



MINISTRY OF AGRICULTURE AND
RURAL DEVELOPMENT



MINISTRY OF HEALTH

**THE VIET NAM ONE HEALTH
STRATEGIC PLAN FOR ZOO NOTIC DISEASES 2016-2020**

HEALTH SECTOR

**REVIEW OF IMPLEMENTATION PROGRESS 2016-2017
AND IMPLEMENTATION PLAN FOR 2018-2020**



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I. INTRODUCTION

In recent years, due to the intense process of globalization along with exchange of human with humans, humans with animals and the apparent climate change impacts due to human intervention lead to changes of the ecology and environment. As the result, the risk of zoonotic diseases is on a rise. Over 70% of emerging human disease outbreaks are diseases of animal origin.

Viet Nam is located in a relatively high-risk region for emerging infectious diseases (EIDs), including zoonotic diseases arising from the interaction of humans, livestock, wild animals and ecosystems as well as the risk of infectious diseases such as MERS-CoV in the Middle East and South Korea, Ebola in West Africa, Plague in Africa, and Influenza A/H7N9 in China.

In order to enhance readiness to cope with zoonotic diseases and minimize the impact on human health and other effects caused by animal-to-human transmission, Vietnam Government has approved the Viet Nam One Health Strategic Plan for Zoonotic diseases, 2016-2020 (OHSP) developed by the Ministry of Agriculture and Rural Development (MARD), Ministry of Health (MOH) with the participation of national and international One Health partners.

The National One Health Strategic Plan for Zoonotic Diseases addresses three objectives: (1) Strengthening One Health capacity for prevention and control of all zoonotic diseases (2) Enhance preparedness for a human emergency of animal origin (3) Apply One Health principles to limit the public health impact of current prioritized zoonotic diseases.

Seven core areas of the National One Health Strategic Plan for Zoonotics Diseases, 2016-2020, have been identified:

(1) Building One Health capacity; (2) One Health approaches for managing human disease emergencies of zoonotic origin; (3) One Health approaches for managing zoonotic agents with pandemic potential that are yet to emerge; (4) One Health approaches for managing zoonotic influenza viruses with pandemic potential; (5) One Health approaches for managing rabies; (6) One Health Approaches for managing antimicrobial resistance; and (7) One Health approaches for managing other priority zoonotic diseases.

During the implementation process of the One Health National Strategic Plan, in order to promote and concretize the approved objectives and actions, the Health Sectoral Plan has been prepared based on the inputs and review of the Ministry of Health and related stakeholders. A corresponding plan has also been developed for the Agriculture and Rural Development Sector. Both of these plans support collaboration and coordination of One Health efforts, clearly identifying areas where these two ministries need to work together, and areas where they need to work with the Ministry of Natural Resources and the Environment and other key stakeholders.

The purpose of this Sectoral Plan is to review the progress of the One Health Strategic Plan from 2016 to the present; set out the activities and expected results for the 2018-2020 period; identify gaps/deficiencies that need to be supplemented; and indicate the multi sectoral coordination mechanism needed for the application of One Health approaches in the prevention of zoonotic diseases.

The Sectoral Plan is based on the National One Health Strategic Plan for Zoonotic Disease Control (2016-2020), which was issued by the Ministry of Agriculture and Rural Development according to Decision No. 5273/QĐ-BNN-HTQT dated December 19, 2016, with the agreement of the Ministry of Health as set out in Official Letter No. 8225/BYT-DP dated November 17, 2016.

This plan was finalized with inputs from relevant government departments and from national and international One Health partners at a national consultation workshop organized in Hanoi on May 11, 2018 and at the Annual One Health Forum organized in Hanoi on May 30, 2018.

In order to develop the Health Sectoral Plan, key documents that were referred to could be named as: the One Health Strategic Plan for Zoonotic Disease Prevention, 2016-2020; the Integrated National Operational Program for Avian And Human Influenza (OPI), 2006-2010; The Viet Nam Integrated National Operational Program on Avian Influenza, Pandemic Preparedness and Emerging Infectious Diseases (AIPED), the Law on Prevention and Control of Infectious Diseases, the Veterinary Law, the National Rabies Program, the National Influenza Program, and the National Antimicrobial Resistance Action Program; the Global Health Security Agenda; Joint Circular No. 16/2013 and other decrees, directives and other relevant documents.

In the current phase, there are only five prioritized diseases identified in Joint Circular No. 16/2013, including: (1) Influenza A (H5N1) (2) Rabies (3) Streptococcus suis (4) Anthrax (5) Leptospirosis. In the coming period, other emerging dangerous zoonotic diseases should be added in response to the actual situation.

II. REVIEW OF IMPLEMENTATION PROGRESS DURING 2016-2017 AND THE IMPLEMENTATION PLAN FOR 2018-2020

Please refer to the following tables for each of the seven core areas in the One Health Strategic Plan for Zoonotic Diseases, 2016-2020.

FOCUS AREA 1: Building capacity for One Health implementation

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
A. Administration and coordination						
1.1	<i>A completed national coordination mechanism that is capable of coordinating the human health, animal health, wildlife and environmental health and other relevant areas in emergency and non-emergency pandemic situations.</i>					
1.1.1	Establish a unified national steering committee	MOH was assigned to be the focal point to coordinate with MARD in conducting research, reviewing and drafting a plan for the establishment of a unified coordination mechanism for zoonotic diseases at national level, led by a Deputy Prime Minister.	This activity will not continue to be implemented following the direction of the Prime Minister on limiting the establishment of new interdisciplinary Steering Committees/Organizations. National steering committees will continue to operate to address zoonotic disease outbreaks in humans, according to the provisions of the Law on Communicable Diseases.	The lack of an ongoing overall national steering committee may limit the effectiveness of inter-sectoral coordination on surveillance, preparedness, risk reduction and prevention activities during periods where there are no outbreaks ongoing.	MARD leadership and DAH	Other related sectors as included in existing national steering committees for zoonotic disease outbreaks in humans
1.1.2	Actively apply the Joint Circular No. 16/2013 in zoonotic prevention and control activities	- Collaborated in monitoring, information sharing and controlling of zoonotic diseases as stipulated in Circular 16. - Implemented pilot project to evaluate and enhance the implementation of Circular 16 at the grassroot level in four provinces: Ha Giang, Thanh Hoa, Quang Nam,	1. Collaborate in the implementation of risk monitoring and evaluation and sharing information on zoonotic diseases, including wildlife; 2. Collaborate in the planning and implementation of the zoonotic diseases' preparedness and response, including wildlife; 3. Collaborate in the investigation and handling of zoonotic	1. Assess the effectiveness of the circular's implementation of in a wider scale. 2. Both sectors have infectious disease reporting systems, however, sharing is done manually, as required. Therefore, it is important to consider the following: - Develop a tool / system for the sharing and management of	DAH & RAHOs	WHO, FAO

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		<p>Binh Dinh.</p> <p>- Drafted detailed guidelines for strengthening Circular 16 at grassroot level and joint SOPs for the investigation and handling of zoonotic diseases specified in Circular 16.</p>	<p>disease outbreaks;</p> <p>4. Collaborate in the implementation of communication/risk communication on the prevention and control of zoonotic diseases;</p> <p>5. Collaborate in the trainings/simulation exercises and conduct scientific researches on prevention and control of zoonotic diseases;</p> <p>6. Finalize and promulgate guidelines for the implementation of Circular 16.</p>	<p>information zoonotic diseases in a more accessible, timely and effective manner (at least with the diseases specified in Circular 16).</p> <p>- Develop standards and procedures for information sharing.</p> <p>2. Study and develop a collaborative process for surveillance, investigation and handling of zoonotic disease outbreaks.</p> <p>Although the circular included provisions, it is not specific about the standards, roles, functions and responsibilities of each sector.</p> <p>3. The implementation of Circular 16 at the commune, district and provincial levels is still lacking and weak. It is necessary to consider additional training courses and coordination exercises between the two sectors on the implementation of Circular 16.</p> <p>4. Collaboration in Communication /Risk Communication is not really effective.</p>	MARD		
1.1.3	Clarify the role		The role of MONRE in coordi-	Detailed instructions on:	DAH	Collaboration with	

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	of MONRE		<p>nation:</p> <ol style="list-style-type: none"> 1. Collaborate in researches on the assessment of environmental impacts and risks to public health; 2. Collaborate in the monitoring/sharing information on risks/diseases affected by environment 3. Collaborate in the investigation and handling of environmental risks related to public health, 4. Collaborate in developing the preparedness plan for environmental risks related to public health. 5. Collaborate in communication to raise public awareness about prevention and mitigation of environmental risks related to public health. 	<ol style="list-style-type: none"> 1. Collaborate in assessment of public health risks; 2. Collaborate in the monitoring / sharing of information on risks/diseases affected by environment 3. Collaborate in the investigation and handling of environmental risks related to public health, 4. Collaborate in developing the preparedness plan for environmental risks related to public health. 5. Collaborate in communication to raise public awareness about prevention and mitigation of environmental risks related to public health. 	DLP NAEC VNFOR-EST/CITES MA	MONRE (VEA/ Department of Pollution Control) to develop guiding documents	
1.1.4	Strengthen and timely share information between the Animal Health and Human Health sectors	Agencies in the preventive medicine sector have actively shared disease information with the animal health sector through official channels such as official dispatches, surveillance and	<ol style="list-style-type: none"> 1. Strengthen information sharing at provincial, district and commune levels. 2. Develop a tool/system to share and manage the information on zoonotic diseases in a more accessible, timely and 	<p>Simple yet effective information-sharing tools /measures to promote the sharing of information at the grassroots level without overburdening the limited number of staff at this level who are responsible for</p>	DAH (coordinate in identifying methods/ tools of information sharing)	WHO, FAO, US-CDC	

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	through established information channels (e.g. reporting cases of animal-to-human transmission to MARD and reporting the risk of zoonotic disease outbreaks and other risks (AMR) to MOH) to be consistent with Joint Circular No. 16/2013/TTLT-BYT-BNNPT-NT	case investigation reports, prevention and control plans... Implemented pilot project to evaluate and strengthen the implementation of Circular 16/2013 at the grassroots level in four provinces: Ha Giang, Thanh Hoa, Quang Nam, Binh Dinh. Based on the results of this project, a detailed guideline was developed to strengthen the implementation of the Circular.	effective manner (at least with the diseases specified in Decree 16). 3. Finalize the detailed guidelines including the development of detailed standards and procedures for the sharing of disease information between sectors.	many other areas.			
1.1.5	Strengthen information sharing and coordination between MARD, MONRE, and MOH in the prevention and control of	Not yet implemented for the Health Sector	1. Research and share information on environmental pollution and climate change that affect the emergence and outbreak of zoonotic diseases. 2. Coordination mechanism / guidelines 3. Training on coordination	1. Research and share information on environmental pollution and climate change that affect the emergence and outbreak of zoonotic diseases. 2. Develop coordination mechanism / guidelines 3. Training on coordination	Collaboration with DAH to develop the documentation on information sharing and	Collaboration with MONRE (VEA/ Department of Pollution Control) to develop legal documents	

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	environmental pollution from livestock production and zoonotic disease transmission.				coordination on environmental prevention and control	
1.1.6	Identify indicators for monitoring and evaluation of coordination mechanisms for the prevention and control of zoonotic diseases at all levels from central to provincial and district.	The health sector has coordinated and shared information with the animal health sector on: <ul style="list-style-type: none"> - Zoonotic diseases - Number of infected and fatal cases - Handling measures - Prevention and control plan. 	Develop evaluation indicators including: <ul style="list-style-type: none"> - Rate of outbreaks and cases shared - Rate of interdisciplinary disease investigation, surveillance and handling. - Joint communication plan - Plan on interdisciplinary disease prevention and control - Meetings, work reviewing. 	1. Strengthening the monitoring and evaluation at all levels has not been implemented uniformly and regularly, especially at the grassroots level. 2. Develop an improvement plan after monitoring and evaluation.	DAH (developing plan, monitoring and evaluation indicators; and implementing monitoring, improvement plan after monitoring and evaluation)	WHO, FAO
1.1.7	Identify the roles and responsibilities of the relevant agencies in the management and regulation of the wildlife farming, disease	Not yet implemented in health sector	1. Develop a coordination mechanism and coordination process of the VNFORREST/CITES MA with DAH and agencies in health sector. 2. Develop a plan for coordinated activities 3. Organize training/simulation	1. Develop coordination mechanism/ guidelines 2. Resources to organize training	VNFOR-EST/ CITES MA DAH	

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	surveillance, conservation and illegal trade, as well as other agencies involved in environmental and forest protection		exercises of coordinated activities				
1.2	<i>Connect government agencies with civil society organizations and key stakeholders in the process of consultation and collection of specialized information (e.g. clinical, public health, laboratories, risk communication, private sector, international partners, etc.) as well as collaborative disease prevention and control programs.</i>						
1.2.1	Seek and enhance the contributions of experts	Not yet implemented in the health sector	One Health Partnership continues to bridge and connect national and international experts in the field of zoonotic disease prevention and control	Enhance the participation of professionals in the private sector, enterprises.	DAH OH Partnership DLP VNFOR-EST/ CITES MA	MONRE (VEA/ Department of Pollution Control), VOHUN members, and other relevant agencies and stakeholders	
1.3	<i>Maintain the operation of OHP for Zoonoses and its Secretariat to create the platform for policy dialogue and knowledge management related to One Health, zoonotic diseases, as well as to support the coordination of One Health stakeholders.</i>						
1.3.1	Support OHP and participate in the activities implemented by OHP	Collaborated in the development of One Health Strategy Plan 2016-2020. Participated in the One Health communication forums.	1. Collaborate to develop a detailed One Health action plan. 2. Collaborate in the development of the coordination mechanism, which clearly assigns the responsibilities of the focal	1. Develop the roles, functions and tasks of the focal points under the relevant Ministry. 2. Resources for the implementation of selected prioritized activities.	DAH DLP OHP Secretariat VN-FOREST/	MONRE (VEA/ Department of Pollution Control) USAID EPT/P&R	

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		Participated in conferences, workshops organized by the OHP	<p>points under the relevant ministry in OHP.</p> <p>3. Continue to review and research to propose and mobilize the development of an appropriate and effective interdisciplinary coordination mechanism in the current context.</p> <p>4. Collaborate in the implementation of selected prioritized activities.</p>		CITES MA NAEC		
1.4	<i>Coordinate the investigation of zoonotic disease when necessary (as well as develop guidelines which clearly state the cases where investigation should be coordinated)</i>						
1.4.1	Apply the relevant provisions of Joint Circular No. 16/2013	Developed the Procedures of coordinating the interdisciplinary investigation of zoonotic diseases together with Implementation Guideline for Circular No.16/2013 for three diseases: influenza, rabies, and Streptococcus suis.	<p>1. Complete and issue detailed guidelines for implementation of the Circular and issue inter-sectoral SOPs.</p> <p>2. Develop and issue the Procedures of coordinating the interdisciplinary investigation of zoonotic diseases together with Implementation Guideline for Circular No.16/2013 for two diseases: Anthrax and Leptospirosis</p> <p>3. Organize interdisciplinary training courses/simulation exercises</p>	<p>1. Resources to develop and disseminate detailed guidelines and SOPs to coordinate interdisciplinary investigations for each disease.</p> <p>2. Organize the examination, monitoring and evaluation of implementation results (at least in high risk areas of zoonotic disease).</p> <p>3. Develop an improvement plan after evaluation.</p>	DAH, DLP, NCVD	WHO, FAO, OIE	

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			<p>ercises to disseminate and guide staff in the two sectors to coordinate the implementation of the interdisciplinary provisions and SOPs.</p> <p>4. Organize the monitoring, monitoring and evaluation of implementation results (at least in high risk areas of zoonotic disease).</p> <p>5. Develop an improvement plan after evaluation.</p>				
B.	Legal framework						
1.5	<i>Measures to ensure widespread application of Circular 16/2013, laying a strong foundation for the coordination among Ministries related to the prevention and control of zoonotic diseases, especially at provincial and sub-provincial levels.</i>						
1.5.1	Organize the training of Circular 16/2013 implementation	<p>1. Organized the training course for implementation of Circular 16 in 4 pilot provinces including Ha Giang, Thanh Hoa, Quang Nam, Binh Dinh.</p> <p>2. Organized a training course on coordinating the investigation of zoonotic diseases in the above-mentioned provinces.</p>	<p>1. Organize interdisciplinary coordination training courses for high risk provinces based on specific problem of zoonotic diseases in each province (e.g. flu, rabies, anthrax, etc.)</p> <p>2. Review workshop on implementation results and sharing the experiences of Circular 16 implementation</p>	<p>1. Organize interdisciplinary coordination training courses for high risk provinces based on specific problem of zoonotic diseases in each province (e.g. flu, rabies, anthrax, etc.)</p> <p>2. Classify localities based on the disease risks to facilitate the coordination.</p>	DAH, DLP, NAEC, VN-FOREST/ CITES MA, NCVD, OHP Office	FAO, WHO	

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1.6	<i>Continue to develop the legal documents/Directives/Circulars to support the coordination and participation of environmental sector; especially MONRE</i>					
1.6.1	Draft the guidelines of the Veterinary Law implementation and consider to extend the contents of Joint Circular No.16/2013 with additional information on the roles of MONRE	Not yet implemented		The extension of Circular 16/2013 is not feasible because the Government has issued a decision to stop issuing and revising the inter-ministerial Circulars. Therefore, it is necessary to consider adding roles and responsibilities as well as coordinated activities with agencies other than MOH and MARD using appropriate documents.	DAH, DLP, NAEC, VN-Forest/CITES MA, NCVD, OHP Office	MONRE (VEA)
1.6.2	Review the legal framework and interdisciplinary regulations in dealing with emergency cases of zoonotic disease outbreaks, cross-sectoral responses to zoonotic diseases as well as	Not yet implemented	<ol style="list-style-type: none"> 1. Establish interdisciplinary technical expert groups to review the legal framework, propose to develop and supplement the missing and inappropriate content in the legal framework for emergency response to zoonotic diseases 2. Add the coordinated interdisciplinary response in the operation manual of the EOC against the public health issues of the MOH. 	<ol style="list-style-type: none"> 1. Develop regulations, coordination mechanisms and procedures for emergency response to zoonotic disease. 2. Interdisciplinary workshops for consultation and implementation of the legal framework 	DAH, DLP, NCVD, OHP Office	WHO, FAO

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	shortcomings / limitations. This should include the legislation on environmental protection in the legal system in addition to the Veterinary and Agricultural Laws		3. Organize interdisciplinary workshops for consultation and improvement				
C.	Risk assessment and risk communication						
1.7	<i>Capacity building for disease risk assessment in human-animal-environment interface</i>						
1.7.1	Organized training sessions on risk assessment coordination under the framework of AVET, FETP and other programs	GDPM has organized training courses on risk assessment annually for health workers and some veterinary staff, however, training courses on interdisciplinary risk assessment have not yet been organized. Organized workshops to identify and assess national public health risks, with the participation of animal health sector and other agencies in 2017.	1. Develop interdisciplinary procedure, guidelines or tools for risk assessment. 2. Organize training / workshops on interdisciplinary risk assessment of zoonotic diseases as well as other interdisciplinary issues with the full participation of stakeholders such as human health animal health, environment, security, national defense, tourism, industry and trade, information and communication, etc.	1. Develop and disseminate interdisciplinary risk assessment tools. 2. Mobilization of the participation of sectors other than health and agriculture is almost nonexistent.	DAH, DLP, NCVD, NIVR, OHP Office	MONRE, MOIT, MOD, MPI, MOST, MOIC WHO, FAO, US-CDC	

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1.7.2	The involvement of the social sciences in the development and common risk assessment as well as behavior change communication for zoonotic diseases is prioritized with the objective of reducing the factors that emerges and spreads diseases in human-animal-environment interface	Not yet implemented in the health sector	<p>3. Organize interdisciplinary simulation exercises to assess the risk of zoonotic diseases and other interdisciplinary issues.</p> <p>1. Develop an interdisciplinary procedure, guidelines, or tool for joint risk assessment with the involvement of the social sciences.</p> <p>2. Develop guidelines for planning and implementation of interdisciplinary activities in behavior change communication for prevention and control of zoonotic diseases from the perspective of the social sciences.</p> <p>3. Organize trainings/ workshops/simulation exercises to introduce and review collaborative procedures / guidelines for risk assessment and risk communication implementation.</p>	<p>1. The role of the social sciences in this activity has not been defined.</p> <p>2. Mobilize the participation of the social sciences.</p> <p>3. Develop appropriate guidelines, procedures or tools.</p>	Department of Animal Health OHP	Ministry of Information and Communication (MIC) Viet Nam Academy of Social Sciences	
1.8	<i>Enhance risk communication for public agencies and community about the threats emerged in human-animal-environmental interface.</i>						
1.8.1	Organize risk	1. Regularly organized	1. Strengthen the participation	1. Develop a specific regulation	MARD	MONRE	

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	communication training on emergency situations and disease pre-vention	<p>training courses and risk communication campaigns, especially for communicable diseases and other urgent public health problems.</p> <p>2. Promulgated the National Action Plan on Risk Communication 2012-2016.</p> <p>3. Developed National Action Plan on Risk Communication for 2019-2023.</p>	<p>of relevant agencies in MARD, MONRE as well as the social sciences in risk communication, especially in interdisciplinary issues.</p> <p>2. Revise the risk communication plan toward One Health the roles, responsibilities and activities of the relevant agencies.</p> <p>3. Organize training courses on risk communication planning and implementation for each target group: government, media, community, etc.</p>	<p>lation and coordination procedure for the implementation of risk communication with the participation of various sectors to enhance the coordination and involvement of relevant agencies.</p> <p>2. Organize training courses on risk communication planning and implementation for each target group: management group, implementation group, media, community, departments, unions, etc.</p>	MARD	MOIC WHO	
1.8.2	<p>Communications channels for emergency cases:</p> <ul style="list-style-type: none"> - Establish communication mechanisms between different levels and from upper to lower levels in different stages of health emer- 	<p>1. Issued the guidelines for the operation of EOC for public health events, which included the regulation of communication activities in emergency situation between agencies in vertical relation.</p> <p>2. Developed the risk communication procedure for the health sector in emergency response.</p>	<p>1. Develop a coordinated mechanism and procedures for implementing interdisciplinary coordination and cross-sectoral information exchange on interdisciplinary emergency issues.</p> <p>2. Training/simulation exercises on interdisciplinary risk communication in emergency situations.</p> <p>3. Supplement the interdisciplinary</p>	<p>1. Develop mechanisms and procedures for guiding interdisciplinary coordination in risk communication.</p> <p>2. Training /simulation exercises on interdisciplinary risk communication in emergency situations.</p> <p>4. International experts to support the implementation of this activity.</p>	MARD	MONRE MOIC FAO, WHO and other international partners	

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	<p>gency cases.</p> <ul style="list-style-type: none"> - Establish communication mechanisms between government agencies and other external agencies (such as NIHE) which can contribute technical knowledge to develop communication messages in the field of public health - Establish community communication mechanisms during emergencies and collect information from the community to deliver accurate communication messages. 	<p>3. Implemented community communication in an emergency through mass media channels, direct, and forums, etc.</p> <p>4. Piloted an event-based monitoring system to collect and verify information from the community.</p> <p>5. Developed and issued an event-based monitoring process that included a process for collecting and verifying information from the community.</p>	<p>ary collaboration in the process of collecting and verifying information from the community.</p>				

Activities in Health sector: MOH					Areas where need the collaboration between Health sector and others	
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1.8.3	The One Health Communication Network continues to respond and develop appropriate communication materials that are evaluated when deliver and used during both the peace time and the outbreak period.	The OHCN factsheet was developed and disseminated to related stakeholders for introduction about objectives and key projects/activities of Network members. Regularly organize 04 quarterly meetings each year, in order to update on on-going and upcoming communication activities of OHCN members, as well as discuss new initiatives and orientation for One Health Communication.	<ul style="list-style-type: none"> - Maintain the regular organization of quarterly OHCN meetings for information sharing, with the participation of MOH Office, Department of Communication and Reward, GDPM, NCHEC, MSA. - Gradually widen the scope of participants to join the Network, including private sectors in AMR, food safety and trade agreements discussions, etc. 		NAEC, DAH, DLP, CITES, NIVR, VNUA, OHP Office	OHP members
D. Laboratory system						
1.9	<i>Strengthening of laboratory capacity and quality management system</i>					
1.9.1	Provide appropriate resources for conducting experiments and applying quality management systems	There are specialized laboratories in the Institutes at central level. At the provincial level, there are laboratories in 259 units of 7 types of centers. At the district level, there are 233 laboratories in the district hospital and 460 labs at the district health center.	<p>Strengthen facilities, equipment, provide chemical products for laboratories.</p> <p>Ensure the quantity and quality of human resources to meet the needs of preventive medical tests.</p> <p>Enhance the management system of testing quality and</p>	Budget resource for implementation Technical advisory Expert advisory	DAH NCVD	WHO, USCDC, HAIVN, other international organizations

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1.9.2	All Health and Veterinary lab-	<p>80% of laboratories located in units with an area of 20 m2 or more, labs at central and provincial levels had relatively full of testing facilities.</p> <p>The number of staff working in the provincial labs are quite sufficient, 63% of the labs staff have background in testing and biology,</p> <p>100% of provincial labs have the capacity to perform rapid tests, diagnostic tests for infectious diseases, food microorganisms, water microorganisms, air microorganisms, food physical chemistry, water physical chemistry, physical chemistry in labor environment, biochemistry, and hematology.</p> <p>Central testing laboratories can perform complex tests and conduct in-depth studies</p> <p>To date, there are 30/63 provincial preventive medicine</p>	<p>scientific research on preventive medicine and biosafety</p> <p>70% of the provincial preventive medicine laboratories and 50% of the district preventive medicine laboratories are secured and maintained in terms of facilities.</p> <p>80% of the provincial preventive medicine laboratories, 60% of the district preventive medicine laboratories are secured and maintained the equipment conditions</p> <p>100% of the central preventive medicine laboratories, 80% of the provincial preventive medicine laboratories, 60% of the district preventive medicine laboratories have enough bio-products and essential chemicals</p> <p>Three biosafety laboratories level III are built in the Central, South and Central Highlands.</p>			DAH NCVD	WHO, USCDC, US DTRA, USAID
				Budget resource for implementation			

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	<p>laboratories meet national certification standards and biosafety requirements, and referenced laboratories obtain equivalent international certifications (e.g. ISO 15189, 17025, 17043), along with established processes to ensure the quality of ongoing activities</p>	<p>centers met the national standards according to the Decision No. 4696 / QĐ-BYT dated 27/12/2008 on the national standard of provincial preventive medicine center, Lack of regulations on testing quality management standards and quality assurance standards</p> <p>At Central level, there are 2 Biosafety Level III laboratories, 37 Biosafety Level II laboratories and 3 Biosafety Level I laboratories. In 63 Provincial preventive medicine centers, border health quarantine centers, malaria centers, there are 47 biosafety level II laboratories, 3 biosafety level I laboratories. 100% of laboratories at NIHE, Pasteur Institute, provinces and cities have staff in charge of biosafety.</p>	<p>standards for preventive medicine</p> <p>100% of staff working on preventive medicine are educated/trained in technical specialization</p> <p>90% of lab staff have certificates/be certified that they have been trained in biosafety.</p> <p>90% of the preventive medicine testing centers at central level, 70% of the provincial level and 50% of district-level preventive medicine testing units have staff trained in quality management and complying to the guidelines on quality assurance testing.</p> <p>Build 02 centers for testing equipment, and national testing reference.</p> <p>Set up a system to provide equipment testing services and quality control, sample banking system,</p> <p>100% of the provincial preventive medicine laboratories, 50% of laboratories at the district level carry out tests following national standards.</p>	<p>Identify needs, develop an appropriate investment plan</p> <p>Strengthen training, expertise guidance</p> <p>Carry out surveillance at all levels</p> <p>Technical advisory</p> <p>Expert advisory</p>	MARD	EPT/PREDICT and other international organizations	

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1.9.3	A network of laboratories meets national standards on the minimum reporting requirements of infectious diseases which must be reported nationally (diagnostic, reference path-way of sample, quality assurance, data collection and reporting)	To date, there are 30/63 provincial preventive medicine centers met the national standards according to the Decision No. 4696 / QD-BYT dated 27/12/2008 on the national standards of provincial preventive medicine center	100% of the preventive medicine laboratories at central level, 100% of the laboratories at the provincial level, 100% of the laboratories at the district level establish the standard operating procedures (SOPs). 100% of laboratories have plans to purchase consumable materials, bio-products, quality chemicals.	Budget resource for implementation Develop suitable implementation plan/roadmap at all levels Technical advisory Expert advisory	DAH NCVD	WHO, USCDC, USAID EPT/ PREDICT, other international organizations	

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1.9.4	Review the structure of the Health Laboratory network including functions and number of laboratories as well as the methodologies to improve the performance.	At the central level, there are management units and specialized laboratories at the Institutes. At the provincial level, there are laboratories in 259 units of 7 types of centers. At the district level, there are 233 laboratories in the district hospitals and 460 labs in the district health centers.	Develop the division of technical preventive medicine testing to submit to MOH Develop coordination mechanisms between laboratories: public, private, hospital, research institutes in the country and in the world. Develop and amend guidelines related to preventive and biosafety testing Carry out trainings for laboratory staff on quality control and testing techniques	Develop technical division for preventive medicine test to submit to MOH Develop coordination mechanisms among the national and private labs, as well as labs of hospitals, national and international research centers Develop and amend guidelines relating to preventive medicine testing and biosafety. Carry out trainings for laboratory staff on quality control and testing techniques Budget resource for implementation Technical advisory Expert advisory	DAH NCVD	WHO, USCDC, other international organizations	
1.10	<i>Strengthening the data management system for rapid analysis and sharing of results between sectors and between countries.</i>						
1.10.1	Establish mechanisms to share information between Veterinary and Health laboratories	Circular 16 regulated the information sharing on tests and specimens between the human health and animal health sectors, but there is no specific procedure for this.	Develop guidelines for sharing information between the two sectors, it is necessary to consider the development and implementation.	Technical advisory Expert	DAH, NCVD, NIVR	International organization such as WHO, USCDC, OIE, FAO, OUC-RU	

#	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
	Objectives based on OHSP strategy	Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
1.10.2	Establish information sharing mechanism between countries	Regulations have been developed to share information of laboratory results among countries and WHO, implementing the International health regulations, especially for infectious diseases. However, the implementation is still limited, except for pandemics such as H5N1, SARS.	Continue to develop and maintain regulations on sharing information of laboratories results in the region and internationally, implementing International health regulations.	Develop mechanism and detailed guidelines Support on technical, expert and finance to implement, maintain the regional and international activities	DAH, NCVD, NIVR	ASEAN countries and international organization such as WHO, USCDC, OIE, FAO
E.	One Health human resources are well-trained					
1.11	<i>Having sufficient professional staff who are well-trained and get enough capacities and skills to implement One Health</i>					
1.11.1	Apply One Health Education Curriculum, make One Health becoming a formal component of the FETP and AVET training curriculum.	A range of One Health training activities have been implemented through the FETP established within GDPM, including cross-sectoral training activities in cooperation with the AVET in the agriculture sector.	- Propose coordinated implementation of training for FETP in long term and short term (under revision and edition)	- Training content - Coordination mechanism - Budget - Official adoption of training curricula and certification	DAH	VOHUN, WHO, USCDC, FAO, OIE
1.11.2	Separation and cooperation of Field epidemiology training programs (FETP) and Ap-	One Health training program linked to the field for human health and veterinary staff – implemented by VOHUN	- Review the short-term FETP training program in line with the current situation of Viet Nam - Develop and implement a short-term FETP training program that meets the	- Expert epidemiological capacity of health workers - Capacity for emergency re-	DAH	VOHUN, WHO, USCDC, FAO, OIE

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	Applied Veterinary Epidemiology Training, which applies to staff of MOH and MARD and related agencies.		core competency requirements of the International Health Regulations and One Health approach - Establish and implement a long-term FETP training program that meets the core competency requirements of the International Health Regulations and One Health approach - Organize short-term and long-term FETP courses based on the program developed	response to public health and One health events. - Budget for training - Official adoption of training curricula and certification.			
1.11.3	Complete the development of the VOHUN curriculum for undergraduate and postgraduate courses including the addition of risk communication components.	Developed the Curriculum for Master of Public Health and Master of Veterinary Medicine in English Developed the One Health Curriculum for medical and veterinary students Implemented by VOHUN	Continue the organization of FETP training courses, Master of Public Health and Animal Health. Finalize the training curriculum Official adoption of training curricula and certification. VOHUN Office, HMU, HSPH, HCMC University of Medicine and Pharmacy and Can Tho University of Medicine and Pharmacy.	Continue the organization of FETP training courses, Master of Public Health and Animal Health. Finalize the training curriculum Official adoption of training curricula and certification	DAH, VNUA, University of Agriculture 4, OHP Secretariat	USAID, ETP/OHW	
1.11.4	Continue to develop the	There has been a number of well-trained human resource-	CITES MA with FAO, DAH through USAID's project in	Need for financial support from international organizations		USAID EPT/OHW FAO, WHO,	

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	number of well-trained human resources in One Health area through VOHUN with the support of the EPT-2 program, including the extension of training to students who will work in the environmental health area and in-service training on Core Competencies of One Health in the Preventive Medicine and Animal Health sectors, as well as rangers responsible for captive management and	es in One Health through VOHUN with the support of the EPT-2 program, which includes the expansion of training for students who will work in the environment health and in-service training on Core Competencies of One Health in the Preventive Medicine and Veterinary Medicine as well as forest rangers responsible for wildlife captive and transport management. Evaluated the impact of this training program in practice as well as outcomes of zoonotic diseases.	2018-2019 will train 800-1000 forest rangers in the province and stations on: zoonotic diseases and methods to prevent and control. Continue to increase the number of well-trained human resources in the Health sector through VOHUN with the support of the EPT-2 program, including the expansion of training for students who will work in the environment health and in-service training on Core Competencies of One Health in the Preventive Medicine and Veterinary Medicine as well as forest rangers responsible for wildlife captive and transport management. Evaluate the impact of this training program in practice as well as outcomes of zoonotic diseases.	(WHO, FAO and other organizations) and central and local budgets.	MARD	HAIVN and other international organisations	

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	transportation of wildlife. Evaluate the impact of this training program in practice as well as outputs of zoonotic diseases.						
1.11.5	Identify the number of national epidemiologists in Human Health and Animal Health areas who were trained in core competence for the International Health Regulations and Veterinary Services performance up to in 2020	The estimated number of national epidemiologists in Human Health and Animal Health trained in core competence for the International Health Regulations until 2020 are available.	<ul style="list-style-type: none"> - Each district has two health workers and one veterinarian who are trained in basic field epidemiology (short-term) based on the core competence requirements for the International Health Regulations. - Each province has 2 health workers and 2 veterinarians who are trained in advanced epidemiology (long term toward One Health). GDOM, NIHE/Regional Institutes, VOHUN Office, HMCU, HSPH, HCMC University of Medicine and Pharmacy, Can Tho University of Medicine and Pharmacy	Basic skills in field surveillance and investigation by district health workers and veterinarians Improved skills in field surveillance, testing, analysing results, recommendations and investigation by provincial health staff	DAH, VNUA, University of Agriculture No.4	WHO, FAO, USAID EPT/OHW	

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F.	Appropriate Researches in the One Health area					
1.12	<i>Carry out necessary research to support the application of One Health into policy and practice, including studies on specific diseases</i>					
1.12.1	Identify gaps in current information, knowledge, mobilize funding, conduct research and regularly share research results with stakeholders	Not yet implemented	Identify information gaps, mobilize funding, conduct research and regularly share research results with stakeholders including policy makers (annual conferences)	Develop regulations for sharing information and research results between stakeholders and policy management	DAH, ICD	National and international One Health stakeholders
	including policy makers (annual meetings)			Budget for implementation		
1.12.2	Introduce national prioritized research themes for zoonotic diseases, including studies in Human health and Live-stock production systems, social and ecosystem health aspects which play an important role in the emergence, prevention and control of zoonotic diseases-	Implemented prioritized studies on rabies, influenza, plague, and research on new pathogens of animal origin.	Continue to conduct prioritized studies on rabies, influenza, Streptococcus suis, plague, and new pathogens of animal origin.	Identify prioritized researches on zoonotic diseases and new pathogens National and international budget to implement the research	DAH, DLP, NIHE/Pasteur, MARD's research institutes	WHO, FAO CDC, OIE, OUCRU, CIRAD, ILRI and other international organizations

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		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
	es. In addition, new tools for monitoring and preventing antibiotic resistance will be applied						
1.12.3	Establish a mechanism for researchers to periodically inform policy makers about emerging issues as well as the application of research results in policy formulation and application.	Not yet implemented	Collaborate with DAH, Agricultural/Health Research Institutes to establish a mechanism for researchers to periodically inform policy makers of emerging issues as well as applying research results in policy making and practice	Develop information sharing and coordination mechanism among scientists and policy makers Need for funding from Central budget and financial support from international organization such as FAO, WHO, USAID	DAH, research institutes in MARD	Research centers, MOIT, MONRE, MPS, MOIC, MOET WHO, FAO, CDC, OUCRU, CIRAD	
1.12.4	Annual One Health forum	Organized Annual One Health forum	Continue to organize Annual One Health forum GDPM, NIHE and other relevant agencies in MOH.	Technical support from international organization Budget to organize and maintain the Forum	Coordinate with OHP Secretariat, DAH, ICD and relevant agencies in MARD	OHP members	

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1.12.5	Participate in important regional and global meetings to further promote the application of the One Health approach	1. Organized the 3rd International Conference on Zoonotic Diseases Action Package in Vietnam in 2017. 2. Participate in and share experiences at the Global Health Security Conference 2017.	Continue to participate in and share the experiences at One Health conferences	Support representatives of Vietnam to participate and share experiences at One Health conferences	OHP Secretariat	MONRE VOHUN OIE, WHO, FAO, US CDC and other international organizations	
1.13	<i>Selectively conduct a number of environmental health studies to supplement knowledge of factors leading to disease outbreaks and risk mitigation measures, thereby provide appropriate guidance to practitioners. E.g. promote land use planning in the livestock sector. (refer to focus area 3)</i>						
1.13.1	Investigation of livestock production sites and consideration of the potential for emergence, development and spread of diseases (e.g. the impact of developing new livestock areas)	[Agriculture sector activity]					
G.	Prevention and control activities						
1.14	<i>Other objectives</i>						

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1.14.1	Develop processes of infection control and antibiotic management programs in all provincial hospitals	Developed action plan for antimicrobial resistance (AMR) in 2010-2020 Developed pilot AMR surveillance system in 16 hospitals Selected research topics to study AMR surveillance situation in 8 hospitals and communities Deployed establishment of AMR reference laboratories for hospitals and preventive medicine centers Deployed studies on molecular epidemiology to evaluate AMR viral spread in communities and hospitals	Continue AMR surveillance in 16 points nationwide (hospitals and communities) Evaluate situation of antibiotic use in communities Develop antibiotic management programs in hospitals and communities Evaluate risk related factors to propose solutions for prevention and control	National and international funding Mechanisms for close coordination between curative treatment and preventive medicine, ARD and Human Health Capacity building Information exchange	DAH, Department of aquaculture DLP	MONRE (VEA/ Department of Pollution Control) MOIT	
1.14.2	Establish and operate biosafety measures in animal raising farms and large wildlife breeding farms as well as ani-	[Agriculture sector activity]					

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	mal transport, strengthened disinfection work at animal farms and markets.						
1.14.3	Prepare guidelines for antibiotic use in livestock production, improve and promote implementation of regulations on antibiotic use in animals	[Agriculture sector activity]					
1.14.4	Reduce illegal trade of wildlife animals	[Agriculture sector activity]					
1.14.5	Improve tools to evaluate environmental risks and emergence of zoonoses. Apply tools to	[Agriculture sector activity]					

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	identify high risk cases and information about projects on economic development, restructuring of livestock production and changes of land use						
1.14.6	Establish national standards on environment with consideration of agricultural land use and with consent on land absorbability assessment method for safe agriculture production	[Agriculture sector activity]					
1.14.7	Evaluate emissions of heavy metals and	Human health sector not yet done	1. Collaborate with MONRE to evaluate environmental pollution risks affecting human and	1. Evaluate environmental pollution risks that affect human and animal health and	MARD	MONRE	

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	dangerous substances emitted from industrial production and impacts on the environment as well as human and animal health. Carry out control and management measures		<p>animal health and identify high risk areas.</p> <p>2. Jointly develop action plan to minimize environmental harmful effects on human and animal health.</p> <p>3. Jointly develop coordination mechanisms in control and management of environmental pollution and impacts of environmental pollution.</p> <p>4. Carry out trials in high risk areas.</p>	<p>identify high risk areas.</p> <p>2. Develop action plan to minimize environmental harmful effects on human and animal health.</p> <p>3. Develop coordination mechanisms in control and management of environmental pollution and impacts of environmental pollution.</p> <p>4. Carry out trials in high risk areas.</p>			
1.14.8	Enhance capacity to control environmental pollution and protection at foundations for disease prevention and control in humans and animals	<p>Decision No. 2038 of the Prime Minister on approval of the master plan on medical waste treatment for 2011-2015, with orientations toward 2020</p> <p>Decision 170/2013 on approval of the master plan on hazardous medical solid waste treatment system by 2025" and 05 decisions by the Prime Minister on approval of the planning of solid waste management in inter-provincial areas and</p>	<p>Continue to develop and finalize policies on environmental protection in health establishments; revise national regulations on medical wastes.</p> <p>Prepare state budget for health establishments with no or low income source to cover costs for medical wastewater treatment and prioritize allocation of funding for investment in medical wastewater treatment in small size health establishments that cannot afford to employ medical</p>	<p>Develop policies and national regulations: Support evaluation and development of new national regulations on medical waste management and environmental protection in health establishments and other related documents.</p> <p>Support development and funding to carry out the project on capacity building for response to poor biosafe-</p>	<p>MARD agencies (DAH, DLP, Department of Aquaculture, ICD)</p>	<p>MONRE (VEA and other relevant agencies)</p>	

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		<p>basin areas.</p> <p>Include detailed supplementary regulations on medical waste management in the Law on Environment Protection in 2014 and the Decree No. 38/2015/ND-CP dated 24/4/2015 of the Prime Minister on management of wastes and discarded materials.</p> <p>Circular No. 31/2013/TT-BYT dated 15/10/2013 by the Ministry of Health on regulation of environmental monitoring of medical examination and curative treatment by hospitals to strengthen environmental monitoring in health establishments</p> <p>Joint circular No. 48/2014/TTLT-BYT-BTNMT dated 22/12/2014 by MOH and MONRE providing guidelines for joint implementation of state management on environmental protection in health establishments for intersectoral direction and</p>	<p>wastewater treatment service.</p> <p>Policies to attract private resources in investing in medical waste treatment and cleaning services in health establishments.</p> <p>Continue to promote training and communication on awareness raising on medical waste management for health workers and others concerned.</p> <p>Enhance inspection and checks on implementation of the law on environmental protection in health establishments and medical waste treatment facilities outside the health establishments.</p> <p>Promote application of information technology: Develop and maintain the database of waste sources and evaluate level of environmental pollution in health establishments, database on periodical reporting information on environmental protection in health establishments.</p>	<p>ty and security in medical waste management in health establishments.</p> <p>Provide technical and financial support to carry out models on medical waste management, hospital using renewable energy and saving energy, green-clean-nice hospitals.</p> <p>Provide financial support to carry out surveys, evaluations and implement solutions for control of risk factors to environmental pollution in medical wastes.</p> <p>Provide financial support to training and communication on capacity building on waste management, pollution control from medical activities.</p>	MARD	Other ministries, international partners, etc	

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		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
		<p>collaboration among offices and agencies in MOH and MONRE on environmental protection in health establishments</p> <p>Joint circular No. 58/2015/TTLT-BYT-BTNMT dated 31/12/2015 by MOH and MONRE stipulating regulations on medical waste management (superseding Decision No. 43/2007/QĐ-BYT by MOH on regulations on medical waste management).</p> <p>Directive on strengthening medical waste management in hospitals (Directive No 05/CT-BYT dated 06/7/2015 by MOH).</p> <p>Communication plan on medical waste management in 2017-2021 by MOH and guidelines for implementation nationwide</p> <p>Plan for green-clean and nice health establishments throughout the country (Decision No. 3638/QĐ-BYT)</p> <p>MONRE is also jointly</p>					

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		<p>co-chairing with MOH to revise, supplement and develop some new national regulations relating to medical waste treatment in line with the Law on Environmental Protection in 2014 and the actual situation.</p> <p>MOH completed the draft Decision by the Prime Minister stipulating Mechanisms on medical wastewater treatment in order to mobilize and involve private investors in construction, operation and supply of medical wastewater treatment services.</p> <p>Develop 07 sets of Training program and materials on management of medical wastes for application of nationwide training for 7 target groups in health establishments and provincial department of human health, natural resources and environment, and public security.</p> <p>Support environmental</p>					

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		monitoring equipments in health area for 4 regional institutes: NIOEH, IPH, IHE TN, Pasteur Nha Trang Support and investment in medical waste treatment in hospitals and health establishments with environmental pollution risks					
H.	Monitoring and Reporting						
1.15	<i>Upgrade surveillance system</i>						
1.15.1	Establish electronic reporting system on communicable diseases for human health laboratories and public health establishments	Issued Circular No. 54/2015/TT-BYT on guidelines on mechanisms for report information and report communicable disease, superseding previously issued Circular No. 48/2010/TT-BYT.	<ol style="list-style-type: none"> 1. Guideline for implementation of the circular. 2. Effectiveness evaluation from implementation. 3. Development of tools/system for reporting, monitoring and sharing of zoonoses information. 	<ol style="list-style-type: none"> 1. Evaluate effectiveness from circular implementation. 2. Develop tools/system for reporting, monitoring and sharing of zoonoses information. 	DAH	WHO, USCDC, other international organizations	
1.15.2	Establish an indicator based surveillance system for 42 priority diseases-	Issued Circular No. 54/2015/TT-BYT on guidelines on mechanisms for report information and report communicable disease,	<ol style="list-style-type: none"> 1. Guideline for implementation of the circular. 2. Effectiveness evaluation from implementation. 3. Development of tools/system 		DAH, Research Institutes for Health-Agriculture	WHO, USCDC, other international organizations	

Activities in Health sector: MOH					Areas where need the collaboration between Health sector and others	
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1.15.3	Establish an event-based surveillance system through evidences obtained from human and animal health investigation.	<p>superseding previously issued Circular No. 48/2010/TT-BYT.</p> <ol style="list-style-type: none"> 1. Carry out pilot EBS in some provinces 2. Prepare and issue the guideline and procedure for implementing EBS 3. Provide training to carry out EBS in some pilot provinces. 	<p>for reporting, monitoring and sharing of zoonoses information.</p> <ol style="list-style-type: none"> 1. Develop EBS system based on e-learning system. 2. Extend training for EBS implementation. 3. Evaluate effectiveness of EBS implementation. 4. Prepare and supplement guideline for joint EBS implementation with other interdisciplinary events. 	No guideline and joint mechanism among sectors in EBS implementation for zoonoses and other interdisciplinary events. Funding for implementation Technical advice	DAH	WHO, USCDC other international organizations
1.15.4	Establish surveillance system between humans and animals (including wildlife animals) for 5 priority zoonoses and selected surveillance systems for high risk animals.	<p>Established key surveillance system for influenzas including avian influenza in humans.</p> <p>National Plan for Rabies Control</p> <p>Surveillance and detection of viral agents from wildlife animals, contact persons and suspected infected patients</p>	<ol style="list-style-type: none"> 1. Share information of key surveillance on prioritized zoonoses. 2. Evaluate effectiveness of information sharing and joint surveillance in prioritized zoonoses. 	Resources to establish and implement key surveillance for 5 prioritized diseases in high risk areas. New viral diseases in animal possibly spread to humans	DAH	WHO, USCDC, USAID, FAO, EPT/PREDICT

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1.16	<i>Strengthen information sharing</i>					
1.16.1	Improve compatibility between animal health and human diagnosis as well as surveillance information collecting systems in order to support the needs for quick information sharing and toward better compatible systems	Implementation of information sharing in line with Joint Circular No. 16/2013	<ol style="list-style-type: none"> 1. Implement Circular 16, Circular 54. 2. Review the collaboration in information sharing on animal health and human health diagnosis. 	Evaluate the implementation Amend and finalize Resources for implementation at different levels	DAH, NCVD/	WHO, USCDC, FAO, CIRAD
1.16.2	Improve information sharing across borders at key points and joint plans to reduce spread of disease across the border	<ol style="list-style-type: none"> 1. Arrange information sharing of popular diseases for provinces sharing the border between Vietnam-Cambodia, Vietnam-Laos. 2. Organize joint meeting and simulation exercises among Vietnam-Cambodia-Laos in cross-border communicable disease control. 	<ol style="list-style-type: none"> 1. Continue sharing information on popular diseases in provinces sharing the border between Vietnam-Cambodia, Vietnam-Laos, Vietnam-China extend participation of human health quarantine agencies at border gates. 2. Continue organizing joint meetings and simulation exercises among Vietnam-Cambodia-Laos in cross-border com- 	<ol style="list-style-type: none"> 1. Language barrier in information sharing. 2. No mechanism to use funding for joint activities of border outbreak handling 3. No mechanism for sharing public health events in general or animal disease control activities. 	<ol style="list-style-type: none"> 1. DAH allows human health agencies in border provinces to share information of zoonotic diseases in animals with 	<ol style="list-style-type: none"> 1. Develop mechanisms to allow border health agencies to share information on public health events with Lao and Cambodian, Chinese counterparts and other countries in the region

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
			municable disease control.		Lao and Cambodian, Chinese counterparts and other countries in the region.	WHO	
1.16.3	Report to OIE on the list of diseases detected and to WHO on the public health cases of the world concern in certain period of time	Implement activities of the national focal point implementing IHR, receiving and report of PHEIC events to the World Health Organization.	1. Consolidate roles of the national focal point implementing IHR. 2. Continue receiving and reporting to PHEIC events to the World Health Organization.	1. Reporting to OIE to be through MARD as the focal point, no mechanism for information sharing and notification to the national focal point implementing IHR for information and collaboration	Develop mechanisms for sharing public event information that DAH needs to report to OIE with the national focal point implementing IHR.	WHO, OIE, other international organizations	
1.16.4	Improve capacity to analyze and interpret surveillance information in human and animal health sector	Organize meetings to evaluate risks of newly emerged zoonoses such as influenza A(H5N1), influenza A(H7N9)	Continue organizing meetings to evaluate risks of newly re-emerged zoonoses	Focal points at different agencies always change, do not provide sufficient and timely information for analyzing disease situation and forecasting emergency cases.	DAH, DLP, other relevant departments assign the personnel in charge concerned	1. Departments from relevant ministries and sectors assign the personnel in charge of concerned contents to attend meetings and classes when invited. USCDC,	

#	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
	Objectives based on OHSP strategy	Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
					contents to attend meetings and classes when invited	FAO, ILRI
I.	Management and Response to emergencies					
1.17	<i>Capacity to manage and respond to emergency cases</i>					
1.17.1	Establish the national Emergency Operation Center with equal structures in all regions	Establish and maintain the Emergency Operation Centers for Public Health events at national level, in Northern and Southern Vietnam.	<ol style="list-style-type: none"> 1. Extend Emergency Operation Centers for Public Health events in central Vietnam and the Highland. 2. Establish Emergency Operation Centers for Public Health events in key provinces (with high risk of disease). 3. Develop mechanisms to collaborate intersectoral emergency issues with the national emergency operation center/national steering committee on natural disasters led by MARD as the focal point. 4. Develop a plan for preparedness and response to national risks. 	<ol style="list-style-type: none"> 1. Emergency events are vertically managed and responded. However, when the event goes beyond the scope of vertical sectors or multidisciplinary event that does not belong to the national coordination and management agency for emergency with other emergencies in a regular and consistent manner, therefore it is necessary to develop mechanisms to coordinate interdisciplinary issues with the event emergency operation center/national steering committee on natural disasters led by MARD as the focal point. 2. National and regional 	DAH	WHO, USCDC Other international organizations

Activities in Health sector: MOH					Areas where need the collaboration between Health sector and others	
#	Objectives based on OHSP strategy	Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
			<ol style="list-style-type: none"> 5. Develop a plan for preparedness and response to multinational risks. 6. Review legal frameworks and policies for supports and implementation of emergency response. 			FAO, ILRI

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
1.17.3	At least there is one program to evaluate International Health Regulations (IHR) (together with similar evaluation program or at least relating to animal health services)	<p>1. In 2012, organized annual self-evaluation of implementing IHR according to WHO tools. In 2014, Vietnam was ensured by WHO on IHR and continue to maintain it until 2018.</p> <p>2. In 2016, organized an IHR Joint External Evaluation (JEE) conducted by the WHO working mission including experts from other countries, continue to maintain basic capabilities</p>	<p>1. Continue to carry out annual self-evaluations.</p> <p>2. It is expected to organize an independent evaluation in 2020</p> <p>3. Develop the national IHR implementing plan for 2018-2015 period.</p> <p>4. Consolidate and improve capacities to implement IHR by technical areas.</p>	<p>1. There is no national multidisciplinary plan for IHR implementation with responsibilities to be assigned by the Prime Minister with the approval.</p> <p>2. There is no national response plan to public health events.</p> <p>3. National coordination is not sustainable.</p> <p>4. National financial resource is insufficient and unsustainable</p>	<p>1. MARD establish focal points with personnel for IHR implementation</p> <p>2. Conduct joint implementation of zoonotic disease prevention and control.</p> <p>3. Sharing information on food safety, disaster prevention and control, AMR control.</p>	<p>1. Relevant ministries assign staff to be focal points for IHR implementation</p> <p>2. MOIT on food safety and chemical control.</p> <p>3. MOST on nuclear radiation safety</p> <p>4. MOPS on health security</p> <p>5. MOF and MPI on finance assurance.</p> <p>WHO, OIE, World Bank</p>	
1.17.4	Evidence of joint outbreak investigations and zoonoses management	In response to the joint circular no. 16/2013/TTLT/ BYT-BNPPNT, DAH and GDPM provided guiding instructions to carry out	Carry out training and joint outbreak investigations after SOPs on this content are issued.	Extend training and joint outbreak investigations after SOPs on this content are issued at the local levels.	DAH and other related MARD agencies	WHO, US CDC, FAO, OIE and other international organizations	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
1.17.5	Update guidelines for diagnostic and clinical activities for priority zoonoses	<p>outbreak investigations such as avian influenza, rabies, anthrax, streptococcus.</p> <p>Issue guidelines for surveillance and control of 5 priority diseases.</p>	<p>1. Review guidelines for diagnosis and treatment of 5 priority zoonoses.</p> <p>2. Develop/update guidelines for diagnosis and treatment of 5 priority zoonoses.</p>	1. Develop/update guidelines for diagnosis and treatment of 5 priority zoonoses.	DAH and other related MARD agencies	WHO, US CDC, FAO, OIE and other international organizations	

FOCUS AREA 2. Applying One Health approaches for managing human disease emergencies of zoonotic origin

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
2.1	<i>Steering committee on emergency disease will be operational</i>					
2.1.1	Decisions by Prime Minister on establishment of the coordinating mechanisms	[See activity 1.1.1]				
2.2	<i>Fully define roles of ministries other than MOH</i>					
2.2.1	Determine roles of other ministries in the event of a disease that does not spread to humans (for example: H7N9 is detected in poultry but not yet in humans)	Plan for preparedness and response to influenza pandemic, where dividend into provinces with specific scenarios	Update and develop a plan for preparedness and response to zoonoses with specific scenarios and clear regulations on roles and functions, responsibilities of ministries in specific scenarios.	Develop an inter-sectoral plan including roles and responsibilities of other ministries in case of the disease that does not spread to humans	MARD	MONRE, MOIT, MOT, MOIC, MOD, MPS WHO, USCDC, USAID EPT/P&R
2.3	<i>Emergency management center is fully equipped for responding to all hazards.</i>					
2.3.1	Finalize guideline for establishing	1. Issue guidelines for operation of PHEOC	1. Develop guidelines for establishing and operating PHEOC for regional and provincial	1. Develop guidelines, SOPs to respond to multidisciplinary events.	MARD	MONRE, MOIT, MOT, MOIC, MOD, MPS

Activities in Health sector: MOH					Areas where need the collaboration between Health sector and others	
#	Objectives based on OHSP strategy	Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
	the Emergency Operation Center and the standard operation procedure for establishing the Emergency Operation Center as its 5 key functions; key personnel is required for training to carry out this activity	2. Develop organizational structure and work assignment for different sections. 3. Complete key standard operation procedures.	1. Supplement standard operation procedures. 3. Develop coordinating guidelines for emergency response and procedures to respond to emergency response to multidisciplinary events.			
2.3.2	Establish regional emergency operation centers or similar communication centers to manage regional response activities	Two regional PHEOC have been established, at NIHE (Hanoi) and PI-HCMC (HCMC)	1. Establish provincial emergency operation centers. 2. Develop procedures and working mechanisms of emergency operation centers /communication sections in PHEOC to manage national, regional and provincial emergency response activities.	1. Organize training and operating guidelines for provincial emergency operation centers. 2. Develop procedures and working mechanisms of emergency operation centers /communication sections in PHEOC to manage national, regional and provincial emergency re-sponse activities	DAH	WHO, US CDC, FAO, OIE, other international organizations
2.3.3	Surveillance and response team of the emergency op-	1. Organize basic training courses on management of emergency response to public health events.	1. Organize advanced training on management of emergency response	1. Develop guidelines and procedures to establish intersectoral rapid response teams to respond to intersectoral risks.	MARD	WHO, US CDC, FAO, OIE, other international organizations

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
	eration centers are trained with full functions	<ol style="list-style-type: none"> Organize conferences to determine and evaluate priority risks, prepare preparedness plan for response to priority risks. Conduct simulation exercises on surveillance and response functions Prepare draft guidelines for establishing rapid response teams. 	<ol style="list-style-type: none"> Organize training on determination and evaluation of priority risks Provide training on preparedness plan for priority risks. Issue guidelines for quick rapid response teams Provide training for rapid response teams Develop guidelines and procedures to establish intersectoral rapid response teams to respond to intersectoral risks. 	<ol style="list-style-type: none"> Provide training and simulation exercises on surveillance and response to intersectoral emergencies. 		
2.4	<i>Review and trial preparedness plan by all population to a pandemic</i>					
2.4.1	Renovate existing plans, check via simulation exercises or via actual situations.	Regularly conduct intersectoral simulation exercises to review procedures for disease response. However, these exercises are dominant in simulation of procedures and functions of the two sectors rather than exercises to review and adjust the response plans or procedures.	<ol style="list-style-type: none"> Organize simulation exercises in the local area and simulate with assumed scenarios to evaluate and adjust preparedness plans. Develop improved plans after simulation exercises. 	<ol style="list-style-type: none"> Organize simulation exercises in the local area and simulation with assumed scenarios to evaluate and adjust preparedness plans. 	DAH	WHO, US CDC, FAO, OIE, other international organizations
2.5	<i>Appropriate surveillance system for disease emergencies</i>					

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
2.5.1	Capacity of emergency operation centers to collect, analyze and report timely information, and rapid and timely response activities are required to be developed and implemented	<ol style="list-style-type: none"> 1. Develop Data Warehouse for management of disease information in the human health sector 2. Risk evaluation with regular participation of relevant agencies. 	<ol style="list-style-type: none"> 1. Develop mechanisms/tools or integrated Data warehouse and sharing information on zoonotic diseases 2. Training on management and information sharing on zoonotic diseases. 	<ol style="list-style-type: none"> 1. Develop mechanisms/tools or integrated Data warehouse and sharing information on zoonotic diseases 2. Training on management and information sharing on zoonotic diseases. 	MARD	WHO, US CDC, FAO, OIE, other international organizations	
2.6	<i>Risk communications for outbreaks</i>						
2.6.1	Trained personnel participating in preparing risk communication packages suitable for emergency diseases	Organize training courses on risk communication in public health emergency situations.	<ol style="list-style-type: none"> 1. Organize training courses on intersectoral risk communication in response to emergency situations. 2. Develop guidelines, coordinating mechanisms and plans to carry out risk communication suitable for many disease emergencies 	<ol style="list-style-type: none"> 1. Organize training courses on risk communication in public health emergency situations. 2. Develop guidelines, coordinating mechanisms and plans to carry out risk communication suitable for many disease emergencies 	MARD	WHO, US CDC, FAO, OIE, other international organizations	

FOCUS AREA 3. Applying One Health approaches for controlling zoonotic agents with pandemic potential that are yet to emerge, especially in wildlife

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
3.1	<i>Identify zoonotic and potential pandemic agents in animals before their emergence</i>					
3.1.1	Undertake testing of a range of animals for viruses with pandemic potential	Collaborate with USAID/EPT PREDICT to undertake testing for 10 viruses from 3 provinces of Bac Giang, Hanoi and Dong Nai	Continue testing for 10 viruses from wildlife (bats, rats, etc.) in 3 provinces of Bac Giang, Hanoi and Dong Nai	Continue indentifying high-risk provinces Expand researches and monitoring activities Short of funding for extension to other risk areas	DAH	USAID EPT/PREDICT
3.1.2	Testing of at least 4 virus families will be undertaken in related animal species - coronaviruses, fioviruses, paramyxoviridae and influenza virus (refer to zoonotic viruses).	Undertake testing for 10 viruses from wildlife (bats, rats, etc.) in 3 provinces of Bac Giang, Hanoi and Dong Nai Collaboratively implemented by NIHE and WCS	Continue testing for 10 viruses from wildlife (bats, rats, etc.) in 3 provinces of Bac Giang, Hanoi and Dong Nai Develop implementation plan in bordering provinces (with China, Laos, Cambodia)	Short of funding for extension to other risk areas	DAH	Customs, MPS, MOD USAID EPT/PREDICT, WHO, FAO, USCDC and other international organizations
3.2	<i>Improve capacity for early detection of spread to humans of potential pandemic infectious agents</i>					
3.2.1	Undertake testing of humans	Undertake testing for the viruses from humans	1. Identify target groups with potential risk in association with	1. Identify target groups with potential risk in association	DAH	WHO, USAID EPT/PREDICT,

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
	working in association with animals, especially clinical cases	tacting animals and suspected patients (hospitalized) in 3 provinces of Bac Giang, Hanoi and Dong Nai	<ol style="list-style-type: none"> 1. animals. 2. Carry out the trials in some high-risk areas. 3. Evaluate effectiveness of trial projects, establish models in a larger scale. 	<ol style="list-style-type: none"> 1. with animals. 2. Carry out the trials in some high-risk areas. 3. Evaluate effectiveness of trial projects, establish models in a larger scale, provinces bordering China, Laos, Cambodia. 		USCDC and other international organizations	
3.2.2	Establish and strengthen key surveillance in humans and animals, prioritizing 5 zoonotic disease and selected surveillance in high risk animal groups.	<p>At the moment, only key surveillance for human influenza undertaken.</p> <p>Surveillance of 10 potential zoonotic viruses in above mentioned provinces, initially focused on rats, bats and other wildlife farms in Dong Nai</p>	<ol style="list-style-type: none"> 1. Establish key surveillance points for remaining 4 human diseases 2. Collaborate to share information of key surveillance of priority diseases in animals. 3. Continue surveillance in above mentioned groups 	<p>Establish key surveillance points for remaining 4 human diseases.</p> <p>Extend investment and surveillance points in high risk provinces, particularly in provinces bordering China, Laos, Cambodia</p>	DAH	WHO, FAO, USAID EPT/PRE-DICT, USCDC and other international organizations	
3.2.3	Evidence of collection, recording, sharing and analyzing of data among sectors.	Human health sector shared information on zoonotic cases and outbreaks in humans, specifically detection date, first outbreak suspected or identified diseases that can be transmissible to humans, number of infections/deaths; clinical symptoms of zoonotic cases suspected	Continue information sharing about cases, outbreaks of zoonoses in humans: disease detection date, the first suspected or detected outbreak that could transmit to human, number of deaths and infections, clinical symptoms of suspected or detected zoonotic disease cases, testing results, testing methods, number	Enhancing work at provincial, district and commune levels	DAH	WHO, FAO, USAID EPT/PRE-DICT, USCDC and other international organizations	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
		or identified ; testing results and methods, number of samples for testing, number of positive and negative tests.	of samples, number of positive and negative testing results				
3.3	<i>Implement measures to minimize emergence of novel agents in specific industries</i>						
3.3.1	Develop and introduce industries specific guidance on preventive measures	Not yet implemented	1. Develop preparedness plans with priority and intersectoral risks. 2. Organize training/conference to guide preparedness planning with priority and intersectoral risks	1. Develop preparedness plans with priority and intersectoral risks. 2. Organize training/conference to guide preparedness planning with priority and intersectoral risks.	DAH DLP	MOIT, MONRE, MPS, MOD WHO, USAID EPT/PREDICT, USCDC and other international organizations	

FOCUS AREA 4: Applying One Health approaches to control zoonotic influenza

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
4.1	<i>Surveillance program for Highly pathogenic avian influenza H5 and H7N9 (and other strains) and swine influenza virus</i>					
4.1.1	Regular surveillance at high risk areas and species (see specific targets in National Strategies).	<ol style="list-style-type: none"> 1. Focus in influenza surveillance including avian influenza 2. Surveillance of SARI 3. Surveillance of SVP. 4. Surveillance of LISN 	<ol style="list-style-type: none"> 1. Continuing the implementation of focus surveillance and specific surveillance programs. 2. Review and adjust the implementation of surveillance. 3. Propose inter-sectoral coordination activities to prevent the entry of avian influenza virus. 4. Develop a plan for coordinated inter-sectoral surveillance. 	<ol style="list-style-type: none"> 1. Sentinel surveillance and specific surveillance programs. 2. Review and adjust the plan and implementation of influenza AH7N9 surveillance. 3. Implement inter-sectoral surveillance program in high risk localities. 	DAH	WHO, USAID EPT/PREDICT, USCDC, FAO, OIE and other international Organizations
4.1.2	Continuing efforts to reduce poultry smuggling or through the enforcement or creation of legal trade channels with neutrality cost	Surveillance at border gates, small roads (unofficial routes)	Continue to implement strictly surveillance activities at the border gates	Coordination monitoring and handling	DAH NCVD	WHO, USAID EPT/PREDICT, USCDC, FAO, OIE and other international Organizations
4.1.3	Manage the introduction of H7N9 viruses according to	<ol style="list-style-type: none"> 1. Focus in influenza surveillance including avian influenza 2. Surveillance of SARI 	<ol style="list-style-type: none"> 1. Continuing the implementation of focus surveillance and specific surveillance programs. 2. Review and adjust the implementation of surveillance. 	<ol style="list-style-type: none"> 1. Continuing the implementation of focus surveillance and specific surveillance programs. 2. Review and adjust the plan 	DAH NCVD	WHO, USAID EPT/PREDICT, USCDC, FAO, OIE and other international Organizations

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
	contingency plans	3. Surveillance of SVP. 4. Surveillance of LISN	mentation of surveillance. 3. Propose inter-sectoral coordination activities to prevent the entry of avian influenza virus. 4. Develop a plan for coordinated inter-sectoral surveillance.	and implementation of influenza AH7N9 surveillance. 3. Implement inter-sectoral surveillance program in high risk localities.		International Organizations	
4.1.4	Better understand the range of swine influenza viruses in Vietnam, including their potential for pandemic.	The health sector has not had any activity in this area	Study on the prevalence and pathogenicity for human of swine influenza virus.	Technical support for research on circulation and pathogenicity for human of swine influenza virus	DAH NCVD	WHO, USCDC, FAO, OIE, other international Organizations	
4.1.5	Response the outbreaks through national plans, regulations and guidelines / standard implementation procedures (see specific objectives in the National Strategies).	1. Develop guidelines for surveillance and prevention and control of avian influenza AH7N9, Rabies, Streptococcus suis, Anthrax, Leptospirosis. 2. Update national action plan on Avian Influenza AH7N9 control and prevention.	1. Develop guidelines for surveillance and prevention of influenza strains transmitted from poultry to humans, from other animals to humans. 2. Develop guidelines for surveillance and prevention of high risk zoonosis diseases beyond the five diseases specified in Decree 16. 3. Organize simulation exercises and handle outbreaks of avian	1. Organize simulation exercises and handle outbreaks of avian influenza and other zoonosis diseases. 2. Develop contingency plans, guidelines, and inter-sectoral coordination processes. 3. Workshop on dissemination and training of the above documents. 4. Evaluate, update and finalize the national plan	DAH	WHO, USCDC, FAO, OIE, other international Organizations	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
4.2	<i>Effective vaccination programs for poultry</i>		influenza and other zoonosis diseases. 4. Develop contingency plans, guidelines, and inter-sectoral coordination processes.				
4.2.1	To review and study vaccination programs to determine the effectiveness of the discharge the virus of vaccines injected on duck flocks.	[Agriculture sector activity]					
4.3	<i>Towards the elimination of highly pathogenic avian influenza virus H5 strains</i>						
4.3.1	Carry out the necessary work to determine the feasibility of establishing a safe area, disease-free area, if possible, to implement measures to build the southeast	[Agriculture sector activity]					

Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others		
#	Objectives based on OHSP strategy	Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
	area into a safe area.					
4.3.2	Annual surveillance on status (in high-risk, low-risk areas, and temporary areas without epidemics)	[Agriculture sector activity]				
4.4	<i>Monitor respiratory infections in humans to early detect new avian influenza viruses</i>					
4.4.1	Review and unify the monitoring program in human.	Currently, the health sector is implementing four programs to monitor respiratory diseases in humans: 1. Focus in influenza surveillance including avian influenza 2. Surveillance of SARI 3. Surveillance of SVP. 4. Pilot Surveillance of LISN	Continue implementing four programs to monitor respiratory diseases in humans: 1. Focus in influenza surveillance including avian influenza 2. Surveillance of SARI 3. Surveillance of SVP. 4. Pilot Surveillance of LISN	Provide financial support and technical advice for the implementation of four programs for monitoring respiratory diseases in humans: 1. Focus in influenza surveillance including avian influenza 2. Surveillance of SARI 3. Surveillance of SVP. 4. Pilot Surveillance of LISN	DAH, DLP	WHO, USCDC, FAO, OIE, other international Organizations
4.4.2	Investigates all human cases of influenza to assess disease source and spread.	Not yet implemented	Conduct the study on influenza-like illnesses from key hospitals in the whole country	Technical assistance and implementation funds	DAH	WHO, USCDC, FAO, OIE, other international Organizations

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
4.5	<i>Other key objectives and activities (specific)</i>						
4.5.1	Apply the tripartite hazard assessment tools to high risk sectors selected for risk assessment and development of risk management plan.	Not yet implemented	<ol style="list-style-type: none"> 1. Develop or seek intersectoral risk assessment tools. 2. Organize the Tripartite Risk Assessment Training 3. Organize training to develop intersectoral contingency plan with risk. 4. Develop an intersectoral risk management plan. 5. Conduct table exercise to review and adjust the intersectoral risk management plan. 	<p>Technical support and consultancy:</p> <p>Develop or seek intersectoral risk assessment tools.</p> <p>Organize training on tripartite risk assessment.</p> <p>Organize training to develop intersectoral contingency plan with risk</p>	DAH DLP NCVD	MONRE, FAO, WHO, US- CDC	
4.5.2	All livestock farms > 2000 birds meet bio-safety standards	[Agriculture sector activity]					
4.5.3	Improve cleaning and disinfection in farms and markets	[Agriculture sector activity]					

FOCUS AREA 5: Applying One Health approaches to control rabies

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
5.1	<i>Strengthening vaccination for dogs and responsibilities of dog owners</i>						
5.1.1	Support the implementation of vaccination campaigns at the provincial and district levels and ensure that the vaccination rate is maintained at over 70%	[Agriculture sector activity]					
5.1.2	Conduct behavior change communication aim to minimize free-range dogs while boosting vaccination and dog registration	[Agriculture sector activity]					
5.1.3	70% of the villages can control the number of dogs (through the dog control program and the responsibility of the owner)	[Agriculture sector activity]					

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
5.2	<i>Post-exposure prophylaxis (PEP) packages for people being bitten by dog (or other animal bites) suspected with rabies</i>					
5.2.1	Establishment of treatment centers in high risk areas, minimizing travel during PEP treatment	Check the sites for rabies vaccination and inject anti-rabies serum in the whole country	<ol style="list-style-type: none"> 1. Mapping rabies vaccination sites nationwide, identifying high risk areas, poor vaccine access and having need of more injection sites to develop a plan for more injection sites. 2. Expand vaccination and anti-rabies serum injection sites at commune level or commune clusters, especially in high-risk areas to increase access to vaccines for people being bitten by rabies suspected animals. 3. Coordinate for the sustainable maintenance of provided sources of vaccines and anti-rabies serum to meet the need for post-exposure treatment. 4. Develop a plan to inject vaccines in the skin instead of intramuscular injection (according to evaluation, the effect of injection in the skin and intramuscular injection is the same, but the injection in the skin is much cheaper. 5. Set up a national reservation for vaccine and anti-rabies se- 	<ol style="list-style-type: none"> 1. Coordination to sustain the provided sources of vaccines and anti-rabies serum to meet the post-exposure treatment needs of the people. Need help and support, mobilized from international organizations such as WHO, GARC ... 2. Set up a national reservation for vaccines and anti-rabies serum centre at high risk country / regional / provinces to respond to emergencies of the disease. 3. Piloting expanded vaccination sites at some high risk areas before deployment on a large scale (equipment, training, vaccines, communication ...) 4. Training on injection vaccines in the skin. 	DAH	WHO, USCDC, FAO, OIE, other international organizations

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
5.3	<i>Pre-exposure prophylaxis (Preps) for high-risk groups, including dog vaccinators, dog handlers, and children in high-risk areas.</i>		rum centre at high risk country / regional / provinces to respond to emergencies of the disease.				
5.3.1	Identify high risk groups and implement vaccination	High-risk groups have been identified, but there is no specific provision for supporting these groups in pre-exposure prophylaxis.	<ol style="list-style-type: none"> 1. Assess the feasibility of pre-exposure vaccination for high-risk groups. 2. Develop policies, guidelines and regulations to support pre-exposure prophylaxis for high-risk groups. 3. Mobilize the commitment and funding of local authorities in supporting high risk populations. 	<ol style="list-style-type: none"> 1. Develop guidelines and regulations to support pre-exposure prophylaxis for high-risk groups. 2. Providing financial support for pre-exposure prophylaxis for high risk populations. 	DAH	WHO, USCDC, FAO, OIE, other international organizations	
5.4	<i>Strengthen the diagnostic capacity of rabies</i>						
5.4.1	Establishing, maintaining the testing capacity for accurate detection of rabies in humans and animals	<ol style="list-style-type: none"> 1. The rabies laboratories in NIHE and regional Pasteur institutes have been established and capable of rabies detection in humans. 2. Cooperate with animal health sector to test for animal rabies. 	<ol style="list-style-type: none"> 1. Increase the rate of testing to determine cases of rabies in humans by 90% in 2021. 2. Strengthen the sharing of testing and diagnostic information between the health and animal health sectors. 3. Training on the skills of surveillance, monitoring and diagnosis of rabies, capacity to 	Increase the rate of testing to identify cases of rabies in humans.	DAH	WHO, USCDC, FAO, OIE, other international organizations	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
			<p>collect, preserve and transport specimens, analyse epidemiological situation, identify areas and groups of people at risk of infectious rabies.</p> <p>4. Training on counselling skills, nomination and rabies vaccination for health workers at rabies vaccination points for human. Strictly follow regulations on preservation and transportation of vaccines, and post-vaccination monitoring, ensuring immunization safety.</p>				
5.5	<i>Other key objectives and activities (specify)</i>						
5.5.1	Communication		<p>1. Conduct school communication about rabies prevention and control.</p> <p>2. Organize a World Day for rabies prevention and control in high risk localities to raise awareness of the authorities and the community.</p>	<p>1. Conduct school communication about rabies prevention and control.</p> <p>2. Organize a World Day for rabies prevention and control in high risk localities to raise awareness of the authorities and the community.</p>	DAH	WHO, USCDC, FAO, OIE, other international organizations	
5.5.2	Scientific research		<p>1. Study the treatment regimen for people with rabies, analgesia for people with rabies.</p> <p>2. Assessment of the status of</p>	<p>1. Study treatment regimen for people with rabies, analgesia for people with rabies.</p>	DAH	WHO, USCDC, FAO, OIE, other international organizations	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
			<p>human being bitten by dogs and cats and vaccinated against rabies, identification of supporting factors and obstruction factors for the implementation of responsibility of the dog owners.</p> <p>3. Research to produce rabies cell vaccines in country to reduce vaccination costs and take the initiative in domestic sources.</p> <p>4. Research and propose a community-based disease prevention and control model following One Health approaches</p>	<p>2. Research to produce rabies cell vaccines in country to reduce vaccination costs and take the initiative in domestic sources.</p> <p>3. Research and propose a community-based disease prevention and control model</p>			

FOCUS AREA 6: Applying One Health approaches for Antimicrobial Resistance Management

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
6.1	<i>Limit the use of antibiotics in animals, while enhancing control of the use of antibiotics necessary for humans</i>					
6.1.1	Assess the effectiveness and feasibility of the ban on use of antibiotics that have a growth promotion effect on livestock and important drugs for human use. If possible, issue and enforce bans, request to sell prescription drugs	[Agriculture sector activity]				
6.1.2	Develop guidelines for prescribing and using antibiotics for animals	[Agriculture sector activity]				
6.1.3	Update a list of antibiotics allowed for use in animals Issued	[Agriculture sector activity]				
6.1.4	Establish and enforce residual limits	[Agriculture sector activity]				

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
6.1.5	Establish an appropriate antibiotic use National monitoring system	Establish the National Antimicrobial Resistance Management Unit (Decision 3391/QD-BYT dated					
6.1.6	Strengthening of biosecurity measures and the promotion of GAHP	[Agriculture sector activity]					
6.2	<i>Limit and improve the use of antibiotics in humans</i>						
6.2.1	Widespread implementation of antibiotic management programs and community behavior change campaigns	Not yet implemented	Regulations and documents guiding implementation on antibiotics management, campaign for public awareness change	- Activities of central, provincial, district and commune levels in antibiotic management - Human resources needed for deployment	DAH	MOIT (Market Management Department), MONRE (VEA/ Department of Pollution Control) WHO, USCDC, HAIVN	
6.2.2	Develop training materials	Not yet implemented	Training materials on antibiotic use monitoring for the community	- Identify target users, implementing units - Budget resource	DAH	MONRE (VEA/ Department of Pollution Control) WHO, FAO US-CDC	
6.2.3	Develop communication materials	Not yet implemented	Documentation on the use of antibiotics for the community	- Target users, implementing units	DAH	MOIT (Market Management Department),	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
6.2.4	Organizing communication activities	Not yet implemented	Communication activities on the use of antibiotics suitable for the community Develop communication plan Implement communication for the community	- Budget resource	DAH	MONRE (VEA/ Department of Pollution Control) WHO, FAO, US-CDC	
6.2.5	Assess knowledge of community on antibiotic resistance	Not yet implemented	Investigate the proper use of antibiotics and antibiotic resistance in the community	- Identify implementing and collaborating units - Develop contents and assessment form - Budget resource	DAH	MOIT (Market Management Department), MONRE (VEA/ Department of Pollution Control) WHO, CDC	
6.3	<i>Improve information, database on antibiotic use and antibiotic resistance</i>						
6.3.1	Identify priority pathogens in antibiotic resistance		Identify some common pathogens prioritized in antibiotic resistance	- The prevalence of pathogens - Method of identification, testing	DAH	MOIT (Market Management Department), MONRE (VEA/ Department of Pollution Control) WHO, FAO, US-CDC	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
6.3.2	Set up surveillance system	Establish the National Antimicrobial Resistance Management Unit (Decision 3391/QD-BYT dated 14/8/2015 - VAMS)	<ul style="list-style-type: none"> - Establish a surveillance system for antibiotic resistance in the preventive health system - Training on surveillance of antibiotic use and antibiotic resistance in the preventive medicine system - Evaluate the effectiveness of surveillance of antibiotics use and antibiotic resistance 	<ul style="list-style-type: none"> - Legal basis - Implementation model of the Institute, province, district, commune - Surveillance contents 	DAH	MOIT (Market Management Department), , MONRE (VEA/ Department of Pollution Control) WHO, FAO, USC-DC, CIRAD	
6.3.3	Develop and share national policies and guidelines for antibiotic resistance surveillance at hospitals (including susceptibility testing) and for agriculture	Setting up surveillance system for the use of antibiotics in hospitals (Decision 6211/QD-BYT dated 17/10/2016 - VAMS)	<ul style="list-style-type: none"> - Guidelines for surveillance of antibiotic resistance in the community 	<ul style="list-style-type: none"> - Develop surveillance content and implementation plan at all levels - Technical and expert support 	DAH Department of Aquaculture Department of Crop Production	WHO, USCDC, FAO, PATH	
6.3.4	Develop database on antibiotic use and antibiotic resistance (in humans and animals).		<ul style="list-style-type: none"> - Software for surveillance of antibiotic resistance in preventive medicine system - Sharing information on antibiotic use and antibiotic resistance 	<ul style="list-style-type: none"> - Development unit - Operation and information sharing mechanism - Funding 	DAH Department of Aquaculture Department of Crop	WHO, USCDC, FAO	

Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others		
#	Objectives based on OHSP strategy	Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
					<i>Intensive infectious disease control and prevention programs at hospitals (IPC)</i>	
6.4	Widely implement IPC programs in hospitals	Action plan for antibiotic resistance management has been developed for the period 2010-2020 There are research projects on monitoring antibiotic resistance in 8 hospitals and the community	Assess the current status of antibiotic use in the community Development of antibiotic management program in hospitals and community Evaluate the involved risk factors to devise preventive and control measures	National and international investment funds The mechanism of close collaboration between the system of treatment and preventive medicine, agriculture and health Capacity Building Information exchange between stakeholders	DAH, Department of Aquaculture Department of Crop Production	WHO, USCDC, HAIVN
<i>Strengthen the laboratory capacity to identify antibiotic resistance genes by high quality programs</i>						
6.5	Funding for existing laboratories with AMR testing capabilities and is expected to build in the future	Surveillance system of antibiotic resistance has been piloted set up in 16 hospitals Development of reference laboratories for antibiotic resistance for hospitals and preventive medicine Carry out a number of molecular epidemiological studies assessing the spread of antibiotic resistance in the community and hospital	Continue monitoring antibiotic resistance at 16 sites nationwide (hospitals and community). Evaluate the involved risk factors to devise preventive and control measures	National and international investment funds The mechanism of close collaboration between the system of treatment and preventive medicine, agriculture and health Capacity Building Information exchange	DAH, Department of Aquaculture Department of Crop Production	WHO, FAO, USCDC, HAIVN
6.5.1						

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
6.5.2	To build appropriate laboratories including reference laboratories for the veterinary sector - National Centre for Veterinary Hygiene Inspection- and for the health sector - Tropical Hospital	Surveillance system of antibiotic resistance has been piloted set up in 16 hospitals Development of reference laboratories for antibiotic resistance for hospitals and preventive medicine Carry out a number of molecular epidemiological studies assessing the spread of antibiotic resistance in the community and hospital	To build appropriate laboratories in the institutes of the preventive medicine system at the provincial level	- Scope of the technique - Technical, guidance, implementation - Equipment - Training	DAH, Department of Aquaculture Department of Crop Production	MOIT (Market Management Department), MONRE (VEA/ Department of Pollution Control) WHO, USCDC, OUCRU	
6.5.3	Quality management system for laboratories	There are already some laboratory implementing	Supplement to the remaining laboratories	- Quality evaluation - Equipment	DAH	WHO, USCDC	
6.5.4	Establishment of a national laboratory network with more than 18 laboratories meeting ISO 15189 standards and recognized for surveillance	Surveillance system of antibiotic resistance has been piloted set up in 16 hospitals Development of reference laboratories for antibiotic resistance for hospitals and preventive medicine Carry out a number of molecular epidemiological	To build appropriate laboratories in the institutes of the preventive medicine system (NIHE/Pasteur, National Institute of Nutrition, Institute of Public Health, National Institute of Malariaology Parasitology and Entomology) the provincial hospital and the Tropical Hospital	Technical advice Funding support for deployment	DAH	WHO, USCDC	

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
	of antimicrobial resistance (medical sector)	studies assessing the spread of antibiotic resistance in the community and hospital					
6.6	<i>Minimize the presence of antibiotic residues in the environment</i>						
6.6.1	Minimize the use of antibiotics in livestock, improve the treatment of waste	[Agriculture sector activity]					
6.6.2	Control of farm waste including antibiotics and drug-resistant bacteria (MONRE)	[Environmental sector activity]					

FOCUS AREA 7: Applying One Health approaches for other priority zoonotic diseases

#	Objectives based on OHSP strategy	Activities in Health sector: MOH			Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
7.1	<i>Anthrax control</i>					
7.1.1	Enhance awareness of the community in high risk areas, increasing vaccination	Promulgate guidelines on surveillance and prevention and control anthrax in humans	<ol style="list-style-type: none"> 1. Develop plans and communication messages on anthrax prevention and control measures. 2. Implement communication activities of the health sector, coordinated risk communication activities to raise public awareness on disease prevention and control measures in high risk provinces. 3. Develop an interdisciplinary co-ordinate process for surveillance, investigation and handle of anthrax outbreaks. 4. Dissemination training on and implementation of surveillance, investigation and treatment of anthrax outbreaks. 	<ol style="list-style-type: none"> 1. Implement communication activities of the health sector, coordinated risk communication activities to raise public awareness on disease prevention and control measures in high risk provinces. 2. Dissemination training on and implementation of surveillance, investigation and treatment of anthrax outbreaks. 	DAH	WHO, USCDC
7.2	<i>Reduce the burden of disease caused by Streptococcus suis</i>					
7.1.1	Carry out behavior change campaigns (if possible) especially in the con-	Promulgate guidelines on surveillance and prevention and control anthrax in humans	<ol style="list-style-type: none"> 1. Develop plans and communication messages on Streptococcus suis prevention and control measures. 	<ol style="list-style-type: none"> 1. Implement communication activities of the health sector, coordinated risk communication activities to raise public 	DAH	WHO, USCDC

Activities in Health sector: MOH					Areas where need the collaboration between Health sector and others			
#	Objectives based on OHSP strategy	Update on progress during 2016-2017			Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc
			sumption of raw products from pigs					
7.3	<i>Reduce the burden of disease caused by Leptospirosis</i>							
7.3.1	Awareness of the community about the risk of Leptospirosis increased during raining season	Not yet implemented		1. Investigating on knowledge, attitudes and behaviours of people towards the risk of Leptospirosis 2. Identify high-risk objects, high-risk areas for Leptospirosis	Investigating on knowledge, attitudes and behaviours of people towards the risk of Leptospirosis			WHO, USCDC
7.3.2	Communica-	Promulgate guidelines on		1. Develop plans and commu-	1. Implement communication	Cục Thú y		WHO, USCDC

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
	tion to ensure awareness on the Leptospirosis to the community and to health staff	surveillance and prevention and control Leptospirosis in humans	<p>1. Communication messages on Leptospirosis prevention and control measures.</p> <p>2. Implement communication activities of the health sector, coordinated risk communication activities to raise public awareness on disease prevention and control measures in high risk provinces.</p> <p>3. Develop interdisciplinary coordination process in surveillance and investigation and treatment of Leptospirosis.</p> <p>4. Dissemination training on and implementation of surveillance, investigation and treatment of Leptospirosis outbreaks.</p>	<p>activities of the health sector, coordinated risk communication activities to raise public awareness on disease prevention and control measures in high risk provinces.</p> <p>2. Dissemination training on and implementation of surveillance, investigation and treatment of Leptospirosis outbreaks.</p>	MARD		
7.3.3	Strengthen the capacity to diagnose Leptospirosis on human and animal.		<p>1. Review of diagnostic testing procedures and diagnostic capabilities for Leptospirosis in laboratories of the health sector.</p> <p>2. Training to improve the capacity of staff.</p> <p>3. Supplement, strengthening equipment for laboratories.</p>	<p>1. Review of diagnostic testing procedures and diagnostic capabilities for Leptospirosis in laboratories of the health sector.</p> <p>2. Training to improve the capacity of staff.</p> <p>3. Supplement, strengthening equipment for laboratories.</p>			

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
7.4	<i>Enhanced traceability and residue testing</i>						
7.4.1	Available animal navigation systems, such as stamping pigs, to identify farm origins or traders for pigs at slaughter-houses.	[Agriculture sector activity]					
7.5	<i>Assess the risk of foodborne illnesses from food of animal origin</i>						
7.4.1	Available animal navigation systems, such as stamping pigs, to identify farm origins or traders for pigs at slaughter-houses.	[Agriculture sector activity]					
7.5.1	Carry out a risk assessment to determine exactly the investment needs of the sector.	Not yet implemented	<ol style="list-style-type: none"> 1. Review the risk of foodborne diseases from food derived from animals. 2. Organize training to assess the risk of foodborne diseases from food derived from animals. 	<ol style="list-style-type: none"> 1. Organize training to assess the risk of foodborne diseases from food derived from animals. 2. Organize a risk assessment to identify the risk and then devel- 			

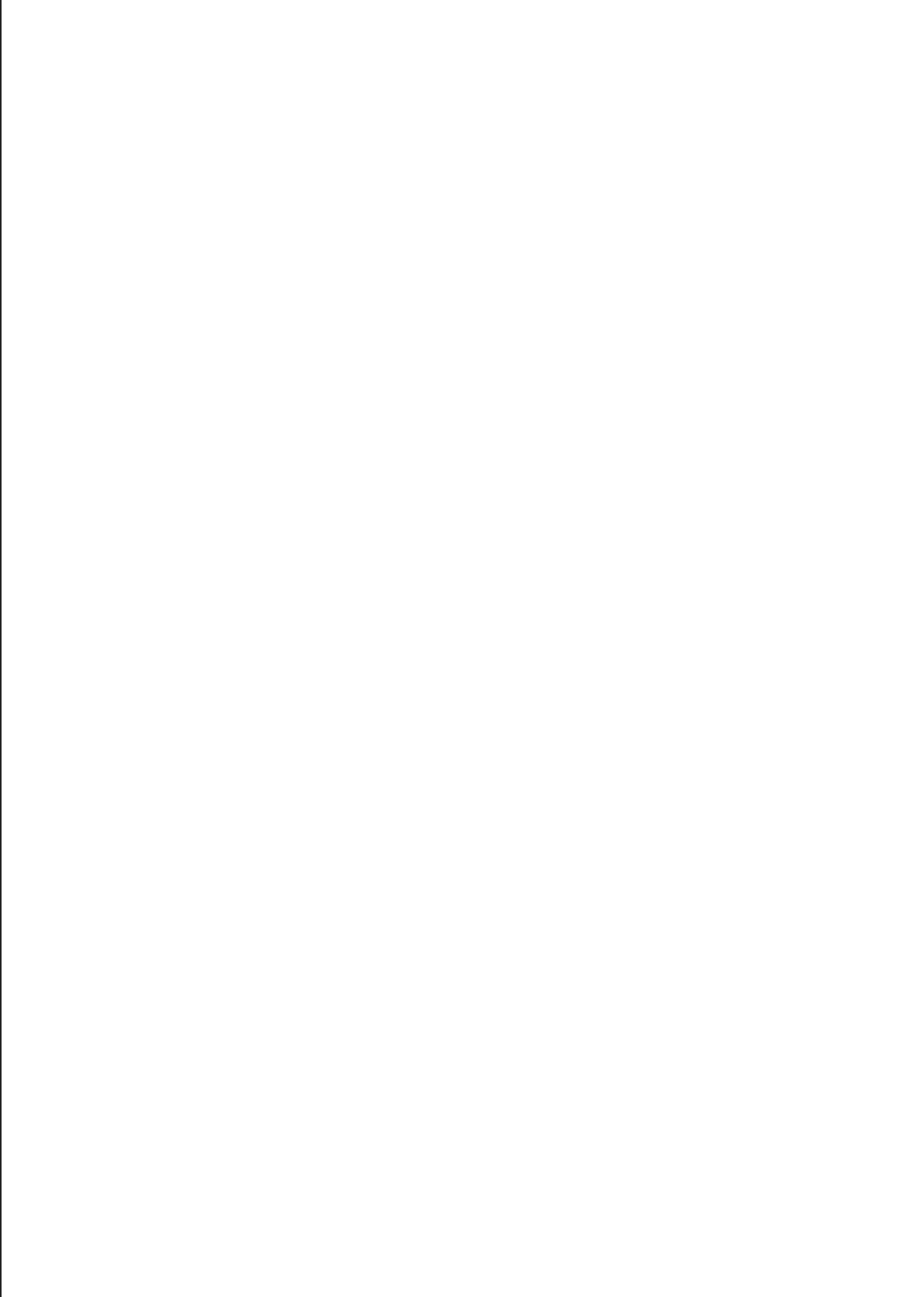
#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
			3. Organize a risk assessment to identify the risk and then develop risk mitigation plans.	op risk mitigation plans.			
7.5.2	Available animal navigation systems, such as stamping pigs, to identify farm origins or traders for pigs at slaughterhouses.	[Agriculture sector activity]					
7.5.3	Complete a risk assessment of food safety, highlighting areas that need improvement to achieve food safety objectives.	Develop food law	Develop risk mitigation plans for foodborne disease from food derived from animals.	1. Disseminate a plan to reduce the risk of foodborne illnesses from food derived from animals. 2. Implement risk communication.	DLP, Department of Crop Production, post-harvest, PPD	MOIT WHO, FAO US-CDC	
7.6	<i>Thorough implementation of Joint Circular No. 16 at all levels including reporting on all human and animal cases to both the MARD and the MOH (as well as relevant agencies at the local level)</i>						
7.6.1	See Focus Area 1						
7.7	<i>General objectives</i>						

#	Objectives based on OHSP strategy	Activities in Health sector: MOH				Areas where need the collaboration between Health sector and others	
		Update on progress during 2016-2017	Expected activities and results in 2018-2020	Main gaps (areas that need more investment/ support)	MARD	Other ministries, international partners, etc	
7.7.1	Continuing research to identify the scope and extent of the epidemic from which to develop appropriate preventive and control measures, with development from the work done	A pilot to assess, strengthen and then evaluate the implementation of Joint Circular No. 16/TTLT-BYT-BNNPT-NT has been conducted by NIHE in collaboration with DAH, FAO and WHO to build a model for prevention and control of zoonoses					
7.7.2	Continue to increase the rate of vaccination for Japanese encephalitis in children under the age of the National Immunization Program, thereby reducing the incidence of Japanese encephalitis.						
7.7.3	Assess the risk of brucellosis from trading cattle with neighboring countries.	The health sector has not yet had any activities	Assess the risk of brucellosis from trading cattle with neighboring countries.	Assess the risk of brucellosis from trading cattle with neighboring countries.	DAH		

ANNEX

LIST OF INTERVIEWEES

Organisation	Venue	Interviewee	Content
General Department of Preventive Medicine (GDPM)	Alley 135 Nui Truc, Ha Noi	<p>MSc. Dang Quang Tan Deputy Director General</p> <p>MSc. Nguyen Thi Huong Division of Infectious Diseases Control</p> <p>MSc. Chu Van Tuyen Division of Infectious Diseases Control</p> <p>Dr. Vu Ngoc Long Head of the Border Medical Quarantine Division</p> <p>Dr. Nguyen Xuan Tung Head of Diagnostic tests and vaccines division</p> <p>Dr. Trinh Xuan Tung Deputy Head of Diagnostic tests and vaccines division</p>	To review activities and plans for prevention and control of communicable diseases, influenza, rabies, antibiotic resistance, laboratories, animal diseases, capacity building for implementation of International Health Regulations (IHR)
Department of Environmental Health Management	No. 8 Ton That Thuyet Street, Ha Noi	<p>MSc. Phan Thi Ly Deputy Head of Environmental Health Management division</p> <p>Dr. Tran Anh Dung Head of public health and environmental health management division</p>	To review activities on environmental and public health management
National Institute of Hygiene and Epidemiology (NIHE)	No. 1, Yec Xanh, Ha Noi	<p>PhD. Duong Thi Hong Deputy Director, Head of National Immunization Office</p> <p>Dr. Tran Van Hoang Deputy Head of Bacteriology division</p>	National Expanded Program on Immunization Antibiotic resistance





For more details please contact

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