





LANDSCAPE ANALYSIS ON THE STATUS OF THE IMPLEMENTATION OF AMR NATIONAL ACTION PLANS FOR THE EU PROJECT WORKING TOGETHER TO FIGHT AMR

OBJECTIVE

The objective of the landscape analysis is to determine; i) the baseline of antimicrobial resistance (AMR) governance structures and intersectoral mitigation; and ii) the status of the development and implementation of the national AMR action plans in the countries that are part of the EU project.

The landscape analysis reports will highlight the gaps, challenges and opportunities that exist in each country, and are meant to provide guidance to the national authorities in prioritizing activities and interventions to combat AMR to be incorporated in the country specific workplans.

TARGET GROUP

The main target group for the landscape analysis reports are the national authorities and national AMR focal points responsible for the implementation of the national AMR action plans and the country workplans related to the EU project. The landscape analysis reports also aim to inform and support the country and regional focal points and the project management team at PAHO, FAO and OIE with the implementation of the EU project activities.

SCOPE

The analysis will be targeted at the national level in a multisectoral approach including ministries and national agencies from human health, animal health (and plant health) responsible for AMR related activities.

DISCLAIMER

This situation analysis tool is an instrument for collecting information and by no means a document that seeks to assess compliance with the recommendations and/or standards of the OIE. Therefore, PAHO, FAO and OIE clarify that the use of this instrument will be limited to the collection of baseline data that will guide the implementation of the project "Working together against antimicrobial resistance".

METHODOLOGY

1. Collection of resources

Information from existing resources are collected and stored at google drive by each of the organizations. Each of the organizations will contact their country focal points to request for the available documents for the 7 project countries.

Existing resources for inclusion in the landscape analysis are (if available):

- Tripartite AMR Country Self-Assessment Survey results (TrACSS)¹
- National Action Plans on AMR
- AMR Mission reports that took place in the country
- National manuals, reports and guidelines that cover AMR or AMU
- National legislation documents that cover AMR
- Data collection on RAM and UAM
- Scientific publications
- National awareness campaign materials related to AMR
- Additional FAO / OIE resources (technical consultancy reports, research activities training, etc.)
- Program documents, reports and activities related to AMR in the private sector food production.

2. Template landscape analysis report

The landscape analysis report template follows the same structure as the TrACCS, covering the following topics:

- a. Contact information of the national AMR focal points for relevant sectors, and WHO, FAO, OIE agencies contacts at country level
- b. Multi-sectoral approach to addressing AMR
- c. Country progress with development of a national action plan on antimicrobial resistance (AMR)
- d. Country progress on Strategic Objective 1: Improve awareness and understanding of AMR through effective communication, education and training
- e. Country progress on Strategic Objective 2: Strengthen the knowledge and evidence base through surveillance and research
- f. Country progress on Strategic Objective 3: Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures
- g. Country progress on Strategic Objective 4: Optimize the use of antimicrobials in human, animal and plant health
- h. National assessment of risks for AMR transmission in the environment and pollution control. Legislation and/or regulations to prevent contamination of the environment with antimicrobials

3. Development of a draft landscape analysis report

¹ <u>https://www.who.int/antimicrobial-resistance/global-action-plan/database/en/</u>

- The most recent TrACCS results will be included in the template. To facilitate updates or corrections from the national authorities to the answers reported to WHO HQ, all the answer options will be available in the template.
- Based on the additional resources collected, to each of the topics and country answer of the TrACCS, a summary of additional information will be added with clear reference to the collected resources.
- In addition, each topic will include a SWOT analysis, identifying strengths and weaknesses, to enable the determination of gabs and needed next steps that can be translated into activities for the country workplan.
- The draft landscape analysis reports will be prepared by a consultant and the report will be reviewed by PAHO, FAO and OIE.

4. Country visit and finalization landscape analysis report

- A small team of experts (including the consultant that preparing the draft landscape analysis report; including a human health and animal health expert) will visit the national authorities and main institutes/agencies involved in AMR activities to check and further complete the information described in the landscape analysis report.
- With the additionally collected information during the visits and the interviews held, the consultant will complete the landscape analysis report, and share for final review with PAHO, FAO and OIE. Followed by review and confirmation of the country.
- Referencing the resources is crucial to validate the correctness of the report. Information received through interviews should be referenced as well (stating the name/agency of the interviewed). The consultants will receive training and guidance documents to ensure a standardized and professional work ethic.

PARAMETERS

(basic existing structures/organizations and more specific ones depending on the stakeholder needs)

TEMPLATE LANDSCAPE ANALYSIS REPORT - COUNTRY X

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ACKNOWLEDGEMENTS

The following people contributed to the landscape analysis: ______ We would like to express our appreciation to the following partners and collaborators for their support during the implementation of this landscape analysis: _____

COUNTRY FOCAL POINTS

Name and email of the AMR focal points for relevant sectors:

Human Health	Name:
	Email:
Animal Health (terrestrial and aquatic)	Name:
	Email:
Disust Line ith	News
Plant Health	Name: Email:
	Email.
Food Production	Name:
	Email:
Food Safety	Name:
	Email:
Environment	Name:
	Email:
WHO, FAO, OIE AGENCIES CONTACTS	
AMR Focal point in WHO country	Name:
or regional office	Email:
AMR Focal Point in FAO country	Name:
or regional office	Email:
OIE National Focal Point	Name:
on veterinary products	Email:
EU delegation at country level	Name:
	Email:

SUMMARY

(provide a short summary of the landscape analysis report)

INTRODUCTION

(upload country map image)	(Provide a short country description of the country including demographics, health situation and health system, health insurance program, agriculture, animal and human health etc.)
	Example: is located in the of South America, and borders It is divided intoregions. The country had a population of in , with% live in urban areas. Life expectancy at birth is years. The health system (reference:

https://www.paho.org/salud-en-las-americas-2017/?p=2706)

METHODOLOGY

(Describe the landscape analysis methodology, specified to the country specific resources used, the country visit, people/agencies interviewed, agenda, listing of resources etc.)

Example:

During the assessment period from ___ to ___, the team visited _____.

A total of _____ interviews were conducted with _____. Resources used to inform the landscape analysis includes _____.

RESULTS

1. Multi-sectoral approach to addressing AMR

1.1	1.1 Multi-sector and One Health collaboration/coordination					
	Α	No formal multi-sectoral governance or coordination mechanism on AMR exists.				
	В	Multi-sectoral working group(s) or coordination committee on AMR established with				
	Government leadership.					
	С	Multi-sectoral working group(s) is (are) functional, with clear terms of reference, regular				
	meetings, and funding for working group(s) with activities and reporting/accountability					
		arrangements defined.				
	D	Joint work on issues including agreement on common objectives.				
	Ε	Integrated approaches used to implement the national AMR action plan with relevant data and				
	lessons learned from all sectors used to adapt implementation of the action plan.					

1.1. a. Indicate whether the Committee has a legal basis (decree, regulation, resolution or other) that endorses or makes official its constitution, composition and operation. Briefly describe

1.1. b. Indicate whether the normative instrument for the constitution of the Committee gives explicit responsibilities to the agricultural sector with regards to AMR. Briefly describe

1.1. c. Indicate whether the Committee has a multisectoral approach that equitably considers the areas of human health, animal health, food safety, and the environment. Briefly describe

1.1. d. Please indicate if the Committee has regularly considered the private sector of animal, plant / food production in its work. Briefly describe

1.2	1.2 Which sectors are actively involved in developing and implementing the AMR National Action				
Plan? (multiple choice)					
	A Human Health including WASH				
	B Animal Health (terrestrial and aquatic)				
	С	C Plant Health			
	D	Food Production			
	E	Food Safety			
	F	Environment			

1.2. a State whether the animal health (terrestrial and aquatic), plant health and environment sectors are duly involved in the National Action Plan. (Verifiy for each one). Briefly describe.

1.2. b. Indicate which public entity or service leads, coordinates or represents the animal and plant health sector on the Committee and in the development of the National Action Plan. Briefly describe.

1.2. c. Indicate which department or division (s) of the Animal, Plant and Food Safety Service s, acts as coordinator and representative of AMR activities in that sector at the national multisectoral Committee level. Briefly describe.

1.2. d. Indicate which entity or public service leads, coordinates or represents the Environment sector in the Committee and in the development of the National Action Plan, and which department or division (s) exercise this function. Briefly describe.

1.3 Describe the current structure/activities of the multi-sectoral collaboration on AMR (reference resources):

1.4 Official documentation available: (e.g. ministerial order, reports, meeting minutes etc.)

1.5 SWOT analysis TOPIC STRENGTHS WEAKNESSES OPPORTUNITIES THREATS Multi-sectoral collaboration Image: Colla

2. Country progress with the development of a national action plan on AMR

2.1	2.1 Country progress with development of a national action plan on AMR				
	A No national AMR action plan.				
	В	National AMR action plan under development.			
	С	National AMR action plan developed.			
	D National AMR action plan approved by government that reflects Global Action Plan				
	objectives, with a budgeted operational plan and monitoring arrangements.				

E	National AMR action plan has funding sources identified, is being implemented, and has
	relevant sectors involved with a defined monitoring and evaluation process in place.

2.1. a. Indicate whether the country has developed a national analysis and evaluation of the AMR situation prior to the preparation (definition of activities) of the National Action Plan. Briefly describe.

2.1. b. If the previous answer is affirmative, indicate whether that analysis considered the representation of the agriculture sector, in particular the animal health sector. Briefly describe.

2.1. c. Indicate whether the National Action Plan has normative support that makes it official and endorses its implementation in all the sectors involved, particularly agriculture. Briefly describe.

or	2.2 Is your country's national action plan on AMR linked to any other existing action plans, strategies or targets related to HIV, tuberculosis, malaria, sexually transmitted diseases or neglected tropical diseases?				
	□ No				
	Yes	s If so, please select the relevant item below (mark all diseases that are relevant):			
		HIV			
		Tuberculosis			
		Malaria			
		Neglected tropical diseases			
		Sexually Transmitted Diseases (STIs)			

2.2. a. Indicate whether the activities defined in the National Action Plan are incorporated into the operational / financial plans of the respective institutions involved in their implementation. Specify for human health, animal health (terrestrial and aquatic) and agricultura sectors. Briefly describe.

2.2. b. Indicate the main public or private programs / strategies in place that contribute to the containment of AMR in the agricultura sector. Briefly describe.

2.3	2.3 Country legislations on antimicrobial use					
Α	Country has laws or regulations on prescription and sale of		Yes			
	antimicrobials, for human use.		No			
			Don't know			
В	Country has laws or regulations on prescription and sale of		Yes			
	antimicrobials for animal use.		No			
			Don't know			
С	Country has laws or regulations that prohibits the use of antibiotics		Yes			
	for growth promotion in the absence of risk analysis.		No			
			Don't know			
D	Country has legislation on marketing of pesticides including		Yes			
	antimicrobial pesticides, such as bactericides and fungicides used in		No			
	plant production.		Don't know			

2.4 Description of the current implementation of the national action plan on AMR and related legislations on antimicrobial use (reference resources):

2.5 Official documentation available: (e.g. ministerial order, reports, meeting minutes, etc)

2.6 SWOT analysis

ТОРІС	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREATS
National Action Plan				
implementation				
RECOMMENDATIONS				

3. Country progress on Strategic Objective 1: Improve awareness and understanding of AMR through effective communication, education and training.

3.1	3.1 Raising awareness and understanding of AMR risks and response					
	Α	No significant awareness-raising activities on relevant aspects of risks of antimicrobial				
		resistance.				
	В	Some activities in parts of the country to raise awareness about risks of antimicrobial				
		resistance and actions that can be taken to address it.				
	С	Limited or small-scale antimicrobial resistance awareness campaign targeting some but not all				
		relevant stakeholders.				
	D	Nationwide, government-supported antimicrobial resistance awareness campaign targeting all				
		or the majority of priority stakeholder groups, based on stakeholder analysis, utilizing targeted				
		messaging accordingly within sectors.				
	Ε	Targeted, nationwide government-supported activities regularly implemented to change				
		behavior of key stakeholders within sectors, with monitoring undertaken over the last 2-5				
		years.				

3.2 For the level selected above, please indicate the extent of involvement of the sectors below						
Sectors	this sector is a main focus for activities	some activities done in this sector	this sector not involved			
Human Health including WASH						
Animal Health (terrestrial and aquatic)						
Plant Health						
Food Production						
Food Safety						
Environment						

3.2. a. Indicate whether a representative of the communications unit of the Animal, Plant and Food Safety Services, or of the Ministry of Agriculture, participates in the meetings of the National AMR Committee when appropriate. Briefly describe

3.2. b. Indicate if an awareness strategy is being developed by the animal and plant health and food safety authorities to meet the commitments of Strategic Objective 1 of the Action Plan. Briefly describe

3.3. c. Assess the level of relationship between the communications unit of the Animal, Plant and Food Safety Services, or the Ministry of Agriculture, with the communications units of the Health Services or the Ministry of Health to jointly serve the commitments of Strategic Objective 1 of the Action Plan. Briefly describe.

3.3	3.3 Training and professional education on AMR in the human health sector			
	Α	No training for human health workers on AMR.		
	В	Ad hoc AMR training courses in some human health related disciplines.		
	С	AMR is covered in 1) some pre-service training and in 2) some in-service training or other		
		continuing professional development (CPD) for human health workers.		
	D	AMR is covered in pre-service training for all relevant cadres. In-service training or other CPD		
		covering AMR is available for all types of human health workers nationwide.		
	Ε	AMR is systematically and formally incorporated in pre-service training curricula for all relevant		
		human health cadres. In-service training or other CPD on AMR is taken up by relevant groups		
		for human health nationwide, in public and private sectors.		

3.4. a. Indicate in what percentage the training and professional education activities carried out in recent times have focused on official veterinarians and veterinarians who attend private practice (animal production). Briefly describe.

3.4. b. Indicate the main channels or instruments through which the training indicated in the previous point has been carried out. Briefly describe.

3.4	3.4 Training and professional education on AMR in the veterinary sector			
	Α	No training of veterinary related professionals (veterinarians and veterinary paraprofessionals)		
		related to AMR.		
	В	Ad hoc AMR training courses available for veterinary related professionals.		
	С	AMR and prudent use of antimicrobial agents are covered in core curricula for graduating		
		veterinarians and for veterinary paraprofessionals in some educational institutions.		
	D	Continuing professional training on antimicrobial resistance and antimicrobial use is available		
		nationwide for veterinary related professionals.		
	E	AMR is systematically and formally incorporated in curricula for graduating veterinarians and		
		veterinary paraprofessionals and continuing professional training is a formal requirement.		

3.5 Training and professional education on AMR in the farming sector (animal and plant), food production, food safety and the environment

Α	No training provision on AMR for key stakeholders, e.g. farmers and farm workers, extension	
	workers, food and feed processors and retailers, environmental specialists.	
В	Tailored ad hoc AMR training courses available for at least two groups of key stakeholders.	
С	Tailored ad hoc AMR training courses are available for all or the majority of key stakeholders.	
D	Tailored AMR training courses are routinely available nationwide for all key stakeholders and	
	completion of training is a formal requirement for at least two groups of key stakeholders.	
E	Tailored AMR training courses are routinely available nationwide and completion of training is	
	a formal requirement for all key stakeholders.	

3.5. a. Indicate the main channels or instruments through which the training indicated in the previous point has been carried out. Briefly describe.

3.5. b. Indicate whether training or rural extension actions have been carried out for small livestock and aquaculture producers on AMR and the use of antimicrobials. If so, indicate the entities that have led this process. Briefly describe.

3.6	3.6 Progress with strengthening veterinary services			
	Α	No systematic approach at national level to strengthening Veterinary Services.		
	В	Veterinary services assessed and plans developed to improve capacity, through a structured		
		approach such as OIE Performance of Veterinary Services (PVS) Evaluation and PVS Gap		
		Analysis missions.		
	С	Implementation of plan to strengthen capacity gaps in Veterinary Services underway.		
	D	Monitoring of Veterinary Services performance carried out regularly, e.g. through PVS		
		Evaluation Follow Up missions.		
	Ε	Documented evidence of strong capacity in compliance with OIE standards on the quality of		
		Veterinary Services.		

3.6. to. Indicate whether the Animal, Plant and Food Safety Services have received technical assistance from international / regional organizations (FAO, IICA, OIE or other) to strengthen the sector's response to AMR. Briefly describe.

3.7 Description/Examples of the current awareness raising and educational activities in the different sectors (reference resources):

3.8 Official documentation available: (e.g. ministerial order, reports, meeting minutes, etc)

3.9 SWOT analysis	3.9 SWOT analysis				
ΤΟΡΙϹ	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREATS	
Education &					
awareness raising					
RECOMMENDATIONS					

4. Country progress on Strategic Objective 2: Strengthen the knowledge and evidence base through surveillance and research

4.1	${\bf 4.1Nationalmonitoringsystemforconsumptionandrationaluseofantimicrobialsinhumanhealth}$			
	Α	No national plan or system for monitoring use of antimicrobials.		
	В	System designed for surveillance of antimicrobial use, that includes monitoring national level		
		sales or consumption of antibiotics in health services.		
	С	Total sales of antimicrobials are monitored at national level and/or some monitoring of		
		antibiotic use at sub-national level.		
	D	Prescribing practices and appropriate antibiotic use are monitored in a national sample of		
		healthcare settings.		
	Ε	On a regular basis (every year/two years) data is collected and reported on:		
		a) Antimicrobial sales or consumption at national level for human use; and		
		b) Antibiotic prescribing and appropriate/rational use, in a representative sample of health		
		facilities, public and private.		

4.2	4.2 National monitoring system for antimicrobials intended to be used in animals (terrestrial and			
aqu	aquatic) (sales/use)			
	Α	No national plan or system for monitoring sales/use of antimicrobials in animals.		
	В	Plan agreed for monitoring quantities of antimicrobials sold for/used in animals, based on OIE		
		standards.		
	С	Data collected and reported on total quantity of antimicrobials sold for/used in animals and		
		their intended type of use (therapeutic or growth promotion).		
	D	On a regular basis, data is collected and reported to the OIE on the total quantity of		
		antimicrobials sold for/used in animals nationally, by antimicrobial class, by species (aquatic		
		or terrestrial), method of administration, and by type of use (therapeutic or growth		
		promotion).		
	Ε	Data on antimicrobials used under veterinary supervision in animals are available at farm		
		level, for individual animal species.		

4.3 National monitoring system for pesticide use in plant production including antimicrobial pesticides such as bactericides and fungicides No national plan or system for monitoring use of pesticides including antimicrobial pesticides Α such as bactericides and fungicides used for the purpose of controlling bacteria or fungal diseases. Plan agreed for monitoring quantities of pesticides including antimicrobial pesticides such as В bactericides and fungicides used for the purpose of controlling bacteria or fungal diseases. Data collected and reported on total quantity of pesticides including antimicrobial pesticides С such as bactericides and fungicides sold/ used nationally for the purpose of controlling bacteria or fungal diseases. On a regular basis, data is collected and reported on quantity of pesticides including D

Γ		antimicrobial pesticides such as bactericides and fungicides sold/used in plant
		production for the purpose of controlling bacteria or fungal diseases, disaggregated
		by class of active ingredient and plant type/species.

4.4	4.4 National surveillance system for antimicrobial resistance (AMR) in humans				
	Α	No capacity for generating data (antibiotic susceptibility testing and accompanying clinical			
		and epidemiological data) and reporting on antibiotic resistance.			
	В	AMR data is collated locally for common bacteria, but data collection may not use a			
		standardized approach and lacks national coordination and/or quality management.			
	С	National AMR surveillance activities for common bacterial infections follow national			
		standards, and a national reference laboratory that participates in external quality assurance.			
	D	There is a functioning national AMR surveillance system covering common bacterial infections			
		in hospitalized and community patients, with external quality assurance, and a national			
		coordinating centre producing reports on AMR.			
	Ε	The national AMR surveillance system integrates surveillance of AMR across sectors, and			
		generates regular reports covering at least one common indicator.			

4.5	4.5 (a) National surveillance system for antimicrobial resistance (AMR) in animals (terrestrial and			
aqu	aquatic)			
	Α	No national plan for an AMR surveillance system.		
	В	National plan for AMR surveillance in place in place but capacity (including laboratory and		
		reporting) is lacking.		
	С	Some AMR data is collected but a standardized approach is not used. National coordination		
		and/or quality management is lacking.		
	D	Priority pathogenic/ commensal bacterial species have been identified for surveillance Data		
		systematically collected and reported on levels of resistance in at least one of those bacterial		
		species, involving a laboratory that follows quality management processes e.g. proficiency		
		testing. (if selected D, move to 4.5 b)		
	Ε	National system of AMR surveillance established for priority animal pathogens, zoonotic and		
		commensal bacterial isolates which follows quality assurance processes in line with		
		intergovernmental standards. Laboratories that report for AMR surveillance follow quality		
		assurance processes. (if selected E, move to 4.5 b)		

4.5	4.5 (b) AMR surveillance is routinely undertaken in animals for the following categories:		
Please answer this next question only if you have selected either D or E to 7.5 (a) (check all that apply)			
	Α	Animal (terrestrial and/or aquatic) isolates linked to animal disease.	
	В	Zoonotic pathogenic bacteria	
	С	Commensal isolates	
	D	Specific resistance phenotypes such as ESBL producing indicator E.coli obtained from healthy	
		animals in key food producing species	

4.5	4.5 (c) National surveillance system for antimicrobial resistance (AMR) in food (animal and plant				
orig	origin)				
	Α	No national plan for an AMR surveillance system.			
	В	National plan for AMR surveillance in place but capacity (including laboratory and reporting) is			
		lacking.			
	С	Some AMR data is collected - but a standardized approach is not used. National coordination			
		and/or quality management is lacking.			
	D	Priority food borne pathogenic/indicator bacterial species have been identified for			
		surveillance. Data systematically collected and reported on levels of resistance in at least one			
		of those bacterial species, involving a laboratory that follows quality management processes			
		e.g. proficiency testing. (If selected D, move to 4.5d)			
\boxtimes	Ε	National system of AMR surveillance established for priority foodborne pathogens and/or			
		relevant indicator bacteria which follows quality assurance processes in line with			
		intergovernmental standards. Laboratories that report for AMR surveillance follow quality			
		assurance processes. (If selected E, move to 4.5d)			

4.5 (d) AMR surveillance is systematically undertaken in food (animal and plant origin) in the following categories: (Please answer this next question only if you have selected either D or E to 4.5 (c)) Food borne pathogenic bacteria Animal origin: Α Yes No Plant origin: Yes No В Indicator bacteria Animal origin: Yes No Plant origin: Yes No

4.6 Is the country using relevant antimicrobial consumption/use and/or antimicrobial resistance data to amend national strategy and/or inform decision making, at least annually?		
No		
Yes	(If yes, for which sector/s)	
	Human Health including WASH	
	Animal Health (terrestrial and aquatic)	

	Plant Health
	Food Production
	Food Safety
	Environment

4.7	4.7 National AMR Laboratory network in animal health and food safety sectors			
	-	ety sectors includes laboratories that process samples from food producing terrestrial and aquatic animals		
and	from	food; countries which also have a national programme for AMR surveillance in plant health and/or the		
	environment should include these laboratories too)			
a) E	ffecti	ve integration of laboratories in the AMR surveillance		
	Α	Information not available.		
	В	Laboratories perform antimicrobial susceptibility testing (AST) for own purposes and are not		
		included in the national AMR surveillance system.		
	С	Some laboratories performing AST are integrated in the national AMR surveillance system.		
	D	All laboratories performing AST are integrated in the AMR surveillance system but the role		
		should be better formalized and the network better and developed.		
	Ε	All laboratories performing AST are integrated in the national AMR surveillance system, have		
		a clear position, and are linked to a national network coordinated by a National Reference		
		Laboratory.		
b) L	evelo	of the standardization and harmonization of procedures among laboratories included in the		
AM	Rsur	veillance system		
	Α	Information not available.		
	В	No standardized national AST guidelines are in place or Less than 30% laboratories follow the		
		same AST guidelines.		
	С	Between 30% to 79% of laboratories follow the same AST guidelines.		
	D	Between 80% and < 100% of laboratories use the same AST guidelines.		
	Ε	100% of laboratories use the same AST guidelines.		
c) R	eleva	nce of diagnostic (bacteriology) techniques used by laboratories included in the AMR		
surv	/eilla	nce system		
	Α	Information not available.		
	В	AST, bacterial isolation and identification protocols are not relevant considering the national		
		AMR surveillance objectives.		
	С	Major modifications in the AST, bacterial isolation and identification protocols used are		
		required to improve their adaptation to national AMR surveillance objectives.		
	D	Minor modifications in the AST, bacterial isolation and identification protocols used would		
		improve their adaptation to the national AMR surveillance objectives.		
	Ε	AST, bacterial isolation and identification protocols are perfectly suited to the national AMR		
		surveillance objectives.		
d) T	echn	ical level of data management of the laboratory network in the AMR surveillance system		
	Α	Information not available.		

В	AST data are handled manually, or AST data management is not computerized in all				
	aboratories of the network and/or there are problems in the recording of the samples and				
	their traceability along the analysis chain.				
С	Most laboratories of the network use computers to manage part of their data but important				
	improvements in the system are required.				
D	Some minor improvements are required in some laboratories of the network to				
	improve the computerized management of AMR laboratory data (sample input				
	procedures, sample storage information, computerized transmission of data etc.).				
Ε	All laboratories use ongoing optimal data management (e.g. samples and test results are				
	identified using a complete computerized management system covering each step in the				
	analysis chain, including the storage of epidemiological information, data validation protocol				
	and the computerized transmission of results, conforming perfectly to the requirements of				
	the national AMR surveillance system).				

4.7. a. Indicate the number of national laboratories that perform AMR analyses in animal health and food safety. Differentiate between public and private. Briefly describe.

4.7. b. Provide the number and name of the reference laboratory (s) for AMR analysis in animal health and food safety. Briefly describe.

4.8 Description/Examples of the current research and surveillance activities in the different sectors (reference resources):

4.9 Official documentation available: (e.g. ministerial order, reports, meeting minutes, etc)

4.10 SWOT analysis TOPIC STRENGTHS WEAKNESS OPPORTUNITIES THREATS Implementation of AMR surveillance and Implementation of Implementation Implementation Implementation research Implementation Implementation Implementation Implementation Implementation RECOMMENDATIONS Implementation Implementation Implementation Implementation

5. Country progress on Strategic Objective 3: Reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures

5.1	5.1 Infection Prevention and Control (IPC) in human health care			
	Α	No national IPC programme or operational plan is available.		
	В	A national IPC programme or operational plan is available. National IPC and water, sanitation		
		and hygiene (WASH) and environmental health standards exist but are not fully implemented.		

С	A national IPC programme and operational plan are available and national guidelines for health care IPC are available and disseminated. Selected health facilities are implementing the guidelines, with monitoring and feedback in place.
D	National IPC programme available according to the WHO IPC core components guidelines ¹³ and IPC plans and guidelines implemented nationwide. All health care facilities have a functional built environment (including water and sanitation), and necessary materials and equipment to perform IPC, per national standards.
E	IPC programmes are in place and functioning at national and health facility levels according to the WHO IPC core components guidelines. Compliance and effectiveness are regularly evaluated and published. Plans and guidance are updated in response to monitoring.

5.2	5.2 Good health, management and hygiene practices to reduce the use of antimicrobials and minimize			
de	development and transmission of AMR in animal production (terrestrial and aquatic)			
	Α	No systematic efforts to improve good production practices.		
	В	Some activities in place to develop and promote good production practices.		
	С	National plan agreed to ensure good production practices in line with international standards		
		$(e.g.\ OIE\ Terrestrial\ and\ Aquatic\ Codes,\ Codex\ Alimentarius).\ Nationally\ agreed\ guidance\ for$		
		good production practices developed, adapted for		
		implementation at local farm and food production level.		
	D	Nationwide implementation of plan to ensure good production practices and national guidance		
		published and disseminated.		
	Ε	Implementation of the nation-wide plan is monitored periodically.		

5.2. a. If in the previous question you stated the existence or implementation of a National Plan of good production practices, indicate where multiple initiatives exist that ate not framed within a National Plan, select those that apply):

Its scope is for terrestrial, \Box aquatic, \Box or both \Box production systems

Its scope is for productions destined for export \Box , internal consumption \Box , or both \Box

Determine if it is a public, \Box private \Box , or public / private partnership \Box Plan

Determine if for the main terrestrial and aquatic productive chains it is a voluntary \square or mandatory \square Plan.

It has regular verification processes by the health authority for land and aquatic production.

 \Box YES \Box NO

 Determine if the Plan adequately or effectively includes the following aspects for both types of productions: Internal biosecurity measures to avoid the spread of infectious agents within animal production farms. \Box

External biosecurity measures to prevent the entry of infectious agents to and from animal production farms. \Box

Basic measures to ensure animal welfare in animal production farms. \Box

■ Determine if the National Plan includes the application of good production practices for medicated concentrates for animal use.
□ YES □NO

If so, indicate the inclusion of the following aspects:

Estimate the percentage of origin of the medicated concentrated food in the categories: self-made; ¬¬_% national commercial processor; _% imported commercial processor_%

Estimate the percentage of establishments that produce concentrated foods and apply quality assurance systems that minimize their physical or microbiological contamination in production, transport, and storage_%

Includes a system for detecting antibiotic residues in non-medicated food \square YES \square NO

Includes a bacterial contaminant detection system

YES
NO

Specific measures are in place to prevent cross contamination of medicated and non-medicated concentrated foods in production and storage. \Box YES \Box NO

Estimate the percentage of auditable records of feed concentrates used in animal production farms. _%. For mixed foods on the farm, records of their ingredients and mixtures, and target animals. _%

Estimate the percentage that the production of medicated concentrates is through the exclusive use of antibiotics authorized / registered by the competent health authority. _%

	5.3 Good management and hygiene practices to reduce the development and transmission of AMR in		
-	food processing Image: A systematic efforts to improve good management and hygiene practices.		
	В	Some activities in place to develop and promote good management and hygiene practices.	

С	National plan agreed to ensure good management and hygiene practices in line with	
	international standards (e.g. Codex Alimentarius). Nationally agreed guidance for good	
	practices developed, and adapted for implementation according to local food processing	
	approaches.	
D	Nationwide implementation of plan to ensure good management and hygiene practices and	
	national guidance published and disseminated.	
Ε	Implementation of the nation-wide plan is monitored periodically.	

5.3. a. Programs for the application of GMP (Good Manufacturing Practices), including SOPs (Sanitation Standard Operational Procedures) are mandatory in slaughterhouses and food production and processing plants. YES INO

5.3. b. Indicate whether the program for the application of the Hazard Analysis and Critical Control Points (HACCP) system is mandatory in slaughterhouses and food production and processing plants.

5.4 Coverage with critical measures (water supplies, sanitation, hygiene and immunization) to reduce				
spread of infections in communities and health care facilities ¹⁴				
Estimated national coverage with critical measures (water supplies,	Latest national	Year		
hygiene and immunization) to reduce spread of infections in	coverage rate (%)			
communities and health care facilities				
Immunization coverage rate of pneumococcus vaccine.				
Immunization coverage rate of Haemophilus influenzae type b (Hib)				
vaccine.				
Proportion of health care facilities with basic water supplies.				
Proportion of health care facilities with basic hand hygiene facilities.				

5.5 Description/Examples of the current infection prevention and control program in the different sectors (reference resources):

5.6 Official documentation available: (e.g. ministerial order, reports, meeting minutes, etc)

	5.7 SWOT analysis					
STRENGTHS	WEAKNESS	OPPORTUNITIES	THREATS			
	STRENGTHS	STRENGTHS WEAKNESS	STRENGTHS WEAKNESS OPPORTUNITIES			

6. Country progress on Strategic Objective 4: Optimize the use of antimicrobials in human, animal and plant health

6.1	Opt	imizing antimicrobial use in human health	
	Α	No/weak national policies for appropriate use.	
	В	National policies for antimicrobial governance developed for the community and health care	
		settings.	
	С	Practices to assure appropriate antimicrobial use being implemented in some healthcare	
		facilities and guidelines for appropriate use of antimicrobials available.	
	D	Guidelines and other practices to enable appropriate use are implemented in most	
		health facilities nationwide. Monitoring and surveillance results are used to inform	
		action and to update treatment guidelines and essential medicines lists.	
	Ε	Guidelines on optimizing antibiotic use are implemented for all major syndromes and data on	
		use is systematically fed back to prescribers.	

6.1	6.1.1 Adoption of "AWaRe" classification of antibiotics in the National Essential Medicines List											
	Α	Country has no knowledge or information about the AWaRe classification of antibiotics.										
	В	Country has knowledge about the AWaRe classification of antibiotics and country has intention										
		to adopt it in the next few years.										
	С	Country has adopted the AWaRe classification of antibiotics in their National Essential										
		Medicines List.										
	D	Country is monitoring its antibiotic consumption based on the AWaRe classification of										
		antibiotics.										
	Е	Country has incorporated AWaRe classification of antibiotics into its antimicrobial stewardship										
		strategies.										

6.1.1. a Are the country's antibiotic stewardship strategies at:									
(Please answer only if you have selected either C, D or E to 6.1.1)									
	Α	National Level							
	В	Community Level							
	С	Facility Level							

6.2	6.2 Optimizing antimicrobial use in animal health (terrestrial and aquatic)									
	A No national policy or legislation regarding the quality, safety and efficacy of antimicrobial									
		products, and their distribution, sale or use.								
	В	National legislation covers some aspects of national manufacture, import, marketing								
		authorization, control of safety, quality and efficacy and distribution of antimicrobial products.								

С	National legislation covers all aspects of national manufacture, import, marketing authorization,
	control of safety, quality and efficacy and distribution of antimicrobial products.
D	The national regulatory framework for AM products incorporates all the elements included in
	the related international standards on responsible and prudent use of antimicrobials (e.g. OIE
	Terrestrial and Aquatic Codes, Codex Alimentarius) according to animal species and/or
	production sector.
Ε	Enforcement processes and control are in place to ensure compliance with legislation.

	6.2. a. Under the OIE List of Important Antimicrobial Agents for Veterinary Medicine, please mak if											
(yo	u can	check more than one option)										
	Α	······································										
		and intends to adopt its criteria in its legislation in the coming years.										
	B The country has prohibited in its legislation the use of critically important and highly											
		important antimicrobials as growth promoters										
	С	The country has prohibited in its legislation the use of colistin in veterinary medicine										
	D	The country has approved treatment guidelines for the use of antimicrobials for prophylactic										
		and metaphylactic purposes.										
	Ε	Use other than authorized or off-label use is limited and restricted to those cases in which										
		there are no other substitution options. That use is based on previously regulated criteria.										
	F	Legislation establishes that third and fourth generation Fluoroquinolones and Cephalosporins										
		cannot be used as the first line of treatment, unless there is no therapeutic alternative										
		available. When they are used as a second treatment, it is based on the results of										
		susceptibility studies.										
	G	The condition of sale of antimicrobials is under a veterinary prescription, with the exception of										
		third and fourth generation Fluoroquinolones and Cephalosporins whose condition of sale is										
		under a retained veterinary prescription.										
	н	The regulations for antimicrobials are effectively monitored through a system of control,										
		sanction and violation.										

6.2. b. Antibiotic Use Practices in animal production								
	Terrestrial animals	Aquatic animals						
The professional (s) / technician (s) with legal attributions to perform clinical diagnoses are defined.	□ YES □NO	□YES □NO						
The professional (s) / technician (s) with legal attributions for the decision on the use of antimicrobials and their prescription are defined.	□ YES □NO	□ YES □NO						

The country has a Manual of Good Practices for the use of antibiotics in animal production, based on a public-private interaction.	□ YES □NO	□ YES □NO
It is a frequent practice that the prescription of antibiotics is accompanied by application instructions.	□ YES □NO	□ YES □NO
It is a frequent practice to follow the manufacturer's recommendations in the application of antibiotics (indicated in the product labeling or authorization document or registration of the health authority).	□ YES □NO	□ YES □NO
In most farms, the person in charge of applying antibiotics is trained.	□ YES □NO	□ YES □NO
Antibiotics authorized and registered by the competent authority are used in most farms.	□ YES □NO	□ YES □NO
Records of antibiotic application are kept in most farms.	□ YES □NO	□ YES □NO
In most of the farms, there is compliance with the days of protection (declared by the manufacturer).	□ YES □NO	□ YES □NO
In most farms the storage of antibiotics is according to the manufacturer's recommendations to avoid deterioration.	□ YES □NO	□ YES □NO
In most farms the application of antibiotics is respecting the expiration date (indicated on the product labeling).	□ YES □NO	□ YES □NO
There is a monitoring program for pharmacological residues in foods of animal origin.	□ YES □NO	□ YES □NO
There is a monitoring program for pharmacological residues in animal feed.	□ YES □NO	□ YES □NO
There is legislation that establishes the exclusive use of antibiotics authorized and registered by the competent authority for the production of concentrated foods medicated with antibiotics.	□ YES □NO	□ YES □NO

6.2. c. Alternative solutions to the use of antimicrobial agents: Is there a national policy to promote and implement the use of alternative solutions to antimicrobial agents for the control of diseases in animals? If yes, please describe.

6.3	Opt	imizing antimicrobial pesticide such as bactericides and fungicides use in plant production
	Α	No national policy or legislation regarding the quality, safety and efficacy of pesticides
		including antimicrobial pesticides such as bactericides and fungicides and their distribution,
		sale or use.
	В	National legislation covers some aspects of national manufacture, import, marketing
		authorization, control of safety, quality and efficacy and distribution of pesticides including
		antimicrobial pesticides such as bactericides and fungicides.
	С	National legislation covers all aspects of national manufacture, import, marketing
		authorization, control of safety, quality and efficacy and distribution of pesticides including
		antimicrobial pesticides such as bactericides and fungicides.
	D	The national regulatory framework for antimicrobial pesticides such as bactericides and
		fungicides incorporates all the elements in the related international standards on responsible
		and prudent use according to plant type/species.
	Ε	Enforcement processes and control are in place to ensure compliance with legislation on use of
		antimicrobial pesticides such as bactericides and fungicides.

6.4 Description of the antimicrobial stewardship program in the different sectors (reference resources):

6.5 Official documentation available: (e.g. ministerial order, reports, meeting minutes, etc)

6.6 SWOT analysis											
ΤΟΡΙϹ	STRENGTHS	WEAKNESS	OPPORTUNITIES	THREATS							
Implementation of											
antimicrobial											
stewardship											
RECOMMENDATIONS											

7. National assessment of risks for AMR transmission in the environment and pollution control. Legislation and/or regulations to prevent contamination of the environment with antimicrobials

7.1	Risks for AMR transmission	Risk	assessmen	ts		Are there legislation and/or regulation and policies to mitigate risks							
		Have high risk locations been identified		Are risk reduction actions underway?		That specifically addresses AMR		That impacts AMR		That has a functioning system for monitoring compliance and enforcement			
1	Areas of a low community access to		Yes		Yes								
	safe water and sanitation.		No		No								
			NA										
2			Yes		Yes								

	Human health facilities without	No	No			
	access to safe water supply and sanitation.	NA				
3	Human sewage (including	Yes	Yes	Yes	Yes	Yes
	waste water and	No	No	No	No	No
	sludge) quality a) disposal in the environment	NA				
	Human sewage (including	Yes	Yes	Yes	Yes	Yes
	waste water and	No	No	No	No	No
	sludge) quality b) Re-use	NA				
4	Wastewater discharges from	Yes	Yes	Yes	Yes	Yes
	health facilities for	No	No	No	No	No
	disposal in the environment.	NA				
5	Discharges from intensive animal	Yes	Yes	Yes	Yes	Yes
	(terrestrial and	No	No	No	No	No
	aquatic) production (liquid waste and manure)	NA				
	a) disposal into the environment					
	Discharges from intensive animal	Yes	Yes	Yes	Yes	Yes
	(terrestrial and aquatic) production	No	No	No	No	No
	(liquid waste and manure)	NA				
	b) Re-use					
6	Wastewater discharges from	Yes	Yes	Yes	Yes	Yes
	manufacturing sites	No	No	No	No	No
	for antimicrobial agents (either as Active	NA				

	Pharmaceutical Ingredient (API) or finished products).					
7	Disposal of unused medicines	Yes No	Yes No	Yes No	Yes No	Yes No
	antimicrobial agents. (such as food, plant					
	or animal products with residues over the MRL (maximum residue limit))	NA				
8	Disposal of products contaminated with	Yes	Yes	Yes	Yes	Yes
	AM residues such as such as food, plant or animal products with residues over the MRL (maximum residue limit)	No	No	No	No	No
		NA				

7.1. a. Environmental Management Practices associated with animal production			
	Terrestrial	Aquatic animals	
	animals		
There are regulations or public or private programs in place (as			
appropriate) for the implementation of:			
Guano disposal methods in animal production farms	□ YES □NO	N/A	
Slurry disposal methods in animal production farms	□ YES □NO	N/A	
Methods of disposal of dead animals in animal production farms	□ YES □NO	□ YES □NO	
Methods of disposal of remains of concentrated medicated feed for animals in animal production farms	□ YES □ NO	□ YES □NO	
Antibiotic elimination methods in animal production farms	□ YES □NO	□ YES □NO	

Methods of disposal of antibiotic containers in animal production farms	□ YES □NO	□ YES □NO
Methods of disposal of medicated feed concentrates for animal use in feed concentrate production establishments	□ YES □NO	□ YES □NO
Antibiotic disposal methods in concentrated food production establishments	□ YES □NO	□ YES □NO
Methods of disposal of antibiotic containers in establishments for the production of concentrated foods	□ YES □NO	□ YES □NO
Methods of eliminating mortality in slaughterhouses	□ YES □NO	□ YES □NO
Methods of disposal of offal and seizures in slaughterhouses	□ YES □NO	□ YES □NO

7.2 Description of the risk assessments for AMR transmission activities in the different sectors (reference resources):

7.3 Official documentation available: (e.g. ministerial order, reports, meeting minutes, etc)

7.4 SWOT analysis TOPIC STRENGTHS WEAKNESS OPPORTUNITIES THREATS Risks assessment for
AMR transmission in
the environment Image: Comparison of the environment RECOMMENDATIONS Image: Comparison of the environment RECOMMENDATIONS Image: Comparison of the environment RECOMMENDATIONS Image: Comparison of the environment Image: Comparison of the environment Image: Comparison of the environment Image: Comparison of the environment

8. Additional information for animal production

8.1 Main productive species in terrestrial animals				
Importance for country (+ to -)	Species	N of establishments	N of animals	

8.2 Main productive species in aquatic animals				
Importance for country	Species	N of establishments	N of animals	
(+ to -)				

8.3 Main pathoge	8.3 Main pathogens in productive species (terrestrial animals)				
Animal species	Pathogens	Main antibiotics used (therapeutic)	Existence of commercial vaccines	Existence of self-vaccines	
Importance for country (+ to -)				□YES □NO	
			□YES □NO	□YES □NO	
			□YES □NO	□YES □NO	
			□YES □NO	□YES □NO	
			□YES □NO	□YES □NO	
			□YES □NO	□YES □NO	
			□YES □NO	□YES □NO	
			□YES □NO	□YES □NO	
				□YES □NO	

8.4 Main pathogens in productive species (aquatic animals)				
Animal species	Pathogen	Main antibiotics	Existence of	Existence of
		used (therapeutic)	commercial	self-vaccines
			vaccines	

CONCLUSIONS AND RECOMMENDATIONS

- 1. Provide a description regarding the willingness and interest of the government to address AMR with an existing multi-sectoral One Health approach. This will be assessed by the presence of a NAP, levels of commitment and engagement as assessed by the Tripartite, and feasibility of the government to make positive progress over a 30 month period (duration of the project).
- 2. Discuss the main strengths/opportunities and weaknesses/challenges identified.
- 3. Prioritization of recommendations
- **4.** The projects pre-defined regional activities will be able to demonstrate contributions to desired impacts and added value in the short term (and longer term) Indicate the pre-defined activities from the DoA that should be prioritized. Recommend additional country specific activities to be included in the country workplan to support the implementation of the national AMR action plan.