

## **Opportunity 1: Geospatialising Seroepidemiological Survey at Wildlife-Livestock-Human Interface**

Diffuse anthropogenic pressures across urban, rural, and forested ecosystems are mainstays of zoonotic transfer from animals to humans and anthroponotic transfer from humans to animals. Such transfers are clearly detectable through serological and epidemiological surveys in national parks, the buffer zones around them and the nearby villages, carried out by medical professionals, veterinarians, and wildlife conservation professionals. Geospatialising such serological and epidemiological datasets can significantly identify disease hotspots and ensure preparedness through predictive analyses. This fully-funded 4-year PhD project will involve geospatialising seroepidemiological datasets gathered from samples in and around Sanjay, Pan, Bandhavgarh, Kanha, Satpura and Pench Tiger Reserves. The goal of the study is to assist in enhancing epidemiological disease situational awareness using temporally dynamic situational heat maps that can be used by various stakeholders for epidemiological preparedness and deploying mitigation measures.

### **Required qualifications:**

- Master's Degree in Environmental Sciences/Geoinformatics/Life Sciences/ Zoology/Public Health from renowned universities in India and abroad.
- Relevant professional work experience of 1-2 years is desired but not mandatory.
- Readiness to work with intramural partners of the project travel within the country and settle in Pune for the duration of the project.

### **Other requirements:**

- Ability to deliver work in a fast-paced environment and adhere to deadlines
- A high level of professionalism with an understanding of research ethics
- Ability to work in teams and serve as a liaison between multiple collaborators
- Assist in grant writing, coordinating workshops/ seminar series and willing to handle any academic administration related to these initiatives
- Preparing annual reports is required to demonstrate their contribution and outputs achieved

## **Opportunity 2: Systems Analysis of One Health Surveillance from Southern Asia's Biosecurity Perspective**

Southern Asia's biosecurity concerns span across plant, animal and human health issues, which are tracked in isolation by various national and multinational scientific communities. Although, between SAARC and BIMSTEC, the latter is the more geopolitically and geoeconomically active multilateral, much of the intergovernmental coordination related to biosecurity measures in Southern Asia is still carried out by the relatively inactive SAARC. Given the geopolitical and geoeconomic vulnerabilities in India's neighbourhood, upholding biosafety and biosecurity principles in these countries is increasingly becoming difficult. This fully-funded 4- year PhD project aims to create a prototype biosecurity monitoring dashboard based on the activities of human/animal/plant disease control agencies of Southern Asian countries. The study aims to carry out systems analysis related to One Health Surveillance in these countries, identify lacunae in national surveillance systems, identify gaps in intergovernmental coordination, and thereby assist in biosecurity threat preparedness.

### **Required qualifications:**

### **Required qualifications:**

- Master's Degree in Environmental Sciences/Life Sciences/Microbiology/Biotechnology from renowned universities in India and abroad.
- Relevant professional work experience of 1-2 years is desired but not mandatory.
- Readiness to work with intramural partners of the project travel within the country and settle in Pune for the duration of the project.

### **Other requirements:**

- Ability to deliver work in a fast-paced environment and adhere to deadlines
- A high level of professionalism with an understanding of research ethics
- Ability to work in teams and serve as a liaison between multiple collaborators
- Assist in grant writing, coordinating workshops/ seminar series and willing to handle any academic administration related to these initiatives
- Preparing annual reports is required to demonstrate their contribution and outputs achieved

Candidates interested in applying for a doctoral position for either of the above areas are encouraged to contact Dr. Chaitanya Giri ([chaitanya.giri@flame.edu.in](mailto:chaitanya.giri@flame.edu.in)).