

Science Action in Schools for Sustainable Development (SAS4SD)

swissuniversities SUDAC Consortium for Education and Research (COFER)

Project Description

“Science Action in Schools for Sustainable Development (SAS4SD)” brings together expertise from Swiss institutions of higher education and in partnership with institutions in Ghana and Cameroon, to collectively develop and implement teaching programs for science curricula that will, through interactive engagement, enhance students’ knowledge and understanding of scientific theory, data and applications, and at the same time link theory to practice to raise awareness about sustainable development goals and ways to achieve these goals. The four pillars of the project are **data collection** from the Trans-African Hydro-Meteorological Observatory (TAHMO) weather stations, **development of teaching materials**, **research** activities, and **community initiatives** (Figure 1).

Action-based learning approaches focusing on issues of sustainable development using concrete projects, actions and practices in schools and communities will be widely promoted. The scientific and practical questions to be addressed are linked to climate change, natural hazards, deforestation, and sustainable agriculture and will touch on 6 Sustainable Development Goals (SDGs) shown in Figure 2.

Figure 1: Science Action in Schools for Sustainable Development – from data collection to community initiatives

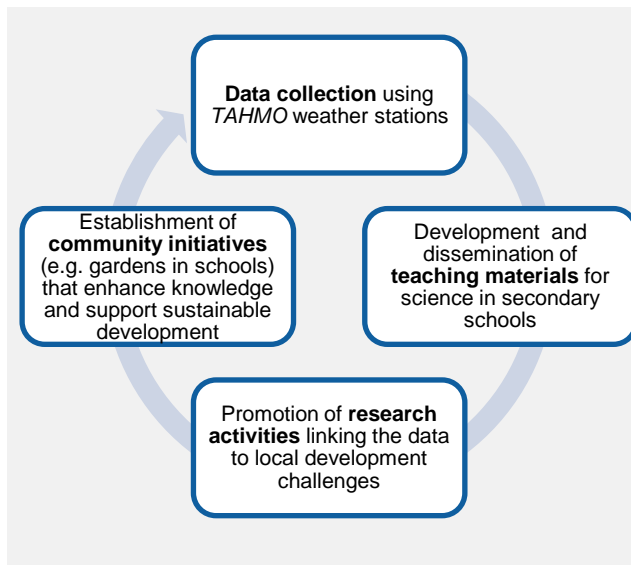


Figure 2: Sustainable Development Goals (SDGs) to be addressed by SAS4SD



Implementation

The three year project will start with the identification of secondary schools where local sustainable development issues can be addressed through data analyses, science education, and community actions. Relevant stakeholders, including community leaders, farmers, students, and secondary school teachers, will be consulted and invited to participate in shaping and implementing the project. Workshops will be held to identify local needs and further disseminate the knowledge that has been developed through the project. Additionally, through teaching activities and community engagement, research questions will be identified which students from collaborating universities can address in thesis projects that will be linked to local development issues and to sustainable development goals.



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Project Partners

The core partners of the project are from Swiss, Ghanaian, and Cameroonian institutions. Additionally, local partners will be included and collaboration will be established with UN:CC Learn and other country initiatives that have synergies with SAS4SD. The **swissuniversities Development and Cooperation Network (SUDAC)** is financially supporting SAS4SD. The project partners are:

Table 1: Partners from Swiss institutions

UNIVERSITY	PARTNER	INSTITUTION
Swiss Federal Institute of Technology Zurich	Prof. Dr. Peter Molnar Prof. Dr. Johan Six Dr. Darcy Molnar	Institute of Environmental Engineering Agricultural Sciences Institute of Environmental Engineering
Pädagogische Hochschule Luzern	Prof. Dr. Dorothee Brovelli Prof. Dr. Armin Rempfler Brigitte Kürsteiner	Science Education Geography Education Dept. for International Relations
University of Zurich	Prof. Dr. Jan Seibert	Dept. of Geography
Bern University of Applied Sciences	Prof. Dr. Christoph Studer Prof. Dr. Jürgen Blaser	School of Agricultural, Forest & Food Sciences School of Agricultural, Forest & Food Sciences

Table 2: Partners from Ghanaian and Cameroonian institutions

ORGANIZATION	PARTNER	INSTITUTION
University of Cape Coast, Ghana	Prof. Dr. Peter Kwapong	Dept. of Conservation Biology and Entomology
University of Education Winneba, Ghana	Dr. Richard Kuffour	Dept. of Environmental Health & Sanitation Education
University of Ghana	Dr. Irene Egyir	Dept. of Agricultural Economics and Agribusiness
Kwame Nkrumah University of Science and Technology Kumasi, Ghana	Dr. Evans Dawoe	Agroforestry Department
Ecole Normale Supérieure de l'Université de Yaoundé 1 (ENS) in Cameroon	Prof. Dr. Marie-Thérèse Ambassa	French Department
Ecole Pratique d'Agriculture de Binguela (EPAB) Cameroon	Roland Amougou Etogo	Director of EPAB
Ministry of Scientific Research and Innovation, Cameroon	Dr. Wilson Fantong	Hydrogeology expert

Table 3: Project Advisors

ORGANIZATION	PARTNER	INSTITUTION
Swiss Federal Institute of Technology Zurich	Dr. Fritz Brugger	NADEL Centre for Development and Cooperation
University of Oregon, USA	Prof. Dr. John Selker	Dept. of Biological & Ecological Engineering
Research Institute of Organic Agriculture (FiBL), Switzerland	Dr. Irene Kadzere	Dept. of International Cooperation
Independent	Rose Alabaster	GEOGLOWS Steering Committee, Steering Board Swiss Water Partnership

 University of Cape Coast



UNIVERSITY OF EDUCATION, WINNEBA

 UNIVERSITY OF GHANA



KWAME NKURUMAH UNIVERSITY OF SCIENCE & TECHNOLOGY



Ecole Pratique d'Agriculture de BINGUELA



Ecole Normale Supérieure

 Bern University of Applied Sciences

 University of Zurich

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Eidgenössische Technische Hochschule Zürich
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