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Combating Antimicrobial Resistance through a Territorial One Health Approach:

The THIELLAL Project, Senegal

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INTRODUCTION

Antimicrobial resistance (AMR) is a major global public-health threat. In Vélingara department, Senegal, diagnostics revealed widespread self-medication (55%), excessive anti-infective prescriptions (70% of consultations, notably amoxicillin), heavy antibiotic use in animal health (70% of veterinary medicines), improper pesticide handling, and low awareness of AMR as a health risk. THIELLAL («One Health» in Pulaar) tested whether a participatory territorial One Health approach integrating human health, animal health, and environment could reduce antibiotic and pesticide misuse, limiting AMR emergence while promoting agroecological transition.

METHODS

Intervention across 4 communes of Vélingara (Linkéring, Paroumba, Pakour, Wassadou), 2021-2024, in 15 villages. The AVSF-SOLTHIS-CASADES consortium (AFD-funded) applied a multi-phase methodology; evaluation drew on 17 focus groups and individual interviews. Phases:

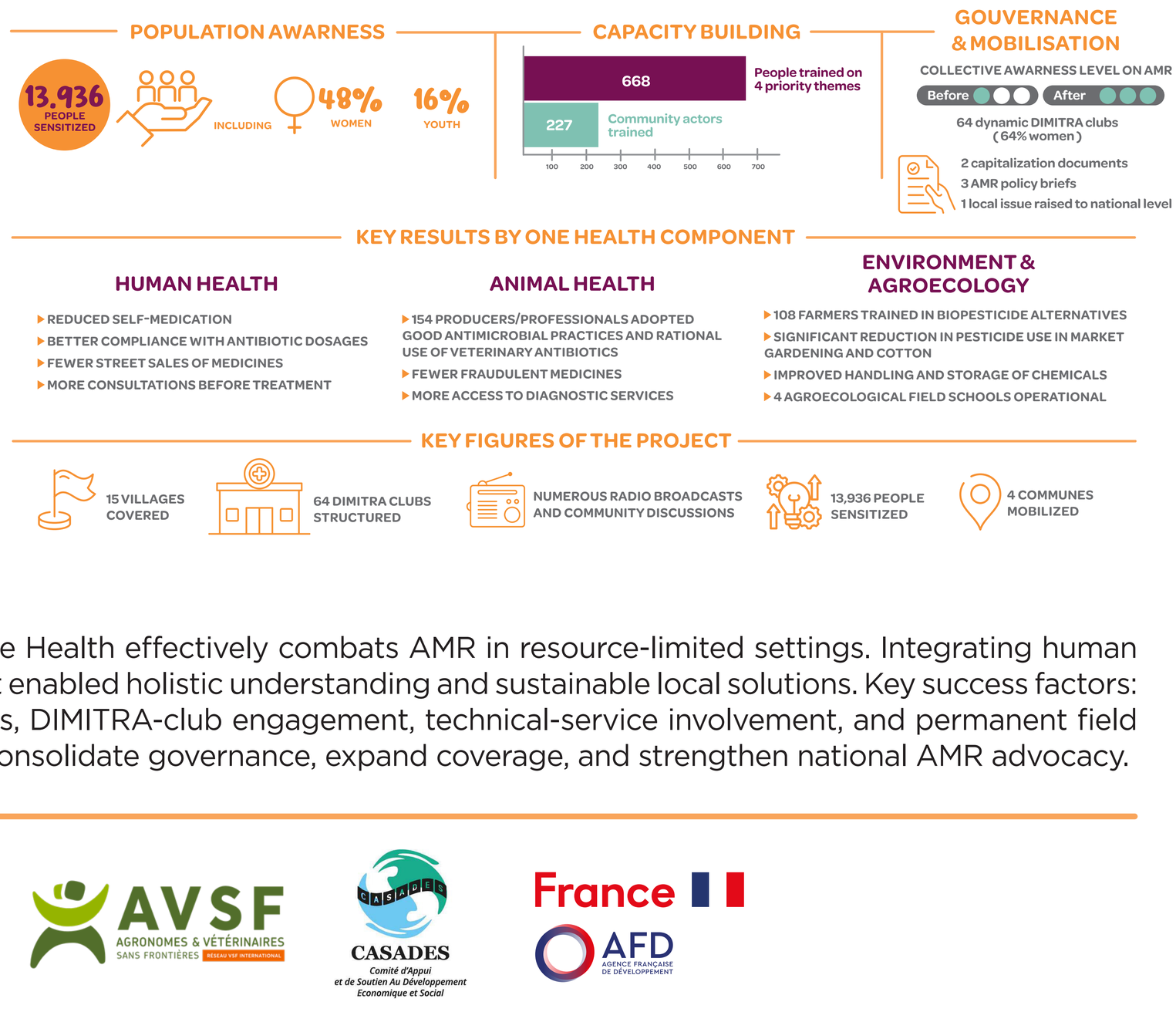
- diagnostic 12 participatory studies on medicine circuits, prescription practices, and AMR perception;
- structuring 64 DIMITRA clubs, 4 communal consultation frameworks, revitalized departmental multi-sectoral instance;
- capacity building training on One Health, AMR, and rational medicine use (277 community actors; 668 people across 4 priority themes);
- awareness pedagogical AMR scenario, community discussions, home visits (13,936 people sensitized), radio broadcasts;
- agroecology for Agroecological Field Schools promoting pesticide alternatives.

A TERRITORIAL, PARTICIPATORY ONE HEALTH APPROACH THAT REDUCES ANTIMICROBIAL RESISTANCE AND PROMOTES SUSTAINABLE SOLUTIONS IN LOCAL COMMUNITIES.

RESULTS

Key outcomes:

- Awareness reached 13,936 people (48% women, 16% youth).
- Human health: reduced self-medication, better antibiotic dosage compliance, fewer street-medicine sales, more consultations before treatment.
- Animal health: 154 producers/professionals adopted good antimicrobial practices and rational veterinary antibiotic use; fewer fraudulent medicines; more diagnostic services.
- Agroecology: 108 trained farmers adopted biopesticide alternatives; notable pesticide reduction in market gardening and cotton; improved chemical handling and storage.
- Governance: collective AMR awareness rose from level 1 to 3; 64 dynamic DIMITRA clubs (64% women); 2 capitalization documents and 3 AMR policy briefs produced; one local issue elevated to national level.



CONCLUSIONS

THIELLAL shows that territorial, participatory One Health effectively combats AMR in resource-limited settings. Integrating human health, animal health, agriculture, and environment enabled holistic understanding and sustainable local solutions. Key success factors: contextual pedagogical scenarios, local languages, DIMITRA-club engagement, technical-service involvement, and permanent field facilitation. A second phase is recommended to consolidate governance, expand coverage, and strengthen national AMR advocacy.

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