



2. RAISING DELTA VOICES THROUGH CO-PRODUCTION FOR SUSTAINABLE DEVELOPMENT

The Living Deltas Hub is working with vulnerable groups in rural communities to co-produce a research agenda that develops new knowledge, capacities and localised solutions for the sustainability of people's livelihoods in delta environments in response to the challenges of climate change.



Foreign, Commonwealth & Development Office



Climate change & biodiversity



Science, research, technology



Trade & economic development



Girls education

SUSTAINABLE DEVELOPMENT GOALS

3 GOOD HEALTH AND WELL-BEING



5 GENDER EQUALITY



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



13 CLIMATE ACTION



17 PARTNERSHIPS FOR THE GOALS



Achievements

Living Deltas is empowering vulnerable groups in rural communities. Co-production allows individuals to be knowledge generators to derive the knowledge base on resilience to feed into locally relevant and inclusive strategies and policy for better delta futures. This is important, because rural communities are on the frontline of climate change but are frequently overlooked and undervalued in research and policy development, leading to a lack of buy-in and ownership (Forsyth, 2020). This is particularly true for remote communities experiencing poverty. Recognising communities are not homogenous, we are working with community members as lay researchers who are the most vulnerable – women, older and young people, and ethnic minorities –to document their knowledge for upscaling and inclusive sustainable development.

Our research brings together local academic and community researchers in the Red River Delta, Vietnam (Dinh Trung Commune, Vinh Phuc Province, and Hai Thanh Commune, Nam Dinh Province) and in the Mekong delta (Nhon Hoi Commune and Nhon My Commune, An Giang Province) using a thaibaan methodology – a type of collaborative community-led research. Thaibaan mobilises community members to directly participate as lay researchers. Community members drive the agenda by choosing their researchers and selecting the research topics. We have co-developed a training programme to implement oral history, participatory mapping, and photovoice methods, and to document and manage the data generated. Each field trip is followed by a debriefing to discuss findings and resolve problems. This ensures control of the data process for quality and methodological rigour, while generating real co-production.

To maximise relevance to communities, in addition to agenda setting and data collection, we review findings and their implications for policy and practice in partnership with the community researchers. This supports our work towards transformative solutions that are sustainable and embedded across local, regional, and national scales. We facilitate dialogues with decision makers and raises awareness of local strategies and experiences via curated public engagement activities, including exhibits of project maps, images, and community voice.

Interdisciplinary approaches

Living Deltas brings together localised knowledge for adapting to environmental change held by vulnerable groups with the following disciplinary knowledge:

- Human geography and political science to understand the importance of governance, institutions, and power structures;
- Gender studies to understand the diverse ways community members live with and adapt to environmental change; community development to understand methodological challenges of working with communities;
- History and oral history to uncover locally embedded knowledge and perceptions of environmental change over time; education to understand how educational mechanisms can be embedded in environmental research;
- Engineering to understand changes in the social-ecological system.

This approach has generated new data on how communities are experiencing the impacts of environmental change through the deterioration of the quality and quantity of fresh water, loss of forests, and other natural resources. We are using this data to drive solutions that directly address local needs and to locally monitor the progress of the Sustainable Development Goals. For example, in Vinh Phuc we are working with a women-led organic farming co-operative, which faces problems of water pollution caused by intensive farming, but their members lack skills to address this. In a first step, we facilitated historical analysis of how land use change since the 1970s has impacted the local ecosystem. Next, the female researchers assessed their resource matrix, which generated new understanding of the impact of land use change on labour demand, health, agricultural production, and water and land quality.

In Nhon Hoi, older and younger community researchers are generating data on historical memory and intergenerational understanding of environmental change. This has revealed how different forms of environmental knowledge exist within the same community; while older people have a historical perspective of how the environment has changed, younger people have more exposure to environmental issues through education and the media (initial reflections from student researchers, June 2021). Next, we will work with the community researchers to analyse the personal memories of older people and the perspectives of young people by comparing them with scientific data on climate change to generate a holistic understanding of the localised impacts on the social-ecological system and to promote integrated solutions to policymakers.

Innovation

The Hub is revealing the importance of the resilient capacities of vulnerable populations and the knowledge that underpins these capacities. Yet, there is a significant lack in documenting and upscaling this knowledge. Given the Red River and Mekong River Delta's vulnerability to climate-related impacts, significant investments in climate change programming have been made, but very little of this funding goes into community-led initiatives, even though local people are often most knowledgeable about the impacts they are experiencing and best placed to respond to them. Furthermore, where such funding exists, it often goes to well-connected or better educated community members (Interview with Hong Hoang, Executive Director of the Ho Chi Minh City-based environmental NGO Change).

Our research addresses a pressing need to strengthen recognition for the experiential knowledge of vulnerable community members to develop inclusive solutions for environmental problems. In Nhon Hoi, where we work with female and young farmers who are for the first time systematically documenting their local knowledge on environmental change, delta food systems, and land governance. By conducting collective work and sharing their experiences, they have started to feel connected and trusted. We have learned that even though women are very competent in their field, they often lack confidence, communication skills and access to policymakers to effectively represent their knowledge. We will train the researchers in communication and presentation skills to develop their data for presentation to policymakers, scientists, and other communities in a series of knowledge-sharing workshops for upscaling and impact.

In Nhon Hoi, we work with ethnic minority Muslim Cham researchers, who have communicated how a substantial decrease in water quantity and quality has impacted the ability of their community to make a livelihood from

fishing, but community members have taken few steps to address this independently and are instead waiting for leadership of local authorities, which has not been forthcoming. Steps taken by villagers include diversification of agricultural livelihoods, such as the introduction of mango trees to supplement rice farming and aquatic vegetables to replace failing fish stocks. Yet, a lack of government support makes the sustainability of these initiatives uncertain. Oral history interviews conducted by young community members with older people have given us first-hand accounts of how the loss of biodiversity poses a threat to traditional livelihoods and culture, which is not recognised by policymakers.

Using these insights, we will facilitate solutions-focused workshops to bring together communities, researchers, and local policymakers to showcase how grassroots innovation can contribute to transformation and to identify localised solutions to environmental degradation. By training and working with community researchers from vulnerable groups, our approach ensures previously excluded voices and knowledges are being heard and understood, offering insight into the local impacts on climate change and biodiversity loss, and enabling us to drive the research agenda and develop the knowledge base required for effective, and locally relevant, solutions.

People involved in this work

Name	Gender	Discipline	Work Package	Institution	Country
Matt Baillie Smith	M	Human geography	Delta Voices	Northumbria University	UK
Laura Beckwith	F	International development	Delta Voices	Northumbria University	UK
Nga Dao	F	F Human geography	Delta SDGs Delta Impact	York University	CA
Oliver Hensengerth	M	Political science	Delta Voices	Northumbria University	UK
Nguyen Thi Xuan Hue	F	Education	Delta Vocies	An Giang University	VN
Lan Ngoc Nguyen	F	Community development	Delta Social Ecological Systems Delta SDGs	WARECOD	VN
Md. Feisal Rahman	M	Environmental engineer	Delta Impact	Durham University	UK
Graham Smith	M	Oral history	Delta Voices	Newcastle University	UK
Nguyen Tanh	M	Ecological Systems Engineering	Delta Voices Delta-level Interventions	An Giang University	VN
Siobhan Warrington	F	Oral history	Delta Voices	Newcastle University	UK
Pam Woolner	F	Education	Delta Voices	Newcastle University	UK
Kien van Nguyen	M	Environmental agroecology	Delta Social Ecological Systems	An Giang University	VN
Tanh Nguyen	M	Agriculture & natural resources	Delta Voices Delta-level Interventions	An Giang University	VN
Phan Tuyết Cuong	F		Research partner	An Giang University	VN
Lam Ngoc Duy	M		Research partner	An Giang University	VN
Cao Hoàng Uyen	F		Research partner	An Giang University	VN
Nguyen Lan	F		Research partner	An Giang University	VN
Huynh My Linh	F		Research Partner	An Giang University	VN
Community Researchers	M	Nhon My; Hai Thanh; Dinh Trung communes	Commune research partners		VN