









# THE BIOSPHERE LEARNING LABORATORY LAKE BOSOMTWE, GHANA

Tropentag, September 11 - 13, 2024, Vienna (Austria)

# BURKINA FASO Upper West East Reg, Van Vorgenth Soluburg Region Togo Brong-Ahafo Region Regi

- Lake Bosomtwe UNESCO Biosphere Reserve is located in the **Ashanti Region in Ghana and** covers almost 29,000 ha.
- Local and regional population is hardly aware of the region's status as a biosphere reserve (BR).
- → Acceptance as a model region for sustainable development is rather poor.

### **CHALLENGES**

- Overuse of fish resources & increased extraction of forest stock leading to an overexploitation and degradation of the vulnerable ecosystem.
- Climate change further increases the vulnerability of the ecosystem and the local population in the BR.
- Visitor management is not yet existent, resulting in an uncontrolled use of the area by tourists.





RATIONALE

- Scientific cooperation to tackle the issues mentioned is urgently needed
- Without a harmonized research and development plan, the contribution of science will be ad hoc and pointwise
- → The reserve will not be able to benefit from the biosphere reserve status.

### **APPROACH**

In depth analysis of needs and demands for research and transfer in the BR, to foster a sustainable development.

Lake Bosomtwe: Research & Transfer in the BR and transfer in the BR a



Elaboration of a research outline with 7 priority research and transfer areas



Alternative Agriculture livelihoods

Forestry

Fisheries and biodiversity

Communication Sustainable Public Tourism Health

Public Crosscutting
Health issues

→ Tackling of research needs in field work by Ghanaian universities, together with students from Eberswalde

Research topics e.g.

- Participation of women in tourism
- Construction of floating sewage treatment plants
- Linking cultural heritage and environmental protection
- Combining cocoa cultivation with agroforestry
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- → Sound basis for further research and cooperation between the institutions



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## INNOVATION, INTENDED IMPACT, SUSTAINABILITY

- Establishment of a strong professional network of researchers.
- Promotion of **practice-oriented teaching** and **research** methods at the participating institutions
- Development of a research outline, to streamline research activities in the BR and the participating institutions
- Provision of first results and approaches for follow-up research projects and transfer activities.
- First follow-up project on "NTFP domestication and cocoa systems diversification at Lake Bosomtwe BR" for the development of agroforestry systems

### **LESSONS LEARNT**

- Stronger involvement of indirect partners through Ghanaian partner universities.
- Creation of even more ownership among Ghanaian partners.
- Stronger direct involvement of BR management.
- Foreseeing more exchange between students from Eberswalde University for Sustainable Development and Ghanaian universities.



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