

## Name of Project 1

Pandemic communication in indigenous communities

### Project Background

Choco region is located in the remote areas on the Pacific coast of Colombia and is home to indigenous people (Embera Dobida, Chami, Katío, Wounnan, Zenu, and Tule settlements) living in about 120 native territories and speaking 6 different languages. The settlements do not have access to communication technology and low levels of literacy, have poorly developed infrastructure and are partially surrounded by criminal gangs. All these factors make access to the national healthcare system problematic. This project aims to evaluate the spread of COVID-19 virus in the area and understand how local cultural traditions and beliefs influence the infection in the indigenous communities in Choco. The improved understanding will be incorporated into the communication and educational strategy for the prevention of the disease to reduce the risk of transmission.

### Research Questions

- a. How widespread is COVID-19 virus in Choco region?
- b. How do indigenous people perceive and cope with the new hazard?
- c. Can gamification approach help to bridge traditional beliefs and modern medicine, and help develop common understanding of the hazard?

### Methods

Seroprevalence survey is used to evaluate the spread of COVID-19 virus in indigenous communities. Unstructured interviews are used during the exploratory phase to understand perception of indigenous people about the pandemic. Gamification approach is used to develop elements of the communicative strategy to help the communities protect themselves against the virus.

### Project Leads / Supervisors

A. Spanellis

### Co-investigators/ RAs/ PHDs

G. Borzenkova; UPB-Medellin, Colombia

### Funding

SFC GCRF

## Name of Project 2

Games for natural hazard community resilience

### Project Background

Indonesia is the most vulnerable country on Earth to natural hazards, with volcanic eruptions, earthquakes and tsunamis occurring frequently. Such events cause multiple fatalities, major disruption to economic development and community wellbeing. Improving their capacity to act in response to such events is one of the most important aspects of community resilience that can help to reduce fatalities and the economic impact of such events. The aim of this project is to develop a complementary gamified training system for evacuation in the community near the volcano Merapi

in Indonesia that will complement the official evacuation training and procedures, to develop the capacity to act.

### Research Questions

What are the constraints of established training programmes for natural hazard evacuation?

How effective is a game in developing local decision-making capacity during the evacuation?

### Methods

The exploratory part of the study is based on semi-structured interviews with different groups of stakeholders. The objectives of the game are developed using causal mapping. The effectiveness of the game is evaluated using Structural Equation Modelling.

### Project Leads / Supervisors

A. Spanellis

### Co-investigators/ RAs/ PHDs

R. McMenemy; Universitas Gadjah Mada, Indonesia

### Funding

SFC GCRF

## Name of Project 3

Infodemic in Brazil

### Project Background

The issue of fake news is particularly significant in Brazil and it undermines the efforts to contain COVID-19 pandemic. This project aims to focus on the impoverished areas of Brazil (Favelas, homeless communities and low-skills workers), and develop a communicative strategy that would help to develop critical thinking around the news that the participants read.

### Research Questions

- a. How does the proliferation of fake news among vulnerable groups undermine the local pandemic mitigating efforts?
- b. How do members of vulnerable groups make decisions about prioritizing information?
- c. What elements of the communicative strategy help to increase the effectiveness of current pandemic mitigation efforts?
- d. How does developing critical thinking skills help vulnerable groups assess news?

### Methods

We use Participatory Action Research to explore the ways in which vulnerable groups gain access to essential information, assign trust to sources and communicate with each other. Using games, persuasive design, storytelling and communitarian activities we will develop elements of communicative strategy to help vulnerable groups develop critical thinking.

### Project Leads / Supervisors

C. Angelelli

### Co-investigators/ RAs/ PHDs

A. Spanellis; G. Borzenkova; R. McMenemy; UFG, Brazil

## Funding

AHRC

## Name of Project 4

Productive use of pristine ecosystems

### Project Background (1 para)

Bahía Solano in Colombia is one of the most biodiverse ecosystems in the world, but it is also one of the most underdeveloped regions in the country. It is home to artisan fishermen who follow traditional practices to preserve local marine biodiversity. It is also home to unique Mangroves which are one of the most effective carbon storage systems in the world. Currently, energy needs of the community are fulfilled by diesel fuel (e.g. to power fishing boats). This project takes a systemic view of the community as an example of similar communities along the tropical coastal lines and river banks, and looks at the needs as well as solution to help them create productive use of ecosystems that will help them develop economically while continuing to protect unique local ecosystems.

### Research Questions (bullet points)

What would productive use of ecosystems in small rural communities look like?

### Methods (1 para description or bullet points)

We use a combination of roadmapping and causal mapping to develop a research strategy.

### Project Leads / Supervisors

A. Spanellis

### Co-investigators/ RAs/ PHDs

A. Johnson; C. Aravena; UPB-Medellin, Colombia

### Funding (leave blank if no funding)

Aunap (seed funding)