

Gastvortrag

des Instituts für Geographie

am Dienstag, 22. Juni 2021

um 18.15 Uhr

Online über Zoom: <https://uu-se.zoom.us/j/62276206232>

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in Kooperation mit der Albert-Ludwigs-Universität Freiburg

Volcanoes as a Resource: Volcanic particles in agriculture and gardening as a way to reduce global hunger and sequester CO₂?

Volcanoes are often considered dangerous for human society, although many important natural resources are derived from them. Volcanic pyroclasts of small size, such as lapilli and small pumice stones, are widely used in agriculture, gardening and for pot plants as natural inorganic mulch. The technique of using pyroclasts to enhance topsoil stems from the eighteenth century, and specifically from the AD 1730–1736 eruption on Lanzarote. Critical observations on plant development during and after the eruption showed that the vegetation died when buried under a thick layer of lapilli, but grew vigorously when covered thinly. The population of Lanzarote doubled in the years after the eruption, from about 5000 in 1730 to near 10000 in 1768, predominantly as a result of the higher agricultural productivity. So, what is the secret of volcanic particles in achieving this? The lecture presents new studies on volcanic particles that promise significant potential to further optimize future agricultural efforts, particularly in otherwise arid areas of the globe, and may help to sequester additional CO₂ without major new carbon capture technologies.

Vortrag auf Englisch, anschließende Fragen können auch auf Deutsch gestellt werden.

Alle Interessierten sind sehr herzlich eingeladen!