



ASEAN Cooperation Project Proposal

FULL PROPOSAL FORMAT - FOR PROJECTS OF USD 100,000 AND ABOVE

Project Classification Code:

Project Title: ASEAN-GPP-BlueDot Collaboration Phase 3

Project Description: Over the last four years, BlueDot and Canada's GPP have worked together with the ASEAN region to design and develop a web application tool (BioDiaspora) that empowers analysts in AMS to become aware of biological threats earlier, generate rapid risk assessments using big data analytics, conduct effective evaluations of interventions, and strengthen timely risk communication and response capabilities, both prior to and during, infectious disease emergencies.

Phase 3 of this project will continue work with the ASEAN region to further strengthen national and regional preparedness and response to biological threats, and to implement a sustainability framework to support the ongoing costs of the program within the region.

This proposal contains two related projects – the first (Project A) will establish a regional virtual centre for big data analytics and visualization, led by the Philippines, while the second (Project B) will facilitate and continue the described work at the regional level.

Sponsoring ASEAN Body

Sectoral Committee/Main Body:

Meeting Number/Date:

Working Group/Sub-Committee:

Meeting Number/Date:

Proponent's name and address:

Disease Prevention and Control Bureau, which is under the Office of Assistant Secretary
for Technical Services
Department of Health Philippines
San Lazaro Compound, Tayuman
Manila, Philippines

Date of Preparation:

Proposed Funding Source: Canada's Global Partnership Program (GPP), Philippines

Proposed Project Budget (total):

Information below to be completed by the SPCD

Recommendation of Secretary-General/Project Appraisal Committee

Meeting No./Date

Action : ☐ Endorsed ☐ Not Endorsed

Approval of Committee Of Permanent Representatives to ASEAN (CPR)

Meeting No./Date

Action : ☐ Endorsed

☐ Not Endorsed

1. Brief Project Description– 300 words max

ASEAN-BioDiaspora is an online application that has been developed in partnership with ASESAN, Canada's Global Partnership, and BlueDot. ASEAN-BioDiaspora empowers public health officials with the ability to analyse, visualize, and layer diverse global and local datasets to rapidly assess infectious disease risks using modern technologies (spatial analytics, Big Data, and machine learning).

BioDiaspora Explorer has been proven to drive quick, effective, and informed decision-making at the highest levels of government.

Phase 3 is centred around developing further mechanisms to support adoption of the tool across member states. Project A is geared towards the development of a center to support regional activities, expertise, and support the region's ability to conduct high-value analytics using ASEAN-BioDiaspora and other potential tools. Project B is centred around working with the established ASEAN-BioDiaspora Coordinating Committee to define the future of the technology and explore sustainability mechanisms to support the use of the technology across participating AMS.

The ASEAN-BioDiaspora program has been highly successful and Projects A and B of Phase 3 are well aligned to build on the momentum of Phases 1 and 2.

2. Background and Justification – 600 words max

(a) Problem Analysis - *Describe the underlying causes of the problem and the present situation. Include any related and relevant ASEAN activities, policies and plans of action.*

Biological threats pose an increasing risk to global health and security, particularly within vulnerable regions of the world such as South-East Asia. The ASEAN region is a hotspot for emerging and re-emerging infectious diseases including those with weaponizable or pandemic potential. The reasons are complex and include dynamic systems in which biological, social, ecological and technological processes interconnect that enables microbes to exploit new ecological niches. These processes include high population growth and movement, rapid urbanization, changes in food production and agriculture, greater connectivity through air, sea and land travel, water, hygiene and sanitation, and the effect of health systems to epidemic preparedness and response. To counteract these emerging threats, tools and technologies are needed to enable countries to more effectively and efficiently detect, assess, and respond to biological threats, whether originating from naturally occurring events, accidents or deliberate acts.

One of the post-2015 Health Development Agenda priorities for the Association of South East Asian Nations (ASEAN) is to build capacity to respond to these biological hazards and emerging threats. The overall goal of this project is to work with ASEAN member countries to strengthen their capacity to prevent and respond to emerging and re-emerging biological threats. This goal can be achieved by building regional capacity in big data analytics, and data visualization for rapid and informed communication during epidemic emergencies.

(b) Regionality - *Is the problem regional in nature? Can the problem and its causes be addressed at the regional level?*

ASEAN is characterized by much diversity in terms of demographics, geography, society, economic development, political systems, and health outcomes. As the ASEAN region strengthens its regional connectivity, the easier movement of people across open borders inevitably increases risk of infectious disease outbreaks that undermines the region's prosperity and security. The pandemic influenza (H1N1) outbreak caused the ASEAN governments to allocate scarce financial resources to contain the virus¹. Emerging infectious diseases are not only a national concern but also a problem for the whole region. With the unpredictability of infectious diseases, no single country has the capacity to identify and carry out surveillance of all diseases, or has the resources to prepare adequately and effectively respond to outbreaks and epidemics. Moreover, the regional challenges in control of emerging infectious diseases are formidable and range from influencing the factors that drive disease emergence, to making surveillance systems fit for purpose, and ensuring that regional governance mechanisms work effectively to improve control interventions.

ASEAN-BioDiaspora seeks to democratize access to the data and analytics, and empower member states to generate meaningful analyses. This technology has already been used within the region to make national level policy decisions in multiple AMSs (see annex 3 for examples of past work).

¹ Rushton J, Viscarra R, Guerne Bleich E, McLeod A. Impact of avian influenza outbreaks in the poultry sectors of five South East Asian countries (Cambodia, Indonesia, Lao PDR, Thailand, Viet Nam): outbreak costs, responses and potential long term control. *World's Poultry Sci J* 2005; 61: 491–514.

Project A is led by the Philippines

(c1) Participation - Name the participating ASEAN member states.

The Philippines is the primary participant in Project A, and seeks to build tools and systems to support regional activities in Project B

Project B is led by the Philippines in partnership with BlueDot

(c2) Participation - Name the participating ASEAN member states.

All AMS will participate, led by the Philippines as Project Lead.

(d) Beneficiaries - Name the likely beneficiaries of this project.

- i) National, Regional, and Global surveillance systems
- ii) Disease control and prevention divisions
- iii) Emergency management divisions
- iv) Epidemiology divisions
- v) Academic collaborators and institutions

(e) Project History– List similar projects/activities previously or currently implemented. Describe how this project complements them.

Phase 1 (April 1 2014 – March 31 2016): During this phase, the ASEAN-BioDiaspora tool was developed and introduced to member states and integrated into regional activities (e.g. the ASEAN Expert Group on Communicable Diseases, the ASEAN Working Group on Pandemic Preparedness and Response, etc.). Over this 2-year period focal points within member states were identified and trained, and

¹ Rushton J, Viscarra R, Guerne Bleich E, McLeod A. Impact of avian influenza outbreaks in the poultry sectors of five South East Asian countries (Cambodia, Indonesia, Lao PDR, Thailand, Viet Nam): outbreak costs, responses and potential long term control. *World's Poultry Sci J* 2005; 61: 491–514.

began using the application to support decisions related to biological threats (e.g. Ebola, MERS, Zika, *etc.*).

Phase 2 (June 1 2016 – March 31 2018): During this phase the tool was customized to meet specific needs of ASEAN member states. In this regard, in collaboration with the Philippines (a project partner), we established a governing body to make decisions related to the application, completed customized development and design of the core ASEAN-BioDiaspora tool, and trained over 100 participants in the region. We also developed a framework for program sustainability within the region; using it, we obtained in principal commitment from two ASEAN member countries, the Philippines and Singapore, beginning in 2019)

Summary: This tool has already been used across the region to assess and address health-security threats from deadly and potentially weaponizable diseases (see annex 3 for details). We seek to continue our work with the ASEAN region to further strengthen national and regional preparedness and response to biological threats, as well as to implement a sustainability framework to support the ongoing costs of the program within the region.

3. Objective

State the main objective(s) of this project and its relevance to the ASEAN Community Blueprints.

Project A

- The overall goal of Phase 3 is to develop and implement a sustainability framework that would enable the lead country and the ASEAN region to maximize equitable access to the data and web application while ensuring a sustainable funding model that supports continued development and maintenance of the application. The Project is well aligned with ASCC Blueprint 2025 D2. **“A Safer ASEAN that is able to Respond to all Health-related Hazards including Biological, Chemical, and Radiological- nuclear, and Emerging Threats”**. Strategic measures include 1) Strengthen health systems to be resilient in preparedness for effective response to health-related hazards, including biological, chemical, radiological-nuclear hazards and emerging threats; and 2) Enhance institutional and human capacities and approaches to support the effective implementation of policies, strategies and programmes in preparing and responding to all health-related hazards and emerging threats.

Project B:

- **Increase Utilization and Integration of ASEAN-BioDiaspora Into National and Regional Activities**
 - Follow up with all member states to engage in targeted training activities for groups across sectors that could benefit from the ASEAN-BioDiaspora web application to strengthen preparedness and response to biological threats
 - Build routine outreach programs to engage member states and users on a regular basis with updates, training materials, and health-security events of interest
 - Seek alignment with other national activities (e.g. UNICRI-ASEAN National Action Plans) to build cross-sectoral value and embed the ASEAN-BioDiaspora web application into member state national activities
 - Identify and track metrics of ASEAN-BioDiaspora web application use and key outputs (e.g. policy development)

- **Roll-Out the Proposed Sustainability Framework**

- Work with member states to identify value within the ASEAN-BioDiaspora web application and user groups for training
- Follow up with member states each year for discussion about onboarding into the sustainability framework to support regional program costs, and in turn decrease contributions from Canada's GPP
- For member states unable to support program costs through national budget (e.g. CMLV countries), work with member states to identify other funding sources to support ongoing work

4. **Outputs, Indicators and Activities**

Outline the outputs to be achieved (i.e. final products, goods, services that result directly from the completion of the project's activities) and describe how these outputs may be measured (i.e. indicators). **At least one indicator per output is required.**

Indicate the main activities to be carried out for each output. Normally there should not be more than six activities per output. Provide the summary of outputs to be achieved, main activities, and the indicative time-frame in the work plan template (See Annex 2).

Project A and B:

Output	Activities	Indicator
Improved knowledge and skills by personnel of beneficiary states in the prevention, detection, and/or response to CBRN incidents.	Enhanced real-time awareness of local, regional, and global and biological threats. Enhanced ability to harness the potential of big data to form data-driven decisions and policies during epidemic emergencies. Enhanced ability to assess health and security risks emanating from biological threats. Enhanced capacity to create data visualizations that effectively communicate the impacts of threats to national and regional decision-makers. Strengthened ability to target interventions in areas that effectively counter the impacts of biological threats.	Number of people trained on how to use the web application. Individuals who identify as having a better understanding of how to conduct risk assessments across a range of diverse biological threats. Number of policies, department memorandums, and official notices notes informed using the web application
Increased access by personnel in beneficiary states to infrastructure, equipment and resources to reduce the WMD threat.	Access to up-to-date, high quality data within the ASEAN-BioDiaspora web application. Access to data and analytic enhancements made to the ASEAN-BioDiaspora web application while in use by member states.	Total number of visits to online training sessions and access to educational materials. Frequency and number of logins to web application. Duration of time spent on the

	<p>Access to online training materials and education around factors influencing biological threats.</p> <p>Access to support from BlueDot content experts in developing risk assessments</p>	<p>web application per login.</p> <p>Number of queries conducted within web application.</p> <p>Number of individuals who believe their work has benefitted from using the web application (through online survey)</p>
Increased awareness by personnel in beneficiary states of the need for sustainable networks and partnerships.	<p>Better communication and integration of activities between health-security systems and networks via ASEAN National Action Plans.</p> <p>Transition to a model allowing AMS to support costs for the program.</p>	<p>Number of countries participating in subscription-based cost sharing.</p> <p>Number of countries integrating work between public health and security sectors.</p> <p>Senior officials briefed using outputs of the web application.</p>

5. Management and Implementation Arrangements

(a) Management Arrangements- Identify the sponsoring ASEAN body. The ASEAN body will designate a project manager who will be responsible for the achievement of the project objectives. State clearly the reporting line in the management of the project.

The implementing agency will receive the funding through the ASEAN Secretariat. At the ASEAN level, a Project Manager will be hired by the implementing agency, who will report to the Project Focal Point from the implementing agency and the ASEAN Secretariat. In addition, a Project Coordinator will be hired by the implementing agency to support the implementation of the project governance system in the lead country. He/she will report to the ASEAN Program Manager.

(b) Implementation Arrangements– Identify the organizational unit or the personnel who will actually produce the project's outputs.

Project implementation for Projects A and B will be done by the Philippines DOH and BlueDot.

Implementing Partners:

a. Philippines

- i. Philippines has been an engaged partner and project champion since its establishment in 2014/15. The Philippines as the Lead Country for BioDiaspora Project under the ASEAN Health Cluster 2 Work Programme will lead the implementation of the ASEAN activities. See Philippines Proposal for details.

b. ASEAN Secretariat

- i. ASEAN Secretariat (ASEC) is the regional organisation that serve as

coordinating body and has supported the implementation of the program since its inception. ASEC will help coordinate across all countries and facilitate with all ASEAN Member States.

c. ASEAN Member States

- i. ASEAN member states are the recipients/users of the web-application technology and have been consistently open to working with the Philippines and BlueDot to guide the direction of its development. ASEAN Member states have a deep understanding of national and regional needs; they have been critical to the success of the program to date.

d. BlueDot

- i. BlueDot has been working with ASEAN over the past four years and has an excellent record of delivering value to member states and catalyzing a shift in how member states approach biological threats, using big data and advanced analytics. BlueDot will: i) provide ASEAN-BioDiaspora web-application licenses, subject matter expertise, and training materials to facilitate program implementation; ii) help project implementers (i.e. the Philippines), facilitate decision-making across countries by supporting the ASEAN-BioDiaspora Coordinating Committee; iii) help to broker relationships between health and security by seeking alignment with National Action Plans.

6. Monitoring and Evaluation Arrangements – 300 words max

Describe how the project's expected results (i.e. outputs) will be monitored and analysed (e.g. surveys/questionnaires, experiments, reviews, interviews, site visits, focus groups, reports), and who is responsible for undertaking the follow up within ASEAN.

Briefly mention how ASEAN will analyse the project's progress and contribution towards the ASEAN Community Blueprints.

Projects A and B

We have consistently worked towards embedding metrics of success throughout Phases 1 and 2, and have outlined a number of indicators for measuring success and outcomes during Phase 3. These metrics are organized in four major categories: i) Training and competency; ii) Technology and engagement; iii) Outputs and impact; and iv) Sustainability and network development. We believe these four categories provide oversight on the course of the project, as well as valuable data points to help steer project activities.

- **Training and competency**
 - Number of people trained on how to use the web application
 - Individuals who identify as having a better understanding of how to conduct risk assessments across a range of diverse biological threats
 - Total number of visits to online training sessions and access to educational materials
- **Technology and engagement**
 - Frequency and number of logins to web application
 - Duration of time spent on the web application per login
 - Number of queries conducted within web application
 - Number of individuals who believe their work has benefitted from using the web application
- **Outputs and impact**
 - Number of risk assessments generated using the web application
 - Senior officials briefed using outputs of the web application
 - Number of policies and department notes informed using the web application
- **Sustainability and network development**
 - Number of countries participating in subscription-based cost sharing
 - Number of countries integrating work between public health and security sectors

7. Cross Cutting Issues – 300 words max

Identify any cross cutting issues that this project will address. State the possible future support from ASEAN Member States to sustain outcomes from this project.

The ASEAN-BioDiaspora Web application is a powerful data analysis tool that has the potential for positive impact across several sectors. The implementers began exploring these cross cutting issues during Phases 1 and 2. The tool and analytics generated in Phases 1 and 2 are valuable across public health, defence and security, trade and tourism, agriculture, animal health and zoonoses, and can help to support an ASEAN One-Health goals. Within the context of the program, the implementers have engaged directly with Health, security, agriculture and animal health, and seek to further engage with those groups within Phase 3.

8. Potential Risks – 200 words max

State the likely risks or threats to the success of the project and how they will be mitigated.

Risk	Mitigation Strategy
Engaging all AMS with training events	Prioritize training schedule to include Myanmar, Viet Nam, and Malaysia, who were unable to participate in the previous training event.
Ensuring that appropriate trainees and dates are selected	Leveraging ASEC and project partners the Philippines to schedule events around major holidays and festival, and to identify trainees to ensure maximum downstream policy impact.
Data governance	The ASEAN-BioDiaspora coordinating committee (ABCC) was specifically created to address questions around data governance. It is a framework that gives AMS control over the type of data and level of detail to be shared across the ASEAN region.
Using high-quality, detailed data to conduct risk analyses	Leveraging the ABCC and national focal points to make local data from statistical authorities available within the web application, especially in subnational departments or divisions in lower-capacity AMS
Ensuring data privacy	The ABCC has decided to avoid the inclusion of sensitive information directly into the web application. The “Upload Function” was specifically designed to enable AMS to upload important health-security data without the need to share it across the region, and without the data being accessible by BlueDot. In this way, we can ensure users are able to achieve maximum value, with minimal concerns about privacy and data security.

Annex 1 –Budget Proposal

Using the budget format, provide the cost for each of the inputs under the sub-headings (travel and perdiem, supplies and services, experts, equipment, others, etc).

Annex 2 – Indicative Work Plan

Using the work plan format, develop a work plan/time-frame for each activity that covers the whole period of the project.

Once the project is completed, Project Completion and Financial Reports have to be submitted to the ASEAN Secretariat within 60 days after project completion.

Annex 3 – Notation on Additional Supporting Documents