Paris Agreement and meet the world's climate goals research, policy and markets are increasingly looking at land-based negative emission solutions.

The LANDMARC project will enhance understanding in the area by providing better estimates of the realistic potential of land-based negative emission solutions in agriculture, forestry, and other land use sectors.

The research activities will deploy:

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869367

- A mix of earth observation technologies, to be able to (better) monitor and estimate the effectiveness of land-based negative emission solutions
- A suite of climate, land-use, and economic simulation models, to better estimate the true (scaling) potential of land-based negative emission solutions, both from an earth systems and human systems perspective
- A social sciences-based approach for effective impact assessment and engagement with local and regional stakeholders - across 14 countries and 5 continents - that are already work on implementing negative emission solutions.

LANDMARC collaborations with science and society

The LANDMARC project is actively seeking collaboration with fellow research projects operating in our study countries and regions (*see map*). Collaborations can include:

- Exchanging / sharing earth observations data and information (e.g. satellite, remote sensing, in-situ)
- Climate change and land-use scenario development and modelling
- Assessing climate resilience and climate sensitivity of negative emission solutions
- Assessing generic and context-specific co-benefits and trade-offs of land-based mitigation solutions (environmental, societal, economic)
- Engaging with local and regional societal actors such as NGOs, local governments, forestry/agriculture cooperatives (i.e. co-hosting events)

We encourage researchers to contact us to introduce themselves, their activity/project and express their area(s) of interest for possible collaboration with the LANDMARC team.

Notes to the editors

Contact information:

Delft University of Technology
Coordinator: Dr. Jenny Lieu; Assistant Professor, J.Lieu-1@tudelft.nl

JIN Climate & Sustainability
Co-coordinator: Eise Spijker; Senior Researcher, eise@jin.ngo

LANDMARC & JIN Climate & Sustainability

JIN Climate and Sustainability (www.jin.ngo) was established in 1995 with the objective to enhance international information exchange about climate change policies and measures. Within LANDMARC JIN will act as co-coordinator within the project management team, and will lead the research efforts including:

- Assessment of local scaling potential of land-based negative emission solutions,
- Assessing the climate sensitivities and risks of land-based negative emission solutions

JIN LANDMARC research team: Ida Terluin, Malte Renz & Eise Spijker

LANDMARC

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 869367