Country profiles MOROCCO

Table 1: Overview

Project description

Project: ANTI-MICROBIAL RESISTANCE MULTI-PARTNER TRUST FUND (AMR-MPTF)

Enhancing governance and coordination mechanisms to reduce Antimicrobial Resistance in Morocco(ID:00124432)

- Duration: 28 months

Organizations that have received direct funding from the MPTF Office under this programme:

- World Health Organization
- Food and Agriculture Organization of the UN
- World Animal Health Organization

Implementing Partners:

- Ministry of Health and Social Protection,
- Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests and especially the National Office of Sanitary Food Security (ONSSA)
- Ministry of Energetic Transition and Sustainable Development, especially the Department of Sustainable Development (Environment)

The project aims at catalyzing the attainment of the 4 Strategic Objectives (SO) of the AMR National Strategic Plan. It is sets out to achieve the following outcomes:

- Risks and benefits of AMR reflected in national budgets and in development/multi-lateral partner sector wide investments.
- Evidence base/representative data on AMR/AMU improved for policy makers and sectors implementing AMU practices.
- Use of antimicrobials optimized in critical sectors.
- Improved understanding of AMR risks and response options by targeted groups.

Project progress: Highlights of project so far (This is like the Executive Summary and has most narrative)

Like many countries, Morocco is facing the complex issue, risks and threats to global health security of Antimicrobial Resistance (AMR), compromising global community's progress towards achievement of the Sustainable Development Goals (SDGs). Driven by strong international mobilization associated with the need for a national surveillance system as well as understanding of key factors leading to growing AMR, Morocco formulated in 2019,a National Strategic Plan (NSP) for the Prevention and Control of AMR, according to the "One Health" approach. Realizing the potential benefit of MPTF, launched in 2019, to boost the NSP implementation, the Ministry of Health and the Ministry of Agriculture, Marine Fisheries, Rural Development and Water and Forests, through ONSSA successfully submitted a project proposal which was granted by MPTF. The Department of Environment has been brought into this initiative.

During the preparation phase of the AMR/MPTF project, the initial involved national and international stakeholders succeeded in gaining the adherence of the Department of Sustainable Development to the MPTF project and its commitment to engage in combating and preventing AMR, adopting the “One Health” approach.

Scheduled to start on January 1st, 2021, the MPTF project was officially launched in March, 18 Mars 2021 during a workshop in which the project national and international stakeholders appointed their project focal points, validated the project’s activities plan, established a technical coordination committee which agreed to meet monthly in order to monitor the implementation of the project and make the necessary adjustments. The monthly meetings of the technical coordination committee fostered trust building and established good personal relationship between stakeholder’s focal points, boosting intersectoral collaboration and coordination.

To ensure the self-assessment of the level of implementation of the NSP at the start of MPTF project, and the Strengthen of management capacities for monitoring NSP activities, a PMP-AMR workshop, based on a tool developed by FAO, was organized on June 2021. Designed for the food and agriculture sector, the PMP tool was an opportunity to bring together stakeholders from public (including Human Health and Environment sectors) and private organizations concerned with AMR and to foster the project’s adopted “One Health” approach in preventing and combating AMR. At the end of the MPTF project, a second PMP/AMR workshop was organized on October 2023 to monitor progress made and to assess the contribution of MPTF project in achieving the objectives of the PSN. According to this self-assessment exercise, the support provided by the MPTF project was judged as significant enabling for outstanding outcomes.

The MPTF project spurred the establishment of a technical committee which set up an AMR surveillance system within the MSPS and succeeded in mapping AMR stakeholders at the national level. Consequently, Morocco was able to collect AMR data, honored its engagement toward WHO and communicated, for the first time, the 2021 annual AMR surveillance report to GLASS.

Within the framework of the MPTF project, several national and international intersectoral consultations and activities led to the:

Integrated review of existing legal frameworks for human and veterinary and environmental systems relevant to AMR, using, for the first time, a tool developed by the quadripartite. This review served as pilot study, enabled the successful use of the tool for the benefit of other countries and formulated recommendations to improve the existing national legislations and regulations.

Proposition of a robust and effective multisectoral governance mechanism to drive and support AMR policy and programs, including monitoring and evaluation of the NSP.

Design of an integrated national surveillance network and information system to monitor and generate data on AMR and antimicrobial use by concerned departments.

Development of a joint communication plan and tools (sectoral and joint) to raise awareness

of the importance of AMR and means of infection prevention and control.

Analysis of the national quality management system specific to AMR at the level of the various institutions of public health and veterinary establishments.

Although the MPTF project has allowed for the establishment of an effective intersectoral coordination, the formal creation of an AMR/ MCG is pending until the completion of the above-mentioned linked activities, some of which were carried out at late phases of the MPTF project. As Moroccan competent authorities are presently engaged in updating and designing the 2nd AMR/NSP, the recommendation of these activities will serve as cornerstones for the ongoing development of sustainable multi-lateral partner sector wide policy and investments for surveillance, prevention and control of AMR.
The assessment and analysis of laboratory capabilities in AMR surveillance was achieved for veterinary and environmental laboratories using the ATLASS tool developed by FAO. The assessment of capabilities in AMR surveillance for human laboratories was not achieved because of the delay in their selection and self-assessment process.

In addition, the MPTF project strengthened the capacities of ONSSA veterinarians and inspectors in the inspection of agricultural holdings and the risk-based inspection of drug, animal feed and phytosanitary product manufacturing units, improved capacity building for biosecurity and infection prevention control within the avian and dairy intensive production sectors. These sectors were targeted through their professional federations and training of trainers (private and public veterinarians) to reach a maximum of professionals and to enhance the capacity of all stakeholders involved in these industries to mitigate the risks of bacterial infections; avoiding the use of ATM. Specific biosecurity illustrated guides were produced and largely distributed among professionals. Although scheduled as sectoral activities within the MPTF projects, capacity building for biosecurity and IPC within the aquaculture sector was not conducted, being implemented within another project piloted by ANDA. Because of the withdrawal of the consultant recruited to implement the study on HAI, this activity was partially achieved through the design of a questionnaire and the designation of health structures to be targeted. The MSPS is engaged in completing the study in 2024.

Furthermore, the MPTF project allowed for substantial increase in awareness raising, behavior change and promotion of good practices and use of ATM among key stakeholders and the public. This was achieved through:

- The development of a joint communication plan and relevant tools (sectoral and joint) to raise awareness of the importance of AMR, and IPC;
- The assessment of the knowledge, attitudes and practices (KAP) regarding AMU and prevention of AMR in medical and veterinary practices, through a large-scale survey.
- The strengthening of capacities of professional organizations for IPC and biosecurity in dairy and poultry as well as for critical food sectors on cross-contamination, hygiene…
- The deployment of awareness, communication campaigns and scientific events using several tools targeting professionals and general publicto raise the public health issue of AMR and ways to prevent and control it as a shared responsibility.

- The regular celebration of WAAW through the edition of communication tools, dissemination of messages and their public display. (eg. rent of billboard, TV, radios spots), design and implementation of appropriate messages in the form of capsules, videos, and flyers for the 3 sectors (Human health, Agriculture, Environment) and the organization of professional webinars and national conferences on AMR with the participation of stakeholders, scientists, senior officials, academia and scientific associations from the human, animal and environment health sectors.
- The development and deployment of an online integrated course on AMR for the benefit of veterinary students and veterinary practitioners.
- The implementation of a cost-benefit study analysis for the introduction of rapid tonsillitis tests as a way to overcome the use of antibiotics in viral tonsillitis.

The strengthening of capacities on management of AMR in solid and liquid waste for the benefit of public medical, veterinary and environment staff and edition of a Policy Brief entitled:" Strengthen capacity and actions on environment within antimicrobial resistance National Action Plans: Development systems for collection and management of unused antimicrobials in Morocco".

The above-mentioned efforts carried out since the start of the project consolidated the partnership and engagement of key stakeholders and constituted a solid appeal which led to the signature of a partnership agreement between the MAPMDREF and ONSSA, FISA, FIVIAR, MAROC LAIT, FIMAP, ANPV, IAV Hassan II and ONV to promote control and to reduce AMR in the livestock sector.

In conclusion, the MPTF project allowed for the achieving of assigned objectives and allowed the strengthening of Morocco's capacities for a lasting intersectoral commitment to prevent and control AMR.

Main challenges

Throughout the implementation of the MPTF project, several challenges were encountered. These include:

- Pandemic and increasing cases of COVID-19 resulting in many restrictions (i.e. international travel, limited opportunities to engage international consultants …), shift of government priorities (particularly Ministry of Health, Ministry of Agriculture…), and delay at the start and on the course of project implementation.

This challenge was overcome by efficient coordination, quadripartite support, and regular update of activities planning, keeping project focus at momentum and ensuring the continuous commitment of stakeholders;

- Deficiency of relevant national and international norms/good practices for AMR in the environment associated with initial levels of knowledge and capacity on AMR among the professionals of the Environment department.

This challenge was overcome by the synergy established between stakeholders as well as the support and advocacy provided by international organizations.

- The complexity of initial ToR related to the technical assistance for joint assessment and analysis of antimicrobial resistance surveillance systems in human, animal and plant health, resulting in an unsuccessful call for expressions of interest and delay in implementing this important structural activity.

This challenge was overcome by the split of ToR in 2 lots. The 1st lot was devoted to human and animal health and the 2nd lot was devoted to environmental and plant health. This resulted in successful recruitment of specialized consultants and the implementation of the consultation.

- Withdrawal of recruited consultants (i.e. Healthcare-associated infections and evaluation and updating of NSP) at critical time during the project, resulting in their cancellation because of time constraints.
- The cancelation of a training-Monitoring-Evaluation mission supervised by a recruited international consultant due to conflicting agenda and uncertainty of a religious Islamic holiday.
- Difficulties in engaging some activities of the project such as: 1) Updating the national strategy for the prevention and control of nosocomial infections and related survey, 2) joint assessment and analysis of human, veterinary and environmental laboratories capacities, due to unforeseen constraints.

Learning Innovation

The commitment of the technical committee which met monthly throughout the duration of the project was crucial for the effective mobilization of the “One Health” approach for all departments concerned. The Ministries in charge of Health and Agriculture were joined by the Department of the Environment. These regular meetings as well as various meetings organized as part of the project have brought dynamism to coordination and collaboration between the departments concerned and have created spaces for virtuous exchange and sharing, which constitute the fundamentals of lasting national coordination.

The MPTF project "Supporting the implementation of the AMR PAN through a "One Health" approach in Morocco" made it possible to inject real dynamism into the country's governance capacities in the context of the fight against AMR and increase awareness among key stakeholders and the public to change behaviors. It also made it possible to strengthen surveillance and information systems and support biosecurity and infection prevention and control systems.

Table 2: Review of progress against log frame

2.a Log frame outcomes

MPTF Outcome	Indicators	Assumptions – any revisions? Put here
Increased comprehensiveness and quality of the policy dialogue and practice	Number of countries whose AMR Multisectoral Coordination mechanisms engage with a broad range of relevant partners	
Use of antimicrobials optimized in critical sectors	Number of countries that implemented one or more (additional) international instruments on AM	

2.b Log frame outputs and associated indicators

% progress against indicator: Based ontime, budget and activities underway/completed
Categories: 0% 1-25%; 25-50%; 50-75%; 75%-99% 100% **Choose best option**

MPTF Output	Indicators	Progress description (activities started/completed)	Indicator % met	Assumptions – any revisions? Put here
A. Improved countries capacities for designing and implementing AMR related policy frameworks, investments plans and programmes	A.1 A Joint Expert Technical Advisory Committee on Antimicrobial Resistance established	✓ An AMR Technical Surveillance committee was established within the MoH ✓ An internal working group on AMR was established within ONSSA ✓ A Functional Joint Expert Technical Advisory Committee on AMR was established within the Morocco NSP	75%	Formalization of the creation of the committee is pending taking into account recommendations of relevant consultations

	A.2 The regulatory framework has been reviewed in line with the related international guidance on responsible and prudent use of antimicrobial agents	Achieved and recommendations proposed	99%	Need to harmonize laws and regulations across relevant departments. Integrated AMR-related items need to be joined
B. Systems for generating, analyzing and interpreting data on resistance and consumption/use patterns developed or strengthened	B.1 *national AMR and AM use surveillance networks designed and established*	National AMR and AM use surveillance network in animal health established National AMR surveillance network in human health established	65%	National AMR surveillance network in the Environment needs to be established AM use in human health is to be developed
	B.2 *Data on AMR and AM use and consumption is regularly collected and shared*	-Data on AM use and consumption in the veterinary sector regularly collected since 2015; -Data on AMR in the human health sector collected;	55%	Network to be expanded in human health Data to be shared regularly with the GLASS system ESBL-*E.coli* tricycle data are to be shared
C. Systems for biosecurity and IPC strengthened	C.1 Proportion of farms implementing Biosecurity measures	Achieved for poultry and dairy sectors	100%	
	C.2 Update of the National strategy for the prevention of healthcare-associated infections	Protocol of a survey on HAI, as a prerequisite for updating the national strategy for the prevention of HAI, achieved	25%	New strategy to be designed on the basis of the results of the national

				survey to be conducted in 2024
D. Improved capacity to design awareness raising, behavior change and educational activities	C.1 Communications strategies developed	Achieved	100%	
	C.2 IEC materials developed and used for nationwide AMR campaigns	Achieved - Several communication supports (press release, circular, roll up, etc.) have been developed . -Good media coverage on AMR at the national level was achieved -Celebration of the World Antimicrobial Awareness Week -Organization of 11 awareness campaigns targeting specific groups or general public. -Additional support provided by the quadripartite through virtual online awareness events - The NGO :One Health Morocco; is engaged in implementing an awareness and concerted communication plan aimed initially at public, human health professionals and animal health professionals.	85%	

Risk matrix – any changes?Review and update

Risk description	Risk Category: Contextual Programmatic Institutional	Worst case consequence for the project	Risk Score		Mitigating action	Action owner
			Impact	Likelihood		
COVID-19 situation	Contextual	Delay in start of the project activities on the ground	High	High	Convert some activities to virtual such as launching, national consultations etc.	Tripartite
Inadequate coordination amongst the key stakeholders	Institutional	Delay in implementation of activities	High	Medium	Early consultation with key focal points and continued engagement	Tripartite
Political instability and changes in focal points	Institutional	Changes in the activities and priorities	Medium	Low	Involve all relevant stakeholders including policy technical and operational staff working on AMR/AMU to maintain continuity	Tripartite
Delay in fund release	Programmatic	Delayed implementation of the project activities	Medium	Low	Continuous follow up and identification of focal points at HQ/Regional/National tripartite offices.	Tripartite