

The HIA4SD Project: from research to policy dialogue



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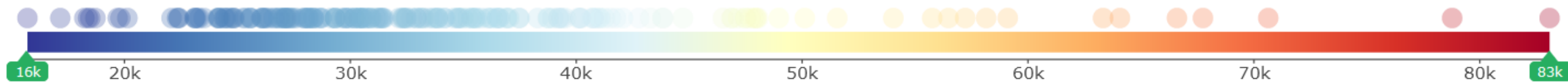
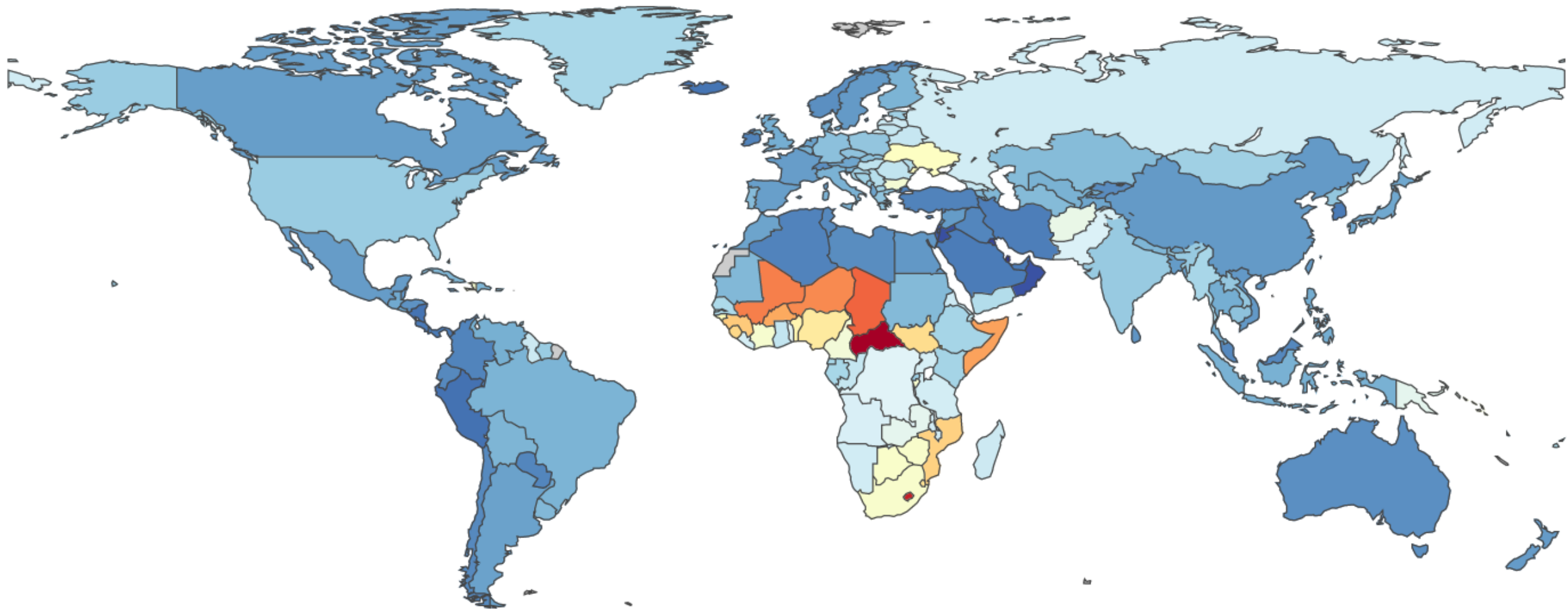
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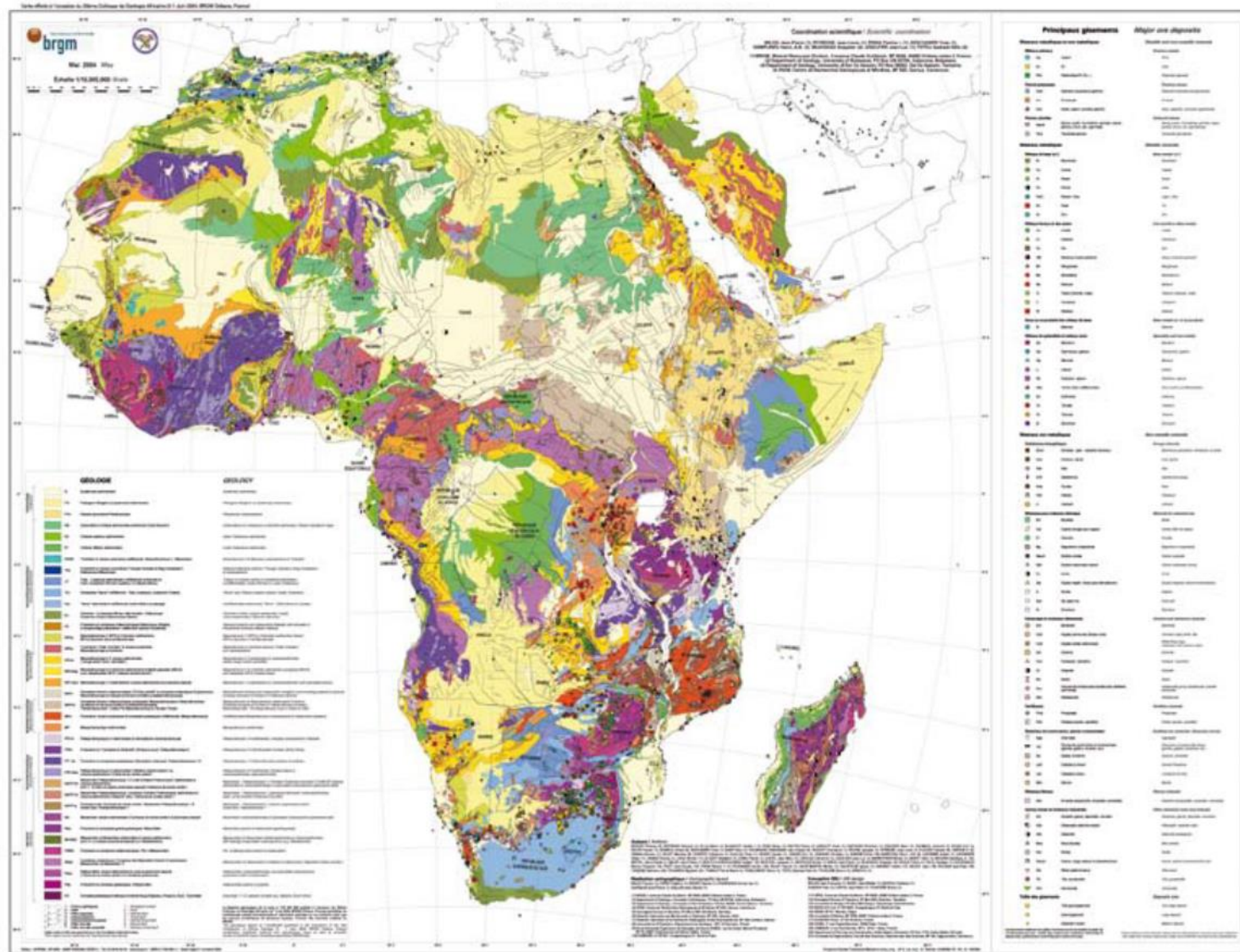
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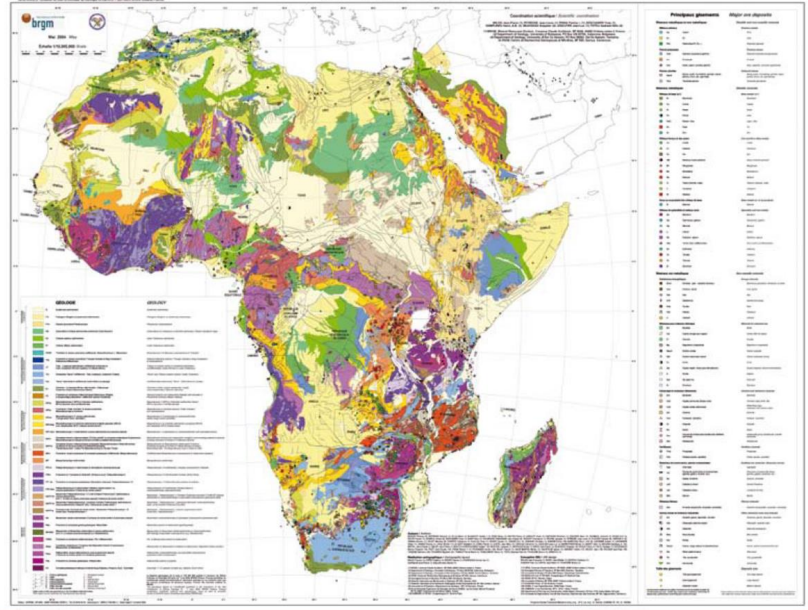
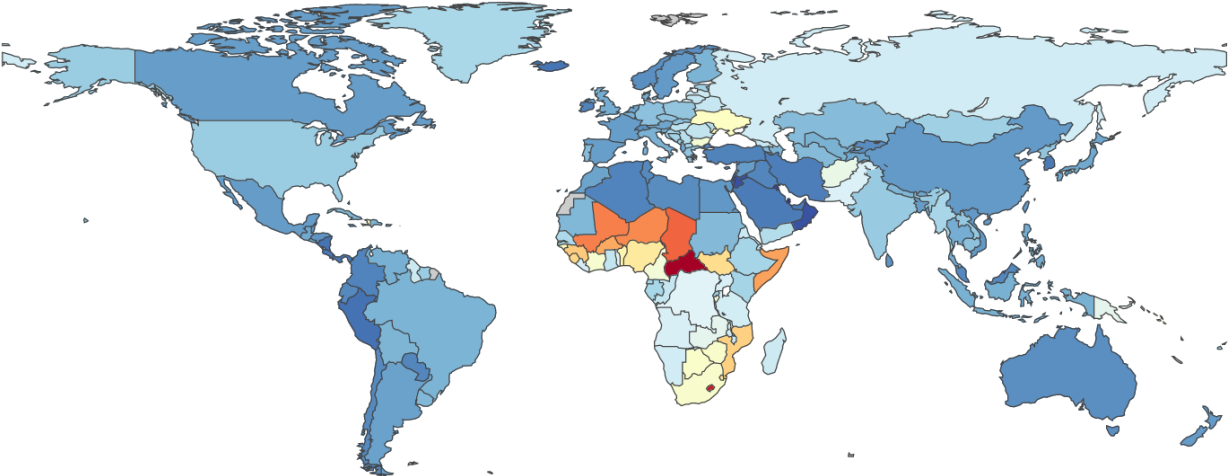
Disability adjusted life years (DALYs), all causes, both sexes, all ages, 2019

Source: <https://vizhub.healthdata.org/gbd-compare/>





The potential of HIA



Passionate HIA practitioner...



...with lots of frustration

The problem with HIA on the African continent

- Lack of policies and legal frameworks that regulate use of HIA (or health in environmental impact assessment)
- Inadequate knowledge about HIA by policy-makers and project proponents
- Only applied by “responsible” projects (as long as things go well...)
- Limited technical expertise and capacity for conducting HIA



How can we make HIA more sustainable!?

- Trigger a **policy dialogue** to explore how impact assessment as a regulatory mechanism can be strengthened*:
 - To avoid negative effects of natural resource extraction projects on public health
 - To actively engage natural resource extraction projects in health promotion



* **Health in EIA or HIA** as stand-alone approach

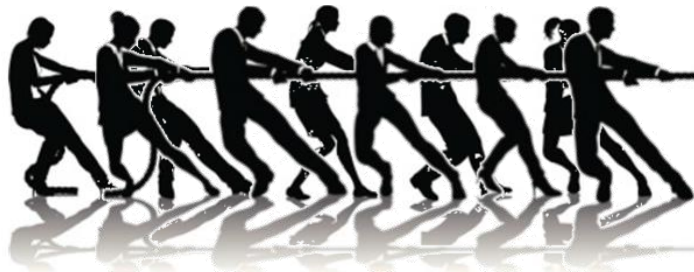
Project description

HIA4SD HEALTH IMPACT ASSESSMENT FOR SUSTAINABLE DEVELOPMENT

- Health impact assessment (HIA) for engaging natural resource extraction projects in sustainable development in Africa



Public-private collaboration



Swiss Programme for Research on Global Issues for Development

Swiss TPH



UNIVERSITY OF HEALTH AND ALLIED SCIENCES



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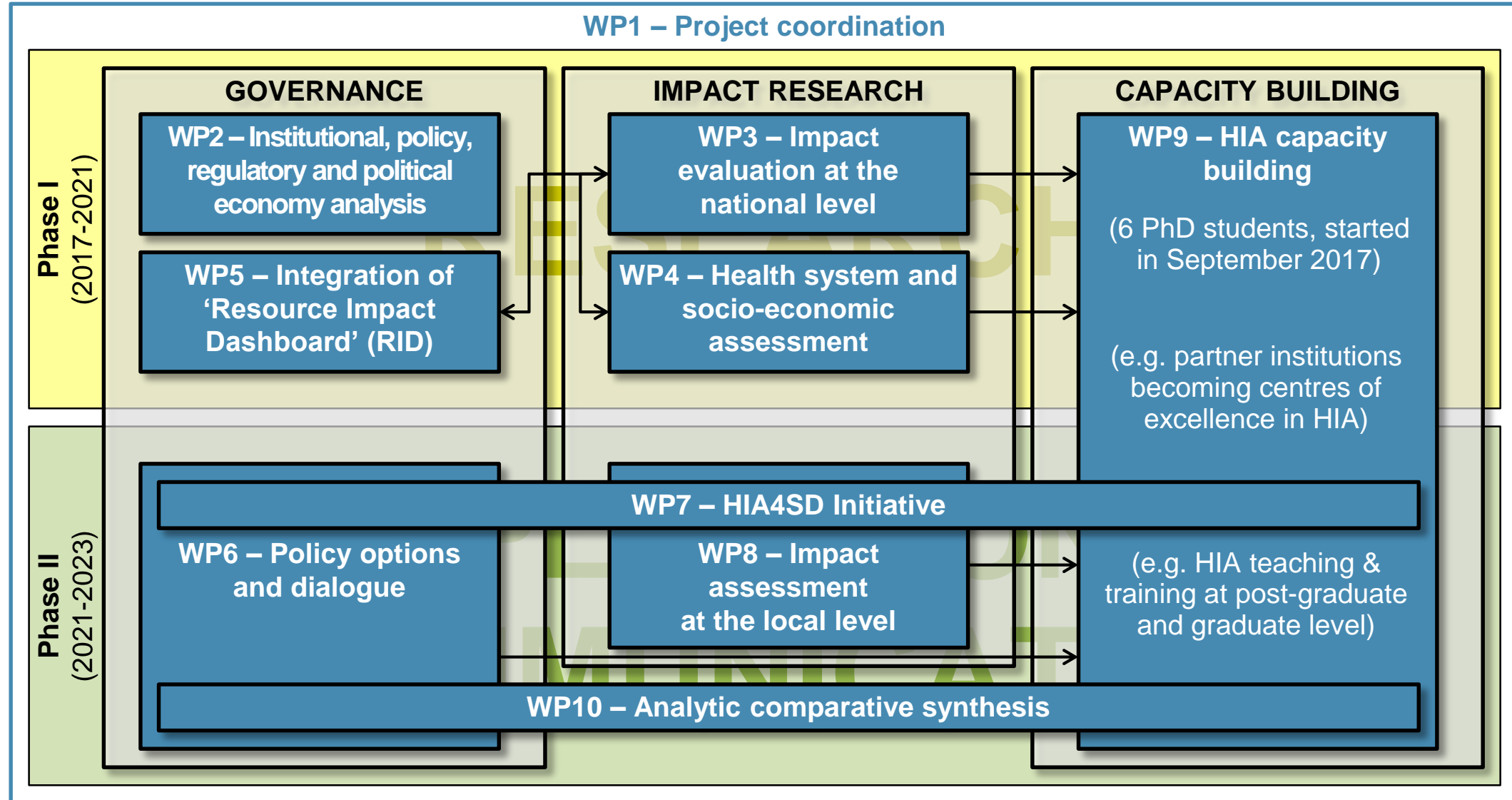


Swiss Agency for Development and Cooperation SDC

Project description



HEALTH IMPACT ASSESSMENT
FOR SUSTAINABLE DEVELOPMENT



Stakeholder engagement process

- **Multi-stakeholder meetings**
 - Ministries
 - Private sector
 - Civil Society
 - Academia
- **Stakeholder engagement as continuous process**



Inform about project ——— Raise awareness
Learn from stakeholders ——— Influence research

Research phase (2017-2021)

- 6 PhD students supported by 18+ post docs and senior researchers

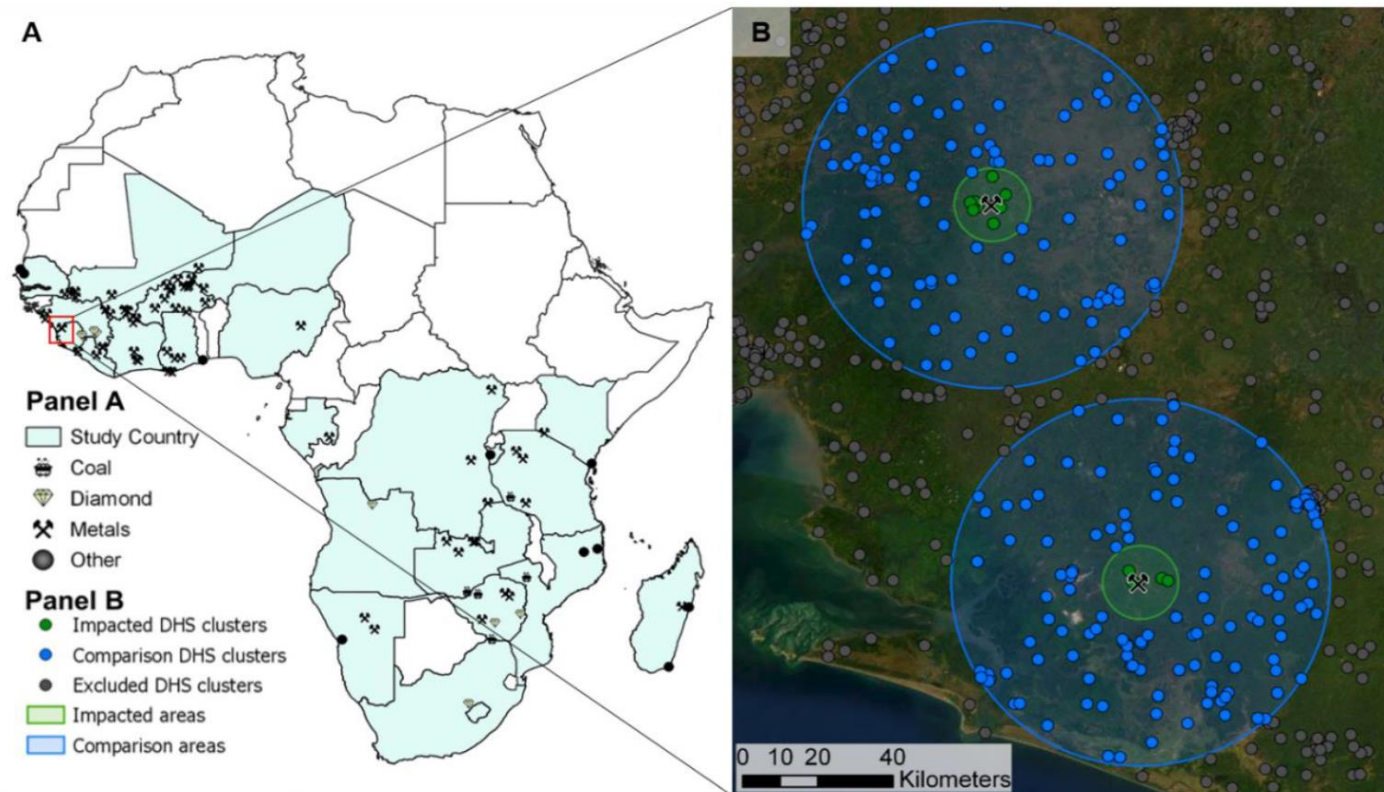


Methods
Quantitative
Qualitative
Mixed-
methods

Levels
International
National
Local

Quantitative research – international level

- Retrospective analysis of 131 Demographic Health Survey, applying pseudo-panel methods



Effects of mining and urbanization on:

- **Housing quality...**
- **Access to water and sanitation...**
- **Sexual behaviors...**

...and associated health outcomes

Figure 1. Spatial distribution of mines (panel A) and visualization of the selection of Demographic and Health Survey clusters (panel B). DHS: Demographic and Health Survey.

Quantitative research – national level

- Quantification of annual settlement growth in mining areas using machine learning

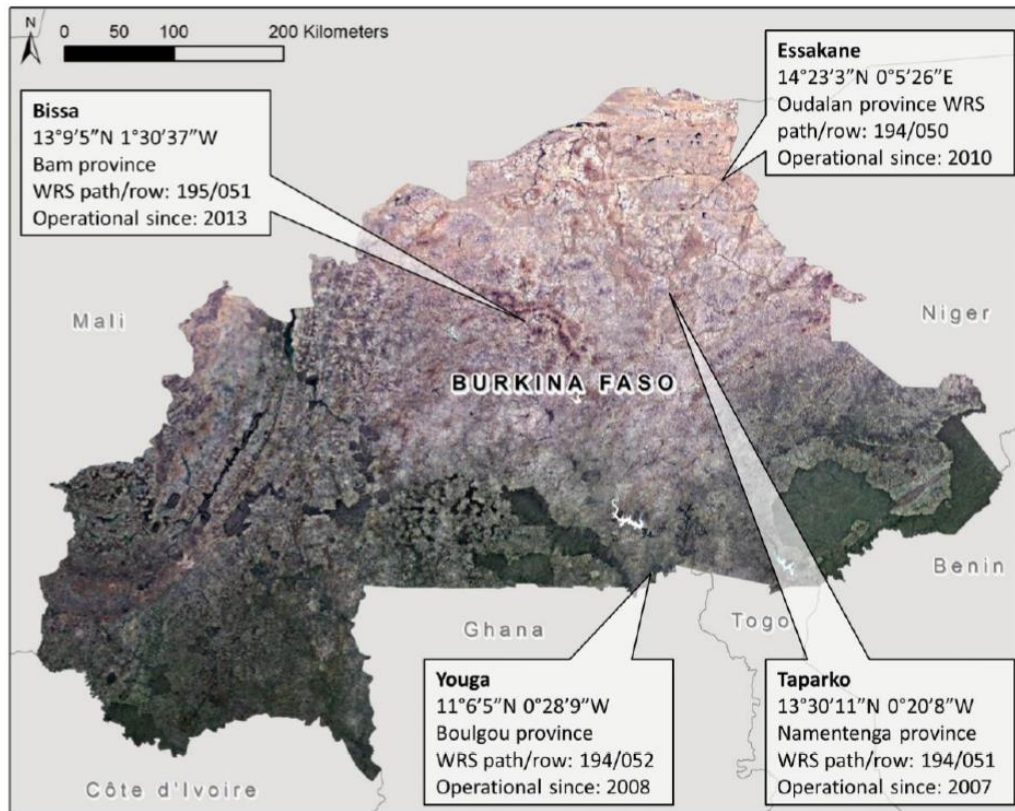


Figure 1. Location of gold mining areas included in this study.

Dietler et al. Remote Sensing (2020)

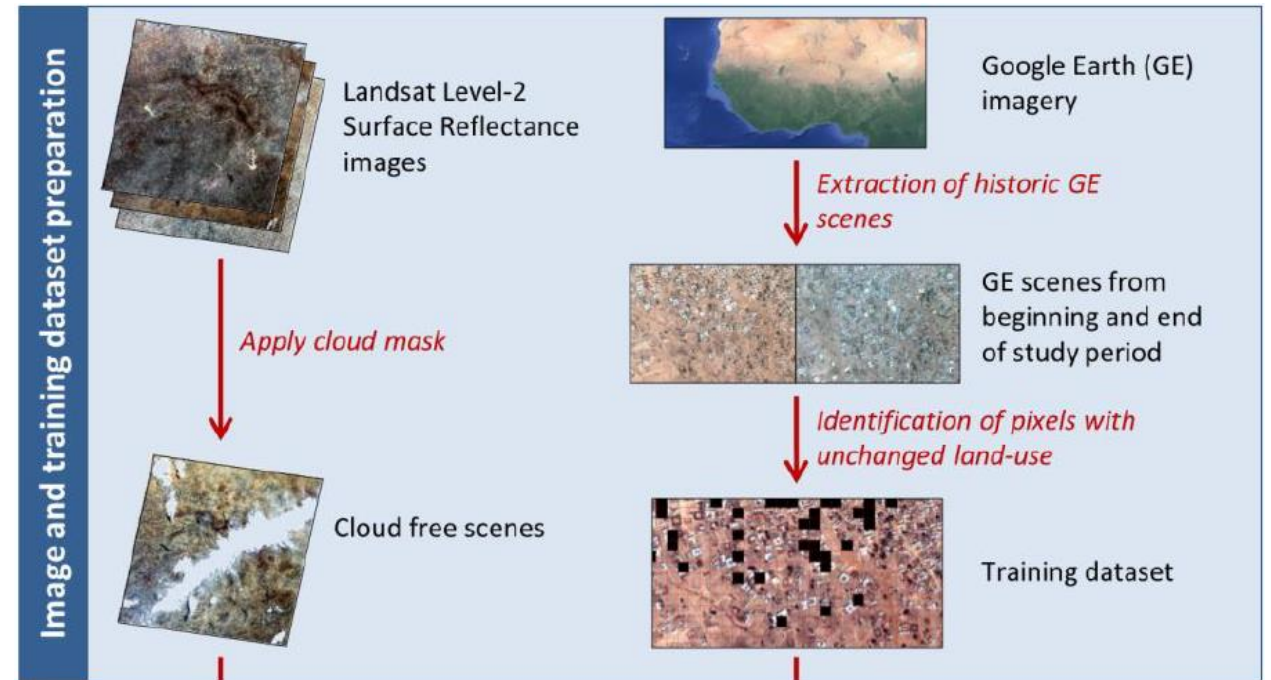
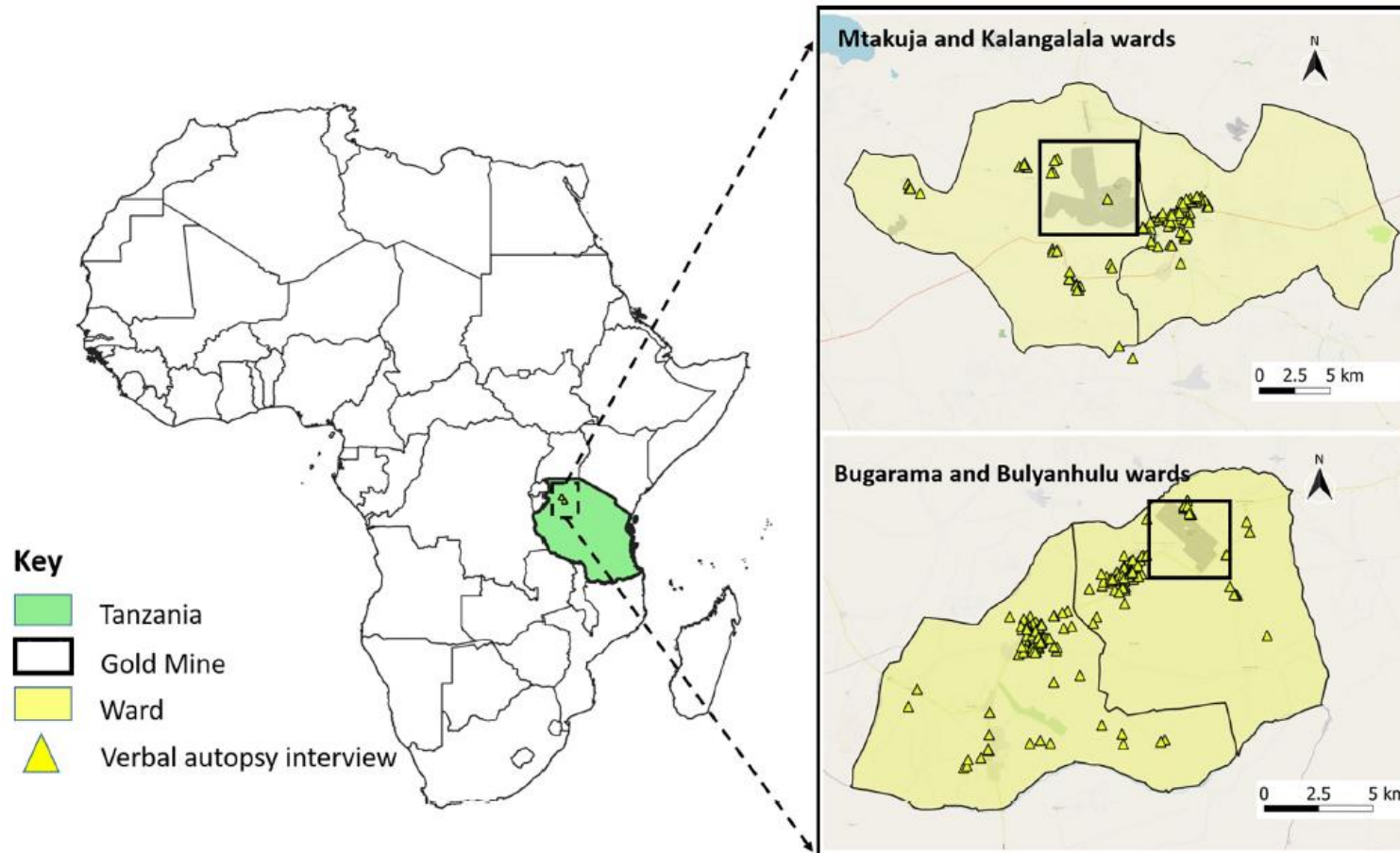


Figure 2. Data sources and methodological flowchart. GE: Google Earth. SVM: support vector machine. LU: land use.

Quantitative research – local level

- Prospective mortality surveillance system



Mortality burden associated with gold mining in Tanzania?

Fig 1. Location of the mining areas and the study sites (left) including location where the verbal autopsy interview occurred (right). This figure was created using QGIS, an open-source application. The source basemap was obtained using OpenStreetMap plugin in QGIS. OpenStreetMap follows open data license under Open data Commons Open Database Licence (ODbL, <https://openstreetmap.org/copyright>).

Qualitative research – local level



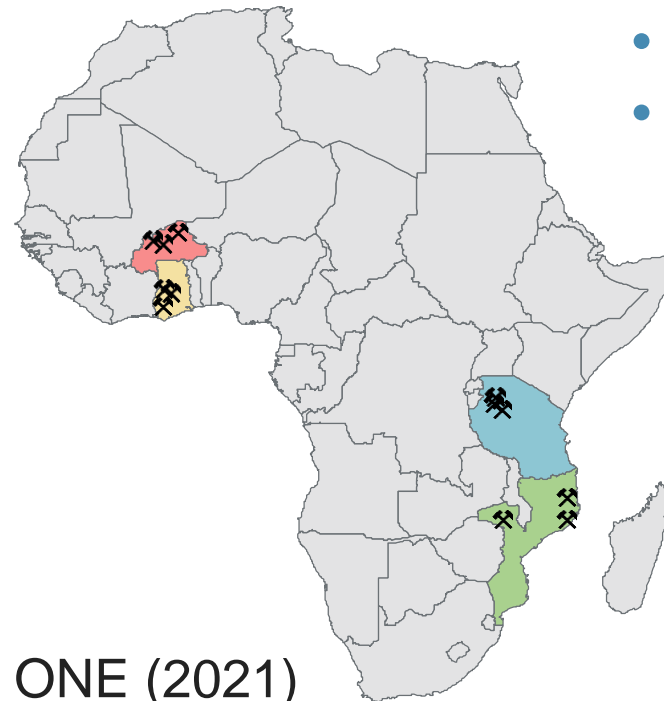
Qualitative research – local level

In 3 mining areas in each project country:

- **181 Focus group discussions (FGD)**
 - Women, men, adolescents
- **343 Key informant interviews**
 - Local authorities
 - Community leaders
 - Religious leaders
 - Health care staff
 - Private sector

Research topics

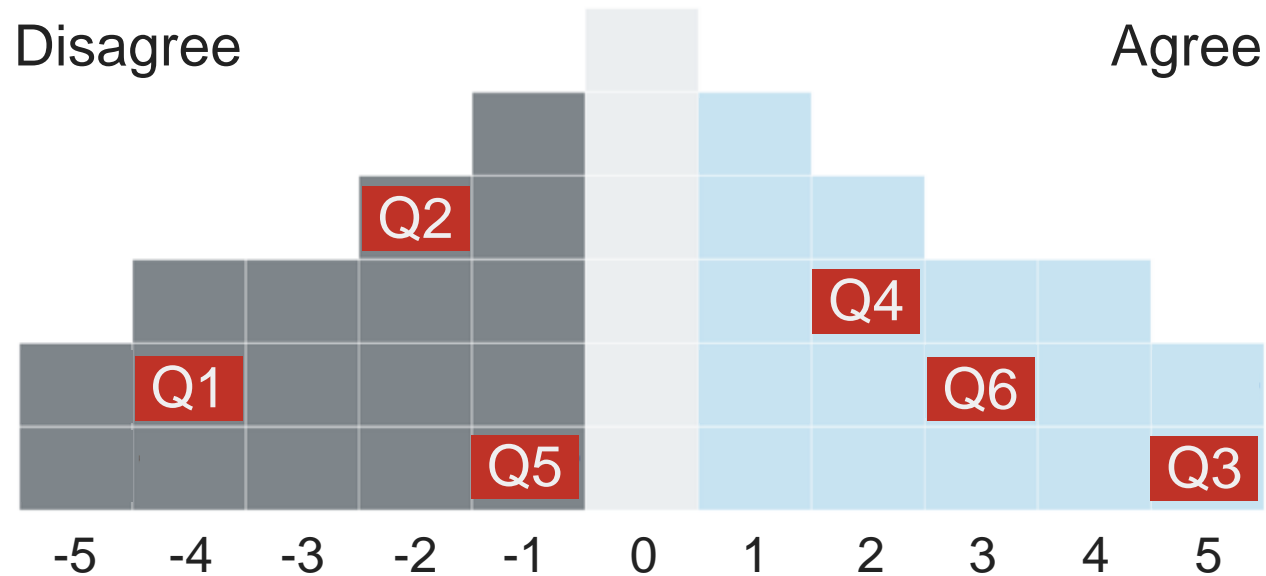
- Equity
- Gender
- Perceived impacts
- Health system
- Partnership
- Etc.



Qualitative research – national level

- **Q-methodology**

- Policy proposals (Q-statements)
- Ranking by stakeholders (Q-sorts)



Stakeholder engagement

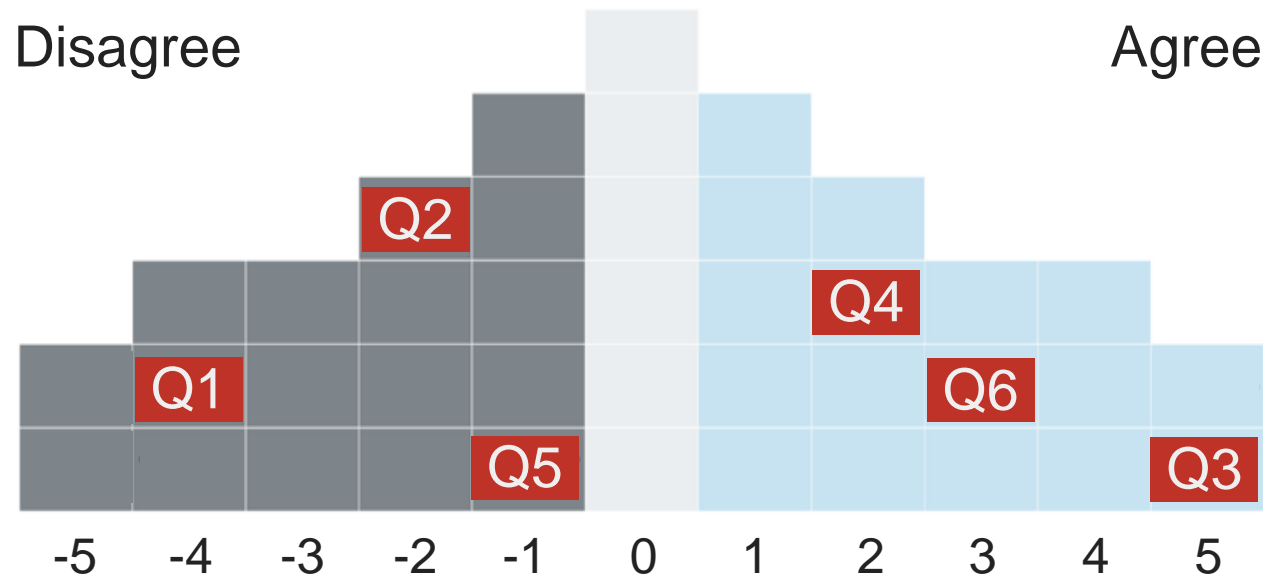
Qualitative research – national level

- **Q-methodology**

- Policy proposals (Q-statements)
- Ranking by stakeholders (Q-sorts)



Which of the proposed policy options have the broadest acceptance among stakeholders and policy-makers?



Stakeholder engagement

Q-method study findings – areas of consensus

- **Near unanimous support for strengthening public health**
 - Public health is not sufficiently considered
 - Current EIA frameworks are insufficient / lack of public health dimension
- **General agreement that monitoring of public impacts needs to be improved**
 - Widespread support for the collection of baseline data
 - Health impact monitoring is public task and should not be left to companies

Q-method study findings – diverging views

- **Financing and provision of public health services**
 - Government vs. private sector responsibility
- **Regulatory framework**
 - Health in EIA *versus* HIA
 - Sanctions for companies
- **Distribution of responsibilities between government agencies**
 - Central vs. regional authorities

Research findings



- Natural resource extraction projects represent risks and opportunities for public health
 - Quantitative research: positive effects dominated
 - Qualitative research: perceived negative impacts dominated
 - Mixed-methods!

Equity!



Publications (currently n=29)

Communication and application phase (3 years)

HIA4SD



Publications
(currently n=29)



Policy briefs
(currently n=5)

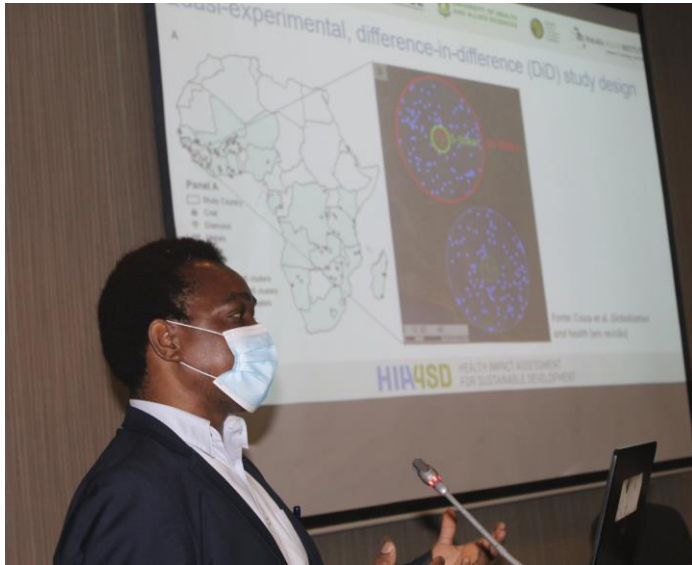
<https://hia4sd.net>

Videos
(n=6)

**Stakeholder
engagement**

Dissemination, policy dialogue & capacity building

HIA4SD



**Stakeholder
engagement**

Preliminary conclusions – impact research

- Extractive projects trigger a diversity of impacts (positive & negative) on determinants of health and health outcomes
 - Importance of combining quantitative and qualitative approaches
- **Health equity is a major concern,** with women and the poorer households being disproportionately affected

	NEGATIVE IMPACTS	HEALTH EQUITY	POSITIVE IMPACTS
ENVIRONMENTAL IMPACTS	<ul style="list-style-type: none"> • Air pollution • Water quality • Soil pollution 	<ul style="list-style-type: none"> • Exposure and adaptive capacity depending on, place of residence, gender and socioeconomic factors 	<ul style="list-style-type: none"> • Construction of wells or taps with drinking water
SOCIAL IMPACTS	<ul style="list-style-type: none"> • Social disruption • Loss of local customs and culture 	<ul style="list-style-type: none"> • Women disproportionately affected by negative impacts • Greatest improvements in infrastructures among wealthier households 	<ul style="list-style-type: none"> • Improved community infrastructures (e.g., schools, health facilities) • Improved household infrastructures (e.g., sanitation, housing)
ECONOMIC IMPACTS	<ul style="list-style-type: none"> • Loss of farmland • Restricted fishing activities 	<ul style="list-style-type: none"> • Men are more likely to benefit from job opportunities • Subsistence farmers disproportionately affected by land loss and soil pollution 	<ul style="list-style-type: none"> • Direct employment • Indirect employment and business opportunities • Wealth gains for local communities
HEALTH OUTCOMES	<ul style="list-style-type: none"> • Sexually transmitted diseases (e.g. HIV) • Respiratory diseases • Diarrheal diseases • Chronic diseases • Mental health and substance abuse 	<p>GAP IN HEALTH EQUITY</p>	<ul style="list-style-type: none"> • Reduction in neonatal mortality • Perceived improvement of maternal and child health care • Child development and nutrition

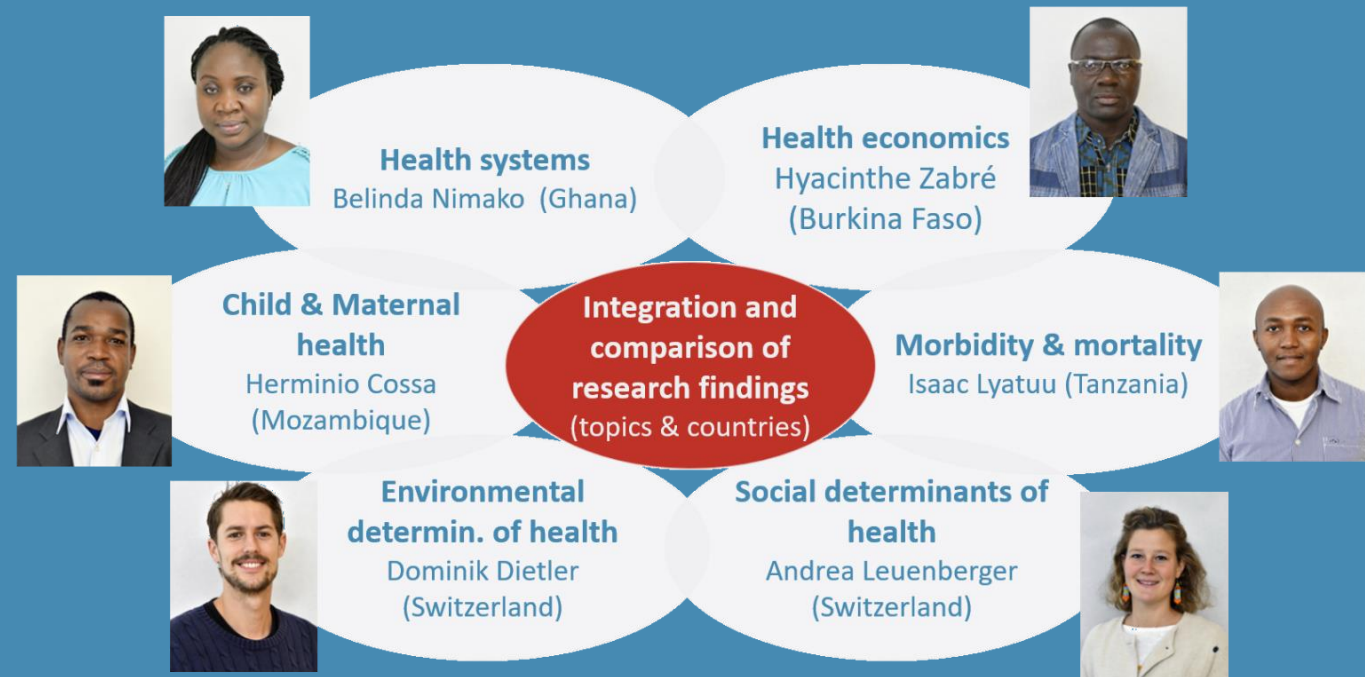
Preliminary conclusions – governance

- Broad recognition among stakeholders in the four project countries that health is insufficiently included in impact assessment regulation
- Importance to accommodate diversity in policy dialogue processes across countries



Preliminary conclusions – capacity building

- Mutual learning is essential in the process of developing technical HIA capacity
- There is strong interest by stakeholders (e.g. ministries, private sector and academia) to learn more about HIA
- We are looking forward to the upcoming HIA short-courses..!



Acknowledgements

Thank you...!



**Swiss Programme for Research
on Global Issues for Development**

www.r4d.ch

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**Swiss Agency for Development
and Cooperation SDC**

Let's continue the conversation!

Post questions and comments via chat in the IAIA22 platform.



#iaia22

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