

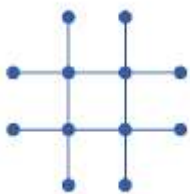
**European Commission HORIZON-MSCA  
(Marie Skłodowska-Curie) Postdoctoral Fellowship**

**EXECUTIVE SUMMARY**

**Ontological Bridge-building for Climate Change Mitigation  
in Maasailand (OBCCMM)**

**Marie Skłodowska-Curie  
Postdoctoral Fellowship**

*funded by*  
The European Commission



*Research institution*

**VID Specialized University**  
Stavanger, NORWAY



*Research location*

**Tumaini University Makumira**  
Usa River/Arusha  
TANZANIA

**Researcher: Beth E. Elness-Hanson, PhD**

“Ontological Bridge-building for Climate Change Mitigation in Maasailand” (OBCCMM) is a multidisciplinary project that builds bridges across clashing climate ontologies in Maasailand in Tanzania. This holistic project integrates indigenous knowledge and climate science that is negotiated through ecotheological frameworks. The collaboratively developed core values and learning outcomes are worked into curricula components for four target research groups. This project leverages existing educational and social systems of the church with trusted local leaders for educating and equipping with the best practices of climate change mitigation in Maasailand. Note that the church structures engaged throughout this research project are within the Evangelical Lutheran Church in Tanzania.

This project grows out of recent research that demonstrates a “cognitive dissonance” [clash] between the climate ontologies within the scientific messaging and the traditional Maasai worldview (de Wit, 2020). Thus, the Tanzanian governmental efforts in climate change prevention education are not effective among Maasai, a very traditional people group numbering around two million people in mostly northern Tanzania and southern Kenya, East Africa (de Wit, 2018). However, as a result of the HIV/AIDS pandemic, there is an established basic model of the church providing a strategic role in bridging the cognitive dissonance chasm between the science and a skeptical people group, resulting in effective outcomes among the Maasai (Watt et al., 2009). In addition, the World Council of Churches “calls upon African religious leaders to challenge triumphalist theologies, mobilize for local action, and convene multi-religious meetings on climate change” (Chitando, 2017).

This project expands the current research; addresses a lacuna; builds upon the previous church-based pedagogy models; integrates indigenous knowledge; collaboratively curates core values and learning outcomes; champions women as the core of the societal structures; and develops innovative pedagogical dissemination with robust analysis of results in order to measure and determine best practices of climate change mitigation and adaptation in Maasailand.

As the local Evangelical Lutheran Church in Tanzania made a difference in the health of the people regarding HIV/AIDS, the local church can make a difference in the health of the environment.

Engaging the local church and trusted local leaders is important for transformation that reaps results. Gus Speth, former Chairman of the Council on Environmental Quality (USA), stated:

I used to think that top environmental problems were biodiversity loss, ecosystem collapse and climate change. I thought that thirty years of good science could address these problems. I was wrong. The top environmental problems are selfishness, greed and apathy, and to deal with these we need a cultural and spiritual transformation. And we scientists don't know how to do that (Curwood & Speth, 2016).

Thus, this project develops the researcher's multidisciplinary capacities in order to address the lacuna of how biblical-ecothology can engage climate ontologies and indigenous knowledges through leveraging the church's more trusted local educational structures for climate change mitigation. Therefore, this project engages Maasai stakeholders for collaboratively developing core values and learning outcomes for creating curricular components for four research groups.

### **Research Groups**

- 1) **Church confirmation:** As this the indigenous model of learning that was significant in the dissemination of science-based information in the earlier years of the HIV/AIDS pandemic to nurture the health of people, it can also be a vehicle for nurturing the health of the environment. In Maasailand, only a modest amount of students are able to attend secondary school, as it is not government funded. Thus, one established system to reach a higher percentage of young adults is through confirmation, which is typically for youth between 13 and 15 years of age. Maasailand is estimated to be 35 percent Christian, which is predominantly Lutheran and Roman Catholic, which both have prevalent confirmation programs. As confirmation is engaged by both girls and boys, it is a gender-balanced method to reach a significant part of the population. There is recent research on young adult transformation that can be integrated into the curriculum components (Wolverton, 2019). Curricular components of two to five sessions will be jointly developed with a Maasai confirmation teacher from the collaboratively determined core values and learning outcomes.
- 2) **Faith-based secondary school—Form 2:** The Form 2 Tanzanian National Curriculum includes both environmental studies in biology (The United Republic of Tanzania Ministry of Education and Vocational Training, 2005) and, for Christian schools, Bible knowledge on the Book of Genesis, with core texts for environmental ethics. Curricular components of two to five sessions will be jointly developed with a Maasai secondary school teacher from the collaboratively determined core values and learning outcomes.
- 3) **Women's community based Bible study groups:** Women are the center of the Maasai family and society, such that "If you teach the mama, the whole family will learn" (Elness-Hanson, 2021). Thus, leveraging the role of women as the core of the family as well as the church structures is an important strategy to integrate indigenous knowledge and apply it in culturally sensitive and meaningful ways. Curricular components of two to five sessions will be jointly developed utilizing the South African Ujaama Centre community based Bible study methods (West, 2013). In addition, recent research demonstrates a meaningful collaboration between Christians and traditional Maasai in community base Bible studies

(Nkesela, 2020). A Maasai woman will partner in the developing the Bible studies from the collaboratively determined core values and learning outcomes.

- 4) **Theological Education by Extension (TEE):** Lay pastors have a higher percentage of women in Maasailand. While Lutherans ordain women, Roman Catholics do not. Thus, targeting lay pastors provided more gender balance. The TEE training center that serves the predominantly Maasai regions will be the targeted research location (Justo, 2020). Curricular components of two to five sessions will be jointly developed with a Maasai theologian from the collaboratively determined core values and learning outcomes.

The distinctive aspect of this research project is the holistic approach, integrating climate science and indigenous knowledge with faith-based communal systems and educational structures. The researcher, Elness-Hanson, is trained in both biological science and theology and previously taught both disciplines in a Maasai context. In this project, theologians have a distinctive role in bridging the gap between the climate science and the Maasai worldview, because theologians can use a similar relationship-centered worldview that has three parts (God, humans, and non-human creation) (Elness-Hanson, 2023) to link together meaningful connection points. Because the project is collaborative with Maasai stakeholders, there is a greater probability of successful outcomes, because people support what they help create. Thus, the theological framework connecting similar triangulated ontological worldviews of Christian ecotheology and the traditional Maasai is what strategically builds bridges across the divides for transformation that results in climate change adaptation and mitigation.

### ***Ethical Clearances by:***

European Commission: “Ethics ready”

Norwegian Research Authority “Sikt”: Cleared

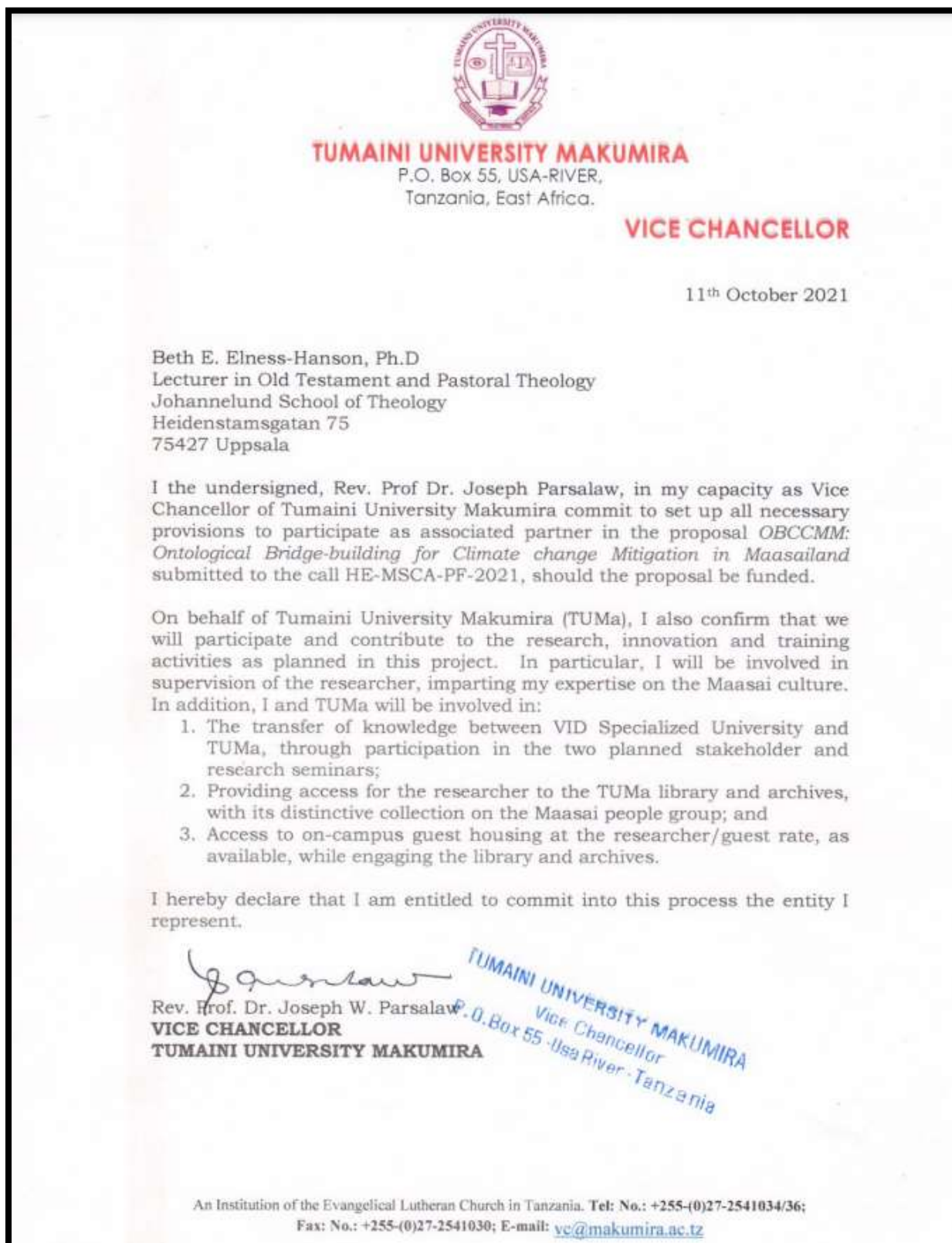
Tanzanian Research Authority, COSTECH: Approved (Control Number: 991780025428)

### ***The project’s contribution: expected scientific, societal and economic impacts***

- **The primary impact is climate change mitigation.** Through curricular components in four research groups, the collaboratively developed core values and learning outcomes will be applied for transformative learning. These curricula will apply environmental ethics and climate science for best practices of climate change mitigation in Maasailand.
- **Equipping Maasailand with culturally-sensitive curricular components.** As the transformative learning lessons are disseminated, the church and local government in Maasailand will shape policies and practices for climate change mitigation. The evidence-based research analysis will influence how to relegate future efforts/funds for continued transformative learning engaging environmental ethics.
- **Developing culturally-sensitive approaches to** bridge the cognitive dissonance between climate science and traditional worldviews with sceptical climate ontologies. Replicating this approach through the international faith-based educational systems and church structures in other similar cognitive dissonance context around the world can multiply these climate change mitigation efforts. The societal impacts may be replicated in other contexts later.
- **Positioning the Maasai leadership** for more constructive conversations with the Tanzanian government. Tensions between the Maasai and the government over many years have resulted in distrust from the Maasai toward the government (de Wit, 2018; Hodgson, 2001). The Maasai leaders who are involved in the stakeholder seminars can demonstrate to the government that they are actively engaging best practices of climate change adaptation and mitigation.

## Research Institutions and Supervisors

- Rev. Prof. Dr. Knut Holter, at VID Specialized University (Norway) and
- Rev. Prof. Dr. Joseph Parsalaw, Vice Chancellor, Tumaini University Makumira (Tanzania).



## Project Overview

	2023		2024				2025				2026			
	Aug-Sep	Oct-Dec	Jan-Mar	Apr	May-Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-May	Jun	Jul-Sep	Oct-Dec	Jan-Mar	Apr-Jul
Months for each column aspect	2	3	3	1	2	3	3	3	2	1	3	3	3	4
Project start & months elapsed	1-2	3-5	6-8	9	10-11	12-14	15-17	18-20	21-22	23	24-26	27-29	30-32	33-36
<b>1. Work package 1: research expanding theory/knowledge</b>														
1a. Biblical theological framework presentation @ SBL														
1b. Climate science, climate anxiety														
1c. Maasai climate ontology and traditional environmental knowledge (TEK)														
1d. Social science research on change and reactants														
1e. Biblical theological framework paper for publication				M <sup>1</sup>										
<b>2. Work package 2:</b> • field work preparation • soliciting stakeholders • language learning course														
<b>3. Work package 3: field work</b>														
3a. Collaboration with Maasai					M <sup>2</sup>									
3b. Curricula drafted														
3c. Curricula critique/revision							M <sup>3</sup>							
3d. Implementation: 4 groups								M <sup>4</sup>						
3e. Interim analysis									M <sup>5</sup>					
3f. longitudinal study														
<b>4. Work package 4: Analysis/dissemination</b>														
4a. Data analysis & findings										M <sup>6</sup>				
4b. Curricula adoptions											M <sup>7</sup>			
4c. Publications/ dissemination														M <sup>8</sup>
End of project														fin

<sup>1</sup> Milestone 1: Journal article preparation completed and ready for publishing of the theoretical positioning for ecotheological framework for addressing a clash of climate ontologies.

<sup>2</sup> Milestone 2: Core values and learning outcomes collaboratively developed with Maasai stakeholders at seminar 1. Stakeholder seminar 1 with deliverables completed.

<sup>3</sup> Milestone 3: Curricular component revisions completed after the draft materials are reviewed and critiqued at stakeholder seminar 2. Stakeholder seminar 2 with deliverables completed.

<sup>4</sup> Milestone 4: Curricular components implemented and research groups lessons completed.

<sup>5</sup> Milestone 5: Fieldwork completed.

<sup>6</sup> Milestone 6: Data analysis completed for publication.

<sup>7</sup> Milestone 7: Curricula components adopted for implementation in Maasailand churches, TEE theological education, women's groups, and faith-based secondary schools.

<sup>8</sup> Milestone 8: Journal article and anthology published as well as articles for church organization newsletters. Dissemination completed.

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