

The Antimicrobial Resistance (AMR) MULTI-PARTNER TRUST FUND

Combatting the rising global threat of AMR through a One Health Approach

Joint Programme Document (Morocco)

Joint Programme Overview

Country	Morocco
Project title	AMR MPTF: (Name of country and title that describes proposal) Support the implementation of the AMR-NAP through a One Health approach in Morocco
Implementing entities	Tripartite agencies involved, including other UN organizations or partners <ul style="list-style-type: none"> - WHO: World Health Organization. - FAO: Food and Agriculture Organization. - OIE: World Animal Health Organization.
Timeframe	24 months – (estimated start date: 1 January 2021):
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Other Implementing Partners	AMR Coordination Committee (Ministries of Health, Agriculture and Environment) Direct beneficiaries: <ul style="list-style-type: none"> • Ministry of Health.

	<ul style="list-style-type: none"> • Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests and especially the National Office of Food Security (ONSSA). • Department of Environment. <p>Indirect beneficiaries:</p> <ul style="list-style-type: none"> • Academic institutions: University Hospitals, Agronomic and Veterinary Institute, Medical Schools. • Moroccan Physician Council. • Moroccan Veterinarian Council. • Moroccan dentist Council. • Moroccan Pharmacy council. • Professional Organizations (Interprofessional Federation of the dairy sector, Poultry Association [FISA]) • Control and Expertise Department. • Non Governmental Organizations. • General public and consumers (Consumers Associations). • Farmers. • Private sector.
Budget	
Total amount (USD) based on budget summary in Annex	997267
Total amount (USD) allocated to each Tripartite partner	FAO: 445,682 OIE: 204,905 WHO: 346,680
Background	<p>Context and rationale and how this intervention will contribute to MPTF and NAP objectives. This section should include the following information:</p> <ul style="list-style-type: none"> • Describe the national AMR situation, including which sectors are important for AMR and why. It should also detail how they have been involved in the response to date. • What has the national response been to date, what are the priority sectors and value chain in the National Action Plan for AMR? • What have the main achievements been to date for AMR control in the country? What are the main gaps? • Relation of the AMR programme to national planning and policy instruments and strategy (e.g. health sector strategy, One Health strategic framework). • Summary of ongoing or recently completed AMR efforts and the principal local, national and international actors involved in the issue. • How have the Tripartite organizations supported this work, and what work is ongoing? Is AMR incorporated in the strategic frameworks of each organization?

- Is AMR included in the UN Sustainable Development Cooperation Framework¹? If not, is there scope to facilitate this through this programme?
- Brief summary of other actors present in AMR related initiatives in the country (e.g. donor supported action)?

Antimicrobial Resistance (AMR) is arguably one of the most complex threats to global health security, compromising the global community's progress towards achievement of the Sustainable Development Goals (SDGs) and, potentially, leading to millions of deaths a year and hundreds of billions of dollars lost in annual economic growth. By 2050², the health consequences and economic costs of AMR are estimated at 10 million annual human fatalities and a 2 to 3.5 percent decrease in global gross domestic product (GDP), equivalent to USD 100 trillion losses.

As with other countries, Morocco has not been spared by the rapid increase of AMR. During the last decade, a substantial progress in resistance rates has been observed in human health, exacerbated by self-medication (over-the-counter access to antimicrobials, used directly by 50% of patients before seeking any medical advice) and over-prescription practices (80% tonsillitis are systematically treated with antibiotics).

According to some national studies, in *E. coli*, ampicillin resistance might have reached 89.9%, amoxicillin-clavulanic acid resistance 65% (+15% between 2014 and 2017), fluoroquinolones resistance 75% (+10% between 2014 and 2017), while cephalosporin resistance has reached 18% (+14% between 2014 and 2017). Similar trends are also observed for other bacterial species (like *Klebsiella*, *Pseudomonas Aeruginosa*, *Acinetobacter* or *Staphylococcus aureus*).

Overall, the same trends are also observed in the agriculture sector. The extended use and misuse of antimicrobials in agriculture, stock farming and veterinary medicine increase the resistance to antimicrobial agents. A study conducted in 2018, on the Antibiotic Susceptibility profile of *Staphylococcus aureus* isolated from sausages, showed that 96.82% of isolated *S. aureus* were resistant to at least one antibiotic, 88.88% were resistant to two or more antibiotics, and 69.84% were resistant to three or more antibiotics. Another study conducted in 2016, on Prevalence and antimicrobial resistance of *Salmonella* isolates in Moroccan laying hens' farms, showed that 65.6% of the isolated *Salmonella* strains were resistant to at least one antibiotic and 25% were resistant to ciprofloxacin. Furthermore, a high prevalence of multidrug resistance among *Salmonella* strains was observed. In fact, 19 out of 64 *Salmonella* strains were resistant to 2 or more antimicrobial agents.

The formulation, in 2019, of a National Strategic Plan (NAP) for AMR Prevention and Control in Morocco shows the determination and political engagement of the country to contribute to the international agenda against AMR. The commitment of Morocco is not new, it embodies years of determined efforts and active consultation formalized i) by hosting the 2nd OIE Global Conference on Antimicrobial Resistance and Prudent Use of Antimicrobial Agents, held, under the high patronage of his Majesty, King Mohammed VI, in 2018, in Marrakech, and, ii) by a high-level participation to the Second Ministerial Conference on Antimicrobial Resistance, hosted by the Netherlands, in 2019.

In the area of Human health, Morocco is the third country in the eastern Mediterranean region to volunteer for a Joint External Evaluation, reflecting the country's substantive and ongoing commitment to fight the cross-border spread of diseases under IHR. AMR was one of the priority areas for evaluation.

¹ UN Sustainable Development Cooperation Framework <https://unsdg.un.org/resources/united-nations-sustainable-development-cooperation-framework-guidance>

² O'Neill Report: Antimicrobial Resistance: tackling a crisis for the health and wealth of nations, December 2014, Review on antimicrobial resistance

In 2018, with the support of WHO and OIE, Morocco organized an IHR/PVS National Bridging Workshop (NBWs) targeting a truly operational One Health approach at national level, through strengthening the joint use of IHR and PVS tools, and more effective and inclusive capacity building process at the human-animal-environment interface.

In order to mark the celebration of the world week for the proper use of antibiotics in 2018, the Ministry of Health held a national conference on AMR and launched, with the support of WHO, an in-depth work to outline the governance mechanisms needed to tackle the AMR related issues, in close collaboration with representatives of animal, plant and environmental health, the Ministry of the Interior and representatives of private sector. This participatory process led to draft an inter-ministerial circular note to regulate the governance mechanisms of intersectoral collaboration in the fight against AMR.

In order to achieve the objectives of its National Health Strategic Plan 2000-2025, and the specific milestones for the achievement of the 3rd SDG, the Ministry of Health relies on the involvement and the mobilization of all relevant Ministerial Departments, in line with the principles of "Health in all policies".

Whether they are of environmental, infectious or behavioral origin, health problems faced by Morocco are conditioned by determinants that are not exclusively in the health sector.

The "One Health" approach provides the best framework to ensure a more effective coordination between Health, Agriculture and Environment Departments.

The Ministry of Health relies especially on this framework for action in order to achieve the objectives of the AMR NAP, one of the main priorities of the National Health Strategic Plan 2000-2025. These plans have been developed using a participatory approach, their implementation can only be done in perfect harmony between the departments concerned.

In the area of Animal and Plant health, from already the 1980s, in connection with the development of the livestock sector and the increase in the need for therapeutic tools, Morocco set up a policy centered on the quality of veterinary drugs. A policy for strengthening the post-marketing control has been implemented since 2008 and concerned all steps is the medicines' Value Chain, from manufacturing to end-use. The legislation put in place provides for the quality, efficacy and safety of medicines, with most areas covered. Morocco is an observer member of the International Cooperation on Harmonization of Technical Requirements for Registration of Veterinary Medicinal Products (VICH) and participates in the study of standards.

The National Office of Food Security (ONSSA), attached to the Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, has been engaged, since 2015, to intensify their actions to monitor AMR and to promote the proper use of veterinary medicines in general and antibiotics particularly in the animal health and food chains.

The Ministry of Agriculture has also demonstrated its commitment by contributing strongly to the organization of the 2nd OIE Global Conference on Antimicrobial Resistance and Prudent Use of Antimicrobial Agents, held in October 2018 in Marrakech. As part of the new strategy of the Ministry of Agriculture, the ONSSA 2020-2030 roadmap includes the fight against antimicrobial resistance as a priority.

Overall, Morocco has the political commitment to speed up the implementation of its NAP, and many efforts are made to ensure compliance with legislation, enhance awareness and antimicrobials quality and provide information on AMR trends and magnitude.

Yet, Morocco is facing organizational and financial challenges especially limited multi-sectoral coordination mechanisms, shortfall in sustainable financing, absence of a national surveillance system and poor understanding of key factors leading to AMR. However, despite a lack of effective evidence, there is a general agreement that AMR is attributable to antimicrobial misuse, community awareness, professional training and infection control related factors.

This project, by engaging the tripartite, is an opportunity to address these issues collectively.

Realizing the potential benefit of this multi-partner Trust Fund, the Ministry of Health and the Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, through ONSSA, have been, actively engaged in the preparation of this proposal, by providing their priority needs and discussing together the short-term actions and results that this project could bring to boost the NAP implementation. The Department of Environment, which had not been an active partner so far, has been brought into this initiative. This project will be a key opportunity for the Department of Environment to join the other two national partners.

All activities included in the MPTF project are anchored in the AMR NAP and have been selected, discussed, prioritized, agreed and budgeted in such a manner as to reflect the current and future priorities of the country. This project will thus catalyze the achievement of the Strategic Objectives (SO) of the AMR NAP, especially:

- SO1: strengthened knowledge through surveillance and research.
- SO2: optimized use of antimicrobials in human health and animal health.
- SO3: reduced incidence of infection through prevention and control.
- SO4: raising awareness and competence in terms of AMR.
- SO5: strengthened national governance to counter the spread of AMR.

The process of prioritization to select key activities and to shape the final version of the proposal has been based on the one health principles, the technical feasibility, the long-term sustainability and the short-term impact.

Furthermore, in order to ensure the relevance of the MPTF proposal and its contribution to the achievement of the global agenda goals for AMR, each activity is linked to:

- One of the AMR MPFT's Matrix Goals/Outcomes/Outputs.
- One of the WHO frameworks on AMR dimensions.
- One of the 6 Strategic pillars advocated by WHO to address AMR.
- One of the 5 Global action plan objectives.
- And the 2019-2021 AMR NAP.

Thus, the project will further strengthen the multisectoral collaboration, set up strong mechanisms for governance and oversight of the AMR related issues, and lay the foundation for sustainable financing, on the basis of consensus-based standards and guidelines, evidence-based data, socio-economic criteria, and a responsible community mobilization.

The results of this project will also provide a robust, accurate and secure basis for the development of the next NAP for AMR, on the horizon for 2022 and contribute to achieve the sustainable development goals (SDGs): primarily: **SDG 3**: Good Health and Well-being and **SDG 2**: Zero Hunger, and secondarily **SDG 1**: No Poverty, **SDG 8**: Decent Work and Economic Growth, **SDG 11**: Sustainable Cities and Communities and **SDG 17**: Partnerships to achieve the Goal.

	<p>The MPTF-AMR project is designed for a period of 24 months. The sustainability of the results will be ensured through:</p> <ul style="list-style-type: none"> - Strengthening capacities of the country and coordination mechanisms between beneficiaries and the Tripartite. - Raising awareness of all the stakeholders to allocate regular funds for combatting AMR. - Formulating a project and elaborating a strategy for resources mobilization. <p>In addition, the Tripartite will support the sustainability of the project results through their normative and field programs. The control of AMR requires a global approach combined with concerted actions at the national level that span the policy and regulatory spheres, preventive actions and engagement with producers and other food value chain stakeholders. The strength of the three organizations - FAO / OIE / WHO lies in their long-standing partnership, their combined technical knowledge and their global unifying power. The Tripartite has established the One Health approach AMR MPTF by inviting partnership and financing to drive forward the delivery of the Global Action Plan on AMR.</p> <p>In Morocco, the three agencies use to collaborate actively in the management of zoonotic diseases and AMR, and WHO and FAO are working together on a series of other topics in the field of nutrition as well as at the human-animal-environment ecosystems interface. In addition, the Tripartite collaboration in the sub-region is very active and several joint action initiatives in the fight against AMR have been carried out in partnership with all stakeholders.</p> <p>The three organizations are fully committed through technical and normative skills of each and through the Global Action Plan already published and the tools developed for its implementation and monitoring. This global plan recognizes the need to address the challenge of Antimicrobial Resistance through the "One Health" approach which highlights the interconnection of human health, animal health and the environment. The problems and solutions are perceived in terms of multisectoral collaboration between stakeholders from all sectors.</p> <p>The Food and Agriculture Organization (FAO) recognizes this shared responsibility. As the lead international agency with the mandate to achieve global food and nutrition security, FAO is well placed to provide leadership in addressing emerging issues and threats to global food and agriculture, including the rising global threat of AMR. Mitigating AMR risks against the backdrop of world population growth and urbanization, and the attendant upward trends in the demand for food of animal origin will require that FAO provide guidance on the balance between sustainable production growth and the need to adopt sustainable models for production intensification, policy and regulatory measures that create the enabling environment for better animal husbandry, hygiene, health and management practices, and promote responsible and prudent use of antimicrobial agents in agriculture.</p> <p>For this MPTF project, FAO is thus well placed to be the lead agency and a major contributor, through its strong background and extensive expertise at the national and regional levels, to convene all the sectors and stakeholders involved at the human-animal-environment interface. FAO has scientific and technical expertise on AMR at subregional, regional and Global levels. In addition, FAO has a full-fledged representation in Morocco with all operation and administrative supports. FAO has several projects with the Ministry of Agriculture and Ministry of Environment in Morocco.</p>
<p>Status of National Action Plan for AMR</p>	<ul style="list-style-type: none"> • When was the National Action Plan for AMR developed? • When was the last progress report? • Are there plans to refresh the NAP (if so when and over what time frame)? • How often does the AMR coordination committee meet? • Which sectors are actively engaged in the committee? • To which entity does the AMR national coordination committee report?

	<ul style="list-style-type: none"> • Is the private sector involved? • Is civil society involved? • Is academia involved? • How do the Tripartite organizations support the NAP committee and national coordination? <p>Since the adoption of the Global Plan to Combat Antimicrobial Resistance, the Ministry of Health of Morocco has spearheaded the process of elaboration of a NAP for the Prevention and Control of AMR, in close collaboration with the Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, considering the importance of the “One Health” approach to deal with this challenge and the recommendations of the Joint External Evaluation, which was conducted in 2016 under the International Health Regulations.</p> <p>In 2019, Morocco successfully elaborated its National Action Plan (NAP) on AMR by addressing focus areas (surveillance, awareness, good practices, governance) and involving relevant partners including human, animal, plant and food sectors.</p> <p>Among those stakeholders, the following can be mentioned:</p> <ul style="list-style-type: none"> - Scientific community and Academic Institutions: University Hospitals, Agronomic and Veterinary Institute, Medical Schools. - Moroccan councils: Physician Council, Veterinarian Council, Dentist Council, Pharmacy council. - Professional Organizations (Interprofessional Federation of the dairy sector, Poultry Association [FISA]) - Non-Governmental Organizations. <p>Through this process, Morocco has demonstrated joint working capacities on AMR issues and reached a broad and multisectoral agreement on common objectives to combat AMR.</p> <p>The next two years will provide an opportunity to achieve a better mutual understanding and increased cooperation on AMR by providing wide information on trends and magnitude of resistance in human, animal and environmental health, and by raising awareness and strengthening processes and controls to ensure an optimal use of antimicrobials. It will also provide an opportunity to set up a sustainable AMR multisectoral committee, to ensure greater accountability and to monitor and measure the progress.</p> <p>The development of the next NAP for AMR is expected by 2022. The tripartite are intending to support the MPTF project as a robust leverage for the implementation of the current AMR NAP, and are placing particular emphasis on the valorization and practical integration of the evidence generated through this process to build a strong national response beyond 2022.</p>
Project Summary	
Impact	<p><i>Choose at least 1 impact statement from the Tripartite AMR Results Matrix</i></p> <ol style="list-style-type: none"> 1. Countries make explicit commitments (policies, investment plans, programs, legal frameworks, resources allocation) on AMR based on evidence and quality data. 2. AMU associated behaviors and practices sustainably improved in critical sectors. 3. Multi-sectoral approach to the AMR agenda strengthened globally.
Outcome(s)	<p><i>Choose relevant outcome statements from the Tripartite AMR Results Matrix</i></p> <ol style="list-style-type: none"> 1. Risks and benefits of AMR reflected in national budgets and in development/multi-lateral partner sector wide investments. 2. Evidence base/representative data on AMR/AMU improved for policy makers and sectors implementing AMU practices. 3. Use of antimicrobials optimized in critical sectors.

	4. Improved understanding of AMR risks and response options by targeted groups.	
Outputs and Key activities	<i>Summary of the selected Outputs from the Tripartite AMR Results Matrix</i> <i>Summary of prioritized Activities from the concept note submission</i>	
	OUTPUT 1.1.1.	Improved countries capacities for designing and implementing AMR related policy frameworks, investment plans and programmes
	ACTIVITIES for achieving output 1.1.1.	
	Title	Description
	ACTIVITY 1.1.1.1.:	
	Set up a robust and effective governance mechanism to steer, monitor and sustain AMR policy <ul style="list-style-type: none"> - Provide support to Multi Sectoral Coordination committees. - Develop an advocacy plan with clear strategies, assigned responsibilities, resources and targets for the implementation of the AMR agenda. - Develop a ME plan to monitor clearly defined indicators. 	
	ACTIVITY 1.1.1.2.:	
	Build management capacity for monitoring NAP activities: <ul style="list-style-type: none"> - Through in-country workshops and the Progressive Management Pathway tools for AMR, bring public and private stakeholders together to self-assess the level of NAP implementation. - Upon conclusion of each workshop, agree on actions to be taken to escalate AMR management to a higher stage as required. 	
	ACTIVITY 1.1.1.3.:	
	Conduct joint assessment and analysis of human, veterinary and environmental laboratories capacities	
ACTIVITY 1.1.1.4.:		
Evaluate the current legal, institutional and normative framework governing medical, veterinary and environmental systems: <ul style="list-style-type: none"> - Provide an inventory of the established norms. - Identify the gaps. - Propose an appropriate update to address the challenges of laboratory capacities. 		
ACTIVITY 1.1.1.5.:		
Analyze the national quality management system specific to AMR at the level of different institutions of public health care facilities and veterinary facilities		
ACTIVITY 1.1.1.6.:		
Develop a joint communication plan and relevant tools (sectorial and joint ones) to raise the importance of AMR and the means for prevention and control of infections		

ACTIVITY 1.1.1.7.:	
Provide full administrative support for the implementation of the AMR MPTF project, the follow up on the activities and the safety and performance of transactions	
ACTIVITY 1.1.1.8.:	
Carry out a cost-benefit analysis of:	
<ul style="list-style-type: none"> - The current economic impact of the AMR. - The introduction of the rapid diagnosis tests for the treatment of tonsillitis in a pilot area. - The national policy for vaccination against pneumococcus and rotavirus. 	
in light of the AMR plan	
OUTPUT 1.3.1.	Systems for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened
ACTIVITIES for achieving output 1.3.1.	
Title	Description
ACTIVITY 1.3.1.1.:	
Support the design and the implementation of a national integrated surveillance network and information system for monitoring and generating data on AMR and antimicrobial use	
<ul style="list-style-type: none"> - Analyze the AMR and AMU existing surveillance systems of each sector, review the data quality and identify the gaps and the alternatives: <ul style="list-style-type: none"> o Enhance the design of the national surveillance system for AMR in human health. o Enhance the design of the current national surveillance system for AMR in animal and plant health. o Design a national surveillance system for AMR in environmental health. o Design a national surveillance system to monitor the antimicrobials use. - Implement a step wise approach for sentinel hospitals to report human AMR data to the MOH on regular basis, and subsequent reporting to GLASS. - Design an information system and develop a national data exchange platform to share timely the relevant information between different sectors: <ul style="list-style-type: none"> o Generate semi-annual joint reports on AMR and AMU. o Ensure data sharing through WHONET and regular reporting to the GLASS. - Organize a three-day training workshop for 30 participants on implementation of the integrated surveillance. 	
ACTIVITY 1.3.1.2.:	
Support the implementation of the integrated surveillance (e.g. the Tricycle ESBL E. coli):	
<ul style="list-style-type: none"> - Acquire the reagents and reference chemicals needed by the laboratories involved in the national surveillance system for AMR. 	
OUTPUT 2.1.1.	Systems for biosecurity and IPC strengthened in targeted countries
ACTIVITIES for achieving Output 2.1.1.	

Title	Description
ACTIVITY 2.1.1.1.:	Provide support to carry out a national prevalence survey on healthcare associated infections (HAIs).
ACTIVITY 2.1.1.2.:	Update the national strategy for the prevention and control of healthcare-associated infections.
ACTIVITY 2.1.1.3.:	Strengthening capacities of professional organizations, in animal and plant health, in the development and implementation of norms, standards and Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP).
ACTIVITY 2.1.1.4.:	Develop the capacities of farmers and professional organizations in critical sectors (poultry, aquaculture, dairy) on biosecurity.
ACTIVITY 2.1.1.5.:	Support to evaluate and update the legal framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry, etc.).
ACTIVITY 2.1.1.6.:	Strengthen capacities of veterinarians and ONSSA inspectors on farm inspection (livestock data register, management of primary products, management of outbreaks and phytosanitary crises, etc.) and risk-based inspection of manufacturing units for medicines, animal feed and plant protection products.
ACTIVITY 2.1.1.7.:	Support the development and implementation of Integrated Pest Management (IPM) programme of crops.
ACTIVITY 2.1.1.8.:	Support to include AMR assessment and management programme in the process of Antimicrobial Pesticide Registration. This activity is intended to enhance the biosafety/biosecurity system (for example by decreasing phytotoxicity) but also to strengthen IPC (for example by contributing to avoid the selection of resistant strains or a possible cross-resistance to other antimicrobial products).
ACTIVITY 2.1.1.9.:	Organize a training session for the Ministry of Environment actors on the management of antimicrobial residues in the wastewater and solid waste.
OUTPUT 2.2.1.	Improved capacity to design awareness raising, behavior change and educational activities
ACTIVITIES for achieving output 2.2.1.	
Title	Description

	<p>ACTIVITY 2.2.1.1.:</p> <p>Carry out a study to survey the Knowledge, Attitudes and Practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices.</p> <p>ACTIVITY 2.2.1.2.:</p> <p>Support to disseminate and implement the national standards and guidelines for a responsible and appropriate use of antimicrobials in the 12 regions of Morocco (Cf. 1.1.1.6).</p> <p>ACTIVITY 2.2.1.3.:</p> <p>Provide support to campaigns and awareness activities to improve and promote relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals.</p> <p>ACTIVITY 2.2.1.4.:</p> <p>Support the annual celebration of the World Antibiotic Awareness Week.</p> <p>ACTIVITY 2.2.1.5.:</p> <p>Provide support to Partnerships at a national and international level through a communication event around the NAP launch and implementation.</p> <p>ACTIVITY 2.2.1.6.:</p> <p>Organize awareness events for professionals in critical food sectors on cross-contamination, respect of the cold chain, hygiene: slaughterhouses of poultry meat and red meat, aquaculture products and dairy product.</p> <p>ACTIVITY 2.2.1.7.:</p> <p>Organize awareness events for farmers (Poultry, aquaculture, dairy sector) and key actors of the environment and plant protection sectors.</p>
<p>Link to National Action plan</p>	<p><i>Paragraph summarizing the expected contribution to the achievement and indicating relevant objectives of National action plan</i></p> <p>The AMR NAP is divided into 5 Strategic Objectives (SO): i) the first one is intending to improve the knowledge of the AMR through an integrated national surveillance system and goal-oriented operational research, ii) the second SO aims at optimizing the antimicrobials use from a one health perspective, iii) the third SO focuses on the IPC measures to reduce the incidence of care-associated infections, iv) the fourth SO consists in raising awareness on AMR; and v) the fifth SO tackles the governance issues related to the AMR.</p> <p>All the activities included in the MPTF project are anchored to the AMR NAP and have been selected, discussed, prioritized, agreed and budgeted in close collaboration with WHO, FAO, OIE and their respective counterparts from Ministry of Health, Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, and Ministry of Environment, to reflect the current and future priorities.</p> <p>The Output 1.1.1. of the project: “Improved countries capacities for designing and implementing AMR related policy frameworks, investment plans and programs” will contribute to achieve the SO 2, 3, 4 and 5.</p>

1. "Set up a robust and effective governance mechanism to steer and sustain AMR policy and provide support to Multi Sectoral Coordination committees and to develop an advocacy plan with clear strategies, assigned responsibilities, resources and targets for the implementation of the AMR agenda" **matches with the Section 5.1.1 of the NAP.**
2. "Build management capacity for monitoring NAP activities including through the development of a Progressive Management Pathway" **matches with the Section 5.2.1 of the NAP.**
3. "Develop a joint assessment/ Analysis mechanism including existing capacities of medical/ veterinary/ environmental microbiology laboratories" **matches with the Section 2.2.2.1 of the NAP.**
4. "Evaluate the current legal, institutional and normative framework governing medical and veterinary laboratories and propose an appropriate update to address the challenges of AMR" **matches with the Section 2.2.2.2 of the NAP.**
5. "Analyze the national quality management system specific to AMR at the level of different institutions of public health care facilities and veterinary facilities" **matches with the Section 2.1.4.3 of the NAP.**
6. "Develop a joint communication plan and relevant tools (sectorial and joint ones) to raise the importance of AMR and the means for prevention and control of infections" **matches with the Section 4.1.1.2 of the NAP.**
7. "Carry out a cost-benefit analysis of the implementation of the AMR plan" **matches with the Sections 2.2.1 and 3.1.2.1 of the NAP.**

The OUTPUT 1.3.1. of the project: "Systems for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened", **will contribute to achieve the SO 1.**

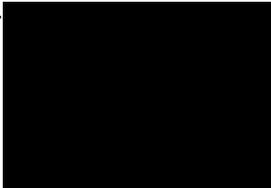
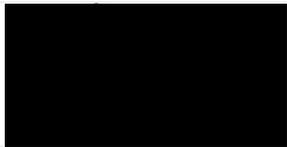
1. "Support establishment of a national network for monitoring AMR and antimicrobial use: network design, design of an information system, purchase of equipment (software computer servers)" **matches with the Sections 1.2.1 and 1.2.2 of the NAP.**
2. "Support the implementation of the integrated surveillance" **matches with the Section 1.1.2 of the NAP.**

The Output 2.1.1. of the project: "Systems for biosecurity and IPC strengthened in targeted countries", **will contribute to achieve the SO 2 and 3.**

1. "Provide support to carry out a national prevalence survey on healthcare associated infections (HAIs)" **matches with the section 3.2.2.1 of the NAP.**
2. "Activate the national strategy for the prevention of healthcare-associated infections" **matches with the section 2.2.3 of the NAP.**
3. "Strengthening capacities of professional organizations in the development and implementation of norms, standards and Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP)" **matches with the Section 3.1.1.4 of the NAP.**

	<ol style="list-style-type: none"> 4. “Develop the capacities of farmers and professional organizations in critical sectors (poultry, aquaculture, dairy) on biosecurity” matches with the section 3.1.1.4 of the NAP. 5. “Support to evaluate and update the legal framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry...)” matches with the section 3.1 of the NAP. 6. “Strengthen capacities of veterinarians and ONSSA inspectors on farm inspection (livestock data register, management of primary products, management of outbreaks and phytosanitary crises ...) and risk-based inspection of manufacturing units for medicines, animal feed and plant protection products” matches with the section 2.2 of the NAP. 7. “Support development and implementation Integrated Pest Management (IPM) programme of crops” matches with the section 3.1 of the NAP. 8. “Support to include AMR assessment and management programme in the process of registration of Antimicrobial Pesticide” matches with the section 3.1 of the NAP. 9. “Organize a training session for the Ministry of Environment actors on the management of antimicrobial residues in the wastewater and solid waste” matches with the Section 3.1 of the NAP. <p>The OUTPUT 2.2.1. of the project “Improved capacity to design awareness raising, behavior change and educational activities” will contribute to achieve the SO 3, 4 and 5.</p> <ol style="list-style-type: none"> 1. “Carry out a study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices” matches with the Section 4.1.1.1 of the NAP. 2. “Support to disseminate and implement the national standards and guidelines for a responsible and appropriate use of antimicrobials in 12 regions of Morocco” matches with the Section 4.2.2.2 of the NAP. 3. “Provide support to campaigns and awareness activities to improve and promote relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals” matches with the section 3.1.1.2 of the NAP. 4. “Support the celebration of the World Antibiotic Awareness Week” matches with the section 4.1.1.3 of the NAP. 5. “Provide support to Partnerships at a national and international level through a communication event around the NAP launch” matches with the section 5.1.2 of the NAP. 6. “Organize awareness events for professionals in critical food sectors on cross-contamination, respect of the cold chain, hygiene: slaughterhouses of poultry meat and red meat, aquaculture products and dairy product” matches with the Section 3.1.1.2 of the NAP. 7. “Organize awareness events for farmers (Poultry, aquaculture, dairy sector) and key actors of the environment and plant protection sectors” matches with the Section 4.2.2.2 of the NAP.
Link to country's	In Morocco, since the adoption of the global plan to combat antimicrobial resistance, the Ministry of Health has started the process to elaborate the NAP for the Prevention and Control of AMR in close collaboration with Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests,

development priorities	<p>and the Department of Environment. The project is based on the importance of the “One Health” approach and the recommendations of the Joint External Evaluation was conducted in 2016 under the International Health Regulations.</p> <p>The project will support the country’s development priorities listed below:</p> <ul style="list-style-type: none"> - The priorities of the Ministry of Health included in its 2025 plan and reflecting the country's commitment to contribute to international efforts to preserve the effectiveness of antimicrobials and strengthen the fight against infectious diseases (linked to Output 1.1.1., Output 2.2.1., Output 1.3.1.). - The new agricultural strategy named «Morocco Generation Green 2020-2030». This new strategy based on capitalizing the achievements made by the Green Morocco Plan, through the adoption of a new vision of the agricultural sector, the consecration of new governance and the provision of modern means to the sector (linked to Output 2.1.1., Output 1.1.1., Output 1.3.1.). - The Green economy tools established by the Ministry of Energy, Mines, Water and Environment (linked to Output 2.1.1.).
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<p>We the responsible officers of the Tripartite organisations take responsibility for the efficient delivery of this proposal. We confirm that the proposal has been developed in close collaboration with government counterparts and that it is aligned with the wider agenda around the Sustainable Development Goals. We will work to ensure that addressing AMR is appropriately included in the United Nations Sustainable Development Cooperation Framework, and that there is a strategy to sustain and scale up the outputs of this work</p>	
<p>Name: Florence Marie Rolle FAO Representative in Morocco</p>	
<p>Name: Rachid Bouguedour OIE Sub-Regional Representative for North Africa</p>	
<p>Name Maryam Bigdeli WHO Representative</p>	

Joint Programme Description

1 Baseline and situation analysis

1.1 Problem statement (max 1 page)

Explain the problem to be addressed. Outline how Tripartite action will support national efforts to address such challenges and accelerate progress towards sustainable implementation of the National Action Plan for AMR. This section should emphasize the most critical needs / gaps that the joint Tripartite programme will address. Draw on relevant analysis and information from national and international sources.

During the last decade, a substantial progress in resistance rates has been observed in human health, exacerbated by self-medication (over-the-counter access to antimicrobials, used directly by 50% of patients before seeking any medical advice) and over-prescription practices (80% tonsillitis are systematically treated with antibiotics). According to some national studies, in *E. coli*, ampicillin resistance might have reached 89.9%, amoxicillin-clavulanic acid resistance 65% (+15% between 2014 and 2017), fluoroquinolones resistance 75% (+10% between 2014 and 2017), while cephalosporin resistance has reached 18% (+14% between 2014 and 2017). Similar trends are also observed for other bacterial species (like *Klebsiella*, *Pseudomonas Aeruginosa*, *Acinetobacter* or *Staphylococcus aureus*).

Overall, the same trends are also observed in the agriculture sector. The extended use and misuse of antimicrobials in agriculture, stock farming and veterinary medicine increase the resistance to antimicrobial agents. A study conducted in 2018, on the Antibiotic Susceptibility profile of *Staphylococcus aureus* isolated from sausages, showed that 96.82% of isolated *S. aureus* were resistant to at least one antibiotic, 88.88% were resistant to two or more antibiotics, and 69.84% were resistant to three or more antibiotics. Another study conducted in 2016, on Prevalence and antimicrobial resistance of *Salmonella* isolates in Moroccan laying hens' farms, showed that 65.6% of the isolated *Salmonella* strains were resistant to at least one antibiotic and 25% were resistant to ciprofloxacin. Furthermore, a high prevalence of multidrug resistance among *Salmonella* strains was observed. In fact, 19 out of 64 *Salmonella* strains were resistant to 2 or more antimicrobial agents.

Addressing AMR based on One Health approach, requires the engagement of a broad range of multi-sectoral stakeholders. In order to drive real change, stakeholders need to be engaged at the outset so that they can contribute to develop truly multi-sectoral NAPs, and take responsibility for their implementation.

A minimum understanding of the issue and why it is relevant to all stakeholders along the food chain is considered to be a precursor for change and the commitment to take action. The relevance of AMR to food and agriculture, in terms of both its impact on the sector and the role of the sector in addressing the problem, is not always immediately understood and requires emphasis through targeted advocacy and awareness. The Tripartite fully recognizes the importance of evidence-based messaging and ensuring that it is relevant to the food and agriculture sectors. Recognizing that consideration of AMR and its impact needs to become an integral part of the food and agriculture policy environment, the output 1 enable raising the profile of AMR at global and national levels by partnering with relevant organizations.

The most critical gaps that the joint tripartite programme will address are the following:

- Limited coordination between national stakeholders for designing and implementing AMR related policy frameworks, investment plans and programmes.
- Lack of coordinated information system for generating, analyzing and interpreting data on resistance and consumption/use patterns.
- Limited application of biosecurity measures and IPC.
- Limited capacity to design coordinated awareness campaigns.

The project is therefore proposing immediate actions to raise awareness of AMR in the target country by developing communication and advocacy products that target different sectors and that help target country to find appropriate culture-sensitive ways to disseminate key messages and understand the challenges and risks posed by AMR.

The capacity and resources of the country to address AMR are nevertheless dependent on political commitment, appropriate policy and relevant regulatory or legislative frameworks. Output II therefore aims to support countries in that endeavor. By supporting national level work, it also encapsulates the Tripartite support to setting international standards relevant to AMR based on scientific evidence. Recognizing the different types of information needed to facilitate political commitment and the development of evidence-based policies, the project will focus on making available information on the AMR and developing necessary capacities and regulatory frameworks.

The project focuses on integrated surveillance systems on AMR. Simply strengthening systems (public health, veterinary, food, plants, environment) for better monitoring and control on AMU and AMR is insufficient without the legislative oversight and incentives to comply with such legislation. Regulatory aspects of AMU and AMR touch upon different regulatory areas within the agricultural and health environmental sectors (veterinary and human pharmaceuticals, pesticides, feed, waste, aquaculture, food safety) and are regulated by laws under the responsibility of various institutions, including Ministries in charge of health or agriculture, aquaculture, waste management, science and technology, commerce and trade, education or border control. Laboratories from health, food and agriculture sectors play a major role in collecting, producing, compiling, analyzing and sharing standardized (and thus reliable and comparable) data on resistance to antimicrobials, antimicrobial residues in foods, as well as information of the quality of the antimicrobials themselves. Ensuring access to laboratories for proper diagnosis and advice on therapy management will support sensible use of antimicrobials. Surveillance and monitoring of AMR, based on well-defined parameters, will generate more information on the extent of AMR in health, food and agriculture sector, and thereby support implementation of good practices, in line with the local context. Residue monitoring programmes as well as AMU surveys, including the use and presence of substandard and counterfeit drugs, will in turn inform the development of management measures adapted to local conditions.

The project will conduct many national and international consultations mainly:

- Governance mechanism to steer and sustain AMR policy and provide support to Multi Sectoral Coordination committees and to develop an advocacy plan with clear strategies, assigned responsibilities, resources and targets for the implementation of the AMR agenda.
- Development of a Progressive Management Pathway.
- Development of joint assessment/ Analysis mechanism for each sector of human, animal and environmental health sectors.
- Evaluation of the current legal, institutional and normative framework governing medical and veterinary laboratories.
- Analysis of the national quality management system specific to AMR at the level of different institutions of public health care facilities and veterinary facilities.
- Development of joint communication plan and relevant tools to raise the importance of AMR and the means for prevention and control of infections.
- Cost-benefit study of the introduction of the rapid diagnostic test of angina tonsillitis in a pilot region (consultation and purchase of the rapid tests).
- Cost-benefit study of vaccination against pneumococcus and rotavirus: actually, acute respiratory infections and diarrheal diseases among children (especially 0-5 years) leads to increased inadequate antimicrobial prescriptions. It's critical to know how vaccination policies contribute to prevent AMR.

- Establishment of a national network for monitoring AMR and antimicrobial use: network design, design of an information system.
- Update of the national strategy for the prevention of healthcare-associated infections.
- Evaluation and updating the legal framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry, etc.).
- Study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices.
- Dissemination and implementation of the national standards and guidelines for a responsible and appropriate use of antimicrobials in the agriculture sector (animals, food, plants) in the 12 regions of Morocco.

Some consultants will organize Training for Trainers workshops concerning their specialty. After that they will support the regional workshops in the country. As appropriate, trainings will be carried out through a cascade process to avoid many consultants and rely on local expertise instead.

The project will contribute to organize many national and regional workshops, either virtual and/or face-to-face depending on the CoViD-19 situation, mainly:

- Strengthening capacities of professional organizations in the development and implementation of norms, standards and Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP).
- Developing the capacities of farmers and professional organizations in critical sectors (poultry, aquaculture, dairy) on biosecurity.
- Developing the capacities of all key environmental stakeholders on the management of antimicrobial residues in the environment.
- Strengthening capacities of veterinarians and ONSSA inspectors on farm inspection (livestock data register, management of primary products, management of outbreaks and phytosanitary crises, etc.) and risk-based inspection of manufacturing units for medicines, animal feed and plant protection products.
- Developing the capacities on the Integrated Pest Management (IPM) for the promotion of agricultural production and the mitigation of risks related to pesticide for agricultural use.
- Developing the capacities on AMR assessment and management programme for responsible for registering phytosanitary products.
- Developing the capacities on the management of antimicrobial residues in the wastewater and solid waste for representatives of Ministry of Environment.

The project will support the purchase of equipment such as:

- Software, computer and servers for the national network for monitoring AMR and antimicrobial use
- Communication tools, delivering messages and public display (exp. rent of billboard, tv, radios).
- Materiel capacities of medical and veterinary labs (laboratory reagents) to support the implementation of the ESBL tricycle study. In the long term, the Government will pick up the costs.
- Purchase of rapid diagnostic tests for the treatment of tonsillitis to implement a pilot project in a subnational region. This measure will contribute to avoid unnecessary prescription of antibiotics for viral tonsillitis and acute respiratory infections.

The project will also provide support to organize the following events:

- Campaigns and awareness activities to improve and promote relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals.

- Annual celebration of the World Antibiotic Awareness Week.
- Communication events Provide support to Partnerships at a national and international level through a communication event around the NAP launch.
- Awareness events for professionals in critical food sectors on cross-contamination, respect of the cold chain, hygiene: slaughterhouses of avian and red meat, dairy product, fishery.
- Awareness events for farmers (Poultry, aquaculture, dairy sector) and key actors of the environment and plant protection sectors.

1.2 AMR MPTF Results Matrix (Please refer to Appendix 3)

List the Outcome(s), Output(s) adopted from Tripartite Results Matrix (Appendix 3) and Activities that are designed with the focus of this joint Tripartite programme and identify indicators and baseline data that can be used to measure programme progress.

OUTPUT 1.1.1.	Improved countries capacities for designing and implementing AMR related policy frameworks, investment plans and programmes
ACTIVITIES for achieving output 1.1.1.	
Title	Description
<p>ACTIVITY 1.1.1.1.:</p> <p>Set up a robust and effective governance mechanism to steer, monitor and sustain AMR policy</p> <ul style="list-style-type: none"> - provide support to Multi Sectoral Coordination committees - develop an advocacy plan with clear strategies, assigned responsibilities, resources and targets for the implementation of the AMR agenda - develop an ME plan to monitor clearly defined indicators 	<p>Conduct an International Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Making a diagnostic and developing coordination <u>mechanisms</u> that facilitate integrated, multi-sector and multi-stakeholder governance to combat AMR. - Establishing a Joint Expert Technical Advisory Committee on Antimicrobial Resistance and formulating their Terms of Reference (Committee Members, Chairman of the Committee, Secretary of the Committee, Quorum, Frequency of meetings, Notice of meetings, Minutes of meetings, Resolutions, Annual General Meeting (AGM), Duties, Reporting Responsibilities, Self-appraisal and Authority). - Developing an <u>Advocacy Plan</u> for implementation of the NAP to combat AMR and targets key decision-makers. - Organizing a national joint workshop for restitution and validation of the above-mentioned tasks. - This activity takes into account the cost-benefit analysis and the cost effectiveness study prepared during the consultation Activity 1.1.1.8 which will serve to consolidate the advocacy for the implementation of the AMR program (Activity 1.1.1.5.).

<p>ACTIVITY 1.1.1.2.:</p> <p>Build management capacity for monitoring NAP activities:</p> <ul style="list-style-type: none"> - through in-country workshops and the Progressive Management Pathway tools for AMR, bring public and private stakeholders together to self-assess the level of NAP implementation - upon conclusion of each workshop, agree on actions to be taken to escalate AMR management to a higher stage as required. 	<ul style="list-style-type: none"> - Applying the Progressive Management Pathway for Antimicrobial Resistance (PMP-AMR) through two in-country workshops within three-days and once a year. These workshops bring public and private stakeholders together; and in the presence of specifically-trained PMP-AMR facilitators to help participants assess the level of NAP implementation in their country and agree on actions to be taken to escalate AMR management to a higher stage as required. Using the PMP-AMR tool, stakeholders define the specific activities they need to implement next as they work toward the better management of AMR risks and the more prudent use of antimicrobials.
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<p>ACTIVITY 1.1.1.3.:</p> <p>Conduct joint assessment and analysis of human, veterinary and environmental laboratories capacities</p>	<p>Conduct three international consultations respectively in human, animal and environmental health sectors. Each consultation will last one month and hold to undertake the following tasks:</p> <ul style="list-style-type: none"> - Organizing three workshops: one day for each sector (medical, veterinary, environmental) for 50 participants to carry out an audit of the medical/ veterinary/ environmental microbiology laboratories by highlighting their strengths and areas for weakness and challenges of their practices - Assessing human and material capacities of the laboratories as well as their functioning - Proposing amendments to improve functioning of laboratories to meet the challenges of AMR - Developing Action Plans for upgrading laboratories towards international accreditation - Organizing a second one-day joint workshop for validation of assessment results
<p>ACTIVITY 1.1.1.4.:</p> <p>Evaluate the current legal, institutional and normative framework governing medical, veterinary and environmental systems:</p> <ul style="list-style-type: none"> - provide an inventory of the established norms - identify the gaps - propose an appropriate update to address the challenges of laboratory capacities 	<p>Conduct an International Consultation by a legal expert within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Organizing a one-day joint workshop for 50 participants to carry out an assessment of the current legal, institutional and normative framework of medical and veterinary laboratories on the basis of the national legislation and the WHO, OIE and FAO International Standards - Proposing amendments to improve the legislative and regulatory framework of the medical, veterinary and environmental laboratories - Organizing a second one-day joint workshop for validation of assessment results

<p>ACTIVITY 1.1.1.5.:</p> <p>Analyze the national quality management system specific to AMR at the level of different institutions of public health care facilities and veterinary facilities</p>	<p>Conduct an International Consultation within two months to undertake the following tasks:</p> <ul style="list-style-type: none"> - Audit the existing quality systems of the different sectors for the management of AMR - Assess the possibility of setting up an inter-sectoral quality system for AMR - propose any required amendments to the normative framework and operational procedures related to transport and management of biological samples - Organizing one-day joint workshop gathering together all focal points involved in quality management system specific to AMR - Organizing a two-day training workshop on quality assurance for the focal points involved in quality management system - This activity takes into account the governance mechanisms prepared during the consultation Activity 1.1.1.1
<p>ACTIVITY 1.1.1.6.:</p> <p>Develop a joint communication plan and relevant tools (sectorial and joint ones) to raise the importance of AMR and the means for prevention and control of infections</p>	<p>Conduct an International Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Developing the joint communication plan - Developing TORs and specifications for the communication agency for elaborating communication tools (Activity 2.2.1.3.) and awareness campaigns (exp: World Antibiotic Awareness Week Activity 2.2.1.4.) - Organizing a three-day joint workshop gathering together all stakeholders to validate joint and sectorial communication plan for AMR; taking into account the <u>Advocacy Plan</u> prepared during the consultation Activity 1.1.1.1

<p>ACTIVITY 1.1.1.7.:</p> <p>Provide full administrative support for the implementation of the AMR MPTF project, the follow up on the activities and the safety and performance of transactions</p>	<p>Recruitment of a National Project Coordinator for 2 years to undertake the following tasks:</p> <ul style="list-style-type: none"> - Coordinate, under the joint supervision of WHO, FAO and OIE, the project activities with relevant agencies and departments, the Office of FAO/OIE/WHO Programme Coordinators and the project staff including consultants to ensure smooth collaboration in the implementation of project. - Facilitate the work of project staff including through contacts with relevant institutions and persons to be visited. - Provide overall guidance and supervision to project staff and coordinate with international consultants who will undertake various project activities. - Collaborate closely with the international consultants in accomplishing specific project tasks and implementing the work-plan. - Ensure timely provision of local inputs to the project, including office and administrative facilities, equipment, staffing, training and other operational funds, relevant data/information, etc. - Make all necessary local arrangements and provide logistics for various project activities according to the agreed upon work-plan and time schedule (including travel for project staff and consultants); - In consultation with the FAO/OIE/WHO Programme Coordinator, review on a regular basis the timeliness, quantity and quality of inputs to be provided by FAO/OIE/WHO, MoA., MH and MEnv - Prepare semi-annual progress reports on achievements made by the project. - Assist in the preparation of the project draft Terminal Report - Perform any other duty related to the project as required by FAO/OIE/WHO and relevant Officers.
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<p>ACTIVITY 1.1.1.8.:</p> <p>Carry out a cost-benefit analysis of:</p> <ul style="list-style-type: none"> - the economic impact of the AMR - the introduction of the rapid diagnosis tests for the treatment of tonsillitis in a pilot area - the national policy for vaccination against pneumococcus and rotavirus <p>in light of the AMR plan</p>	<p>Conduct an International Consultation (Economist cost analysis and cost effectiveness specialist) within 40 days to undertake the following tasks:</p> <ul style="list-style-type: none"> - Accomplish a cost-benefit analysis and a cost-efficiency analysis for the NAP implementation, compared with the economic impact of the AMR; the result of this analysis will serve as an argument for the advocacy plan (Activity 1.1.1.1) - Organize a three-day training workshop on cost-benefit analysis and a cost-efficiency analysis for all key stakeholders involved in the NAP implementation - conduct a cost-benefit study of the introduction of the rapid diagnostic tests for the treatment of tonsillitis in a pilot region (the engagement of a consultation will be complemented by purchasing the tests for the pilot region) - conduct a cost-benefit study of vaccination against pneumococcus and rotavirus
<p>OUTPUT 1.3.1.</p>	<p>Systems for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened</p>
<p>ACTIVITIES for achieving output 1.3.1.</p>	
<p>Title</p>	<p>Description</p>

<p>ACTIVITY 1.3.1.1.:</p> <p>Support the design and the implementation of a national integrated surveillance network and information system for monitoring and generating data on AMR and antimicrobial use</p>	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Analyze the AMR existing surveillance systems of each sector, review the data quality, identify the gaps and the alternatives - Enhance the design of the national surveillance system for AMR in human health - Enhance the design of the current national surveillance system for AMR in animal and plant health - Design a national surveillance system for AMR in environmental health - Design a national surveillance system to monitor the antimicrobials use - Design an information system and develop a national data exchange platform to share timely the relevant information between different sectors <p>Once these elements are in place:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop for 30 participants on implementation of the integrated surveillance - Implement the national surveillance system for AMR and AMU - Implement a step wise approach for sentinel hospitals to report human AMR data to the MOH on regular basis, and subsequent reporting to GLASS. - Generate semi-annual joint reports on AMR and AMU - Ensure data sharing through WHONET and regular reporting to the GLASS.
<p>ACTIVITY 1.3.1.2.:</p> <p>Support the implementation of the integrated surveillance (e.g. the Tricycle ESBL E. coli):</p>	<ul style="list-style-type: none"> - Acquire the reagents and reference chemicals needed by the laboratories involved in the national surveillance system for AMR.
<p>OUTPUT 2.1.1.</p>	<p>Systems for biosecurity and IPC strengthened in targeted countries</p>
<p>ACTIVITIES for achieving output 2.1.1.</p>	
<p>Title</p>	<p>Description</p>

<p>ACTIVITY 2.1.1.1.:</p> <p>Provide support to carry out a national prevalence survey on healthcare associated infections (HAIs).</p>	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Develop the research protocol - Elaborate surveys and questionnaires on healthcare associated infections (HAIs) - Organize a one-day joint workshop for the validation of the research protocol and survey results - Support and monitor the implementation of the survey - Create and feed the survey database - Collect and analyze data and statistical information about national prevalence of HAIs - Make technical and organizational recommendations to fight HAIs
<p>ACTIVITY 2.1.1.2.:</p> <p>Update the national strategy for the prevention and control of healthcare-associated infections</p>	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Undertake a policy and strategic analysis of HAI, based on the national prevalence survey (activity 2.1.1.1) - Identify the challenges and priorities, particularly in the areas of IPC, biosafety and biosecurity - Establish the desired impact and elaborate a coherent policy response to HAIs. - Organize a three -day consensus workshop for 50 participants on the development of the national strategy for the prevention and control of healthcare-associated infections
<p>ACTIVITY 2.1.1.3.:</p> <p>Strengthening capacities of professional organizations, in animal and plant health, in the development and implementation of norms, standards and Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP).</p>	<p>Conduct three international consultations respectively for aquaculture, aviculture, and dairy production sectors. Each consultation will last 30 days to undertake the following task:</p> <ul style="list-style-type: none"> - Elaborate Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP) for aquaculture, aviculture, and dairy production sectors <p>Conduct a national consultation within one month to undertake the following task:</p> <ul style="list-style-type: none"> - Elaborate standards and guidelines for the Integrated Pest Management (IPM) for the promotion of agricultural production and the mitigation of risks related to pesticide usage for agricultural use

<p>ACTIVITY 2.1.1.4.:</p> <p>Develop the capacities of farmers and professional organizations in critical sectors (poultry, aquaculture, dairy) on biosecurity.</p>	<p>The same consultants of activity 2.1.1.3. will undertake the following task:</p> <ul style="list-style-type: none"> - Organize 3 three-days training of trainers’ workshops respectively on aquaculture, aviculture, and dairy production sectors’ biosecurity. for professional organizations (veterinarians and actors of the value chain) - Organize 12 regional training sessions respectively on biosecurity aquaculture (2 sessions), aviculture (6 sessions), and dairy production (4 sessions) sectors’ biosecurity for professional organizations (veterinarians and actors in the value chain)
<p>ACTIVITY 2.1.1.5.:</p> <p>Support to evaluate and update the legal framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry...).</p>	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Compile the legal and normative provisions governing the management of antimicrobial residues in the environment - Identify the gaps of the legal and normative framework and assess the compliance level - propose the necessary amendments to the legal and normative framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry...) - Organize a three-day training workshop on the management of antimicrobial residues in the environment for all key environmental stakeholders - Organize a one-day joint workshop for validation of legal framework study results
<p>ACTIVITY 2.1.1.6.:</p> <p>Strengthen capacities of veterinarians and ONSSA inspectors on farm inspection (livestock data register, management of primary products, management of outbreaks and phytosanitary crises ...) and risk-based inspection of manufacturing units for medicines, animal feed and plant protection products.</p>	<ul style="list-style-type: none"> - Organize a three-day training workshop for veterinarians of ONSSA and private veterinarians (2 participants per region and 6 participants from central ONSSA) on the inspection of farms (maintaining a livestock data register, management of outbreaks and promoting laboratory diagnosis...) and the risk-based inspection of drug and animal feed manufacturing units - Organize a three-day training workshop for inspectors engineers of ONSSA (2 participants per region and 6 participants from central ONSSA) on farm inspection (management of primary products of plant origin, management of outbreaks and phytosanitary crises, promoting laboratory diagnosis...) and risk-based inspection of plant protection products - Conduct an international Consultation within 7 days to organize a three-day training workshop for 30 participants on the risk analysis of antimicrobial resistance for the benefit of veterinarian instructors (responsible for post-marketing control)

<p>ACTIVITY 2.1.1.7.:</p> <p>Support the development and implementation of Integrated Pest Management (IPM) programme of crops.</p>	<p>The same consultant of the activity 2.1.1.3. will undertake the following task:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop for 30 participants (2 participants per region and 6 participants from central ONSSA) on the Integrated Pest Management (IPM) for the promotion of agricultural production and the mitigation of risks related to pesticide for agricultural use
<p>ACTIVITY 2.1.1.8.:</p> <p>Support to include AMR assessment and management programme in the process of Antimicrobial Pesticide Registration.</p>	<p>engage an international Consultant on AMR within 7 days to undertake the following task:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop for 30 participants on AMR assessment and management program for. responsible registration of phytosanitary products
<p>ACTIVITY 2.1.1.9.:</p> <p>Organize a training session for the Ministry of Environment actors on the management of antimicrobial residues in the wastewater and solid waste.</p>	<p>The same consultant of the activity 1.1.1.4. will undertake the following tasks:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop on the management of antimicrobial residues in the wastewater and solid waste for representatives of Ministry of Environment
<p>OUTPUT 2.2.1.</p>	<p>Improved capacity to design awareness raising, behavior change and educational activities</p>
<p>ACTIVITIES for achieving output 2.2.1.</p>	
<p>Title</p>	<p>Description</p>
<p>ACTIVITY 2.2.1.1.:</p> <p>Carry out a study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices</p>	<p>Conduct an International Consultation within one month to Carry out a study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices</p>

<p>ACTIVITY 2.2.1.2.:</p> <p>Support to disseminate and implement the national standards and guidelines for a responsible and appropriate use of antimicrobials in the 12 regions of Morocco</p>	<p>Conduct a national Consultation within one month to undertake the following task:</p> <ul style="list-style-type: none"> - Elaborate standards and guidelines on the responsible and the appropriate use of antimicrobials in aquaculture, aviculture and dairy production sectors - Organize a two-day TOT training workshop for veterinarians (private vets, public, academicians....) on the responsible and the appropriate use of antimicrobials in aquaculture, aviculture, and ruminant production sectors - Support to organize 12 two-day regional training workshops for veterinarians (private vets, public....)on the responsible and the appropriate use of antimicrobials in aquaculture (2 sessions), aviculture (6 sessions) , and ruminant production (4 sessions) sectors
<p>ACTIVITY 2.2.1.3.:</p> <p>Provide support to campaigns and awareness activities to improve and promote relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals</p>	<p>contract with a communication agency to undertake the following tasks:</p> <ul style="list-style-type: none"> - Edition of communication tools, delivering messages and public display. (exp. rent of billboard., tv, radios) - Designing and implementing appropriate messages in form of capsules, videos and flyers for the 3 sectors <p>This activity takes into account the Joint communication Plan and the TORs and specifications prepared during the consultation activity 1.1.1.6</p>
<p>ACTIVITY 2.2.1.4.:</p> <p>Support the annual celebration of the World Antibiotic Awareness Week</p>	<p>Organize the World Antibiotic Awareness Week each year with realizing a session with decision makers</p>
<p>ACTIVITY 2.2.1.5.:</p> <p>Provide support to Partnerships at a national and international level through a communication event around the NAP launch and implementation</p>	<p>Organize communication events to exchange the success stories with other countries</p>

<p>ACTIVITY 2.2.1.6.:</p> <p>Organize awareness events for professionals in critical food sectors on cross-contamination, respect of the cold chain, hygiene: slaughterhouses of poultry meat and red meat, aquaculture products and dairy product</p>	<ul style="list-style-type: none"> - Organize 4 awareness campaign for 100 professionals of each sector (except aquaculture only 30 participants) in critical food of avian and red meat, dairy product, fishery on cross-contamination, respect of the cold chain, hygiene
<p>ACTIVITY 2.2.1.7.:</p> <p>Organize awareness events for farmers (Poultry, aquaculture, dairy sector) and key actors of the environment and plant protection sectors</p>	<ul style="list-style-type: none"> - Organize 5 information campaign for farmers of critical food sectors (aviculture, aquaculture and dairy production) and actors of plant protection and environment

1.3 Stakeholder mapping and target groups (max 2 pages)

Map key stakeholders and briefly explain their involvement in addressing AMR at national level. Focus particularly on stakeholders in areas that will be targeted by the AMR MPTF country grant, identifying their interest and relationships. Please also identify the programme beneficiaries where possible.

The key stakeholders and beneficiaries have been identified as follows:

- Relevant regulatory authorities in the beneficiary country which are under the Ministry of Health, Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, Department of Environment, Ministry of Trade, Ministry of Economic Development and/or others. From experience to date it is likely to be cross-cutting across several ministries and each will have to be engaged to ensure a comprehensive and effective regulatory approach.
- Stakeholders in health, food and agriculture production include physicians, pharmacists, dental surgeons, Nurses' Association, Consumers' Association, farmers, fishers, veterinarians, stakeholders in the value chain, and regulators. Stakeholder engagement will bring both the public and private entities of these stakeholders together. This will allow the needs and concerns of the food and agriculture sector to be appropriately reflected in National Action Plan on AMR which are being driven by the Ministry of Health and ensure that the sector is appropriately addressed in that plan taking into consideration both the need for antimicrobials in the agriculture sector as well as the negative impact of AMR on the sector.
- Designated laboratories within beneficiary country responsible for residue monitoring and surveillance of resistance as well as the coordinating or oversight structure for such laboratories.
- Operators in the key value chains of concern for AMR within a country e.g. dairy, poultry and aquaculture value chains. Support will be provided to both the producers through the training on improved practices to minimize to use of antimicrobials and transmission of resistance. Public sector entities such as the veterinary services and food inspection services will also benefit as they provide oversight to the implementation of good practices.

- Private health service providers to enhance the prescription behavior and their contribution to the surveillance system.
- Pharmaceutical industry for both human and animal health.
- Consumers (patients) who demand antibiotic prescription or consume OTC antibiotics.

2 Programme strategy

2.1 Overall strategy (max 2 pages)

Summarize the strategy of the joint Tripartite programme, including:

- why it is transformational (will deliver results at scale);
- why it is better than alternative approaches;
- how it contributes to accelerate the progress on achieving the NAP;
- what will be the added value of the Tripartite;
- how it relates to AMR GAP priorities and initiatives;
- how the programme would support government, and how government will sustain and scale results
- how this programme fits with existing work of tripartite organizations and other development partners.
- what is the anticipated situation after this phase of the joint Tripartite programme is effectively completed?

The project will provide transformation on the level of capacities and governance as mentioned below:

- Improved governance of AMR including risks and benefits of AMR reflected as priority in the national budgets and United Nations Sustainable Development Cooperation Framework (UNSDCF)
- Data on AMR/AMU are collected, analyzed, and shared for policy makers and sectors implementing AMU practices
- Medical and therapeutic practices are optimized in critical sectors
- Targeted groups are aware of the AMR risks and apply appropriate response options
- Awareness is raised about AMR and its prevention and control modalities.

The Tripartite counts on a wide range of expertise in a variety of disciplines (Health, aquatic and terrestrial animal health, welfare and production, food and feed safety, plant production and protection, legal framework, and standard setting, environment etc.) and has a presence around the world and at country and regional level.

The response to AMR is spearheaded through the One Health Global Action Plan, developed by WHO in collaboration with FAO and OIE. The 5 objectives of the Global Action Plan on AMR are to: 1. improve awareness and understanding of AMR communication, education and training, 2. strengthen the knowledge and evidence base through surveillance and research, 3. reduce the incidence of infection through effective sanitation, hygiene and infection prevention measures, 4. optimize the use of antimicrobial medicines in human and animal health and 5. develop the economic case for sustainable investment that takes account of the needs of all countries, and increase investment in new medicines, diagnostic tools, vaccines and other interventions. At the national level WHO supported the development of the NAP and spearheaded evidence production and advocacy around AMR in the health sector so far, as well as advocacy to bring AMR higher in the multisectoral collaboration agenda in Morocco. The MPTF project is firmly anchored to the global action plan and will enable WHO to ensure continuity between the global agenda goals on AMR, the previous activities at the national level and the NAP implementation. The budget allocations are mainly intended to: strengthen knowledge (31% of the overall budget), optimize use of antimicrobials (28%), improve awareness and understanding (19%) and reduce incidence of infections (12%). The remaining 10% are intended to cover some economic studies and cost surveys to enhance the stakeholder's commitment through strong evidence.

The FAO hosts the Secretariat of the Codex Alimentarius and of the International Plant Protection Commission (IPPC); together with WHO it has developed the International Code of Conduct on Pesticide Management, and the FAO Code of Conduct for Responsible Fisheries which makes reference to antimicrobial use and is currently supporting the development of a Voluntary Code of Conduct on sustainable soil management which will address waste from animal production systems. The Organization also contributes considerably to the animal health standard setting work of the OIE. It further supports the work of the standard setting organizations in terms of provision of scientific advice as the basis for sound standards and the implementation of their recommendations through support to countries to meet their obligations, improve governance, and build competencies.

As the reference organization for standards related to animal health and zoonoses, the OIE is committed to supporting Member Countries to combat AMR. OIE standards and guidelines provide a framework for responsible and prudent use of antimicrobial products in animals and for surveillance of use of antimicrobials and antimicrobial resistance. OIE communications and advocacy materials foster understanding of the risks of AMR and encourage the adoption of measures that slow its spread. OIE science drives the development of tools and policies that support Veterinary Services and enhance animal health and welfare. The OIE Strategy on Antimicrobial Resistance is aligned with the WHO Global Action Plan and recognizes the importance of a “One Health” approach– involving human and animal health, agricultural and environmental needs.

There is strong commitment from FAO, OIE and WHO to work together to implement the global action plan on antimicrobial resistance and to ensure coherent approaches, while taking into account the different governance structures and mandates of each organization. The three organizations are already collaborating on antimicrobial resistance to varying degrees across technical areas at global, regional and country levels. Furthermore, the three agencies are already implementing AMR programs in many countries of Asia and Africa including Morocco, and will be able to draw upon lessons learnt in these projects during future endeavors.

In addition, the government will implement governance mechanisms to address AMR in the country and benefit from the results of the project to establish and develop knowledge-based policy decisions and scientifically responsible risk management. The advocacy plan and the economic studies mentioned above will assist to address any possible financial issues, improve the diversification of funding sources and ensure the sustainability and efficiency of the national response.

The next two years will provide an opportunity to achieve a better mutual understanding and increased cooperation on AMR by providing wide information on trends and magnitude of resistance in human, animal and environmental health, and by raising awareness and strengthening processes and controls to ensure an optimal use of antimicrobials. It will also provide an opportunity to set up a sustainable AMR multisectoral committee, to ensure greater accountability and to monitor and measure the progress.

The development of the next NAP for AMR is expected by 2022. The tripartite are intending to support the MPTF project as a robust leverage for the implementation of the current AMR NAP, and are placing particular emphasis on the valorization and practical integration of the evidence generated through this process to build a strong national response beyond 2022.

2.2 Theory of Change (max 2 pages)

There is no standard methodology for developing a Theory of Change (ToC). However, any ToC should address how the envisaged broader systemic change is expected to emerge, and what the contribution of the joint Tripartite programme is expected to provide. The ToC is not a plan or a results framework but the description of the rationale behind those. The ToC provides the basis for managing for results. Managing for results starts during the preparation and planning phase of programmes. The ToC can be described as the intended change process and depicts how the causally related results occur in the programmes environment. It captures a shared

understanding of the path that leads to the desired objective (change), in a form that is understandable to all actors. The ToC addresses the following questions:

- *What results (please refer to Tripartite Results Matrix) are the Tripartite collaboration trying to achieve?*
- *What is the priority objective from the perspective of project partners?*
- *How do different results relate to each other?*
- *What does the project assume responsibility for?*
- *What contributions do partners make towards achieving results?*
- *Can the objectives be achieved using the resources that the partners are able to provide?*

Answering these question leads to a complex, not always linear ToC, which opens a systemic view, as it maps the entire change process influenced by the different actions/measures. The ToC is seen as a way to plausibly demonstrate impact and shows which objectives can realistically be achieved within the time frame and financial scope of a programme; it will also demonstrate which impacts can be expected beyond the project's sphere of responsibility.

During the preparation and planning phase of programmes, the intended change process and depicts are of a technical, organizational and behavioral nature:

- Governance arrangements for AMR are in place and functioning A functional monitoring and evaluation framework on National Action Plan is in place.
- AMR is included within national budget and national development plan with sustainable improved investment in AMR based on cost benefit studies
- Fully functional One Health Multi-Sectoral Coordination Group (MCG) is established and data on AMU/AMC and/or AMR is collected analyzed and used across relevant sectors
- The regulatory framework has been reviewed in line with the international guidance on responsible and prudent use of antimicrobial agents
- Antibiotics consumed in the human sector that are in the Access category is reduced
- Antimicrobials intended for use in food-producing animals by antimicrobial classes is reduced
- Awareness on AMR is raised among consumers, medical care services, veterinary services, farmers, industries...
- Capacities of all stakeholders improved for the coordinated management of AMR
- National plans are developed or reviewed to ensure good production practices
- Implementation and/or scale up minimum requirements for infection prevention (e.g. husbandry and biosecurity) for food animal production is supported, in accordance with international standards
- Improved National Infection Control and Prevention (ICP)

2.3 Expected results and Narrative (max 2-3 pages, excluding tables)

This narrative should relate directly to the work plan (Annex 4) and log framework (Annex 1)

- *Describe the Tripartite activities and outputs and outline the interrelationship between them and how they can contribute to the outcome.*
- *Indicate which tripartite partner(s) will be accountable for the delivery of specified results at activity and output level.*
- *Refer to the pre-determined outcomes/outputs of the AMR MPTF ToC.*
- *Identify capacity needs and precondition requirements of government to sustain results.*
- *Indicate trans-boundary and regional issues and opportunities where relevant*
- *Briefly outline the expected progress towards the selected outcome(s) from Tripartite AMR result matrix.*

- *Describe the changed situation with respect to AMR management in the country at the end of this phase of investment. Do it in the form of storytelling, as a future scenario for early 2022 (not longer than half a page).*
- *Describe how the joint tripartite programme will contribute to strengthened gender and equity issues (avoiding disadvantage to vulnerable groups).*

The process of prioritization to select key activities and to shape the final version of the proposal has been based on the one health principles, the technical feasibility, the long-term sustainability and the short-term impact.

- Regarding the scope: 71% of selected activities are consistent with the One Health approach. The sectoral interventions are distributed fairly and range around 8% for each sector, including human, animal, environment and plant health.
- Regarding the nature of activities: the budget allocations are balanced to address the issues related to Governance/Stewardship/ M&E (19% of the overall budget), Research and investigation to produce data and evidence (25%), Information and educational Programme (15%), Workforce education (16%), WASH/ IPC/ Biosecurity (10%), Laboratory Services (5%), Immunization (3%) and Legal framework (1%).
- Regarding GAP Objectives: The budget allocations are mainly intended to: strengthen knowledge (31% of the overall budget), optimize use of antimicrobials (28%), improve awareness and understanding (19%) and reduce incidence of infections (12%). The remaining 10% are intended to cover economic studies and cost surveys to enhance the stakeholder's commitment through strong evidence.
- Regarding the expected achievements: from a budgetary perspective, allocations are distributed as follows: to strengthen stakeholders' engagement (29% of the overall budget), to produce data and information for an improved situation and context analysis (20%), to reinforce the technical expertise on AMR and related areas (22%) and to develop guidance and standards (11%). 12% of the budget is intended to set up sustainable financing mechanisms at the national level to address AMR issues.

Furthermore, in order to ensure the relevance of the MPTF proposal and its contribution to the achievement of the global agenda goals for AMR, each activity is linked to:

- One of the AMR MPFT's Matrix Goals/Outcomes/Outputs;
- One of the WHO frameworks on AMR dimensions;
- One of the 6 Strategic pillars advocated by WHO to address AMR;
- One of the 5 Global action plan objectives;
- And the 2019-2021 AMR NAP.

Thus, the project will adopt the gender approach in the implementation of all activities favorizing participation of women and youths.

The project will progress towards the achievement of project outputs as following:

1. Improved coordination between national stakeholders for designing and implementing AMR related policy frameworks, investment plans and programmes; by implementing the activities bellow:
 - Conducting an International Consultation within one month to set up a robust and effective governance mechanism to steer and sustain AMR policy and provide support to Multi Sectoral Coordination committees and to develop an advocacy plan with clear strategies, assigned responsibilities, resources and targets for the implementation of the AMR agenda

- Applying the Progressive Management Pathway for Antimicrobial Resistance (PMP-AMR) through two in-country workshops.
 - Conducting three international consultations for each sector of human, animal and environmental health sectors to develop a joint assessment/ Analysis mechanism including existing capacities of medical/ veterinary/ environmental microbiology laboratories
 - Conduct an International Consultation by a legal expert to evaluate the current legal, institutional and normative framework governing medical and veterinary laboratories and propose an appropriate update to address the challenges of AMR
 - Conducting an International Consultation to analyze the national quality management system specific to AMR at the level of different institutions of public health care facilities and veterinary facilities
 - Conduct an International Consultation to develop a joint communication plan and relevant tools (sectorial and joint ones) to raise the importance of AMR and the means for prevention and control of infections
 - Conduct an International Consultation (Economist cost analysis and cost effectiveness specialist) to carry out a cost-benefit analysis of the implementation of the AMR plan
2. Coordinated information system for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened; by implementing the activities bellow:
- Conduct an international Consultation within one month to support the design and the implementation of a national integrated surveillance network and information system for monitoring and generating data on AMR and antimicrobial use : design and implement a national system surveillance on AMR and AMU in human, animal and environmental health, design and implement an information system and a national data exchange platform to share timely the relevant information *between different sectors*, purchase IT equipment (software computer servers) and ensure data sharing through WHONET and regular reporting to the GLASS.
 - Support the implementation of the integrated surveillance (e.g. the Tricycle ESBL E. coli): *acquire the reagents and reference chemicals needed by the laboratories involved in the national surveillance system for AMR and organize a three-day training workshop for 30 participants on implementation of the integrated surveillance*
3. Adequate systems for biosecurity and IPC by implementing the activities bellow:
- Conduct an international consultation to provide support to carry out a national prevalence survey on healthcare associated infections (HAIs).
 - Conduct an international consultation to revise and improve implementation of the national strategy for the prevention of healthcare-associated infections
 - Conduct three international consultations respectively for aquaculture, aviculture, and dairy production sectors to strengthening capacities of professional organizations in the development and implementation of norms, standards and Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP).
 - Organize three TOT training workshops on biosecurity for professional organizations (veterinarians and actors of the value chain) in critical sectors: poultry, aquaculture, dairy (a three-day session for each sector)
 - Organize regional training sessions on biosecurity for professional organizations: veterinarians and actors in the value chain in critical sectors (aquaculture (2 sessions), aviculture (6 sessions), and dairy production (4 sessions)).
 - Conduct an international consultation to evaluate and update the legal framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry...).

- Organize workshops to strengthen capacities of veterinarians and ONSSA inspectors on farm inspection (livestock data register, management of primary products, management of outbreaks and phytosanitary crises ...) and risk-based inspection of manufacturing units for medicines, animal feed and plant protection products.
 - Organize workshop for 30 participants on the Integrated Pest Management (IPM) for the promotion of agricultural production and the mitigation of risks related to pesticide for agricultural use (2 participants per region and 6 participants from central ONSSA)
 - Organize training workshop for 30 participants on AMR assessment and management programme for registering phytosanitary products
 - Organize training workshop on the management of antimicrobial residues in the wastewater and solid waste for representatives of Ministry of Environment
4. Adequate capacity to design awareness raising, behavior change and educational activities; by implementing the activities bellow:
- Conduct an International consultation to Carry out a study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices
 - Conduct a national consultation to Support to disseminate and implement the national standards and guidelines for a responsible and appropriate use of antimicrobials in the 12 regions of Morocco
 - Contract with a communication agency to support awareness activities for improving and promoting relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals
 - Organize the World Antibiotic Awareness Week each year with realizing a session with decision makers
 - Organize communication events to exchange success stories with other countries
 - Organize 4 awareness campaign for 100 professionals of each sector (except aquaculture only 30 participants) in critical food of avian and red meat, dairy product, fishery on cross-contamination, respect of the cold chain, hygiene
 - Organize 5 information campaign for farmers of critical food sectors (aviculture, aquaculture and dairy production) and actors of plant protection and environment

2.4 Budget, sustainability and value for money (max 2 pages)

- *Justify the budget in terms of “value for money.” Give specific examples of how costs have been contained (economy) and how the joint Tripartite programme design represents the most efficient approach*
- *Outline the options considered for to identify the most efficient and effective intervention to address the problem.*
- *Sustainability: Describe how the approach to delivery will enhance the chances that impact and benefits will be sustained after the end of the joint Tripartite programme.*
- *Demonstrate how long-term financial sustainability will be secured at the end of the programme.*
- *Demonstrate how the intervention supports equitable and sustainable outcomes.*

The project was formulated based on a participatory approach with the Tripartite and the national stakeholders. It is based on the main constraints for the implementation of the national Action Plan on AMR. Activities identified are critical for the implementation of the NAP and the appropriate budget calculated for each activity will catalyze the available regular budget allocated by the Government in each Ministry.

The value for money has been improved by taking into account number of considerations:

- A good coordination between the Tripartite and the national stakeholders: allows an economy of scale and streamline available human and financial resources.
- **A distinctive breakdown of the budget by Agency: for each activity, the relevant lead UN Agency will deliver the total budget spending necessary for the implementation, regardless of the number of Agencies involved in that activity and the nature of their support.**
- Improvement of the AMR and AMU policy, including the legal framework, institutional set up and investment through the national budget, based on cost benefit evidence
- Improvement of the capacities of national institutions
- A better coordination and data-sharing between all stakeholders (information system, fully functional One Health Multi-Sectoral Coordination Group (MCG)
- Development and sharing of training material and communication tools
- The training of trainers (TOT) approach will sustainably improve the capacities of stakeholders and reduce the cost of implementing the NAP.

The project will support the country in the achievement of the SDGs based on international right to good health, food and sustainable environment and will adopt the gender approach in the implementation of all activities favoring participation of women and youths. Medical, paramedical, veterinary and agronomic faculty students will be mobilized for awareness on AMR, youth ambassadors for AMR will be identified and indicators for gender balance in consultants' recruitment and in training attendance will be monitored.

Lastly, as mentioned above, the government will implement governance mechanisms to address AMR in the country and benefit from the results of the project to establish and develop knowledge-based policy decisions and scientifically responsible risk management. The advocacy plan and the economic studies will assist to address any possible financial issues, improve the diversification of funding sources and ensure the sustainability and efficiency of the national response.

2.5 Partnership and stakeholder engagement (max 2 pages)

- *Briefly explain:*
 - *how this joint Tripartite programme would support the work of the National AMR coordination committee;*
 - *which government departments would be involved in programme delivery and what is their role; and*
 - *the unique contribution of the Tripartite.*
- *Strategic contributions from other partners and the ways in which other stakeholders (including the financial sector and private investors/capital) will be involved and/or consulted.*
- *Explain how the joint Tripartite programme will pool and mobilize expertise from across the Tripartite at country, regional and global levels*
- *Explain how you plan to engage with existing AMR donors delivering assistance at country level in areas related to the joint Tripartite programme taking advantage of potential synergies and avoiding overlaps*
- *If there is a risk that there might be double counting of results between existing programmes explain how this will be avoided.*

The involvement of the key stakeholders from the onset of the project through consultative process will be catalytic for enabling both the partnerships related to the project implementation and to nurturing the trust and ownership.

The Tripartite has already formulated the project with national focal points officially designated by the main Ministries: health, agriculture and environment. Several virtual meetings were organized with the Tripartite and the designated focal points. This approach will be pursued and quarterly meetings will be organized for monitoring the project activities. A steering committee will be established including representatives of the Tripartite and the designated focal points. Technical backstopping the project activity will be jointly ensured by the experts of the Tripartite.

Relevant regulatory authorities in the country, namely the Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, Ministry of Health, Ministry of Trade, Ministry of Economic Development if necessary, The Department of Environment and/or others.

Designated laboratories within beneficiary countries responsible for residue monitoring and surveillance of resistance as well as the coordinating or oversight structure for such laboratories.

Livestock farmers, field veterinarians, veterinary pharmacies, feed mills and general consumers involved in awareness raising and capacity development activities could be considered as direct beneficiaries.

Direct beneficiaries also include medical professionals in the public and private health sectors, including pharmacists.

Consumers are direct beneficiaries of awareness campaigns and will ultimately benefit from the impact of reduced AMR on their health.

The indirect beneficiaries of the project are livestock farmers, veterinary practitioners and general public.

Direct beneficiaries:

- Ministry of Health
- Ministry of Agriculture
- Ministry of Environment
- National Office of Food Security

Indirect beneficiaries:

- University Hospital
- National Institute of Hygiene
- National Drugs Control Laboratory
- Committees for the Fight against Nosocomial Infections
- Pharmacy and Veterinary inputs division
- Control and Expertise Department
- Moroccan Physician Council
- Moroccan Veterinarian Council
- Moroccan dentist Council
- Professional Organizations
- Non-Governmental Organizations
- General public and consumers
- Farmers

The advocacy plan and the economic studies mentioned above will assist to address any possible financial issues, improve the diversification of funding sources and ensure the sustainability and efficiency of the national response.

Finally, a National Project Coordinator, recruited for 2 years, will provide, under the joint supervision of WHO, FAO and OIE, full administrative support for the implementation of the AMR MPTF project, the follow up on activities and the safety and performance of transactions and financial spending.

2.6 Programme implementation in the light of COVID-19

- *Explain how programme implementation may be affected by COVID 19.*
- *Identify how you plan to mitigate any COVID 19 related risks.*
- *Explain aspects of the proposed programme that have changed from the concept note to align more closely with the national COVID 19 response.*

The potential risk that might be faced by project partners and stakeholders include: the emergence of the novel pathogen COVID-19 threat and restrictions of movements and activities. The project taskforce will respect the sanitary recommendations of the country. Therefore, if the workshops are not authorized the taskforce will opt for teleworking including Webinars, zoom meeting, e-learning... to overcome the movement restrictions on COVID-19.

Yet, the Ministry of Environment is now involved in the process and will take the lead to implement environmental activities. The number of activities (reduced to 26 over 2 years) remains realistic and achievable, even in the context of the CoViD-19 outbreak, as there are 3 implementing Ministries and, inside each Ministry, few implementing departments (2 to 4), which on average is 4 activities per department per year.

The key risks and impacts are summarized as follows:

- Lack of engagement from all relevant sectors: AMR is a cross cutting issue, which requires ownership and active participation of several key stakeholders. Lack of awareness of the issue and its impact has been identified as an important impediment to engagement. This will be addressed by an awareness-raising component of the project and participatory approach.
- The COVID-19 related economic crisis might reduce the financial commitment of the national institutions. A cost benefit evidence advocacy will be adopted to mitigate it.
- A lot of activities need to engage consultants. Yet, either national and international consultants will be recruited and workshops and meetings might be face-to-face or virtual depending on the CoViD-19 situation. The term “international consultancies” used in this project alludes to consultants with an international vocation, irrespective of whether they will be national or not, to ensure the quality of contractor work.

2.7 Communication, Advocacy and Lesson Learning

- *Identify opportunities for advocacy within the joint Tripartite programme.*
- *Identify aspects of the programme that might be particularly interesting for targeted communication and lessons learning.*
- *Identify opportunities for high-level strategic influencing, communication and advocacy.*

The communication is a key component of the project at 2 levels:

- Communication on the project activities: The agencies of the Tripartite will assure the advocacy and the communication of the project. At the first time, it is planned to organize an inception workshop and press releases will be delivered. After that all activity workshops will be published on the web sites of the 3 organizations, the 3 Ministries and professional organizations and NGOs. They will be also published on social media such as Facebook, Instagram, YouTube, LinkedIn, TikTok, Twitter, Flickr...

- Provide support to campaigns and awareness activities to improve and promote relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals. This support is established by the following actions: 1- edition of communication tools, delivering messages and public display. (Exp. rent of billboard. tele, radios), 2-design and implementation of appropriate messages in form of capsules, video and flyers for 3 sectors and 3- Organization of communication events to exchange the success stories with other countries.

Advocacy is also a key component of the project with cost benefit evidence for investing in coordinated strategy for AMR prevention and control.

The additional areas where the Tripartite will provide the country with capacity development support will be defined by the National Action Plan and therefore be targeting those areas, which the country itself has prioritized.

The project will also support exchange of information and lessons learnt from MPTF AMR projects in the other countries.

3 Programme implementation

3.1 Governance and implementation arrangements (max 3 pages)

- *Explain the composition, roles and responsibilities of Country AMR MPTF Team, including the implementation arrangements, roles and responsibilities of each Tripartite organisation.*
- *Explain how the day to day programme operations will be coordinated (through the appointment of a national coordinator based in one of the agencies, or in the national coordination office).*
- *Explain the role of the leaders of Tripartite Organisations in providing strategic oversight in raising AMR as a political and development issue with government and other stakeholders, and in engaging relevant stakeholders in decision making when necessary.*
- *Explain government-level engagement and leadership including how the results of the joint Tripartite programme will be internalised and sustained by government and other stakeholders.*
- *Explain how the AMR MPTF country programme will fit with ongoing activities of government, the tripartite and other donors, and, where appropriate, how this avoids duplication or introducing parallel structures.*
- *Do not explain the accountability for specific outputs and outcomes because it should be covered in the previous section. Focus on coordination, decision-making, reporting.*

To ensure a coordinated and timely implementation of the project activities, a Steering Committee (SC) will be established and will coordinate, facilitate and monitor involvement of participating organizations and institutions

The National Project Coordinator will be recruited by the project and will provide, under the joint supervision of WHO, FAO and OIE, full technical, operation and administrative support for the implementation of the AMR MPTF project, the follow up on the activities and the safety and performance of transactions. He/she will be recruited for 2 years to undertake the following tasks:

- Coordinate the project activities with relevant agencies or departments, the Office of FAO/OIE/WHO Programme Coordinators and the project staff including consultants to ensure smooth collaboration in the implementation of project
- Facilitate the work of project staff including through contacts with relevant institutions and persons to be visited

- Provide overall guidance and supervision to project staff and coordinate with international consultants who will undertake various project activities.
- Collaborate closely with the international consultants in accomplishing specific project tasks and implementing the work-plan
- Ensure timely provision of local inputs to the project, including office and administrative facilities, equipment, staffing, training and other operational funds, relevant data/ information, etc.
- Make all necessary local arrangements and provide logistics for various project activities according to the agreed upon work-plan and time schedule (including travel for project staff and consultants);
- In consultation with the FAO/OIE/WHO Programme Coordinator, review on a regular basis the timeliness, quantity and quality of inputs to be provided by FAO/OIE/WHO, MoA., MH and MEnv
- Prepare bi-annual progress financial and technical reports of the project.
- Assist in the preparation of the project draft Terminal Report.
- Perform any other duty related to the project as required by FAO/OIE/WHO and relevant Officers.

The Taskforce of the project will be constituted by 3 focal points of the 3 ministries and the representatives of FAO, OIE and WHO with support of headquarters units, Regional, Sub-Regional and Country offices.

Addressing AMR requires a multi-disciplinary multisector approach. This project contributes to the current global efforts to address AMR in line with the resolutions on this issue recently adopted by the governing bodies of FAO, WHO and OIE.

The project will be directly implemented by WHO, FAO and OIE and involve headquarters units, Regional, Sub-Regional and Country offices.

A distinctive breakdown of the budget by Agency will be adopted. For each activity, the relevant lead UN Agency will deliver the total budget spending necessary for the implementation, regardless of the number of Agencies involved in that activity and the nature of their support. This arrangement is allowed by the good coordination between the Tripartite and the national stakeholders and will ensure an economy of scale and streamline available human and financial resources.

The project will focus on strengthening technical capacities and enabling environment in the country and is expected to produce: i) improved awareness of key national stakeholders and general public on the risks related to AMR for humans, food, animals, plants and the environment is improved and the food and agriculture sector is actively involved in the implementation of multi-sectoral National Action Plans (NAPs) on AMR; ii) improved ability of target countries to assess and analyze the existing AMR and AMU knowledge, and strengthened capacities and regulatory frameworks related to AMU in food, agriculture, fisheries and livestock; iii) integrated surveillance systems on AMR supported by assessment and strengthened capacity of national laboratories and related infrastructure to collect and share data on detection of AMR and antimicrobial residue.

3.2 Monitoring, reporting and evaluation

Sections 3.2 and 3.3 are standard text required for UN trust fund management. Country teams should note these arrangements.

Reporting on the AMR MPTF will be results-oriented, and evidence based. Each Tripartite organization will provide the Convening/Lead Agent with the following narrative reports prepared in accordance with instructions and templates developed by the Tripartite Joint Secretariat on AMR:

- Annual narrative progress reports, to be provided no later than three (3) months (31 March) after the end of the calendar year, and must include the results matrix, updated risk log, and anticipated activities and results for the next 12-month funding period;
- Mid-term progress review report to be submitted halfway through the implementation of the Joint Programme³ (depending on timing this may merge with the annual report);
- Final consolidated narrative report, after the completion of the joint Tripartite programme, to be provided no later than three (3) months after the operational closure of the activities of the Joint Tripartite programme.

As a minimum, the Tripartite Joint Secretariat on AMR will prepare and report on the activities funded through the AMR MPTF on a 6-month monitoring basis. Additional insights (such as policy papers, value for money analysis, case studies, infographics, blogs) might need to be provided, per request of the Tripartite joint Secretariat on AMR. The joint Tripartite programme will allocate resources for monitoring and evaluation in the budget.

Data for all indicators of the results framework will be shared with the Joint Tripartite Secretariat on AMR on a regular basis, in order to allow the Fund Secretariat to aggregate results at the global level and integrate findings into reporting on progress of the AMR MPTF.

You will be required to include information on complementary funding received from other sources for the activities supported by AMR MPTF, including in-kind contributions and/or South-South Cooperation initiatives, in the reporting done throughout the year.

Headquarters' level shall provide the Administrative Agent (UNDP MPTF Office) with the following statements and reports prepared in accordance with its accounting and reporting procedures, consolidate the financial reports, as follows (*more information on the reporting will be provided at the later time*):

- Annual financial reports as of 31 December each year with respect to the funds disbursed to it from the AMR MPTF, to be provided no later than four months after the end of the applicable reporting period; and
- A final financial report, after the completion of the activities financed by the AMR MPTF and including the final year of the activities, to be provided no later than 30 April of the year following the operational closing of the project activities.

In addition, regular updates on financial delivery might need to be provided, per request of the Fund Secretariat.

The joint Tripartite programme may be subjected to a Programme Review (methodology to be determined) or joint final independent evaluation (JFEI) by the United Nations Evaluation Group's (UNEG) Norms and Standards [for Evaluation in the UN System, using the guidance on Joint Evaluation and relevant UNDG guidance on evaluations. Evaluation results will be disseminated amongst government](#), development partners, civil society, and other stakeholders. A joint management response will be produced upon completion of the evaluation process and made publicly available on the evaluation platforms or similar of PUNOs.

Finally, three reports will be established by the National Project Coordinator with semi-annual and final Report

³ This will be the basis for release of funding for the second year of implementation

3.3 Accountability, financial management, and public disclosure

Standard text – do not change.

The AMR MPTF will be using a pass-through fund management modality where UNDP Multi-Partner Trust Fund Office will act as the Administrative Agent (AA) under which the funds will be channeled for the MPTF through the AA. Each Tripartite organization receiving funds through the pass-through has signed a standard Memorandum of Understanding with the AA.

Each Tripartite organization will assume full programmatic and financial accountability for the funds disbursed to it by the AA of the AMR MPTF (Multi-Partner Trust Fund Office). Such funds will be administered by each Tripartite Agency, in accordance with its own regulations, rules, directives and procedures. Each Tripartite agency headquarters units, Regional, Sub-Regional and Country offices.

Indirect costs of the Tripartite Organizations recovered through programme support costs will be 7%. All other costs incurred by each tripartite agency in carrying out the activities for which it is responsible under the Fund will be recovered as direct costs.

Funding by the AMR MPTF will be provided on annual basis, upon successful performance of the programme.

Procedures on financial transfers, extensions, financial and operational closure, and related administrative issues are stipulated in the Operational Guidance of the AMR MPTF.

Each Tripartite organization will take appropriate measures to publicize the AMR MPTF and give due credit to the other tripartite agencies. All related publicity material, official notices, reports and publications, provided to the press or Fund beneficiaries, will acknowledge the role of the host Government, donors, tripartite partners, the Administrative Agent, and any other relevant entities. In particular, the AA will include and ensure due recognition of the role of each Participating Organization and partners in all external communications related to the AMR MPTF.

***Legal Clause:** Please indicate if a UNDAF or UNSDCF containing Legal Context information exists currently in the country, if yes, please provide a copy; if no, please include FAO Legal Provisions as appendices (Appendices 2.1 and 2.2) to the document before signing with the Government.

Yes UNDAF 2017-2021 attached

No

Annexes

Annex 1 - Logical Framework Template

IMPACT	<ul style="list-style-type: none"> Country makes explicit commitments (policies, investment plans, programs, legal frameworks, resources allocation) on AMR based on evidence and quality data AMU associated behaviors and practices sustainably improved in critical sectors Multi-sectoral approach to the AMR agenda strengthened globally 			
OUTCOME 1	<ul style="list-style-type: none"> Risks and benefits of AMR reflected in national budgets and in development/multi-lateral partner sector wide investments 			
Indicator - max 1	Baseline	Target	Means of Verification	Assumptions
1.a AMR is included as priority in the United Nations Sustainable Development Cooperation Framework	No	Yes	United Nations Sustainable Development Cooperation Framework Document	Commitment of the relevant stakeholders
1.b Specific budget line is provided in the 2022 national budgets of concerned ministries for implementing the next National action plan	No	Yes	2022 budget of the concerned ministries	Commitment of the relevant stakeholders
OUTCOME 2	<ul style="list-style-type: none"> Evidence base/representative data on AMR/AMU improved for policy-makers and sectors implementing AMU practices 			
Indicator - max 1	Baseline	Target	Means of Verification	Assumptions
2.a Multisectoral Coordination Group (MCG) for collecting data on AMU/AMC and/or AMR across relevant sectors is established and functioning	No	Yes	Report of the MCG	Commitment of the relevant stakeholders Risk of COVID - 19 crisis is managed

2.b data on AMU/AMC and/or AMR across relevant sectors is collected and shared by the MCG	No	Yes: 2 annual reports	Annual reports of the MCG	
OUTCOME 3	<ul style="list-style-type: none"> Use of antimicrobials optimized in critical sectors 			
Indicator - max 1	Baseline	Target	Means of Verification	Assumptions
3.a. Proportion of antibiotics consumed in the human sector	<i>To be identified</i>	<i>Reduction de 10 pcent</i>	<i>MoH reports</i>	
3.b Percentage of antimicrobials intended for use in food-producing animals by antimicrobial classes	<i>To be identified</i>	<i>Reduction de 10 pcent</i>	<i>Ministry of Agriculture reports</i>	
OUTCOME 4	<ul style="list-style-type: none"> Improved understanding of AMR risks and response options by targeted groups 			
Indicator - max 1	Baseline	Target	Means of Verification	Assumptions
4.a Number of national wide targeted awareness campaigns organized	<i>0</i>	<i>5</i>	<i>Evidence of public awareness campaigns</i>	
Number of communication tools developed	<i>0</i>	<i>10</i>	<i>Copies of communication tools such as videos, posters, audio etc.</i>	
OUTPUT 1.1.1.	<i>Improved countries capacities for designing and implementing AMR related policy frameworks, investment plans and programmes</i>			
Indicator - max 1	Baseline	Target	Means of Verification	Assumptions
<i>A Joint Expert Technical Advisory Committee on Antimicrobial Resistance established</i>	<i>No</i>	<i>Yes</i>	<i>projector of the committee and minutes of meetings</i>	

<i>The AMR related legal framework is reviewed and amendments proposed</i>	<i>No</i>	<i>Yes</i>	<i>The proposed new legal framework</i>	
ACTIVITIES for achieving output 1.1.1.				
Title	Description			
<p>ACTIVITY 1.1.1.1.:</p> <p>Set up a robust and effective governance mechanism to steer, monitor and sustain AMR policy</p> <ul style="list-style-type: none"> - provide support to Multi Sectoral Coordination committees - develop an advocacy plan with clear strategies, assigned responsibilities, resources and targets for the implementation of the AMR agenda - develop an ME plan to monitor clearly defined indicators 	<p><i>Conduct an International Consultation within one month to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Making a diagnostic and developing coordination <u>mechanisms</u> that facilitate integrated, multi-sector and multi-stakeholder governance to combat AMR.</i> - <i>Establishing a Joint Expert Technical Advisory Committee on Antimicrobial Resistance and formulating their Terms of Reference (Committee Members, Chairman of the Committee, Secretary of the Committee, Quorum, Frequency of meetings, Notice of meetings, Minutes of meetings, Resolutions, Annual General Meeting (AGM), Duties, Reporting Responsibilities, Self-appraisal and Authority)</i> - <i>Developing an <u>Advocacy Plan</u> for implementation of the NAP to combat AMR and targets key decision-makers</i> - <i>Organizing a national joint workshop for restitution and validation of the above-mentioned tasks</i> - <i>This activity takes into account the cost-benefit analysis and the cost effectiveness study prepared during the consultation activity 1.1.1.8 which will serve to consolidate the advocacy for the implementation of the AMR program (activity 1.1.1.5.)</i> 			

<p>ACTIVITY 1.1.1.2.:</p> <p>Build management capacity for monitoring NAP activities:</p> <ul style="list-style-type: none"> - through in-country workshops and the Progressive Management Pathway tools for AMR, bring public and private stakeholders together to self-assess the level of NAP implementation - upon conclusion of each workshop, agree on actions to be taken to escalate AMR management to a higher stage as required. 	<ul style="list-style-type: none"> - <i>Applying the Progressive Management Pathway for Antimicrobial Resistance (PMP-AMR) through two in-country workshops within three-days and once a year. These workshops bring public and private stakeholders together; and in the presence of specifically-trained PMP-AMR facilitators to help participants assess the level of NAP implementation in their country and agree on actions to be taken to escalate AMR management to a higher stage as required. Using the PMP-AMR tool, stakeholders define the specific activities they need to implement next as they work toward the better management of AMR risks and the more prudent use of antimicrobials.</i>
<p>ACTIVITY 1.1.1.3.:</p> <p>Conduct joint assessment and analysis of human, veterinary and environmental laboratories capacities</p>	<p><i>Conduct three international consultations respectively human, animal and environmental health sectors. Each consultation will last one month and hold to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Organizing three workshops: one day for each sector (medical, veterinary, environmental) for 50 participants to carry out an audit of the medical/ veterinary/ environmental microbiology laboratories by highlighting their strengths and areas for weakness and challenges of their practices</i> - <i>Assessing human and material capacities of the laboratories as well as their functioning</i> - <i>Proposing amendments to improve functioning of laboratories to meet the challenges of AMR</i> - <i>Developing Action Plans for upgrading laboratories towards international accreditation</i> - <i>Organizing a second one-day joint workshop for validation of assessment results</i>

<p>ACTIVITY 1.1.1.4.:</p> <p>Evaluate the current legal, institutional and normative framework governing medical, veterinary and environmental systems:</p> <ul style="list-style-type: none"> - provide an inventory of the established norms - identify the gaps - propose an appropriate update to address the challenges of laboratory capacities 	<p><i>Conduct an International Consultation by a legal expert within one month to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Organizing a one-day joint workshop for 50 participants to carry out an assessment of the current legal, institutional and normative framework of medical and veterinary laboratories on the basis of the national legislation and the WHO, OIE and FAO International Standards</i> - <i>Proposing amendments to improve the legislative and regulatory framework of the medical and veterinary laboratories</i> - <i>Organizing a second one-day joint workshop for validation of assessment results</i>
<p>ACTIVITY 1.1.1.5.:</p> <p>Analyze the national quality management system specific to AMR at the level of different institutions of public health care facilities and veterinary facilities</p>	<p>Conduct an International Consultation within two months to undertake the following tasks:</p> <ul style="list-style-type: none"> - Audit the existing quality systems of the different sectors for the management of AMR - Assess the possibility of setting up an inter-sectoral quality system for AMR - propose any required amendments to the normative framework and operational procedures related to transport and management of biological samples - Organizing one-day joint workshop gathering together all focal points involved in quality management system specific to AMR - <i>Organizing a two-day training workshop on quality assurance for the focal points involved in quality management system</i> - This activity takes into account the governance mechanisms prepared during the consultation activity 1.1.1.1

<p>ACTIVITY 1.1.1.6.:</p> <p>Develop a joint communication plan and relevant tools (sectorial and joint ones) to raise the importance of AMR and the means for prevention and control of infections</p>	<p><i>Conduct an International Consultation within one month to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Developing the joint communication plan</i> - <i>Developing TORs and specifications for the communication agency for elaborating communication tools (activity 2.2.1.3.) and awareness campaigns (exp: World Antibiotic Awareness Week activity 2.2.1.4.)</i> - <i>Organizing a three-day joint workshop gathering together all stakeholders to validate joint and sectorial communication plan for AMR; taking into account the <u>Advocacy Plan</u> prepared during the consultation activity 1.1.1.1</i>
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<p>ACTIVITY 1.1.1.7.:</p> <p>Provide full administrative support for the implementation of the AMR MPTF project, the follow up on the activities and the safety and performance of transactions</p>	<p><i>Recruitment of a National Project Coordinator for 2 years to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Coordinate, under the joint supervision of WHO, FAO and OIE, the project activities with relevant agencies and departments, the Office of FAO/OIE/WHO Programme Coordinators and the project staff including consultants to ensure smooth collaboration in the implementation of project.</i> - <i>Facilitate the work of project staff including through contacts with relevant institutions and persons to be visited.</i> - <i>Provide overall guidance and supervision to project staff and coordinate with international consultants who will undertake various project activities.</i> - <i>Collaborate closely with the international consultants in accomplishing specific project tasks and implementing the work-plan.</i> - <i>Ensure timely provision of local inputs to the project, including office and administrative facilities, equipment, staffing, training and other operational funds, relevant data/ information, etc.</i> - <i>Make all necessary local arrangements and provide logistics for various project activities according to the agreed upon work-plan and time schedule (including travel for project staff and consultants);</i> - <i>In consultation with the FAO/OIE/WHO Programme Coordinator, review on a regular basis the timeliness, quantity and quality of inputs to be provided by FAO/OIE/WHO, MoA., MH and MEnv</i> - <i>Prepare semi-annual progress reports on achievements made by the project.</i> - <i>Assist in the preparation of the project draft Terminal Report</i> - <i>Perform any other duty related to the project as required by FAO/OIE/WHO and relevant Officers.</i>
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<p>ACTIVITY 1.1.1.8.:</p> <p>Carry out a cost-benefit analysis of:</p> <ul style="list-style-type: none"> - the economic impact of the AMR - the introduction of the rapid diagnosis tests for the treatment of tonsillitis in a pilot area - the national policy for vaccination against pneumococcus and rotavirus <p>in light of the AMR plan</p>	<p><i>Conduct an International Consultation (Economist cost analysis and cost effectiveness specialist) within 40 days to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Accomplish a cost-benefit analysis and a cost-efficiency analysis for the NAP implementation, compared with the economic impact of the AMR; the result of this analysis will serve as an argument for the advocacy plan (activity 1.1.1.1)</i> - <i>Organize a three-day training workshop on cost-benefit analysis and a cost-efficiency analysis for all key stakeholders involved in the NAP implementation</i> - <i>conduct a cost-benefit study of the introduction of the rapid diagnostic tests for the treatment of tonsillitis in a pilot region (the engagement of a consultation will be complemented by purchasing the tests for the pilot region)</i> - <i>conduct a cost-benefit study of vaccination against pneumococcus and rotavirus</i> 			
<p>OUTPUT 1.3.1.</p>	<p>Systems for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened</p>			
<p>Indicator - max 1</p>	<p>Baseline</p>	<p>Target</p>	<p>Means of Verification</p>	<p>Assumptions</p>
<p><i>national AMR and AM use surveillance networks designed and established</i></p>	<p><i>No: fragmented surveillance system</i></p>	<p><i>Yes: integrated surveillance system</i></p>	<p><i>Databases, evidence of data sharing such as regular briefs</i></p>	
<p><i>Data on AMR and AM use and consumption is regularly collected and shared</i></p>	<p><i>No</i></p>	<p><i>Yes: 4 joint reports</i></p>	<p><i>Joint reports on AMR and AMU</i></p>	
<p>ACTIVITIES for achieving output 1.3.1.</p>				
<p>Title</p>	<p>Description</p>			

<p>ACTIVITY 1.3.1.1.:</p> <p>Support the design and the implementation of a national integrated surveillance network and information system for monitoring and generating data on AMR and antimicrobial use</p>	<p><i>Conduct an international Consultation within one month to undertake the following tasks:</i></p> <ul style="list-style-type: none"> - <i>Analyze the AMR existing surveillance systems of each sector, review the data quality, identify the gaps and the alternatives</i> - <i>Enhance the design of the national surveillance system for AMR in human health</i> - <i>Enhance the design of the current national surveillance system for AMR in animal and plant health</i> - <i>Design a national surveillance system for AMR in environmental health</i> - <i>Design a national surveillance system to monitor the antimicrobials use</i> - <i>Design an information system and develop a national data exchange platform to share timely the relevant information <i>between different sectors</i></i> <p>Once these elements are in place:</p> <ul style="list-style-type: none"> - <i>Organize a three-day training workshop for 30 participants on implementation of the integrated surveillance</i> - <i>Implement the national surveillance system for AMR and AMU</i> - <i>Implement a step wise approach for sentinel hospitals to report human AMR data to the MOH on regular basis, and subsequent reporting to GLASS.</i> - <i>Generate semi-annual joint reports on AMR and AMU</i> - <i>Ensure data sharing through WHONET and regular reporting to the GLASS.</i> 			
<p>ACTIVITY 1.3.1.2.:</p> <p>Support the implementation of the integrated surveillance (e.g. the Tricycle ESBL E. coli):</p>	<ul style="list-style-type: none"> - <i>Acquire the reagents and reference chemicals needed by the laboratories involved in the national surveillance system for AMR.</i> 			
<p>OUTPUT 2.1.1.</p>	<p>Systems for biosecurity and IPC strengthened in targeted countries</p>			
<p>Indicator - max 1</p>	<p>Baseline</p>	<p>Target</p>	<p>Means of Verification</p>	<p>Assumptions</p>
<p>Proportion of farms implementing Biosecurity measures</p>	<p><i>Baseline determined at the beginning of the project</i></p>	<p><i>Increased by 10 p cent</i></p>	<p><i>Report of the MCG</i></p>	

Update of the national strategy for the prevention of healthcare-associated infections	<i>Lack of national strategy</i>	<i>New national strategy for healthcare-associated infections</i>	<i>NSP document</i>	
ACTIVITIES for achieving output 2.1.1.				
Title	Description			
ACTIVITY 2.1.1.1.: Provide support to carry out a national prevalence survey on healthcare associated infections (HAIs).	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Develop the research protocol - Elaborate surveys and questionnaires on healthcare associated infections (HAIs) - Organize a one-day joint workshop for the validation of the research protocol and survey results - Support and monitor the implementation of the survey - Create and feed the survey database - Collect and analyze data and statistical information about national prevalence of HAIs - Make technical and organizational recommendations to fight HAIs 			
ACTIVITY 2.1.1.2.: Update the national strategy for the prevention and control of healthcare-associated infections	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Undertake a policy and strategic analysis of HAI, based on the national prevalence survey (activity 2.1.1.1) - Identify the challenges and priorities, particularly in the areas of IPC, biosafety and biosecurity - Establish the desired impact and elaborate a coherent policy response to HAIs. - Organize a three -day consensus workshop for 50 participants on the development of the national strategy for the prevention and control of healthcare-associated infections 			

<p>ACTIVITY 2.1.1.3.:</p> <p>Strengthening capacities of professional organizations, in animal and plant health, in the development and implementation of norms, standards and Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP).</p>	<p>Conduct three international consultations respectively for aquaculture, aviculture, and dairy production sectors. Each consultation will last 30 days to undertake the following task:</p> <ul style="list-style-type: none"> - Elaborate Good Practices guidelines on Biosecurity and Infection Control and Prevention (ICP) for aquaculture, aviculture, and dairy production sectors <p>Conduct a national consultation within one month to undertake the following task:</p> <ul style="list-style-type: none"> - Elaborate standards and guidelines for the Integrated Pest Management (IPM) for the promotion of agricultural production and the mitigation of risks related to pesticide usage for agricultural use
<p>ACTIVITY 2.1.1.4.:</p> <p>Develop the capacities of farmers and professional organizations in critical sectors (poultry, aquaculture, dairy) on biosecurity.</p>	<p>The same consultants of activity 2.1.1.3. will undertake the following task:</p> <ul style="list-style-type: none"> - Organize 3 three-days training of trainers' workshops respectively on aquaculture, aviculture, and dairy production sectors' biosecurity. for professional organizations (veterinarians and actors of the value chain) - Organize 12 regional training sessions respectively on biosecurity aquaculture (2 sessions), aviculture (6 sessions), and dairy production (4 sessions) sectors' biosecurity for professional organizations (veterinarians and actors in the value chain)
<p>ACTIVITY 2.1.1.5.:</p> <p>Support to evaluate and update the legal framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry...).</p>	<p>Conduct an international Consultation within one month to undertake the following tasks:</p> <ul style="list-style-type: none"> - Compile the legal and normative provisions governing the management of antimicrobial residues in the environment - Identify the gaps of the legal and normative framework and assess the compliance level - propose the necessary amendments to the legal and normative framework for the management of antimicrobial residues in the environment (waste, wastewater and pharmaceutical industry...) - Organize a three-day training workshop on the management of antimicrobial residues in the environment for all key environmental stakeholders - Organize a one-day joint workshop for validation of legal framework study results

<p>ACTIVITY 2.1.1.6.:</p> <p>Strengthen capacities of veterinarians and ONSSA inspectors on farm inspection (livestock data register, management of primary products, management of outbreaks and phytosanitary crises ...) and risk-based inspection of manufacturing units for medicines, animal feed and plant protection products.</p>	<ul style="list-style-type: none"> - Organize a three-day training workshop for veterinarians of ONSSA and private veterinarians (2 participants per region and 6 participants from central ONSSA) on the inspection of farms (maintaining a livestock data register, management of outbreaks and promoting laboratory diagnosis...) and the risk-based inspection of drug and animal feed manufacturing units - Organize a three-day training workshop for inspectors engineers of ONSSA (2 participants per region and 6 participants from central ONSSA) on farm inspection (management of primary products of plant origin, management of outbreaks and phytosanitary crises, promoting laboratory diagnosis...) and risk-based inspection of plant protection products - Conduct an international Consultation within 7 days to organize a three-day training workshop for 30 participants on the risk analysis of antimicrobial resistance for the benefit of veterinarian instructors (responsible for marketing authorization)
<p>ACTIVITY 2.1.1.7.:</p> <p>Support the development and implementation of Integrated Pest Management (IPM) programme of crops.</p>	<p>The same consultant of the activity 2.1.1.3. will undertake the following task:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop for 30 participants (2 participants per region and 6 participants from central ONSSA) on the Integrated Pest Management (IPM) for the promotion of agricultural production and the mitigation of risks related to pesticide for agricultural use
<p>ACTIVITY 2.1.1.8.:</p> <p>Support to include AMR assessment and management programme in the process of Antimicrobial Pesticide Registration.</p>	<p>engage an international Consultant on AMR within 7 days to undertake the following task:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop for 30 participants on AMR assessment and management program for. responsible registration of phytosanitary products
<p>ACTIVITY 2.1.1.9.:</p> <p>Organize a training session for the Ministry of Environment actors on the management of antimicrobial residues in the wastewater and solid waste.</p>	<p>The same consultant of the activity 1.1.1.4. will undertake the following tasks:</p> <ul style="list-style-type: none"> - Organize a three-day training workshop on the management of antimicrobial residues in the wastewater and solid waste for representatives of Ministry of Environment
<p>OUTPUT 2.2.1.</p>	<p>Improved capacity to design awareness raising, behavior change and educational activities</p>

Indicator - max 1	Baseline	Target	Means of Verification	Assumptions
Number of beneficiaries from awareness program	0	2 million	Awareness program reports	
ACTIVITIES for achieving output 2.2.1.				
Title	Description			
ACTIVITY 2.2.1.1.: Carry out a study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices	Conduct an International Consultation within one month to Carry out a study to survey the knowledge, attitudes and practices (KAP) regarding antimicrobial use and prevention of AMR in medical and veterinary practices			
ACTIVITY 2.2.1.2.: Support to disseminate and implement the national standards and guidelines for a responsible and appropriate use of antimicrobials in the 12 regions of Morocco	<p>Conduct a national Consultation within one month to undertake the following task:</p> <ul style="list-style-type: none"> - Elaborate standards and guidelines on the responsible and the appropriate use of antimicrobials in aquaculture, aviculture and dairy production sectors - Organize a two-day TOT training workshop for veterinarians (private vets, public, academicians....) on the responsible and the appropriate use of antimicrobials in aquaculture, aviculture, and ruminant production sectors - Support to organize 12 two-day regional training workshops for veterinarians (private vets, public....) on the responsible and the appropriate use of antimicrobials in aquaculture (2 sessions), aviculture (6 sessions), and ruminant production (4 sessions) sectors 			
ACTIVITY 2.2.1.3.: Provide support to campaigns and awareness activities to improve and promote relevant sanitation, hygiene and infection control measures in the educational environment, social protection facilities, public gathering places, and for the animals	<p>contract with a communication agency to undertake the following tasks:</p> <ul style="list-style-type: none"> - Edition of communication tools, delivering messages and public display. (exp. rent of billboard., tv, radios) - Designing and implementing appropriate messages in form of capsules, videos and flyers for the 3 sectors <p>This activity takes into account the Joint communication Plan and the TORs and specifications prepared during the consultation activity 1.1.1.6</p>			

<p>ACTIVITY 2.2.1.4.:</p> <p>Support the annual celebration of the World Antibiotic Awareness Week</p>	<p>Organize the World Antibiotic Awareness Week each year with realizing a session with decision makers</p>
<p>ACTIVITY 2.2.1.5.:</p> <p>Provide support to Partnerships at a national and international level through a communication event around the NAP launch and implementation</p>	<p>Organize communication events to exchange the success stories with other countries</p>
<p>ACTIVITY 2.2.1.6.:</p> <p>Organize awareness events for professionals in critical food sectors on cross-contamination, respect of the cold chain, hygiene: slaughterhouses of poultry meat and red meat, aquaculture products and dairy product</p>	<ul style="list-style-type: none"> - Organize 4 awareness campaign for 100 professionals of each sector (except aquaculture only 30 participants) in critical food of avian and red meat, dairy product, fishery on cross-contamination, respect of the cold chain, hygiene
<p>ACTIVITY 2.2.1.7.:</p> <p>Organize awareness events for farmers (Poultry, aquaculture, dairy sector) and key actors of the environment and plant protection sectors</p>	<ul style="list-style-type: none"> - Organize 5 information campaign for farmers of critical food sectors (aviculture, aquaculture and dairy production) and actors of plant protection and environment

Annex 2 - Risk Matrix Template

Risk description	Risk Category: Contextual Programmatic Institutional	Worst case consequence for the project	Risk Score		Mitigating action	Action owner
			Impact	Likelihood		
Lack of engagement from all relevant sectors: AMR is a cross cutting issue, which requires ownership and active participation several key stakeholders. Lack of awareness of the issue and its impact has been identified as an important impediment to engagement.	Institutional		Low	N/A	In-kind contribution (facilities, resources and services) are committed to ensure timely and effective implementation of relevant project activities	.
Impact of Covid 19 outbreak	Programmatic		Low	N/A	In-kind contribution (facilities, resources and services) are committed to ensure timely and effective implementation of relevant project activities	
Budget Reduction of the government	Contextual		Low	N/A	In-kind contribution (facilities, resources and services) are committed to ensure timely and effective implementation of relevant project activities	

Annex 3 - Outline of Budget

A distinctive breakdown of the budget by Agency will be adopted. For each activity, the relevant lead UN Agency will deliver the total budget spending necessary for the implementation, regardless of the number of Agencies involved in that activity and the nature of their support. This arrangement is allowed by the good coordination between the Tripartite and the national stakeholders and will ensure an economy of scale and streamline available human and financial resources)

Categories	FAO	OIE	WHO	TOTAL
1. Staff and other personnel costs ⁴	117273	40000	87000	244273
2. Supplies, Commodities, Materials ⁵	-	7000	70000	77000
3. Equipment, Vehicles and Furniture including Depreciation ⁶	-	-	-	-
4. Contractual Services ⁷	208380	58500	140000	406880
5. Travel ⁸	53440	26000	10000	89440
6. Transfers and Grants Counterparts ⁹	-	-	-	-
7. General Operating and Other Direct Costs ¹⁰	37432	60000	17000	114432
Total Direct Costs	416525	191500	324000	932025
8. Indirect support costs (Max. 7% of overall budget) ¹¹	29157	13405	22680	65242

⁴ Staff and other personnel costs: Includes all related staff and temporary staff costs including base salary, post adjustment and all staff entitlements. This includes the costs of a full-time project coordinator, based either in one of the organisations or the National coordination committee.

⁵ Supplies, Commodities, Materials: Includes all direct and indirect costs (e.g. freight, transport, delivery, distribution) associated with procurement of supplies, commodities and materials. Office supplies should be reported as "General Operating".

⁶ Equipment, Vehicles and Furniture including Depreciation: The procurement of durable equipment is not eligible for the AMR MPTF and this budget line should therefore not be used.

⁷ Contractual Services: Services contracted by an organization which follow the normal procurement processes. It used for procurement of services requiring provision of intellectual or specialization services not foreseen under works and construction contracts such as, but not limited to, maintenance, licensing, studies, technical, training, advisory services. These are ruled by FAO policy MS 502 or MS 507 ruling LoA.

⁸ Travel: Includes staff and non-staff travel paid for by the organization directly related to a project.

⁹ Transfers and Grants to Counterparts: Includes transfers to national counterparts and any other transfers given to an implementing partner (e.g. NGO) which is not similar to a commercial service contract as per above. Please reference FAO policy MS 502.

¹⁰ General Operating and Other Direct Costs: Includes all general operating costs for running an office. Examples include telecommunication, rents, finance charges and other costs which cannot be mapped to other expense categories. In addition, desk work from Headquarters (including from the project lead technical officer) should also be factored in these categories.

¹¹ Indirect Support Costs: (No definition provided).

TOTAL	445682	204905	346680	997267
Please indicate which organisation will receive pre-financing facility ¹²	-	-	-	-

¹² Max 25,000 USD fund can be used as pre-financing. More detailed information can be found in the guiding notes

Annex 4 - National Work Plan Template

Name of

Country Morocco

Start Date 01 -01-2021 Projected End Date 31-12 2022

	Lead Tripartite Org	Implementing Partner	YEAR 1												YEAR2												
			M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12	M 1	M 2	M 3	M 4	M 5	M 6	M 7	M 8	M 9	M 10	M 11	M 12	
Output 1.1.1.: Improved countries capacities for designing and implementing AMR related policy frameworks, investment plans and programmes																											
Activity 1.1.1.1	WHO	MoH MoA MoE																									
Activity 1.1.1.2.	FAO	MoH MoA MoE																									
Activity 1.1.1.3.	FAO	MoH MoA MoE																									
Activity 1.1.1.4.	OIE	MoH MoA																									
Activity 1.1.1.5.	FAO	MoH MoA																									
Activity 1.1.1.6.	FAO	MoH MoA MoE																									
Activity 1.1.1.7.	WHO	MoH MoA MoE																									
Activity 1.1.1.8.	WHO	MoH MoA MoE																									
OUTPUT 1.3.1.: Systems for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened																											
Activity 1.3.1.1.	OIE	MoH MoA MoE																									
Activity 1.3.1.2.	WHO	MoH MoA																									

