Global Virome Project (GVP)

Steering Committee and Working Group Meeting

Beijing, China

6-7 February, 2017

Executive Summary

Drafted by (b)(6) (b)(6) *with input from:* (b)(6) *Peter Daszak,* (b)(6)

Executive Summary

The Inaugural Global Virome Project Steering Committee and Working Group Meeting was held on 6-7th February 2017 in Beijing, China. This was the first global in-person meeting on the Global Virome Project (GVP) since the Bellagio Forum in August 2016. Since Bellagio, where 18 transitional steering committee (SC) members identified the goals and vision of the GVP, eleven working groups (WGs) have been formed in three thematic areas: Governance, Science & Technology, and Implementation.

The objectives of this meeting were three-fold: 1.) to report on working group, core group, and steering committee progress made since Bellagio, 2.) to discuss and seek feedback on evolving strategies related to governance, outreach, communication, resource mobilization, and stakeholder engagement, and 3.) to establish and strengthen relationships among working group chairs and the steering committee, identifying issues shared by different groups and planning further collaboration.

1. Progress made since Bellagio

Since May 2016, members of the GVP core group have met with 13 high-level individuals and 20 (philanthropic, academic, multilateral or governmental) organizations. They presented the GVP at 14 conferences or public fora. The Bellagio Initiative statement and briefing documents were published on a new website (globalviromeproject.org) and a newsletter was created for regular distribution. A policy forum paper is under review in an academic journal, and members of the core group have been interviewed in the lay press. The GVP has also been discussed in the popular press.

Working group co-chairs were identified and invited, and each working group compiled and presented the key activities, challenges, and opportunities facing its group.

Several countries have shown significant interest in the GVP, and certain of those countries have been discussed as “countries of opportunity” for launching a first wave of the GVP. These countries include China, which hosted a meeting following this convening on the “China National Virome Project.”

2. Governance, outreach, and communication strategies

The Global Virome Project is coordinated by a core group with representation from USAID, UC Davis, EcoHealth Alliance, and Metabiota. The core group, steering committee, and working group meetings have been partially funded by USAID, while participating working group co-chairs and steering committee members from a host of additional organizations currently participate on a voluntary basis. As this structure is transitional, the long-term organizational structure of the GVP was discussed during the meeting, including the role of a possible Senior Advisory Board. Additionally, the group discussed possible efforts to augment input into the

core group, including tapping into the steering committee on a periodic basis (while taking into account practicalities around time zones, workloads, etc.), following the Beijing meeting. The creation of a freestanding NGO, with an international search for president, was discussed as a plausible governance framework for the long term functioning of the GVP. It was agreed that the GVP should not be a for-profit venture, and that the long-term composition of the overall effort should have diverse global representation.

The team discussed the need to break down the $3.5 billion total price tag of the GVP into a "menu" of smaller projects. Different ways to break this down – by region, country, species, viral group, or category as well as specific technology contributions – each present their own challenge. Part of the modeling team's role will be to economically optimize a field sampling strategy based on biodiversity and accessibility, but local capacity and country-specific laws and protocols must be factored into the costs. Beginning in a "first wave" of countries may increase interest in the project and allow other countries to join and jointly fund the project after value has been demonstrated.

The GVP's scope and goals – particularly, how to communicate the boundaries and scope of such a broad-reaching project and how to ensure the GVP has public health impact beyond academic research – were discussed at length, and this feedback is being incorporated into the mission and vision statements.

3. **Working group intersections and collaboration**

During the session when each of the working groups had short meetings each of the other working groups, areas of overlap were identified. "Sister" working groups – (*e.g.* metadata platform and data management) – committed to working together to achieve the most scientifically sound and feasible strategies for delivering on the GVP's goals were also identified.

(b)(6) established a May 1 goal for the first working group deliverables. It was agreed that generally, the strategic planning of the Science & Technology working groups should precede the tactical delivery of the Governance and Implementation working groups.

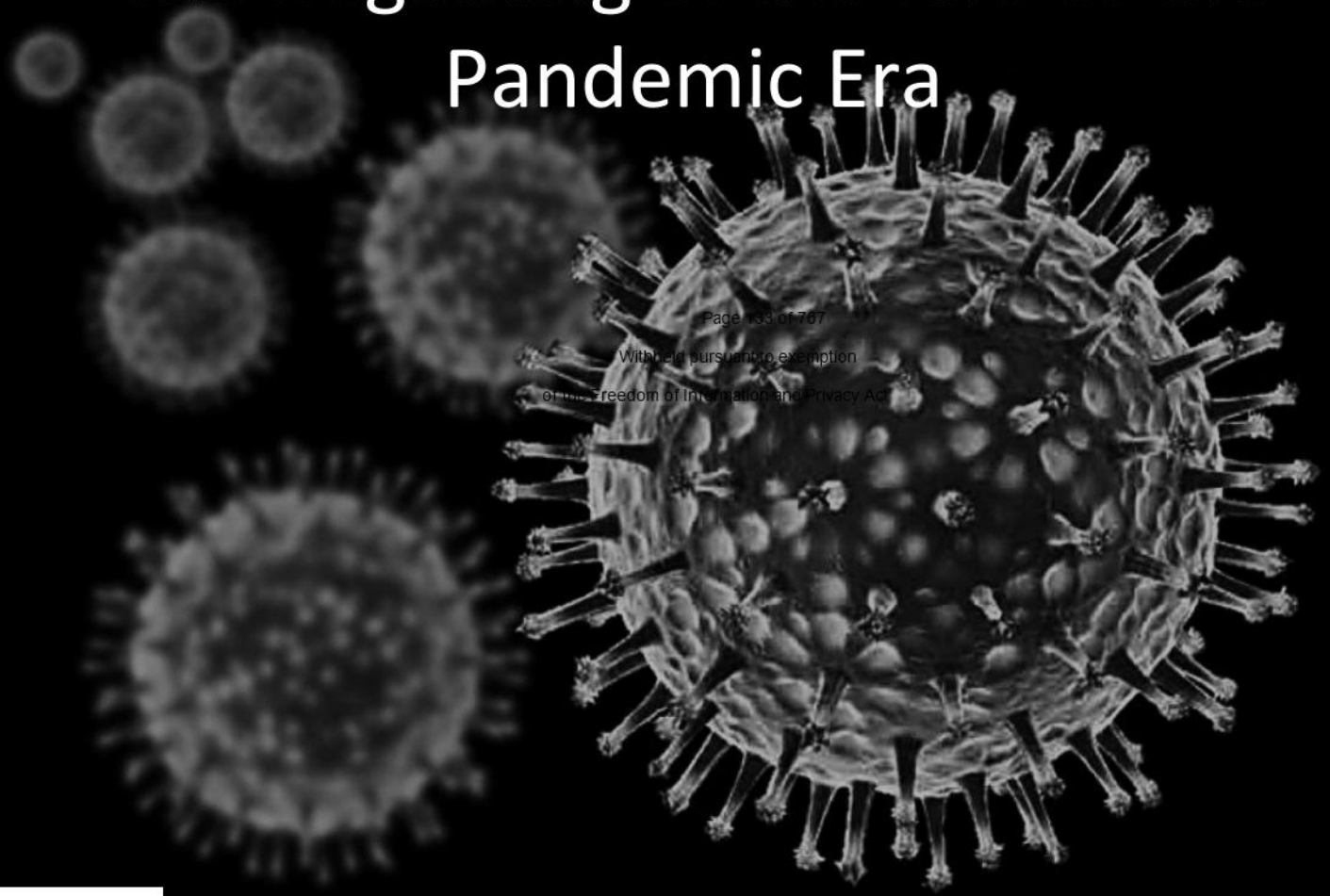
The way forward

All participants were called upon to present to their networks in upcoming conferences, meetings, and public fora, and the pitch deck and other explanatory materials will be shared with all participants. Many members of the steering committee expressed intereste in increasing their involvement, and were invited to reach out to the co-leads of working groups that interested them to join the budding working groups.

There was additionally a commitment to establishing an online hub where working group participants could communicate, upload files, jointly work on documents, and otherwise interact. Thematic leads were tasked with setting up a call schedule for their working groups and working with their groups to develop roadmaps.

The Global Virome Project

The Beginning of the End of the Pandemic Era



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Bellagio and Beyond

Boldly going where no project has gone before

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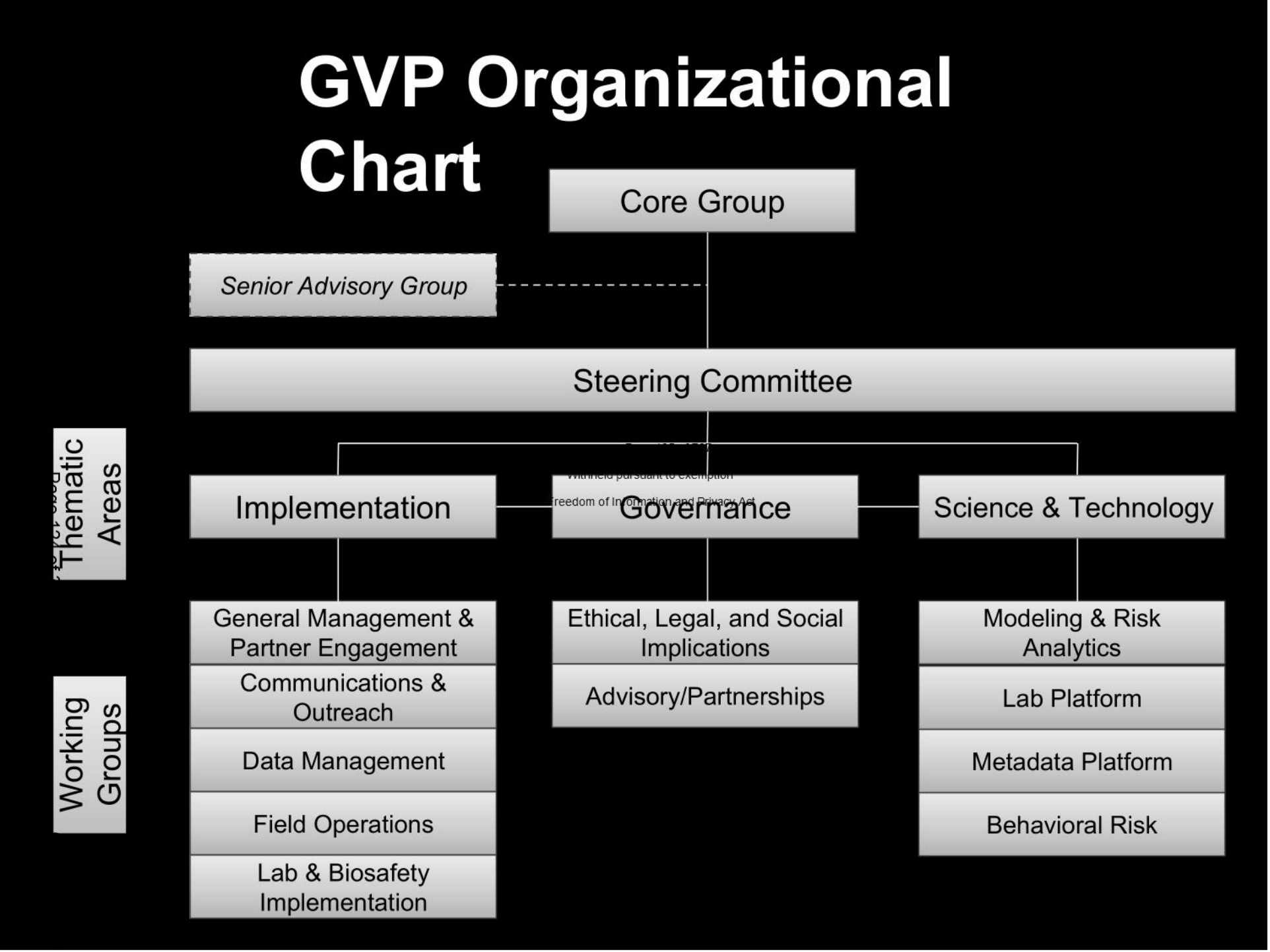
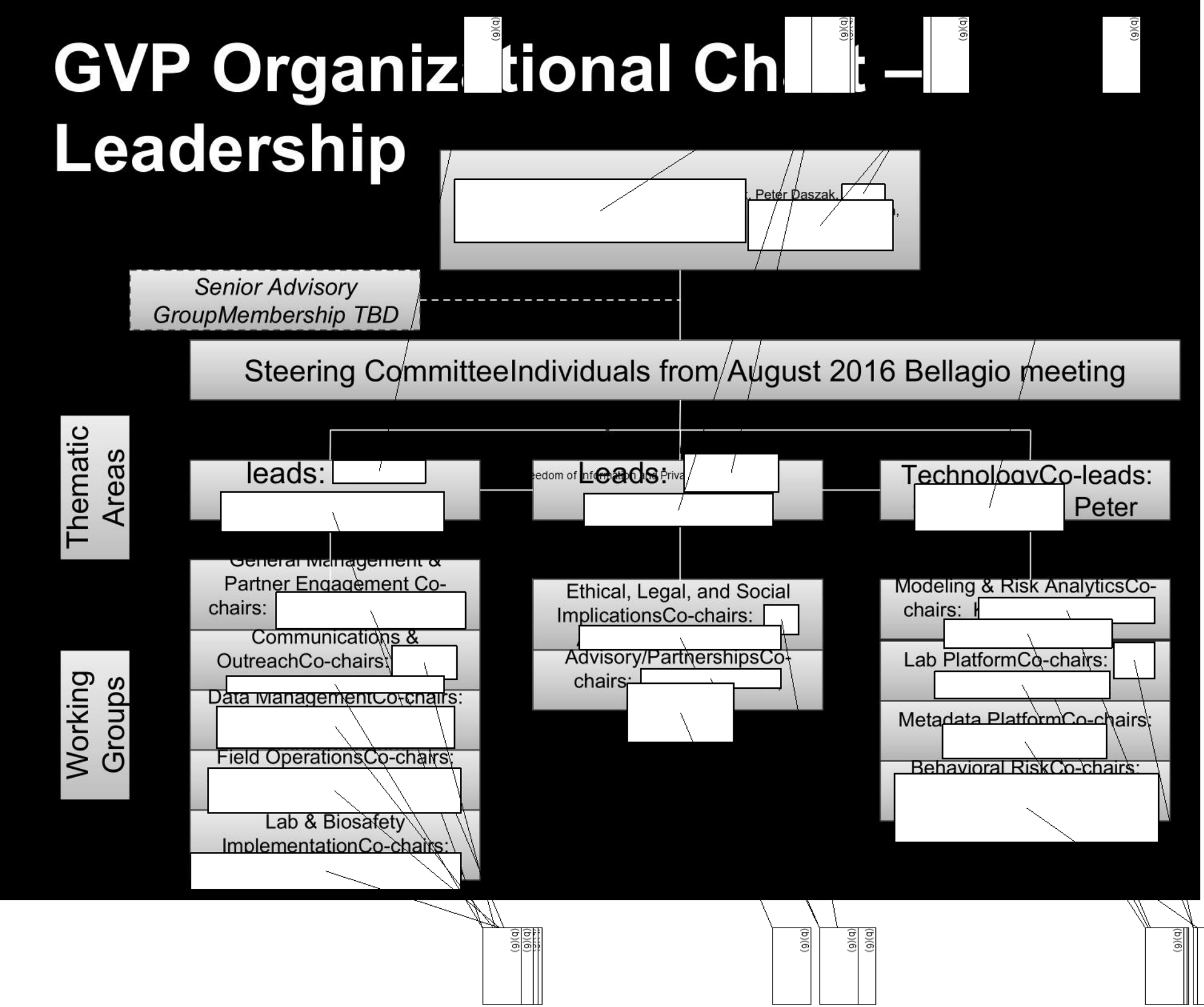
C/1/USAID-0147

GVP Organizational Chart



GVP Organizational Chart – Leadership



GVP Timeline

Bellagio Mtg.Aug. 2016	Beijing Mtg.Feb. 2017	Proposed LaunchLate 2017
Phase 0	Phase 1	Phase 2
• Public presentations for feedback • 1-on-1 meetings with stakeholders • Development of tentative budget • Formation of Core Group • Identification of transitional Steering Committee	• Identification of Thematic Area co-leads • Identification of working group co-chairs and membership • Identification of Advisory Board members • Identification of governance structure and funding strategy • Continued outreach and refinement of messaging	• Formal coordination structure in place • Final agreement on overall GVP strategies • All implementation protocols finalized • Begin work in First Wave Countries

GVP Yesterday, Today & Tomorrow

Boldly going where no project has gone before

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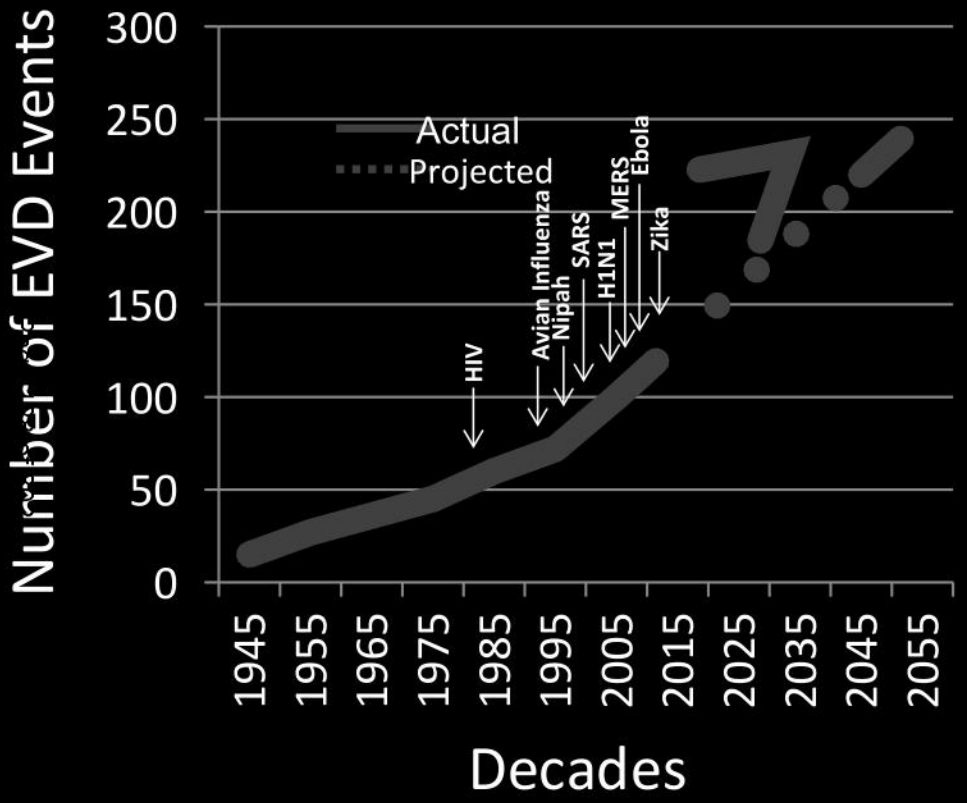
The threat from novel viruses is increasing



Source: Jones *et al*. (2008) Nature

- ~ 3 new Emerging Viral Diseases (EVD) annually Driven by population expansion (1.6 billion in 1900 to 11.5 billion people in 2100) Increased encroachment into wildlife habitat is accelerating the "spillover" of novel viral threats from wildlife to humans

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We are not prepared

- HIV, SARS, H1N1 Influenza, MERS, Ebola, Zika = examples of the futility of developing countermeasures AFTER emergenceTheir emergence and spread have outpaced our ability to develop new countermeasuresUrgent need to develop countermeasures in ADVANCE of emergence

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CLL/USAID-014

The Global Virome Project

- The Global Virome Project (GVP) is a global venture to characterize within ten years virtually all of the planet's threatening viruses The GVP will create a data rich field - enabling preventive development of countermeasures The GVP will transform the culture – from being Reactive (and ineffective) to one that is Proactive (and effective)

The Global Virome Projects presents a path to the identification of all viruses that can infect humans - *so we can prepare for them before they jump to us*

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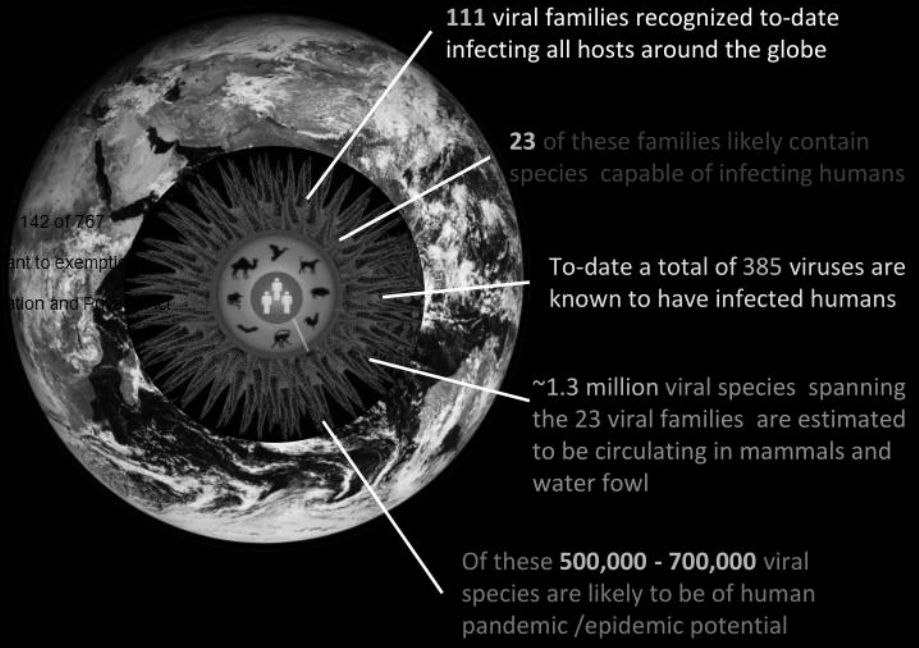
Making the unknown known

- There are ~500,000 viruses spanning 23 viral families in wildlife that have the potential to cause human infectionThis means, for every “known” corona virus there are likely 20,000 distinct “unknown” viruses of the same coronavirus family circulating among an “unknown” pool of wild animalsThe same holds for HIV and retroviruses, filoviruses, etc.



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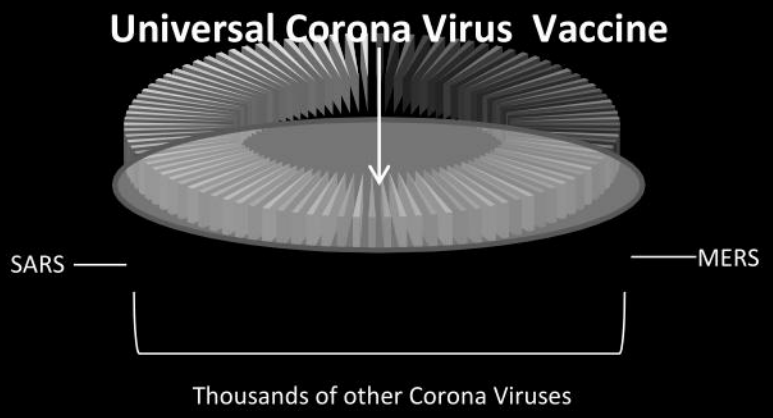
Impact (I): Pandemic prevention



GVP's Data Will Drive:

The Next-Gen of Broad Spectrum Countermeasures

GVP will enable the comparative analysis of thousands of members of each viral family and development of countermeasures that are broadly effective – rather than against individual viruses (e.g. MERS, SARS, etc.)

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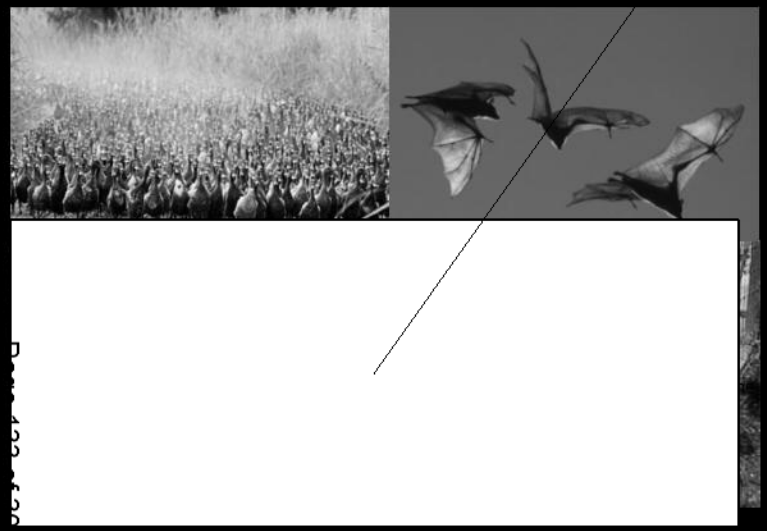
Impact (II): Pandemic prevention

Minimizing the Risk of Spillover



GVP's Data Will Drive:

Targeted, High Impact Risk Mitigation GVP's detailed characterization of every virus's ecologic profile – spanning host range, geographic distribution, and epidemiology – will enable the identification of viruses that pose the greatest potential threat – and the targeting of measures to prevent spillover

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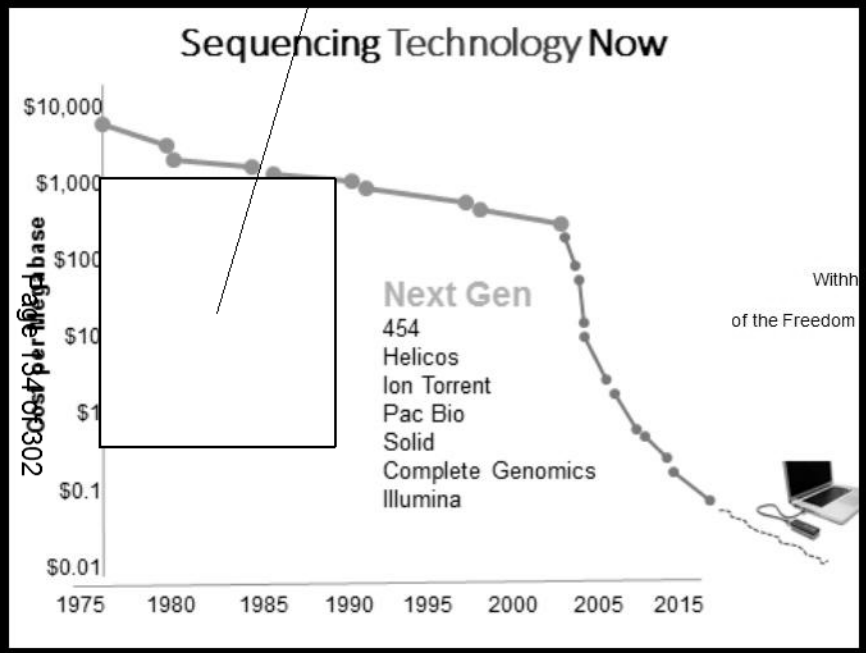
Impact (I[redacted]): The "Halo Effect"



- As in the Human Genome Project, data generated by the GVP will dramatically accelerate the development of new diagnostic & analytic toolsGVP's surveillance and lab platforms will remain after GVP is completed as a long term system for monitoring evolving viral threats Data generated will have unanticipated impact – for example, the potential identification of unknown viral causes of chronic diseases like cancer

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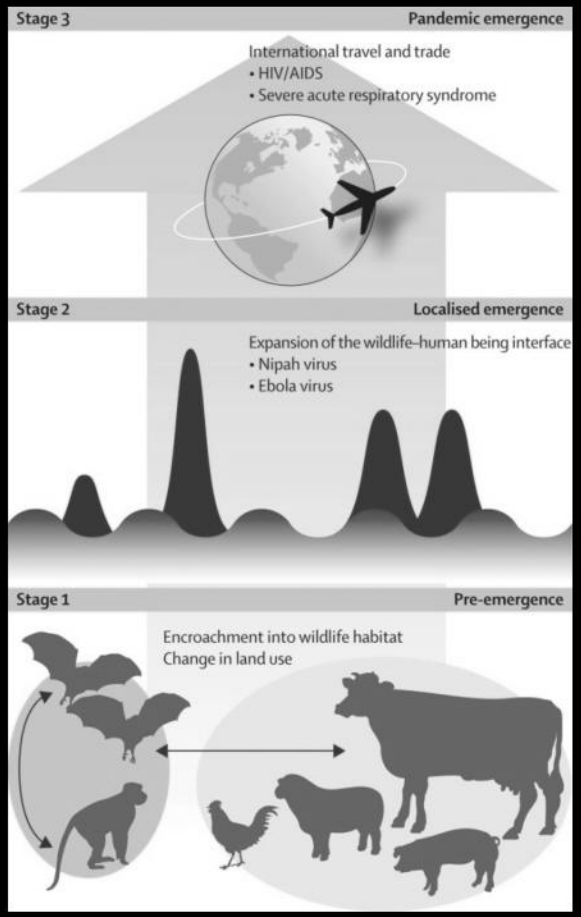
The "Halo Effect" – Building a Long-Term Global Surveillance Network for Emerging Viral Threats

Stages of "Emergence"



- Investing in a global GVP database will serve as a critically important "snap shot in time" on viral ecology, epidemiology, and geneticsHowever, an inherent characteristic of the most dangerous EVDs is that their host range, epidemiology, and genetic profiles will evolve over time – elevating their threat to human populationsGVP's surveillance and laboratory platforms have the potential to remain beyond the GVP as a long term system for monitoring evolving viral threats – ensuring early and effective deployment of biomedical and preventive countermeasures

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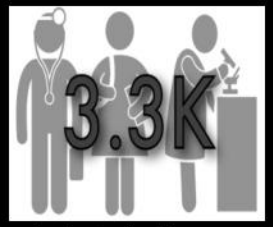
Feasibility (I): Large scale "Proof of Concept"

The feasibility of GVP was validated through USAID's PREDICT Project

Spanning >30 countriesOver $120 million invested to date Seven years +Another approx. $90 million obligated for activities over next 3 years

Systems and Capacities Built

Trained



field & lab staff

Optimized

labs

Sampled

wild animals

Viruses detected

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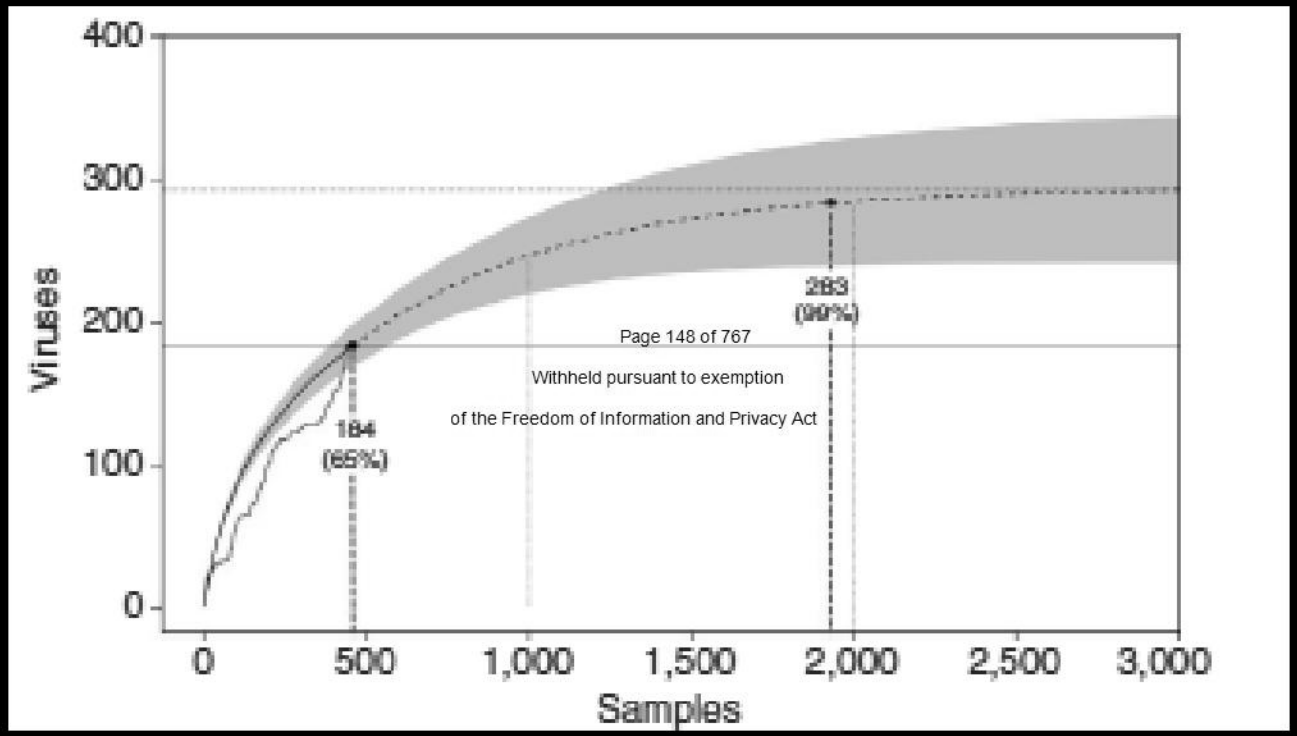
Feasibility (II): Extrapolating from PREDICT

Discovery Curves Show the Number of Samples Required



- PREDICT research has demonstrated that far fewer samples than previously expected are required to identify most threatening virusesThese viral discovery curve studies provide a roadmap to sampling needs for GVP

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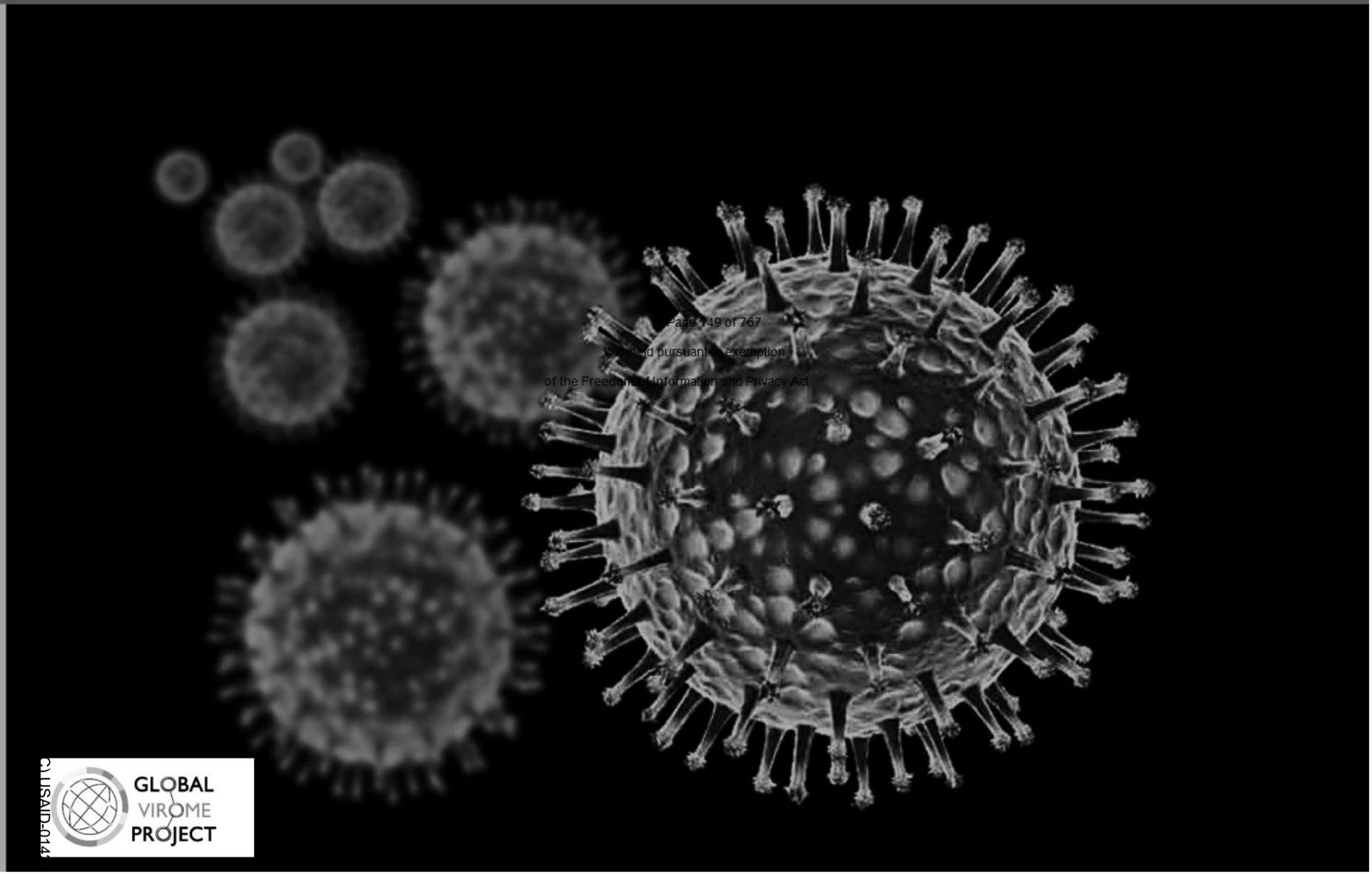
GVP underpinnings



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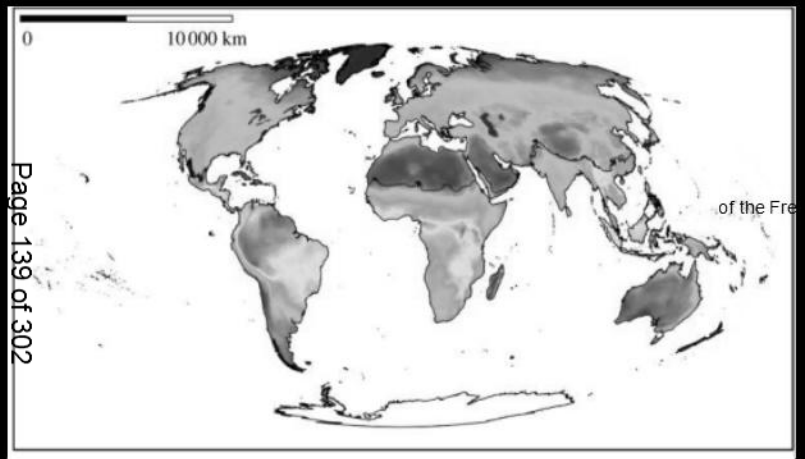
GVP: The Approach – Get to the Source

Mammals and water fowl are viral reservoirs



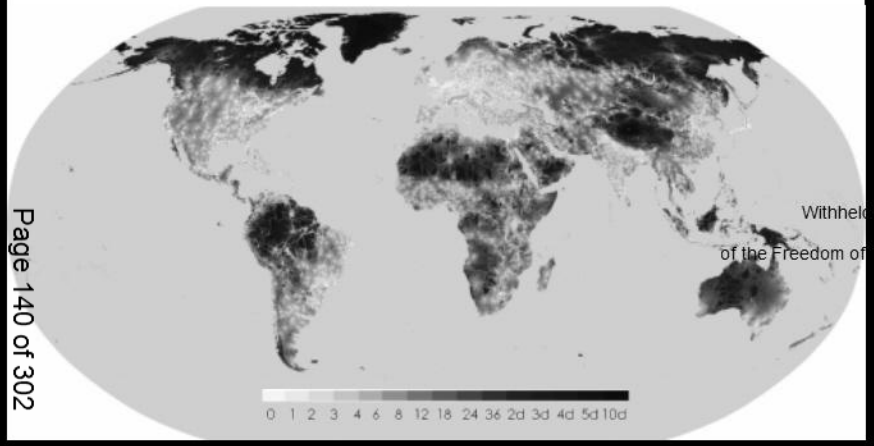
Mammalian Habitat ranges

Waterfowl breeding hotspots

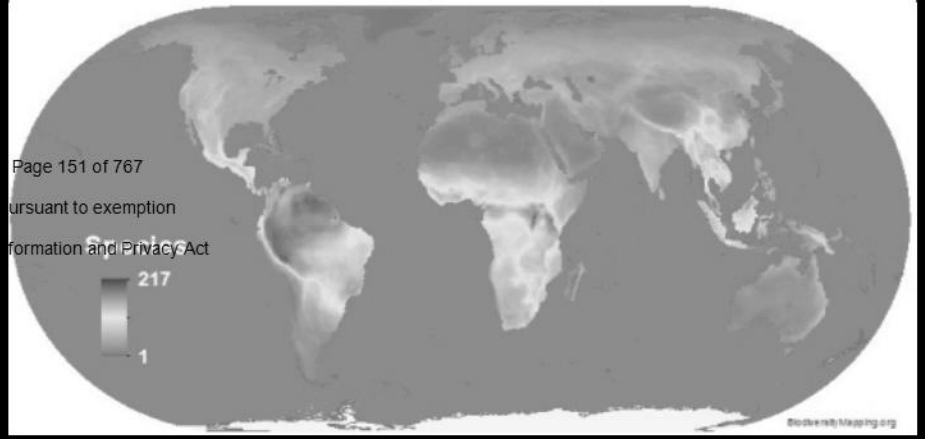
Optimizing the targeting strategy

Minimize cost

Access costs (days to location)



Global mammalian biodiversity



...while maximizing biodiversity

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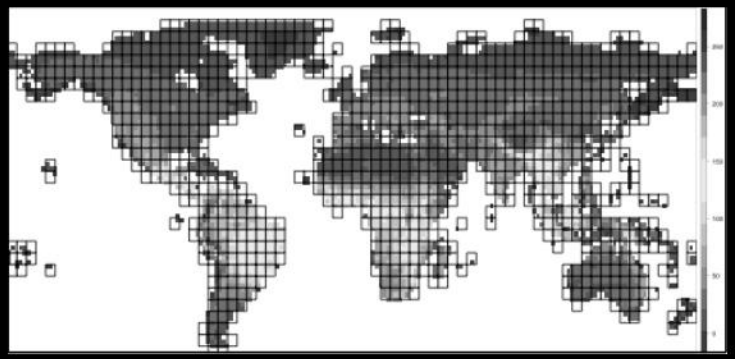
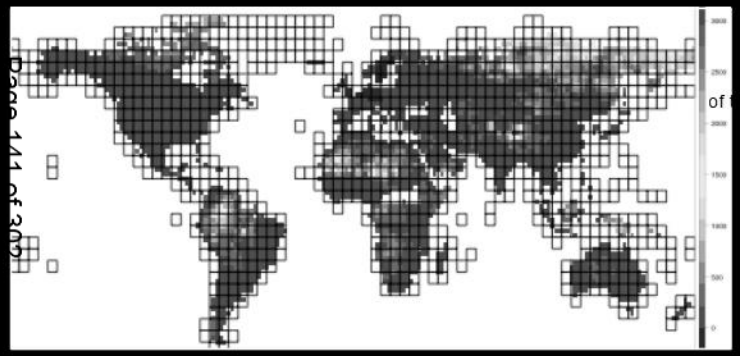
Initial targeting:Selecting planning units from a global grid



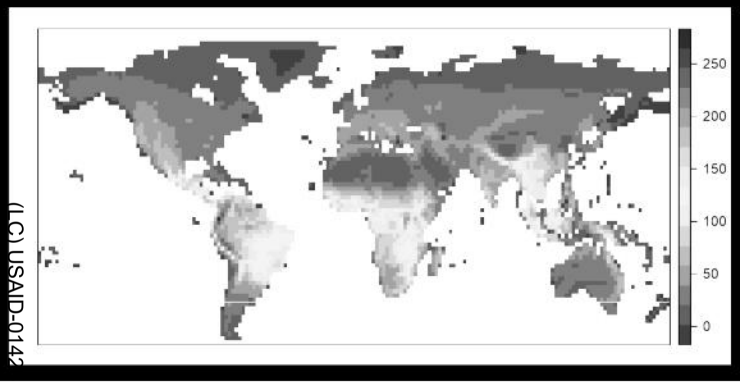
Maximize:

- Mammalian biodiversity Uniqueness of diversity in field sites



While Minimizing:

- Access costs of field workOverlap between sample sites



To select:

A minimal number of **efficient, high- diversity** sample sites

Sampling strategy: Eco-zone Approach

Site selection algorithm is:
Complementary
Cost-responsive
Adaptive Flexible

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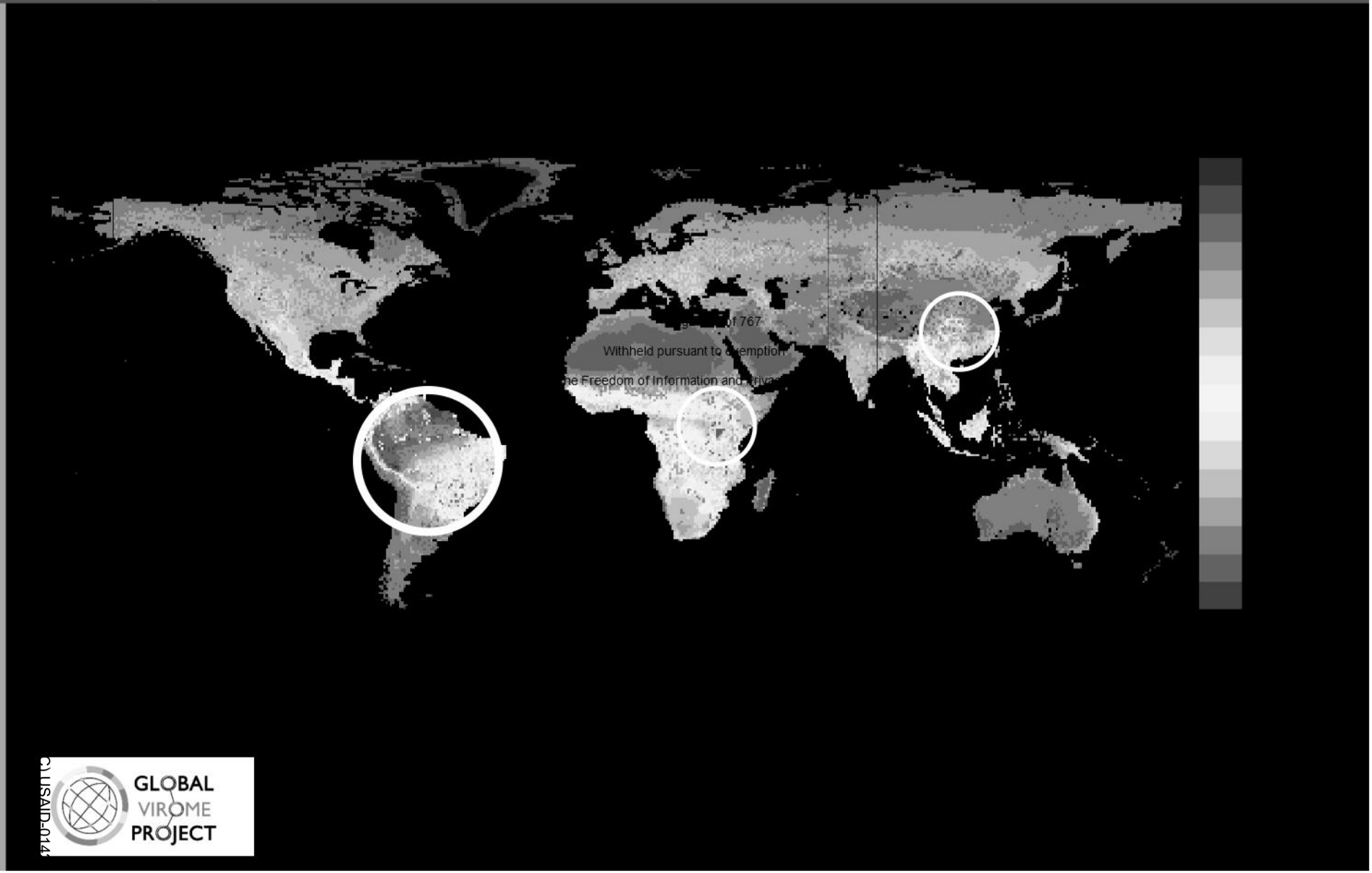
Targeting complementary biodiversity hotspots



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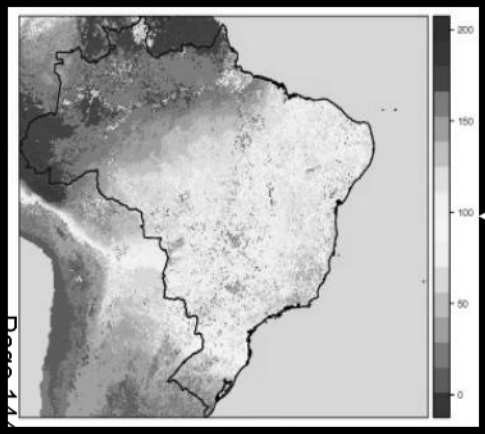
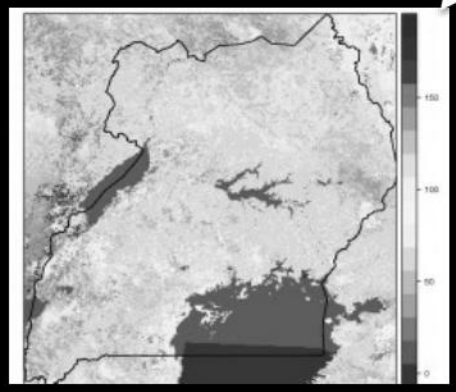
Targeting Rich Mammalian Diversity

Brazil



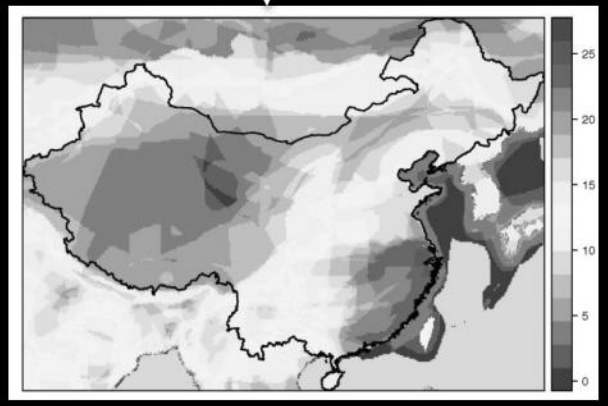
- 648 Mammal species- Up to 1.3 million mammal samples

Uganda



- 319 Mammal species- Up to 638K mammal samples

China



- 560 Mammal species and 120 waterbird speciesUp to 1.4 million total samples

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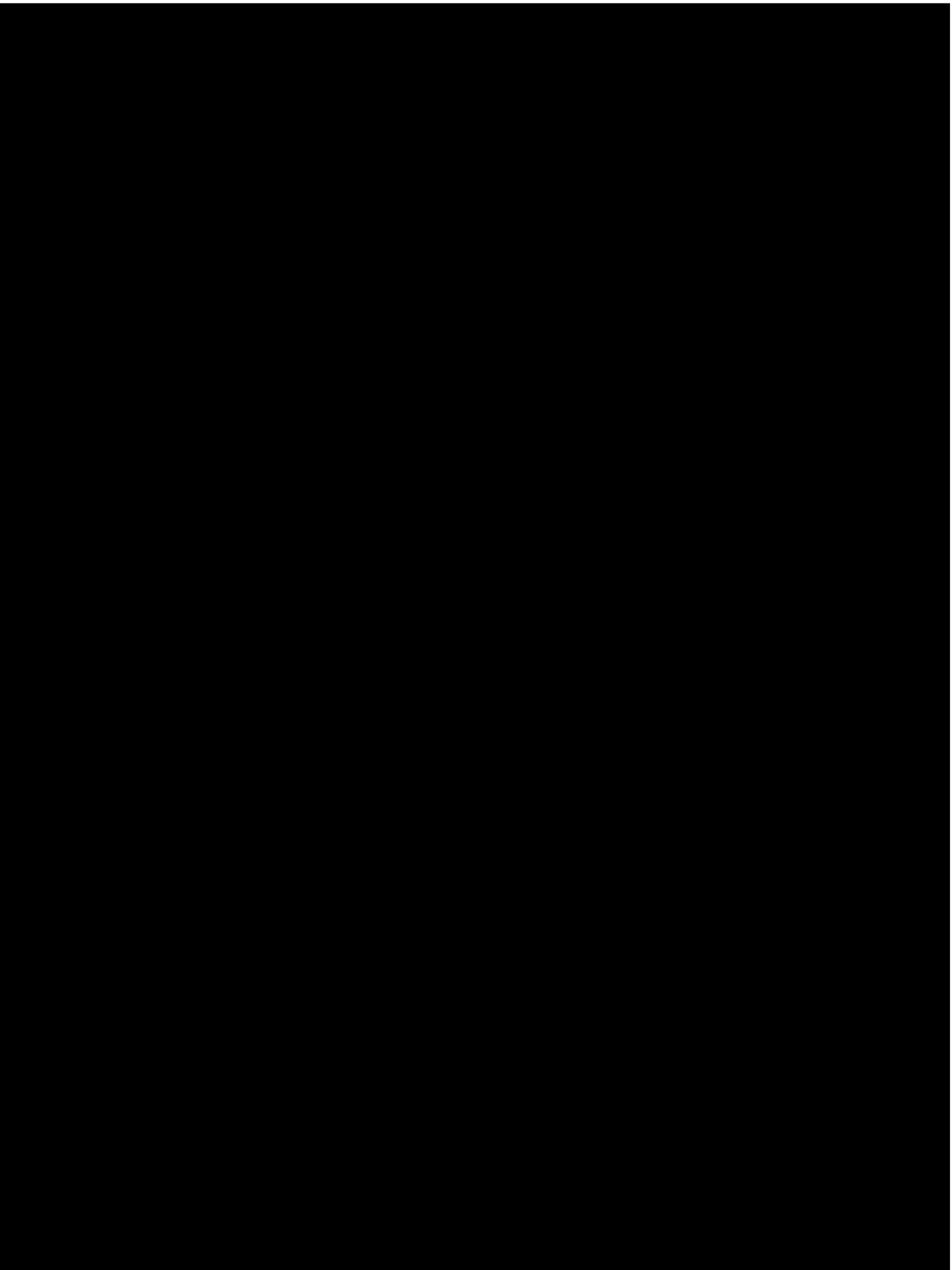

Evolving GVP Modules and Funding Strategies

PHASE 1

"Hub"

Working GroupsHQ (Mgt, Adv…)Secretariat (outreach, communications) Convening & travelStrategic/technical consult

PHASE 2

Global Implementation	OR	High yield countries	Countries of opportunity	Taxonomic or interface prioritization	Specific technical needs
Requires substantial upfront investment now		*"Hot Zone" Regions with Rich Biodiversity (EcoZones)*	*National Virome Projects*	*High-profile species Virome Projects*	*Data generation & storage, lab, modeling, epidemiology, etc.*

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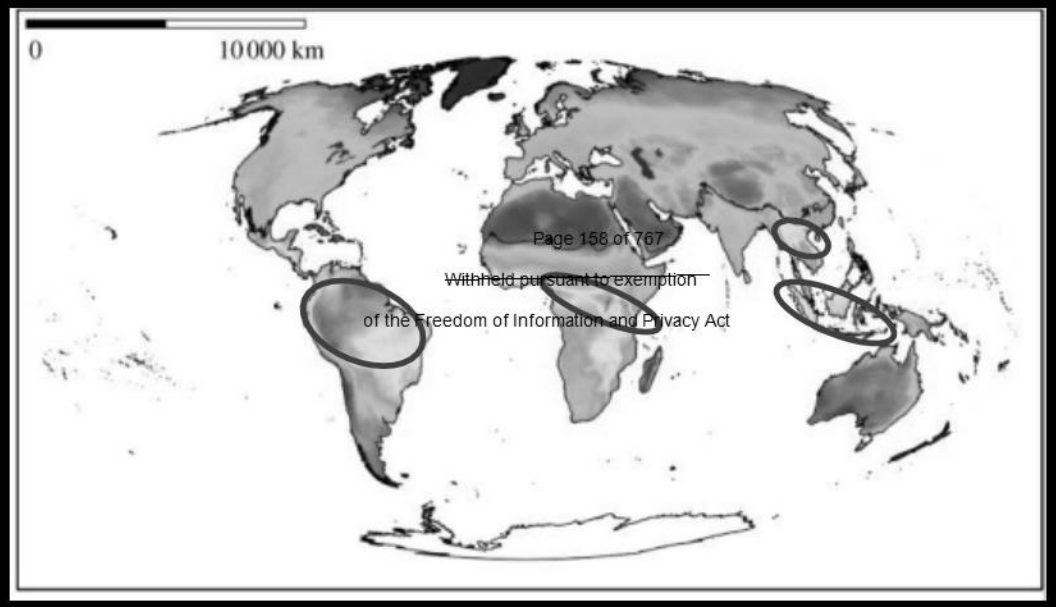
Strategic Targeting

Funding Strategies

Targeted funding for High Yield Countries/Regions



Mammalian Habitat ranges - Ecozone approach

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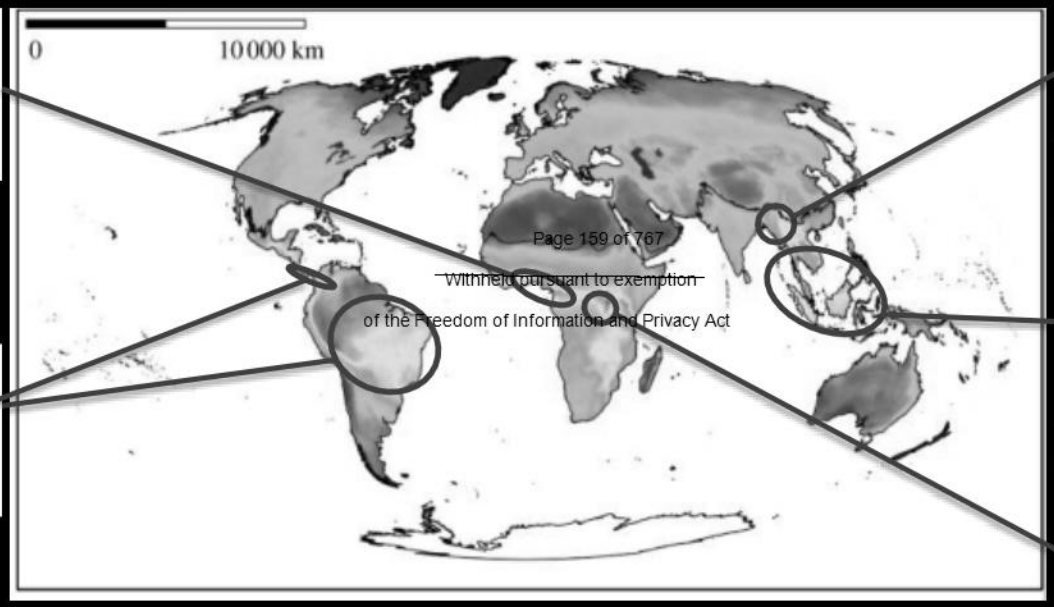
Funding Strategies

Potential First Wave of High-Yield Targets

West/Central AfricaGhana: $39MCameroon: $35M



South AsiaBangladesh: $18M

Southeast AsiaThailand: $38MCambodia: $26MIndonesia: $90M

Latin AmericaBrazil: $80MCosta Rica: $29M

East/Central AfricaDR Congo $57MCameroon: $43M

Could capture a huge amount of viral diversity and associated benefits with less than $500M in approximately 5

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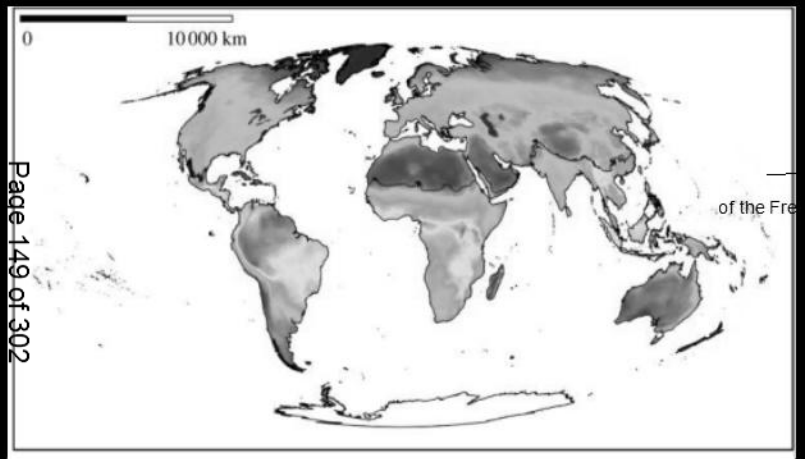
Funding Strategies

Potential Countries of Opportunity

China, Costa Rica, Australia



Mammalian Habitat ranges

Canada Norway China

Waterfowl breeding hotspots

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Senior Advisory Group

- High-level issuesCross-link to global health architectureProvide guidance on funding strategiesAssess options for leadershipAdvise on program directions & progress

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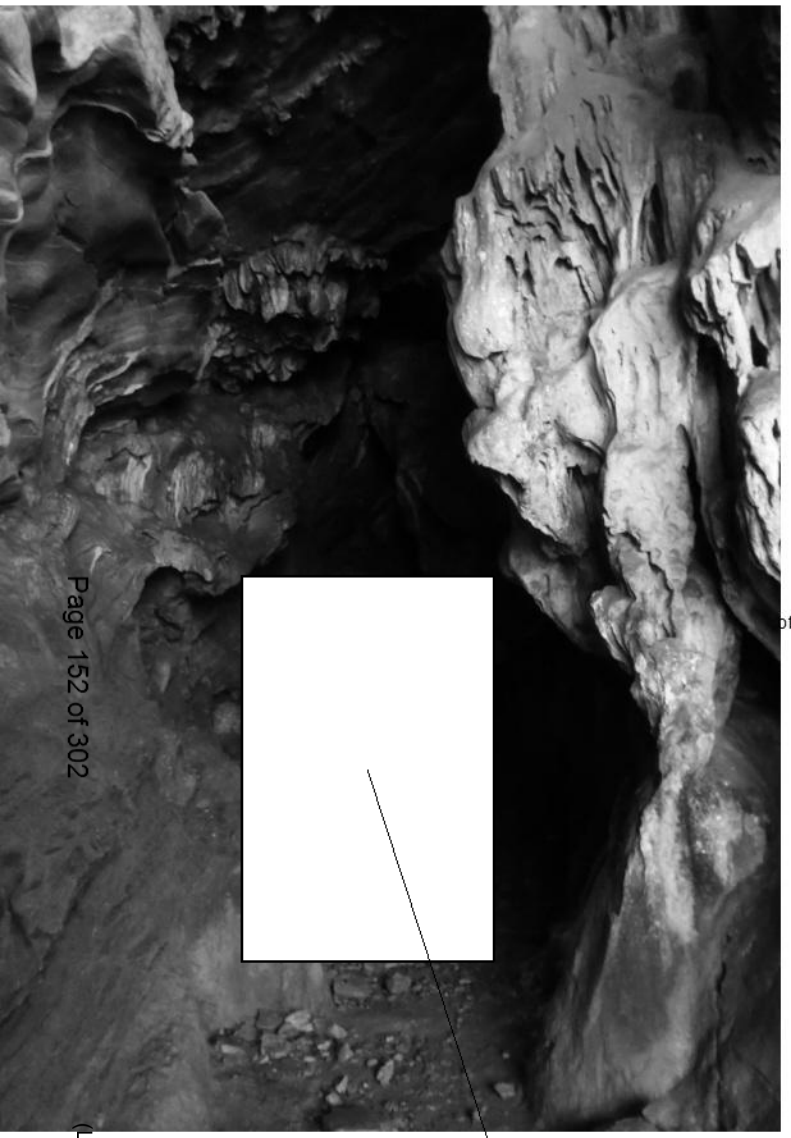


Working Towards a China-Led Virome Project

(b)(6)

EcoHealth Alliance

(b)(6)

Page 163 of 767

August 2016

Bellagio Initiative

September 2016

Concept of CNVP from Chinese research groups

February 2017

1st CNVP meeting to identify key partners

September 2017

2nd CNVP meeting

National science and technology major national R&D project of infectious disease prevention and control -- 'Belt and Road'

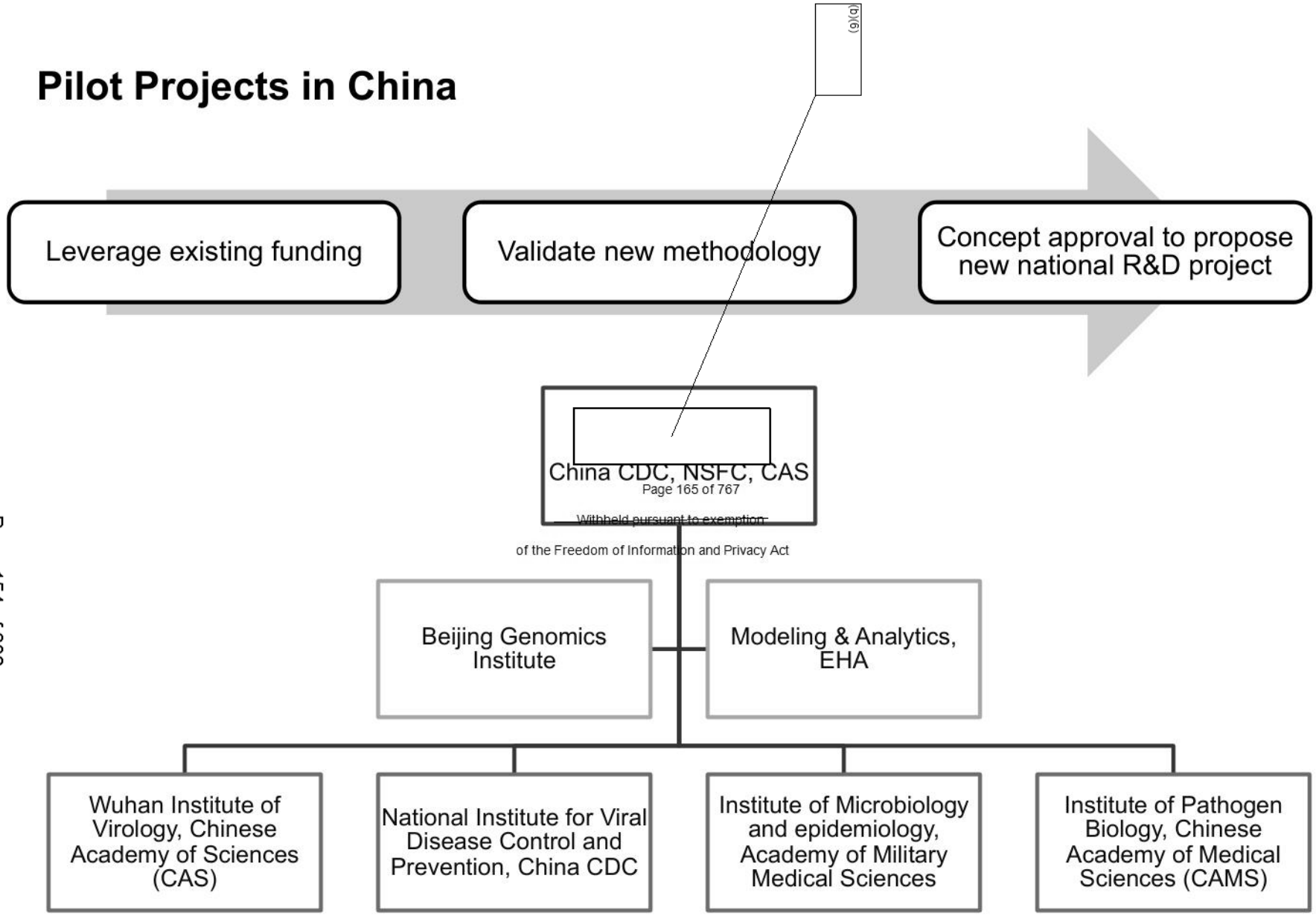
October 2017- September 2018

Concept of a China-led virome project

Developing pilot projects utilizing existing funds

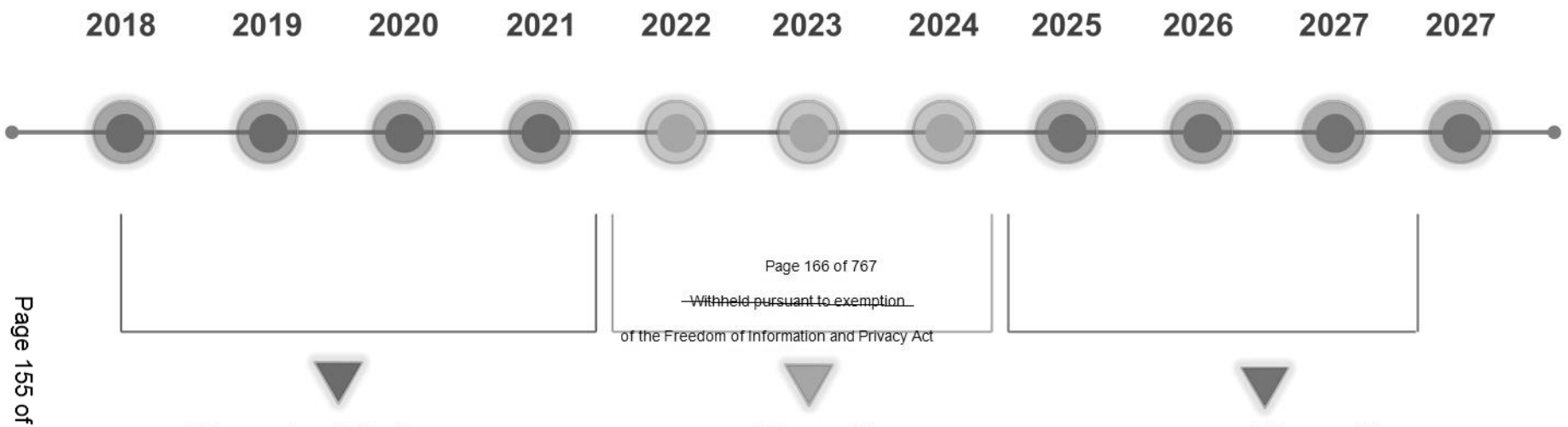
Page 164 of 767

Pilot Projects in China



The Way Forward

Small-group meeting in February 2019 for planning and coordination



Phase I – Piloting

- Sampling of more common wild mammal species in China
- Viral database initiated
- Lab diagnostic techniques developed
- Building partnerships in Asian and African countries

Phase II

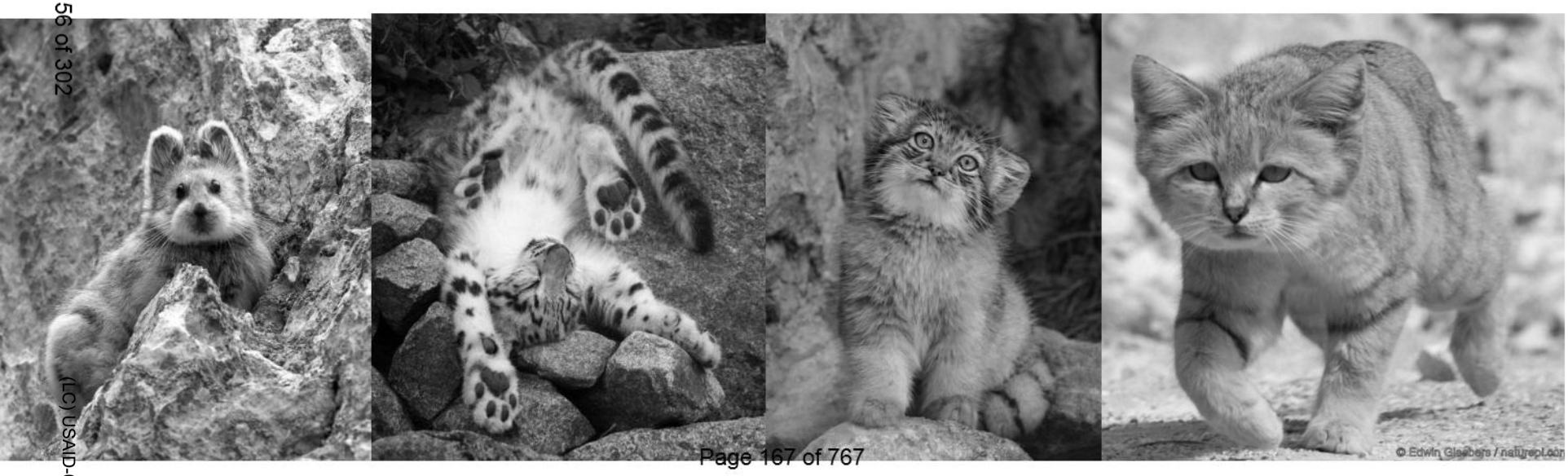
- Continuing surveillance in China
- Data collection entry into central database
- Continuing development of new diagnostic techniques
- Expansion to collaborate with other countries

Phase III

- Full data collection and analysis
- Data entry into central database
- New diagnostic techniques used and distributed

Thank you!

(b)(6)@ecohealthalliance.org



(b)(6)

(b)(6)

U.S. Agency for International Development (USAID) Contractor
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
(b)(6)

Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

(b)(6)

On Mon, Aug 13, 2018 at 1:59 PM (b)(6) @usaid.gov> wrote:
Hi GVP Colleagues,
As per our conversation on Thursday, we would like to request your assistance in updating the agenda for the Thailand National Meeting, to be held Oct. 24-25 in Bangkok. In particular, we would like to ensure that speaker name and session titles have been added.
Please input your edits tothis google doc. If you're unable to access it, I have also attached a recent draft of the agenda in which you can make your edits. In case helpful for framing, I've pasted below some feedback from the GoT that (b)(6) shared.
We would appreciate your feedback by **COB Wednesday, 8/15**.
Thanks!
(b)(6)
Feedback
Please see attachment the 2nd draft agenda from the prep meeting on July 17. They would like to hear more details on GVP including questions and answers, the support of the project, more concerns on virus and sequencing information, modeling, data analysis. Additionally, they would like to hear more form China if China already starts the project and on the process of establishing China national virome project.

(b)(6)

U.S. Agency for International Development (USAID) Contractor
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
(b)(6)

(b)(6)

Desk:

Roundtable Dialogue Toward Establishing a Thailand National Virome Project

October 24-25, 2018 ~~(TBD)~~

Objectives:

- Further introduce and update status on the Global Virome Project
- Identify and synthesize Thailand's viral discovery and risk analysis expertise
- Discuss Thailand's capacities in the context of the GVP, and build consensus around key goals to be achieved in developing a Thailand National Virome Project

Expected Outputs:

- Summary report and synthesis of Thailand's viral discovery and risk analysis landscape
- Draft roadmap and iterative milestones in developing a Thailand National Virome Project

October 24, 2018

8:30 – 9:00 am	Registration	
I. Introduction		
9:00 – 9:30 am	Opening Remarks -Permanent Secretary : Ministry of Public Health~~, DMSC~~ -Permanent Secretary : Ministry of Science and Technology~~, NSTDA~~	[TBC]
9:30 – 10:45 am	Overview of the Global Virome Project GVP Structure at Global and National Levels - Thematic Areas: o Governance o Science &Technology o Implementation Phased Approach	(b)(6) Requested issues to be covered 1. Background 2. IT infrastructure, Data management & sharing 3. Governance 4. Budget / site 5. Sample repository, sharing and MTA

(b)(6)
(b)(6)

Commented In order to avoid too much overlap with the topics in section II. below, maybe here can give the overview of the global need and importance of Thailand for incubation phase and future overall success everywhere, as well as the process to date with Steering Committee & BCG. Agree that other topics listed are critical to cover, but they might flow better below. This overview would flow nicely into the next section as described (GVP Structure & Thematic Areas), but I'm not sure an 1:45 minutes is necessary, so have shortened the times to allow for the other topics to be fleshed out in the agenda.

		6. IP 7. Related regulations/int. protocols 8. Experiences &lesson learned from past projects (conflicts, problems, difficulties) 9. Capacity building 10. Q&A
10:45 – 11:15am	Coffee Break	
II. The Mechanics of the Global Virome Project		
11:15 – 11:45 am	GVP Approach to prioritizing sampling sites	(b)(6)
11:45am – 12:15 pm	GVP Implementation • Scientific goals and sampling targets • Capacity strengthening • Experiences & lessons learned globally	
12:15 – 12:45 pm	Viral Discovery in the Global and Asia Regional Contexts: Key Lessons and Experiences Viral Discovery in Thailand: Key Lessons and Experiences	(b)(6)
12:45 – 1:45 pm	Lunch	
1:45 – 2:15 pm	Ethical, legal, societal implications • Sample repository, sharing and MTA • Intellectual Property • Related regulations/int. protocols	
2:10 – 2:30 pm	Proposed plan for GVP Information Management (IM) • IT infrastructure • Data management & sharing	

2:30 – 3:00 pm	Coffee Break	
III.	*Thailand's Viral Discovery & Risk Analysis Landscape (7 min each) (What have been done, not details)*	
3:00 – 3:10 pm	…	(b)(6)
3:10 – 3:20 pm	Chulalongkorn University, Faculty of Medicine, Center for Viral Zoonoses	
3:20 – 3:30 pm	Mahidol University (Tropical Medicine Faculty)	
3:30 – 3:40 pm	Mahidol University (Faculty of Veterinary Science)	
3:40 – 3:50 pm	Ministry of Science and Technology	
3:50 – 4:00 pm	Ministry of Public Health, Department of Medical Sciences, National Institute of Health (NIH)	
	Short break	
4:10 – 4:20 pm	Ministry of Ag and Cooperatives, National Institute of Animal Health	
4:10 – 4:20 pm	Thailand Research Fund	TBC
4:20 – 4:30 pm	CRI	
4:30 – 4:40 pm	DDC&BIDI? One Health Coordinator?	
4:40 – 4:50 pm	AFRIMS or US CDC?/FAO	

(b)(6)

Commented Each block is awfully short. Can we extend into next day or shorten topics above?
We should expect delays if we are allocating 10min for presentation and turnover to next speaker.

October 25, 2018

IV.	*Developing a Thailand Virome Project*	
8:30 – 9:00 am	Summary of Thailand's Viral Discovery & Risk Analysis Capacities, Equities, and Expertise	To be presented in a synthesis form, by category (e.g. diagnostics, interface characterization) from previous day's presentations
9:00 – 11:30 am (including	Introduction to Group Deliberations and Group Discussion	

coffee break)	- Moderated Breakout Groups to Discuss Structural Options for a Thailand Virome Project - Suggested breakouts: o Governance o Sample sites/hosts & testing o Data sharing	
11:30 – 12:30 pm	Readout of Group Discussions	List of issues to be discussed should be provided Request for information from the previous meeting for preparation of the breakout session
12:30 –1:30pm	Lunch	
V. Roadmap to a Thailand Virome Project		
1:30 – 3:00 pm	Draft Roadmap Development and Next Steps - Presentation of draft roadmap following group recommendations - Key milestones - Q/A	
3:00 – 3:30 pm	Summary and Closing Remarks	

(b)(6)

Commented We suggest shortening planned sections on this day to make room for above inserts & longer presentations

Participating Institutions (tentative invitation issuance):

1. Ministry of Public Health , Department of Medical Sciences (DMSC), National Institute of Health 4 DDC/4 — 8
2. Ministry of Agriculture and Cooperatives , National Institute for Animal Health (NIAH) — 4
3. Ministry of Natural Resources and Environment, Department of National Parks (DNP) — 2
4. Ministry of Science and Technology, National Science Technology Development Agency (NSTDA) — 4
5. Chulalongkorn University, Faculty of Medicine, — 2

(b)(6)

Commented

Center for Viral Zoonoses

6. Mahidol University, Faculty of Tropical Medicine 2

7. Mahidol University, Faculty of Veterinary Science 2

8. Mahidol University, Faculty of Science 2

9. CU EIDAS Center 1 (AH) อ อลงกรณ์ 1

10. Thailand One Health University Network (THOHUN) 1

11. Thailand Research Fund (TRF) 1

12. Food and Agriculture Organization of the United Nations 3

13. World Health Organization 1

14. U.S. Centers for Disease Control and Prevention/Thailand 2

15. Armed Forces Research Institute for Medical Sciences (AFRIMS) 2

16. U.S. Agency for International Development 3

17. U.S. Embassy Bangkok 1

18. Zoo Park Organization of Thailand 2

19. (b)(6) 1

20. 1

21. 1

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24. (b)(6)

(b)(6) 1

25. BLQS 1 1

26. The Thailand Research Fund 1

27. TCELs 2 1

28. IHPP 1	1
29. (b)(6) (b)(6)	1
30. King Mongkut's University of Technology Thonburi (KMUTT)	1
31. Chiangmai University	1
32. MFA, Department of Treaties and Legal Affairs	1
33. Chulabhorn research institute	1
34. ข อรุณี ศิริราช	1
Total	51

(b)(6)

(b)(6)

Commented As suggested by GVP team

working group

35. Admin	Withheld pursuant to exemption of the Freedom of Information and Privacy Act 4
36. Facilitator	4
37. Note Taker	5
38. Rapporteurs	13

From: (b)(6)
Sent: Tue, 21 Mar 2017 15:28:46 +0000
To: (b)(6)
Subject: Re: Returned mail: see transcript for details
Attachments: BeijingGVPExecutiveSummary (2).docx

Attached again, let me know if it came through!

(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)

Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

On Mon, Mar 20, 2017 at 5:44 PM, (b)(6)
(b)(6) @pasteur.fr> wrote:
Hi again. Actually I don't see the exec summary. Can you send that again?

On 20 Mar 2017, at 19:27, (b)(6) @usaid.gov> wrote:

That's frustrating, but glad you got the email!

(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

On Mon, Mar 20, 2017 at 12:30 PM, (b)(6)
(b)(6) @pasteur.fr> wrote:
Thanks- having problems with my WHO email today. Thanks for resending.

(b)(6)

On 20 Mar 2017, at 17:07, (b)(6) @usaid.gov> wrote:

Hi

It seems to be bouncing back from the WHO email, but I've attached the Exec Summary here again.
Best,

(b)(6)

Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

---------- Forwarded message ----------
From: **Mail Delivery Subsystem** <MAILER-DAEMON@who.int>
Date: Mon, Mar 20, 2017 at 12:04 PM
Subject: Returned mail: see transcript for details
To: (b)(6) @usaid.gov

The original message was received at Mon, 20 Mar 2017 17:01:32 +0100
from (b)(6)

----- The following addresses had permanent fatal errors -----
<(b)(6) @who.int>
(reason: (b)(6) Too many hops)
(expanded from: <(b)(6) @who.int>)

----- Transcript of session follows -----
(b)(6) Too many hops 30 (25 max): from <(b)(6) @usaid.gov> via localhost, to
<(b)(6) @who.int>

Original-Recipient: (b)(6) @who.int
Final-Recipient: (b)(6) (b)(6) @who.int
X-Actual-Recipient: (b)(6) @sakurain.who.int
Action: failed
Status: (b)(6)
Diagnostic-Code: SMTP; (b)(6) Too many hops
Last-Attempt-Date: Mon, 20 Mar 2017 17:04:46 +0100

---------- Forwarded message ----------
From: (b)(6) @usaid.gov>
To: <(b)(6) @who.int>
Cc:
Bcc:

Date: Mon, 20 Mar 2017 11:59:19 -0400
Subject: Re: GVP Update - Exec Summary, Resource Deck, etc.
Hi (b)(6),
I've attached the executive summary, which will hopefully go through. It appears that the slide deck is too large for the WHO email addresses. If you have an alternative email for me to use, let me know. Otherwise, I'll see if I can shrink it.
Best,
Cara

(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6)@usaid.gov

On Sat, Mar 11, 2017 at 5:04 AM, (b)(6)@pasteur.fr> wrote:
Hi (b)(6) you can use my WHO email now: (b)(6)@who.int

On 11 Mar 2017, at 00:06, (b)(6)@usaid.gov> wrote:

Dear Colleagues,

If you're receiving this email, I received a notice that your email couldn't receive the attachments in the original email. If you have an alternate email you would like me to forward the slide deck to (as it's quite large), please let me know. I have reattached the executive summary in the hopes that it goes through.

Best,
(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6)@usaid.gov

---------- Forwarded message ----------
From: (b)(6)@usaid.gov>

Date: Fri, Mar 10, 2017 at 5:48 PM
Subject: GVP Update - Exec Summary, Resource Deck, etc.
To: (b)(6) @usaid.gov>
Cc: (b)(6) @usaid.gov>

Dear GVP Colleagues,
Happy Friday & weekend! We hope that you are all doing well and that things are great in your part of the world.
We wanted to provide a few quick updates as we reflect on the Beijing meeting and pursue next steps:
1) Newsletter: We hope you all received the "As the Virome Turns" newsletter (below). This will continue to be our method for providing updates on outreach, publications, etc. If you haven't signed up, please do so at the bottom of this email. If you have anything for inclusion, please send to (b)(6) @usaid.gov).
2) Executive Summary: Our amazing participant and (b)(6) , has compiled an Executive Summary from the Beijing meeting (attached). Please let us know if you have any comments or thoughts about the summary.
3) Resource Deck: In order to facilitate your GVP-related presentations, we've been working on compiling a large set of slides from which you can all pick and choose to create your own, audience-specific presentations. We will continue to update this, but please find attached the first version for your use. We would love any feedback or additional slides to add!
4) May 1st Deadline: As the various working groups pull together their deliverables for the May 1st deadline, please note that your Thematic Area co-leads are a great resource for any questions. The co-leads will be meeting regularly to share information and identify opportunities for collaboration between the Thematic Areas.
5) Webinar: Following the May 1st deadline, we will be organizing an interactive webinar to share more details on the modeling strategy. We plan to record the webinar for those who are unable to attend. We'll distribute more details as they become available.
As always, please reach out if you have any questions or concerns!

Best,

(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

---------- Forwarded message ----------
From: **GVP** <Globalviromeproject@gmail.com>
Date: Fri, Mar 10, 2017 at 2:13 PM
Subject: As the Virome Turns--Happy 2017!

To: (b)(6) @usaid.gov

View this email in your browser

Happy 2017! Since the last edition, quite a bit has taken place in Washington, but much more has taken place everywhere GVP Steering Committee members have traveled. With Spring almost here, and the beginning of Daylight savings time soon upon us, make sure to enjoy the extra sleep until Sunday, when you should remember to spring forward! Keep scrolling to see how GVP continues to beat on, both in person and in publications featuring our own (b)(6) and (b)(6)

Last month the teams were busy, showcasing GVP globally and launching activities in key locations. Read the breakdown below:

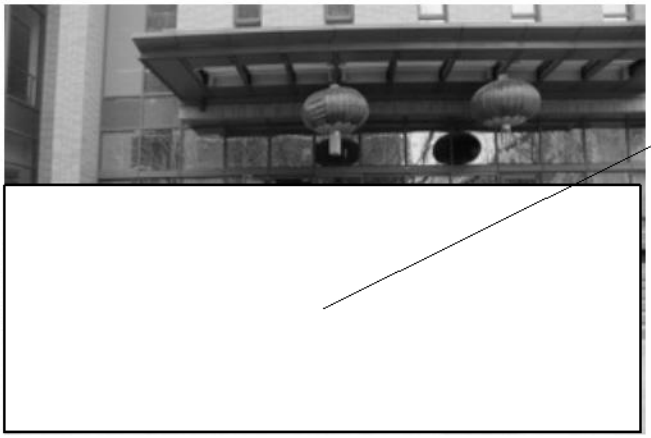
Miami Beach: 2017 Advances in Genome Biology and Technology Meeting, February 12

(b)(6) (Metabiota) gave a keynote talk on the "Global Virome Project". This meeting represents the largest yearly gathering of genome scientists and technologists (~800).

Beijing: Feb. 5th – Feb. 8th

During their time in Beijing, (b)(6) and others met for the GVP steering committee meeting and "Launched" the China National Virome project! Audiences included USAID China colleagues, the GVP core group, steering committee, and working group co-leads, senior representatives from the Chinese Academy of Sciences, China CDC, the leadership from the Chinese Academy of Sciences International Affairs Division, and the health/science representatives from Embassy Beijing (State, USAID, NSF, HHS, CDC, NIH, etc.). We look forward to the Embassy's continued support of this opportunity moving forward.

- GVP Steering Committee: The GVP meeting was the second meeting of the steering committee and the first meeting of the extended group (working group co-leads). In addition to be a productive session helping to map out the way forward, the opportunity to bring together the individuals working in different technical areas allowed for extensive cross-talk and coordination.



- "Launch" of the China National Virome Project: The Chinese Academy of Sciences and the China CDC co-hosted a scientific forum to: 1. Present GVP, and 2. Higlight ongoing Chinese scientific work that aligns with GVP. Our Chinese colleagues are very enthusiastic about being a "first wave country" for the GVP – meaning that they would begin a National Virome Project. The next step is for them to set up an internal meeting to map out the way forward on their end.

Bangkok: Jan. 28th – Feb. 3rd

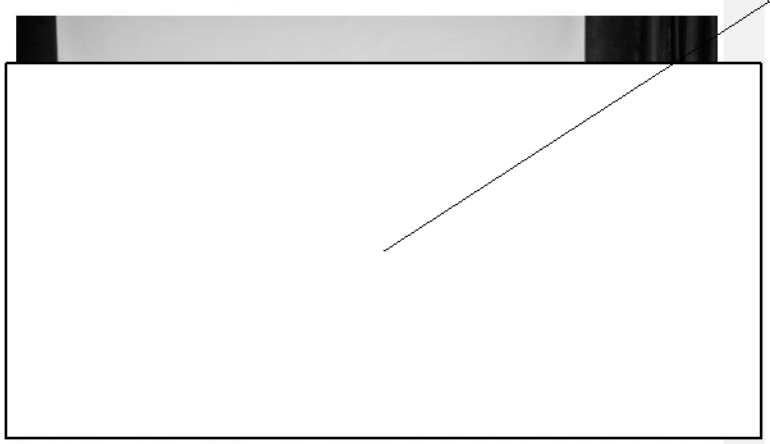
Several ETD members and other partners met in Bangkok, primarily to attend the PMAC 2018 planning meeting, PMAC 2017 side meetings on AMR & OneHealth Workforce, and to present on the GVP to Thai colleagues:

- AMR meeting: 125 participants from ministries of Ag and Health from 7 Asian countries and an equal number of major private sector firms (livestock producers, retailers and suppliers). Strong endorsement of expanded engagement across region for characterizing anti-biotic use among producers and promotion of good stewardship. Concrete next steps identified. Private sector has initiated steps to co-sponsor a similar meeting in Cairo to cover Middle East producers.
- One Health Workforce: a regional meeting bringing together representatives from across the OHW network in SE Asia and Africa and equivalent representation for similar networks funded by WB and Australia in South Asia. Highly interactive and laid the foundation for a broader

"web" of engagement across multiple networks.

- GVP: a very well received presentation and discussion on GVP to a broad cross-section of Thai government leaders, scientists and educators. Strong endorsement of role of the RTG in GVP.
- PMAC 2018: first meeting of the International Organizing Committee for PMAC 18 – with the theme of "Making the World Safe from the Threats of Emerging Infectious Diseases". USAID has a strong leadership role in planning for this meeting. PMAC 18 will cover both emerging viral threats as well as antimicrobial resistance. Abstracts should be submitted by following this link.

(b)(6)



San Francisco: Jan. 24th – Jan. 27th

During their time in San Francisco, folks held a series of GVP outreach meetings, notable with The Chan-Zuckerberg BioHub, Illumina, and the Science Philanthropy Alliance. All outreach meetings were successful in that colleagues expressed strong support and enthusiasm for the GVP:

- Illumina: (b)(6) (Metabiota), (b)(6) (USAID), (b)(6) (Metabiota) gave a presentation to senior Illumina management on the Global Virome Project. Illumina representatives included: (b)(6) (b)(6) Discussions included potential involvement of Illumina in the GVP, during which key representatives expressed a very strong interest in serving as a partner, focusing on the development of the "next generation" of technology related to diagnostics. Their involvement has potential to speed up the process through introduction of new technologies (similar to what occurred during the Human Genome Project).
- Science Philanthropy Alliance: SPA is a "clearing house" for a dozen major foundations

interested in supporting “transformative science”. They expressed a strong sense that GVP was very much aligned with a number of their member foundations and are taking steps to facilitate future discussions with participating foundations

- Chan-Zuckerbeg BioHub: The BioHub (Stanford/UC Berkeley/UCSF) is interested in working with the GVP around the samples which will be collected and new technologies which may be used as part of the big data generated.

(b)(6)

Each working group continues to pursue deliverables planned for completion this May. Of note will be updates from the Science & Technology Team, which we will share in the next edition of As the Virome Turns.

- GVP is Featured in Techonomy
- (b)(6) writes for the O'Neill Institute for Global Health and Law

Are you a new reader?

- Subscribe Here
- Read past editions here
- Contact (b)(6) at (b)(6)@usaid.gov if you would like to submit content for future editions of "As the Virome Turns"

Upcoming Events

- The Beginning of the End of the Pandemic Era: March 17
- SEAOHUN Fellowship Program Application Deadline: March 31
  An excellent opportunity for qualified individuals to gain practical, trans-disciplinary experience and contribute productively to One Health related projects at several host organizations. Follow this link to learn more and apply!
- PMAC 2018: Call for Abstracts, March 31,2017

GLOBAL VIROME PROJECT

Photo Credits: Gorilla Doctors Project, (b)(6) USAID, NIAID

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GVP Core Team · Ronald Reagan Building · 1300 Pennsylvania Avenue NW · Washington, DC 20004 · USA

<BeijingGVPExecutiveSummary.docx>

<BeijingGVPExecutiveSummary (2).docx>

Global Virome Project (GVP)

Steering Committee and Working Group Meeting

Beijing, China

6-7 February, 2017

Executive Summary

Drafted by (b)(6) *with input from:* (b)(6) *Peter Daszak,* (b)(6) *and* (b)(6) (b)(6)

Executive Summary

The Inaugural Global Virome Project Steering Committee and Working Group Meeting was held on 6-7th February 2017 in Beijing, China. This was the first global in-person meeting on the Global Virome Project (GVP) since the Bellagio Forum in August 2016. Since Bellagio, where 18 transitional steering committee (SC) members identified the goals and vision of the GVP, eleven working groups (WGs) have been formed in three thematic areas: Governance, Science & Technology, and Implementation.

The objectives of this meeting were three-fold: 1.) to report on working group, core group, and steering committee progress made since Bellagio, 2.) to discuss and seek feedback on evolving strategies related to governance, outreach, communication, resource mobilization, and stakeholder engagement, and 3.) to establish and strengthen relationships among working group chairs and the steering committee, identifying issues shared by different groups and planning further collaboration.

1. Progress made since Bellagio

Since May 2016, members of the GVP core group have met with 13 high-level individuals and 20 (philanthropic, academic, multilateral or governmental) organizations. They presented the GVP at 14 conferences or public fora. The Bellagio Initiative statement and briefing documents were published on a new website (globalviromeproject.org) and a newsletter was created for regular distribution. A policy forum paper is under review in an academic journal, and members of the core group have been interviewed in the lay press. The GVP has also been discussed in the popular press.

Working group co-chairs were identified and invited, and each working group compiled and presented the key activities, challenges, and opportunities facing its group.

Several countries have shown significant interest in the GVP, and certain of those countries have been discussed as “countries of opportunity” for launching a first wave of the GVP. These countries include China, which hosted a meeting following this convening on the “China National Virome Project.”

2. Governance, outreach, and communication strategies

The Global Virome Project is coordinated by a core group with representation from USAID, UC Davis, EcoHealth Alliance, and Metabiota. The core group, steering committee, and working group meetings have been partially funded by USAID, while participating working group co-chairs and steering committee members from a host of additional organizations currently participate on a voluntary basis. As this structure is transitional, the long-term organizational structure of the GVP was discussed during the meeting, including the role of a possible Senior Advisory Board. Additionally, the group discussed possible efforts to augment input into the

core group, including tapping into the steering committee on a periodic basis (while taking into account practicalities around time zones, workloads, etc.), following the Beijing meeting. The creation of a freestanding NGO, with an international search for president, was discussed as a plausible governance framework for the long term functioning of the GVP. It was agreed that the GVP should not be a for-profit venture, and that the long-term composition of the overall effort should have diverse global representation.

The team discussed the need to break down the $3.5 billion total price tag of the GVP into a "menu" of smaller projects. Different ways to break this down – by region, country, species, viral group, or category as well as specific technology contributions – each present their own challenge. Part of the modeling team's role will be to economically optimize a field sampling strategy based on biodiversity and accessibility, but local capacity and country-specific laws and protocols must be factored into the costs. Beginning in a "first wave" of countries may increase interest in the project and allow other countries to join and jointly fund the project after value has been demonstrated.

The GVP's scope and goals – particularly, how to communicate the boundaries and scope of such a broad-reaching project and how to ensure the GVP has public health impact beyond academic research – were discussed at length, and this feedback is being incorporated into the mission and vision statements.

3. **Working group intersections and collaboration**

During the session when each of the working groups had short meetings each of the other working groups, areas of overlap were identified. "Sister" working groups – (*e.g.* metadata platform and data management) – committed to working together to achieve the most scientifically sound and feasible strategies for delivering on the GVP's goals were also identified.

(b)(6) established a May 1 goal for the first working group deliverables. It was agreed that generally, the strategic planning of the Science & Technology working groups should precede the tactical delivery of the Governance and Implementation working groups.

The way forward

All participants were called upon to present to their networks in upcoming conferences, meetings, and public fora, and the pitch deck and other explanatory materials will be shared with all participants. Many members of the steering committee expressed intereste in increasing their involvement, and were invited to reach out to the co-leads of working groups that interested them to join the budding working groups.

There was additionally a commitment to establishing an online hub where working group participants could communicate, upload files, jointly work on documents, and otherwise interact. Thematic leads were tasked with setting up a call schedule for their working groups and working with their groups to develop roadmaps.

Roundtable Dialogue Toward Establishing a Thailand National Virome Project

October 24-25, 2018

Objectives:

- Further introduce and update status on the Global Virome Project
- Identify and synthesize Thailand's viral discovery and risk analysis expertise
- Discuss Thailand's capacities in the context of the GVP, and build consensus around key goals to be achieved in developing a Thailand National Virome Project

Expected Outputs:

- Summary report and synthesis of Thailand's viral discovery and risk analysis landscape
- Draft roadmap and iterative milestones in developing a Thailand National Virome Project

October 24, 2018

8:30 – 9:00 am	Registration	
I. Introduction		
9:00 – 9:30 am	Opening Remarks - Permanent Secretary : Ministry of Public Health - Permanent Secretary : Ministry of Science and Technology	[TBC]
9:30 – 10:45 am	Overview of the Global Virome Project GVP Structure at Global and National Levels - Thematic Areas: o Governance o Science &Technology o Implementation Phased Approach	(b)(6) Requested issues to be covered 1. Background 2. IT infrastructure, Data management & sharing 3. Governance 4. Budget / site 5. Sample repository, sharing and MTA 6. IP 7. Related regulations/int.

(b)(6)

Commented In order to avoid too much overlap with the topics in section II. below, maybe here Dennis can give the overview of the global need and importance of Thailand for incubation phase and future overall success everywhere, as well as the process to date with Steering Committee & BCG. Agree that other topics listed are critical to cover, but they might flow better below. This overview would flow nicely into the next section as described (GVP Structure & Thematic Areas), but I'm not sure an 1:45 minutes is necessary, so have shortened the times to allow for the other topics to be fleshed out in the agenda.

		protocols 8. Experiences &lesson learned from past projects (conflicts, problems, difficulties) 9. Capacity building 10. Q&A
10:45 – 11:15am	Coffee Break	
II.	*The Mechanics of the Global Virome Project*	
11:15 – 11:45 am	GVP Approach to prioritizing sampling sites	(b)(6)
11:45am – 12:15 pm	GVP Implementation • Scientific goals and sampling targets • Capacity strengthening • Experiences & lessons learned globally	
12:15 – 12:45 pm	Viral Discovery in the Global and Asia Regional Contexts: Key Lessons and Experiences Viral Discovery in Thailand: Key Lessons and Experiences	Sunita Mulay (b)(6)
12:45 – 1:45 pm	Lunch	
1:45 – 2:15 pm	Ethical, legal, societal implications • Sample repository, sharing and MTA • Intellectual Property • Related regulations/int. protocols	
2:10 – 2:30 pm	Proposed plan for GVP Information Management (IM) • IT infrastructure • Data management & sharing	
2:30 – 3:00 pm	Coffee Break	
III.	*Thailand's Viral Discovery & Risk Analysis Landscape (7 min each) (What have been done, not details)*	

3:00 – 3:10 pm	…	(b)(6)
3:10 – 3:20 pm	Chulalongkorn University, Faculty of Medicine, Center for Viral Zoonoses	
3:20 – 3:30 pm	Mahidol University (Tropical Medicine Faculty)	
3:30 – 3:40 pm	Mahidol University (Faculty of Veterinary Science)	
3:40 – 3:50 pm	Ministry of Science and Technology	
3:50 – 4:00 pm	Ministry of Public Health, Department of Medical Sciences, National Institute of Health (NIH)	
	Short break	
4:10 – 4:20 pm	Ministry of Ag and Cooperatives, National Institute of Animal Health	
4:10 – 4:20 pm	Thailand Research Fund	TBC
4:20 – 4:30 pm	CRI	
4:30 – 4:40 pm	DDC&BIDI? One Health Coordinator?	
4:40 – 4:50 pm	AFRIMS or US CDC?/FAO	

(b)(6)

Commented Each block is awfully short. Can we extend into next day or shorten topics above?
We should expect delays if we are allocating 10min for presentation and turnover to next speaker.

October 25, 2018

IV. Developing a Thailand Virome Project		
8:30 – 9:00 am	Summary of Thailand's Viral Discovery & Risk Analysis Capacities, Equities, and Expertise	To be presented in a synthesis form, by category (e.g. diagnostics, interface characterization) from previous day's presentations
9:00 – 11:30 am (including coffee break)	Introduction to Group Deliberations and Group Discussion - Moderated Breakout Groups to Discuss Structural Options for a Thailand Virome Project - Suggested breakouts: o Governance	

(b)(6)

Commented We suggest shortening planned sections on this day to make room for above inserts & longer presentations

	○ Sample sites/hosts & testing ○ Data sharing	
11:30 – 12:30 pm	Readout of Group Discussions	List of issues to be discussed should be provided Request for information from the previous meeting for preparation of the breakout session
12:30 –1:30pm	Lunch	
V. Roadmap to a Thailand Virome Project		
1:30 – 3:00 pm	Draft Roadmap Development and Next Steps - Presentation of draft roadmap following group recommendations - Key milestones - Q/A	
3:00 – 3:30 pm	Summary and Closing Remarks	

Participating Institutions (tentative invitation issuance):

1. Ministry of Public Health , Department of Medical Sciences (DMSC), National Institute of Health 4 DDC/4 — 8
2. Ministry of Agriculture and Cooperatives , National Institute for Animal Health (NIAH) — 4
3. Ministry of Natural Resources and Environment, Department of National Parks (DNP) — 2
4. Ministry of Science and Technology, National Science Technology Development Agency (NSTDA) — 4
5. Chulalongkorn University, Faculty of Medicine, Center for Viral Zoonoses — 2
6. Mahidol University, Faculty of Tropical Medicine — 2
7. Mahidol University, Faculty of Veterinary Science — 2

(b)(6)

Comment

8. Mahidol University, Faculty of Science

2

9. CU EIDAS Center 1 (AH) ข ลงนาม

1

10. Thailand One Health University Network (THOHUN)

1

11. Thailand Research Fund (TRF)

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12. Food and Agriculture Organization of the United Nations

3

13. World Health Organization

1

14. U.S. Centers for Disease Control and Prevention/Thailand

2

15. Armed Forces Research Institute for Medical Sciences (AFRIMS)

2

16. U.S. Agency for International Development

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17. U.S. Embassy Bangkok

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18. Zoo Park Organization of Thailand

Page 211 of 767

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19. (b)(6)

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University

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25. BLQS 1

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26. The Thailand Research Fund

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27. TCELs 2

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28. IHPP 1

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29. (b)(6)

(b)(6) Songklanakarin University

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30. King Mongkut's University of Technology Thonburi

1

(KMUTT)

31. Chiangmai University 1

32. MFA, Department of Treaties and Legal Affairs 1

33. Chulabhorn research institute 1

34. อ อรุณี ศิริราช 1

Total 51

(b)(6)

(b)(6) @gmail.com.

(b)(6)

Commented

As suggested by GVP team

working group

35. Admin 4

36. Facilitator 4

37. Note Taker 5

38. Rapporteurs 13

Global Virome Project (GVP)

Steering Committee and Working Group Meeting

Beijing, China

6-7 February, 2017

Executive Summary

Drafted by (b)(6) *with input from:* (b)(6) *Peter Daszak,* (b)(6) *and* (b)(6) (b)(6)

Executive Summary

The Inaugural Global Virome Project Steering Committee and Working Group Meeting was held on 6-7th February 2017 in Beijing, China. This was the first global in-person meeting on the Global Virome Project (GVP) since the Bellagio Forum in August 2016. Since Bellagio, where 18 transitional steering committee (SC) members identified the goals and vision of the GVP, eleven working groups (WGs) have been formed in three thematic areas: Governance, Science & Technology, and Implementation.

The objectives of this meeting were three-fold: 1.) to report on working group, core group, and steering committee progress made since Bellagio, 2.) to discuss and seek feedback on evolving strategies related to governance, outreach, communication, resource mobilization, and stakeholder engagement, and 3.) to establish and strengthen relationships among working group chairs and the steering committee, identifying issues shared by different groups and planning further collaboration.

1. Progress made since Bellagio

Since May 2016, members of the GVP core group have met with 13 high-level individuals and 20 (philanthropic, academic, multilateral or governmental) organizations. They presented the GVP at 14 conferences or public fora. The Bellagio Initiative statement and briefing documents were published on a new website (globalviromeproject.org) and a newsletter was created for regular distribution. A policy forum paper is under review in an academic journal, and members of the core group have been interviewed in the lay press. The GVP has also been discussed in the popular press.

Working group co-chairs were identified and invited, and each working group compiled and presented the key activities, challenges, and opportunities facing its group.

Several countries have shown significant interest in the GVP, and certain of those countries have been discussed as "countries of opportunity" for launching a first wave of the GVP. These countries include China, which hosted a meeting following this convening on the "China National Virome Project."

2. Governance, outreach, and communication strategies

The Global Virome Project is coordinated by a core group with representation from USAID, UC Davis, EcoHealth Alliance, and Metabiota. The core group, steering committee, and working group meetings have been partially funded by USAID, while participating working group co-chairs and steering committee members from a host of additional organizations currently participate on a voluntary basis. As this structure is transitional, the long-term organizational structure of the GVP was discussed during the meeting, including the role of a possible Senior Advisory Board. Additionally, the group discussed possible efforts to augment input into the

core group, including tapping into the steering committee on a periodic basis (while taking into account practicalities around time zones, workloads, etc.), following the Beijing meeting. The creation of a freestanding NGO, with an international search for president, was discussed as a plausible governance framework for the long term functioning of the GVP. It was agreed that the GVP should not be a for-profit venture, and that the long-term composition of the overall effort should have diverse global representation.

The team discussed the need to break down the $3.5 billion total price tag of the GVP into a "menu" of smaller projects. Different ways to break this down – by region, country, species, viral group, or category as well as specific technology contributions – each present their own challenge. Part of the modeling team's role will be to economically optimize a field sampling strategy based on biodiversity and accessibility, but local capacity and country-specific laws and protocols must be factored into the costs. Beginning in a "first wave" of countries may increase interest in the project and allow other countries to join and jointly fund the project after value has been demonstrated.

The GVP's scope and goals – particularly, how to communicate the boundaries and scope of such a broad-reaching project and how to ensure the GVP has public health impact beyond academic research – were discussed at length, and this feedback is being incorporated into the mission and vision statements.

3. **Working group intersections and collaboration**

During the session when each of the working groups had short meetings each of the other working groups, areas of overlap were identified. "Sister" working groups – (*e.g.* metadata platform and data management) – committed to working together to achieve the most scientifically sound and feasible strategies for delivering on the GVP's goals were also identified.

(b)(6) established a May 1 goal for the first working group deliverables. It was agreed that generally, the strategic planning of the Science & Technology working groups should precede the tactical delivery of the Governance and Implementation working groups.

The way forward

All participants were called upon to present to their networks in upcoming conferences, meetings, and public fora, and the pitch deck and other explanatory materials will be shared with all participants. Many members of the steering committee expressed intereste in increasing their involvement, and were invited to reach out to the co-leads of working groups that interested them to join the budding working groups.

There was additionally a commitment to establishing an online hub where working group participants could communicate, upload files, jointly work on documents, and otherwise interact. Thematic leads were tasked with setting up a call schedule for their working groups and working with their groups to develop roadmaps.

From: (b)(6)
Sent: Thu, 16 May 2019 15:59:28 +0000
To: (b)(6) Peter Da
(b)(6)
Subject: GVP Call Agenda
Attachments: US China GVP partnership.5.15.19.docx, CVP Side Meeting D
Agenda_V2.docx

Hi All,

Looking forward to speaking soon, here's the agenda:

- China
- 501c3
- Thailand update
- Eri's updates (below, she's not joining)
- AOB

Best,

(b)(6)
U.S. Agency for International Development (USAID) Contractor
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Div
(b)(6)
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Cell:
E-mail: (b)(6) @usaid.gov

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U.S. & China's Interest in the Global Virome Project: an Opportunity for Global Health Cooperation

Summary

- The Global Virome Project (GVP) is a bold, ambitious 10-year 'big science' project to develop an atlas of the planet's naturally-occurring viral threats – driving the advanced development of countermeasures against future pandemics.
- Both the U.S. and China have expressed considerable interest in leading this global effort.
- China aims to launch a partner project, the "China Virome Project (CVP)" as part of the Belt & Road Initiative (BRI) with Chinese government funding to establish a pandemic threat research network among BRI countries.
- The U.S. is considering scientific and development assistance support to the GVP's global operations and affiliated National Virome programs.
- While the GVP will have to navigate complex issues concerning sharing of specimens and data across national borders, China and U.S. interest in the GVP represents a positive indication that health cooperation, safeguarding global health security, and advancing innovation in science presents new ground for potential U.S.-China collaboration.
- Absent U.S.G. leadership in GVP agenda-setting, governance, and funding, the Chinese government could take a leading position in this potentially path-breaking endeavor undermining years of USG leadership and considerable investment. Additionally, limited access to the information gained through these efforts may have serious national security implications.
- By playing a joint leadership role in the GVP, the U.S. and China have the opportunity to push innovations in science, catalyze advances in health science, and promote equitable access to the intellectual property and commerce that will come from it.

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Commente An equivalent statement will be inserted into the China doc

Health Security is a Global Agenda

We are in a pandemic era, where threats posed by epidemics are greater now than at any other point in human history. These diseases emerge and spread through our globalized travel and trade networks, so that wherever a new virus originates, once it begins to spread it rapidly gravitates to developed countries such as the U.S.A., and rapidly developing countries like China. They cause global mortality (e.g. HIV/AIDS, influenza, Ebola) and over $2.3 Trillion in projected costs for the next 30 years. The majority of these global threats originate from viruses carried by animals, e.g. HIV-1 from chimpanzees, Ebolavirus carried by bats in Africa. Global trends indicate that new microbial threats will continue to emerge at an accelerating rate, driven by our expanding population, growing interconnectedness, and increasing interactions with animal populations. Despite the potential impact of viral threats, the world remains unable to predict when, where, or from what species the next emerging virus will break out.

Breakthrough work funded by USAID shows that there are around 1.7 million unknown viruses in wildlife, spanning 24 viral families that have the potential to emerge in the future. Compared to the 260+ viruses known from humans, this viral "dark matter" represents 99.9% of the potential pandemic threat. Thus we expect there are likely thousands of unknown "SARS-like", "HIV-like" or "Ebola-like" viruses circulating in wildlife that could threaten human health. Currently we are working on vaccines for only a handful of these.

The GVP's Ambitious Goals

The GVP vision is an atlas of the majority of the planet's naturally-occurring viral threats over the next 10 years transforming the world of emerging diseases into a data-rich field. Doing this while these viruses still circulate in wildlife – their natural hosts – means we can better prepare for viruses before they emerge in people and cause devastating outbreaks. To do this will be costly, require work in

multiple countries, and international coordination and partnership to manage the decade-long project work, and support equitable data-sharing and access to benefits. A core group of scientific leaders, including leaders of U.S. agencies, members of the U.S. National Academy of Medicine, and Chinese and international collaborators have published a 10-year workplan to conduct the fieldwork, laboratory analysis and database development that will discover over 70% of the currently unknown viral threats so that we can develop strategies to prevent their emergence.

This work should transform our public health culture from responding to costly and devastating outbreaks, to preventing them. This includes pathogens that might otherwise devastate domesticated animal populations, benefitting global food security and livelihoods of farming communities of the world. The GVP database and atlas will catalyze advances in genomics, modeling, diagnostics, vaccine and countermeasure development and public health. These will include risk stratification of the newly discovered viruses to identify those most likely to threaten our health, and new ways to rapidly develop pan-viral family-level vaccines and countermeasures. With modest investments, this may lead to significant return to the biomedical industry and through benefits to public health.

The GVP requires global stewardship

The GVP looks to the Human Genome Project as a model, in which an ambitious vision led to the development of new technologies and a vast data resource now available to all. Unlike the Human Genome Project, sampling for the GVP will need to be multi-national so that the GVP by nature has an international scope. Rather, the GVP will be a federation of National Virome projects that will contribute to a shared data-portal. Thus GVP faces significant challenges: Who will own the samples that are collected from many countries? Where will they be analyzed? Will all GVP data be freely available to the public? The GVP core group is working on these legal and ethical issues, but without proper stewardship, these could hinder and stifle progress. A partnership involving strong engagement from U.S. and Chinese experts will greatly increase the success of this venture and enable experts to help shape the answers to these critical questions.

The Global Virome Project Provides China and the U.S. a Platform for International Collaboration

The GVP will, over the course of its lifetime, directly contribute to the enhanced capacities for preparedness and response in over 40 countries across Africa, Asia, and the Americas. The U.S.-China scientific leadership has publicly stated that the GVP is an excellent platform for increased U.S.-China collaboration to combat catastrophic threats at the intersection of animal and human health. It represents an opportunity to harness a cross-section of the very best of U.S. and China's scientific, technical and development assistance leadership to provide both funding and in-kind support. International NGOs and academics are likely to provide partial leadership for the GVP. U.S.-China leadership will need to ensure that their shared interests are adequately reflected in this effort.

The Scope of the U.S.-China Collaboration

Leading institutions in the U.S. and China would collaborate on the GVP at both the international level by supporting global operations of the GVP's central coordinating body or "Hub". At the national level, U.S.-China leadership would support the operations of National Virome projects in countries where diseases most often originate (rapidly developing countries) and which are closely connected to global travel and trade networks. Participants from the U.S. and China have respective strengths and resources that, when coordinated, could achieve greater development and health outcomes. Stakeholders include U.S. federal institutions (e.g. NIH, CDC, USAID), universities, and the private sector, as well as the Chinese federal research institutions (e.g. CAS, CAMS) and government agencies (e.g. NHFPC, CDC, CIDCA). These organizations already have formed collaborative links on a number of public health and

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disease research programs and are ready to coordinate without duplicating pre-existing or separate agreements or arrangements. Their focus will be to:

- Support the technical and operational activities of the GVP Hub, including the managing of the global data-portal.
- Provide technical support to develop human resources, training and field operations of the participating National Virome projects.
- Commit to transparent, coordinated collaboration in building an open-access database of viral information.
- Provide risk ranking information directly to WHO, CEPI and the GHSA so that prevention and control measures can be rapidly coordinated to combat newly identified threats.

By enhancing current collaborative ventures, providing joint support to build the U.S.-China GVP leadership and "hub", we will be able to rapidly move from waiting for the next pandemic to hit, to a state of global preparedness and prevention – the beginning of the end of the pandemic era.

China Virome Project (CVP) Meeting

July 27-28, 2019
Sun Island Garden Hotel, Harbin, China

Objectives:

- Introduce the concept of China Virome Project (CVP)
- Update on the status of Global Virome Project (GVP)
- Establish the China Virome Project committee and management framework
- Discuss current infectious diseases work supported by China and the roadmap to develop a China Virome Project

Expected Outputs:

- Committee of China Virome Project and management/coordination mechanism
- Draft outline for China Virome Project (aims, countries, timeline, milestones, and team)

DAY1 7/27	Dinner & Pre-meeting	
DAY2 7/28	**Morning**: Plenary Session	
09:15 -- 09:45	Introducing the Global Vriome Project: virome research as a global partnership	***TBD***
DAY 2 7/28	**Afternoon**: China Virome Project	
14:00 – 14:15	Introduction of CVP and discussion outline	
14:15 – 14:35	Proposed plan for CVP data management and sharing	
14:35 -- 14:55	Opportunities in BRI countries	
14:55 – 15:15	Lab techniques for China Virome Project	
15:15 – 15:30	Break/Photo	
15:30 – 17:30	Discussion – Outlining the China Virome Project - Countries - Species (human & animal) - Virus - Data standard - Funding resource - …	Moderator *TBD* All participants
DAY 2 7/28	**Evening**: Dinner and Group Meetings	

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Page 214 of 302

Withheld pursuant to exemption

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of the Freedom of Information and Privacy Act

Page 215 of 302

Withheld pursuant to exemption

(b)(6)

of the Freedom of Information and Privacy Act

From: (b)(6)
Sent: Mon, 20 Mar 2017 11:59:19 -0400
To: (b)(6)@who.int
Subject: Re: GVP Update - Exec Summary, Resource Deck, etc.
Attachments: BeijingGVPExecutiveSummary (2).docx

Hi (b)(6)

I've attached the executive summary, which will hopefully go through. It appears that the slide deck is too large for the WHO email addresses. If you have an alternative email for me to use, let me know. Otherwise, I'll see if I can shrink it.

Best,

(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)

Desk: (b)(6)
Cell: (
E-mail: (b)(6)@usaid.gov

On Sat, Mar 11, 2017 at 5:04 AM, (b)(6)@pasteur.fr> wrote:
Hi (b)(6) you can use my WHO email now: (b)(6)@who.int

On 11 Mar 2017, at 00:06, (b)(6)@usaid.gov> wrote:

Dear Colleagues,

If you're receiving this email, I received a notice that your email couldn't receive the attachments in the original email. If you have an alternate email you would like me to forward the slide deck to (as it's quite large), please let me know. I have reattached the executive summary in the hopes that it goes through.

Best,

(b)(6)
Emerging Threats Division

Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

---------- Forwarded message ----------
From: (b)(6) @usaid.gov>
Date: Fri, Mar 10, 2017 at 5:48 PM
Subject: GVP Update - Exec Summary, Resource Deck, etc.
To: (b)(6) @usaid.gov>
Cc: (b)(6) @usaid.gov>

Dear GVP Colleagues,
Happy Friday & weekend! We hope that you are all doing well and that things are great in your part of the world.
We wanted to provide a few quick updates as we reflect on the Beijing meeting and pursue next steps:
1) Newsletter: We hope you all received the "As the Virome Turns" newsletter (below). This will continue to be our method for providing updates on outreach, publications, etc. If you haven't signed up, please do so at the bottom of this email. If you have anything for inclusion, please send to (b)(6) @usaid.gov).
2) Executive Summary: Our amazing participant and (b)(6) has compiled an Executive Summary from the Beijing meeting (attached). Please let us know if you have any comments or thoughts about the summary.
3) Resource Deck: In order to facilitate your GVP-related presentations, we've been working on compiling a large set of slides from which you can all pick and choose to create your own, audience-specific presentations. We will continue to update this, but please find attached the first version for your use. We would love any feedback or additional slides to add!
4) May 1st Deadline: As the various working groups pull together their deliverables for the May 1st deadline, please note that your Thematic Area co-leads are a great resource for any questions. The co-leads will be meeting regularly to share information and identify opportunities for collaboration between the Thematic Areas.
5) Webinar: Following the May 1st deadline, we will be organizing an interactive webinar to share more details on the modeling strategy. We plan to record the webinar for those who are unable to attend. We'll distribute more details as they become available.
As always, please reach out if you have any questions or concerns!

Best,
(b)(6)
Emerging Threats Division

Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)
Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

---------- Forwarded message ----------
From: **GVP** <Globalviromeproject@gmail.com>
Date: Fri, Mar 10, 2017 at 2:13 PM
Subject: As the Virome Turns--Happy 2017!
To: (b)(6) @usaid.gov

View this email in your browser

Happy 2017! Since the last edition, quite a bit has taken place in Washington, but much more has taken place everywhere GVP Steering Committee members have traveled. With Spring almost here, and the beginning of Daylight savings time soon upon us, make sure to enjoy the extra sleep until Sunday, when you should remember to spring forward! Keep scrolling to see how GVP continues to beat on, both in person and in publications featuring our own (b)(6) and (b)(6) .

Last month the teams were busy, showcasing GVP globally and launching activities in key locations. Read the breakdown below:

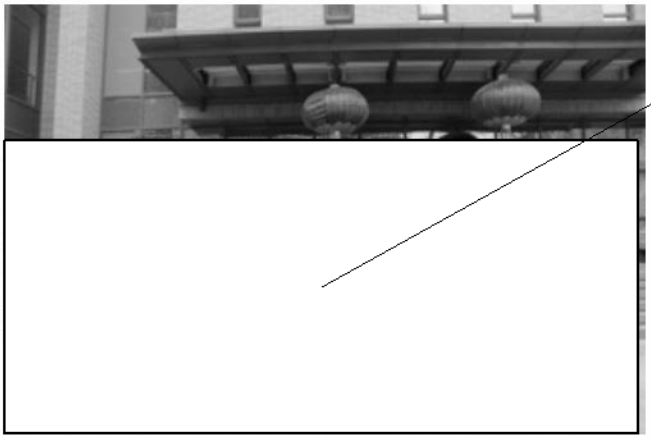
Miami Beach: 2017 Advances in Genome Biology and Technology Meeting, February 12

(b)(6) Metabiota) gave a keynote talk on the "Global Virome Project". This meeting represents the largest yearly gathering of genome scientists and technologists (~800).

Beijing: Feb. 5th – Feb. 8th

During their time in Beijing, (b)(6) and others met for the GVP steering committee meeting and "Launched" the China National Virome project! Audiences included USAID China colleagues, the GVP core group, steering committee, and working group co-leads, senior representatives from the Chinese Academy of Sciences, China CDC, the leadership from the Chinese Academy of Sciences International Affairs Division, and the health/science representatives from Embassy Beijing (State, USAID, NSF, HHS, CDC, NIH, etc.). We look forward to the Embassy's continued support of this opportunity moving forward.

- GVP Steering Committee: The GVP meeting was the second meeting of the steering committee and the first meeting of the extended group (working group co-leads). In addition to be a productive session helping to map out the way forward, the opportunity to bring together the individuals working in different technical areas allowed for extensive cross-talk and coordination.



- "Launch" of the China National Virome Project: The Chinese Academy of Sciences and the China CDC co-hosted a scientific forum to: 1. Present GVP, and 2. Higlight ongoing Chinese scientific work that aligns with GVP. Our Chinese colleagues are very enthusiastic about being a "first wave country" for the GVP – meaning that they would begin a National Virome Project. The next step is for them to set up an internal meeting to map out the way forward on their end.

Bangkok: Jan. 28th – Feb. 3rd

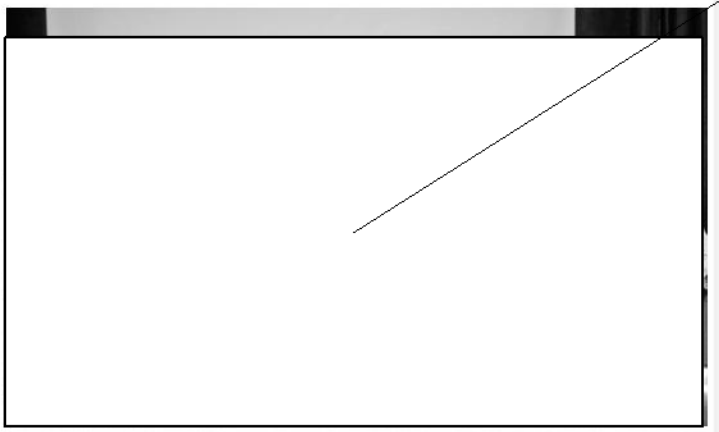
Several ETD members and other partners met in Bangkok, primarily to attend the PMAC 2018 planning meeting, PMAC 2017 side meetings on AMR & OneHealth Workforce, and to present on the GVP to Thai colleagues:

- AMR meeting: 125 participants from ministries of Ag and Health from 7 Asian countries and an equal number of major private sector firms (livestock producers, retailers and suppliers). Strong endorsement of expanded engagement across region for characterizing anti-biotic use among producers and promotion of good stewardship. Concrete next steps identified. Private sector has initiated steps to co-sponsor a similar meeting in Cairo to cover Middle East producers.
- One Health Workforce: a regional meeting bringing together representatives from across the OHW network in SE Asia and Africa and equivalent representation for similar networks funded by WB and Australia in South Asia. Highly interactive and laid the foundation for a broader

"web" of engagement across multiple networks.

- GVP: a very well received presentation and discussion on GVP to a broad cross-section of Thai government leaders, scientists and educators. Strong endorsement of role of the RTG in GVP.
- PMAC 2018: first meeting of the International Organizing Committee for PMAC 18 – with the theme of "Making the World Safe from the Threats of Emerging Infectious Diseases". USAID has a strong leadership role in planning for this meeting. PMAC 18 will cover both emerging viral threats as well as antimicrobial resistance. Abstracts should be submitted by following this link.

(b)(6)



San Francisco: Jan. 24th – Jan. 27th

During their time in San Francisco, folks held a series of GVP outreach meetings, notable with The Chan-Zuckerberg BioHub, Illumina, and the Science Philanthropy Alliance. All outreach meetings were successful in that colleagues expressed strong support and enthusiasm for the GVP:

- Illumina: (b)(6) (Metabiota), (b)(6) (USAID), (b)(6) (Metabiota) gave a presentation to senior Illumina management on the Global Virome Project. Illumina representatives included: (b)(6) (b)(6) Discussions included potential involvement of Illumina in the GVP, during which key representatives expressed a very strong interest in serving as a partner, focusing on the development of the "next generation" of technology related to diagnostics. Their involvement has potential to speed up the process through introduction of new technologies (similar to what occurred during the Human Genome Project).
- Science Philanthropy Alliance: SPA is a "clearing house" for a dozen major foundations

interested in supporting "transformative science". They expressed a strong sense that GVP was very much aligned with a number of their member foundations and are taking steps to facilitate future discussions with participating foundations

- Chan-Zuckerbeg BioHub: The BioHub (Stanford/UC Berkeley/UCSF) is interested in working with the GVP around the samples which will be collected and new technologies which may be used as part of the big data generated.

(b)(6)

Each working group continues to pursue deliverables planned for completion this May. Of note will be updates from the Science & Technology Team, which we will share in the next edition of As the Virome Turns.

(LC) USAID-01507

- GVP is Featured in Techonomy
- (b)(6) writes for the O'Neill Institute for Global Health and Law

Are you a new reader?

- Subscribe Here
- Read past editions here
- Contact (b)(6) at (b)(6)@usaid.gov if you would like to submit content for future editions of "As the Virome Turns"

Upcoming Events

- The Beginning of the End of the Pandemic Era: March 17
- SEAOHUN Fellowship Program Application Deadline: March 31
  An excellent opportunity for qualified individuals to gain practical, trans-disciplinary experience and contribute productively to One Health related projects at several host organizations. Follow this link to learn more and apply!
- PMAC 2018: Call for Abstracts, March 31,2017

GLOBAL VIROME PROJECT

Photo Credits: Gorilla Doctors Project, (b)(6) USAID, NIAID

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mailchimp

<BeijingGVPExecutiveSummary.docx>

Global Virome Project (GVP)

Steering Committee and Working Group Meeting

Beijing, China

6-7 February, 2017

Executive Summary

Drafted by (b)(6) *with input from:* (b)(6) *Peter Daszak,* (b)(6) *and* (b)(6) (b)(6)

Executive Summary

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The GVP's scope and goals – particularly, how to communicate the boundaries and scope of such a broad-reaching project and how to ensure the GVP has public health impact beyond academic research – were discussed at length, and this feedback is being incorporated into the mission and vision statements.

3. **Working group intersections and collaboration**

During the session when each of the working groups had short meetings each of the other working groups, areas of overlap were identified. "Sister" working groups – (*e.g.* metadata platform and data management) – committed to working together to achieve the most scientifically sound and feasible strategies for delivering on the GVP's goals were also identified.

(b)(6) established a May 1 goal for the first working group deliverables. It was agreed that generally, the strategic planning of the Science & Technology working groups should precede the tactical delivery of the Governance and Implementation working groups.

The way forward

All participants were called upon to present to their networks in upcoming conferences, meetings, and public fora, and the pitch deck and other explanatory materials will be shared with all participants. Many members of the steering committee expressed intereste in increasing their involvement, and were invited to reach out to the co-leads of working groups that interested them to join the budding working groups.

There was additionally a commitment to establishing an online hub where working group participants could communicate, upload files, jointly work on documents, and otherwise interact. Thematic leads were tasked with setting up a call schedule for their working groups and working with their groups to develop roadmaps.

From: (b)(6)
Sent: Mon, 13 Aug 2018 17:59:13 +0000
To: (b)(6) Peter Daszak; (b)(6)
Cc: (b)(6)
Subject: [GVP] Action Requested - Update Thailand Agenda
Attachments: 04 Thailand National Virome Project_Draft Agenda_June 29_(b)(6) docx

Hi GVP Colleagues,

As per our conversation on Thursday, we would like to request your assistance in updating the agenda for the Thailand National Meeting, to be held Oct. 24-25 in Bangkok. In particular, we would like to ensure that speaker name and session titles have been added.

Please input your edits tothis google doc. If you're unable to access it, I have also attached a recent draft of the agenda in which you can make your edits. In case helpful for framing, I've pasted below some feedback from the GoT that Sudarat shared.

We would appreciate your feedback by **COB Wednesday, 8/15**.

Thanks!
(b)(6)

Feedback
Please see attachment the 2nd draft agenda from the prep meeting on July 17. They would like to hear more details on GVP including questions and answers, the support of the project, more concerns on virus and sequencing information, modeling, data analysis. Additionally, they would like to hear more form China if China already starts the project and on the process of establishing China national virome project.

(b)(6)
U.S. Agency for International Development (USAID) (b)(6)
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
(b)(6)

Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

(b)(6)

Roundtable Dialogue Toward Establishing a Thailand National Virome Project

September 2018 (TBD)

Objectives:

- Further introduce and update status on the Global Virome Project
- Identify and synthesize Thailand's viral discovery and risk analysis expertise
- Discuss Thailand's capacities in the context of the GVP, and build consensus around key goals to be achieved in developing a Thailand National Virome Project

Expected Outputs:

- Summary report and synthesis of Thailand's viral discovery and risk analysis landscape
- Draft roadmap and iterative milestones in developing a Thailand National Virome Project

September xx, 2018

8:30 – 9:00 am	Registration	
I. Introduction		
9:00 – 9:30 am	Opening Remarks -Ministry of Public Health, DMSC -Ministry of Science and Technology, NSTDA	
9:30 – 10:30 am	Presentation of the Global Virome Project	(b)(6) Requested issues to be covered 1. Background 2. IT infrastructure, Data management & sharing 3. Governance 4. Budget / site 5. Sample repository, sharing and MTA 6. IP 7. Related regulations/int. protocols

		8. Experiences &lesson learned from past projects (conflicts, problems, difficulties) 9. Capacity building 10. Q&A
10:30 – 11:00 am	Coffee Break	
II. The Mechanics of a Global Virome Project		
11:00 – 11:45 am	GVP Structure at Global and National Levels - Thematic Areas: o Governance; S&T; Implementation - Phased Approach	(b)(6)
11:45am – 12:30 pm	Viral Discovery in the Global and Asia Regional Contexts: Key Lessons and Experiences	
12:30 – 1:30 pm	Lunch	
1:30 – 2:30 pm	GVP Approach to sampling plan	Peter Daszak (if available)
	Proposed plan for GVP Information Management (IM)	(b)(6)
2:30 – 3:00 pm	Coffee Break	
III. *Thailand's Viral Discovery & Risk Analysis Landscape (7 min each) (What have been done, not details)*		
3:00 – 3:10 pm	Chulalongkorn University, Faculty of Medicine, Center for Viral Zoonoses	(b)(6)
3:10 – 3:20 pm	Mahidol University (Tropical Medicine Faculty)	
3:20 – 3:30 pm	Mahidol University (Faculty of Veterinary Science)	
3:30 – 3:40 pm	Ministry of Science and Technology	
3:40 – 3:50 pm	Ministry of Public Health, Department of Medical Sciences, National Institute of Health (NIH)	
3:50 – 4:00 pm	NSTDA	

(b)(6)

Commented [redacted] confirmed as unavailable to give modeling talk

(b)(6)

Commented [redacted] Change to Thiravat?

(b)(6)

Commented [redacted] Not sure if we should have Ministry of Science and Technology again here in this section for substantive content or if having the time at the introductory remarks position is sufficient

	Short break	
4:10 – 4:20 pm	Ministry of Ag and Cooperatives, National Institute of Animal Health	(b)(6)
4:10 – 4:20 pm	Thailand Research Fund	TBC
4:20 – 4:30 pm	CRI	
4:30 – 4:40 pm	DDC&BIDI? One Health Coordinator?	
4:40 – 4:50 pm	AFRIMS or US CDC?/FAO	

September xx + 1, 2018

IV. Developing a Thailand Virome Project		
8:30 – 9:00 am	Summary of Thailand's Viral Discovery & Risk Analysis Capacities, Equities, and Expertise	To be presented in a synthesis form, by category (e.g. diagnostics, interface characterization) from previous day's presentations
9:00 – 11:30 am (including coffee break)	Introduction to Group Deliberations and Group Discussion - Moderated Breakout Groups By Thematic Area to Discuss Structural Options for a Thailand Virome Project	
11:30 – 12:30 pm	Readout of Group Discussions by Thematic Area - Governance - Science and Technology - Implementation	List of issues to be discussed should be provided Request for information from the previous meeting for preparation of the breakout session

(b)(6)

Commented Need recommendation for speakers? Or to be decided at the meeting?

(b)(6)

Commented We suggest shortening this section and possibly the next to make room for above inserts

12:30 –1:30pm	Lunch	
V. Roadmap to a Thailand Virome Project		
1:30 – 3:00 pm	Draft Roadmap Development and Next Steps - Presentation of draft roadmap following thematic area recommendations - Key milestones - Q/A	
3:00 – 3:30 pm	Summary and Closing Remarks	

Participating Institutions (tentative invitation issuance):

1. Ministry of Public Health , Department of Medical Sciences (DMSC), National Institute of Health 4 DDC/4 8
2. Ministry of Agriculture and Cooperatives , National Institute for Animal Health (NIAH) 4
3. Ministry of Natural Resources and Environment, Department of National Parks (DNP) 2
4. Ministry of Science and Technology, National Science Technology Development Agency (NSTDA) 4
5. Chulalongkorn University, Faculty of Medicine, Center for Viral Zoonoses 2
6. Mahidol University, Faculty of Tropical Medicine 2
7. Mahidol University, Faculty of Veterinary Science 2
8. Mahidol University, Faculty of Science 2
9. CU EIDAS Center 1 (AH) ข อลงกรณ์ 1
10. Thailand One Health University Network (ThOHUN) 1
11. Thailand Research Fund (TRF) 1
12. Food and Agriculture Organization of the United Nations 3
13. World Health Organization 1
14. U.S. Centers for Disease Control and Prevention/Thailand 2
15. Armed Forces Research Institute for Medical 2

(b)(6)

Commented

Sciences (AFRIMS)	
16. U.S. Agency for International Development	3
17. U.S. Embassy Bangkok	1
18. Zoo Park Organization of Thailand	2
19. (b)(6)	1
20.	1
21.	1
22.	1
23.	1
24. (b)(6)	1
25. BLQS 1	1
26. The Thailand Research Fund	1
27. TCELs 2	1
28. IHPP 1	1
29. (b)(6) (b)(6)	1
30. King Mongkut's University of Technology Thonburi (KMUTT)	1
31. Chiangmai University	1
32. MFA, Department of Treaties and Legal Affairs	1
33. chulabhorn research institute	1
34. อ อรุณี ศิริราช	1
Total	51
working group	
35. Admin	4
36. Facilitator	4
37. Note Taker	5

38. Raporteurs

From: (b)(6)
Sent: Thu, 16 Feb 2017 21:26:20 +0000
To: (b)(6)
Subject: Fwd: China National Virome Project (CNVP) Initiative Meeting Follow-up

In case this is an easier way to get the photos (not sure why it would be, but just in case ;)).

(b)(6)
Emerging Threats Division
Office of Infectious Disease
Bureau for Global Health
U.S. Agency for International Development (USAID)

Desk: (b)(6)
Cell:
E-mail: (b)(6)@usaid.gov

---------- Forwarded message ----------
From: (b)(6) @ecohealthalliance.org>
Date: Thu, Feb 16, 2017 at 11:52 AM
Subject: China National Virome Project (CNVP) Initiative Meeting Follow-up
To: (b)(6) @im.ac.cn>

Download full resolution images
Available until Mar 18, 2017

Dear All,

Thank you very much for joining us in Beijing for the China National Virome Project Initiative Meeting. We appreciate your insights and participation in the discussion about this initiative. We were also able to report this meeting and concept to the Chinese Academy of Sciences HQ with the US Embassy on Wednesday, optimistic responses were received and we all look forward to having further activities to move this project forward.

Because of the limited discussion time at the meeting, we would like to invite you to send (b)(6) (b)(6) and me any thoughts you have about this CNVP, in Chinese or English, including any opportunities to reach out, raise funds, and collaborate, and ideas to work together to build this into a national project. We will follow up to arrange more meetings and activities for discussion and communication as we move forward.

Group photos and presentation slides (in PDF) were attached, and more information about the Global Vriome Project can be found on its official website: http://www.globalviromeproject.org//. Please feel free to let me know if you have any questions as a result of this meeting.

Thanks again, hope to be in touch soon with further discussions and meetings.

Best Regards,
(b)(6)
!

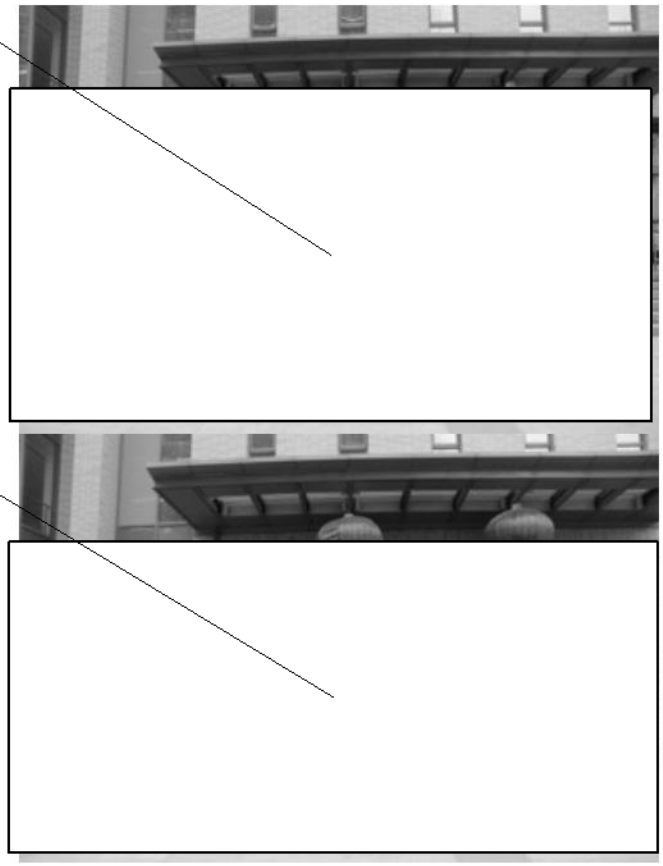
(b)(6)

EcoHealth Alliance
460 West 34th Street – 17th floor
New York, NY 10001

(b)(6) (U.S. mobile)
(b)(6) (China mobile)
(b)(6) (Skype)
(WeChat)

EcoHealth Alliance leads cutting-edge research into the critical connections between human and wildlife health and delicate ecosystems. With this science we develop solutions that promote conservation and prevent pandemics.

(b)(6)



(b)(6)

Global
Virome
Project

Date

Name
Address

Re: **The Global Virome Project: From BIG SCIENCE to BIG IMPACT**
Making the 21st Century Safe from Emerging Viral Threats

(b)(6)

Commente Should the subject be related to the meeting invitation?

Dear ~~Name~~_____,

Thank you for your support of the Global Virome Project (GVP) to date. I would like to extend a formal invitation to the second meeting of the Global Virome Project (GVP) Steering Committee, planned for February 5-7, 2017 in Beijing, China.

~~Thank you for your interest and support of the Global Virome Project (GVP) to date.~~ As you know, the GVP is a planned international science venture aimed at collaboratively generating and interpreting data to accelerate progress in combatting the threats posed by emergent viruses to both human and animal populations. The GVP represents a dramatic step towards mapping all of the planet's "high consequence" viral threats and enabling the building of a comprehensive toolbox of countermeasures for the prevention and control of future emergent threats which pose the greatest risk to humans.

This participatory convening will involve participation of the GVP Steering Committee, the Thematic Area co-leads, and the Working Group co-chairs. The goal of the meeting is to build upon the consensus vision developed during the Bellagio meeting and further refine the roadmap for the global launch of the GVP.

~~Momentum is building! With a focus on proactive vs. reactive defense in the face of new pandemic threats, the GVP promises to mitigate the social and economic consequences of these diseases. Now the best and brightest minds, including you, are being enlisted to provide leadership for a strategic approach to the project's governance. Our goal is to foster global ownership and international stewardship for the project.~~

As you are aware, the ~~W~~GVP Working Groups have been ~~envisioned~~ developed to steer the planning and implementation of the GVP. They ~~will be~~are organized around three major themes: Governance, Science and Technology, and Operations, with specific working groups detailed below ~~under each theme~~.

(b)(6)
Ethical, Legal, and Social Implications (ELSI)
Governance/Advisory/Partnerships
Intellectual Property (IP)

Science & Technology Theme, Co Chairs, Peter Daszak (USA/UK) (b)(6) **(China)**
Lab Platform
Modeling & Risk Analytics
Metadata Platform
Behavioral Risk

Global
Virome
Project

(b)(6)

General Management & Partner Engagement
Communications & Outreach
Field Operations
Lab & Biosafety Implementation
Data Management

Bringing together representative from the Steering Committee, Thematic Areas, and Working Groups will enable us to chart the path forward and identify the expected ongoing time commitment. We hope that you will be able to participate in this important convening.

Please confirm your participation by contacting XXXX, ….

Global
Virome
Project

Now, as we build this alliance of partners, we are delighted to invite you to collaborate. Please consider the profound difference you can make by participating in this paradigm shift for global health as you contemplate your acceptance. Practically, there is a commitment. Already we would ask you to save the date for an introductory assembly of the working group leads in Beijing February 5-7, 2017. Reimbursement for travel costs will be provided. That meeting will help us to chart the path forward and identify the expected ongoing time commitment. To confirm your participation in the Beijing meeting and receive the logistical packet, please contact xxxxxx

I look forward to your participation in this meeting,
Thank you for considering,

(b)(6)

(b)(6) Emerging Threats Division
U.S. Agency for International Development
Office: (b)(6)
Mobile:

(b)(6)

School of Veterinary Medicine, University of California, Davis
Office:

Attached: GVP Bellagio Initiative
Working Group Terms of Reference

(b)(6)

Commented Is this a generic one for their review? If this was for the WG chairs, then would

From: (b)(6)
Sent: Tue, 18 Jun 2019 13:49:44 +0000
To: Peter Daszak
Subject: Re: Timeline for the GVP 501c3 filing

:)

(b)(6)
U.S. Agency for International Development (USAID) (b)(6)
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
(b)(6)

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(b)(6)

On Mon, Jun 17, 2019 at 2:14 PM Peter Daszak <daszak@ecohealthalliance.org> wrote:

Dear All,

I just wanted to check back in with you all and let you know where we are in the process of launching the GVP 501c3. Right now, the filing documents have been drafted, reviewed and revised by myself, (b)(6), and are back with our *pro bono* lawyers for final versions to be prepared.

We're planning to file on or around September 1st 2019 and at that point, or just before, we'll send documents out for your signatures. We'll then look for dates to set up our first Board meeting towards the end of the year, or early 2020.

In the meantime, we're still working hard to build the background case for the GVP with economic analyses of the return-on-investment case for the GVP, modeling to target surveillance, and extensive discussions with Thailand and China colleagues to work on the details of the Thai Virome Project (TVP) and the China Virome Project (CVP).

From: (b)(6)
Sent: Fri, 5 Jul 2019 16:22:10 +0000
To: (b)(6)
Cc: (b)(6) Peter Daszak; (b)(6)
Subject: Re: Biosketch and agenda for the China Virome Project Meeting

Hi (b)(6),

All sounds good, thanks so much!

Best,

(b)(6)
U.S. Agency for International Development (USAID) (b)(6)
Bureau for Global Health, Office of Infectious Disease, Emerging Threats Division
(b)(6)

Desk: (b)(6)
Cell:
E-mail: (b)(6) @usaid.gov

(b)(6)

On Wed, Jul 3, 2019 at 6:39 PM (b)(6) @ecohealthalliance.org> wrote:
Thank you very much, (b)(6) this is perfect! I'll get it translated into Mandarin.
For the title, I'll submit the Chinese version of (just) "Global Virome Project" for now, and I think there is still another chance to revise if we want.

Cheers,
(b)(6)

On Wed, Jul 3, 2019 at 5:09 PM (b)(6) @usaid.gov> wrote:
Hi (b)(6)

Please find attached an updated version of (b)(6) bio and photo attached. Will this work? I'll have to defer to him and Peter on the other parts of your request.

Best,
(b)(6)