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ONE HEALTH WORKFORCE

NEXT GENERATION: SOUTHEAST ASIA

Health Conference

5-7 September 2022 | Grand Richmond Hotel, Thailand

YEAR 3 ANNUAL REPORT

October 2021 – September 2022







This publication was prepared by the Southeast Asia One Health University Network headquartered at Chiangmai City, Chiangmai Province, Thailand.

SEAOHUN Secretariat

119/85 Moo 5, Suthep, Muang
Chiang Mai 50200, Thailand
+66-52-010-069

www.seaohun.org

EDITOR

Gabrielle Iglesias

EDITORIAL CONTRIBUTIONS

Robert Driscoll
Vipat Kuruchittham
Wah Wah Lwin

LAYOUT & DESIGN

Ye Myint Aung

SUGGESTED CITATION

SEAOHUN. 2022 OHW-NG Annual Report. SEAOHUN Secretariat, December 2022.

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highlighted the critical need for sustained engagement with universities, who are uniquely positioned to integrate collaborative One Health approaches and core competencies in pre-service education and in-service training programs from national to regional and global levels.

In addition, Year 3 (October 2021 – September 2022) was a transition year as SEAOHUN's organizational capacities met the requirements to receive direct funding from USAID starting in Year 4. Our ability to manage the direct funding from USAID will increase our competitiveness in seeking other opportunities to sustain the network in the long term. Moreover, Year 3 marked the 10th anniversary of SEAOHUN. The achievements gained over the decade could not have happened without our partners and supporters. SEAOHUN thanks the Global OHW-NG Consortium who has been providing us with invaluable assistance in shaping the project's interventions to raise capacities of the One Health workforce in the region and the capacity of SEAOHUN to manage funding from multiple projects. We also thank all our partners who support our programs at regional and country levels. We especially thank the United States Agency for International Development for its continued support for strengthening One Health workforce and institutionalizing One Health into university offerings, and thank Chevron for supporting us in strengthening One Health education at all levels in Southeast Asia and beyond.

A regional network like SEAOHUN is as strong as our country networks. SEAOHUN and our One Health University Networks in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Thailand, and Vietnam look forward to working together with our partners to develop a resilient and competent One Health workforce with the right skills set and mindset to address global health challenges.

Vipat Kuruchittham
Executive Director, SEAOHUN

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ACRONYMS

AMR	Antimicrobial Resistance
CAMBOHUN	Cambodia One Health University Network
COVID-19	Coronavirus Disease 2019
INDOHUN	Indonesia One Health University Network
LAOHUN	Lao One Health University Network
MMOHUN	Myanmar One Health University Network
MoECRT	Ministry of Education, Culture, Research, and Technology (Indonesia)
MyOHUN	Malaysia One Health University Network
NCO	National Coordinating Office
OHCC	One Health Collaborating Center
OHS	One Health Site
OHSC	One Health Student Club
OHW-NG	One Health Workforce - Next Generation
PhilOHUN	Philippine One Health University Network
SEAOHUN	Southeast Asia One Health University Network
THOHUN	Thailand One Health University Network
USAID	United States Agency for International Development
VOHUN	Vietnam One Health University Network

One Health Workforce - Next Generation Project: Achievements for Year 3



Activity

Send university st
communities for risk

ty Mentors
tics support
real will

Partner

Activity

WORLD
FAO

Quddpartife Zoonosis

- 1) Multi-sectoral mechanism
- universities + publ
- surveillance + info-shar
- 2) Joint risk assessment

Universities
can be brought
here →

- training
- operations
- research
- participate actively

NH Bridging workshops

- cities decide how to prepare
- respond to out breaks
- JEE ~~for~~ PVS pathway
- Bringing sectors together
- surge capacity discussed
- develop roadmap

FAO

- internships for students /
- SEAOHUN Fellows*
- SEAOHUN small groups

Joint Plan of Action

FEITIN

- if universities can expand
- 2) epi training - basic, degree, diploma
- commit to degree

RESOURCE

• LACK OF EVIDENCE FOR COMMUNITY ENGAGEMENT

Photo credit: SEAOHUN

SEAOHUN

SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK

ABOUT SEAOHUN

- The Southeast Asia One Health University Network is a leading regional network of universities collaborating to strengthen One Health workforce capacity and build the next generation of One Health professionals who help prevent, detect, and respond to infectious disease threats.
- Our mission: to develop a resilient and competent One Health workforce by leveraging education, research, and training provided by Member Universities in Southeast Asia.
- Our vision: a regional network of universities in Southeast Asia generating social and intellectual excellence on One Health.
- Eight country networks: Cambodia (CAMBOHUN), Indonesia (INDOHUN), Lao PDR (LAOHUN), Malaysia (MyOHUN), Myanmar (MMOHUN), the Philippines (PhilOHUN), Thailand (THOHUN), and Viet Nam (VOHUN).
- Build Immunity for Humanity: The SEAOHUN Secretariat represents the Network at global and regional meetings to advocate for the role of universities to help solve complex One Health challenges and work in synergy with other development partners.
- Established in 2011.
- Visit our website at www.seaohun.org.

NETWORK OVERVIEW



8
Countries



99
Member
Universities



1,341
Participants in One Health
Student Club



90
Activities Conducted
in Year 3

Highlights

- SEAOHUN hosted the 2022 SEAOHUN International Conference, with over 300 participants from 34 countries in attendance; 5-7 September 2022, Nonthaburi, Thailand.
- The 2022 SEAOHUN Partnership Meeting held 8 September 2022 in Nonthaburi, Thailand drew 89 current and potential partners.
- SEAOHUN welcomed as a new member of the Global Health Security Agenda, October 2021.
- 10 scholarships awarded to early career professionals from member countries to pursue Master's Degrees in One Health disciplines.
- SEAOHUN supported eight fellows at seven host organizations in six countries.
- 29 students joined SEAOHUN Student Journal Club Webinar: Gender in One Health on 26 March 2022.
- 41 participants from student teams of eight member countries joined the SEAOHUN 2022 Student Summit held at Kasetsart University, Kamphaeng Saen, Thailand, on 3-5 September 2022.
- “Communicating the Impact of AMR through Art” webinar held on 21 September 2022 to share ideas on effective communication of One Health research findings.
- Recipients of SEAOHUN Year 2 small grants (13 projects) completed activities and submitted their output and deliverables to SEAOHUN Secretariat.
- For project Year 3, the regional Small Grants Program gave a total of 12 awards; three projects were finished in this period.



1,928

**Individuals Trained
in One Health Topics**



35

**Scholarships and
Fellowships Awarded**



14

**Partnerships
Developed**



146

**Informational Products
Developed**

Activities

OBJECTIVE I

One Health capacity building in pre-service and in-service health professionals

SEAOHUN awarded ten scholarships to successful applicants from Cambodia, Indonesia, Malaysia, Myanmar, and Viet Nam. These scholarships aim to develop the One Health workforce by supporting early career professionals in areas including public health, epidemiology, medical science research, veterinary science, and primary health care management. Through their studies, scholars gained post-graduate level knowledge in One Health related subjects and research competencies that will help build their careers in One Health related fields. After graduation, the scholars are expected to work in multidisciplinary settings of academic institutions, government, and international organizations to prevent, detect and respond to infectious disease threats and other public health issues.

SEAOHUN continues its Regional Fellowship Program in Year 3, providing ongoing learning for early and mid-career professionals with prior experience or training in One Health. This program enables participating professionals to integrate

their existing One Health knowledge and skills with new skills gained from their work at a host institute. SEAOHUN has partnered with a number of institutions, government agencies, and international policy-making organizations in Southeast Asia to match the partner institute’s needs with the training needs of the prospective fellow. In Year 3, SEAOHUN provided fellowship awards to eight fellows at seven host institutes in six countries. The host organizations are the FAO representation office in Cambodia, the School of Veterinary Medicine and Biomedical Sciences and the Primate Research Center of Bogor Agricultural University in Indonesia, the Lao-Oxford-Mahosot Hospital-Wellcome Trust Research Unit in Lao PDR, the Institute for Medical Research in Malaysia, the Tropical Disease Research Center, Khon Kaen University in Thailand, and the International Livestock Research Institute in Vietnam. Ms. Vilaiphone Phomsisavath, one of this year’s fellows, submitted an abstract and was subsequently selected to present at the 7th World One Health Congress in Singapore.

Strengthening networking, technical knowledge and communication skills among the future generation of One Health professionals

SEAOHUN started its first Student Journal Club webinar with the topic of “Gender in One Health” on 26 March 2022, which coincided with the celebration of International Women’s Day. A total of 29 students from ten countries joined the webinar, including student volunteers from Indonesia, Malaysia, Thailand and Viet Nam who assisted in organizing and facilitating. This includes seven student volunteers from Indonesia, Malaysia, Thailand and Viet Nam assisted in organization and facilitating the webinar. Students had the opportunity to learn from their peers, exploring together One Health related literature and research articles. During the Student Journal Club webinar, students discussed articles about integrating gender into disease outbreak preparedness and response, bringing up ideas and solutions to solve the problem in the respective country contexts of the students.



SEAOHUN Fellow Dinda Nur Hidayah preparing polymerase chain action samples at the host institution, Primate Research Center of IPB` University in Indonesia, to contribute to research on Orthopoxvirus detection. Photo source: Dinda Nur Hidayah

Kasetsart University, in collaboration with Thailand One Health University Network and the SEAOHUN Secretariat, hosted the SEAOHUN 2022 Student Summit on 3-5 September 2022. With the theme of “Fostering One Health Leaders”, the summit brought together a total of 41 participants (34 students and seven faculty advisors) of different One Health disciplines from Cambodia, Indonesia, Laos, Malaysia, Philippines, Taiwan, Thailand, and Viet Nam, including the winners from the 2021 SEAOHUN Regional Student Competition. In addition, the summit featured interactive learning in the classroom, field visits to local aquaculture and plant farms, and the opportunity to learn and expand the students’ One Health knowledge and skills while building friendships and strengthening their professional networks.

SEAOHUN kicked off the 2022 Regional Students Competition, which aims to strengthen students’ knowledge and skills in risk communication and creativity related to One Health. The theme for 2022 is “Communicating antimicrobial resistance (AMR) through Art”. The competition was announced on 21 September 2022, and the students were invited to form two-member, cross-disciplinary teams and challenged to create visual art to communicate the theme to a non-scientific community. Following the competition’s announcement, the SEAOHUN Secretariat hosted a webinar “Communicating the Impact of AMR through Art” on 26 September 2022. In this webinar, experts from the OHW-NG Global Consortium shared technical background information on AMR along with information and ideas on communicating scientific facts and research findings through art.

Leveraging One Health research and training through the regional Small Grants Program

The SEAOHUN Small Grants Program, launched in July 2020, supports in-service health professionals and faculty members to develop innovative research and training addressing complex One Health challenges. Since the program's start, SEAOHUN has supported a total of 33 small grants, including 12 in six countries in 2022 (Year 3), covering curriculum development, scientific research, and training in One Health. As in previous years, the design and roll-out of the 2022 program was done in partnership with a number of partners, including the FAO Regional Office for Asia and the Pacific, the ASEAN Plus Three Field Epidemiology Training Network, the Regional Field Epidemiology Training Program for Veterinarians, and member Universities.

To illustrate possible achievements under these grants, one team led by Dr. Nur Juliani Shafie of set up a website¹ providing updates on their research and other key information as part of their project's goal of knowledge transfer and collaborative networking on building resilience against leptospirosis. Under the SEAOHUN 2022 Small Grants Program, different types of One Health Research Activities, promotion of One Health concepts, COVID-19 research, and epidemiology assessment ultimately helped raise the capacity of One Health professionals. Read more in our [Success Story](#).

¹ project.lepto.com

OBJECTIVE 2

The Secretariat is supporting the efforts for promoting competency-based approaches to One Health education. Two staff members attended the SEAOHUN Competency-based Education Workshop held in Bangkok, Thailand on 24 to 27 May 2022. Spearheaded by the Objective 2 Lead and co-organized with the SEAOHUN Secretariat, the workshop-cum-Training of Trainers enabled representatives from seven country networks to draw up their respective draft action plans for similar workshops and promote the application of the concept. The Secretariat is working closely with respective country networks and the Objective 2 team to establish a competency-based education and assessment virtual community of practice in OHW-NG Y4. This community of practice will provide opportunity for faculty members from different SEAOHUN universities to share their experiences, successes and challenges in implementing One Health competency-based education



Delegates to the SEAOHUN 2022 Student Summit visit an orchid farm to learn One Health aspects of horticulture. Photo credit: SEAOHUN

in their respective curricula and training programs. The Secretariat is working closely with respective country networks and the Objective 2 team to establish a competency-based education and assessment virtual community of practice in OHW-NG Y4. This community of practice will provide opportunity for faculty members from different SEAOHUN universities to share their experiences, successes and challenges in implementing One Health competency-based education in their respective curricula and training programs.

OBJECTIVE 3

SEAOHUN joins the GHSA

At the beginning of the project year, the SEAOHUN was honored with acceptance among the countries and organizations of the Global Health Security Agenda. Read more in our Success Story in the OHW-NG Project Year 3 Semi-Annual Report 2021-2022.

SEAOHUN catalyzes exchange and collaboration with series of events in September 2022

SEAOHUN organized a series of events in September 2022, attracting One Health professionals from around the world. The signature event, the 2022 SEAOHUN International Conference, provided a focus for the Student Summit, field site visits, and academic-public-private partnership meeting. To kick off the SEAOHUN 2022 International Conference, participants had the opportunity to visit the Thailand Ministry of Public Health and a Lyle's flying fox site in Chonburi province. The visit to the MoPH allowed participants to visit the Emergency Operations Center which is the command center for monitoring outbreaks and managing responses and listen to insights and lessons of Thailand's detection, prevention, response, and control of the COVID-19 pandemic. In addition, visitors to Chonburi had the opportunity to listen to experts on Nipah virus which is found in Lyle's flying foxes and see demonstrations of how urine from the flying fox is safely collected.

The SEAOHUN 2022 International Conference brought together practitioners, researchers, policy makers, students, and other to stakeholders for over two days to share knowledge and expertise on specific One Health challenges and approaches used to combat emerging health threats. The conference focused on four tracks: One Health Education, Policy Gaps and Partnership Needs in One Health, Lessons Learned from the COVID-19 pandemic, and Combating Antimicrobial Resistance using One Health Approach. The conference included remarks by Dr. Dennis Carroll, who delivered an inspirational keynote address about the urgency of multisectoral response to address the overall health and well-being of humans, animals, and our shared



Photo: Dr. Woutrina Smith presenting at the SEAOHUN 2022 International Conference in Thailand. Photo credit: SEAOHUN

environments, which are interconnected by collaborative One Health approach. Three plenary sessions included: innovations to stop future pandemics; Three plenary sessions included: innovations to stop future pandemics; catalyzing One Health citizens of the future; and combating a silent pandemic: antimicrobial resistance, which were conducted by distinguished One Health experts. The conference highlights included in-depth oral and poster presentations provided by selected One Health University Network faculty, scientific researchers, and students.

After the conference, SEAOHUN convened a day-long One Health partnership workshop with 89 educators, researchers, and practitioners to explore areas for collaboration across academic, public, and private sectors. Participants helped conduct a modified gap analysis on topics including: One Health education and training, One Health research, surveillance and laboratory capacity, and surge capacity, with the overall goal of identifying ways to establish and strengthen partnerships between universities and public and private sector partners. This included:

1. building the business case and value proposition of One Health,
2. translating One Health research into policy and action,
3. continuing professional development for in-service personnel,
4. providing risk communication training for university students,

5. broadening One Health surveillance and
6. climate change research for One Health.

Lessons Learned

Increase and intensify engagement of students

For pre-service support, it is important to strengthen engagement and coordination of SEAOHUN's activities to maximize impact. For instance, SEAOHUN could only do one student webinar during the reporting period. More student turnout and networking among students can be anticipated if webinars are done regularly, thus raising visibility of and interest in our work. This, in turn, could create better turnout for other student engagement work, such as the annual regional competition and utilizing normal channels, such as dissemination through partners and social media channels.

Diversify SEAOHUN's partners for the Fellowship Program

While SEAOHUN's Fellowship Program has successfully enhanced professionals' knowledge and skills, partnerships can be further diversified to better leverage private sector resources and expertise to enhance the program.

Leverage events such as international conferences as a source of revenue

The SEAOHUN 2022 International Conference was regarded as a success and beneficial to the participants. There is substantial opportunity to leverage this kind of event to generate income in the future. For the

next conference, SEAOHUN will do further analysis of earning potential from such an event to develop a pricing plan for potential participants, in addition to identifying potential sponsors earlier.

Next Steps

The SEAOHUN Secretariat's USAID Transition Award was approved with a start date of 1 October 2022. SEAOHUN's four flagship programs will continue though some of the work will be phased out from OHW-NG (e.g., scholarships), immediately shifted to the Transition Award (e.g. student engagement), and in the case of the Small Grants Program, both projects will support this.

The 2022 Regional Students Competition is anticipated to be completed in November 2022, there will be up to two winning teams per country for two art categories. The competition is planned to wrap up with the winner announced during the World Antimicrobial Awareness Week (18-24 November 2022).

In Year 4, the SEAOHUN Secretariat plans to continue to provide scholarships to graduate students for their master's degree studies. The Regional Student Competition will continue in 2023 with more innovative and engaging ways for the students to communicate One Health issues to the public. In addition to these two programs, three new student-related activities will be introduced under the Transition Award.

SEAOHUN will continue its Small Grants Program where the Transition Award will support projects focused on AMR or COVID-19 and OHW-NG will support all other One Health-related topics. The SEAOHUN Fellowship program will continue engaging suitable institutes that could host potential fellows from member countries.

Important Links

Regional Programs

- Small grants: <https://www.seaohun.org/small-grants>
- Fellowship: <https://www.seaohun.org/fellowship>
- Scholarships: <https://www.seaohun.org/scholarship>
- Student Engagement: <https://www.seaohun.org/student-engagement>
- SEAOHUN 2022 International Conference: <https://bit.ly/2022ConferencePost>



*Pre-conference site visit demonstrates safe collection techniques of pooled urine samples of the Lyle's flying fox (*Pteropus lylei*) at Wat Luang Phrommawat, Chonburi, Thailand.
Photo credit: SEAOHUN*

Success Story

SEAOHUN Fellowship Program: Introduction of Lawa Model through integrated One Health Approach

The SEAOHUN Fellowship Program promotes the integration of One Health knowledge, skill, and experiences for fellows at leading academic and research institutions, government agencies, international organizations, or international non-governmental organizations in Southeast Asia. In 2022, the SEAOHUN fellowship program selected eight fellows to gain hands-on experience at seven host institutes in six countries.



Photo: Collecting samples from cats at Lawa Lake, Thailand. Photo source: Shih Keng Loong

Dr. Shih Keng Loong is a researcher who has studied infectious diseases, particularly vector-borne and zoonotic diseases, for over 10 years. Leveraging his prior research and experience, he was motivated to utilize a fellowship opportunity to learn more about parasitology and specific techniques, such as specimen collection, to support research analysis. Dr. Keng was selected for a SEAOHUN fellowship at the Tropical Disease Research Centre (TDRC) with the Faculty of Medicine at Khon Kaen University in Thailand from March to July 2022.

During his fellowship, he was introduced to the Lawa Model, an integrated One Health approach for controlling *Opisthorchis viverrini*, commonly known as the Southeast Asian liver fluke. He had the opportunity to visit villages around the Lawa Lake region in the Khon Kaen Province, Thailand, where the liver fluke is endemic. While there, he witnessed the socio-economic activities of the communities living there that increased the risks of infection.

Dr. Keng gained new experiences, such as conducting field sample collection of water and mud from Lawa Lake, as well as fecal samples from cats and dogs in the area. These samples were analyzed in the laboratory, and the findings were presented to the TDRC Team that is planning to publish the results. At the end of the fellowship, Dr. Keng became more familiar with parasitology and gained practical experience in conducting new laboratory techniques and engaging communities for field research. Dr. Keng hopes to publish the research he helped conduct during the fellowship in addition to returning to his research institute in Malaysia where he can use the techniques he learned in his ongoing work in microbiology.



I began the fellowship program with only a very general grasp on the major topic of parasitology. The very reason I selected TDRC as the place for my SEAOHUN Fellowship training was that I wanted to learn more on parasitology. I am glad and thankful to SEAOHUN for this opportunity, as I believe I have gained not only knowledge but also practical experience in the laboratory, field, and community. In my view, it was through practical experience that I realised and appreciated the efforts of the TDRC team in reducing the incidences of liver fluke infections among the communities living in the Greater Mekong Subregion.

- Dr. Shih Keng Loong

SOUTHEAST ASIA ONE HEALTH UNIVERSITY NETWORK MEMBERS

LAOHUN

Champasack University
National University of Laos
Savannakhet University
Souphanouvong University
University of Health Sciences, Lao PDR

MMOHUN

University of Medicine 1
University of Public Health
University of Veterinary Science, Yezin

INDOHUN

Airlangga University
Andalas University
*Bogor Agriculture University**
Brawijaya University
Cendrawasih University
Diponegoro University
*Gadjah Mada University**
Hasanuddin University
Mataram University
Muhammadiyah Hamka University
Mulawarman University
Nusa Cendana University
Padjajaran University
Sam Ratulangi University
Sriwijaya University
Syiah Kuala University
Udayana University
*University of Indonesia**
University of North Sumatra
University of West Nusa Tenggara

THOHUN

Burapha University
*Chiang Mai University**
Chulabhorn Royal Academy
Chulalongkorn University
Kasetsart University
Khon Kaen University
Maharakham University
*Mahidol University**
Prince of Songkla University
Thammasat University
Walailak University

VOHUN

Bac Giang Agriculture and Forestry University
Buon Ma Thuot University
Can Tho University
Can Tho University of Medicine & Pharmacy
Dong A University
Hai Phong University of Medicine & Pharmacy
Hanoi Medical University*
Hanoi University of Natural Resources and Environment
Hanoi University of Public Health*
Hue University of Agriculture & Forestry
Hue University of Medicine & Pharmacy
Nam Dinh University of Nursing
Nghe An University of Economics
Nong Lam University - Ho Chi Minh City
Phenikaa University

Quy Nhon University
Tay Nguyen University
Thai Binh University of Medicine and Pharmacy
Thai Nguyen University of Agriculture & Forestry
Thai Nguyen University of Medicine & Pharmacy
Tra Vinh University
University of Medicine and Pharmacy at Ho Chi Minh City
University of Medicine and Pharmacy - Vietnam National University, Hanoi
Viet-Duc University
Vietnam National University of Agriculture*
Vinh Long University of Technology Education
Vinh Medical University

CAMBOHUN

Kampong Cham National Institute of Agriculture
Prek Leap National Institute of Agriculture
Royal University of Agriculture
Royal University of Phnom Penh
University of Health Sciences, Cambodia

PhilOHUN

Benguet State University
Cavite State University
Central Luzon State University
Central Mindanao University
Pampanga State Agricultural University
Partido State University
University of Eastern Philippines
University of the Philippines Los Baños
University of the Philippines Manila
Visayas State University
West Visayas State University

MyOHUN

University of Cyberjaya
International Islamic University Malaysia
International Medical University Malaysia
Management and Science University
Royal College of Surgeons in Ireland & University College Dublin Malaysia Campus
Universiti Kebangsaan Malaysia*
Universiti Malaya
Universiti Malaysia Kelantan
Universiti Malaysia Sabah
Universiti Malaysia Sarawak
Universiti Malaysia Terengganu
Universiti Putra Malaysia*
Universiti Sains Islam Malaysia
Universiti Sains Malaysia
Universiti Sultan Zainal Abidin
Universiti Teknologi MARA
Universiti Tunku Abdul Rahman

*Founding Universities



USAID
FROM THE AMERICAN PEOPLE

SEA OHUN

Southeast Asia One Health
University Network

CAMBOHUN
CAMBODIA ONE HEALTH UNIVERSITY NETWORK

CAMBOHUN

CAMBODIA ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



5
Member
Universities



6
Faculties



1
Small Grant
Awarded



41
Individuals Trained in
One Health Topics

ABOUT CAMBOHUN

- CAMBOHUN is established to prepare a future-ready workforce capable of working across different disciplines to address these complex health challenges.
- Mission: To develop a sustainable network of One Health professionals with cross-sectoral expertise to understand and address public health threats.
- Vision: A network of universities with multi-disciplinary and cross-sectoral professionals collaborating together to minimize One Health threats in Cambodia.
- Established in 2019.
- Visit our website at www.cambohun.org.

Highlights

- One Health student field trip, 26-28 March 2022.
- CAMBOHUN small grant awarded and completed, 30 March-28 September 2022.
- Training on Participatory Epidemiology, 3-4 May 2022.
- Training on Competency-based Education; 24-27 May 2022, Bangkok, Thailand.
- One Health internship, 1-31 August 2022.
- Activities of One Health Student Club, 30 September 2022.
- Participation at SEAOHUN 2022 International Conference, 6-9 September 2022.

Activities

OBJECTIVE I

Small Grant Program for in-service professionals

The CAMBOHUN Small Grant awardee, Limkhuoch Hov, led a team of researchers who conducted a study of farmers' knowledge of, attitudes towards, and practices for reducing the incidence of avian influenza (AI). The study was held at the site where the first outbreak occurred in Trapeang Russey Village, Jayo Commune, Chamkar Leu District, Kampong Cham Province. The researchers found that misunderstanding of biosecurity measures required for raising poultry at a household level, transportation, agriculture tools, and livelihood activities are the factors that make poultry more susceptible to AI. The study went as planned; 60 farmers, One Health volunteers, three village animal health workers, three village chiefs, and one commune chief participated. In addition, 15 students learned how to use participatory

epidemiology tools to gather observations in the community.

Enhancing capacities of pre-service and in-service professionals on participatory epidemiology

Participatory epidemiology Master Trainers conducted cascade workshops in 2019 and 2021, and this year led a refresher workshop with a field practice. Target participants were alumni from the previous batches of training, plus additional participants from new CAMBOHUN member universities. The workshop was conducted in Phnom Penh from 3 to 4 May 2022. On the first day, the trainers gave an overview of the participatory epidemiology concept and its tools. They devoted time to a practical session at the Central Market on the second day. In the wet market section of the Central Market, where live animals can be purchased and processed for human consumption, trainees were

divided into three groups, each responsible for studying a topic such as antimicrobial resistance, zoonotic disease, and waste handling.

One Health Experiential Learning

The CAMBOHUN National Coordination Office (NCO) organized a field trip to Kep Province from 26 to 28 March 2022 to engage students in One Health and stimulate the establishment of One Health Student Clubs in their respective universities. The activity attracted 20 students and five faculty members from all member universities of the Network. The field trip provided students and faculty members opportunities to:

1. practice identifying One Health issues and proposing solutions;
2. exchange knowledge and skills in One Health and its approach among faculties and students;
3. improve One Health knowledge and communication skills; and
4. engage the students for One Health Student Club establishment.



CAMBOHUN students organized awareness raising events in Kandal province for World Rabies Day 2022. Photo source: CAMBOHUN

Hands-on practical experience in One Health

The Student Internship Program was created to enable students (pre-service health professionals) from member universities to gain hands-on experience with local institutions. Two students were placed at Agronomes et Vétérinaires Sans Frontières for one month (1 to 31 August 2022). During the internship, the students learned how the One Health approach applied to integrated farming systems while having the chance to practice arranging the farming system. They also supported volunteers from Canada in developing the guideline for setting up a One Health demonstration site. Read more in our [Success Story](#).

Promote One Health in the community

Students from multiple disciplines and universities established a One Health Student Club in March 2022. The students elected their club officials, and its seven members together planned activities to raise awareness of rabies with the communities of Kandal province and also to celebrate World Rabies Day. The CAMBOHUN officer, District Vice Director, Commune Chief, Village Chief, Director of the Health Center, and villagers attended the event held on 30 September 2022. Since this was the first activity conducted by the student club, the members were very committed to organizing virtual training, working for months to successfully design and launch this inaugural activity.

OBJECTIVE 2

Three faculty members from CAMBOHUN universities network participated in the Training of Trainers (TOT) workshop on the implementation of Competency-based Education (CBE) in Bangkok, Thailand, from 24 to 27 May 2022. The goal of this TOT was



“The internship with AVSF provided me a lot of knowledge and skills related to One Health (OH) concept and its approach, communication, and team work. I learned how OH approach is applied at the community as the OH demonstration site program; a successful OH program from other countries sharing by the network of AVSF; and system thinking about the real OH challenges that we are going to solve them. Through this internship, I am confident enough to share these knowledge and skills to my friends and able to apply OH approach for my upcoming job.”

Mr. LIM CHHAYKHEANG, veterinary undergraduate at the faculty of veterinary medicine of Royal University of Agriculture, conducted internship at Agronomes et Vétérinaires sans Frontières (AVSF).



Image source: CAMBOHUN

to demonstrate the use of active learning strategies, simulation exercises, and practical guides to implement a standardized competency framework and evaluation approach in their respective universities' education and training programs. As a result, the three trained faculty members from CAMBOHUN will take this knowledge and skills to implement CBE among member Universities in the next project year's work plan.

OBJECTIVE 3

CAMBOHUN Board Meeting

The CAMBOHUN Board conducted their meetings twice this past year. At the first meeting, the CAMBOHUN Coordinator presented the achievements of CAMBOHUN in Year 2 and first quarter activities from Year 3. For the second meeting, the Coordinator presented the achievements of the remaining three quarters. The Board

Members from five member Universities discussed the implementation of the Year 3 work plan and planned for the OHW-NG Project Year 4 work plan. They also discussed the CAMBOHUN structure and announced the addition of two new University members.

SEAOHUN 2022 International Conference

CAMBOHUN nominated the delegates of CAMBOHUN, faculty members and students of member universities who participated in the 2022 SEAOHUN International Conference in Nonthaburi, Thailand, from 6 to 7 September 2022. At the conference, four researchers and students of member universities of CAMBOHUN presented their research.

In addition, five faculty advisors and students of CAMBOHUN University members participated in the SEAOHUN 2022 Student Summit on the theme “Fostering One Health Leader”. This student summit was held in Thailand from 3-5 September 2022.

Lessons Learned

Improving communications and coordination with national and international NGOs, government stakeholders, and other institutions

Among the eight project activities this year, there were six activities that CAMBOHUN itself launched that needed effort and coordination with other institutions and stakeholders. We involved these partners and stakeholders in each of our activities, and they sometimes acted as co-hosts for their event as well. This year, CAMBOHUN planned and completed most activities as scheduled, except for the student internship. We could not reach our internship program goal due to the great effort required to coordinate with other institutions. We also realized that we needed to develop a process for coordinating and selecting students.

Next Steps

Strengthen network sustainability through collaborations

CAMBOHUN is looking opportunities to build the Network's organizational and human resource capacities, especially to increase knowledge on sustainable actions for the Network for the Network in the context of One Health.

Enhance workforce knowledge of and skills in One Health

CAMBOHUN will award more research grants to member universities, Cambodia Applied Veterinary Epidemiology Training, and the Field Epidemiology Training Program to conduct innovative field research, curriculum development, and training implementation. Each research project will address One Health issues in Cambodia as well as for the young researchers to gain practical experience in applying One Health approach. This will help improve our current and future workforce knowledge and skills by developing and providing various One Health training programs and events.

Success Story

CAMBOHUN internship builds One Health skills

The Cambodia One Health University Network (CAMBOHUN) organizes the Student Internship Program that enables students (pre-service health professionals) from member Universities to gain hands-on experience with local institutions tackling One Health issues. The internship allows students to gain exposure to One Health and aims to motivate them to pursue their careers in One Health-related disciplines.

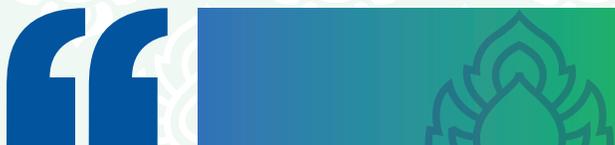
CAMBOHUN developed an internship opportunity with the Agronomes et Vétérinaires Sans Frontières (AVSF) for one student from the Royal University of Agriculture and one student from Kampong Cham National Institute of Agriculture. During this month-long internship, the interns contributed to developing guidelines for a One Health demonstration site at a farm. The guidelines they helped to create outline how to apply the One Health concept and its approach to the farming system. The two interns visited a farm where

a demonstration site is located in Ratanak Mondol District, Battambang Province, to observe how they plan to apply One Health guidelines. Finally, they joined a seminar where they listened to presentations on how the demonstration site works and benefits the community and on relevant topics such as antimicrobial resistance, zoonotic disease, and agro-ecology related to One Health practice in agriculture.



As an undergraduate student, joining the internship program is one of social involvement and real practice. This program provided me with a lot of ideas and knowledge related to One Health that can be applied in agriculture, as my future career area.

Ms. Chhorn Rina, One Health Intern from Kampong Cham National Institute of Agriculture



The internship at AVSF provided me with a lot of knowledge and skills related to the One Health concept and its approach, communication, and teamwork. I learned how the One Health approach is applied in the community at the demonstration site program, about successful One Health programs from other countries shared by the AVSF network, and on applying system thinking to real One Health challenges to solve them. Through this internship, I am confident enough to share the knowledge and skills I gained with my friends and other students and be able to apply the One Health approach to my upcoming job.

Lim Chhaykheang, a selected student for the internship program from Royal University of Agriculture



Ms. Chhorn Rina and Mr. Lim Chhaykheang practice applying One Health to support an integrated farming system
Photo source: CAMBOHUN



INDOHUN

INDONESIA ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



20
Member
Universities



6
One Health
Collaborating
Centers



20
Internships
Placement



197
Participants in
One Health
Student Clubs



34
Faculties



12
Laboratories



183
Individuals Trained in
One Health Topics

ABOUT INDOHUN

- INDOHUN is a network of Indonesian higher education institutions promoting collaboration in human, animal and environmental health sectors in Indonesia.
- INDOHUN established One Health Collaborating Centers, each hosted by a member University, to support One Health activities across the world's most populous and ethnically diverse archipelago.
- LESS ME, MORE WE: We believe that we can accomplish more amazing things by doing the work in collaboration.
- Mission: We build institutional and individual capacities, advocate for collaboration-supportive policies, conduct research and community outreach, and offer a platform for addressing regional and global One Health issues.
- Established in 2012.
- Visit our webpage at www.indohun.org.

Highlights

- INDOHUN developed and contributed three One Health modules on the Indonesian government's online learning program called SPADA.
- INDOHUN hosted training sessions for university students to develop One Health core competencies before they enter into *Kampus Mengajar* activities as volunteer teaching assistants.
- Five One Health Student Club modules were developed based on each club's unique and local approach.
- 97 lecturers and 40 students received practical training to develop and strengthen communication skills through One Health Communication Training in 3 different batches, August-September 2022.
- Thousands of students were exposed to One Health concepts and multi-disciplinary collaborative approaches via a guest lecture series at five different universities, July-September 2022.
- 26 lecturers participated in a grant writing workshop on 17 September 2022.
- INDOHUN's One Health Young Leaders internship program placed 20 students and received an excellent response from external parties, June-September 2022.

Activities

Objective 1

Support the Government of Indonesia's priority program for education

Kampus Merdeka (Learning Policy) is a program designed by the Indonesian Ministry of Education Culture, Research, and Technology (MoECRT), which provides university students with the opportunity to hone their skills and abilities for career preparation through real-world practical experience. It is the Ministry's top priority and has several implementing programs such as *Kampus Mengajar* (Teaching Campus), Student Exchanges, Certified Internships and Independent Study.

INDOHUN continues to emphasize the value of a One Health approach by enriching the *Kampus Mengajar's* preparation training for students who will serve as volunteer

teaching assistants. To do so, INDOHUN delivers materials on valuable One Health skills such as multidisciplinary coordination, communication, and collaboration, along with health promotion and health education. These materials are essential to build students' knowledge, skills, and abilities, enabling them to excel during their tenure in the *Kampus Mengajar* program, and further apply these skills towards their professional development and career placement. The preparation training is joined virtually by thousands of third year university students from health-related disciplines.

INDOHUN contributed three One Health modules into the Ministry's official online learning platform called *Sistem Pembelajaran Daring* (SPADA). This is an

effort to promote One Health information that can be accessed publicly by students. This activity was featured in the INDOHUN Success Story in *the OHW-NG Project Year 3 Semi-Annual Report*.

Provide standardized learning materials and guidance in One Health training for students

INDOHUN's One Health Student Club modules are teaching and training materials, packaged systematically and comprising a suite of learning experiences planned and designed to help students master specific learning objectives. Each module was developed by the respective One Health Collaborating Center (OHCC) teams and local experts from the faculties of veterinary medicine, human medicine, and public health from the university that manages the Center. Six topics from One Health's core and technical competencies are included in the modules: the One Health Concept; System Thinking, Fundamentals of Infectious Diseases; Behavior Changes; Collaboration and Partnership; and Leadership in One Health. Standard content across modules are based on guidelines on One Health skills and competencies that INDOHUN developed for the Emerging Pandemics and Threats Project 2. OHCC Udayana refreshed the modules that were originally developed in OHW-NG Project Year 1 for their One Health Student Club. They made several changes by adding details to case studies to improve the available modules.

Improving One Health capacity through unique teaching and training experiences

INDOHUN continuously promotes One Health concept through unique and customized teaching methods and training events. This year, in addition to training university students, INDOHUN also targeted university lecturers to improve their capacity to teach One Health. From July to September 2022,

INDOHUN hosted six different series of One Health guest lecturer collaborating events, both in person and virtually, with university partners across Indonesia. The guest lecture series, opened to interested faculty members and students, aimed to enhance the knowledge of the One Health concept, One Health core competencies, and its application in different areas of study.

INDOHUN targeted university students and lecturers for practical training in One Health communication. Participants increased their knowledge and skills of communication using the One Health approach and had a chance to write and develop their own articles with guidance and facilitation from a relevant subject matter expert. In total, three batches of events were hosted, both in-person and virtually, with good impressions expressed by the participants in the feedback survey.

INDOHUN, in collaboration with the Directorate of Human Resources within MoECRT, successfully conducted a workshop session to strengthen faculty professionals' capacity for collaborative and multi-sectoral grant writing, particularly across One Health-related sectors. This day-long workshop provided information from the One Health approach, as well as economic, social, and communication perspectives. In total, 26 lecturers from INDOHUN university partners were briefed on how to develop concrete ideas for grants. This workshop was conducted on 17 September 2022 in Jakarta.

One Health Young Leadership Internship Program

INDOHUN's One Health Young Leadership internship program is one of the multisectoral workforce strategies to prepare the young workforce. This activity allows students to learn, explore, and exercise One Health's core competencies in a real-world, hands-on environment while earning official

credential recognition. This year, 20 students from different disciplines were selected from six universities in Indonesia to participate in the program. As a result of successful implementation during OHW-NG Year 3, this program will continue into project Year 4 with support from the MoECRT. Recently, INDOHUN strengthened the program partnership by signing a Memorandum of Understanding with the Faculty of Public Health, University of Indonesia as a demonstrated commitment to continue to implement the OHYL internship program. Read more in our [Success Story](#).

Objective 2

Two INDOHUN faculty members and one INDOHUN NCO staff member attended the Competency-based Education Workshop in Bangkok, Thailand from 24 to 27 May 2022. They participated actively in the workshops and drafted an action plan to promote this approach with faculty of member Universities.

Objective 3

Expanding One Health Collaborating Centers

Following a comprehensive assessment process during OHW-NG Year 3, INDOHUN, with support of the MoECRT, successfully expanded the University's establishment of a OHCC to improve coverage of the country's large and diverse geography. Each of INDOHUN's OHCCs has a unique, regionally-tailored approach, informed by the One Health core competencies, to become a collaborative center that is equipped to address emerging infectious diseases and other complex health challenges. The newly established IPB OHCC will play a role in Global Health 'Agromaritime', a term purposefully utilized to recognize the interconnection and interdependence between natural resource management on land and in our oceans.

Memorandum of Agreement with the MoECRT

INDOHUN continues to maintain and strengthen the collaboration with MoECRT through the signing of a Memorandum of Agreement to formalize the Ministry's recognition of INDOHUN. The Ministry agrees to provide administrative support for three years to facilitate capacity development activities for higher education institutions to improve the human resources and management of health and science laboratories. In this way, INDOHUN expects more sustained support for the OHW-NG Project activities.



Stakeholder One Health training in Papua conducted by the Cendrawasih University One Health Collaborating Center, Horison Abepura Hotel, 22 September 2022. Photo credit: INDOHUN

Lessons Learned

Maintaining Strong Partnership with Government of Indonesia

The OHW-NG Project also aims to fill the gap of One Health workforce empowerment in Indonesia. Through the years, INDOHUN closely collaborated with the MoECRT, the Ministry of Health (MoH), and other relevant ministries. Maintaining close collaboration within the Government of Indonesia helps the overall project to get full governmental support and keep on target at the university level. INDOHUN also continues to collaborate with other Global Health Security partners in Indonesia to maintain multisectoral collaboration to address complex health challenges.

Next Steps

Following outbreaks of COVID-19 and foot-and-mouth disease in Indonesia, the MoECRT and MoH signed a Memorandum of Agreement to increase surge capacity and improve capabilities of veterinary faculty and students. INDOHUN is considered a strategic partner that covers both higher education and the One Health scope to achieve the joint agreement goals. Thus, INDOHUN will develop a program to achieve sustainability by collaborating with MoECRT to achieve their long-term goals, along with INDOHUN's primary objective to develop and strengthen a national One Health workforce, especially

at university level. In the next project year, INDOHUN plans to develop both strategic and organizational sustainability plans to be presented as a value proposition to the MoECRT along with request to the ministry to provide funding support to sustain the network. In parallel, INDOHUN will continue to demonstrate the network's value addition to the MoECRT with the aim to continue as a trusted and well-established organizational partner.

Important Links

INDOHUN videos for SPADA (in Bahasa Indonesia)

- One Health Definitions: <https://www.youtube.com/watch?v=Kg4-kcVDnSA>
- Importance of One Health: <https://www.youtube.com/watch?v=yFpj4MuHLmM>
- Transdisciplinarity of One Health: <https://www.youtube.com/watch?v=VHIEuE0WONE>
- Basic Concepts of Public Health: https://www.youtube.com/watch?v=f_3n-y3aJ54
- Environment and Human Interactions: <https://www.youtube.com/watch?v=CnGBclD2je4>
- Zoonotic Diseases: <https://www.youtube.com/watch?v=YGxZ185y8AU>
- Prevention and control of zoonotic diseases in the livestock industry: https://www.youtube.com/watch?v=TAeku_DM1Kg

Success Story

Supporting Indonesia's Education Program through a One Health Young Leaders Internship Program for University Students

INDOHUN, in collaboration with the Faculty of Public Health Universitas Indonesia and with generous support from MoECRT and USAID, officially introduced the One Health Young Leaders (OHYL) internship program. OHYL aims to help students improve and strengthen their One Health skills by allowing them to learn and explore One Health core competencies in a real-world, hands-on environment while earning official credential recognition. Internships can play an important role in

providing students with these skills, as well as allowing them to develop real world experience that will support them as they transition into their careers. This prepares future leaders by teaching an understanding of three core values: multisectoral collaboration, training and empowerment, and national and international development.

During the program, 20 students from six universities spent four months, equivalent to 20 academic credits or 900 hours of study, working full-time in their internships. These academic credits were officially endorsed by MoECRT, which allowed students to officially transfer them to their universities.

As a result of the OHYL program, the interns were able to better understand and implement One Health concepts; improve their competencies and skills, specifically in terms of collaborating in a multisectoral setting; better understand how to implement activities related to One Health in the form of training, webinars, and workshops which help empower One Health professionals; and develop the practical knowledge for effective collaboration, leadership, and diplomacy in international health development settings. The program has the potential to improve the education of pre-service professionals to better contribute as they enter careers in the One Health workforce.



Internship at INDOHUN provides opportunities to learn applying One Health analysis to real-world cases. Image source: INDOHUN



During my internship program at INDOHUN, I got a lot of experience that I couldn't get anywhere else. I learned a lot about One Health and the importance of this approach in dealing with problems related to Zoonoses. Apart from knowing the theory, I also experienced the implementation of One Health which was carried out by the five One Health Collaborating Centers in Indonesia. The professional work atmosphere at INDOHUN also gives me a real picture of the world of work that I will live in after graduating from college. I also made many new friends from various universities in Indonesia and was able to exchange experiences with them. Internship at INDOHUN was very fun and also beneficial for me!



- Nur Annisa Sophianingrum,
Environmental Health, University of Indonesia
(One Health Collaboration Center Empowerment Division)



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SEA OHUN
Southeast Asia One Health
University Network

LAOHUN
Lao One Health University Network

LAOHUN

LAO ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



5
Member
Universities



18
Faculties



5
Activities
Implemented



25
Individuals Trained in
One Health Topics

ABOUT LAOHUN

- LAOHUN collaborates with University Members to promote the One Health concept, its core and technical competencies, and to address complex challenges at the interface of human, animal and environmental health.
- “Let’s work together to build the next generation of One Health Workforce.”
- Mission: To develop university network capacity to promote One Health awareness, knowledge, and practice through expansion of universities, network strengthening, and advancement of the One Health workforce.
- Vision: A collaborative network of universities fostering multi-sectoral effort for a One Health workforce and policy development.
- Established in 2018.
- Visit our website at www.laohun.org.

Highlights

- Participatory epidemiology training with field experience benefits 25 lecturers; 4-7 April 2022, Vientiane.
- One Health Student Club awareness raising events held at three member Universities.
- Fifty undergraduate students take a One Health field trip to Bolikhamxay; 18-19 August 2022.
- LAOHUN Board Meeting held on 30 August 2022 in Vientiane.

Activities

OBJECTIVE I

Participatory Epidemiology Training with Field Experience

Participatory epidemiology is the use of participatory approaches and methods to actively include the data, knowledge and perspectives of the concerned populations with those of public health professionals, veterinarians, government officials, and other local stakeholders. LAOHUN organized a four-day training course at the Dongdok Campus of the National University of Laos to promote this approach and its qualitative methods derived from participatory appraisal to help improve the context, accuracy and interpretation of quantitative epidemiological studies. LAOHUN invited as participants 25 lecturers in animal health, human health, environmental health and other disciplines from among its member Universities. The course ran from 4 to 7 April 2022, and included lectures by Dr. Andrew Corwin and other experts who provided guidance and shared their experience with area mapping, conducting

semi-structured interviews and focus group discussions, and participatory appraisal tools. The participants practiced using the tools on Day 4 in the surrounding rural villages of Paksab Mai and Narphok in Xaythany district, Vientiane. Read more in our [Success Story](#).

LAOHUN promotes One Health Student Clubs

LAOHUN organized three events to promote interest in and establishment of One Health Student Clubs. The first event was held at the National University of Laos on 2 August 2022, the second at the University of Health Sciences on 8 August 2022, and the third event at Souphanouvong University on 10 August 2022. The events featured short seminars, training games to promote cross-sector thinking, and collaboration to understand health issues from a One Health perspective.



Students at the “One Health Student Club” event in National University of Laos. Photo credit: LAOHUN

Field trip engaged students in One Health

Students in undergraduate-level courses that are part of the One Health disciplines need opportunities to observe and discuss with members of at-risk communities to identify health challenges and potential solutions. To meet this need, LAOHUN organized a One Health field trip to Paksan district of Bolikhamxay to explore One Health issues related to food safety. Fifty students and 15 lecturers from the founding universities members, University of Health Science and National University of Laos, were in Bolikhamxay from 18 to 19 August 2022 to collect information for a food safety risk assessment. They were divided in groups to separately conduct area surveys and interviews at an animal farm, slaughterhouse, fresh market, and households. The students regrouped on the second day to compile their findings and discuss possible solutions to the One Health issues they identified.

OBJECTIVE 2

The Competency-based Education Workshop held in Bangkok, Thailand from 24 to 27 May 2022 had two participants from LAOHUN universities. They actively participated in discussions, provided context on One Health education in Lao PDR, and drafted an action plan for raising capacity in the competency-based approach to higher learning.

OBJECTIVE 3

LAOHUN held a Board meeting on 30 August 2022 at Family Boutique Hotel in Vientiane. Thirty-five participants attended consisting of members of the LAOHUN Board and representatives of the five member Universities, government institutions, and the USAID Mission in Laos. Participants reviewed the terms of reference for the Board, discussed the achievements in this year, and identified the next steps to prepare for Year 4. The Board also agreed to register LAOHUN with the government as an organization with its own identity and bank account.

Earlier this project year, LAOHUN held a Board meeting on 10 December 2021; this was reported in the *OHW-NG Year 3 Semi-Annual Report*.

Lessons Learned

The participatory epidemiology training was a good opportunity to expand our network to include more health professionals of the country, and to discuss possible collaboration in research using the approach and tools gained during the course. Participants still need opportunities to practice sharing and learning from a group of professionals of diverse background.

LAOHUN organized our first student field trip at the province level, and it was a very good chance of students and faculty members from to explore One Health issues at community level. We realized it is a good opportunity for students from different fields of study to work together as a group, and for sharing ideas and experience on One Health issues observed in the community visited. The most benefit was for team building and improving communication skills of the students could share during field work.

Next Steps

LAOHUN will continue promoting the One Health Student Club, and organizing activities for students such as field trips that highlight other issues of One Health at community level.

More training of trainers workshops will be organized on One Health competencies to support capacity development of the relevant faculties in the member Universities.

LAOHUN will register the network with the government as a step towards its stability, and to enable opening of an institutional bank account.

Important Links

- Participatory epidemiology training post: <http://bit.ly/3WjPVyx>
- One Health student field trip Facebook post: <http://bit.ly/3PrO60j>



LAOHUN Board met in Vientiane on 30 August 2022 to review the achievements in Year 3 and prepare for Year 4 of the OHW-NG Project. Photo credit: LAOHUN



LAOHUN faculty members practice participatory area mapping in Vientiane, 7 July 2022. Photo credit: LAOHUN

Success Story

Faculty Members Practice Participatory Epidemiology in the Field

The One Health approach is new for many university faculty in Lao PDR, even for those coming from member Universities of the Lao One Health University Network (LAOHUN). Teaching and research faculty can still benefit from an opportunity to learn how to observe, analyze, and discuss complex health challenges using an interdisciplinary lens. Because experiential training can be a useful method to demonstrate the value of collaborative One Health approaches to address complex health challenges, LAOHUN organized a four-day Participatory Epidemiology training from 4 to 7 April 2022 at the Dongdok campus of the National University of Laos.

Participatory epidemiology is a set of participatory approaches and methods that are applied to understanding the patterns of disease in communities. The approach is intended to be inclusive of the perspectives of the members of the community at risk, of different health disciplines from the animal, human and environmental sectors, and of other stakeholders from the local government and private sector.

The training was supported by USAID's OHW-NG project and included 25 participants from animal health and human health disciplines, mostly lecturers from LAOHUN member Universities. The training reviewed theories and approaches in epidemiology for the first three days. The resource persons included experts from LAOHUN universities, with some sessions on the fundamentals of epidemiology and managing pandemics delivered by Dr. Andrew Corwin and other lecturers from the Global Health Unit of Thammasat University in Thailand. During the didactic (lecture) sessions, participants had opportunities to brainstorm how to apply participatory tools to gain the real-world context of epidemiological data and gather additional qualitative inputs that would ultimately improve the accuracy of the data analysis and interpretation.

On the fourth day participants had site visits to Paksab Mai and Narphok in Xaythany district, Vientiane. This field experience was an opportunity to apply the tools learned in the didactic sessions. Participants created area maps, held focus group discussions with local leaders, conducted semi-structured interviews with community residents, and applied the seasonal calendar and participatory ranking tools.

As both this type of training and One Health are still relatively new to the participants, they initially had difficulty sharing ideas and developing a common understanding. By the end of the four-day training most participants expressed that their understanding of participatory epidemiology was improved and are now aware of the skills and practice required to fully utilize these as functional tools. They also recommended that when the training is repeated for other lecturers and health professionals, more days could be given for the field visit because it was quite helpful to raise awareness of and skill in participatory epidemiology and One Health.



Faculty members from LAOHUN practice participatory tools in Xanthany district of Vientiane. Photo credit: LAOHUN



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SEA OHUN

Southeast Asia One Health
University Network



MyOHUN

MALAYSIA ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



17
Member
Universities



19
Activities
Implemented



557
Individuals Trained in
One Health Topics



20
Faculties



16
Small Grants
Program



81
Participants in One
Health Student Clubs

ABOUT MyOHUN

- MyOHUN is the network that forges working partnerships between veterinary, medical, biological and environmental professionals of Malaysia for One Health.
- Mission: To link and enable universities, government and relevant agencies to generate social and intellectual capital on One Health against infectious and zoonotic diseases.
- Vision: A network of social and intellectual excellence on One Health against infectious and zoonotic diseases of national and global concern.
- Established in 2012.
- Visit our website at www.myohun.com.

Highlights

- MyOHUN organized and delivered the “Empowering Women and Leadership in One Health” workshop, 23-26 July 2022, Cameron Highlands.
- The National Avian Influenza Simulation Exercise was executed for the first time in the Sarawak state by The Ministry of Health in collaboration with MyOHUN and the Department of Veterinary Services, 26-28 July 2022.
- MyOHUN’s ‘Malaysia Youth One Health Challenge 2022’ had 240 students from vocational schools, community colleges, and polytechnic institutions, across four states who produced 80 innovations / prototypes to help control infectious disease outbreaks.
- More than 400 students and academicians benefited from the One Health Student Club Grants and Booster Grants for One Health Teaching and Learning Activities.
- One Health Field Epidemiology Training successfully attracted 35 participants from different fields, including the Health Director of Sabah State Health Department and veterinary medicine, wildlife, and environmental health experts.

Activities

OBJECTIVE I

The Malaysia Ministry of Health, in collaboration with MyOHUN and the Department of Veterinary Services (DVS), organized the National Avian Influenza Field Simulation Exercise from 26 to 28 July 2022 in Sibu, Sarawak with more than 200 officers, health practitioners, and academicians actively participating in the simulation exercise. Module Simulation Exercise for Management of Highly Pathogenic Avian Influenza was launched during this activity which is accessible online.

In creating a better prepared Malaysia One Health workforce for managing disease outbreaks, MyOHUN implemented two key activities this year. The first was the One Health Field Epidemiology Training program, conducted from 9 to 12 May 2022 in Selangor, which attracted mid-level managers from human, animal and environmental health sectors that encompassed essential One

Health competencies essential for field epidemiology and surveillance of infectious diseases. Second was the “Dissecting One Health Core and Technical Competencies during Outbreak Response” brainstorming meeting held from 16 to 19 August 2022 in Penang. Participants included professionals from health sectors, ministries, universities, and other relevant agencies; they were engaged in guided discussions on strategies, prevention, and control of zoonotic disease through the lens of One Health.

MyOHUN organized a workshop on Empowering Women and Leadership on One Health with the support and encouragement from the Orang Asli Development Agency. A diverse group of 37 students from different universities took part in this workshop which focused on the importance of gender equality and awareness in One Health. This unique workshop provided an opportunity

to interact with the villagers and observe the lifestyle and culture of the Semai tribe in Malaysia's Cameron Highlands.

A Tabletop Simulation Exercise for Postgraduate Students provided a platform for future One Health workforce members to be empowered with the important elements of managing emerging and zoonotic diseases that are common in this region. Acknowledging the benefits of learning in realistic outdoor settings, the In-Situ One Health Problem Based Learning course materials for 'Ecosystem Health and Zoonoses' were utilized. Several course enhancements injected into the case study examples to improve the learning experience of the students while ensuring the implementation of One Health. The two activities utilized cases and scenarios aligned with important One Health core and technical competencies, thereby promoting active and rewarding learning processes.

The Malaysian Youth One Health Challenge was a virtual competition organized to introduce, promote, and increase the knowledge of One Health among students

from vocational schools, community colleges, and polytechnic institutions. The competition began on 17 June 2022 with a series of online training sessions for prospective participants comprising students and teachers. On 2 September 2022, the winner of this competition was announced. Video presentations for 80 innovation prototypes were submitted for review, showing the tremendous support from vocational and polytechnic students towards this competition and the openness in implementing One Health in their innovation. Read more in our [Success Story](#).

From 15 until 18 August 2022, more than 34 undergraduate students joined an exciting, four-day One Health Young Leaders and Communicators program conducted at Raia Hotel, Penang. The program provided participants with leadership skills and communications techniques, which will be useful as they embark along their respective career paths. As important as leadership and communication skills are for the future workforce, they are also imperative for in-service professionals to master the same set of skills at a more advanced level. MyOHUN organized the One Health Leadership Training for Mid-Level Executives held at Hatten Hotel, Melaka, which was attended by 17 in-service workforce participants from the DVS, the National Public Health Laboratory Malaysia, and public universities in Malaysia.

One Health Student Clubs under MyOHUN comprise more than 400 participants from various disciplines among MyOHUN University members, namely Universiti Kebangsaan Malaysia (UKM), Universiti Malaysia Kelantan, Universiti Putra Malaysia (UPM), Universiti Sains Islam Malaysia (USIM), and Universiti Sains Malaysia. The clubs organized a wide range of activities, from seminars to community outreach events, to spread awareness and foster the spirit of One Health.



Training the Trainers for "ONE HEALTH AMR PUBLIC AWARENESS 2022," 30 August 2022, Kuala Lumpur. Photo credit: MYOHUN

During OHW-NG Year 3, six booster grants for One Health teaching and learning activities were awarded to member institutions. Successful grant recipients were able to conduct various activities incorporating One Health concepts into the subjects taught within the semester. Selected projects included:

1. “Zoonosis Field Trip” at Kuala Tahan National Park, Kampung Sungai Tiang, Jerantut, Pahang from 13 to 16 June 2022, consisted of students from USIM.
2. “PBL In Situ: Sungai Lembing”, Kuantan, Pahang, was held from 23 to 24 July 2022 and attended by dentistry students from International Islamic University Malaysia (IIUM).
3. “Community-based Learning: Rabies Prevention Campaign Among School Children” at Sekolah Kebangsaan Sri Serdang was held on 30 August 2022 and consisted of 210 primary school students aged ten years old and students facilitators from UPM.
4. “In-Situ PBL & Book Writing Retreat: Kembara Silaturahmi & Jelajah Alam 2.0” at Kampung Baru Pulau Keladi, Pahang, from 28 to 29 May 2022, participated by 12 students from IIUM.
5. “Wash Hands & Save Lives” at Rumah Anak Yatim & Miskin Jalinan Kasih, Selangor, consisting of 40 students and 32 children from UKM on 25 August 2022.
6. “Pro-Kasih, Community Outreach Program” at Sekolah Kebangsaan Desa Tasik, Kuala Lumpur, participated by 11 teachers and 142 students on 1 September 2022, focusing on the welfare and issues regarding stray animals.

OBJECTIVE 2

MyOHUN had two participants at the Competency-based Education workshop held 24 to 27 May 2022 in Bangkok, Thailand. They shared how they designed and conducted simulation-based learning activity for a combined joint exercise for medical, public health, and veterinary medical students. At the end of the workshop, they had an initial action plan for raising the adoption of competency-based education by MyOHUN universities.

OBJECTIVE 3

MyOHUN took several important steps towards organizational sustainability by organizing a Strategic Planning meeting held from 14 to 16 January 2022. The MyOHUN National Coordinating Office (NCO) was able to present updates on the OHW-NG Project,



Photo credit: Dr. Norul Hernani Abd Latif, IIUM

along with the MyOHUN work plan for Year 3. The meeting and group discussion amounted to a detailed presentation of each project on programs and outcomes intended.

MyOHUN NCO management is now accredited under the ISO 9001:2015 Certification that provides international recognition of the NCO's ability to help promote the network's future sustainability, and secure future financial aid through standard practices.

MyOHUN's Annual Meeting, which was held from 25 to 28 September 2022, gathered representatives from MyOHUN member institutions to share, gain feedback, and suggestions on the activities done this year. Moving forward, the meeting connects MyOHUN members to strategize essential programs and activities for Year 4, injecting a more meaningful outcome.

MyOHUN continued to forge and enhance partnerships from other United States government agencies including Sandia National Laboratories and the United States Defense Threat Reduction Agency. We collaborated on the Biological Threat Reduction Program Malaysia – Building Capacity on Biorisk Management that provided training for researchers, academic staff, and students on MyOHUN, to receive appropriate training that will allow the safe handling of pathogenic organisms while protecting the community and preventing the release of the organisms outside of the laboratory. Such efforts are examples of how the network leverages our institutional experience.

Lessons Learned

Strengthening One Health knowledge among healthcare workforces

Based on the series of activities conducted by MyOHUN during the first three years of the OHW-NG Project, MyOHUN prioritizes strengthening technical and competency-based knowledge and skill sets of One Health among professionals. Hence, the focus on the training program that prepares the Malaysia One Health workforce to detect, prevent and respond to emerging diseases through knowledge sharing, networking, and collaboration across disciplines should be of the greatest importance.

MyOHUN website and social media updated

MyOHUN envisions a pronounced online presence through the official website and various social media platforms for the network. The contents and appearance of the website and social media channels were updated to better promote MyOHUN network's vision and mission for One Health workforce development, raise visibility for its members, broadcast accomplishments and disseminate its products and training offerings. All the activities and training conducted have already been reported on the MyOHUN website and social media.

Next Steps

Provide technical support and facilitation for sustainability planning

In ensuring the network's sustainability, building MyOHUN One Health Foundation and MyOHUN One Health Academy into existence has been the exclusive goal to attract more networking opportunities and collaborations. MyOHUN will continue to pursue improvement of the network's management, structure, membership, and workforce capacity by engaging with more partners in private sectors and international organizations.

Important Links

- Simulation Exercise Module:
<http://bit.ly/3V2Hp50>
- MyOHUN One Health Challenge:
<https://www.facebook.com/OneHealthChallenge/>



UKM medical students at laboratory stations to examine mosquitoes (vectors) responsible for different types of infectious disease during a training workshop organized by the OHSC in Pahang, 28 May 2022. Photo credit: MyOHUN

Project Leader
INTAN SURAYA SHARUDIN

Team Member
FATIN SAJIDAH ABD RASHID

Facilitator
MUHAMAD SYIRAZI SUHAIMI

DIGITAL COUNTER WITH TEMPERATURE SENSOR

MECHANICAL PMS TEAM

Project leader
Mohd Nasri b. Ismail

Team member
Haikal skandar b. Daeni

Instant Pumpkin Soup

JPH POLITEKNIK METRO KL

Project leader
HAZIRAH BINTI HADRI

AUTOMATED FUMIGATION FOR CORONA VIRUS DISEASE

Facilitator 1
ENCIK MOHD. ALIF AKHBAR BIN MADINI

Project Leader
MUHAMMAD FARIS HILMI BIN ZAMRI

Facilitator 2
CIK NUR ATIOAH BINTI HASHIM

TEMPE BAR

TEMPE BAR PROJECT



Sample submissions of innovations into the MyOHUN One Health Challenge by students in post-secondary learning institutions (see [Success Story](#)). Image source: MyOHUN

Success Story

Positive Exposure to One Health for Students from Vocational School, Community College, and Polytechnic Institutions

The Malaysian Youth One Health Challenge is an online innovation competition to introduce and promote One Health among students from vocational schools, community colleges, and polytechnic institutions. Students aged 16 to 22 years were tasked to develop innovations and pitch prototypes of ideas for control of disease outbreaks to assist in epidemic management that aligns with the One Health concept and approaches.

This challenge aims to foster the interest of Malaysian youth in One Health while at the same time applying and sharpening their knowledge and skills in science, technology, and innovation. With 45,480 views of posts about the competition on across social media platforms, the event is a demonstrated means to capture the attention of youths and other community members from across the country. This is also an effective method for introducing One Health oriented ideas and concepts across a broad audience, which helps increase the visibility of MyOHUN to non-traditional One Health audiences in the country.

This program successfully showcased brilliant ideas among the participants, which were translated into prototypes. Enthusiasm and positive competitive spirit among the youths was palpable and they were eager to learn and courageous enough to take up the challenge; no small feat given they had yet to be exposed to the basic concepts of pathogens and infectious diseases. Despite being the first time for a majority of them to hear about 'One Health,' or 'zoonoses' and other technical jargon introduced during the training session, they bravely endured the tasks with the help and guidance from their dedicated teachers. The students were inspirational in their enthusiasm, creativity, and commitment to create better, healthier communities, as demonstrated through 80 prototypes developed and presented.

"Personally, I think innovation challenges like this expose and train students to take care of their health during a pandemic while realizing the importance of physical and mental health. I also think that this program, at the very least, helps students to clearly understand disease transmission and ways to prevent or control this transmission," said Nur Aleena Kartinie, a student from Polytechnic Sultan Haji Ahmad Shah, Pahang.

In supporting professional development and finding solutions via multidisciplinary collaboration, participants need to understand the value proposition of multidisciplinary One Health approaches to address complex challenges at the interface of humans, animals and our shared environments. Participating in this challenge not only exposes youth learners to the essence of collaboration and teamwork but shows them how to act as catalysts of change for creating a culture of One Health in their institutions. The bold ideas presented by the younger generation signal hope as they take a phase over in leading the nation, one step at a time.



This program has a positive impact on not only students but also teachers. Through the implementation of One Health in their innovation and going through hours of researching and reading, knowledge gained through the process is invaluable. Learning and researching about diseases, it is safe to say that prevention is better than cure," said Ts . Mohd Rohaize Ahmad, Kolej Vokasional Batu Pahat, Johor.

*- Ts . Mohd Rohaize Ahmad,
Kolej Vokasional Batu Pahat, Johor*



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SEAOHUN

Southeast Asia One Health
University Network

MMOHUN

MMOHUN

MYANMAR ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



3
Member
Universities



8
Faculties



3
Small Grants
Awarded

ABOUT MMOHUN

- MMOHUN joined SEAOHUN to promote knowledge exchange and capacity building in One Health among human, animal, and environmental health professionals in Myanmar.
- Mission: To develop a resilient and competent One Health workforce by leveraging education, research, and training excellence provided by member Universities.
- Established in 2019.
- Visit our webpage at www.seaohun.org/mmohon.

Highlights

- Two local small grants were awarded to the teams led by Dr. Thant Syn Htoo from University of Medicine 1 and the team led by Professor Hlaing Hlaing Myint from University of Veterinary Science.
- One Regional Small Grant was contributed to the team led by Dr. May Soe Aung from University of Medicine 1.

Activities

Promoting veterinarian responses to neglected zoonotic diseases with the local Small Grant program

Under the local Small Grant program supported by MMOHUN in collaboration with SEAOHUN Secretariat, the project named “Serological Investigation on *Coxiella burnetii* infection (Q fever) in domestic cattle and goats in the areas of Nay Pyi Taw” was implemented during the period of 1 May to 30 September 2022. The project was led by Dr. Hlaing Hlaing Myint, Head of the Department of Medicine, University of Veterinary Science, Yezin with four team members. As a part of the project, the initial workshop was conducted successfully with the participation of students from the University of Veterinary Science and staff members from the Livestock Breeding and Veterinary Department Myanmar on 9 May 2022. During the workshop, the knowledge exchange about *Coxiella burnetii* infection and methods of sample collection with safety precautions were discussed. As a result, the workshop provided the positive feedback to the team and the students were motivated to participate in the project.



Survey with goat farmers. Photo source: Hlaing Hlaing Myint

Analyzing the factors contributing to COVID-19 patients in new Yangon general hospital

The project team led by Dr. Thant Syn Htoo, assistant lecturer from Department of Medicine, University of Medicine 1, Yangon was awarded a local Small Grant from MMOHUN in this reporting year. The project team consisted of one faculty member from University of Public Health, Yangon and two faculty members from University of Medicine 1, Yangon. As a new emerging and highly transmissible disease, the project team members were keen to identify the demographic characteristics and contributing factors towards COVID-19 patients in New Yangon General Hospital. The findings of the project will support the better decision making in managing COVID-19 patients in the hospital.

Providing support to the regional Small Grants program in assessing food hygiene practices among food handlers in Yangon

The project team led by Dr. May Soe Aung, Associate Professor of University of Medicine 1 received one of the regional Small Grants from MMOHUN in collaboration with SEAOHUN Secretariat to conduct research on antimicrobial resistance of *Staphylococcus aureus* and food hygiene practices in Yangon market food stall. The project commenced in the fourth week of May 2022 after the advocacy meeting with the Department of Human Resources, Ministry of Health, Nay Pyi Taw. The project proposal was submitted to the Ministry of Health Institutional Review Board for ethical research practice review

and approval process. The advocacy meeting with local stakeholders from the Yangon City Development Committee was held to obtain market research in the selected 17 markets. The findings from the project will provide pragmatic guidelines to be applied by the food handlers in the market to minimize and prevent food-borne infections.

Lessons Learned

Despite COVID-19 restrictions and political crisis across the country, MMOHUN maintains collaboration with SEAOHUN Secretariat and the networks to enhance One Health Workforce in the region. Better understanding of the rules and regulation of the national institutional review board will be required for the future implementation.

Next Steps

MMOHUN will continue to engage the One Health Workforce by promoting and raising awareness of One Health by the targeted community and by supporting the potentials One Health professionals to conduct early detection, surveillance, and research. In addition, MMOHUN will continue to contribute One Health activities in the local and regional networks.



Villagers planting crops in the fields of Myin Daik village in Shan State, Myanmar.

Photo credit: Ye Myint Aung



USAID
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SEA OHUN
Southeast Asia One Health
University Network

PHILOHUN
Philippine One Health University Network

PHILOHUN

PHILIPPINE ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



11
Member Universities



3
Activities Implemented



19
Faculties



334
Individuals Trained in One Health Topics

ABOUT PHILOHUN

- PhilOHUN is an organized network of Philippine universities that aims to develop the next generation of skillful and competent members of the One Health workforce in the Philippine setting.
- Mission: To build a strong and sustainable One Health university network that collaborates across sectors to improve health for all.
- Vision: To be the leading network advocating expertise through One Health initiatives to improve health for all.
- Established in 2019.
- Visit our webpage at www.philohun.org.

Highlights

- Three hundred and thirty-four volunteer community health workers and local government officials from four municipalities joined a One Health training workshop, 30 September - 1 October 2022, Camarines Sur.
- Key PhilOHUN members gave radio interviews over different talk shows to raise public understanding of One Health challenges such as antimicrobials in animal feed.

Activities

Objective 1

By leveraging opportunities from the OH-NG Project, PhilOHUN supports efforts to increase knowledge and awareness on One Health in the Philippines. This was done primarily through community-level training among frontline volunteer health workers and via discussions about One Health on radio programs.

PhilOHUN partnered with the ParSU Futures Thinking Group of Partido State University, and four municipal governments in Camarines Sur province for a community-level training activity on One Health. A two-day training workshop was conducted among 334 *barangay* or community health workers and local government officials from 30 September 2022 to 1 October 2022. The training provided an introduction to One Health concepts and approaches including: zoonotic diseases, antimicrobial resistance, environmental and ecosystem health, and data science. Among the 269 trainees who responded to the post-event survey, about 30% indicated they have familiarity with One Health concepts and approaches before the start of the training, and this rate increased 86% of respondents after the workshop concluded. A majority (>50%) learned the most from the following topics: 1) Introduction to One Health; 2) One Health and Antimicrobial Resistance; and 3) Introduction to Ecosystem Health. In



PhilOHUN's Dr. Neil Tanquilut was interviewed over DWIZ. Image credit: PhilOHUN.

In addition, 58% of the barangay health workers in attendance wanted to be called “One Health workers” in the future, signifying their desire to become advocates of One Health in the community. Read more about this in the PhilOHUN's [Success Story](#).

Five radio interviews were held to help raise awareness on One Health among the public. The topics discussed were: 1) implications of the use and misuse of antimicrobials on animal feed, 26 February 2022; 2) One Health and zoonosis - COVID-19 and rabies, 3 April 2022; 3) One Health and zoonotic diseases - avian influenza, African swine fever, 14 June 2022; 4) arsenic in lake water, 29 June 2022; and 5) COVID-19 in the Philippines, 6 July 2022. The experts interviewed were PhilOHUN faculty members from the University of the

Philippines Los Baños, University of the Philippines Manila, and Pampanga State Agricultural University. of the Philippines Los Baños, University of the Philippines Manila, and Pampanga State Agricultural University.

Other efforts in raising One Health awareness included publication of a newspaper article on antimicrobial use and misuse and antimicrobial resistance in the Philippine Star, a national print and digital newspaper in the Philippines.

OBJECTIVE 2

Three PhilOHUN faculty members attended the Competency-based Education Workshop in Bangkok, Thailand from 24 to 27 May 2022. They contributed to the development of an action plan for promoting competency-based One Health education.

OBJECTIVE 3

PhilOHUN website

The PhilOHUN website was designed to represent the identity of the organization and to disseminate information on network activities. The website will improve PhilOHUN's brand and communication strategy through visibility and transparency

by presenting culminated activities, published resources, and open activities and grants. The establishment of the PhilOHUN website not only promotes and showcases the organization through the Internet, but it also systematizes the operations and communications backend of the organization through acquisition of an official PhilOHUN email address. This is key for proper management of communications and documents for proper archiving and continuity of the organization.

Lessons Learned

The importance of efficiency during setbacks and delays

Some activities were delayed because of the ongoing campaign for the local and national elections. This impressed upon us the importance of being efficient and using the available time to make additional preparations for smooth implementation of the activities once conditions were more favorable.



Barangay Health Workers and local government officials are trained in One Health, 30 September 2022, Camarines Sur. Photo credit: PhilOHUN

Using recent health and health-related events for One Health discussions.

Discussions held during the radio interviews and the community-level training were anchored on recent health events that would be relevant to stakeholders at sub-national and community levels. We believe that by doing so, the lessons on One Health would be more relatable and salient to our audiences since they would be able to connect these with their day-to-day experiences.

Partnership and collaboration.

We attribute the success of the community-level training to our partnership with the ParSU Futures Thinking Group of Partido State University and the local government units of Sagñay, Goa, Tigaon and San Jose, Camarines Sur. Their active support ensured that the participants were able to attend the training, and that the logistical, technical and administrative needs of the event were met. Looking to the future events, PhilOHUN is committed to similar partnerships with local governments and facilitating transdisciplinary dialogue involving our member Universities and other stakeholders would be key to address complex and dynamic One Health challenges and issues.

Maximizing available social media platforms.

Posts on the PhilOHUN website were promoted on the PhilOHUN Facebook page, and member Universities were also encouraged to share these posts on their respective social media platforms. We believe that this network-wide dissemination increases exposure and potential engagement with the PhilOHUN website.

Next Steps

PhilOHUN plans to conduct more training workshops on One Health targeting students, faculty members, and professionals, and to engage in capacity-building sessions on skills related to proposal development and project management, competency-based education, and policy-writing. We expect that these skills will support our members and stakeholders to design, implement and sustain One Health training and empowerment initiatives. The organization will also further equip the website as a tool for the promotion of past, current, and future activities of PhilOHUN, and as a learning resource for One Health education in the Philippines.

PhilOHUN will be able to further develop the One Health modules for use in training and education among different audiences, increasing its ability to effectively educate on the One Health approach. We look forward to identifying potential partners and collaborators and strengthening capacities for One Health research, education, and legislation. The PhilOHUN website will continue to help disseminate and promote information about current and future projects by PhilOHUN, and will be an access point for learning resources on One Health.

Important Links

- “Antibiotics – use, misuse and overuse,” by Michael Tee; The Philippine Star, 6 March 2022: <http://bit.ly/3HPnkNk>
- PhilOHUN Brings One Health to the Radio: <https://www.philohun.org/post/philohun-brings-one-health-to-the-radio>



Photo of man carrying basket of fish
Photo credit: Stepanov.Ilya, Shutterstock.com

Success Story

All rise, One Health Workers!

On paper, Barangay Health Workers (BHWs) are volunteer public health paraprofessionals serving at most local administrative level of government in the Philippines. They tend to wear three hats while they fulfill their roles: community organizer, educator, and primary healthcare service provider. Ultimately, BHWs serve the health needs of the people in their respective barangays, acting as a bridge between community members and the health system.

With this in mind, the Philippine One Health University Network (PhilOHUN) engaged nearly 400 BHWs, local government officials and local academicians of Partido State University in a two-day training activity providing an introduction to concepts on infectious disease management and ecosystem health. Training topics included an introduction to One Health concepts, multidisciplinary approaches to address complex health challenges, zoonotic diseases, data science, environmental and ecosystem health, and antimicrobial resistance. Trainees were highly engaged through question-and-answer exchanges, active discussions on rabies, COVID-19 protocols, and the importance of evidence-based policy formation and legislation. A key message weaved throughout the training was the critical role of BHWs in creating the most suitable health

interventions for their communities. When armed with the lens of One Health, BHWs can provide the necessary insights that serve as the foundations where effective policies could be built.

Nearly half of the trainees were initially unsure of how knowledgeable they were on the concept of One Health. By the end of the training, a strong majority indicated they had increased their knowledge and understanding on One Health topics and collaborative approaches. About 56% of the BHWs in attendance also expressed wanting to be called “One Health workers”, reflective of their desires to expand their role in contributing to both individual and community health.

This activity was made possible through the generous support of USAID through the One Health Workforce – Next Generation Project, and with the enthusiastic collaboration between PhilOHUN, the university, and the local governments of four municipalities in Camarines Sur. Through this training, we realized that our efforts should go beyond mere understanding, building upon the connections we make to inspire people to take up a new perspective that may be a vital step in achieving health for all.

“

I attended a seminar on Human and Ecosystem health at PSU. I learned a lot in that training specially about our Ecosystem which is the most important. I liked the topic on the environment and the animals the most. All topics were very nice. Being a Barangay Health Worker, I learned that Health is important in a community. Humans should be careful with animals with disease so that they don't contract such disease. We also have to take care of our environment because it's important to us since we live within it

*- Lovilla Nate Tadeo
(BHW of Brgy. San Isidro Poblacion, Goa, Camarines Sur)*





THOHUN

THAILAND ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



11
Member
Universities



10
Activities
Implemented



84
Participants in
One Health Student Clubs



70
Faculties



6
Scholarships
Awarded



376
Individuals Trained in
One Health Topics

ABOUT THOHUN

- THOHUN focuses on pre-service workforce training and strengthening outbreak response capacity through cross-sector collaboration and using the One Health approach.
- Mission:
 - Build, develop, and expand One Health University Network of Thailand.
 - Support trans-disciplinary collaboration within and between universities and involved agencies.
 - Promote research employing One Health approach to promote the health of humans, animals and environment.
 - Coordinate with other related One Health Networks in Southeast Asia.
- Vision: A strong, recognized, and sustainable One Health University Network throughout Thailand by 2025, with sustained engagement and partnerships, regional integration, and empowerment.
- Established in 2012.
- Visit our website at www.thohun.org

Highlights

- Eighty-four students from One Health Student Clubs participated in mangrove planting and mangrove forest cleaning, Bang Khun Tien mangrove forest learning center, Bangkok; 24 September 2022.
- Two hundred and twenty-six vocational education teachers participated in a workshop to develop training modules on One Health Core Competencies for COVID-19 prevention and control; 5-6 October 2022.
- Developed online learning materials and modules for the Village Health Volunteers on advocacy and response to emerging disease outbreaks.
- Recorded videos and developed online learning materials and modules for the blended THOHUN Environmental Learning Institute training course.
- Collaborated with SEAOHUN and a team from Kasetsart University to implement a field-based One Health training within the 2022 SEAOHUN International Student Summit; 3-5 September 2022, Nakhon Pathom province.
- THOHUN established a One Health Core Competencies integration working group.
- Successfully conducted six “One Health in the Virtual Park” sessions throughout 2022 with various topics regarding One Health, reaching an audience of 26,966 participants and high engagement of the general public.

Activities

Objective 1

Student Clubs lead One Health activities

Members of Thai One Health Student Clubs (OHSCs) led multiple One Health activities that allowed students and participants from multiple disciplines to gain experience addressing human, animal, and environmental problems within communities in Thailand. A kickoff activity was held in Bangkok where 84 students from various disciplines in 11 Thai universities, six of which were THOHUN member universities, and various disciplines participated in mangrove planting, mangrove forest cleaning, and short seminars on One Health core competencies such as communication, informatics, and collaboration.

In addition, 29 students and current workforce personnel who already have advanced knowledge in food-, water-, and mosquito-borne diseases. took the THOHUN Environmental Learning Institute course (THOHUN-TELI) course to learn One Health issue identification, detection, and analysis. They were provided opportunities to learn through: 1) field-based experience in communities; and 2) a capstone project where the participants may design of social innovation-based solutions or interventions to solve complex health problems of the studied community.

THOHUN collaborated with a team from Kasetsart University to assist SEAOHUN with the design and implementation of field-

based One Health competency development activities for the 2022 SEAOHUN International Student Summit.

One Health Module Development

Two hundred and twenty-six vocational teachers contributed to developing training modules on One Health core competencies for COVID-19 prevention and control for vocational students and workers. Read more in our [Success Story](#).

Online learning materials and modules for the Village Health Volunteers on advocacy and response to emerging disease outbreaks are being developed. Learning materials/tools and contents of four on-the-job training modules on advocacy and response to emerging infectious disease outbreaks were firstly developed to prepare the Village Health Volunteers (VHVs) to be prompt for outbreak of the COVID-19 and other EIDs.



Fully community- and field-based training topics in the THOHUN-ELI short course have been adapted to offer various learners online, blended or field learning options by 2023.

COVID-19 risk communication e-learning modules for health officers and Village Health Volunteers

The COVID-19 pandemic has challenged governments' ability to communicate information with the public effectively, emphasizing the importance of risk communication in crisis situations. With USAID funding, THOHUN brought 37 educators from THOHUN member Universities, local school teachers, local health personnel, border and customs personnel, and Village Health Volunteers to Aranyaprathet and Mueang Sa Kaeo districts to train in risk communication strategies appropriate for COVID-19.

Trainees had an opportunity to visit communities where COVID-19 had a high rate of transmission to assess gaps in risk communication through the use of structured questionnaire surveys and community member interviews. They used participatory techniques whereby the local context and perceptions were analyzed to better understand the communities. The trainees then developed simple and digestible media such as a motto, video clips, and graphics in Thai and Cambodian languages for use by the studied communities.

This training improved risk communication capacities of health-related staff and strengthened collaboration and coordination of sectors and organizations in the border areas of Thailand to better address health threats. Furthermore, this training has the potential to be replicated and implemented in other border areas of the country.

COVID 19 risk communication training for health personnel. Photo credit: THOHUN

Objective 2

Over the course of Year 3, THOHUN worked with the OHW-NG Global Team on Strategy 2.2, Competency-Based Education Development, in order to support One Health workforce assessment. Representatives from THOHUN were nominated to participate in the competency-based education workshop, which was held in Bangkok in May 2022. The representatives were lecturers from THOHUN member Universities who are knowledgeable and actively engaged in leading courses incorporating the One Health concept and approach. Through the workshop, they developed strategies that will allow them to share their knowledge and skills on competency-based education with other THOHUN University members.

Objective 3

Planning for sustainability

During Year 3, THOHUN initiated and trialed several strategies for organizational sustainability, including establishment of the One Health Core Competencies integration working group to define and pilot to sustain One Health education and training and foster utilization of existing core modules of Kasetsart University into the teaching/training system of University members in the year 2022.

Furthermore, to work towards network sustainability, the THOHUN Steering Committee approved the establishment of a sub-committee to execute plans for network sustainability.

To expand THOHUN's partnership on a global scale and strengthen capacity in One Health teaching, research, and community work, THOHUN granted six awards to faculty staff

and National Coordinating Office staff for participation in the SEAOHUN International Conference as well as other One Health events. Read more in our [Success Story](#).

Increasing network visibility using risk communication and community engagement

THOHUN successfully conducted six virtual talk and debate show episodes of "One Health in the Park" to build a stronger connection with the Thai community and to increase the general public's appreciation for and understanding of how One Health relates to current health issues. Tracing its beginnings to the COVID-19 pandemic, "One Health in the Park" is hosted by experts, influencers, and stakeholders from various sectors and disciplines. Broadcasted live via THOHUN's Facebook page, audiences are effectively engaged through interaction with speakers in Q&A sessions. After each event, discussion points are captured as short videos and articles highlighting key information, and viewers are encouraged to watch the next sessions.

The six events had 26,966 virtual audience members and high engagement as represented by 1,039 reactions, comments, and shares. This activity has been shown to successfully increase THOHUN's visibility since 2021. The short video clips are posted on the network's YouTube channel.

Lessons Learned

Being agile in the face of changing situations will help adjust implementation of the project.

While COVID-19 has continued to make implementation of various One Health-related activities difficult due to restrictions and safety concerns for in-person participation, many activities could be conducted virtually. Most activity planning and preparations, such as creating posters, calls for participants, and development of online training modules could be completed by using an online meeting platform. This platform allows the network to share a variety of information and discuss as small groups in real-time with all participants. Virtual delivery might not be as effective for other activities that would benefit from or require interaction and onsite participation. Thus, THOHUN attempted to implement as many onsite activities as possible. Activities included piloting and evaluating rabies simulation and THOHUN-TELI, which requires simulating real-world response conditions, hands-on skill practices, and face-to-face working relationships. In spite of some unexpected and unavoidable circumstances, THOHUN was able to adapt and execute the activities with minimal impact on the program's outputs and outcomes.

Next Steps

THOHUN will continue to promote the One Health approach within Thai society. Our training and educational offerings will be expanded to youths, vocational students, current workers, and village health volunteers. THOHUN will develop a voluntary activity platform to support student-centered

activities, such as Thai OHSCs and One Health Ambassadors, that are engaging and sustainable. Lessons learned from the COVID-19 pandemic will be used as a guideline for developing educational materials and a platform entitled One Health Smart Lane, which will prepare the current and future workforce for both emerging health threats and pandemics alike.

THOHUN will continually develop, trial, and evaluate to improve the One Health Smart Lane e-learning blended platform. Providing basic and intermediate training adaptable for various learning levels, the platform is expected to be utilized THOHUN faculty members as well as integrated into the One Health Workforce Academies platform for broader beneficiaries. In addition, THOHUN will establish a sustainability committee and initiate sustainability plans for after the OHW-NG Project, which will develop business plans for networking, network governance, and financial sustainability, such as fundraising and seeking external funding agencies and collaborating partners.

Important Links

COVID-19 videos in Thai and Cambodian languages:

- <http://bit.ly/3FY2p9F>
- <http://bit.ly/3W1ReCl7>

“One Health in the Virtual Park” videos:

- PM 2.5: <http://bit.ly/3jb14mQ>
- COVID-19: <http://bit.ly/3V4g8zS>

Success Story

THOHUN development of One Health training modules for vocational students and workers

A critical method to slowing the transmission, and ultimately preventing an outbreak of COVID-19 is to equip the current and future workforce with the knowledge and skills required for disease recognition, self-protection, and prevention through improved post-secondary education. Vocational schools are a type of post-secondary education wherein students gain valuable skills directly related to job-specific requirements. While there are benefits to this type of education, most vocational education programs solely focus on technical knowledge. Health literacy and One Health core competencies like communication, problem solving, and critical thinking are helpful skills for vocational students and workers to help prevent, detect, and respond to future disease threats and pandemics.

Since 2018, THOHUN has collaborated with the Thai Ministry of Education to define the needs and gaps, as well as seven One Health core competencies, for improving primary, secondary, and vocational school education. In Year 3, 226 vocational teachers from 118 schools collaborated to design and develop training modules to address the identified needs and gaps around

the One Health core competencies of Thai vocational students, focusing specifically on COVID-19 education. The modules they created are on the following topics: 1) One Health Concepts and Knowledge; 2) Culture and Ethics and Gender; 3) Planning and Management; 4) Systems Thinking; 5) Communications and Informatics; 6) Leadership; and 7) Collaboration and Partnership. Each module outline consists of learning outcomes, levels of competencies, topics, teaching methods and tools or materials, assessments, teaching duration, and responsible persons. These outlines were then assessed by peer reviewers and then revised.

The THOHUN National Coordinating Office plans to complete the contents of materials for these training modules, and then organize Training of Trainers workshops to pilot the modules in 2023. After that, they plan to integrate it into the vocational curriculum or expand the training platform to advocate for or train a larger group of vocational students in the future.



Vocational teachers who participated in the virtual workshop on the training module development. Image credit: THOHUN



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SEA OH UN

Southeast Asia One Health
University Network



VOHUN

VIETNAM ONE HEALTH UNIVERSITY NETWORK

NETWORK OVERVIEW



27
Member
Universities



14
Activities
Implemented



353
Individuals
Trained in
One Health Topics



10
One Health Field
Sites Established



32
Faculties



15
Scholarships
Awarded



979
Participants in
One Health Student Clubs

ABOUT VOHUN

- VOHUN leverages the training, education, research capacities of the university network to build the skills, knowledge and attitude base for One Health leaders.
- VOHUN establishes One Health Sites to serve as natural laboratories for students to practice techniques in data and risk communication with members of the studied community.
- Mission: To leverage the training, education, and research capacities of the university network to build the skills, knowledge and attitude base for OH leaders.
- Vision: Fostering sustainable transdisciplinary capacity building to respond to emerging and re-emerging infectious and zoonotic diseases.
- Established in 2011.
- Visit our website at www.vohun.org.

Highlights

- Hue University of Agriculture and Forestry developed guidelines for animal research ethics.
- Conducted a training course in Hanoi on applying One Health approaches in disease surveillance for staff working at One Health sites, 4-5 May 2022.
- Organized a training course on One Health data analysis and interpretation for district health workers in Hai Phong, 2-3 June 2022.
- Established two new One Health sites in Quang Ninh and Long An provinces.
- Organized a national One Health camp for students focusing on risk assessment of viral disease from wildlife species, Dong Nai province, 27-28 July 2022.
- Provided scholarships for 15 Vietnamese students enrolled in the International Master's of Public Health with a One Health focus track at the Hanoi Medical University.
- VOHUN celebrated its 10th year anniversary with two important events: 1) a dialogue on One Health Policy and Education, held on 3 November 2022; and 2) a talk show on One Health career opportunities on 22 November 2022. Key findings and solutions discussed were captured in policy briefs.
- VOHUN has admitted three new University members – Dong A University, Hanoi University of Natural Resources and Environment, and Viet-Duc University.

Activities

Objective I

Developing curricular content to match One Health workforce needs

On 24 to 25 February 2022, with the technical support of two experts from the Global Consortium, the VOHUN National Coordination Office (NCO) coordinated a virtual meeting to update One Health modules for specific majors in 22 member Universities, with the participation of 89 lecturers. The workshop identified key One Health competencies which meet local needs, and participants from 17 universities signified their intention to update or develop new modules for their

respective disciplinary specializations. This engagement demonstrates that the workshop has given more impetus to network members to continuously improve curriculum through revising or building new One Health content.

A semi-virtual workshop was held from 13 to 14 September 2022 for 67 faculty participants from 21 universities to review training modules based on updated One Health competencies. During the workshop,

the OHW-NG Global Consortium members provided feedback on the modules, and lecturers from member universities had a great opportunity to learn more about revising and developing One Health training modules.

Raising One Health workforce capacities

The VOHUN NCO provided support to the Hue University of Agriculture and Forestry to organize a virtual training course on ethical use of animals for scientific research purposes on 24 to 25 March 2022. Faculty members reviewed existing documents and developed the Ethical Guidelines for the Use of Animals in Research, which will be applied in all livestock and veterinary faculties in Viet Nam.

On 4 to 5 May 2022, the VOHUN NCO conducted a training course in Hanoi on applying One Health approaches in disease surveillance for 22 human health and animal health staff working at One Health sites (OHSs). Participants from human and animal health sectors had a chance to share their experiences in the application of indicator-based surveillance, event-based surveillance, and community-based surveillance. Those from the human health sector gained a better understanding of the disease surveillance system in animal health in the country, and vice-versa for animal health professionals appreciating the International Health Regulations' integrated human disease surveillance and response system. This helps strengthen the collaboration between the two sectors in zoonotic disease surveillance.

From 2 to 3 June 2022 VOHUN conducted a training course on One Health data analysis in Hai Phong. Trainees included district human health and animal health workers from five nearby provinces. The training provided participants with knowledge and skills in data analysis and interpretation,

through practice with existing databases. After the course, the participants were confident that they could apply what they learned to analyze data to create disease surveillance reports. In addition, participants from the animal health sector gained a better understanding of the data requirements in the human health sector, and vice-versa, which helps further strengthen collaboration between the two sectors for disease surveillance reporting.

This year, five field-based learning courses were conducted at OHSs by eight VOHUN member Universities. Students applied skills in preparing data collection tools, conducting interviews and focus group discussions, analyzing data, and relaying feedback to stakeholders in the community. The field-based learning is not just a way of practicing, it is a way of working together to maximize the opportunity to apply what the students learn in a classroom environment in real-world settings.

The courses are: (1) One Health field-based training course for students in Quang Ninh focusing on pig-raising biosecurity practices and practicing sampling methods to detect African swine fever, implemented in March 2022 by Thai Nguyen University of Agriculture & Forestry and Hai Phong University of Medicine and Pharmacy; (2) Rabies Vaccination Program and Memorandum of Understanding Ceremony, conducted by the Nong Lam University and University of Medicine and Pharmacy at Ho Chi Minh City; (3) One Health collaboration between veterinary and human medicine for a disease prevention course organized for 60 students of the Vietnam National University of Agriculture; (4) One Health field-based training course for 94 public health students, medical staff, and veterinary staff in Vu Thu district, Thai Binh province, held by the Thai Binh University of Medicine and Pharmacy in June 2022; and (5) Parasitic helminths in dogs

and zoonotic transmission to humans course for 45 students from Can Tho University.

Two new One Health Student Clubs (OHSCs) were established in OHW-NG Year 3, one for students of Thai Nguyen University of Agriculture and Forestry in collaboration with a private enterprise, the Thien Thuan Tuong company, and the other one for students of the Nong Lam University and University of Medicine and Pharmacy in Long An province.

Engaging the future One Health workforce

In December 2021, intending to promote the OHSC activities, the VOHUN NCO organized a workshop to orient and share activities for 2021 to 2022. After the event, 18 OHSCs submitted 66 proposed activities. During OHW-NG Year 3, VOHUN provided technical and financial support for 21 activities with the participation of 1,473 students and thousands of other individuals from surrounding communities.

One highlight activity was the virtual talk show entitled “Wildlife Conservation and Health” which attracted 245 attendees, held on 3 March 2022 to commemorate World Wildlife Day. This talk show was initiated by VOHUN NCO in collaboration with MedInsight book publishers and aimed to: (1) raise awareness and engagement of One Health students in wildlife conservation, and (2) recognize the link between wildlife conservation and human and environmental health. Guest speakers came from the Convention on International Trade in Endangered Species of Wild Fauna and Flora Viet Nam, Worldwide Fund for Nature in Viet Nam, Save Vietnam Wildlife, Vietnam National University of Agriculture, and Nong Lam University.

Another highlight activity was organized for World Rabies Day on 25 September 2022, wherein 70 students from 5 One Health Student Clubs conducted simultaneous Rabies Risk Communication events in five

communes of An Duong district, Hai Phong City. The events attracted 405 local leaders and villagers. Students gave presentations, distributed flyers, had Q&A exchanges with commune residents to increase general knowledge about rabies prevention, and performed comedies/plays and a flash mob dance, all to creatively relate the seriousness of rabies. Through these innovative risk communications techniques individuals who participated in the communication events would be better able to relate what they learned through within their families and communities.

From 27 to 28 July 2022, VOHUN NCO organized a national One Health Camp focusing on risk assessment of viral disease from wild animals for 47 students from member Universities in Tan Phu district, Dong Nai province. The main activities of the camp were risk assessment practices, synthesizing data, and presenting the results in workshop. Students had opportunities to visit several



National One Health Camp for students organized in Cat Tien National Park, Dong Nai Province; 27 July 2022. Photo credit: VOHUN

wildlife farms and wildlife rescue centers to learn firsthand about wildlife farming management practices. Before the main camp, students attended a three-day online training course to learn more about viral diseases from wild animals, risk assessment techniques for infectious diseases from wild animal farms, and zoonotic diseases. The participants of this event included lecturers of member Universities, representatives of Dong Nai Department of Agriculture and Rural Development, Tan Phu forest protection station, and VOHUN NCO.

Objective 2

Three VOHUN representatives attended the Competency-based Education Workshop held by the Global Team on 24 to 27 May 2022 in Bangkok, Thailand. They were interested in building upon their existing skills-building courses and field experience offered to students. During the workshop, they drafted an action plan to disseminate the highlights of the workshop and form a core group to support the adoption of this pedagogical approach.

From 16-18 August 2022, VOHUN conducted a semi-virtual Training of Trainers workshop on Knowledge Management for 113 faculty members from 24 VOHUN member Universities. The workshop aimed to improve the trainee's understanding of key concepts, principles, skills, and tools, and awareness of how to apply it in their daily work. The workshop also included representatives of SEAOHUN Secretariat, INDOHUN, and VOHUN NCO.

Objective 3

In November 2021, VOHUN celebrated the Network's 10th Anniversary with two semi-virtual events live-streamed via the Network's Facebook page: a One Health policy dialogue and One Health talk show. The policy dialogue focused on development

of a One Health Workforce in Viet Nam and included representatives from multiple government ministries, professional associations, international organizations and VOHUN member Universities. The talk show event focused on career opportunities for current and future One Health professionals across the country.

The VOHUN Year 4 activity planning meeting was held in Da Nang on 20 and 21 July 2022, with 65 participants from 25 universities, USAID, and the U.S. Defense Threat Reduction Agency. During the meeting, VOHUN NCO presented proposed Year 4 activities and then representatives of member Universities divided into 5 groups to discuss and provide comments or other ideas to pre-finalize the workplan for Year 4.

The VOHUN annual meeting was conducted virtually on 22 and 23 September 2022, with participation of representatives from 25 member Universities and other NGO partners. The experiences, successes and lessons learned from the OHW-NG Project activities implemented in Year 3 were shared



VOHUN Year 4 activity planning meeting conducted in Da Nang, 20 July 2022. Photo credit: VOHUN

during this meeting. The meeting also provided an opportunity for VOHUN member Universities to be briefed on the main activities for Year 4.

VOHUN expanded its Network from 24 to 27 member Universities. The network added Dong A University, Hanoi University of Natural Resources and Environment, and Viet-Duc University based on the recommendations of their university leaders.

On 15 February 2022, VOHUN provided a presentation for the USAID Partners' Meeting.

Lessons Learned

The VOHUN NCO actively organized two important events in the context of the complicated developments of the COVID-19 pandemic (Policy Dialogue on developing OHW in Vietnam and a Student Talkshow on One Health career development opportunities) for VOHUN's 10th anniversary celebration. Organizing the events led to the development of two policy briefs. Recommendations for policy and practice are proposed together with specific solutions on adding a One Health-related competency framework for job positions in health care units and training courses. All guest speakers emphasized the roles of VOHUN member Universities in One Health workforce education, the importance of field-based learning, and the value of internship activities as practical ways for students to gain critical skills and explore their individual professional networks.

Two new OHSs were established with support from the private sector. One site was set up by the Thai Nguyen UAF in

collaboration with Thien Thuan Truong company. The other site was established in collaboration with the Faculty of Animal Husbandry and Veterinary Medicine – the Nong Lam University, the Faculty of Public Health - the University of Medicine and Pharmacy - Ho Chi Minh City, Boehringer Ingelheim Veterinary Medicine Company, and the local government. Both new sites are partially supported by private sector businesses. The linkage between universities and private sector is an important bridge in ensuring and improving the quality of student education and training, helping students prepare for future professional work, and to improve the quality of human resources of employers and enterprises. This collaboration expands our network connecting University members with the private sector, situating current and future generations of the One Health workforce within industry. The diversity of sites also contributes to the network's long-term sustainability.

Next Steps

Understanding the importance of sustaining our One Health university network, especially after the OHW-NG Project ends, VOHUN will design and conduct a survey to measure VOHUN's organizational health based on the partnership health check indicators of the practical guide to build high-impact multi-stakeholder partnerships for the Sustainable Development Goals. VOHUN will also develop a resource mobilization plan and organize a fundraising training course.

In addition, VOHUN will strengthen the capacity of human health and animal health staff at the newly-established OHSs by providing training courses which apply One Health Core Competencies, mentoring opportunities for students, and conducting

multi-disciplinary risk assessments in Hai Phong. Creating and adapting One Health modules and promoting private sector involvement in field-based learning will improve the quality of the current and future One Health workforce.

VOHUN will continue to encourage OHSs to hold inter-club activities such as seminars, competitions, field trips, and community outreach activities to generate linkages between different universities and disciplines across Viet Nam. VOHUN introduced updated One Health training programs through pre-service education and in-service training, field-based learning for students through OHSCs with mentoring support from local health staff, involvement of the private sector in establishing OHSCs, capacity building in disease surveillance, data analysis for health professionals at different levels, and competency-based education for lecturers and students.

All these elements combine to create a framework for increasing VOHUN's sustainability and, through it, strengthening Vietnam's One Health workforce skills and abilities to prevent, detect, and

rapidly respond to complex challenges at the interface of human, animal and environmental health. VOHUN will improve current and future workforce knowledge and skills through continuous improvement and adaptation of One Health training programs focusing on field-based practices.

Important Links

- One Health Sites: <https://vohun.org/en/one-health-field-sites.html>
- Policy brief: One Health Policy and Education: <http://bit.ly/3Fyikdr>
- Policy brief: Increasing practical experiences in One Health education: <http://bit.ly/3Wk6ni4>

Success Story

National One Health Student Camp 2022: Connect To Create the Future

The annual National One Health Camp, organized by Vietnam One Health University Network (VOHUN), is one of the most anticipated events of the year for undergraduate students in Viet Nam. VOHUN offers this unique activity to build field experience for the future One Health workforce. Conducted from 27 to 28 July 2022, this year's theme was "Risk Assessment of Infectious Diseases caused by Viruses from Wild Animals". The main objectives of the camp were to provide an opportunity for students to: (i) understand the importance of the One Health approaches in the prevention and control of human and animal diseases, and (ii) apply One Health core competencies in conducting risk assessment for viral diseases in wildlife species present in their community.

Locations for the One Health camp were carefully selected in five communities across Tan Phu district in Dong Nai province, where local wild animal farms are plentiful and wildlife disease surveillance projects are active. The program also included visits to Cat Tien National Park, a natural reserve protecting one of the largest primitive tropical forests in Viet Nam, along with tours of the Nature Museum and Wildlife Rescue Center. To ramp up to the camp, a three-day online training course was provided with important background information about viral diseases in wildlife species and technical guidance on how to conduct a risk assessment.

Students started their assessment by visiting the local community and conducting interviews with health workers, veterinarians, environmental officers, breeders, and traders based on the plan they prepared. Some groups were taken to wild animal farms to interview breeders and observe the livestock waste treatment process, as well as to learn more about the breeding process. Students also had conversations with local community members about the risk of viral diseases from wild animals they were raising. Lecturers invited from member Universities guided students, gave feedback on the reports, and selected the top-performing group.

The 47 participating students were divided into groups of mixed gender and academic majors. Mixing students from diverse backgrounds and disciplines helped facilitate the exchange of culture, knowledge, and skills, broadening their inter-personal and professional networks and preparing them for diverse perspectives they will face in their future careers.

Many students said their participation in the One Health camp was one of the most memorable events in their academic life because of the field experience that it provided, and new friendships they made with fellow campers. One of the reasons leading to the success of the National One Health Camp this year was the enthusiastic support and active participation of the local government representatives and community members. They each created favorable conditions for students and lecturers when working in the field, such as inviting local people to be interviewed and to participate in visiting the farms.



National One Health Camp for Students 2022

Photo credit: VOHUN



Image credit: SEAOHUN

One Health Champions

Increasing knowledge of the interconnectedness of the health of people, animals, and the environment



ONE HEALTH CHAMPIONS



Limkhuoch Hov

One Health Champion,
CAMBOHUN

Lecturer, Department
of Animal Science and
Veterinary Medicine,
Kampong Cham National
Institute of Agriculture,
Cambodia

“One Health is a short word but it is very meaningful because it is a connecting link between human, animal and environmental spheres. We need professionals from differences sectors working together to prevent pandemics due to zoonotic diseases.”

Limkhuoch Hov is an officer and a lecturer at the Department of Animal Science and Veterinary Medicine, Kampong Cham National Institute of Agriculture. She has been part of many research projects on topics related to One Health, which focus on zoonotic disease. She is specially trained in participatory epidemiology tools for collecting data related to One Health knowledge, attitudes, and practices. In early 2022, she led a research team from two different Cambodian institutes, namely Prek Leap National Institute of Agriculture and Kampong Cham National Institute of Agriculture, that received a CAMBOHUN Small Grant 2022 for studying the knowledge, attitudes and practices of famers with regards to avian influenza. Ms. Hov holds a Bachelor of Animal Science and Veterinary Medicine, Kampong Cham National Institute of Agriculture, Kampong Cham, Cambodia.



**Theodola Baning
Rahayujati**

One Health Champion,
INDOHUN

Secretary, Kulon Progo
District Health Office,
Yogyakarta, Indonesia

“The 3Cs (Communication, Coordination and Collaboration) are the keys to success for One Health. Most of the new emerging diseases are zoonoses; rapid detection and adequate response are urgently needed to stop the spread. Policy support to human resources in the human, animal and environmental health sectors is important, and the capacity and readiness to carry out the 3 Cs are key to success in controlling it.”

Dr. Theodola Baning Rahayujati is INDOHUN's 2022 One Health champion. With more than 25 years of experience in disease surveillance, control, and outbreak investigation, she has a track record of success in managing outbreaks of zoonotic and vector-borne diseases, such as avian influenza, leptospirosis, anthrax, dengue fever, and chikungunya. Dr. Baning has served as spokesperson for the Kulon Progo District Covid-19 Task Force, and as Consultant Epidemiologist for the Ebola outbreak response in Sierra Leone from 2014 to 2015. Leveraging her background in working with health practitioners from various disciplines, Dr. Baning has led several international and national One Health programs, contributed to One Health conferences and training programs, and currently supports the Indonesia One Health University Network (INDOHUN) as a One Health National Trainer. In addition, Dr. Baning is one of the co-founders of the One Health Village established in Kulonprogo district, Yogyakarta. Together with INDOHUN, she developed the One Health Outbreak Investigation Training curriculum in 2017 adopted by the Ministry of Health and other partners for health workforce training. An alumnus of the Field Epidemiology Training Program (FETP), Dr. Baning is currently the Chair of the Yogyakarta Branch of the Indonesian Epidemiologist Association, Field Supervisor for FETP at Gadjah Mada University, and a reviewer of Gadjah Mada University's Journal of Public Health News and Respati Medical Journal of Respati University. She earned her degree in medicine from the University of Gadjah Mada.

FOR SOUTHEAST ASIA

“My favorite slogan is: ‘Work together with the next generation to promote and enhance an appreciation for One Health.’”

Dr. Angkham Ounavong is the Deputy Director General of the Institute of Research and Education Development at the University of Health Sciences in Vientiane, Lao PDR. In addition to being a lecturer and public health researcher, he also serves as Vice-Chairman of the Lao One Health University Network and a member of the University’s ethical research committee. He supervises medical students, graduate students, and medical residents and is also a thesis adviser for the area of preclinical science. Dr. Ounavong’s research interests include the rational use of medicine and the tobacco control program.

He was a co-investigator of the Global Youth Tobacco Survey in 2012 and 2013 of the World Health Organization Regional Office for the Western Pacific (WPRO-WHO). From 2000 to 2005, he was also a team member of the project for promoting Rational Use of Medicine of the Ministry of Health, supported by WPRO-WHO. Dr. Ounavong graduated as a medical doctor in 1991 from UHS, Lao PDR. He was awarded a scholarship by the German government to study for a Diploma of Epidemiology at the College of Public Health, University of the Philippines Manila from 1999 to 2000, and in 2003 he earned a Master’s degree in Primary Health Care Management at the Asian Institute and Health Development, Mahidol University, Thailand.



Angkham Ounavong
One Health Champion,
LAOHUN

Deputy Director of Research and Education Development, Institute of Research and Education Development, University of Health Sciences, Lao PDR

“Ensuring a successful One Health future means investing in the generation who will carry that future. I believe our biggest opportunity to have a bright future is to tap into the next generation’s drive and motivation. It is critical that we embrace and harness the youth’s determination and guide it in the right direction so that our next generation of One Health leaders are prepared and able to lead when their time comes.”

Dr. Mohd Faizal Bin Ghazali is an academician and researcher, currently working at Universiti Sultan Zainal Abidin as a Senior Lecturer, Deputy Director of the Centre of Farm Management, and Head of the School of Animal, Aquatic and Environmental Sciences.

He was formerly the Deputy Director for the Institute of Agriculture and Food Industry Research from 2015-2017. He is a veterinarian by training, specializing in veterinary public health and production, and his research is mainly focused on antimicrobial resistance surveillance and disease biomarkers in animals. Dr. Faizal has been actively involved in MyOHUN activities since 2015 and is currently the One Health Young Leaders and Communication Project Leader. He has a keen interest in positive youth development for university students in Malaysia, and supports outreach projects that educate and promote awareness on zoonotic diseases in rural communities. Dr. Faizal earned his Doctor of Veterinary Medicine in 2009 from Universiti Putra Malaysia, and his doctoral degree in 2015 from the University of Glasgow, United Kingdom. He is an active member of the Royal Society of Biology, London, and board-certified as the Professional Technologist in Agro-based technology by the Malaysia Board of Technologists.



Mohd Faizal Bin Ghazali
One Health Champion,
MyOHUN

Senior Lecturer, School of Animal Science, Faculty of Bioresources and Food Industry, Universiti Sultan Zainal Abidin, Malaysia



Mya Thandar
Health Champion, MMOHUN

Professor, Occupational
Environmental Health
Department, University of
Public Health, Myanmar

“My earnest intention as one working in the health sector is to apply the One Health approach to combat rampant global issues like antimicrobial resistance, emerging infectious diseases, and epidemics.”

Dr. Mya Thandar is a professor from the Department of Occupational and Environmental Health, University of Public Health, Myanmar. She graduated from the University of Medicine (1), Yangon, and achieved a Doctoral degree (DPH) from Khon Kaen University, Thailand. In 22 years of service in the public health sector, she has taught and mentored medical students at the University of Medicine, MPH and PhD students at the University of Public Health, and health assistant students at the University of Community Health in different capacities. As an academician, she enthusiastically involves herself in capacity building of faculty members, as well as the students and improving the academic offerings by conducting trainings and workshops concerning One Health issues. In addition, she has been conducting research, especially in the field of occupational and environmental health and One Health. She is also interested in doing collaborative research with not only the local universities but international universities on One Health issues. She received a SEAOHUN small grant in 2020 for her proposal entitled “Antimicrobial resistance in wastewater of Yangon Region from the One Health perspective”. She is also responsible for the University of Public Health Institutional Review Board as a secretary and the university’s coordinator for MMOHUN.



John Vincent B. Fuentebella
One Health Champion,
PhilOHUN

Mayor of Sagñay
Municipality, Camarines Sur,
Philippines

“ There are things that we need to do that only the government can implement when we talk about public health. These opportunities to have discussions with experts are important so that we can know what else needs to be done, what government interventions we can implement for the health of our locality. As Mayor, it is my obligation not just to be the head of government in my locality but also to lead an ongoing campaign for cultural change towards sustainability of community health and our environment.”

Mayor John Vincent B. Fuentebella (or Jovi, as he is known to his peers) is the current mayor of Sagñay municipality, Camarines Sur. As mayor, he has been active in his duty of serving the people, particularly in ensuring the health of his community by supporting the implementation of initiatives such as: Public Health Standards during the Covid-19 pandemic, clean water and sanitation, measures against the spread of the African Swine Fever virus, and coastal resource management for sustainable fishing. His interest in One Health has moved him to partner with the Philippine One Health University Network (PhilOHUN) and Partido State University to organize and support a training workshop attended by nearly 400 barangay health workers and local government officials from the Partido district (to which the town of Sagñay belongs). He is currently in discussions with PhilOHUN and the Applied Microbiology for Health and Environment Research Group from the University of the Philippines Manila for a follow-up activity in 2023 on incorporating One Health in legislation.

“One Health and risk communication issues are what I am most passionate about in my work. Both of these areas require collaborative, multisectoral, complex, cross-disciplinary approaches, and involve multiple levels of governance, from local to global. Risk communication’s purpose is to enable people at risk to make informed decisions to mitigate the effects of a disease outbreak, and take protective and preventive measures. If we apply One Health and risk communication ideas, we will achieve the goal of optimal health outcomes for humans, animals, and the environment.”



Dr. Pahurat Kongmuang Taisuwan is the Director of the Secretariat Office of the Royal Development Projects Committee for the Department of Disease Control within the Ministry of Public Health of Thailand. She began working for the Department of Disease Control in 1993, where she focused on preparing for and responding to emerging infectious diseases. In 2013, Dr. Pahurat shifted to the Bureau of Risk Communication within the same department, where she established several training tools, procedures, and guidelines for risk communication to prevent One Health issues or emerging zoonotic diseases as well as public health crises. In 2018, Dr. Pahurat supported Thailand One Health University Network and Southeast Asia One Health University Network as a trainer in crisis risk communication regarding diseases that require a One Health approach, such as rabies, COVID-19, and leptospirosis. Dr. Pahurat collaborated on materials to support One Health workforce development in Thailand, including: Infodemics Risk Reduction and Decision-Making Tools for Proactive Communication and Engagement; the THOHUN International Short Course on Ecosystem Health; Student One Health Camp for Rabies Control; and engaging village health volunteers.

Pahurat Kongmuang Taisuwan
One Health Champion,
THOHUN

Director, Secretariat Office of the Royal Development Projects Committee, Department of Disease Control, Ministry of Public Health, Thailand

“I’ve truly enjoyed working with students to broaden their thinking about One Health. Human health is central and placed in a dynamic relation between animal health and the environment. There is a close connection between a clean environment, healthy animals, and safety for humans. The relationship between the three is inseparable. The notion of One Health promotes the link between environmental, animal, and human health. Without a healthy and sustainable environment, we will not be able to live a happy existence as humans.”



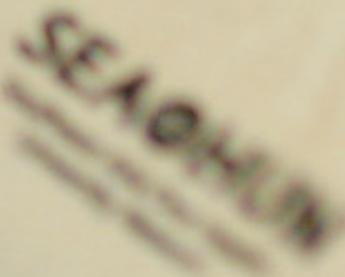
Dr. Vo Thi Ngoc Bich is a senior researcher and lecturer specializing in Veterinary Medicine at the Vinh Long University of Technology Education, and has been an active member of the Vietnam One Health University Network since 2018. Currently she is in charge of advising the Vinh Long One Health Student Club, one of the most active clubs in the network, as they organize activities in a complex COVID-19 context to raise the awareness of students and the wider community about the critical need for multidisciplinary One Health approaches to address complex health challenges. She likes advising the club because she feels it is important to propagate the meaning of One Health, its approach and solutions, and integrate it into the youth’s perception of a most beautiful life. Ms. Bich earned a Master’s degree in Veterinary Medicine from Can Tho University. Her research interest is in biosecurity in veterinary medicine and safety and efficiency in livestock farming.

Vo Thi Ngoc Bich
One Health Champion,
VOHUN

Lecturer at the Vinh Long University of Technology Education, Viet Nam

Catalyzing O Citizens of the

SEAOHUN 2022 International



A close-up photograph of a stack of light brown paper bags. The bags are slightly wrinkled and have a textured surface. The text is printed in a clean, sans-serif font. The top line is in blue, and the bottom line is in black. The bags are stacked, with the top one being the most prominent.

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