

D'a Désertif' Actions

2026



6^{eme} édition

Summary report of the preparatory workshops



Nations Unies
Convention sur la lutte
contre la désertification



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I. General introduction

1.1 Background and general context

Recurring and increasingly severe droughts are now one of the main factors contributing to the vulnerability of regions, particularly in arid, semi-arid and dry sub-humid areas. Long considered a one-off climatic hazard, they are now tending to become a structural, long-term and multifaceted constraint, simultaneously affecting agricultural and pastoral systems, the availability and management of water resources, ecological balances, and the social and economic dynamics of regions.

As a result of climate change, droughts are becoming more frequent, intense and prolonged, gradually reducing the resilience of productive systems and testing existing governance models. Beyond short-term production losses, drought acts as a catalyst and accelerator of structural vulnerabilities: land and soil degradation, overexploitation of water resources, excessive specialisation of agricultural systems, the increasing precariousness of family farms, and heightened pressures on natural resources.

Tensions surrounding access to natural resources – particularly water and land – are intensifying, conflicts over resource use are multiplying, and social vulnerabilities are worsening, particularly for rural and pastoral populations. In the face of these dynamics, responses based on isolated technical adjustments or emergency measures are proving increasingly inadequate to ensure the resilience of territories in the medium and long term.

In this context, the issue of territorial resilience to droughts has emerged as a central challenge for sustainable development and anti-desertification policies. It relates to the capacity of territories to anticipate, absorb and adapt to climate shocks, whilst maintaining their ecological, economic and social functions. Reducing the vulnerability of agricultural and food systems thus appears to be a key lever for limiting the impacts of droughts on food security, livelihoods and social cohesion.

It is within this context that the Désertif'Actions 2026 initiative is situated, an international civil society summit organised in close collaboration with the United Nations Convention to Combat Desertification (UNCCD). The sixth edition of Désertif'Actions aims to contribute to the international debate in the run-up to UNCCD COP17, by making a case based on realities on the ground, local experiences and scientific knowledge. The central question underpinning the entire initiative is: **how can we reduce the vulnerability of regions to droughts?**

To address this, four themes have been selected as the key areas for reflection and advocacy: (i) **the transformation of sedentary agricultural and/or livestock systems in the face of droughts;** (ii) **support for mobile production systems, with a particular focus on pastoralism;** (iii) **territorial management of water resources;** and (iv) **territorial governance and the role of local authorities in anticipating and managing drought crises.**

The Désertif'Actions 2026 initiative is based on a participatory and decentralised process, voluntarily led by civil society organisations. Between June and October 2025, national workshops were organised in several regions of the world (see Figure 1) – North Africa, West Africa and the Sahel, Asia, the Near and Middle East, Europe and Canada – to document the impacts of droughts, identify the responses implemented, and analyse the barriers and drivers to a sustainable transition of territories. These workshops brought together a wide range of stakeholders: farmers' and pastoralists' organisations, local authorities, public administrations, researchers, NGOs, and technical and financial partners.

In total, twenty-three workshops were organised, bringing together several hundred participants with diverse backgrounds. Their distribution by theme reflects the importance attached to agricultural and pastoral production systems, water management and territorial governance in building resilience to droughts. Detailed figures on the number of workshops, the number of participants and their breakdown by country and theme are presented in each chapter of this report.

Each of the four themes is the subject of a specific chapter, based on a detailed analysis of the contributions and discussions from the corresponding national workshops. Structured around these four chapters, the report presents the main findings, the actions identified, the recommendations formulated and the points of consensus reached by the national workshops. A general conclusion concludes the document, summarising the main lessons learned from the work as a whole and outlining areas for further exploration at the Désertif'Actions 2026 Summit.

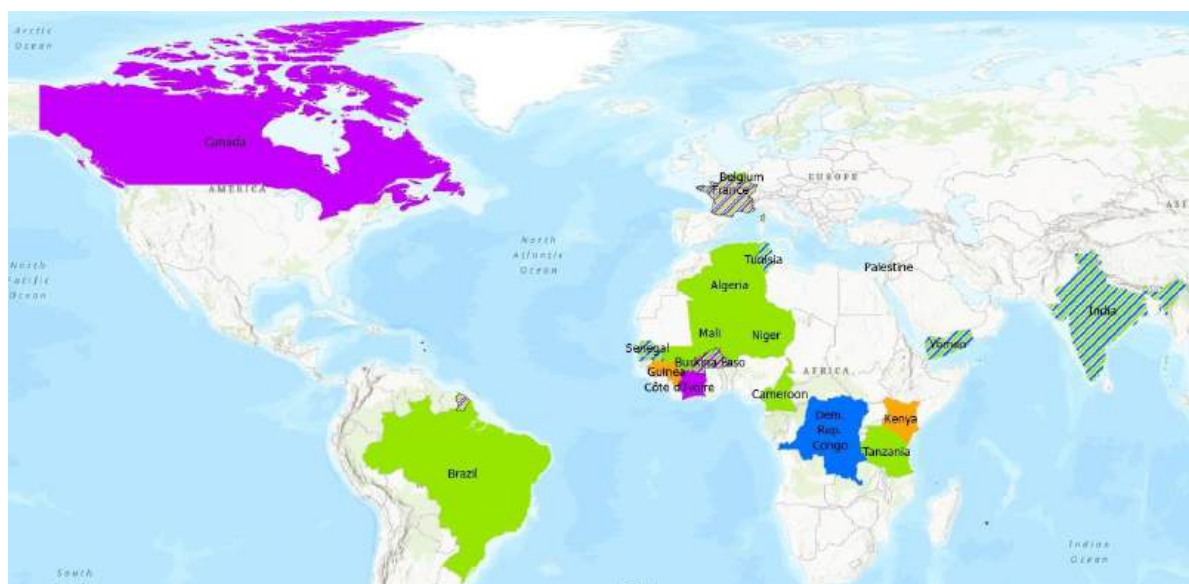


Figure 1: Geographical and thematic breakdown of the national workshops (Green: T1, Purple: Pastoralism, Blue: Water, Yellow: Territories)

1.2 General methodology for preparing the synthesis report

Each national workshop report was analysed using a common framework covering the following aspects: the context of the issue addressed, the actions implemented or planned, the barriers and drivers identified for improving resilience, and the advocacy messages formulated for various target audiences. These audiences include, in particular, governments and public administrations, technical and financial partners, civil society (including local authorities and farmers' organisations), the research sector, and, in one specific case, the UNCCD.

An initial step involved producing summary sheets for each workshop, enabling the harmonisation of information processing and facilitating comparative analyses. These sheets were developed using the ChatGPT tool, employed as a methodological aid to structure, reformulate and condense the content from the national reports, based exclusively on the information provided by the source documents. In a second stage, all the information gathered was subjected to a cross-cutting review aimed at identifying elements that directly addressed the central questions of each thematic area. More contextual or peripheral information was drawn upon to inform the discussions, enrich the analysis and formulate the remaining open questions.

The report is structured into four main sections, each corresponding to one of the four themes selected by Désertif'Actions 2026. Each section follows a common structure: a recap of the initial question, a



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presentation of the national workshops dedicated to the theme, an analytical framework for the theme, an analysis of the actions implemented, the identification of barriers and levers, the formulation of priority advocacy messages, and the



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highlighting points of consensus and identifying outstanding issues. This structure aims to ensure the overall coherence of the report whilst allowing each theme to be read independently.

Part One – Theme 1: Transformation of sedentary agricultural and/or livestock systems in the face of droughts

I. Introduction

1.1 Starting point

Agricultural and livestock systems bear the brunt of the effects of droughts, which compromise production, jeopardise food security and weaken local economies. These phenomena, exacerbated by climate change, accentuate disparities between regions, particularly in areas where infrastructure is inadequate and adaptive capacities remain limited. In the face of these challenges, certain strategies based on the principles of agroecology have proven effective in strengthening farm resilience. These solutions include integrated and diversified approaches that enable farms to better anticipate, adapt to and respond sustainably to the challenges posed by droughts. However, the transition towards adopting these practices (technical, organisational, etc.) remains hampered by numerous structural and cyclical obstacles. Facilitating change is therefore essential; the question posed at the national workshops thus concerns **how to support crop and livestock farms to facilitate their transition towards greater resilience to droughts.**

1.2 The transformation of agricultural and livestock systems

Recurring and increasingly intense droughts are now a major driver of change in agricultural and livestock systems. Their impact goes far beyond isolated production losses, profoundly affecting the very foundations of production systems: the availability and quality of natural resources, the organisation of production cycles, the integration of crops and livestock, the economic viability of farms, and the ability of farming households to secure their livelihoods in the long term. In many regions, these dynamics are causing lasting damage to agricultural and livestock systems and calling into question their medium- and long-term sustainability.

In the face of increasingly frequent and prolonged droughts, adaptation strategies based on isolated technical adjustments or short-term responses are proving inadequate. Whereas adaptation mechanisms previously enabled the absorption of one-off climatic shocks, the accumulation of constraints is gradually reducing the room for manoeuvre available to farms. This situation exposes agricultural and livestock systems to dynamics of structural fragility, decapitalisation and, in certain contexts, to trajectories of forced abandonment of agricultural activity.

In this context, the transformation of agricultural and livestock systems entails profound, sustainable and systemic changes in the way farms organise their production, mobilise resources, manage risks and build resilience. It is not limited to the introduction of new practices or technologies, but involves a rethinking of production approaches, economic choices and farm trajectories. This transformation is reflected in particular in greater diversification of systems, better integration between



crops and livestock, improved soil fertility management, adjustments to production schedules and choices, and efforts to secure incomes in the face of growing climate uncertainty.

The transformation of agricultural and livestock systems cannot, however, be viewed as a linear or homogeneous process. It follows differentiated trajectories, marked by phases of experimentation, learning and adjustment, and entails short-term risks for farms, particularly during periods of transition. It is inseparable from the concept of systemic resilience, understood not as the ability to return to a previous state, but as the capacity of agricultural and livestock systems to reconfigure themselves in order to sustainably maintain their productive, economic and social functions in a context where droughts have become structural.

Consequently, supporting the transformation of agricultural and livestock systems towards greater resilience goes beyond the dissemination of standardised technical solutions. It requires recognising the complexity of agricultural systems, influencing their long-term trajectories and securing the transition phases, in order to enable farms to commit sustainably to transformations capable of strengthening their resilience to droughts.

This issue was central to the preparatory phase of the Désertif'Actions 2026 Summit, as fifteen of the twenty-three national workshops organised across nineteen countries examined this first of the four themes selected by Désertif'Actions.

1.3 Methodological details – Level of analysis adopted by the workshops

The national preparatory workshops for Désertif'Actions 2026 address the issue of resilience to droughts at several complementary levels of analysis, which must be clearly distinguished to avoid any oversimplification of the results.

Firstly, the level of the agricultural plot appears primarily as an operational scale. The workshops draw on concrete examples of technical practices – agroecology, water management, soil conservation, crop variety selection, agroforestry or land restoration – which constitute tangible levers for adaptation to droughts. The plot is thus a site for experimentation, demonstration and implementation of innovations, but it does not, on its own, constitute the framework for the workshops' strategic analysis.

The level of the agricultural or livestock farm, on the other hand, is at the heart of the discussions. The workshops view the farm as a functional unit, encompassing all production activities (crops, livestock, forage management), the resources utilised (water, soil, land), the organisation of labour, access to inputs and finance, as well as the farm's place within broader social and economic dynamics. Resilience is thus understood as a property of the production system as a whole, and not merely as the sum of technical practices at the plot level.

Beyond the farm itself, the workshops place the transition of agricultural and livestock systems firmly within a territorial framework. Water availability, grazing land management, land tenure security, trade-offs between land uses, local governance mechanisms, and access to markets and support services are identified as major determinants of farm resilience, which cannot be addressed at the individual level. The region thus emerges as the relevant scale for ensuring the coherence of public policies, support mechanisms and collective dynamics.



Consequently, the workshops' methodology is based on an explicit articulation of scales, ranging from the plot (technical level) to the farm (systemic level) and up to the territory (political and organisational level).

This explicit articulation of scales – from the plot to the farm, and then to the territory – forms a methodological foundation shared by all the workshops, with notable differences depending on the country and context:

- Sahel and North Africa: strong link between the plot and the system, with a marked focus on agro-sylvo-pastoral systems and family farms.
- France (Mediterranean regions): a very clearly systemic and territorial approach, integrating public policy, planning and governance.
- Belgium: workshop almost exclusively focused on support mechanisms for agricultural systems in partner countries, without direct plot-level involvement
- Brazil: a territorial and community-based approach, centred on family systems, public policies and social technologies, extending well beyond the farm plot
- Asia and the Middle East (Yemen, Palestine): close integration between on-farm practices, securing scarce resources and maintaining the essential productive functions of family farms.

II. National contexts studied

Despite the diversity of national contexts (see Annex 1, Table 1), the workshops highlight common dynamics in the way droughts affect agricultural and livestock systems. They cover a broad spectrum of regions and agricultural and livestock systems facing structural droughts, enabling an analysis of how systems are transforming in contrasting contexts.

In Sahelian and Sudano-Sahelian West Africa, the workshops (Burkina Faso, Niger, Senegal) focus primarily on agro-sylvo-pastoral systems and sedentary or semi-sedentary livestock systems, which are heavily dependent on rainfall and exposed to soil degradation, recurrent fodder crises and high vulnerability among family farms. Livestock systems are particularly vulnerable, with a scarcity of fodder resources and increased livestock mortality during prolonged periods of drought.

In North Africa and the Mediterranean basin (Algeria, Tunisia, Mediterranean France), agricultural systems are often specialised and historically intensive, sometimes irrigated, but are now weakened by structural water scarcity, soil salinisation, rising production costs and the questioning of certain agricultural economic models. Where traditional strategies once enabled the absorption of climatic shocks, the frequency and duration of droughts, combined with the decline in local practices, are reducing the resilience of these systems. In certain contexts, this situation leads to land abandonment, disengagement from agricultural activity—particularly among young people—or the transformation of production systems.

In East Africa, particularly in Tanzania, the workshop focuses on rain-fed agricultural systems and mixed crop-livestock systems, which are facing increased climate variability, irregular rainy seasons and growing pressure on land resources. The transformation of these systems is analysed through the challenges of diversifying production, securing agricultural incomes and reducing the vulnerability of rural households to recurrent droughts.



In Central Africa, particularly in Cameroon, the gradual weakening of agricultural systems historically considered less vulnerable to drought is highlighted. The extension and intensification of dry spells are affecting rain-fed systems, food crops and livestock systems, raising the question of how to anticipate and transform systems that are still ill-prepared for structural droughts.

In Asia and the Middle East (Palestine, Yemen), the transformation of agricultural and livestock systems is examined in contexts of extreme water stress, combined with significant political, economic and security constraints. Agricultural systems there are examined from the perspective of the survival of family farms, the preservation of basic productive functions, and the ability to maintain viable agricultural systems despite repeated climate shocks and extremely limited room for manoeuvre.

In Latin America, and more specifically in Brazil, family farming systems in the semi-arid region are characterised by a heavy reliance on rainfall, marked climate variability and increasing exposure to prolonged droughts. The systems analysed are predominantly based on rain-fed family farms, often diversified, combining food crops, small-scale livestock farming and collective resource management. The transformation of agricultural systems is addressed here through the ability of farms to strengthen their autonomy, secure access to water and maintain viable production systems in a context of structural water stress. Transformation processes are already underway; they are based on the gradual adaptation of systems, the diversification of production and the promotion of practices derived from family farming, but are severely limited by the intensification of droughts and inequalities in access to resources.

In all countries, the reports list the policy and institutional frameworks, the mechanisms put in place to ensure coordination among stakeholders, and the structural initiatives to strengthen the implementation of early warning systems. These policy and institutional responses are organised across the three levels of governance: national, regional and international.

Finally, in Europe, Belgium and France, where the workshops focus on international cooperation, the emphasis is on the responsibility of political, financial and regulatory frameworks in supporting the transition of agricultural systems in partner countries. The workshops examine the medium- and long-term sustainability of high-performing agricultural systems that are increasingly exposed to prolonged droughts. They highlight the limitations of existing models in the face of mounting climate pressures and the need to undertake systemic transformations, going beyond technical adjustments.

III. Actions implemented

The workshops report on several types of action designed to make agricultural and livestock systems and farms more resilient. These actions can be grouped under the following five themes:

- Water management: localised irrigation (drip, fertigation, retention ponds), hillside reservoirs, traditional structures (jessours, majels), community retention ponds/dams, reuse of treated water, rationalisation of irrigation, bocage and boulis systems
- Agroecology: RNA, agroforestry, crop-livestock diversification, biofertilisers, local seeds and seed banks, biofertilisation, promotion of local species



- Livestock farming: production of resilient fodder, rangeland management, pastoral codes and pastoral units, improved pastoral management
- Research & training: demonstration fields, master farmers, research-society partnerships – generation of scientific knowledge and adapted local technologies, vulnerability mapping
- Governance and advocacy: decentralisation, community coalitions and regional consultations, multi-stakeholder platforms and dynamics, national drought plans, stakeholder participation and extension.

Furthermore, and with a view to identifying what constitutes the facilitation of transformations, these actions can be grouped into several broad categories, which reflect structural changes in the functioning of farms, their production logic and their trajectories.

Restructuring of production systems through diversification

A first set of actions concerns the diversification of crop and livestock systems, widely recognised as a key driver of resilience to droughts. The workshops reveal a gradual re-evaluation of specialised systems dependent on a single crop or a single type of production.

The actions implemented aim to diversify crop production, combine crops and livestock, and introduce complementary production systems that help spread climate and economic risks. This diversification is not simply a matter of adding crops, but of reconfiguring the production system, integrating new balances between food crops, fodder crops and, in some cases, cash crops.

These dynamics are observed in a variety of contexts, whether in Sahelian agro-sylvo-pastoral systems (for example in Burkina Faso), family-based systems in semi-arid regions (such as in Brazil), or smallholdings under severe constraints (notably in Palestine). In all cases, diversification appears to be a structural response to climate uncertainty.

Reorganisation of interactions between crops, livestock and productive resources

The workshops also highlight initiatives aimed at strengthening the integration between crops and livestock, in order to improve the coherence and resilience of agricultural systems. This integration allows for better utilisation of available resources (crop residues, agricultural by-products, organic manure) and helps to stabilise systems in the face of droughts.

These actions reflect a shift in production approaches, moving from compartmentalised systems to circular systems capable of better absorbing climate shocks. They are observed in both sedentary livestock systems and mixed-farming operations, particularly in West Africa, East Africa (Tanzania) and Central Africa (Cameroon).

Shift in production practices towards systems less dependent on climatic hazards

Another area of action concerns the evolution of agricultural and livestock farming practices with a view to reducing dependence on water and climate conditions. The workshops report a gradual adoption of practices aimed at improving the systems' ability to function under water stress, notably through better management of soil fertility, adaptation of production methods and adjustment of agricultural calendars.

These practices are not viewed as isolated technical solutions, but as components of a broader transformation of production systems. They contribute to a



sustainable shift in production balances and to greater resilience of agricultural systems in the face of increasingly frequent and prolonged droughts.

Transformation of economic strategies and farm security

The workshops also highlight actions relating to farms' economic strategies, which are seen as a key driver of the transformation of agricultural and livestock systems. Faced with climate uncertainty, many farms are seeking to secure their incomes by diversifying agricultural income sources, reducing production costs and decreasing reliance on external inputs.

These actions reflect a shift in the objectives of agricultural systems, which no longer aim solely at maximising yields, but at economic stability and the ability to weather periods of drought without major disruption. This approach is observed in very different contexts, including in high-performing agricultural systems that have become vulnerable due to the intensification of droughts, such as in Mediterranean Europe.

Gradual adjustment of the trajectories of agricultural and livestock systems

Finally, the workshops show that the transformation of agricultural and livestock systems in response to droughts rarely involves sudden changes. The actions implemented are mostly part of gradual trajectories, marked by phases of experimentation, learning and adjustment.

These trajectories reflect the ability of farms to transform their systems without compromising their short-term survival. They highlight the importance of long-term support, capable of securing the transition phases and supporting incremental yet cumulative transformations.

IV. Barriers and levers for action to support transformation

A major initial barrier lies in the difficulty of securing the transition phases. The transformation of systems involves gradual changes, which are often risky in the short term, with no immediate guarantee of economic gains. In the absence of mechanisms to protect and stabilise incomes, many farms are reluctant to embark on trajectories perceived as uncertain.

Technical support capacities constitute a second structural barrier. Agricultural advisory services remain predominantly geared towards productivity-focused benchmarks or standardised solutions, which are ill-suited to supporting systemic, differentiated and long-term transformations. The lack of training for advisers in systems analysis and support approaches reinforces this limitation.

Economic constraints constitute a third cross-cutting barrier. Limited access to finance, debt, market volatility and low margins reduce farms' ability to invest in gradual transformations, which are nevertheless necessary to strengthen their resilience.

Finally, the lack of clear institutional recognition of resilient agricultural systems – in terms of standards, incentives, public policies and economic valuation – limits the dissemination and consolidation of large-scale transformations.

Nevertheless, several levers appear to be key to structuring effective support.

A first lever involves securing transition pathways through localised support based on systemic advice, continuous training and peer-to-peer exchanges. Mechanisms enabling farms to test, adjust and gradually consolidate their changes reduce risks and strengthen ownership of the transformations.

A second lever aims to accelerate transformation dynamics by valuing local knowledge, collective experimentation and the capitalisation of experiences. The most robust transformations are those that build on existing practices, adapted and reinterpreted in line with climatic and socio-economic contexts.

A third lever relies on the mobilisation of economic incentive mechanisms capable of reducing risk exposure during transition phases: multi-year funding, risk-sharing instruments, and targeted support for transformation investments.

Finally, a fourth lever concerns the institutional and social anchoring of resilient agricultural systems, through their recognition in public policies, support schemes and economic valuation mechanisms. This anchoring determines the sustainability and dissemination of the transformations.

V. Recommendations by target

Governments and public authorities

Securing pathways to transformation by fully integrating drought resilience into agricultural, water and land policies, by rolling out national strategies at the local level, by securing land rights and by strengthening public agricultural advisory services focused on systemic support and agroecology.

Local authorities

Create local environments conducive to transformation by steering integrated plans, facilitating participatory mechanisms, supporting the economic development of products resulting from the transition, and strengthening local resource governance.

Donors and technical and financial partners

Adapt financial instruments to the long timeframes of the transition by establishing multi-year and flexible funding, funding packages combining investment, support and capitalisation, and by strengthening monitoring, evaluation and learning mechanisms.

Farmers' organisations and civil society

Strengthen capacities for ownership and dissemination of transformations by developing local support, structuring farmers' organisations, fostering peer-to-peer exchange, and advocating for supportive policy frameworks.

Research and training

Produce and disseminate references useful for transforming systems by developing participatory



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action research, harmonised data on resilience, and by integrating agroecology and drought adaptation into initial and continuing training programmes.



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VI. Points of consensus

It is widely accepted that recurrent droughts necessitate a transformation of agricultural and livestock systems, and that ad hoc or strictly technical responses are insufficient. Resilience is understood as a property of systems as a whole, integrating production, organisation and economic viability. There is a strong consensus on the structural nature of drought and on the need to transform agricultural and livestock systems. Agroecology and sustainable land management are recognised as essential pillars of resilience.

Family farms play a central role in this transformation, requiring tailored support adapted to the diversity of contexts and trajectories.

The workshops also agree on the central role of the local level and the importance of enhanced support for family farms, particularly those run by women and young people.

Finally, the transformation of systems is seen as a long-term process, requiring continuity, learning and gradual adjustments, rather than sudden changes imposed from outside.

VII. Unresolved issues

Several questions remain unresolved. The very definition of resilience oscillates between incremental adaptation and structural transformation. The practical arrangements for financing the transition remain unclear, as do the mechanisms for data governance and impact monitoring. The operationalisation of social inclusion constitutes another major point of tension. A key challenge remains attracting young people, for whom incentives must be found to invest in the transition by identifying innovators and harnessing modern technologies to support life projects in rural areas.

- How can farms be effectively supported through long, uncertain and varied transformation processes without increasing their short-term economic vulnerability?
- How can we assess the resilience of agricultural and livestock systems in a meaningful way, looking beyond mere yield indicators?
- How can we move from pilot projects to larger-scale transformation without losing the ability to adapt to local contexts?
- How can we ensure the long-term recognition of resilient agricultural systems in public policies and support frameworks?

VIII. Conclusion

The national workshops confirm that the transformation of agricultural and livestock systems in the face of droughts constitutes a central and distinct challenge, which cannot be addressed through ad hoc or strictly technical responses. Supporting this transformation requires acting on the trajectories of production systems, recognising their progressive, differentiated and long-term nature. The resilience of farms thus appears less as the result of predefined solutions and more as the capacity to support processes of cumulative change, based on learning, adjustment and the safeguarding of transition phases.

The workshops highlight several key levers for support. The convergence around agroecology and systemic approaches provides a common framework for rethinking production systems beyond the maximisation of yields. The promotion of local knowledge and producers' experience appears to be an essential condition for the ownership of

transformations, as does the existence of initiatives already underway that serve as anchor points for disseminating and adapting changes. Finally, collective and multi-stakeholder dynamics help to create environments conducive to the transformation of systems, breaking the isolation of farms in the face of climate risks.

At the same time, major structural barriers limit the scope of the actions undertaken. Funding mechanisms remain largely ill-suited to the timescales required for the transformation of agricultural and livestock systems, favouring short-term interventions where long-term trajectories are needed. Land tenure insecurity, a lack of agricultural advisory services capable of supporting systemic changes, and the absence of robust monitoring and evaluation mechanisms hinder the consolidation and scaling up of these transformations. The inclusion of women and young people, although recognised as strategic, remains insufficiently translated into effective support mechanisms, limiting the potential for renewal and innovation in agricultural systems.

In light of these lessons, the workshops converge on a clear answer to the question posed: supporting the transformation of agricultural and livestock systems towards greater resilience to droughts involves securing transition pathways, by combining local support, favourable institutional frameworks and appropriate economic mechanisms. This support must enable farms to undertake gradual transformations without increasing their vulnerability in the short term, in order to sustainably strengthen the resilience of agricultural systems, food security and the future of rural areas facing increasingly frequent climate crises.



Part Two – Theme 2: Support for mobile production systems (focus on pastoralism)

I- Introduction

1.1 Why pastoralism?

The United Nations has designated 2026 as the Year of Pastoralism, thereby recognising its key role in reconciling the preservation of fragile ecosystems, economic development and social cohesion in arid and semi-arid areas. Its resilient nature and its capacity to maintain biodiversity make it a model to be considered in terms of systems resilient to droughts.

According to the UNCCD, pastoral and grazing lands account for 54% of the world's total land area. These mobile production systems play an essential role in natural resource management and ecosystem conservation. Pastoralism is considered a system intrinsically based on the principles of agroecology. When it respects the mobility of herds and the sustainable management of grazing lands, it helps to preserve soils, regulate water resources and maintain biodiversity, whilst reducing conflicts over land use. Mobility is the key characteristic of pastoral systems, enabling them to adapt to climate crises such as drought. However, today, as international borders become increasingly regulated and subject to security challenges, and as agricultural frontiers gradually advance, reducing the available grazing areas, the constraints on this mobility are intensifying.

Three workshops organised in Guinea, Kenya and France (see Annex 2, Table 1) sought to address the second question posed by Désertif'Action 2026: **How can we preserve and facilitate the development of systems based on mobility strategies—which are relevant in the face of droughts—within an increasingly constrained context?**

This second part of the report summarises the responses provided by the three workshops and highlights the issues that merit further exploration during the Summit to contribute to the discussions of the International Year of Pastoralism, 2026.

1.2 Pastoral mobility: definitions and scope

Pastoral mobility refers to all seasonal, cyclical or opportunistic movements of herders and their herds in search of water, pasture or better climatic conditions. It is not a matter of wandering, but of a controlled territorial strategy, based on a detailed understanding of ecosystems, seasonal cycles and social balances between communities. In arid and semi-arid regions, it constitutes an age-old adaptive response to resource variability, enabling the preservation of pastures, the avoidance of land overexploitation and the survival of herds.

Mobility can take various forms: transhumance, which involves regular seasonal movements between complementary grazing areas; nomadism, characterised by more extensive and permanent mobility; or mobile agro-pastoral systems, where families combine itinerant livestock rearing with crop cultivation on shared lands.

These forms of mobility form part of what are known as mobile production systems, that is to say, economic and social models in which the movement of people and animals enables the optimal and sustainable use of diverse and dispersed resources. Their value



lies not only in livestock production, but also in the ecosystem services they provide: maintaining open landscapes, natural soil fertilisation, water regulation and fire prevention.

In this context, pastoral resilience is defined as the capacity of pastoralist communities to anticipate, absorb and adapt to climatic, economic or social shocks whilst maintaining their livelihoods, and **mobility lies at its heart**: it connects territories, compensates for ecological imbalances and ensures the continuity of practices and social solidarity.

II. Mobility in national contexts

In the three contexts studied — Guinea, Kenya and Mediterranean France — mobility appears to be a vital foundation for rural and pastoral communities (see Annex 2, Table 2).

In Guinea, pastoral mobility is being undermined by the reduction of grazing lands, the proliferation of agro-pastoral conflicts and the absence of a protective institutional framework. Livestock farmers, once at the heart of a system of complementarity between agriculture and livestock farming, are being pushed towards less productive areas of degraded land, exacerbating tensions over access to water and pasture.

In Kenya, mobility in arid and semi-arid areas (ASALs) remains essential to the survival of millions of people, but extreme droughts and soil degradation are severely restricting pastoral routes. Land tenure insecurity, particularly across borders, and the lack of sustainable public investment are hampering the pastoral system's ability to adapt, despite its central role in the country's social and economic stability. Institutional frameworks suffer from the low inclusion of women and young people, despite their significant role.

In France, mobility takes the form of Mediterranean transhumance, which is now under threat. It faces the closure of grazing areas, pressure on land, competition from other land uses (tourism, hunting, energy, urbanisation) and structural drought. Yet it plays an irreplaceable ecological role in landscape conservation, water regulation and fire prevention, whilst the challenge of maintaining a viable economic activity remains a priority.

III. Measures taken by countries to preserve mobility

The three countries have initiated measures aimed at restoring or regulating pastoral mobility, with approaches tailored to their ecological and institutional contexts. The approaches implemented are structured around the following main areas: **sustainable management of natural resources, territorial governance, agroecological practices, financing and partnership, and social inclusion**. The actions undertaken (see Annex 2, Table 3) contribute to improving resilience in general, with measures specifically relating to the preservation and facilitation of mobility highlighted here.

In Guinea, the most recent programmes focus on securing grazing routes and water points through participatory mapping, the creation of pastoral waterholes, and agro-sylvo-pastoral developments. These initiatives are supported by local authorities and pastoralist groups through the development of local planning and collaborative management agreements (Local Development Plans). They promote better coexistence between farmers and pastoralists and seek to prevent conflicts over access to resources.



In Kenya, decentralised governance has paved the way for community-led resource management and rangeland restoration projects, particularly in Laikipia and Samburu counties. Community water projects—sand dams, gabions or boreholes—have helped mitigate the effects of droughts and reduce tensions between communities. Recent legislation, notably the Rangeland Management Bill, demonstrates a political will to recognise mobility as a lever for adaptation, even if its implementation remains limited.

In France, local initiatives to reclaim fallow land through grazing, the implementation of watering schemes and support for winter transhumance projects illustrate a renewed interest in pastoral mobility. However, the multiplicity of regulations and the rigidity of certain agricultural policies, notably the European Union's Common Agricultural Policy (CAP), continue to hinder its development. Support for the creation and operation of collective structures (pastoral groups, pastoral land associations) helps to address these challenges.

IV. Strengths and levers for improving existing actions

The growing recognition of pastoralism as a tool for adaptation and sustainability marks a major turning point. Local innovations, community participation and the increasing role of women and young people in resource management are all drivers of change. These experiences demonstrate that an integrated territorial approach, based on dialogue between communities and institutions, enables mobility to be embedded within a framework of shared governance and collective resilience.

However, structural weaknesses remain: the absence of a clear legal framework, insufficient funding, institutional fragmentation and persistent conflicts over land use hinder the sustainability of the efforts undertaken. In all three countries, mobility is still too often viewed as a problem to be managed, rather than a system to be strengthened.

Thus, existing approaches (see Annex 2, Table 4) lay solid foundations, but remain fragmented, underfunded and poorly aligned with a structural vision of mobility as a driver of resilience.

V. Recommendations for resilient mobility

- Central governments must implement ambitious land policies to promote access to and the structuring of grazing lands. Existing legislation (Pastoral Code, Law on Agroecology, etc.) or legislation currently being drafted (Agroecology and Rangelands Act) must be enforced with substantial budgetary allocations.
- The integration of grazing lands and, more specifically, pastoral mobility must be effectively incorporated into strategic documents on climate change mitigation and adaptation (Nationally Determined Contribution – NDC, National Adaptation Programme – NAP) and on combating desertification, land degradation and drought (DLDD, Land Degradation Neutrality – LDN) targets.
- The establishment of pastoral resilience funds would support the rehabilitation of grazing lands, the securing of water points and the maintenance of transhumance infrastructure.
- Territorial governance must be strengthened through the institutionalisation of local agreements on collaborative management, the systematic inclusion of women and young people, and cross-border cooperation to secure pastoral routes. Recognition of the economic and ecological value of pastoralism — notably through payments for ecosystem services (fire prevention, carbon sequestration, landscape maintenance) — would help legitimise it within development policies and lead to the creation of cooperatives and green enterprises.

- Finally, investment in research and knowledge of mobile systems must be strengthened, and local technologies as well as innovations by women must be strongly supported and promoted. (see Annex 2, Table 5)

VI. Issues that continue to raise concerns

The United Nations' proclamation of 2026 as the International Year of Pastoralism and Pastoralists marks a historic turning point in the global recognition of a way of life and a production system that has been marginalised for too long. This decision, resulting from a resolution supported by more than forty Member States and championed by several African countries, reflects a collective realisation: pastoral systems, based on mobility and the sustainable management of shared resources, are essential allies in addressing the many challenges facing the sustainable development of arid and semi-arid regions (desertification, land degradation and drought, climate change, loss of biodiversity, etc., and their corollaries: food insecurity, poverty, exodus and migration, etc.)

This international framework builds on the United Nations Decade on Ecosystem Restoration (2021–2030) and the implementation of the United Nations Convention to Combat Desertification (UNCCD). It aims to place pastoralism back at the heart of policies on sustainable development, food sovereignty and the management of common goods.

To ensure that the lessons learned from the three national workshops are incorporated into the international momentum of the Year 2026, discussions at the Désertif'Actions 2026 Summit would benefit from further exploring the following avenues for reflection.

5.1 Governance, legal framework and institutional recognition

Despite the progress observed, political and legal recognition of mobility remains incomplete. The national workshops highlighted the diversity of local dynamics, but the central issue remains that of a sustainable institutional framework. None of the workshops raised the issue of recognising pastoralism as a global public good and its incorporation into national legislation and land policies.

The workshops highlighted the importance of dialogue between different land users; land and social mediation mechanisms were mentioned but not explored in depth. Similarly, the workshops made little mention of the tools (participatory GIS, geospatial AI, satellite monitoring, community networks) that would enable capacity-building mechanisms for local and inter-municipal institutions to become fully operational.

5.2 Pastoral economy and financing of mobility

One of the recurring observations from the national workshops is the economic fragility of pastoral systems: a lack of suitable funding, little recognition of the services provided to the community, and a heavy reliance on external aid.

Funding mechanisms suited to mobile systems and hybrid economic models were proposed (resilience funds, public-private partnerships, pastoral carbon credits, payments for ecosystem services) to ensure the sustainability of mobile systems. However, the workshops did not address the creation of sustainable value chains incorporating pastoral products and know-how.

5.3 Environment, adaptation and ecological connectivity

The national workshops showed that mobility remains the primary adaptation strategy in the face of

drought. However, the relationship between mobility and ecosystem restoration is still poorly documented, and the contribution of pastoral mobility to pasture regeneration and, by extension, to land degradation neutrality (LDN) has not been explored.



5.4 Mobility and social cohesion in rural areas

The workshops have shown that conflicts related to mobility are often symptomatic of a lack of local dialogue. The role that women, young people and traditional leaders can play in social mediation and resource governance needs to be better documented so that it can be promoted and valued.

5.5 Knowledge, data and innovation

The three workshops highlighted a chronic lack of reliable and harmonised data on pastoral mobility. They also emphasised the wealth of traditional knowledge which, combined with available scientific tools, would enable an understanding of mobility dynamics at different scales and the identification of methods for capitalising on and sharing knowledge (South-South platforms, regional observatories, databases) to strengthen interregional cooperation.

Conclusion

Pastoral mobility, far from being merely a legacy of the past, holds promise for the future. It illustrates humanity's capacity to live in harmony with nature whilst addressing the challenges of climate change, food security and peace. It embodies an ancient know-how of adaptation, based on collective management and flexible land use. However, these systems, once the guarantors of ecological and social balance and essential to food security, the sustainable management of natural resources and social cohesion, are now under threat from accelerated land degradation, pressure on land, water scarcity and the marginalisation of pastoralists in public policy.

The year 2026 represents a historic opportunity to rebuild the contract between human societies and living territories, by placing pastoralists and their mobile systems at the heart of the global ecological transition.





Part Three – Theme 3: Territorial management of water resources

I. Introduction

1.1 Starting point

Water resources, essential to the survival of agricultural and pastoral systems and local communities, are put under severe strain during droughts: the multiple uses of water even make it a resource under pressure. It is therefore essential to rethink water management practices at the territorial level. Technically, the natural conservation of water in soils, beyond improving humus content, can be enhanced through appropriate measures to slow runoff and promote infiltration, etc. However, the organisational challenge is crucial for groundwater management and coordination between public services and local stakeholders. Given the diversity of uses (drinking water, sanitation, agricultural water, environmental water, industrial water) and increasing constraints, participatory governance, based on dialogue between stakeholders, plays a decisive role here in harmonising users' needs and promoting sustainable management of the resource at the regional level.

Eight national workshops were organised in seven countries (France, India, Palestine, DRC, Senegal, Tunisia, Yemen) (see Annex 3, Table 1) to address the question posed by Désertif'Actions 2026: **How can the various uses of water resources be reconciled in order to anticipate and manage drought situations whilst limiting the risks of conflict?**

1.2 Water resource management in a global context of increasing droughts

Water is now at the heart of global environmental, economic and political challenges. As a result of climate change, droughts are becoming longer, more frequent and more intense, causing a profound imbalance between availability and usage. This imbalance manifests itself in vastly different regional contexts, ranging from extreme scarcity to poorly managed abundance. According to IPCC reports, declining rainfall in arid regions and increasing variability in rainfall patterns directly threaten people's water, food and energy security. The increasing scarcity of freshwater acts as a factor of tension and instability, particularly when combined with population growth, soil degradation and competition between agricultural, domestic, industrial and environmental uses.

In this context, water resource management is no longer merely a matter of technical planning or infrastructure, but a question of territorial governance and social justice. It determines the stability of territories and the resilience of societies in the face of climate crises. The eight national workshops organised as part of the Désertif'Actions 2026 process (France, India, Palestine, DRC, Senegal, Tunisia, Yemen) explored these issues based on local realities and concrete water management practices. Their conclusions provide insight into how regions are tackling water scarcity, what levers they are mobilising, and what strategic directions are emerging for the future.

II. National contexts

Despite the diversity of national contexts (see Annex 3, Table 2), a common observation emerges: water management has become a cross-cutting issue for territorial resilience. In the countries studied, drought reveals both the fragility of water systems and the complexity of trade-offs between different uses.

In France, repeated droughts have sparked fierce controversy over quantitative water management, revealing a debate between advocates of water conservation and those who support the construction of storage facilities.

In Palestine, the constraint is primarily political: access to the resource remains limited and highly unequal, exacerbating competition between agricultural, domestic and environmental needs.





In the Democratic Republic of the Congo, water abundance masks structural weaknesses in governance and infrastructure, giving rise to a paradox where water is omnipresent yet largely inaccessible.

In India, water-related challenges manifest through significant spatial and seasonal variability, combining droughts in the arid regions of Rajasthan with flood risks elsewhere. The Indian case clearly illustrates the dual constraint of rapid population growth and declining water availability, requiring detailed and participatory spatial planning.

In Senegal, the overexploitation of aquifers and groundwater pollution are exacerbating conflicts between agriculture, industry and urban areas, whilst Tunisia, through its oasis systems, illustrates the extreme vulnerability of water ecosystems to salinisation and the dilapidated state of infrastructure. Finally, Yemen is facing an acute water crisis: the rapid depletion of groundwater reserves, combined with political instability, is pushing the country to the brink of ecological and social collapse.

These situations reflect a common tension: that of a resource that has become scarce, contested and sometimes exploited. Beyond natural constraints, the water issue reveals imbalances in governance and power, as well as unequal adaptive capacities. It is in this interplay between resource management, regulation of usage and social cohesion that the water security of these regions is now at stake.

III. Actions implemented

The national workshops show that, in all contexts, countries have undertaken actions aimed at strengthening territorial water governance and adapting their practices to new climate constraints, but using very different approaches, often dictated by the availability of the resource, institutional frameworks and local technical capacities. (see Annex 3, Table 3).

In France, the momentum of the Territorial Water Management Projects (PTGE) illustrates a major step towards collaborative governance. These schemes promote co-construction among stakeholders — local authorities, farmers, associations and government departments — of a shared assessment and long-term adaptation pathways. The Water Resilience Plan, implemented in the Pyrénées-Orientales and Hérault departments, emphasises territorial planning and the search for a balance between water conservation, storage and the equitable sharing of the resource. The French experience also relies on accelerated digital transformation, enabling better dissemination of hydrological data and more detailed monitoring of water use.

In India, the Jaipur workshop highlighted the role of civil society in raising awareness and training rural communities on sustainable water resource management. Scientists and experts presented practices for groundwater recharge, erosion-control planting and soil moisture conservation tailored to the semi-arid conditions of Rajasthan. These approaches illustrate the growing importance of nature-based solutions and community-led actions in combating land degradation and water scarcity. Local authorities, in partnership with the Forest Department, the Nehru Yuva Kendra and the state's agricultural services, are now encouraging the replication of these initiatives across other geographical areas.

In Senegal, public action is structured around territorial Integrated Water Resources Management (IWRM). Since 2017, nineteen municipalities in the Niayes region have established municipal water committees, accompanied by local management plans and multi-stakeholder consultation tools. These initiatives aim to strengthen the capacity of local authorities to balance competing uses, particularly between agriculture, industry and urban supply, whilst promoting a culture of moderation and transparency.

In Tunisia, efforts are focused on preserving oasis systems, which are particularly vulnerable to salinisation and climate variability. Agricultural Development Groups (GDA) and Oasis Conservation Associations (ASOC) ensure local water governance, network maintenance and the promotion of water-



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efficient techniques such as solar pumping, controlled drainage and the reuse of treated wastewater. These initiatives are accompanied by training and infrastructure modernisation initiatives, as well as programmes for compost utilisation and sustainable irrigation management.



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In Palestine, political constraints and structural water scarcity have led to the emergence of local innovations driven by the communities themselves. Rainwater harvesting, wastewater reuse, and the establishment of community committees to arbitrate water use are all local solutions that help address infrastructure shortages and reduce dependence on external resources.

In the Democratic Republic of the Congo (DRC), priority is being given to the effective implementation of the Water Act adopted in 2015, which still lacks implementing regulations. National workshops have been organised to align governance principles with on-the-ground realities, paving the way for the creation of basin committees and sub-basin water planning schemes. Discussions also focused on the need to strengthen inter-ministerial coordination and to prevent the potentially contentious impacts of inter-basin transfer projects, such as the Transaqua project.

In Yemen, the situation is extremely urgent. The country faces a combination of structural droughts, a dramatic depletion of groundwater reserves and a prolonged humanitarian crisis. Interventions focus on the rehabilitation of local water infrastructure, the deployment of solar-powered pumping systems for drinking water and irrigation, and the creation of community-based mediation mechanisms to regulate access to water resources. Local authorities, supported by technical and financial partners, are striving to establish coordination and monitoring frameworks, notably through the introduction of transparency dashboards and basin committees with executive powers.

All these initiatives, although highly diverse in form and scale, can be grouped into several complementary categories of action which, together, reflect the main areas of transformation observed in the countries studied (see Annex 3, Table 4).

The first category concerns **tools and mechanisms for territorial governance**. It encompasses local consultation and planning processes, such as the PTGE in France, which bring together public and private stakeholders around shared assessments and territorial action plans, as well as national workshops and basin committees in the Democratic Republic of the Congo, designed to implement the Water Act and clarify inter-institutional responsibilities. In the same vein, Senegal has developed local water platforms under the DyTAEL and territorial IWRM frameworks, whilst in Tunisia, participatory governance relies on the GDA and ASOC, community-based structures that ensure the maintenance and equitable distribution of water in the oases. In Palestine and Yemen, local management relies more heavily on community committees and rural municipalities, which arbitrate water uses and implement water-efficient solutions adapted to contexts of extreme scarcity.

A second category of action encompasses **infrastructure and technical solutions**, aimed at increasing water resilience and security of supply. This includes storage, recharge and drainage systems—whether reservoirs and ponds in France or oasis drainage in Tunisia—as well as efficient irrigation techniques such as drip irrigation, micro-irrigation or incentive-based pricing, implemented in Senegal, Tunisia, the DRC or Yemen. Solar pumping, developed on a large scale in the latter two countries, helps to lower the cost of productive water whilst reducing energy dependence. Finally, non-conventional water sources, notably wastewater reuse and rainwater harvesting in Palestine and Tunisia, are becoming increasingly credible alternatives for meeting growing needs whilst limiting pressure on aquifers.

The third category concerns **agroecology and soil restoration**, which are gradually establishing themselves as pillars of sustainable water resource management. Water-saving and restorative practices — such as mulching, half-moons, stone ridges, agroforestry and composting — are spreading in the DRC, Senegal, Tunisia and France, promoting both a reduction in demand, the natural recharge of aquifers and improved resilience of agricultural systems. These approaches illustrate the convergence between agricultural and water policies, by integrating water management into the transformation of production practices.

Finally, a last category of action concerns **the development and dissemination of knowledge**. In all

countries, the need for reliable data on water availability, withdrawals and groundwater trends has



emerged as an essential prerequisite for decision-making. Inventories of water infrastructure, piezometric monitoring, hydrometric stations and the establishment of local observatories aim to enhance transparency and trust among stakeholders, whilst supporting more forward-looking and evidence-based planning.

Structured in this way, these categories reflect the growing prominence of an integrated approach to territorial water management, which combines institutional innovation, technical efficiency, resource efficiency and collective learning. Together, they illustrate the shift from a crisis-driven mindset to one of resilience, where consultation, knowledge and local action become the essential drivers of sustainable and shared water governance.

IV. Strengths and levers for improving existing actions

Whilst the national workshops highlight a genuine momentum towards territorialisation and innovation in water resource management, they also reveal significant structural constraints and considerable scope for improvement. These limitations concern institutional frameworks, governance mechanisms, data availability, and the capacity to sustainably finance local schemes. (see Annex 3, Table 5)

One of the main obstacles identified lies in institutional fragmentation and the incomplete implementation of legal frameworks. In several countries, a water law exists, but its implementing regulations are lacking, making it difficult to put the law into practice. The multiplicity of ministries involved — agriculture, environment, water resources, and spatial planning — leads to administrative compartmentalisation and overlapping responsibilities. This fragmentation undermines policy coherence and slows down the implementation of decisions on the ground.

Added to this is the issue of social acceptance of water infrastructure and consultation processes. In many regions, the construction of reservoirs or the development of new irrigation systems gives rise to tensions between stakeholders: farmers, environmental NGOs and local residents sometimes express disagreements over usage priorities, ecological impacts or the distribution of benefits. These conflicts over acceptance often reflect a lack of dialogue, but also a lack of trust in institutions and decision-making bodies.

Conflicts over water use are also intensifying in contexts where the resource is overexploited. Tensions between industrial operators and farmers' organisations, between expanding urban areas and agricultural land, or between farmers of different sizes, are on the rise. These rivalries are exacerbated by the proliferation of unregistered structures, informal boreholes and unregulated uses, which make overall resource management more complex. In certain regions, such as the Tunisian oases or coastal areas, these pressures are accompanied by the gradual salinisation of soils and aquifers, further aggravating the degradation of ecosystems.

Political and water-related constraints—particularly in countries affected by conflict or occupation—further limit the capacity of institutions to act. Added to these factors are the continuous decline in groundwater levels, the high energy costs of pumping, and the lack of operational data to monitor changes in water resources. In several cases, certain large-scale water projects are controversial due to their potential environmental or geopolitical impacts, illustrating the difficulties in reconciling development, water security and equity between regions.

In the face of these obstacles, the workshops highlight several levers for action capable of initiating sustainable change. Mechanisms for co-construction, foresight and mediation are essential tools for restoring trust between stakeholders and building shared decisions. Local consultation platforms and transparent water allocation plans enable dialogue between users, prevent tensions and make management more transparent for all stakeholders.

The promotion of non-conventional water sources — wastewater reuse, rainwater harvesting, and



groundwater recharge — is emerging as a key driver of adaptation, as is the uptake of more efficient technical practices: solar-powered pumping, drip irrigation, local pumping regulations, and coordinated water rotation schemes. Controlled drainage, soil improvement and the reuse of treated wastewater, meanwhile, help to reduce pressure on water resources and restore the retention capacity of ecosystems.



The production and dissemination of data are also proving to be crucial. The development of piezometer networks, inventories of infrastructure and spatial information systems promotes greater transparency and enables decision-making based on objective evidence. Finally, the dynamics of river basin cooperation and integrated water resources management (IWRM) provide a relevant coordination framework for linking local, national and cross-border scales, whilst integrating the ecological and social dimensions of water management.

A set of common lessons emerges from these observations. Tensions over water use are intensifying everywhere between agriculture, cities, tourism, industry and natural environments, highlighting that the physical scarcity of the resource is not sufficient to explain the crisis: regulation and transparency are at its heart. Participatory local governance — whether in the form of PTGEs in France, oasis committees in Tunisia or water platforms in Senegal — is proving to be an effective tool, but it remains underfunded and often dependent on one-off projects. At the same time, the agroecological transition is proving its ability to reduce water demand and stabilise production systems, whilst the circulation of hydrological data, which remains too limited, remains an essential condition for anticipating crises and strengthening trust between stakeholders.

To overcome these limitations and consolidate the gains made, several avenues for change are proposed. The first step is to strengthen and provide sustainable funding for local water governance frameworks by embedding them within national public policies. It is also necessary to establish transparent local mechanisms for allocating and monitoring water abstraction, enabling public accountability for water use and ensuring equity between sectors. Local coordination, whether in the form of mediation, coordination or consultation, must be recognised and supported as an essential public function, on a par with technical or regulatory management.

Furthermore, the integration of water management into agricultural and agroecological policies appears essential to promote more coherent planning and reduce pressure on resources. Finally, the development of open, accessible and shared hydrological and piezometric monitoring systems will help consolidate the foundations of governance based on knowledge, collective responsibility and transparency.

V. Recommendations and outlook

The national workshops have resulted in a set of recommendations aimed at the various categories of stakeholders involved in water resource management (see Annex 3, Table 6). These proposals converge towards a single objective: to strengthen territorial governance, anticipate water crises and ensure the equitable and sustainable sharing of the resource.

5.1 Relevant states, governments and ministries

Governments have a central role to play in consolidating an institutional and operational framework conducive to water resilience. The first step is to institutionalise territorial water governance on a sustainable basis by consolidating and extending the Territorial Water Management Projects (PTGE), securing the resources for local coordination, and enacting the implementing decrees necessary for the effective implementation of water laws. Governments must also establish basin committees, supported by data collection and publication mechanisms, and operationalise local IWRM.

National policies must now explicitly incorporate the following priorities: reducing the cost of productive water, recognising oases as strategic zones for water and food security, and prioritising water-efficient solutions based on non-conventional water sources and solar energy.

Strategies, plans and policies on water, agriculture, food security and climate require greater integration, institutional and sectoral decompartmentalisation, and territorialisation. A 'water, soil/land, agriculture, climate' Nexus approach is necessary to achieve Sustainable Development Goals 2 (food security), 6



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(water), 13 (climate) and 15 (land).



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The State also has a responsibility to arbitrate between different uses and prevent conflicts by drawing on local dispute resolution frameworks (water platforms, committees, PTGE) and explicit rules for resource sharing during periods of tension.

Investment in the production and transparency of hydrological data is another essential pillar: the development of piezometer networks, inventories of water infrastructure, hydrometric stations and the regular publication of meteorological and hydrological data must be regarded as public functions in their own right.

States must also ensure they move away from siloed policies and adopt a synergistic approach to the implementation of the SDGs.

From a regional perspective, states are urged to reaffirm basin-level cooperation as a sustainable alternative to often-controversial inter-basin transfer projects, such as the Transaqua project in Central Africa. This approach, based on transboundary IWRM, helps to strengthen water solidarity and peace between neighbouring territories. Finally, public policies must incorporate the principles of climate justice and gender equality, recognising the role of women and young people in community water management and decision-making processes.

5.2 Donors and technical and financial partners (TFPs)

Technical and financial partners play a strategic role in supporting the transition towards more collaborative and sustainable water management. The workshops highlight the importance of funding not only physical infrastructure, but also community engagement, consultation and mediation. This involves supporting the social and organisational frameworks essential to the effective functioning of PTGEs, local platforms or GDAs, by supporting the training of local committees and participatory management structures.

PTFs are also encouraged to support the scaling up of sustainable and resilient solutions: micro-irrigation, solar pumping, oasis drainage, reused treated wastewater (REUT), aquifer recharge, and measures to combat salinisation. Investments must prioritise efficiency, maintenance and sustainable management rather than the expansion of infrastructure with a high environmental footprint.

Strengthening information systems is another priority area: the establishment of piezometric networks, inventories of infrastructure and regional observatories will enable public policies to be underpinned by reliable, shared data. Finally, donors are encouraged to systematically integrate climate justice and gender considerations into their programmes, by funding inclusive and equitable initiatives that serve the most vulnerable populations.

5.3 Civil society, local authorities and local organisations

Farmers' organisations, NGOs, user associations and local authorities form the foundation of participatory water governance. They are invited to strengthen local management frameworks by developing local water charters, establishing transparent water rotation systems and setting up shared systems for monitoring water abstraction and issuing drought or conflict alerts. These measures help to build collective regulation and increase trust between stakeholders.

Civil society also plays a key role in the production and dissemination of local knowledge. It can help to identify 'invisible' infrastructure, document irrigation practices and publish local dashboards, whilst promoting traditional knowledge related to oasis management, water rotas or ancient community networks.

Furthermore, the call from Indian civil society to integrate linguistic and cultural dimensions (translation of UNCCD documents into Hindi, promotion of indigenous knowledge) highlights the need for inclusive and accessible governance, an essential condition for the effective ownership of water policies

Finally, local stakeholders must continue the agroecological transition by promoting water-saving practices — mulching, composting, agroforestry, the selection of drought-tolerant varieties, and



— which reduce dependence on irrigation and improve the ecological and social resilience of regions.

5.4 Private sector

The private sector, whether comprising agricultural, industrial or service companies, must be fully involved in local water governance. Companies are encouraged to adopt greater transparency and clear accountability by publishing the volumes of water they withdraw, their water-saving plans and their contributions to local management schemes (Niayes platforms, industrial zones, river basin committees).

They also have a role to play in co-investing in the resource, by participating in network maintenance, the financing of solar systems, drainage, the reuse of treated wastewater and the reduction of losses. Their contribution must go beyond mere production to include the preservation of ecosystems and the sustainability of the water cycle.

Finally, the introduction of regional water contracts is recommended: these multi-year commitments regarding abstraction, return or compensation would enable the creation of sustainable local water finance, bringing together local authorities, businesses and users around shared objectives of water efficiency and sustainability.

5.5 Research, training and knowledge

Research and higher education have a crucial role to play in addressing critical knowledge gaps and supporting public policy with robust, context-specific data. The priorities identified relate to drought forecasting, going beyond mere flood forecasting, understanding the dynamics of salinisation and seawater intrusion, and measuring water yields according to crops and farming practices.

The production of open, locally specific data must be encouraged: hydrometeorological time series, piezometry, water quality, and supply-demand balances at the catchment or local authority level. This data must be accessible and integrated into collaborative platforms enabling local authorities and users to inform their own resilience plans.

Finally, action research is a key lever for linking science and the local area. In collaboration with farmers' organisations, water management associations (GDA) and local authorities, it must enable the testing and adjustment of precision irrigation protocols, solutions for the safe agricultural reuse of wastewater, and sustainable, adapted agroecological practices. The training of young water technicians and engineers, meanwhile, must place greater emphasis on the dimensions of governance, consultation and mediation, which are now at the heart of sustainable resource management.

VI. Points of consensus and outstanding issues regarding territorial water resource management

6.1 Points of consensus emerging from the national workshops

The eight national workshops yielded a solid set of shared findings and principles for action, regardless of water or institutional contexts. These points of convergence reveal a common understanding of the water crisis as a systemic challenge of governance, resilience and territorial justice.

Water as a common good and a lever for territorial cohesion

All the workshops agree on the need to view water no longer as a mere economic resource, but as a common good whose management must be in the collective interest. The balance between agricultural, domestic, industrial and environmental uses must be negotiated within transparent and shared territorial frameworks. Water regulation thus becomes an instrument of social stability and local cohesion.

The urgency of territorial and multi-stakeholder governance



There is now a consensus on the territorial dimension of water management. Participants recognise that centralised policies alone cannot address the complexity of local situations. Territorial governance — through river basin committees, PTGEs, GDAs or local platforms — is emerging as a relevant framework for reconciling uses, preventing conflicts and promoting shared responsibility.

Integrating water, agriculture and climate policies

Another key point of agreement concerns the need to move away from silo approaches. The workshops emphasise that water policies must be coordinated with agricultural, climate and land policies. This integrated approach is seen as an essential condition for resilience, particularly to ensure water and food security in vulnerable regions.

Managing demand before increasing supply

Countries, whether structurally arid (Tunisia, Yemen, Palestine) or temperate (France), agree that the response to droughts cannot rely solely on the creation of water infrastructure. Water conservation, water efficiency, the use of non-conventional water sources and soil restoration are now seen as priority measures, taking precedence over desalination or inter-basin water transfers.

The central role of consultation and mediation

Dialogue between stakeholders, data transparency and mediation mechanisms are unanimously identified as the conditions for the successful, peaceful management of water resources. Where consultation works — as in the PTGEs in France or the oasis committees in Tunisia — tensions are eased and the legitimacy of decisions is strengthened.

Knowledge as the foundation of public action

The production and sharing of hydrological data appear to form the basis of consensus. All the workshops emphasised the need for reliable information to anticipate crises, plan water use and guide investment. Equitable access to data, particularly through local observatories and open digital tools, is seen as an essential condition for transparency and participation.

The agroecological transition as a lever for adaptation

Finally, there is broad consensus on the transformative role of agroecology. By reducing water demand, improving soil fertility and diversifying production systems, it contributes both to the resilience of farms and to the water sustainability of regions. Resource-efficient and soil-restorative practices (mulching, composting, agroforestry, precision irrigation) are recognised as solutions for the future.

6.2 Issues that remain unresolved

While many points of agreement are emerging, several key issues remain under debate. These questions highlight the remaining uncertainties and the work that needs to be done to consolidate territorial approaches to water management.

Level of decision-making and genuine subsidiarity

The workshops agree on the relevance of territorial governance, but the question of the optimal decision-making level remains open: how can local decisions (municipalities, river basins, territorial projects) be aligned with national and regional frameworks? What role should local authorities play in water planning? The multi-level governance model, although desired, still needs to be clarified and institutionalised. Similarly, the issue of whether a group of powerful stakeholders is represented at the expense of weaker ones remains a challenge.

Sustainable financing of local water governance

Another major question mark concerns the long-term sustainability of funding for local schemes. Whilst consultation and mediation are recognised as essential, they are rarely funded in the long term. How can we secure budgets for regional coordination and monitoring of water abstraction? Should we consider local water taxation or mechanisms for shared user charges to maintain these public services?

Limitations of regulation in the face of inequalities of access



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The workshops highlight the need for equitable management, but few mechanisms currently exist to ensure a fair distribution of resources. Inequalities between rural and urban areas, between smallholders and large companies, or between lowland areas and oasis regions, remain significant. The issue of water justice — which combines access, equity and the prioritisation of vital uses — has not yet found an operational framework.

The legal and institutional status of the resource

Several countries are still grappling with how to legally enshrine the recognition of water as a common good. National legislation often remains focused on ownership and uses, without establishing clear mechanisms for shared responsibility between public, private and community stakeholders. How can this shared vision be translated into legal standards, local charters and regulatory frameworks?

The challenges of data, monitoring and transparency

Despite a consensus on their importance, the collection and dissemination of hydrological data remain limited. Information systems are often fragmented, underfunded or difficult to access. The development of integrated, interoperable and participatory regional observatories remains a crucial task. There is also the question of trust in the data: who produces it, who validates it, and how can it be made public without the risk of it being exploited?

Conflicts over water use and the prevention of tensions

Local mediation initiatives have proven effective, but a systematic approach to preventing water-related conflicts is still lacking. Legal frameworks for arbitration, mediator training and the documentation of success stories are still in their infancy. How can water mediation be institutionalised as a fully-fledged local government function?

Forward planning and long-term vision

Finally, forward planning at the local level remains the weak link in water management. Few local authorities have hydrological scenarios or long-term forecasting models. Decisions are often taken in a rush, whereas building pathways to resilience would require shared simulation tools, incorporating climate, water uses and local economic dynamics.

VI. In conclusion: towards a new territorial contract for water?

The analyses emerging from the national workshops converge on a common observation: the sustainable management of water resources has become a central issue for regional resilience, at the intersection of climate, agricultural and social challenges. Everywhere, the increasing scarcity of water, the rise in droughts and the intensification of water use are testing societies' ability to organise, anticipate and cooperate. In a world where pressure on water is growing faster than its availability, water governance now appears to be a key factor in stability and sustainable development.

The countries studied face a twofold challenge: ensuring water security without compromising food security, and preventing conflicts over water use without hindering local development. Whilst approaches vary according to context — ranging from supply management to water conservation, infrastructure to governance, and technology to local knowledge — they all aim towards the same goal: the establishment of a new territorial water contract, based on shared responsibility, transparency and equity.

This contract rests on several pillars.

The first is institutional: it involves consolidating legislative and regulatory frameworks, providing a stable foundation for territorial mechanisms (PTGE, GDA, basin committees, local platforms) and ensuring their long-term funding.

The second is social and political: the participation of users, local authorities, farmers' organisations and local communities is no longer an optional extra, but a prerequisite for success. Mediation, consultation and co-construction must be recognised as essential public functions, on a par with planning or technical

regulation.

The third pillar is ecological and technological: water resilience requires water conservation, resource diversification, wastewater reuse, groundwater recharge, soil restoration and the transition

. These levers do not fall solely within the remit of hydraulic engineering, but require a combination of innovation, traditional knowledge and collective learning.

Finally, **the fourth pillar is knowledge and transparency**: without open, reliable and shared data, there can be no foresight, no equity and no trust.

The workshops also highlight a truth that is all too often overlooked: water scarcity is not merely a physical reality, but a political construct. It is less the lack of resources than the absence of regulation, dialogue and a shared vision that fuels water crises. The solution therefore lies not solely in infrastructure, but in the ability to organise solidarity between regions, to arbitrate over water uses, and to ensure that decisions are transparent and legitimate.

In this context, international cooperation, solidarity between river basins and the recognition of local knowledge take on a strategic dimension. Climate justice and gender mainstreaming are no longer peripheral issues, but conditions for sustainability: they ensure that water governance benefits everyone and that no community is left behind.

Thus, the path charted by the national workshops calls for moving beyond emergency responses to build a shared and forward-looking vision of the resource. Anticipate, regulate, restore and cooperate: these are the four verbs of action for a new era of water governance.

Their implementation determines not only the ability of regions to withstand future droughts, but also their capacity to devise fairer, more frugal and more inclusive development models.

Key advocacy message:

Water security and social peace cannot be imposed: they are built within regions through consultation, transparency and shared responsibility.





Part Four – Theme 4: Regional governance and the role of local authorities

I. Introduction

1.1 Starting point

Recurring droughts exacerbate pressures on natural resources (water, land), impacting agriculture, livestock farming, local populations and energy use. The sectors of health, education and road infrastructure are also indirectly affected, with potentially longer-term consequences. In the face of these challenges, territorial governance – including planning, the implementation of actions, and the management of resources and infrastructure – is crucial to ensuring a territory's resilience in the face of drought. Similarly, the reception and integration of internally displaced persons is a challenge that must be overcome. In this context, local authorities—whether traditional (traditional and/or religious chiefdoms, etc.) or administrative (local authorities and associated services, etc.)—have a major role to play in anticipating the effects of such crises and the measures to be considered to reduce their territory's vulnerability and improve resilience. However, the devolution of powers has not always been accompanied by capacity-building and the financial resources needed to implement the intended objectives.

Four national workshops were organised (Burkina Faso, Canada, Côte d'Ivoire, France) (see Annex 4, Table 1) to address the question posed by Désertif'Actions 2026: **How can we support the role of local authorities so that they can anticipate and manage their territories sustainably by preparing for drought crises?**

1.2 Local governance of natural resources

In a global context marked by the acceleration of climate change, drought stands out as one of the most formidable risks facing territories, simultaneously affecting food security, water availability, the health of ecosystems and the socio-economic stability of communities. Drought crises, which are becoming increasingly frequent and intense, are disrupting territorial balances and testing the capacity of local institutions to anticipate, coordinate and act.

In this context, local authorities play a pivotal role. They are the first line of response to crises, but also the most appropriate framework for planning and integrated resource management. Their proximity to local populations gives them detailed knowledge of local vulnerabilities, indigenous practices and community dynamics. It is they who translate national policies into concrete actions and who, in the best-case scenario, initiate innovative solutions tailored to the realities of their local area.

However, their actions are often constrained by a range of structural factors: excessive centralisation of decision-making, insufficient financial and human resources, weak inter-institutional coordination and a lack of reliable climate data. In the countries studied (see Annex 4, Table 1), these constraints manifest themselves differently, but all point to the same fundamental question: how can local authorities be equipped and empowered to become the true drivers of territorial resilience in the face of droughts?

This summary, based on the results of the national workshops, highlights how the issue of sustainable territorial management plays out in these different contexts. It first analyses the problem and its country-specific characteristics, then outlines the actions currently being implemented to address it. It then assesses the strengths and weaknesses of existing approaches before formulating targeted recommendations for public and local stakeholders, as well as technical and financial partners. A final

section highlights the points of consensus across all the workshops and identifies some questions that remain unanswered.



II. National contexts studied

In all the countries studied¹ (see Annex 4, Table 2), drought is perceived as a growing and complex phenomenon, with intertwined social, economic and environmental impacts. Local authorities are on the front line in tackling it, but their scope for action remains limited.

In Burkina Faso, recurrent droughts threaten food security and water availability, particularly affecting rural areas. Municipalities are attempting to address this through the promotion of sustainable agricultural practices, community-based natural resource management and the integration of environmental considerations into municipal development plans, but they suffer from an incomplete devolution of powers and resources.

In Canada, and more specifically in Quebec, the International Climate Cooperation Programme (PCCI) exemplifies an innovative model of sub-national climate finance; however, the programme's sustainability remains threatened by budgetary constraints. In the countries where the PCCI operates (Burkina Faso, Mali, Niger and Chad), national agricultural policies still favour intensive models that are not particularly compatible with territorial resilience. Consequently, climate governance suffers from a structural mismatch between institutional frameworks and local needs, which undermines the capacity of rural communities—particularly women and young people—to take action.

In Côte d'Ivoire, drought has been intensifying for over a decade, exacerbated by deforestation, land pressure and irregular rainy seasons. The consequences are accelerated land degradation — 60% of the territory is affected — and significant agricultural losses. Faced with this situation, local authorities remain powerless: they lack the planning tools, technical capacity and appropriate funding to anticipate and mitigate the effects of drought.

In France, the pS-Eau initiative reveals fragmented and opaque water governance. The centralisation of decision-making limits local autonomy, whilst power imbalances between stakeholders (users, agricultural unions, businesses, associations) hinder the emergence of equitable and sustainable management. The lack of up-to-date data on groundwater resources and the poor interoperability of information systems are major obstacles to anticipation.

Overall, these studies highlight a governance system that remains too top-down and compartmentalised, where the territorial dimension of drought is not fully recognised as a key issue for sustainable development.

III. Actions implemented

Despite these constraints, the countries studied are developing innovative and convergent approaches centred on local planning and the promotion of indigenous knowledge (see Annex 4, Table 3). In Burkina Faso, farmers' organisations and community stakeholders play a key role in disseminating sustainable land management practices (CES/DRS, agroforestry) and restoring ecosystems. These initiatives are accompanied by efforts to provide training and build local capacity, supported by NGOs and community networks. **The establishment of a local governance model for forest resources based on an integrated management approach, supporting the government in the process of transferring powers to local authorities in Fada, has been a success, having mobilised 30 million CFA francs in own environmental revenue.**

¹ It should be noted, in this regard, that the workshop organised in Canada by Mission Inclusion and the one organised in France by the PSE were not intended to examine the issue at the national level in Canada or France, but rather to report on field experience in their areas of operation, particularly in sub-Saharan Africa. On the other hand, the PSE workshop focuses exclusively on the territorial management of water

resources.

² The workshop report does not specify the currency used.





In the PCCI's areas of operation, the 'Climate **Advisory Clubs**' model promotes networking among producers and the testing of tailored solutions. These spaces for collective learning combine technical support, participatory research and local governance. They illustrate a gradual transition towards more resilient and inclusive territories.

In Côte d'Ivoire, local authorities are beginning to integrate climate issues into their planning tools through the development of **territorial climate plans** and **green budgets**, and with the support of the mechanism implemented by the UN Capital Development Fund to promote local financing for climate change resilience (**the LoCAL mechanism**). The government is supporting this momentum through the revision of its Nationally Determined Contribution (NDC 3.0) and the implementation of a National Drought Plan. The National Centre for Agricultural Research (CNRA) is also contributing to resilience efforts by selecting suitable crop varieties and training young people and rural women.

Organisations participating in the workshop in France reported on several collective initiatives that are emerging, notably within the framework of the "Vision 2030" led by Action Against Hunger and the decentralised cooperation networks coordinated by pS-Eau. These initiatives seek to link water governance, food security and citizen participation, whilst promoting the sharing of experiences between regions in the North and South.

These efforts demonstrate a shared commitment to embedding resilience in territorial governance, but their impact remains uneven depending on available resources, the coherence of public policies and institutional recognition of the role of local authorities.

IV. Strengths and levers for improving existing actions

Current approaches show significant progress. Local authorities are increasingly involved in climate planning, action research and the promotion of local knowledge. Concrete tools — such as local climate plans, vulnerability mapping and mechanisms for accessing climate finance — are becoming more widespread. The dynamic of decentralised cooperation also strengthens the exchange of practices and inter-territorial solidarity.

However, several weaknesses persist (see Annex 4, Table 4). Inter-institutional coordination remains inadequate, funding is fragmented and often dependent on international aid, and climate data remains incomplete. Governance remains characterised by a high degree of centralisation, limiting the territories' capacity for innovation. Social and land-related inequalities — notably the exclusion of women, young people and pastoralist communities — hinder local ownership of solutions. Finally, territorial planning remains too often reactive rather than proactive, preventing crises from being transformed into drivers of sustainable development.

V. Recommendations and outlook

All the workshops converge on a single conviction: resilience to drought is built first and foremost at the local level. It requires strengthening local capacities, consolidating integrated planning and establishing shared and transparent governance (see Annex 4, Table 5).

Governments are called upon to institutionalise territorial governance of adaptation by providing local authorities with the financial and legal means to act. They must integrate local climate plans into national policies and channel public funding towards governance, knowledge and participation, rather than focusing solely on infrastructure.

Local authorities, for their part, must equip themselves with forecasting tools (green budgets, vulnerability maps, early warning systems) and develop decentralised cooperation partnerships to pool resources. They also have a vital role to play in transparency and citizen participation, by disseminating

climate information and reporting on decisions taken.

Civil society and the research community must continue their efforts to document local knowledge and strengthen local action research initiatives. Training young people and women in





environmental governance and resilience-related professions is a crucial lever for embedding change in the long term.

Donors and technical partners have a decisive role to play in providing direct funding to local authorities, in supporting participatory early warning and monitoring mechanisms, and in promoting transparency. Finally, the private sector must be involved in this collective effort through mechanisms for environmental accountability and investment with a territorial impact.

VI. Points of consensus and outstanding issues regarding territorial water resource management

6.1 Points of consensus across the national workshops

The four workshops largely agree on a series of shared observations and principles, which form the common basis for a territorial approach to resilience.

Local authorities are key actors, but still lack the resources to fulfil their management responsibilities:

All workshops recognise that local authorities are the first operational link in the response to drought. They are closest to the population and best placed to identify vulnerabilities and adapt solutions. However, they lack both the financial resources and the technical capacity needed to anticipate and plan effectively.

There is therefore a consensus on the need to strengthen their capacity to act, through effective devolution of powers and direct access to funding, particularly climate finance.

All the workshops emphasise the need for continuous training, the recruitment of specialist skills (environmental technical advisers, local engineers, mediators) and learning by doing.

It is recognised that the sustainability of local actions depends above all on the consolidation of local capacities.

In particular, at the organisational level, local authorities must be equipped to ensure participatory governance and multi-stakeholder consultation. Each workshop highlighted the need to create or consolidate local consultation forums, enabling local authorities, civil society, users, economic actors and public institutions to exchange views and make joint decisions.

Territorial planning must be forward-looking and integrated: The workshops emphasised the shift from a reactive approach to one that anticipates crises. Tools such as local climate plans, vulnerability maps and early warning mechanisms are seen as essential.

There is agreement on the need for spatial planning that is coordinated across national, regional and local levels, and underpinned by reliable climate data. In all the countries studied, there is a tension between centralised decision-making and the fragmentation of sectoral policies (water, agriculture, environment). Coherence between national policies and local realities must be restored.

The consensus is that the state must play a supporting and strategic guiding role, but not one of exclusive control: decentralisation must be effective and operational.

The integration of local and scientific knowledge is a key lever: all contexts highlight the importance of endogenous knowledge for sustainable resource management: farming, customary or pastoral practices. This knowledge must be recognised, valued and combined with scientific and technological approaches.

There is a consensus on the co-production of knowledge between local stakeholders, researchers and institutions.

Local funding for resilience is a weak link that needs strengthening: stakeholders agree that funding for adaptation must be channelled down to the local level. Access to funding mechanisms and the



creation of local funds dedicated to resilience (FVC, LoCAL, PCCI) appear to be essential prerequisites for strengthening local authorities.

There is a consensus on the need for a shift in scale in the allocation of financial resources so that local authorities can take action.

6.2 Issues that remain unresolved

Despite this convergence of views, several areas of uncertainty and persistent tensions remain regarding how to operationalise the role of local authorities. These issues constitute the challenges that must be addressed to sustainably strengthen their capacity to anticipate and manage droughts.

What form of territorial governance is needed to manage complexity? Whilst the need for multi-level governance is recognised, the practical arrangements for coordination remain unclear and several aspects of the issue require further exploration.

Responsibilities between local authorities, decentralised services and national institutions need to be clarified, and intermediate coordination structures (river basin agencies, regional platforms, territorial climate councils) need to be created. The question of accountability and transparency of the mechanisms and systems put in place also remains open.

Furthermore, there are numerous examples of consultation, but these are often ad hoc or short-lived. Forums for dialogue must become a duly recognised and funded local public service, formally integrating traditional chiefdoms, local associations, women and young people into governance mechanisms.

The role of the private sector in territorial governance remains a sensitive issue. The workshops highlighted the need for collective responsibility in the use of resources, but the regulation of the private sector remains a sensitive issue. Local economic investment must be reconciled with ecological and social imperatives, and environmental accountability mechanisms must be put in place to regulate the use of resources, particularly water and land.

Building effective territorial solidarity to reduce imbalances between rural and urban areas, and between rich and poor regions, which are exacerbated by droughts. Inter-municipal and inter-regional cooperation to pool resources and prevent tensions must be promoted, and national solidarity (emergency funds, insurance schemes) must be strengthened and linked to local responsibility.

How can the sustainability of local funding be guaranteed? Funding for resilience still relies heavily on time-limited projects, often dependent on donors and technical and financial partners. Financial frameworks should be identified that would ensure a structural and recurring allocation to local authorities for climate risk management. The coordination of local funds with international mechanisms (GCF, Adaptation Fund, etc.) whilst avoiding external dependency also needs to be defined.

How can local knowledge and scientific frameworks be integrated into public policy? The value of endogenous knowledge is recognised, but its effective integration into policy remains limited. Mechanisms can facilitate its official recognition and reconcile local empirical approaches with standardised planning and monitoring tools (indicators, databases, etc.).

How can territorial resilience be measured and monitored over time? Most countries lack shared indicators to assess progress made at the local level. How can participatory monitoring systems be developed, combining climate, socio-economic and institutional data? What evaluation mechanisms would link local preparedness with national policies?

VI. Conclusion

The findings from the national workshops point to a shared conviction: the resilience of territories in the face of recurring drought crises is determined first and foremost at the local level. Local authorities, by virtue of their proximity to the population and their detailed knowledge of socio-economic and environmental dynamics, appear to be the key actors in the anticipation, management and transformation of territories. However, their potential remains largely untapped.

A strong consensus has emerged on several fundamental points. Firstly, the central role of local authorities in the sustainable management of regions is now recognised in all the contexts studied (Burkina Faso, Côte d'Ivoire, Mali, Niger, Chad). All agree on the need to strengthen their financial, technical and institutional capacities so that they can plan and act autonomously. Proactive territorial planning, underpinned by reliable climate data and incorporating early warning mechanisms, is also identified as a key lever for preventing crises rather than responding to them in an emergency.

The workshops also highlight the need to combine local knowledge with science and research to develop adaptation strategies tailored to on-the-ground realities. The co-production of knowledge between community actors, local authorities, researchers and institutions is seen as a key condition for effectiveness and sustainability. Similarly, participatory governance — involving civil society, users, the private sector and traditional institutions — is widely recognised as a framework for legitimacy and transparency in local public action. Finally, the challenge of local financing for resilience is unanimously recognised: without sustainable resources or direct access to funds—particularly climate finance—decentralisation remains incomplete and local authorities remain dependent on external mechanisms.

But alongside these agreements, several questions remain unanswered, revealing the depth of the transformations still required. The first concerns the clarification of territorial governance: how should responsibilities be practically allocated between the different levels of decision-making, and how can accountability and inter-institutional coherence be ensured? The second relates to the sustainability of funding: what mechanisms can guarantee a regular and structuring flow of funds for local adaptation, beyond project-based approaches ?

The workshops also examine how to institutionalise citizen participation and territorial mediation, which are currently often limited to one-off initiatives. How can these practices be firmly embedded in the workings of local authorities, and how can they be given legal and financial legitimacy? Furthermore, whilst the value of local knowledge is recognised, it remains difficult to translate this into public policy. The methods for integrating this knowledge into regulatory and decision-making frameworks have yet to be devised. Finally, measuring territorial resilience itself remains a challenge: few countries have shared indicators or assessment mechanisms capable of linking local actions to national or international outcomes.

These areas of uncertainty highlight the need for a shift in scale and paradigm. Strengthening the role of local authorities does not merely mean delegating new tasks to them, but rethinking development governance from the local level upwards: a governance based on trust, subsidiarity and shared responsibility between the State, local authorities, communities and economic actors.

Thus, the collective thinking emerging from the workshops outlines a dual dynamic to be consolidated. On the one hand, a common foundation of principles of territorial governance: effective decentralisation, capacity building, sustainable financing, recognition of local knowledge and citizen participation. On the other hand, a programme of operational implementation that remains largely open, requiring the invention of new institutional, financial and methodological tools to transform these principles into concrete levers for action.

Ultimately, the ability of local authorities to anticipate and manage their territories sustainably will depend not only on their capacity to act, but also on the quality of the relationships they maintain with other levels of governance. Territorial resilience can only be built within a framework of solidarity and cooperation between territories, supported by a facilitating State and committed partners. Only on this condition will



territories move from reactive drought management to a genuine culture of anticipation and sustainable development, based on knowledge, participation and environmental justice.





General conclusion – Towards territories resilient to drought

The work carried out during the national preparatory workshops for Désertif'Actions 2026 confirms a reality now widely acknowledged: drought is no longer an occasional hazard, but a structural constraint that is permanently redefining the development trajectories of territories. Across the diverse range of contexts studied, discussions revealed that the impacts of droughts are systemic in nature, simultaneously affecting production systems, natural resource management, social balances and modes of governance.

A cross-cutting analysis of the four themes first reveals the close interdependence between agricultural and pastoral systems, water management and territorial governance. The transformation of sedentary agricultural and livestock systems, the preservation of mobile systems based on pastoral mobility, territorial water governance and the role of local authorities are all complementary and inseparable levers of resilience. The workshops agree that sectoral, fragmented or strictly technical responses are insufficient to cope with the intensification of droughts.

A key lesson concerns the need to view resilience as an overarching characteristic of regions. This is based on the ability to combine more sustainable and diversified production practices, equitable and collaborative management of water and land resources, and governance mechanisms capable of anticipating, mediating and coordinating actions over the long term. From this perspective, agroecology, pastoral mobility and integrated water resource management appear not as marginal solutions, but as structural pillars of development pathways suited to arid and semi-arid contexts.

The workshops also highlight the central role of local actors—family farms, pastoralist communities, local authorities, civil society organisations—in building this resilience. Their proximity to the local areas, their detailed knowledge of local dynamics and their capacity for innovation are major assets. However, these actors often face significant structural constraints: limited access to funding, inadequate legal frameworks, institutional fragmentation, insufficient data, and still only partial recognition of their roles in public policy.

There is thus a strong consensus on the need to strengthen territorial governance as the preferred framework for action in the face of droughts. Documented experiences show that multi-stakeholder consultation, transparency in resource allocation rules, mediation and the co-production of knowledge help to prevent conflicts, strengthen the legitimacy of decisions and improve the effectiveness of the actions undertaken. The shift from reactive crisis management to a culture of anticipation appears to be a central challenge across all these issues.

In this context, local authorities occupy a strategic position. They are the most appropriate level for coordinating sectoral policies, translating national guidelines into concrete actions and mobilising local stakeholders. The workshops emphasised, however, that strengthening their role requires an effective transfer of powers, financial resources and technical capacity, as well as direct and sustainable access to funding for resilience and adaptation to climate change.

Beyond these shared observations, the workshops also highlighted a number of fundamental questions that remain unanswered. How can we secure the transition pathways for agricultural and pastoral systems without increasing short-term economic vulnerability? How can pastoral mobility and the collective management of resources be legally and politically recognised as public goods serving resilience? How can sustainable funding for territorial governance be ensured and the logic of one-off projects be overcome? How can reliable data be produced, shared and used to anticipate droughts and inform decision-making at all levels?

As the Désertif'Actions 2026 Summit and UNCCD COP17 approach, this summary report sends a clear message: strengthening resilience to droughts is not merely a matter of technical adaptation,

but a long-term political and territorial project. It involves rethinking modes of production, governance and solidarity between territories so that climate crises are no longer factors of disintegration, but levers for transformation towards more sustainable, equitable and resilient societies.



Appendices

Appendix 1: Classified data for Theme 1: Transformation of sedentary agricultural and/or livestock farming systems in the face of droughts

Table 1: National workshops

Country	Date	Organisers	Donors	Format	Number of participants
Algeria	16/09/2025	El Argoub Association	Vocational Training	Mixed	24
Belgium / Brussels	25/09/2025	Minka Network Humundi	FP	P	24
Brazil	24/10/2025	Semi-arid region Brazilian (ASA) CARI	FP	Online	7
Burkina Faso	19–20 June 2025	SPONG	TREE AID	P	
Cameroon / Maroua	23 July 2025	Support service for local development initiatives GEF-SPG/COMDEKS 4	GEF-SPG/COMDEKS 4	P	26
France Carcassonne	10 Oct	Chamber of Agriculture of the Aude	CASDAR	P	
France / Montpellier	10/06/2025	CSFD	FP	P	
France / Montpellier	3 October 2025	French Partnership for Water	FP	P	
Mali	06/08/2025	Women's Network for Environmental Rights (REFEDE-Mali)	GIZ - TREE AID	P	50
Niger	07/08/2025	CNCOD			
Palestine / Ramallah	02/09/2025	Palestinian Agricultural Coalition (PAIC) and members	European Union	P	33
Senegal	16–17 September 2025	Dynamics for an agroecological transition in Senegal (DyTAES)			
Tanzania/Arusha	30 Sept–1 Oct 2024			P.	31
Tunisia / Medenine	18–19 June 2025	ACCD	OSS & WWF & IRA	Mixed	58
Yemen	29–30 September 2025	Rural Youth Cooperative for Agricultural Development (RYCAD)		Mixed	31

Table 2: Framing of the issue in the

Country	Framework elements
Algeria	High vulnerability to recurrent droughts, particularly in steppe areas, and rapid desertification of the territory (85% of the country's land area is arid or semi-arid). Declining rainfall, overexploitation of groundwater, soil degradation, salinisation of irrigated areas. Vulnerability of small family farms. Centralised governance, disconnect between agricultural and environmental policies. Commitment to integrating innovation , local governance and resilience
Belgium	Role of Belgian cooperation: coherence between development cooperation and local community development (LCD). Belgian policy framework: Promotion of sustainable food systems and agroecological transition in the Global South. Lack of coherence among donors, no co-construction with beneficiary partners of initiatives for integrated resource governance. Note: "Ultimately, resilience is not so much the ability to withstand shocks and return to a previous situation, but rather to bounce back and move towards something better!"
Brazil	Structural intensification of drought and aridification, particularly in the semi-arid region. Three major trends are highlighted: - Expansion of the officially recognised semi-arid zone, due to recurring drought impacts - Emergence of new arid areas, previously not classified as drylands - Longer and more frequent drought periods in other regions of the country Drought and desertification are framed as both environmental and socio-political issues, closely linked to land governance, territorial rights, extractive economic models and energy transitions. Civil society, coordinated by the ASA network, plays a central role in advocacy, social technologies, and



	territorial resilience
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Burkina Faso	A country severely affected by drought, with recurring droughts since the 1970s. All sedentary agricultural systems are affected: loss of yields, fodder crises and conflicts over land use, food insecurity, rural poverty, migration and increased vulnerability of women. Limitations of the intensive model; agroecological transition as a key lever, hampered by structural challenges: limited financial resources, limited institutional support, insecurity in certain regions, lack of training and technical support
Cameroon	Progressive aridification in the North and Far North regions of the country, exacerbated by reduced rainfall (-30% since 1970) and accelerated soil degradation, loss of fertile soil, average yield decline of 25–40% (Diamaré, Mayo-Kani, Mayo-Tsagana), forced sedentarisation of pastoralists and increased pressure on arable land causing migration and pressure on resources. Impact of climate change.
France	Department of Aude (Carcassonne workshop, 10 October): Intensification of droughts since the 1990s, combined with an increase in heatwaves and a decline in annual water levels. Crop mortality (vineyards), reduced yields, land abandonment (47,000 ha of fallow land), major wildfires (19,000 ha burnt in 2025), soil salinisation and rural impoverishment. Water restrictions, initially regulated, are becoming structural. Climate resilience plan for the Corbières, designated a “pilot region for adaptation to climate change”.
	France, the Mediterranean, North Africa (Montpellier workshop, 3 October): Mediterranean France is a critical zone in terms of drought (IPCC), with agricultural droughts having become structural (doubled in 60 years), directly affecting food production and the stability of rural areas, major agricultural losses (up to €35 million over 3 years, 2,000 ha of vineyards abandoned, undermining regional food sovereignty) The triad of “water, soil and agriculture” is presented as the heart of the problem and also as the key to the solution Agricultural and water policies are too compartmentalised, with insufficient public and institutional awareness insufficient
	France-EU, International Cooperation (Montpellier workshop, 10 June): Drought poses the most serious risk to crops and livestock, affecting 55 million people each year Policy responses from France and the EU: Sustainable Land Management (SLM) and funding for agroecology via the AFD. Key concept: resilience defined through three capacities: ▪ Buffer / Robustness: absorbing shocks without disrupting the system. ▪ Adaptation: gradual adjustment of practices and resources. ▪ Transformation: reconfiguring the system to ensure long-term survival
Mali	Recurring droughts, which have intensified since 2010; massive production losses and soil degradation. Rapid degradation of vegetation cover, growing tensions between farmers and herders. Public policies focused on productivity rather than sustainability.
Niger	Highly vulnerable country, with over 75% of the territory arid or semi-arid. Recurring droughts since the 1970s, annual loss of 100,000 ha of arable land Crisis in agricultural, forestry and pastoral productivity and massive rural exodus Population growth of over 3.8%, land fragmentation exacerbating pressure on land High vulnerability of rural communities, urgent need for sustainable resilience strategies.
Palestine	Semi-arid to arid climate, characterised by a gradual decline in rainfall (up to –20% in some areas) and a rise in average temperatures of 1.5 °C since 2000. Structurally deficient water resources, less than 80 m³/year/capita (critical water stress threshold 500 m³/year). Political constraints, restricted access to 85% of the West Bank’s water resources, territorial fragmentation, confiscation of agricultural land, and restrictions on farmers’ mobility. Urban and settlement expansion is reducing arable land, particularly in the Jordan Valley. Smallholders, who make up the majority (78% of farms < 5 ha), see their livelihoods undermined by high production costs, dependence on imported inputs and the destruction of water infrastructure. Key issues: food security, water self-sufficiency, the preservation of family farming, resilience of agricultural systems under political and environmental constraints
Senegal	A marked intensification of droughts since the 1970s, with an average 20–30% decline in rainfall, shorter growing seasons and episodes of extreme heat. Settled agriculture (mainly cereals: millet, sorghum, maize, groundnuts) accounts for 70% of national production and is heavily dependent on rainfall. Soil depletion, land pressure, fragmentation of family farms and accelerated land degradation (over 6 million hectares), food insecurity and the deterioration of livelihoods. Sedentary livestock farming in the groundnut belt and in peri-urban areas, increased pressure on forage and water resources. A robust national momentum for agroecological transition, driven since 2019 by the National Agroecological Transition Strategy (STAE) and the mobilisation of the DyTAES network, recognised as a model of participatory and inclusive governance.



Tanzania	Tanzania is highly exposed to land degradation and drought, with approximately 61% of the territory affected. The impacts are multifaceted: ▪ Environmental: soil erosion, loss of vegetation, decline in biodiversity, water scarcity, invasive species. ▪ Social: food insecurity, malnutrition, conflicts over resources, migration, increased vulnerability of pastoralists and women. ▪ Economic: reduced agricultural productivity, loss of income, higher production costs, declining rural employment and pressure on national GDP.
Tunisia	Mediterranean countries most affected by structural drought, with 75% of the territory being arid and semi-arid. Water availability below 350 m³/year/capita. Declining productivity and advanced soil degradation (erosion, salinisation, falling groundwater levels, gradual abandonment of traditional water and soil management practices) Vulnerable family farms and youth migration Highlighting the National Drought Plan (PNS, 2020) and the National Ecological Transition Strategy 2050, which provide the framework for proactive drought management and ecosystem resilience. Focus on the central role of agricultural research (IRA, universities) and nature-based solutions (NBS) as levers for adaptation. Highlighting exemplary local initiatives: <i>Jessours, Mejels, Fesqiya, carob trees, bubbler irrigation</i>. The importance of local knowledge and the role of rural women in community resilience.
Yemen	One of the world's most vulnerable countries to drought and land degradation: over 90% of the territory is arid or semi-arid, and agriculture consumes 90% of available water resources. Agricultural production (rainfed and irrigated) is collapsing, whilst droughts are becoming longer and more frequent. The depletion of groundwater reserves (particularly in Sana'a and Tihama) and the proliferation of unregulated solar pumps are exacerbating water shortages. Food crops are declining in the face of the expansion of qat, which consumes large amounts of water, exacerbating food insecurity and dependence on imports.

Table 3: Actions implemented in the

Country	Background
Algeria	Agricultural practices and sustainable land management: National Land Use Planning and Sustainable Land Management Plan, sustainable soil conservation techniques, agroforestry and intercropping, organic waste utilisation, drought-resilient varieties, micro-irrigation Institutional strengthening and governance: integration of LCD into National Development Action Plans (NDAPs), awareness-raising and training for agricultural technicians and farmers, water management cooperatives, agroecological producer groups Research and innovation: Centre for Applied Economic Research for Development, university-field partnership
Belgium	Diplomatic and policy action: advocacy (EU, UNCCD) for better integration of AE/AF into decision-making, greater focus on drought in GEF, GCF programmes, etc. Targeted funding and technical assistance Support for North-South research and promotion of action research Networking of Belgian stakeholders, exchange of best practices and harmonisation of approaches
Brazil	Communities and civil society ▪ Water security: rainwater harvesting systems (cisterns), decentralised storage adapted to local contexts; expansion of the national cistern programme beyond the semi-arid region ▪ Agroecology and food sovereignty: support for diversified family farming systems, community gardens, and productive gardens run by women (e.g., Quintais Produtivos das Margaridas). ▪ Local mobilisation and advocacy: ASA's long-standing engagement in Desertif, COP and UNCCD civil society coordination processes ▪ Capacity building: strengthening local networks, farmer experimentation, women's leadership and community organisation. Policies and institutional processes ▪ Civil society contribution to the revision of the Brazilian Action Plan against Desertification (PAB) ▪ Advocacy for greater recognition of dryland biomes (Caatinga and Cerrado) and the protection of traditional territories ▪ Engagement in national and international policy dialogue through UNCCD mechanisms
Burkina Faso	Farmer and community initiatives: dissemination of proven agroecological practices of CES/DRS (zaï, stone cordons, half-moons, collective composting, RNA, agroforestry and intercropping, local production of biofertilisers and organic pesticides, farmer field schools, seed fairs, peer training Technical and organisational support (TreeAid, APIL, CNABio, SPONG, etc.) Contract reforestation



	Research and teaching: development of appropriate techniques, demonstration plots, university-NGO partnerships (action research and training) Integration of AE into municipal and regional development plans, forest management agreements and restoration of communal lands, drafting of the SNDAE (2023–2027) and the National Plan for Integrated Drought Management Support for the legal framework governing land tenure
Cameroon	Agricultural practices and land restoration: CES/DRS techniques, drought-tolerant crops, village-led reforestation and agroforestry, integration of crop and livestock farming Community organisation and local governance: village land and water committees, involvement of municipalities in lowland restoration and land-use planning, awareness-raising among women and young people, support for mixed agricultural cooperatives Institutional support and partnerships: MINEPDED in the implementation of the SNLCD (2024–2030), AE training and pilot project implementation, GMV regional cooperation and the Cameroon Green Project, training of local authority staff and extension workers in IWRM
France	Aude Department: regenerative hydrology, master plan for access to raw water and regional water management project, river restoration and restoration through infiltration, composting and biochar, vegetation cover and hedgerows, training in AE, resource management, diversification and climate adaptation, PES France, the Mediterranean, North Africa: Agricultural practices and innovations (soil conservation agriculture, agroforestry and regenerative agriculture, sustainable irrigation, promotion of living soils) Territorial management and local policies: territorial water management plans, PSE, territorial food plans, AE projects for France, collective support for farmers committed to the transition Research and cooperation Water-soil-agriculture nexus France-EU, International cooperation: Promotion of agroecology and diversification, training and support (master farmers), farmer-to-farmer exchanges, field schools, , support for research and diverse pilot projects
Mali	Promotion of AE practices, RNA, micro-dams, community reforestation, integrated agroforestry, integrated water management, training of producers in conservation agriculture and the production of biofertilisers, promotion of local knowledge, organisation of fairs showcasing AE innovations and exchanges between farmers, integration of AE into municipal development plans Establishment of farmers' organisations and agroecological cooperatives
Niger	AE and SFM practices (CES/SFM, NRM, village-level AF, collective composting, intercropping, micro-dams), SFM and NRM practices (30% of arable land covered) Local organisation and governance (local NRM committees, municipal drought management plans, involvement of local councils in drought management and land restoration plans, support for mixed agricultural and pastoral cooperatives) Programmes and institutional support (integration of SFM into municipal development plans and the programmes of the High Commission for the 3N Initiative, National Drought Plan and Early Warning System, structural projects (Keita, PASP, PDRT) Development of the 2014–2029 SLM Strategic Framework
Palestine	Water management and technical innovations (reuse of treated water, drip irrigation systems, rainwater harvesting cisterns and basins, solar desalination and local greywater treatment) Sustainable and resilient agricultural practices (drought-resistant crops, composting, organic fertilisation, crop rotation, community gardens, restoration of traditional terraces) Social organisation and institutional support (community water management committees, local agricultural cooperatives, awareness-raising campaigns, public-private sector collaboration - cooperation agencies
Senegal	Institutional and policy: adoption of the SNTE in 2023, regional DyTAES units, AE pilot projects Sustainable agricultural practices: farmer-saved seeds, organic inputs, agroforestry systems and intercropping, soil management, urban and peri-urban agroecology Organisation of stakeholders and communication: Dynamic Agroecology Caravan (DyTAES), STAE in preparation, strengthening of local DyTAELs, training programmes, community seed banks and AE regional labels
Tanzania	Territorial and Civil Society Actions - Land restoration: agroforestry, natural regeneration, tree nurseries, soil and water conservation (Fanya juu/chini, half-moon bunds, terraces), rainwater harvesting - Capacity building: farmer training, school programmes, demonstration plots, farmer field schools. - Knowledge dissemination: rural media, community campaigns, digital tools (e.g., Kijani app), local champions - Results achieved: more than 339 acres restored, 4,560 farmers trained, 18 million trees planted, and over 225,000 households reached by some initiatives Institutional Actions - Implementation of UNCCD commitments: National Action Programme (NAP), LDN target setting, regional cooperation (SADC, African RAP) - GEF-funded projects supporting sustainable land management and landscape restoration. - National tree-planting and restoration targets (approx. 5.2 million hectares nationally, annual district targets)

	Advocacy and Communication - Media engagement (JET) to raise public awareness and strengthen environmental journalism. - Increasing the participation of CSOs in UNCCD processes and COP advocacy.
Tunisia	Ecosystem restoration and land rehabilitation: traditional water collection and management techniques (jessours, tabais, seguias, khottaras), rehabilitation of traditional jessours, drought-resistant crops, agroforestry, RNA, local composting and biofertilisers Local water management and innovation: localised irrigation, rainwater harvesting, water-saving practices, use of solar energy, small-scale rural water systems (cisterns, household ponds) Local governance and stakeholder engagement: catchment committees, collaborative resource management, GDA involved in the maintenance of hydraulic structures, involvement of local authorities in the implementation of territorial adaptation plans, cooperation between research institutes , NGOs and farmers to test innovative practices
Yemen	Solar irrigation systems, rehabilitation of irrigation canals, anti-erosion structures, rainwater harvesting cisterns and community reservoirs, training in drip micro-irrigation and maintenance of solar pumps, agroecological transition and resilience practices, local basin committees for collaborative water management (Taiz, Ibb, Lahj), community water charters, socio-economic support ("Food-for-Assets" and "Cash-for-Work" programmes by the WFP and UNDP) Pilot scheme for seasonal microcredit and simplified drought insurance

Table 4: Barriers and drivers for improvement

Country	Brakes	Levers
Algeria	Poor cross-sectoral coordination, slow progress in decentralisation. Lack of specific funding for agroecology, limited access to credit for smallholders, poorly targeted subsidies, restricted access to appropriate technologies and seeds, limited market for agroecological products, overexploitation of aquifers, salinisation, loss of biodiversity, recurrent forest fires	Gradual decentralisation and regional agricultural development plans Growing adoption of CES techniques, agroforestry and micro-irrigation Public programmes to support reforestation and composting Greater involvement of universities and agricultural institutes in practical training Collaboration between NGOs, research institutions and farmers' organisations to test sustainable practices
Belgium	Federal-regional complexity: harmonisation of positions and funding, insufficient coordination between donors, interventions that are sometimes standardised and unsuitable, short project durations, language barriers and overly technocratic formats of deliverables limiting ownership by beneficiary communities, low budget allocated to extension International standards still incomplete despite progress; EA/AF is not yet systematically integrated into decisions by Heads of State	Belgium's active diplomatic stance and concrete role Human and scientific capital North-South networks and platforms ready to facilitate exchanges and the co-development of suitable financing models (common core funds, PSE, etc.) Political will, ministerial policy document (March 2025) and commitment to promoting EA/AF as key components of cooperation programmes
Brazil	The main drivers of desertification in Brazil are large-scale livestock farming, mining (particularly gypsum and ceramics), irrigated areas and the intensive use of pesticides and machinery. The expansion of these enterprises is encroaching on conservation areas and traditional communities within the biomes that make up Brazil's semi-arid region, particularly the Caatinga and the Cerrado The environmental impacts of renewable energy, particularly wind and solar power, which are causing deforestation and desertification in north-eastern Brazil. These energy sources are being implemented centrally by large corporations, without benefit to local communities, generating a series of land conflicts on a scale unprecedented in the history of the Brazilian semi-arid region. Furthermore, the increasing use of pesticides in energy production parks is causing	Advancing agrarian reform and the demarcation of traditional peoples' territories. Emphasising the importance of raising the profile of protected area conservation through the management, maintenance and stewardship of traditional peoples' territories. Also, implementing measures to support vegetable gardens managed effectively and sustainably by women It is necessary to promote decentralised solutions such as solar roofs and water management, such as those proposed by the ASA, in particular the '1 million solar roofs' programme as a model for clean, decentralised, equitable and grassroots energy production National campaign for the adoption of proposed constitutional amendment No. 504 (PEC 504), which recognises the Caatinga and the Cerrado as national heritage sites, alongside other instruments and policies promoting agroecology, the preservation and the restoration of the environment



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	health issues and affects soil quality In the case of the Cerrado, it is worth highlighting the degradation and indiscriminate use of water by agribusiness. Billions of litres of water are extracted from the Cerrado's subsoil using reservoirs, which affects springs and areas of the Caatinga	
Burkina Faso	Insufficient and delayed funding, limited access to credit, insufficient funds dedicated to agroecology, dependence on foreign aid, precarious access to land, land conflicts, gender and intergenerational inequalities, slow implementation of national agroecology strategies, lack of coordination between stakeholders, armed conflicts reducing access to territories, forced displacement of populations, limited funds for agroecology research and technology transfer technology, lack of data on impacts	Adoption of the SNDA (2023–2027) and the PNA (2024–2028) incorporating agroecology and drought Donor commitment and climate finance opportunities Well-structured AE stakeholder networks and dedicated media Strong community mobilisation and rural solidarity Expansion of demonstration fields, rural radio stations and knowledge-sharing platforms
Cameroon	Poor coordination between ministries and projects, lack of a territorial monitoring mechanism for the PNLCD Limited access to agricultural credit, dependence on external aid to finance micro-dams and organic inputs Insufficient extension services, lack of trained staff on agro-ecology and sustainable land management Agricultural-pastoral land-use conflicts, insecurity in certain border areas, rural exodus of young people Persistent deforestation, silting, erosion wind power	Existence of a revised national framework (PNLCD) and a climate strategy currently being updated Strong local momentum centred on municipalities and village associations Successful experiences with CES/DRS, agroforestry and community micro-irrigation Ongoing support from PTFs Growing recognition of traditional knowledge and the involvement of women in land restoration
France	Aude: water use policy unsuited to the Mediterranean context, lack of incentives to maintain good practices, lack of funding, insufficient recognition of the ecosystem services provided by agroforestry, lack of coherence between public policies, obstacles to replanting (high costs, seedling mortality, abandoned programmes)	Adoption of a Mediterranean water policy adapted to local specificities Development of water compensation funds Utilisation of local organic matter Recognition of the Mediterranean agro-ecological landscape Creation of strategic seed stocks Support for integrated territorial planning for water
	Compartmentalisation of water : agriculture/environment, restrictive regulatory framework for irrigation Lack of local engineering expertise in agricultural water management and living soil practices Weak fiscal incentives for the transition, high investment costs Lack of public awareness, divide between pro-irrigation and pro-water-saving	Dynamics of PTGEs and multi-stakeholder committees on water The strong potential of French research Revival of the PSE and funding from water agencies for the AE Development of a common narrative on 'water-agriculture-biodiversity'
	Projects are too short-term and lack continuity after funding ends Top-down and compartmentalised governance Lack of access to data, documentation and technical monitoring Land tenure insecurity and limited knowledge of rights Economic risks for farmers in the face of climate uncertainty Lack of political consensus on the causes and ways of addressing droughts	Funding for long-term projects (over 5 years) and post-project support Continuing professional development and peer-to-peer knowledge sharing Territorial integration (social cohesion, local governance, participatory assessment) Communication about 'successes' Social inclusion, women and young people Emerging international mechanisms: World Bank Loss and Damage Fund, coordination between the UNCCD and national policies



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Mali	Low coordination between agriculture, environment and research, slow uptake of the national AE strategy Lack of long-term funding, limited access to credit Low availability of AE advisers, lack of monitoring data Unequal access to land and water for women and young people	New AE strategy (2023–2030) underway, agricultural decentralisation progressing Community microfinance Network of demonstration farms and experienced AE organisations Active women's cooperatives and gender mainstreaming in AE projects
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Niger	Compartmentalisation between agricultural, environmental and pastoral policies, weak cross-sectoral coordination Lack of local funds and long-term financing, difficult access to rural credit Insufficient extension workers trained in AE, dissemination of local innovations still limited Inequalities in access to land, land tenure insecurity for women and young people Conflicts over the use of water, land and pastures, insecurity in certain areas	3N Programme, Rural Code and CLGRN, recognised experience in land restoration Proven success of the RNA, CES/DRS and large-scale AF practices Ongoing support from PTFs and integration of sustainable land management into climate policies Active involvement of local authorities and farmers' organisations in resource management Promotion of local assets and the role of women in ecological restoration
Palestine	Territorial fragmentation, lack of sovereignty over natural resources, restrictions on access to Area C, administrative delays Lack of stable funding, dependence on external aid, high costs of water equipment Lack of access to innovation, training and maintenance for water-efficient irrigation technologies Soil degradation, overexploitation of aquifers, pollution from untreated effluent Vulnerability of smallholders, rural exodus, limited recognition of women's role in agricultural management	Support from local authorities and village councils for water and land management Promotion of traditional practices Introduction of solar technologies, micro-irrigation, greywater treatment, support from technical NGOs Cooperatives and management committees Growing recognition of the link between land use, desertification and agricultural resilience
Senegal	Insufficient coordination between ministries, lack of an integrated funding framework for STAE Limited access to credit for small-scale AE producers, weak fiscal incentives, dependence on external funding Lack of extension workers trained in AE, shortage of localised applied research Land-use conflicts and land grabbing in rural areas, difficulties for women and young people in accessing land Slow uptake of change among some farmers, lack of economic of AE products	Strong political commitment to AE, gradual integration of STAE into regional development plans Creation of local AE funds, potential PPPs for the promotion of AE products Networking of research centres and farmers' organisations for action research Growing mobilisation of networks for advocacy and the scaling up of practices Inclusion of women and young people in DyTAELs and creation of social enterprises and local AE initiatives
Tanzania	Limited and unstable financing for implementation and reporting under the UNCCD Weak monitoring and data systems, insufficient field-level data and unreliable satellite indicators Low awareness and ownership at local level of land degradation and drought strategies. Fragmented governance and weak cross-sectoral coordination (environment, agriculture, water, land) Socio-economic pressures: poverty, charcoal-driven deforestation, dependence on natural resources Insufficient recognition of indigenous knowledge and nature-based solutions Land-use conflicts and the marginalisation of pastoralists, who are sometimes criminalised without viable alternatives	International framework (UNCCD, LDN, COP processes) enabling policy alignment, access to funding and political leverage Strong civil society networks and community engagement capacity Demonstrated effectiveness of agroecological practices for soil health, water retention and livelihood diversification Media capacity to amplify advocacy and behavioural change Existing national strategies and policies that can be updated and harmonised Central coordinating role of the Vice President's Office (VPO) as the national focal point
Tunisia	Poor coordination between ministries, centralisation of decision-making Insufficient funding for smallholders, dependence on pilot projects, lack of tax incentives for AE Weak agricultural extension services, shortage of skills/technicians AE Ageing rural population, exodus of young people, insufficient recognition of women's role	Commitment of the MARHP and the DGACTA to integrated water resources management (IWRM), continued support from technical cooperation programmes Strong local knowledge and modern water-saving innovations Dynamism of GDA, rural women's associations and young agricultural entrepreneurs Growing access to climate finance Involvement of research institutions in applied research and AE training



Yemen	Poor coordination between ministries and lack of a national IWRM strategy Lack of maintenance of pumps and irrigation networks, dependence on imported inputs	Establishment of participatory basin councils and formalisation of local water charters Widespread adoption of regulated solar irrigation, promotion of drip irrigation, and rainwater
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	Fragmented, short-term funding focused on humanitarian emergencies rather than sustainability Extreme poverty (80% of the rural population below the poverty line), low literacy rates, exclusion of women from local decision-making bodies Erosion, salinisation, loss of fertile soil, decline groundwater levels, lack of hydrological monitoring	Development of seasonal agricultural microcredit and low-cost drought insurance Training for young people and inclusion of women in water governance and seed management Rehabilitation of terraces and local reforestation
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Table 5: Recommendations by target

Country	State/Public	Donors / PTFs / International International	Civil Society /	Research	Private Sector
Algeria	Fully integrate AE into national agricultural policy Strengthen regional planning for eco-regions and soil restoration Create an agricultural calendar by ecoregion	Support the integrated water-soil-agriculture projects Support action research and local training	CL: Develop local sustainable development plans and promote local local farmers' initiatives Farmers' (FOs): Strengthen the structuring of AE groups and their role in promoting sustainable practices		Invest in local local water-saving technologies, hardy seeds and the promotion of products derived from AE
Belgium	Align cooperation policy with a roadmap : multi-year funding, mandatory AE criteria, integration of HLPE-AE principles into programming	Create/strengthen financial windows dedicated to the AE transition, prioritising multi-stakeholder projects and action research European institutions: Harmonise the EU-Belgium position to promote AE:AF in multilateral decisions a nd make certain funding on compliance AE principles	NGOs: Develop o n capacity-building and training and require joint development with communities POs: Support structuring and securing access to credit for rural SMEs Incorporate guarantees and insurance mechanisms as a condition of support	Develop qualitative monitoring tools and strengthen North-South partnerships	



Brazil			Strengthening civil society networks to combat against desertification and promoting policies and actions in favour of agroecology: developing a counter-narrative to demystify agroecology and demonstrate that it is not at odds to development, but rather a means of promoting sustainability and combating poverty Strengthening community networks a nd institutional networks to ensure participation in local, regional and national decision-making forums: strengthen the role of guardians of the land and biodiversity, and networks of experimental farmers. Make the various peoples in		
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			forums for participation and political decision-making Impact on the inclusion of young people in discussions on climate governance and agroecology Humanising the discourse on desertification		
Burkina Faso	Integrating AE into all sectoral policies and mobilising sustainable budgets for the SNDA Municipalities/Regions: Incorporate AE into the PCDs and PRDs, create local environmental funds and adopt a ecological taxation	Simplify access to funding for NGOs and producer organisations		Integrate environmental action into curricula and train future technicians and farmers in these approaches Intensify farmer-led action research and the production of data on impacts of agroecology	
Cameroon	Strengthen governance systems and ensure equitable access to water and land resources for all	Strengthen financial commitment by supporting programmes focused on sustainable solutions to build community resilience to drought	Parliamentarians: allocate sufficient financial resources and implement policies that promote regional resilience to drought		
France	Rethink water systems to capture every drop of water and ensure rational and sustainable management State/EU: Recognise the specific characteristics in agricultural and water regulations	Government/Funding bodies: Provide long-term support for the services provided by agriculture and pioneering AE farms	Local authorities: Take action on soil health (infiltration, biological activity, return of local organic matter) State/Local Authorities/Landowners: Implement an land policy to ensure access to pastureland		
	Align water, agriculture and climate policies Recognise sustainable irrigation as a tool for resilience Incorporate living soils into national adaptation strategies	Support Euro-Mediterranean cooperation on integrated water-soil-agriculture management Fund regional resilience projects	CL: Roll out PTGE and PSE Facilitate local consultation platforms for water and agricultural planning OP: Promote awareness-raising and mediation between water and agriculture stakeholders Support farmers pioneering the transition	Develop tools for soil monitoring and irrigation management	Support water-efficient AE sectors
	Provide agri-environmental strategies with human and financial resources Coordinate with donors and NGOs to ensure consistency of action	Fund locally rooted, co-designed and sustainable initiatives Extend the duration of funding Support training and access to knowledge UNCCD and Parties: Promote political and scientific consensus on the causes of drought Strengthen the integration of national drought plans into poverty reduction policies	Local authorities: Integrate land and sustainable land management policies Encourage farmer participation and the dissemination of appropriate practices Embedding drought policies within regional dynamics		



Mali	Facilitating access to tailored and innovative financing for the sustainable development of agriculture and livestock farming		Promoting and disseminating good agroecological (AE) practices in agricultural and livestock production systems.		Encourage public-private partnerships for productive investment in agro-forestry and pastoral sectors.
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	Promote mechanisms accessible to smallholder farmers as agricultural insurance, community resilience funds and tailored credit facilities Encourage producers to take out agricultural insurance to safeguard their activities against climate-related risks Accelerate the development and validation of the national agroecology strategy Integrate sustainable water management into all fertilisation and production strategies, particularly in dry areas. Strengthen advisory support and local agricultural extension services to improve the uptake of sustainable practices Promote and secure women's access to land and productive water to strengthen their participation in agricultural and pastoral activities Create multi-stakeholder multi-stakeholder platforms to strengthen consultation and facilitate dialogue between stakeholders and promote the dissemination of good practices		Encourage local communities to reforest and maintain the seedlings in their local areas		
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Niger	Technicians and supervisors must be specialists in land restoration Step up efforts to mobilise the resources pledged by the PTFs by proposing projects to scale up activities related to the LCD Break the action plan down into several projects likely to be funded by national and international bodies Strengthen mechanisms for of AE practices by communities Promote drought-resistant crop varieties and a crop insurance scheme Establish a scheme to improve the capacity of existing ponds and create water retention basins for more rational management of runoff water	Fund the national land management strategy Share and pool knowledge and lessons learnt		Introduce an agroecology programme into all educational curricula Revitalise the research fund and establish a mechanism to facilitate access to AE research findings	
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Palestine	Strengthen policies promoting agroecology and climate-smart agriculture, integrating drought resilience into national development plans Prioritised broad representation, encouraging active participation from women's groups, youth representatives, and marginalised communities to foster equitable outcomes	Increase funding for small-scale farmers' resilience projects and ensure equitable resource allocation to vulnerable groups	Build and support farmer cooperatives to enhance bargaining power, knowledge exchange, and collective advocacy	Enhance applied research on drought-resilient crops and water-saving techniques. Establish an annual "Dryland Futures Conference Series" to foster knowledge sharing and policy development	Promote affordable, innovative technologies such as solar irrigation and soil monitoring tools tailored for smallholders
Senegal	Finalise land reform (citizen-led and inclusive consultations; revision of the Law on the National Domain) Promote integrated AE schemes Improve access to water (in sufficient quantity and quality, and at a lower cost) and its sustainable management Support and facilitate the local production of organic fertilisers through the establishment of local production units Establish a regulatory and legislative framework for the quality control of organic inputs, and biofertilisers Develop local industrialisation (processing units for organic, packaging, and storage) Support the development of local and/or national labels Connect organic farming stakeholders with institutional markets Strengthen consumption of organic products (hospitals, universities, school canteens, etc.) Facilitate access to agricultural equipment suitable for AE (subsidies) Create an AE investment fund Organise stakeholders into value chains		Simplification and acceleration of land reform Support local authorities for land tenure security through advocacy and awareness-raising Promoting networking and the organisation of stakeholders across the entire value chain of AE products (cooperatives of production and marketing) Educating, raising awareness and sensitising consumers (importance of healthy, sustainable and nutritious food, health benefits, environmental and economic benefits, dangers of consumption of products from conventional agriculture) Building producers' capacity in agroecological practices, reforestation, water management, and the selection, production and conservation of local seeds... Support and train young people and women in agroecological practices Empower and strengthen socio-professional organisations	Encouraging action research and the self-production of farmers' seeds adapted to local soil and climate conditions, with the establishment of propagation units managed by local seed producers Collaborating with research (ISRA) to promote the availability of productive inputs, particularly certified seeds suited to the soil and climate conditions of the area, and their technical data sheets Integrate agroecology into school and training curricula (universities or vocational training institutions) by strengthening or introducing modules on agroecology	Support and assist in the installation of solar-powered systems for agricultural water access within agricultural areas
Tanzania	The Government should empower the community through media outlets The government should work with various stakeholders and scientific institutions	The government and development stakeholders should prioritise land-use planning to ensure the appropriate allocation of space according to use	Stakeholders should utilise the existing NEOA strategy to address critical issues relating to drought	Align research agendas with farmers' needs and drought adaptation priorities	



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	Government and International agencies should allocate more resources to research that meets farmers' needs Government support for programmes that encourage the use of organic matter, compost and mulch to improve soil health and water retention through the provision of subsidies. Establish a monitoring framework for drought-related initiatives to track progress made	Provide long-term financing for agroecological transition, restoration and monitoring systems			
Tunisia	8 strategic areas of intervention for technical and technological adaptation towards diversified and resilient agriculture in Tunisia's arid regions: - Improvement of farming techniques (Oases, Range farming, Dryland farming, Rainfed agriculture, Irrigated agriculture) - Plant genetic resources - Animal genetic resources - Sustainable water management - Sustainable soil management - Local knowledge and food systems - Technological innovation - Dissemination of best practices 8 Strategic priorities also for environmental action and the restoration of degraded ecosystems - AS1: Strengthen Tunisia's drought resilience policy by integrating strategies for implementing the conventions arising from the Rio-92 process and the SDGs into sectoral policies and national development plans. - SP2: Roll out national strategies for adaptation to climate change and drought resilience at regional level by adopting an approach that takes into account territorial specificities as well as the updated agricultural map, and by mobilising the appropriate resources and expertise. - AS3: Make awareness of the country's aridity and its vulnerability to climate change a major national priority - AS4: Adopt a proactive strategy to address drought and climate crises in order to strengthen the resilience of ecosystems and mitigate the impacts on vulnerable communities, particularly women and young people. - AS5: Adopt an integrated research and development approach to address climate and drought challenges and strengthen the resilience of communities and ecosystems. - AS6: Take into account the multifunctionality of rangelands and their socio-economic and environmental value (ecosystem services) when developing strategies to safeguard and build the resilience of pastoral ecosystems to drought. - AS7: Strengthen civil society advocacy for policies that frame the protection of rangelands within a framework of conserving a national heritage at risk, the degradation of which has a negative and often irreversible impact on society as a whole. - AS8: Promote, in a concerted manner, the land tenure status of rangelands as the basis for appropriate reforms guaranteeing the multifunctionality and sustainability of rangelands.				
Yemen	Issued a simple procedural guide for pumping schedules and for linking smart meters to solar pumps	Fund smart meters and community-based basin management pilot schemes	Local Authorities: Facilitate the establishment of WUAs to organise and allocate water resources efficiently		Offer "supply + installation + maintenance" packages with training for local operators
	Adopt low-cost standard specifications for canal lining and flood-protection works	Link financing to labour-intensive public works (cash/food for assets)	Include small earthen check dams and household/community tanks in annual plans		Commit to rapid delivery and standardised, sustainable materials
	Ministry of Agriculture/cooperatives: Approve standardised drip-irrigation kits that are simple to install and O&M manuals.	Provide small grants to cover 50–70% of the cost of the first kit for households			Offer group discounts, after-sales service, and ensure local availability of spare parts. To banks/microfinance institutions: Short-term loans with grace periods aligned with harvest.
	To the Ministry of Agriculture: Provide drought-tolerant forage seeds Veterinary offices: Set quarterly visit schedules and integrate Community-based Animal Health Workers (CAHWs)	Fund essential equipment (choppers/storage) Fund mobile cold chains and essential veterinary drugs	Allocate sites and lead fair access and management committees To communities/herders: Participate in early disease-reporting campaigns		Conclude pooled procurement supply contracts for discounted feed



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To ministries: Introduce incentives for servicing remote areas.				
To Meteorology/Agriculture: Align forecasts with local calendars and prepare concise, actionable messages.	Support messaging platforms and connect them to youth-led data collection			To telecom operators: Provide exemptions or reduced tariffs for agricultural messaging bundles
	Provide revolving capital and portfolio guarantees for the first pilot, plus support for simplified drought index insurance			To MFIs/banks: Offer small, seasonal products for drip irrigation, seeds and feed, with repayment after harvest To regulators: Facilitate fee and interest relief in drought-affected areas
To ministries: Embed inclusion requirements in project manuals	Link disbursements to compliance with gender and youth inclusion standards	To local councils/cooperatives: Reserve seats and set mandatory participation quotas in committees and charters.		
	Fund annual "maintenance packages" conditional on performance metrics	To cooperatives/village councils: Create a nominal O&M fund and publish a maintenance schedule		To suppliers: Offer multi- year service contracts at fixed prices
	Fund a user-friendly Arabic interface integrated with SMS/USDD	Appoint "community reporters" to feed the data network	To government bodies/universities: Host a simplified database (wells/rainfall/abstraction/ messages)	



Appendix 2: Classified data for Theme 2: Support for mobile production systems (focus on pastoralism)

Table 4: National workshops

Country	Date Workshop	Organisers	PTFs/Donors	Format	Number of participants
France / Nogent-sur-Marne	07/10/2025	PS-Water	AFD	Mixed	59
Guinea Conakry	05/09/2025				
Kenya	16–18 September 2025	Participatory Ecological Land Use Management (PELUM Kenya)	IUCN	P	40

Table 5: Country-specific problem definition

Guinea	Kenya	France
Pastoralism, a mainstay of livelihoods in Upper and Middle Guinea, faces a reduction in grazing land, agro-pastoral conflicts and the institutional marginalisation of the sector. Climate change is exacerbating droughts and soil degradation, whilst access to water and pasture is becoming a major issue for food security and community stability.	Arid and semi-arid areas (ASALs), covering 80% of the country, are experiencing extreme droughts and rapid land degradation. Pastoralism remains vital for rural communities, but suffers from a lack of political and financial recognition, unequal access to water, and land and cross-border insecurity. Women and young people are playing an increasing role in local resilience, but remain under-represented in the institutional frameworks.	Mediterranean pastoralism, a historic pillar of land management, is under threat from structural drought, pressure on land, agricultural decline and conflicts over land use (forestry, hunting, tourism, energy). The challenge is twofold: to maintain a viable economic activity and to preserve open landscapes, which are essential for biodiversity, water management and fire prevention.

Table 6: Actions implemented by the countries

Area	Guinea	Kenya	France
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Management of natural resources	Mapping and securing transhumance corridors	Participatory restoration of grazing lands (Laikipia, Samburu)	Development of a plan to secure r livestock watering fo
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	Creation of pastoral ponds Development of agro-sylvo-pastoral	Management Community-led forest management Community water projects (sand, dams, gabions, etc.)	and conservation preservation other water uses
Agroecological Agroecological	Integration of crop and livestock farming, forage banks, rotational grazing, use of resilient local species	Agroecology and permaculture (IUCN, LPC) Utilisation of invasive species (Opuntia) Agroforestry and allotments	Support for development of agropastoralism Support for winter transhumance projects and projects promoting crop-livestock complementarity Support for projects to reclaim fallow land through grazing and territorial dynamics
Territorial governance	Drafting of local planning and collaborative management agreements (Local Development Plans)	Current legislation and policies (Rangeland Management Bill & Climate Change Act) Active devolution and involvement of the counties in their implementation	Support for the operation and creation of collective structures (Pastoral Groups, Pastoral Land Association) Support for projects to revitalise and boost local areas
Funding and partnerships	Resilience funds, targeted grants, public-private partnerships for veterinary services	Funding NDMA (National Drought Management Authority) and EDE (Ending Drought Emergency) funds Advocacy for direct funding to communities.	
Social inclusion	Training and empowerment of women in the processing of pastoral products.	Women's leadership in restoration (Rapunye Women's Group, Dupoto Bees Coop.) and green entrepreneurship.	

Table 7: Barriers and drivers of change

Category	Barriers	Drivers ³
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³ Drivers and enabling conditions were not analysed by the workshop in France.

Institutional	Lack of enforcement of regulations, weak cross-sectoral coordination, limited funding France: Fragmentation/Vacant properties/Properties not /difficulty accessing public land (forest)/Inadequacy of European aid (CAP, fixed herds)/Obsolescence of the Forestry Code – articles unsuited to the Mediterranean context	Appropriate legislation, strengthening of local capacity, advocacy for the recognition of pastoralism
Social	Land over land farmers/herders, marginalisation of herders / Distrust of pastoralism	Inter-community between communities, inclusion of women and young people, local agreements
Technical	Limited access to water, lack of equipment and data, degradation of grazing land Reluctance towards solar energy exploration (France)	Participatory mapping, local technologies, action research
Economic	Low funding / lack of appropriate funding, dependence on external aid Shortfall in funding dedicated to watering	Resilience funds, PPPs, economic value of pastoral products.
Environment	Climate change, invasive species Fallow land / DT (France)	Agroforestry, innovative of local species

Table 8: Workshop recommendations by target

Target	Guinea	Kenya	France
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Central government	Adopt and implement the Pastoral Code, integrate pastoralism and adaptation to climate change into public budgets and policies, strengthen land tenure security	Finalise and implement the Agroecology and Rangeland laws, allocate dedicated budgets to counties/ASALs (Arid and semi-arid lands) and pastoralism	Implement an to promote access to and the structuring of pastoral land Promote herd mobility and secure
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			to water resources for watering Characterise aridity in greater detail across the Mediterranean basin and monitor it using complementary Recognition of a Mediterranean specificity in public policies and regulatory frameworks
Local authorities	Include pastoralism in Local Development Plans, manage conflicts/establish mediation mechanisms	Support the Committees in implementing participatory restoration plans and local environmental committees	Implement an to promote access to and the structuring of pastoral land
Donors / PTFs	Fund resilience funds and fodder banks, support community initiatives and training	Promote direct funding to communities, invest in research, local technologies and women-led innovations	
CSOs and NGOs	Lead advocacy for the recognition of pastoralism, train and equip pastoral organisations	Coordinate national and international advocacy, promote local innovations (agroecology, permaculture)	
Local / Herders	Take ownership of local management agreements, practising sustainable resource management, practising agro-silvo-pastoralism and sustainable resource management	Establishing cooperatives and green enterprises, formalising traditional practices within governance frameworks	

Appendix 3: Classified data for Theme No. 3: Territorial management of water resources

Table 9: National workshops

Country	Date	Organisers	Donors / PTFs	Format	Number of participants
France (Montpellier)	3 Oct. 25	PFE	Equity		
France (Nogent-sur-Marne)	7 Oct. 25	PS-Water	AFD	Mixed	59
India	17 June 25	Gram Bharati Samiti	Equity	Mixed	85
Palestine (Ramallah)	2 Sept. 25	Palestinian Agricultural Coalition (PAIC) and members	European Union	Presidential	33
DRC	19 August 25	CENADEP	Own Funds	Presidential	45
Senegal	16–17 25 Sept.	DyTAES			
Tunisia (Mednine, Oasis)	27 Sept. 25	ASOC	Own funds	Mixed	58
Yemen	29–30 25 Sept	Rural Youth Cooperative		Mixed	31

Table 10: Framing of the issue in the countries

Country	Framework
France / PFE (Montpellier, 3 Oct.)	Territorial water management (TWM) for agricultural resilience to droughts, historically provided, on the one hand, by rural communities and, on the other, by state planning authorities. Creation in the 1960s of 'Regional Agricultural Development Offices (ORMVA)' in Morocco, Regional Development Companies (SAR) in France, and in Spain at the river basin level (1926) – the first River Basin Authority (Ebro) Key role in land-use planning and integrated water resources management: improving availability, sharing and efficiency of use, but also with a view to environmental protection through the implementation of the WFD (European Union Water Framework Directive). Water agencies in France (1964): combating pollution and restoring the good ecological status of water bodies (an objective of the WFD), water conservation, the preservation of aquatic environments, the supply of high-quality drinking water, and supporting the agricultural transition towards less polluting practices Opposition at national level and within river basin committees between those who, on the one hand, consider that the priority is the protection of aquatic environments and water conservation, and those who, conversely, consider that the response to droughts lies primarily in water storage and the expansion of irrigation Desalination: a response to record droughts and the need to better secure water supplies for urban and tourist use. Total desalination capacity in the Mediterranean has increased fivefold in 10 years, in tandem with the development of . Negative impacts on the coastal environment, but secures water for agriculture Need for a mix of solutions: water savings, utilisation of dam reservoirs, new water storage facilities Significant communication and consultation efforts ('Public Debate Commission'): management model made public so it can be scrutinised, better understood and shared Far-reaching digital transformation leveraging technological advancements to improve the sharing of data to enhance the region's collective intelligence Water management summed up in three words: "Save, Secure and Share". It was the threat of well closures raised by the Water Agency in 2000 that led to the idea for the HPR project, a project focused on saving, securing and sharing water
France / pS-Eau	Increasing tensions over water against a backdrop of recurring droughts. The scarcity of resources, combined with agricultural, mining and domestic pollution, is exacerbating conflicts of use between agriculture, drinking water supply, ecosystem needs and the accommodation of vulnerable populations
Palestine	Competition between agriculture, domestic and environmental needs Structural scarcity and political constraints: limited access to the resource, importance of wastewater reuse and rainwater harvesting at the local level
DRC	The Congo River basin, the ^{second} largest in the world, covers 13% of the African continent, contains 50% of Africa's water resources and 25% of the world's freshwater reserves The Congo's water paradox: abundant resources yet poor access to drinking water, land degradation and declining rainfall in the south, conflicts over water use, and the TRANSAQUA project raising serious concerns. Need to implement the Water Act (enforcement measures, river basin committees)

Senegal	National level: the State is implementing the IWRM Action Plan; the Water Code of March 1984 is currently under review Niayes/Regional level: Regional IWRM since 2017, in 19 municipalities; establishment of municipal water committees and provision of planning documents to these bodies. Over-exploitation of aquifers, pollution, conflicts of use between industry and agriculture, small and large-scale farmers, territorial conflict between Niayes and Dakar Problem of data availability for monitoring, forecasting, assessing and quantifying needs and their trends
Tunisia / Oasis	Highly vulnerable oasis systems (soil/groundwater salinisation, climate variability, dilapidated networks); key role of GDA/ASOC and low-impact innovations (solar pumping, drainage, reuse of treated wastewater) Dual challenge: preserving ecological sustainability and strengthening the socio-economic resilience of the oasis system
Yemen	Structural water scarcity, exacerbated by drought Multiple uses and competing priorities Depletion of groundwater and weak regulation against a backdrop of expanding solar pumping Ageing infrastructure and losses due to high water levels Siloed approaches and poor cross-sectoral coordination Demographic and social pressures (internal displacement, concentration of settlements near sensitive resources), increasing needs, growing vulnerability of communities to conflicts over access and resource allocation

Table 11: Actions implemented in the

Country	Actions
France/PFE	New PTGE procedure (territorial water management projects, an approach based on a comprehensive and co-constructed view of water resources): Promotion by local stakeholders of solutions in the public interest (by consensus or compromise) at a local level. i) develop, in a participatory manner, an assessment of the current situation and a shared diagnosis, ii) then define and implement a roadmap broken down into actions and aimed at achieving the objective associated with the chosen scenario Regional public water authorities to act on a larger scale Pyrénées-Orientales Water Resilience Plan: Highlighting the importance of community-based management of agricultural water The role of irrigation communities or multi-purpose water user groups in improving water use efficiency, putting an end to the overexploitation of aquifers, and restoring controlled management through the management of resources in "common pools" (Ref. Elinor Ostrom, Nobel Prize in Economics) Two "success stories" of irrigation communities: the GDA (agricultural development group) of Bsissi in Tunisia and the Junta Central de Regantes de la Mancha Oriental (JCRMO) in the Júcar basin in Spain (box). The departmental level is becoming increasingly relevant (e.g. Hérault and Pyrénées-Orientales): Water Resilience Plan Highlight the difficulty of the 'dual timeframe': the need to act in 'crisis management' (in an emergency) and the need to give the region the opportunity to chart a new path towards resilience TALANOIA ('dialogue' in Polynesian): looking to the future by combining participatory approaches with modelling, then by exploring several scenarios. Modelling confirms the cost of inaction
France / pS-Eau	Regional consultation forums Decentralised cooperation to strengthen local capacities Promotion of water-efficient agroecological practices Promoting local knowledge and traditional techniques for collecting and reusing
Palestine	Local innovations: rainwater harvesting, wastewater reuse, community water committees
DRC	Water management law adopted in 2015 but no implementing regulations Water management falls within the remit of the Ministries of the Environment and Sustainable Development, Fisheries and Livestock, and Water Resources; the remits complement rather than conflict with one another The 'Transaqua' project to transfer water from the Ubangi River, a tributary of the Congo River, to Lake Chad via a 2,600 km canal (project launched in the 1990s): risks include a reduction in the flow of the Congo River, impact on the Inga hydroelectric project, impact on aquatic biodiversity, geopolitical tensions
Senegal	Community awareness-raising, discussions with local authorities and industry, and solutions have been proposed for more sustainable water resource management. The aim of IWRM is to place communities at the heart of the implementation and evaluation of any development project.
Tunisia / Oasis	Characterisation, treatment and potential uses of wastewater from the Chenini Oasis Zoo Simulation of the Roman water networks at Chenini: lessons to be learnt for modern water management in oases Compost: a sustainable production method to protect the oasis and combat desertification The current state of irrigation networks: assessment of existing infrastructure and identification of key challenges The role of farmers' groups in the conservation of water resources



Yemen	Government and institutional measures: Legal framework and groundwater regulations, cross-sectoral coordination (WASH Cluster) Investments and services (government and partners): Solar-powered drinking water systems, World Bank/UNOPS funding for water and sanitation, Rehabilitation of local infrastructure with the authorities Irrigation, water harvesting and risk reduction: rehabilitation of irrigation canals and flood protection through 'cash-for-work' schemes Food security and resilience projects Complementary humanitarian responses: International NGOs: International Medical Corps (drilling of a new well and installation of a solar-powered pumping system producing 138,600 litres per day for nine villages), as well as the IOM and the Qatar Red Crescent for well and solar system projects in several governorates. -
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	for epidemics/drought: integration of cholera preparedness and climate risk mitigation measures into UNICEF's 2025 appeal and into response plans within the broader humanitarian framework Knowledge and policies: Studies and evaluations of water policies
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Table 12: Classification of actions by main categories

▪ Tools & territorial governance: ○ PTGE/France: multi-stakeholder consultation, shared assessment, territorial action plan ○ DRC: national workshops to align governance, water law (principles, S.D.A.G.E. by basin) to be made operational (decrees), inter-ministerial clarification ○ Senegal: local water platforms & DyTAEL, territorial IWRM pilot schemes (19 municipalities in the Niayes region), local management plans, inventory of infrastructure ○ Tunisia: GDA/ASOC are structuring participatory oasis governance ○ Palestine / Yemen: local committees, rural municipalities, community mechanisms to arbitrate water uses and implement water-efficient solutions. ▪ Infrastructure & techniques ○ Storage / recharge / drainage: reservoirs, basins, aquifer recharge (FR); oasis drainage (TN) ○ Efficient irrigation: drip irrigation, micro-irrigation, water towers, incentive-based pricing (TN, DRC, YE, SN). ▪ Energy: solar pumping (YE, TN) to reduce the cost of productive water. ○ Non-conventional water: wastewater reuse (PS, TN); rainwater harvesting (PS) ▪ Agroecology & soils ○ Water-saving and restorative practices (mulching, zaï farming, half-moons, stone ridges, agroforestry, compost) to reduce demand and improve resilience (RDC, SN, TN, FR/ESASA) ▪ Data & knowledge ○ Local surveys of water infrastructure (SN: >3,000 unknown to the authorities); need for regular hydrometric/hydrological data (RDC), groundwater monitoring via piezometers (TN)

Table 13: Barriers and drivers for improvement

Country	Barriers	Opportunities
France	Distance, or even hostility, felt by users towards the administration: the number and complexity of public policies, a strong trend towards the proliferation of bodies and procedures Growing resentment among local elected representatives and farmers towards a predominantly urban public sector Response to emergencies, the need for immediate action Agriculture at the crossroads of often divergent or even contradictory demands and policies Roles of the State: strategist (taking the long term into account), arbiter (serving the public interest), mediator (ability to defuse tensions) and authority 'Multi-purpose' water management still in its infancy	Assessment of the new PTGE procedure, and in some cases of the Local Water Commissions and Local Water Development and Management Plans (CLE/SAGE), to restore a degree of local relevance and coherence to public action Legislative and regulatory developments to ensure the effective implementation of action plans adopted under the PTGE and to address the difficulties inherent in centralised procedures that remain on a case-by-case basis, and thus the difficulty in implementing all the solutions that nevertheless address the original issue
	The financial, technical and human fragility of most ASAs and, consequently, the difficulty in carrying out the investments modernisation	A three-year support mission, led by the region and co-funded by the region itself, the department, the and the regional development bank
	Timing issue: a time lag between capital expenditure and revenue, and difficulty in finding financiers and project owners capable of bearing this level of investment and risk	A more segmented approach, comprising several interoperable and no-regrets operations. More water abstraction points, with the possibility of future networking and upgrades. Breaking the project down into sections to facilitate project management Involve indirect beneficiaries and local authorities to participate in the project as project owners
France / pS-eau	Centralisation of decision-making	Strengthening of local governance
	Conflicts over land use	Local mediation bodies
	Political influence of commercial irrigated agriculture	Promotion of agroecology and resilient crops
Palestine	Limited financial resources of smallholders	Support from international donors (EU, UNCCD,)
	Land fragmentation and restricted access due to the occupation	Local cooperative models and collective farming initiatives collective farming
	Weak services and technical capacity	Knowledge transfer from universities, NGOs, and agricultural training centres
	Lack of integration of drought risks	Scaling up national strategies for agriculture, water resource management



	Political instability and restrictions on access to water	Community water committees and experiences of local governance
	Reliance on rain-fed agriculture with low resilience	Promotion of climate-smart practices (drip irrigation, drought-resistant crops)
DRC	Lack of measures to enforce water legislation Lack of standardisation in the water sector and low capacity to attract investors	Advocacy for the development and enactment of enforcement measures Use of international standards
Senegal	Insufficient investment in the collection of high-quality data, lack of databases Difficulty in conducting long-term research to monitor hazards, identify occurrences over time, and develop forecasting models. Incomplete documentation to enable flood and drought forecasting to anticipate risk Difficulty accessing high-quality information: no precise data on specific needs in each region and available resources Problems with the structures built to combat in Casamance (Affinian dam)	Identify the problems in each region, prioritise them to address them gradually. I Investments in knowledge generation (flood forecasting, drought forecasting, salinisation, water pollution, etc.) Developing public awareness Water is a common good and a limited resource Sectors falling under national sovereignty, which must not be subject to project life cycles. Knowledge is the first step in resource management, to implement management and adaptation strategies
Tunisia / Oasis		
Yemen	Depletion of groundwater reserves against a backdrop of unregulated expansion of solar pumping	Smart meters and recording of water withdrawals (local quotas and pumping schedules; seasonal withdrawal limits; temporary moratoriums on the drilling of new wells in critical catchment areas; and basin councils with enforcement powers
	High losses in canals and distribution networks	Lining of critical sections; leak detection and pressure management; community-led preventive maintenance; and multi-year service contracts with local suppliers
	Institutional fragmentation and poor cross-sectoral coordination	Participatory basin/wadi water council; a harmonised drought response plan; and quarterly coordination units formally established by local decrees
	Funding shortfalls and sustainability of operations and maintenance	Monitoring of well levels and water withdrawals; monthly transparency dashboard, operational messaging and training of village youth in data collection
	Local disputes concerning wells and water points	Written water charters (quotas/annexes/sanctions); mediation committees and public grievance-handling mechanism; publication of decisions and of meetings
	Limited technical and development capacity	Implementation guides; local trainers and extension workers ; twinning with universities universities/institutes; and quarterly training budgets
	Degradation of grazing land and rising feed costs	Community fodder banks and silage; drought-tolerant fodder crops; and improved water points
	Relocation: pressure on resources and sensitive sites	Standards for siting outside floodplains and steep slopes; temporary usufruct contracts ; and shared basic service packages
	Risks of flash floods and drought	Flow-retardation barriers and sediment traps; flood protection works and drainage widening; pre- and post-rainy season maintenance rain
	Weak compliance and monitoring	Link licensing and pumping to approved sensitivity maps; proportionate fines; compliance incentives (reduced fees/priority support); and delegation of local enforcement powers
	Supply chain volatility and rising costs	Framework supply agreements with local suppliers; quarterly safety stocks; and splitting supplies into batches to reduce delays
	Variability and costs of electricity supply Exclusion of women and young people from decision-making	Solar systems linked to quotas and meters; hybrid systems where necessary; and routine maintenance of inverters
	Exclusion of women and young people from decision-making	Mandatory representation quotas on boards and committees; leadership programmes for young people

		and women; and accountability through the publication attendance and decisions
	Environmental needs and minimum flows not taken into account	Agreed minimum environmental flow in the water balance; monitoring of wadi banks; and measures vegetation restoration measures
	Low public awareness of conservation	Evidence-based behaviour change campaigns; community ambassadors and water-efficient schools; and SMS synchronised with the agricultural calendar
	Urban planning in conflict with water management	Incorporate zoning (flood corridors/steep slopes) into district regulations and link it to the granting of permits; and establish a joint land-water committee
	Lack of an M&E framework and performance indicators	Streamlined monitoring and evaluation framework with a set of indicators (adherence to the schedule/reduction of losses/disputes/transparency) and quarterly reviews

Table 14: Recommendations by target

Country	Government	Donors	Civil society	Research	Private sector
France	(see above)				
France / pS-Eau	Rethinking the water paradigm: moving away from the logic of artificially increasing supply Restoring a central role to local areas, civil society and local authorities Ensuring transparency and accountability in water allocation decisions Integrating climate justice, equity and gender into water planning				
Palestine	Strengthen policies in support of agricultural extension and climate-smart agriculture, and incorporate drought resilience into national plans	Increase funding for smallholder resilience projects Support smallholder farmers and older farmers and ensure equitable allocation of resources	Local : Support rainwater harvesting , rainwater , water storage and local planning of interventions, decentralised water management NGOs and farmers' organisations: Building agricultural cooperatives to increase bargaining power and facilitate of knowledge	Improving applied research on drought-resistant crops and water-saving techniques Launch of the annual conference/symposium on the 'Conference on the Future of Arid Lands'	Promoting affordable and innovative technologies for smallholders (solar irrigation, soil monitoring tools)
DRC	Develop and enact measures to implement the Water Act; Implement the national water management policy		Advocate for the implementation of measures to implement the Water Act Raise awareness and educate stakeholders about the Water Act Advocate for the implementation of the national water management policy Advocate for the strengthening of standard-setting mechanisms in the water sector.		
Senegal	The classification of the recommendations from the DyTAES caravan, as proposed during the workshop, has not been developed				
Tunisia /Oasis	Ensure the active participation of all stakeholders Adapt water governance to the specific context of the oasis Construct control dams and establish of rainwater drainage facilities		Promote sustainable irrigation management, with water rotation organised according to the actual needs of crops Adapt irrigation to the actual needs of crops (flow rates of 0.5 to 0.75 l/s/ha) Introduce sand amendment	Train stakeholders in data collection and analysis	Develop digital tools for water monitoring and planning in the oasis ecosystem Introduce solar power for sustainable, low-cost pumping

	Create and maintain a network of efficient drainage network, managed by the GDA Install piezometers to monitor the water table Maintain and modernise irrigation networks, incorporating water-saving techniques Strengthen government involvement to resolve issues related to public services (SONED, ONAS, etc.) Implement efficient irrigation practices, with incentive-based pricing		and gypsum for sodic soils and improve cultivation techniques Encourage farmers to practise subsoiling to break up the cemented gypsum subsoil Promote the use of compost, crop diversification ps, the adoption of precision fertilisation and agroecology Prioritise local and drought-resistant species Reuse treated wastewater for irrigation Raise awareness far mers farmers about water conservation and combating against desertification. Strengthen the capacity of GDA staff in management and maintenance Promoting and disseminating local success stories		
Yemen	Line ministries: Appoint technical focal points. Ministries/agencies: Link the granting of licences to meters. Works Public sector/irrigation: Use simple and cost-effective specifications Ministry of Agriculture: Publish standard kits and an operations a nd simple maintenance manual	Fund the secretariat and operations of the first year Funding counter-asset schemes	Local authorities: Adopt a resolution establishing the council with clear powers vill age Village councils/co-operatives: Co-draft the charter with meaningful participation from women and young people. Local government: Publish pumping schedules and monitor compliance Cooperatives: Prepare annual operational plans a nd maintenance		Provide bundled supply + installation + O&M packages. Suppliers: Offer group discounts and ensure the availability of local spare parts Microfinance : Grant seasonal loans repayable after the harvest



Appendix 4: Classified data for Theme No. 4: Territorial governance and the role of local authorities

Table 15: National workshops

Country	Date	Organisers	Donors	Format	Number of participants
Burkina Faso	19–20 June 2025	SPONG	TREE AID	P	
Canada	7 October 2025	Inclusion Mission	Ministry of the Environment... / Green Economy Plan Quebec	Mixed	
Ivory Coast	25 June	Change Human's Life (CHL)	FP	P	41
France / Nogent sur Marne	07/10/2025	PS-Water	AFD	Mixed	59

Table 16: Framing of the issue in the countries

Country	Framework
Burkina Faso	Several levers for territorial resilience in the face of droughts: water management, sustainable agricultural practices, community empowerment, adaptation of local and national policies, etc. Recurring droughts, a major threat to food security, rural livelihoods, water resources and ecosystems Local and national strategies implemented
Canada	Concrete, diverse and accelerated initiatives in the intervention areas (Burkina Faso, Mali, Niger, Chad) PCCI: a pioneering sub-national climate finance mechanism, but a Quebec political context of budgetary uncertainty. 88% (57 out of 65 projects) of PCCI projects have identified major climate risks linked to desertification, salinisation, drought and water management Agricultural policies favouring agribusiness and intensive resource exploitation models, to the detriment of family-based and agro-ecological production systems led by smallholders. Policies, designed in a technocratic manner, ignore traditional practices and local adaptation dynamics, which are nevertheless essential to territorial resilience Highly unequal access to knowledge, resilient technologies and institutional support mechanisms. Difficulties for rural communities, particularly women and young people, in playing their full part in climate change adaptation. A structural mismatch between policy frameworks and local needs exacerbates existing inequalities, weakens the resilience of territories and hinders community ownership of sustainable solutions
Côte d'Ivoire	Increasing frequency of droughts over the past decade. Northern, central and north-western regions. Exacerbated by deforestation, land pressure, irregular rainy seasons and rising temperatures. 34% of Côte d'Ivoire's agricultural land is degraded (FAO, 2021) and 60% of the country is affected by desertification (UNDP), with drought-related agricultural losses expected to exceed 20% by 2025 (Climate Assessment, 2024). Climate and development report projection: by 2050, climate change, including droughts, could reduce real GDP by 13% and keep 1.63 million people in poverty. Rural communities are the main victims, and local authorities lack the tools, funding and institutional capacity to anticipate or mitigate the effects of drought in their area
France/pS-Eau	Local users' participation in water resource governance: the existence of profound power imbalances, for example between a nature conservation association made up of a few volunteers and a large industrial company or an agricultural union representing thousands of farmers Challenges: - Strengthening local governance: improving coordination between stakeholders (institutions, local authorities, civil society), and giving local authorities and communities greater autonomy and resources. - Recognition of local knowledge: reviving indigenous practices and promoting their integration with science and technology.

Table 17: Actions implemented in

Country	Actions
Burkina Faso	Farmers (producers, agriculturalists), producer organisations, model farmers and innovators: CES/DRS technique – Peer-to-peer training on good agricultural practices NGOs/Associations/Networks: promotion of hedgerow areas and tree-lined roads; dissemination of good agricultural practices including CES/DRS and AF; technical capacity building, seed fairs; management of water erosion/soil erosion ; local forest resource governance model, integrated approach supporting the government in the process of devolution of powers); creation of forest ecosystems; multi-purpose agro-ecological farms Research: establishment of an action research group for forest governance (GACF); use of yield plots to assess the impact of innovations

	Local authorities: promotion of SfN / participatory radio production; legal and policy framework for decentralisation; integration of environmental themes (NDT/GDT) into PRDs and PCDs
Canada	Technical solutions and modelling: establishment of Climate Advisory Clubs or Soil Health Advisory Clubs (UPA DI), based on soil analyses to enhance organic matter and water retention; construction of solar systems for food processing (Mer et Monde), or biodigesters for energy and organic fertiliser production (Mission Inclusion – ABC Project); Use of demonstration sites and identification of local 'champions' (ambassadors) to encourage the adoption of resilient practices Governance and dialogue: strengthening GRN capacities at community and municipal levels (Management Committees); Promoting secure access to land for women through advocacy and awareness-raising activities; Establishment of an integrated approach where technical support is combined with strengthened governance Knowledge and research: close collaboration with local universities and research centres to adapt solutions (action research); integration of local knowledge (particularly that of marginalised groups) with scientific data to ensure a pragmatic and affordable approach
Ivory Coast	Taking territories into account and integrating drought and adaptation dimensions into the revision of NDCs 3.0 (ongoing) Implementation of the National Land Management Programme Development of the National Drought Plan (FAO) and participation in the UNCCD process Alignment of national policies (National Development Plan, National Food Security Strategy, National Adaptation Plan) Practical tools for local authorities: territorial climate plans, green budgets, vulnerability mapping, the LoCAL scheme (AFD/UNCDF mechanism), pilot initiatives to develop assessments (municipalities of Grand-Lahou, Abengourou, etc.) in support of the development of the national adaptation strategy Technical support for local authorities to access the GCF Better integration of local knowledge into planning mechanisms Key dimensions of territorial resilience: social, economic, environmental and institutional Scientific findings of the CNRA regarding adaptation to drought (selection of resistant varieties, integrated production systems, innovation for the integration of young people and rural women through smart production) CNRA strategies to support local areas: dissemination of adapted agricultural technologies, training and extension, local partnerships.
France/pS-Eau	Strategic reflection on Vision 2030, Action Against Hunger (ACF): integrating food security and agricultural water development issues into its interventions New opportunities for engagement, call for expressions of interest (AMI) "Green Wall Volunteer Mission" Meetings organised in 2024 on the theme of water: collective knowledge-sharing and the creation of a network for exchanging best practices; a relaunch is planned for January 2026 Creation or reactivation of an online collaborative platform enabling the sharing of information, documents and feedback

Table 4: Barriers and drivers for improvement

Country	Barriers	Drivers
Burkina Faso	Insufficient local authority funding to implement devolved powers Security challenges and the resulting displacement of people	Strengthening organisation through groups or cooperatives
	Lack of knowledge or mastery of good land management practices Weak institutional mechanisms for managing emergencies	Capacity building for stakeholders on good land governance practices
	Insufficient land tenure security (difficulties in accessing to property rights)	Strengthening the community-based approach to interventions to ensure greater ownership
	Insufficient access to information on good Landscape Management Practices	Strengthening research and technology transfer technology
	Very high cost of technologies and approaches	Recruitment of a specialist in environmental (Municipal Technical Advisor)
	Poor coordination among stakeholders on the ground	Establishment of a national coalition on sustainable land management
Canada	Policies and legislation: Contradictory or outdated laws that are not suited to local realities Agricultural policies favouring agribusiness the detriment of small-scale producers	Advocacy and local influence: Working with regional and local government departments to bring communities' concerns to the national level
	Coordination and resources: Lack of coordination between traditional structures and state institutions. Low profile and lack of resources among small advocacy organisations	Support networks: Supporting existing regional networks (e.g. Sitsee or Pélum) working on climate justice and land rights
	Socio-cultural and cohesion: Reluctance and conflicts exacerbated by scarce resources (herders vs farmers). Tensions between ethnic groups, IDPs and host communities. Pre-existing inequalities regarding women's access to land	Demonstrating impact: Use of demonstration sites and champions to show rapid results and build community buy-in. Success generates ownership



Knowledge and practices: Use of harmful practices (slash-and-burn) due to lack of training. Discrepancy between academic research and on-the-ground reality, which is often theoretical.

Education and adaptation: Focusing on climate literacy (Chad) and the partnership between universities/researchers and the field (action research).

		Making solutions affordable in terms of cost and infrastructure.
Ivory Coast	Lack of information and training	Improvement of extension policy
	Lack of civic responsibility (bushfires)	Awareness-raising on bushfires
	Difficult access to financial resources for communities	Structured advocacy for a dedicated budget allocation for local adaptation
	Lack of incentive policies	Availability of new climate-resilient seeds CC
	Denial of arable land to women	Facilitating women's access to arable land with a view empowering them
	Lack of involvement of local stakeholders in search for solutions	Involving local stakeholders in the search for solutions (development, implementation and monitoring)
	Weak technical capacity of local authorities to integrate climate considerations into their development	Need to strengthen local authorities' technical capacity through tailored training and effective decentralisation
	Lack of synergy between ministries, local authorities and CSOs on drought mitigation measures	Establishment of regional consultation frameworks to anticipate environmental crises
	Lack of reliable climate data	Strengthening the system for collecting, processing, analysing and disseminating of climate data
	Insufficient consideration of local realities in the development and implementation of NDCs	Integration of local realities into NDCs
	Vulnerability of rural communities to policy choices	Involvement of CSOs and community leaders in adaptation and awareness-raising programmes and the establishment of early warning and community-based adaptation mechanisms
	Lack of interest among young people	Raising awareness among young people about agricultural entrepreneurship
	Illiteracy	Functional literacy programme, integrated into agricultural and environmental of rural communities
	Land disputes between livestock farmers and farmers	Creating transhumance corridors
	Inadequate implementation of national strategies at local level	Integration of environmental issues into strategic development plans and local development plans
	Difficulties in communicating and managing knowledge	Compilation of local knowledge and involvement of community radio stations for their regular dissemination
France/pS-Water	Excessive centralisation: decisions being taken over by central government, to the detriment of local governance Low participation of marginalised communities and groups, particularly women and traditional authorities Incomplete data and a lack of interoperability between information systems	A multi-thematic and participatory approach, combining water, agriculture, health, the environment and governance. Strengthening local capacities: training, equipping and promoting local knowledge. Knowledge sharing: support for the production, dissemination and sharing of data on drought through the media and public platforms. Data production and sharing: development of information systems (IS), participatory water resource monitoring mechanisms and 'drought' early warning systems. Forums for consultation: fostering the emergence of consultation forums at the local level and/or ensuring their sustainability, and the effective and efficient involvement of civil society, users and local authorities. Decentralised cooperation: development of technical and financial partnerships between territories in the North and South. Integration of gender and equity issues into local water and climate adaptation policies.

Table 5: Recommendations by target

Country	State	Donors	Civil Society	Research	Private sector
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Burkina Faso	Integrating environmental issues (NDT/GDT, SfN) into national development policies Elevate the environment sector to a national priority Allocate substantial budgets for the implementation of programmes for ecosystem restoration and environmental crisis management Implement land and forestry reforms guaranteeing secure access to land for vulnerable communities (women, young people, people with disabilities, internally displaced persons) Promote local agroecological best practices and SfN Establish participatory mechanisms for monitoring, evaluation and capitalisation of achievements. Promote cross-departmental interventions Ensure the effective transfer of skills and resources to local authorities local authorities	Support states in mobilising climate finance (CCF, GEF, Adaptation Fund, etc.) Strengthen implementation and regional monitoring of SLM and landscape restoration (IGMVSS)	Municipalities/Regions: Introduce a local to finance the sustainable management of forest resources	Strengthen synergies between stakeholders Strengthen research into the links between land degradation land, climate, biodiversity and food security	Promote green and responsible value chains (e.g. certification of products from restored land) Contribute to the financing of restoration projects through mechanisms such as carbon credits or public-private
Canada	Quebec Government: Sustainability of the PCCI and climate coherence : Ensure funding is confirmed in the economic update (November 2025) or the 2026–2027. Recall Quebec's international commitment (BOGA co-chair) and the inconsistency of cutting a flagship programme funded by the carbon market	International (COP30, COP17, Donors): A model unique to protect: The PCCI exemplifies innovation in sub-national climate finance. Demonstrate the programme's effectiveness in combating desertification and its links to the empowerment of rural women and climate justice	Quebec public opinion: Return on investment (ROI) for Quebec: The PCCI is a unique, globally recognised model (2019 UN Climate Action Award) that generates direct benefits (skilled jobs , promotion of , and strengthening of the the Francophone network). Use testimonials to illustrate the measurable impact on people's lives and the climate outcomes (e.g. Mission Inclusion has enabled sequestration of 2 662.89 tonnes of carbon via 500 biodigesters)		



Ivory Coast	Mapping of the DT at national level Institutionalising regional innovation platforms Implement a policy on training, supervision and research, and above all the development of the soil irrigation system	Stimulate financial innovations with the private sector Facilitate access to finance Support capabilities	CL: Take into account the fight against drought in three-year programmes - Adopt climate planning tools and strengthen local for adaptation	Strengthen applied research, the dissemination of innovations and the transfer of skills to local areas	
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	Increase funding for agricultural research Facilitate the introduction of grants for CSOs for training, awareness-raising and the promotion innovations Effectively implement all laws, policies and strategies to combat droughts Establish a special fund for drought mitigation - Monitor the implementation of policies and strategies - Integrate resilient territorial management into national and local climate policies and NDCs Accelerate efforts to combat deforestation and restoration of catchment areas to regenerate the water cycle Take steps to operationalise and strategies at the local level Facilitate the integration of environmental issues into the drafting of local authority budgets local authorities	local financial mechanisms for sustainable land management (SLM) and access to green funds and other funding sources Establish special funds for local communities	- Promote the role of traditional leaders in community resilience Parliament (National Assembly, Senate) Incorporate the climate emergency into budget laws and the oversight of adaptation policies SC: raise public awareness of citizens' responsibility for strengthening regional resilience		
France/pS-Eau	Strengthen local planning and decentralised				



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