

Pastoralism in times of change

STRATEGIC ACTION PLAN FOR THE
ADAPTATION OF EXTENSIVE LIVESTOCK
FARMING TO CLIMATE CHANGE



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This document offers a summary of a more comprehensive text titled “Strategic Action Plan for the Adaptation of Extensive Livestock Farming to Climate Change in the Mediterranean Europe,” which can be consulted and downloaded in its digital version (available in three languages: Spanish, Portuguese, and English) from the LifeAdapt website or via the following link: <https://liveadapt.eu/wp-content/uploads/2022/12/PAE-Proyecto-LiveAdapt-ES.pdf>.

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1 | INTRODUCTION TO THE STRATEGIC ACTION PLAN

This document is a summary of the **Strategic Action Plan for the Adaptation of Extensive Livestock Farming to Climate Change in Mediterranean Europe**, developed within the framework of the Life LiveAdapt Project on extensive livestock farming and climate change. The main goal of this project was to promote mechanisms that facilitate the adaptation of extensive livestock farming in the context of global warming. Additionally, it aimed to highlight the capacity of this farming model to mitigate climate change and its essential role in preserving key environmental, cultural, and economic resources.

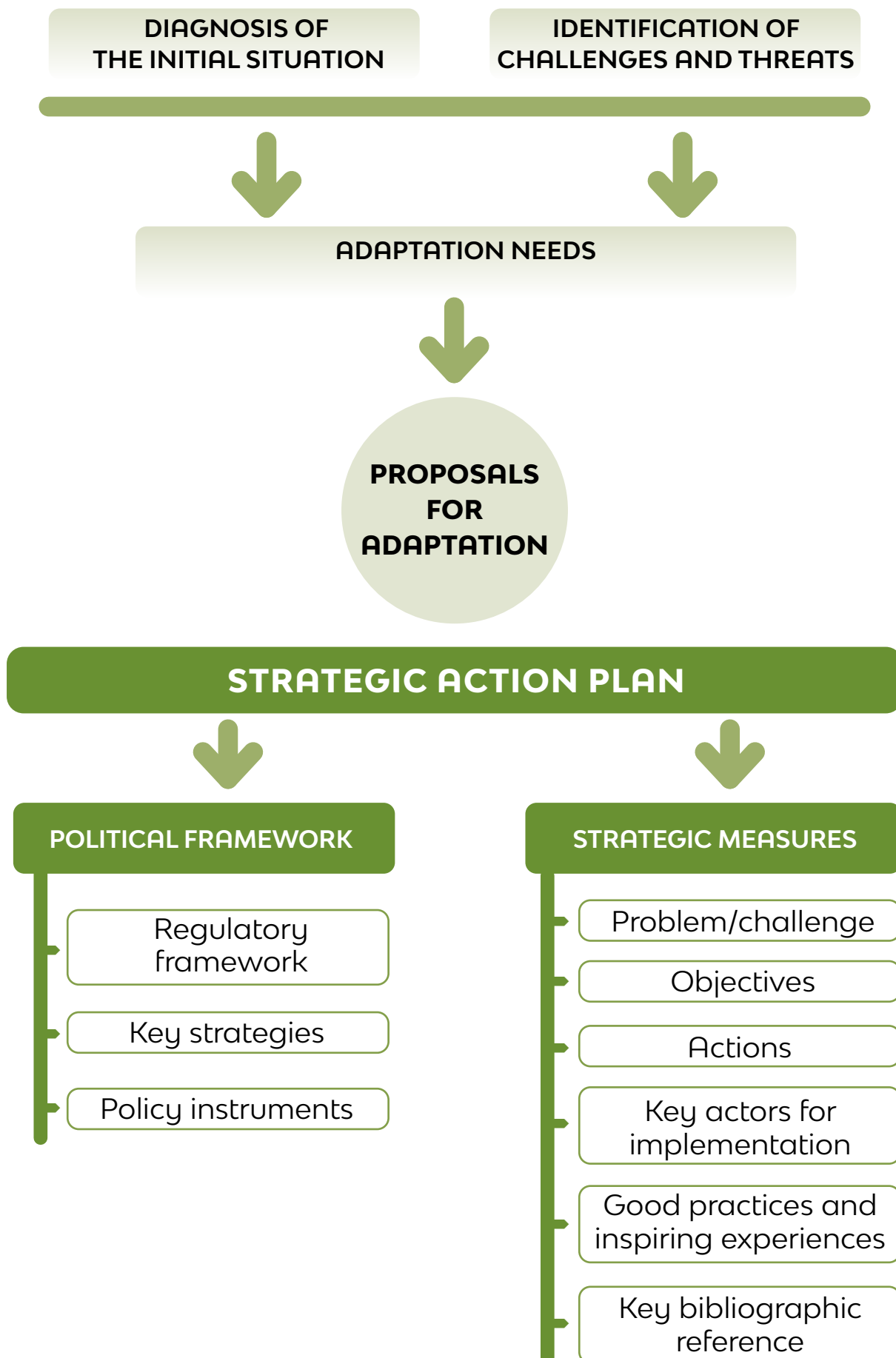
This Strategic Action Plan (hereinafter SAP) addresses **three key challenges:**

- 1) To provide the basis for distinguishing the extensive livestock farming model from industrial production models.
- 2) To identify obstacles and solutions for promoting extensive livestock farming.
- 3) To establish a technical foundation for implementing specific strategies for adapting extensive livestock farming at different territorial levels (European, national, and regional).

The roadmap for developing this action plan is outlined in the next figure. During the initial phase, efforts were focused on identifying the various challenges that extensive livestock farming faces in the context of climate change, linking each of these challenges to emerging needs and adaptation challenges. The SAP is structured into 13 strategic measures, grouped thematically into four lines of action. Each strategic measure has been developed into a series of **actions related to the challenge and objectives** of the measure.

The purpose of the SAP is to ensure that the proposed actions are concrete and practical, aligning them with key regulations, policies, and strategies within the European Union, and identifying the most relevant political instruments in each case.

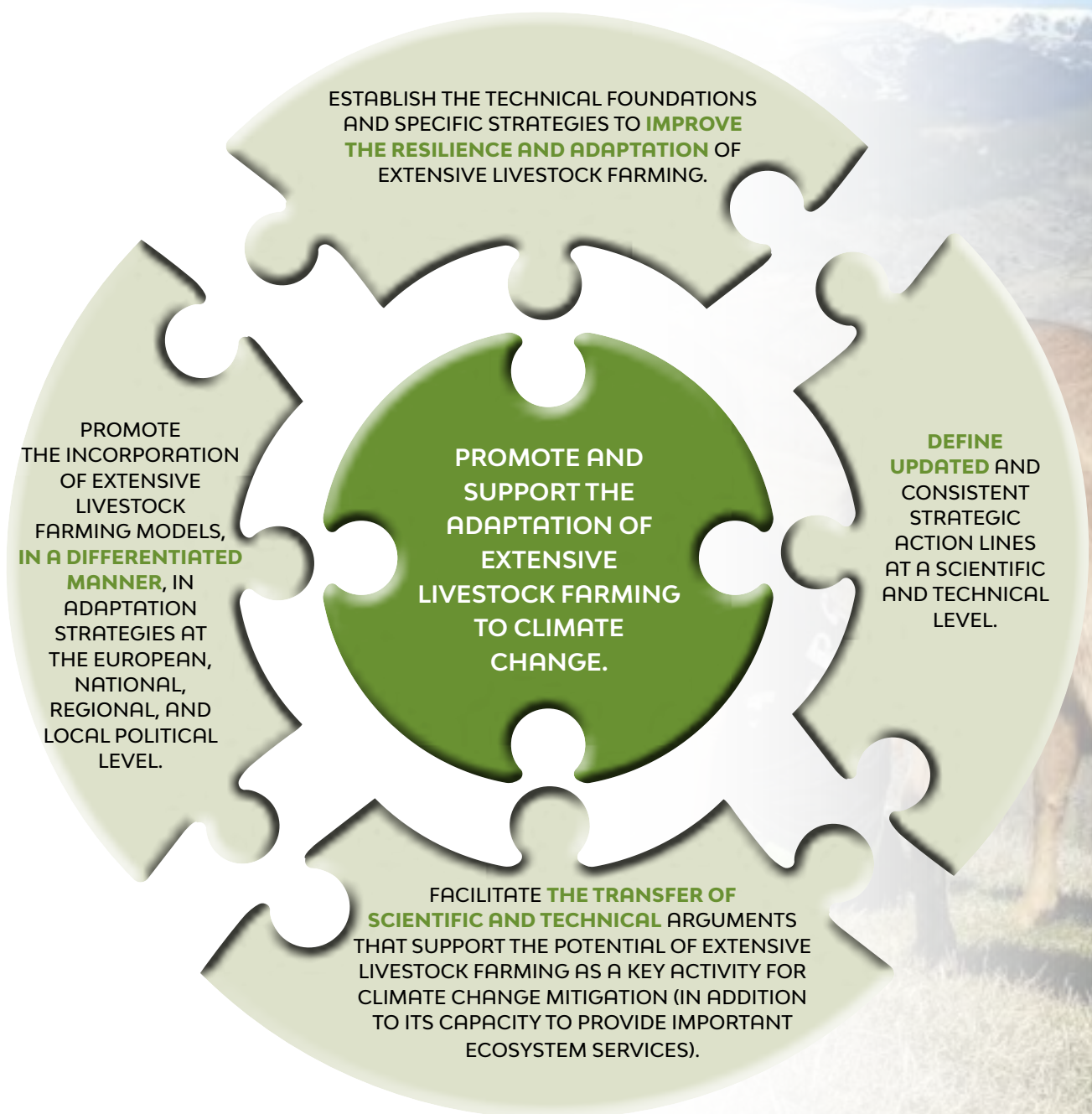
This document has been prepared through a participatory process involving over 120 people and entities from three different countries (France, Spain, and Portugal). The aim was to incorporate diverse technical and sectoral perspectives, including input from scientists, technicians, public administrators, unions, NGOs, and extensive livestock farmers. The diagnosis of the initial situation and the challenges to be addressed is based on **social analysis tools adapted to the characteristics of each territory**. This approach helps to identify the sector's problems, propose recommendations, and define useful measures aimed at professionals responsible for formulating territorial policies.



2 | WHY DO WE NEED A STRATEGIC ACTION PLAN?

The general goal of this Strategic Action Plan (SAP) is to **support extensive livestock farming in optimizing its adaptation to climate change.** To achieve this, the plan draws from scientific and technical knowledge, as well as the experience of those directly involved in this activity, and provides a set of strategic measures to be implemented. For each measure, specific actions are outlined, tailored to different political and administrative levels.

This strategy focuses on extensive livestock systems in Mediterranean Europe, though it is scalable to European, national, regional, and local levels.





3 | WHAT IS EXTENSIVE LIVESTOCK FARMING?

The definition used in this document is based on the specific characteristics of the activity, its socio-environmental benefits, and its great capacity for adaptation in changing situations. It is a clear, simple definition that has been agreed upon by the livestock sector and the scientific community, as developed in the document "Definition and Characterization of Extensiveness in Livestock Farms in Spain," published by the Ministry of Agriculture, Fisheries, and Food (MAPA) in collaboration with the Platform for Extensive Livestock Farming and Pastoralism (2017).

"Extensive livestock farming is the set of livestock production systems that efficiently utilize the resources of the territory, employing species and breeds adapted to the bioclimatic and geographical conditions of the area, as well as culturally and environmentally appropriate management practices, reconciling production with sustainability and generating environmental and social services."

Extensive livestock farming is a practice that is always linked to the territory and is primarily based on grazing. It is characterized by low dependence on external inputs and a high capacity to diversify food sources according to the season, thanks to livestock mobility. This ability for mobility and autonomy from global markets makes it a very resilient and sustainable activity at the territorial level, which also helps to preserve natural heritage, sustain rural populations, manage land, and provide food security and food sovereignty.

European Livestock Farming: Between Extensive and Intensive

A very restrictive definition of extensive livestock farming excludes many valuable livestock systems in Europe. In Europe, many of these systems are only partially extensive either because they use supplementary resources from global markets when the territory does not meet the animals needs or because they alternate extensive phases (for example, suckler cows) with intensive phases (for example, finishing before slaughter). Therefore, we refer to semi-extensive models when:

- A significant portion of the feed comes from grazing, but another portion partially depends on inputs produced outside the territory.
- One or more phases of the production process are covered under an extensive model.

Thus, we can speak of a gradient of extensiveness, as most livestock farms in southern European countries fall into these intermediate positions. This gradient of extensiveness comprises a wide variety of mixed models known as semi-extensive.



4 | WHY IS IT ESSENTIAL TO DIFFERENTIATE EXTENSIVE LIVESTOCK FARMING FROM OTHER PRODUCTION MODELS?

Extensive livestock farming is connected to highly relevant environmental values such as biodiversity conservation, fire prevention, climate change mitigation through carbon sequestration in soils, contribution to nutrient cycling, maintenance of soil fertility, and the provision of ecosystem services. Additionally, this activity supports rural economies, contributes to adaptation to climate change and food security, and represents a rich ethnographic and cultural heritage.

In contrast, industrial livestock farming is associated with severe environmental impacts, generates limited employment, and undermines the economic viability of extensive livestock farming by competing in the market with undifferentiated, lower-quality meat and dairy products at lower prices.

The environmental behavior and cultural and social value are also very different between extensive models and more industrialized or intensive livestock farming models.

Despite this, extensive livestock farming is an activity that receives little support from administrations and society and currently faces significant challenges to its survival, including economic, demographic, administrative, and environmental difficulties.

In this regard, public administrations need to take action to prevent its disappearance. France has already begun this process with measures to support pastoralism, and it is hoped that Spain and Portugal will implement similar initiatives soon, given the great diversity of extensive livestock farming systems in both countries.

Specific Difficulties Facing Extensive Livestock Farming:

- ✓ Extensive farms are generally **small to medium-sized**, making them economically more vulnerable.
- ✓ Labor costs and the shortage of qualified personnel **continuously increase production costs**.
- ✓ Their products **compete in the market with prices set by industrial production**, without consumers being able to differentiate and choose products sourced from pastoralism.
- ✓ There is a progressive **disappearance of infrastructure and resources** that facilitate extensive livestock farming, such as localized markets, fairs, slaughterhouses, cutting rooms, bakeries, cheese factories, and local butcher shops.
- ✓ The infrastructures that enable **livestock mobility**, such as cattle routes, mountain pens, and watering points, are increasingly occupied by other infrastructures and improper appropriations.

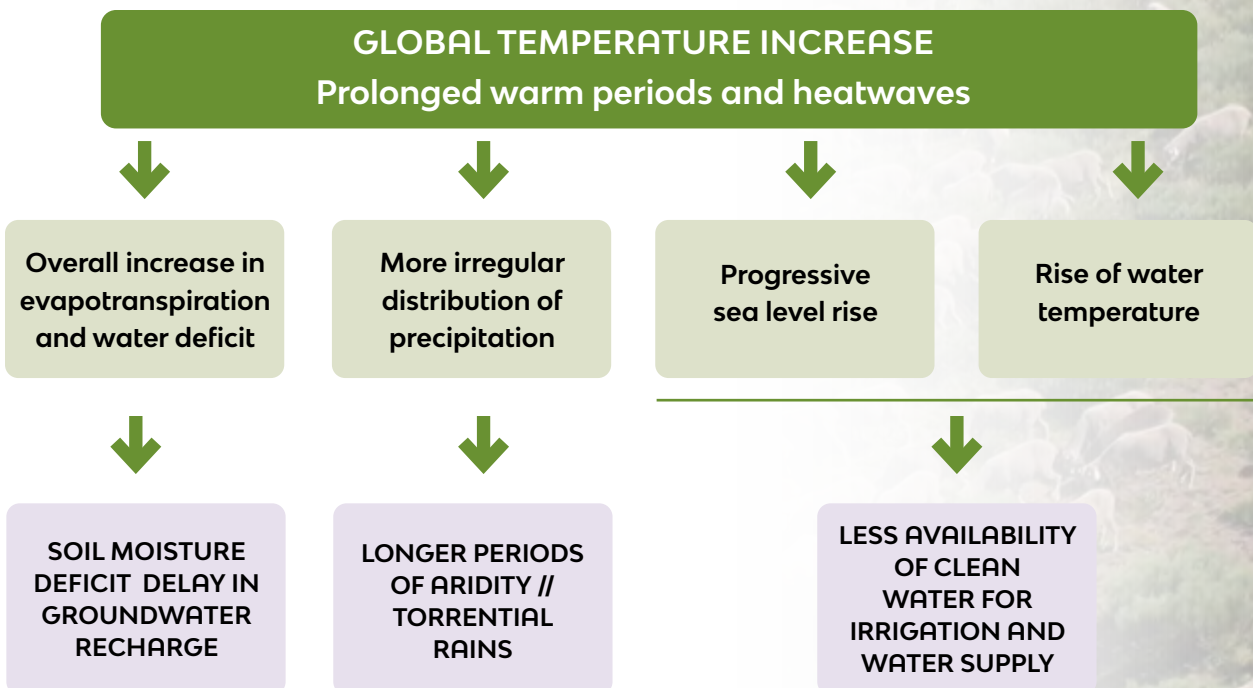


5 | THE IMPACTS OF CLIMATE CHANGE IN MEDITERRANEAN EUROPE

The adverse consequences of climatic conditions are already a reality in the agricultural areas of southern Europe and will be exacerbated by global warming.

The various future scenarios suggest the **potential emergence of threats to human health and ecosystems as a whole**. The decline in production and the increase in vulnerability of the primary sector could potentially lead to socioeconomic impacts and a reduction in food security in the region.

Rising temperatures and changes in rainfall patterns—with less frequent but more intense rain in Mediterranean areas—will exacerbate periods of drought and dryness, while floods and heavy downpours will cause significant impacts. As a result, **the scarcity of fresh drinking water and the loss of soil moisture will be major challenges for the primary sector**. Additionally, the increase in both the frequency and intensity of wildfires, the spread of invasive species, and the decline in native biodiversity that supports plant pollination and soil fertility will also be challenges the sector must confront.





6

HOW DOES AND HOW WILL CLIMATE CHANGE AFFECT EXTENSIVE LIVESTOCK FARMING?

Climate change is already evident in the Mediterranean area, and some of its impacts on livestock populations are currently clear. Among the most serious impacts are the increased thermal stress on animals, reduced availability of sufficient and potable water, and diminished access to fresh pastures for livestock.

Livestock mobility and the ability to diversify the resources it uses from the territory are major advantages of extensive livestock farming in terms of adapting to this changing scenario. Extensive livestock farming, thus, provides a clear benefit in terms of food security. Additionally, it can be said that, due to its intrinsic characteristics, extensive livestock farming has great resilience to change. However, there is a risk that increased dependence on feed and other external inputs could reduce the profitability of the activity and, consequently, its role in landscape management and land use.

Climate change will generate specific impacts on extensive livestock farming in four areas: the health and well-being of animals, the quantity and availability of pastures and other livestock feed, the economy and culture, and ecosystems and land.

The following are some of these specific threats:



POTENTIAL IMPACTS OF CLIMATE CHANGE ON EXTENSIVE LIVESTOCK FARMING IN THE MEDITERRANEAN CONTEXT

THREATS TO ANIMALS



- ✓ Decreased health and fertility of livestock due to thermal stress and reduced animal welfare.
- ✓ Increased livestock mortality due to heightened instances of thermal stress.
- ✓ Decrease in livestock production caused by animal discomfort and dietary imbalances that reduce feed intake.
- ✓ Changes in the patterns of parasite and disease incidence due to alterations in temperature and precipitation regimes.
- ✓ Problems accessing sufficiently abundant and suitably qualified water.
- ✓ Health issues caused by low food availability during certain times of the year.

THREATS TO LIVESTOCK FEED



- ✓ Changes in the periods of pasture availability: reduction in summer due to intensified drought regimes and an increase in spring due to rising temperatures.
- ✓ Reduction in the availability and abundance of pastures due to increased frequency and intensity of torrential rains and the intensity and frequency of drought periods.
- ✓ Decrease in the carrying capacity of pastures as a consequence of reduced pasture productivity and potential changes in their nutritional quality.
- ✓ Decrease in productivity and increase in the irregularity of forage and crops intended for animal feed. Increased cost of feed.
- ✓ Changes in patterns of pests and diseases affecting pastures and palatable woody plants due to changes in temperature and precipitation regimes.
- ✓ Potential appearance and/or expansion of non-palatable invasive species.



SOCIOECONOMIC AND CULTURAL THREATS

- ✓ Increase in production costs to maintain proper hydration, ventilation, and temperature for livestock in intensive farming systems.
- ✓ Potential increase in emotional stress and social conflict due to seasonal water shortages and the loss of food security.
- ✓ Abandonment of rural areas, leading to the loss of cultural and ethnographic heritage.
- ✓ Irregular income in the sector.
- ✓ Rise in livestock insurance costs due to an increase in the number of animals affected by thermal stress and climate-related disasters.



THREATS TO ECOSYSTEMS AND THE LAND

- ✓ Reduction in the diversity of species and/or livestock breeds due to difficulties adapting naturally to climate change.
- ✓ Increased incidence and magnitude of wildfires affecting the sector.
- ✓ Emergence of invasive species and changes in native vegetation due to environmental changes.
- ✓ Threats to biodiversity, including key fauna for pollination and maintaining soil fertility.



7 | EXTENSIVE LIVESTOCK FARMING, A KEY ACTIVITY FOR CLIMATE CHANGE ADAPTATION AND MITIGATION

Global agricultural production, including livestock farming, accounts for between 9% and 14% of total greenhouse gases emissions. **This percentage includes all forms of livestock farming, without distinguishing between land-based extensive systems and industrialized models.**

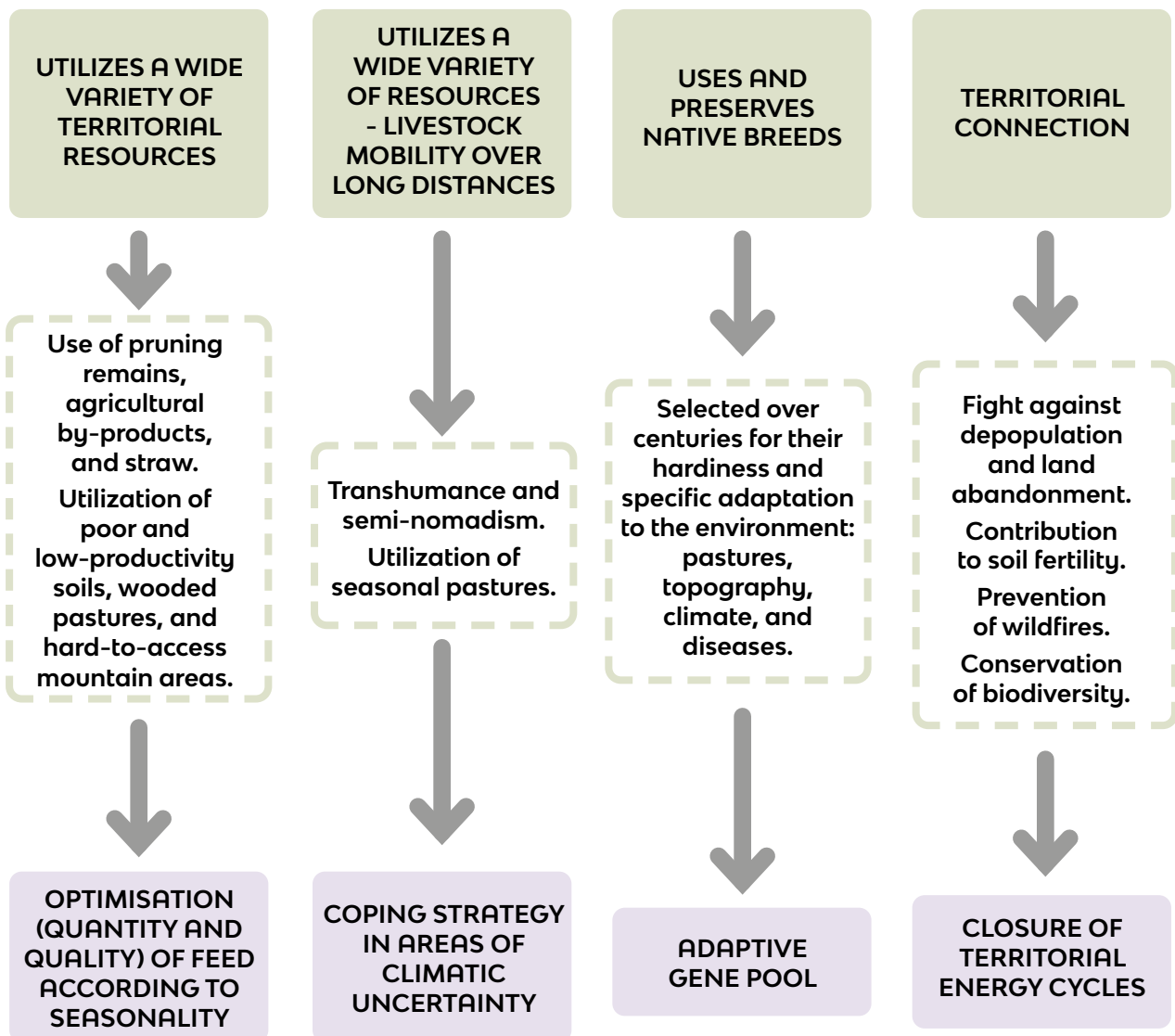
However, **the climate responsibility of livestock farming is one of the issues for which the livestock model should be differentiated;** nearly a third of the emissions attributed to livestock farming in general are due to land use and land-use changes (deforestation for industrial livestock feed crops). In contrast, extensive livestock farming makes minimal use of such production since it relies on grazing within the territory. Moreover, grazing has positive effects on ecosystem conservation.

Various scientific studies confirm the significant role of extensive livestock farming in mitigating climate change. This role stems from the conservation of ecosystems used by livestock, which are responsible for sequestering large amounts of atmospheric carbon in their soils and biomass. Additionally, by utilizing local resources, extensive systems are less dependent on fossil fuels, the combustion of which is the main driver of global warming.

For all these reasons, it is essential that the calculation of the carbon footprint of extensive livestock farming includes not only the emissions from production but also **the capacity of well-managed pastures to sequester carbon.** It is worth noting that the proper conservation of these pastures largely depends on grazing.

Extensive livestock systems, particularly those involving local breeds, have unique characteristics that enable them to adapt to changing climatic conditions. The animals rely on different seasonal food sources (based on territorial and seasonal availability) and exhibit greater resilience to diseases—traits that have been genetically selected over hundreds of years.

MAIN CHARACTERISTICS OF PASTORALISM AND ITS POTENTIAL TO ADAPT TO CLIMATE CHANGE



8

LEGAL AND INSTITUTIONAL FRAMEWORK FOR THE ADAPTATION OF EXTENSIVE LIVESTOCK FARMING

Since the goal of this SAP is to provide policy recommendations that are as specific and useful as possible, we have compiled below the most relevant political frameworks, strategies, and regulations that shape the current context of extensive livestock farming and its immediate future.

AT THE INTERNATIONAL LEVEL:

Convention on Biological Diversity (CBD)

- Interconnections between biodiversity and climate change
- Decade on Ecosystem Restoration

United Nations Convention to Combat Desertification (UNCCD)

- Soil rehabilitation in response to climate change
- Land degradation neutrality

United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement

- International cooperation framework to address climate change risks

International Initiative "4 per 1000" (COP 21 – France 2015)

- Importance of soils in food security and climate change

Sendai Framework for Disaster Risk Reduction (2015-2030)

- Disaster risk reduction and resilience to climate change

AT EUROPEAN LEVEL

United Nations Framework Convention on Climate Change (UNFCCC) and Paris Agreement

2030 Agenda for Sustainable Development

- Sustainable Development Goals: Six SDGs are closely related to climate change.
- AKIS: Agricultural Knowledge and Innovation Systems

EU Climate Change Adaptation Strategy 2013

- Adaptation in macro-budgetary policies to climate change until 2050

EU Biodiversity Strategy for 2030

- Protection and restoration of biodiversity and ecosystem functioning for resilience and prevention of emerging diseases

European Green Deal 2019

- Climate-neutral Europe by 2050
- “Farm to Fork” Strategy 2020: Sustainable food production

NextGenerationEU Recovery Plan

- Opportunity for extensive livestock farming
- Moving towards more resilient food models in Europe

Reform of the Common Agricultural Policy (CAP) 2023-2030 and Rural Development Policies

- Strategic plans and rural development programs of member states with clear environmental objectives

Hygiene and Sanitary Regulations

- “Food Hygiene Package”: Food safety for products from extensive livestock farming

Nature Restoration Law

- Sets targets to regenerate degraded ecosystems in the EU, contribute to achieving the EU’s climate and biodiversity goals, and improve food security.

Aarhus Convention

- The right to access information and participate in environmental decisions and to claim compensation if these rights are not respected.

Other relevant policy instruments

- Results-Based Payment Schemes: payments to livestock farmers for environmental performance

9

LINES OF ACTION AND THEIR STRATEGIC MEASURES

This SAP organizes its measures into 4 Lines of Action, which encompass 13 associated Strategic Measures, resulting in a total of 171 specific actions. Each of these lines of action and their associated strategic measures is designed to be consulted independently. In this document, each strategic measure is structured based on the challenge it addresses, the objectives it pursues, and the specific actions for its development. In the long version of the SAP, you will also find information for each measure regarding the key actors involved, inspiring success stories, and bibliographic references.

I. Key Lines	
I.A.	Differentiation of extensive livestock farming
I.B.	Fair and differentiated allocation of the climate responsibility of extensive livestock farming
I.C.	Recognition and maximization of the ecosystem services provided by extensive livestock farming
II. Political and Economic Support Lines	
II.A.	Recognition and economic, fiscal, and financial support for a sustainable extensive livestock farming sector
II.B.	Adapt the Common Agricultural Policy (CAP) to the specific needs of extensive livestock farming
II.C.	Improve inter-administrative coordination and territorial integration in order to harmonize regulations
II.D.	Training and awareness-raising for sector professionals involved in regulations affecting extensive livestock farming
II.E.	Support for differentiated marketing and promotion of extensive livestock products
III. Lines Aimed at Improving the Management and Operation of Farms	
III.A.	Improve the adaptability of livestock farms
III.B.	Improved water management in line with adaptation needs
III.C.	Recognition, facilitation, and support for livestock mobility
IV. Lines for Strengthening Research and Social Fabric	
IV.A.	Strengthening research, transfer, and monitoring for the adaptation of extensive livestock farming to climate change
IV.B.	Measures to strengthen social fabric and governance to adopt an inclusive adaptation strategy at the sector level

I. Key lines



I.A. Differentiation of Extensive Livestock Farming

Challenge:

Currently, there is no clear framework or official definition for extensive livestock farming, making it difficult for relevant authorities to monitor and protect this activity. This lack of distinction is particularly evident when it comes to its promotion and inclusion in the new Common Agricultural Policy (CAP). Another challenge is that existing official databases lack sufficient information to properly assess the extent of extensive livestock farming.

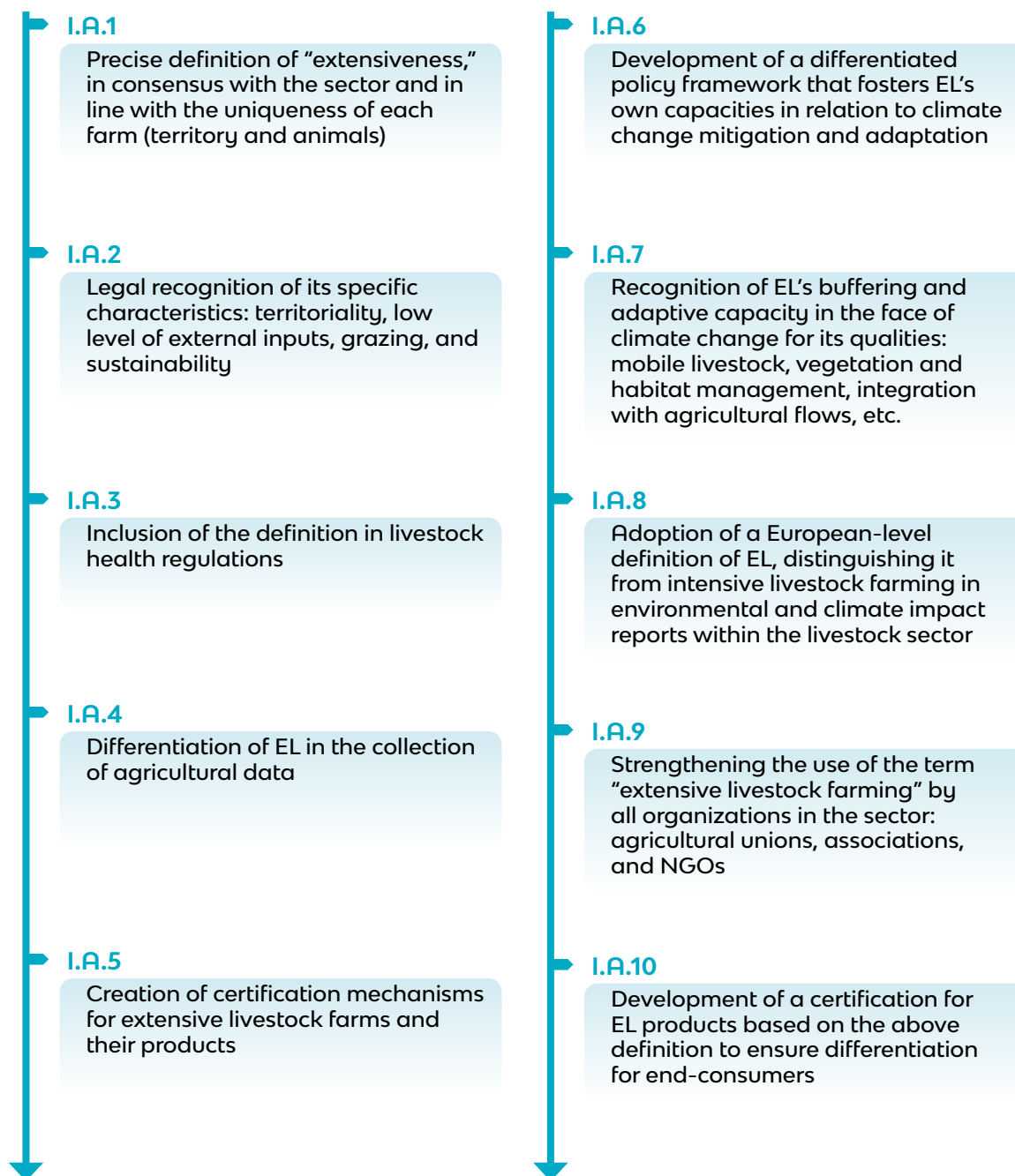
Objectives:

- ✓ Clearly and collectively define extensive livestock farming (henceforth EL), developing the concept of “extensiveness.”
- ✓ Incorporate this definition into regulatory bodies: Intergovernmental Panel on Climate Change (IPCC), UN Food and Agriculture Organization (FAO), World Health Organization (WHO), World Organization for Animal Health (OIE) and regulations (CAP, certifications).
- ✓ Create a certification for extensive livestock farming for farms and their products.



Specific actions:

These 10 actions are structured around two major areas of intervention based on the consensus definition of EL: on the one hand, the creation of a **political framework that specifically regulates this activity**, and on the other, its differentiation and recognition at various scales.



I.B. Fair and differentiated allocation of the climate responsibility of extensive livestock farming

Challenge:

Official models used to calculate greenhouse gas (GHG) emissions do not differentiate between the climate impacts of different types of livestock operations—industrial and extensive—treating and legislating them as one. Extensive livestock farming, which is tied to the conservation and maintenance of ecosystems such as agroforestry systems that capture significant amounts of CO₂, should be recognized as an activity that helps mitigate climate change. Furthermore, its reliance on local resources reduces the need for international transport and fossil fuel consumption. For these reasons, failing to distinguish the extensive production model from the industrial one unfairly assigns climate responsibility.

The essential characteristics of extensive livestock farming that should be included in its emissions evaluation are:

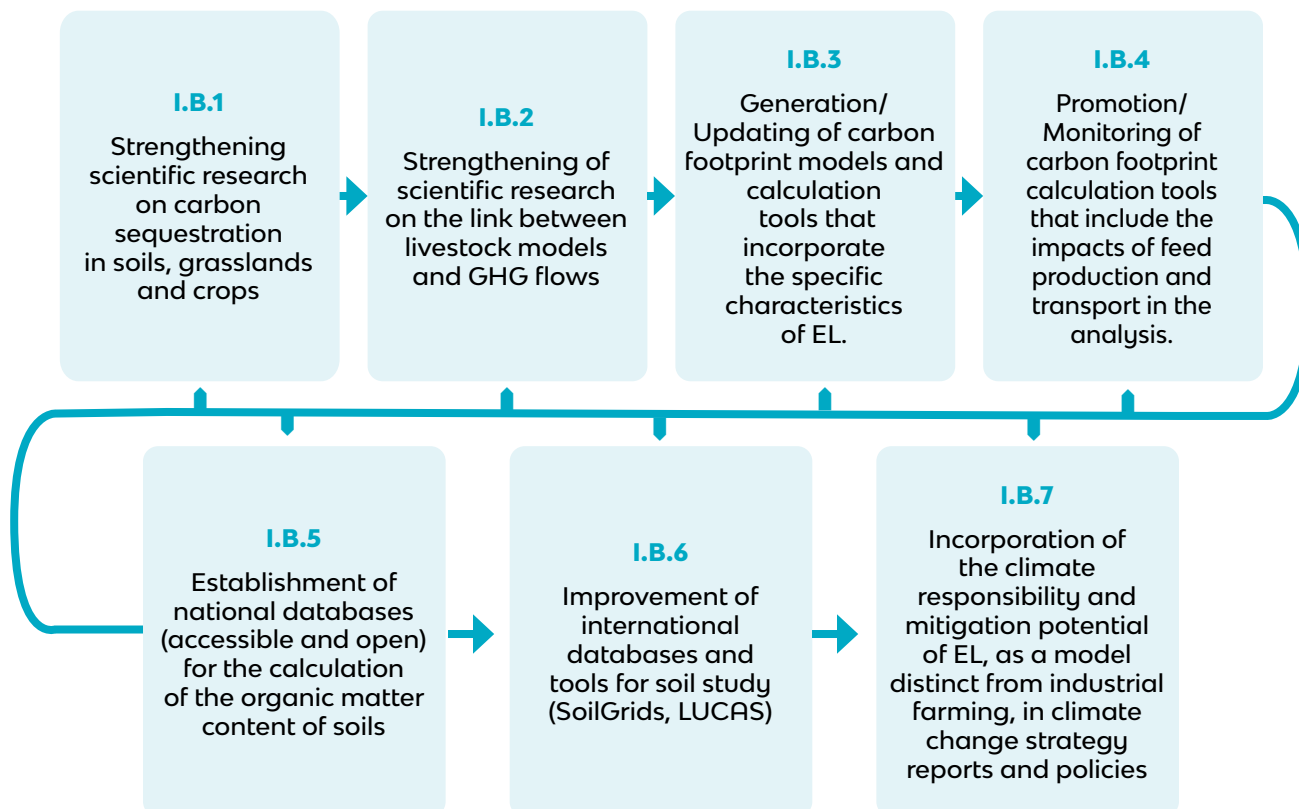


Objectives:

- ✓ Attribute to EL a climate responsibility in line with its internal characteristics: carbon sequestration and autonomy from external inputs.
- ✓ Deepen the understanding of the capacity of soils and pastures to sequester carbon, as well as their link to livestock management.
- ✓ Incorporate carbon sequestration into all environmental footprint calculation tools (international organizations and private certifications).
- ✓ Create national (accessible and open) databases for calculating organic matter content in soils.
- ✓ Improve international soil study databases and tools (SoilGrids, LUCAS).

Specific Actions:

The seven necessary actions for developing this measure are based on scientific research to obtain data that allows for **refining international emission calculation systems** concerning each livestock model, as well as including CO₂ capture in that calculation:



I.C. Recognition and maximization of the ecosystem services provided by extensive livestock farming

Challenge:

Extensive livestock farming provides important social and environmental “positive externalities” (values added to its productive function) that are being threatened by the advance of agricultural intensification and the abandonment of agricultural and pastoral activity at the local level.

The environmental services provided by extensive livestock farming are manifold:

REGULATION

Nutrient recycling and preservation of soil fertility

Climate change mitigation

Fire prevention by vegetation control

SUPPORT

Biodiversity conservation

Maintenance of ecosystems of High Nature Value (HNV)

Seed dispersal

CULTURAL

Maintenance of cultural landscapes

Extensive cultural heritage

Tourism and recreation

Educational and training potential

PROVISION

Use of agricultural resources that are not in competition with human food

Self-supply of fertilisers

Infrastructure clearing without the use of fossil fuels

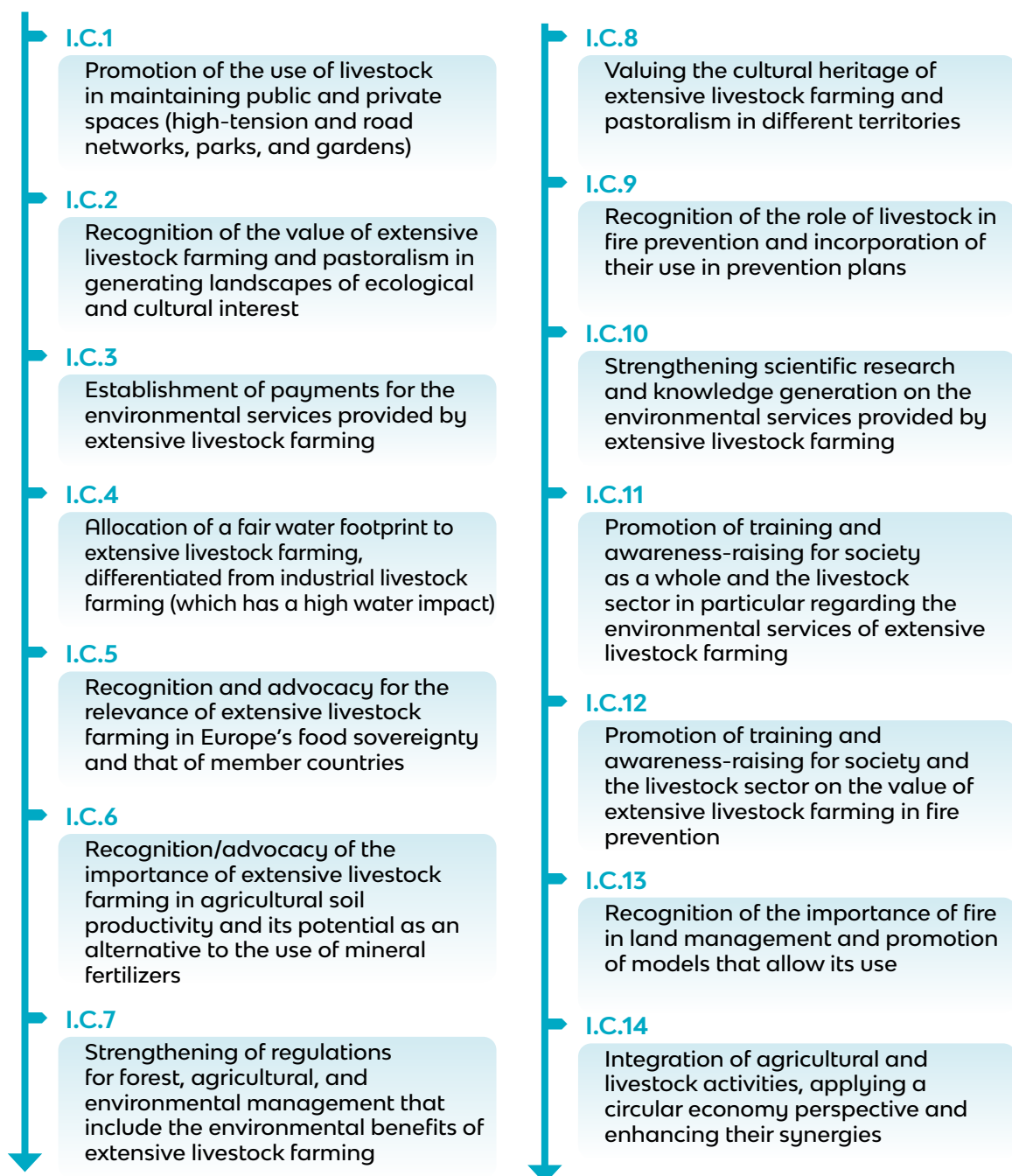


Objectives:

- ✓ Promote, disseminate, and educate about the environmental services of extensive livestock farming.
- ✓ Establish mechanisms for the allocation of fair payments to extensive livestock farming for the services provided.
- ✓ Reconnect agroforestry, livestock farming, and ecosystem conservation based on their synergistic benefits.

Specific actions:

These 14 actions are structured around three fundamental guidelines for action: **promoting pastoralism**, valuing the **environmental services** it provides, and recognizing its relevance **for land management and food sovereignty**.



II. Political and economic support lines



II.A. Recognition and economic, fiscal, and financial support for a sustainable extensive livestock farming sector.

Challenge:

Rural areas in Europe are becoming increasingly depopulated. Extensive agricultural and livestock operations are struggling due to their low economic profitability, and existing rural development aid promotes practices that intensify production, further harming extensive livestock farming and pastoralism.

Objectives:

- ✓ Highlight the relevance of the extensive livestock sector for rural areas, demographic challenges, and food sovereignty.
- ✓ Strengthen the balance and shared responsibility between rural and urban areas.
- ✓ Place rural areas at the center of the ecological transition in public policies.
- ✓ Establish plans for entrepreneurship and socio-ecological sustainability in the extensive livestock sector.
- ✓ Review regulations and fund allocations (RDP, Next Generation EU) in the extensive livestock sector and rural development.



Specific actions:

The 16 actions grouped under this measure are structured around three action groups: a) those related to valuing an active livestock sector, supporting its sustainability in extensive and family-based models; b) those aimed at providing the rural area with its own resources; and c) those directed at fostering a responsible connection between urban and rural areas:



II.B. Adapt the Common Agricultural Policy (CAP) to the specific needs of extensive livestock farming

Challenge:

Most European funds from the CAP are being allocated to the intensification of agricultural and livestock production, thus deviating from their goals of economic, environmental, and social sustainability. It is urgent to modify the management criteria of these funds so that they truly contribute to the development of the extensive sector

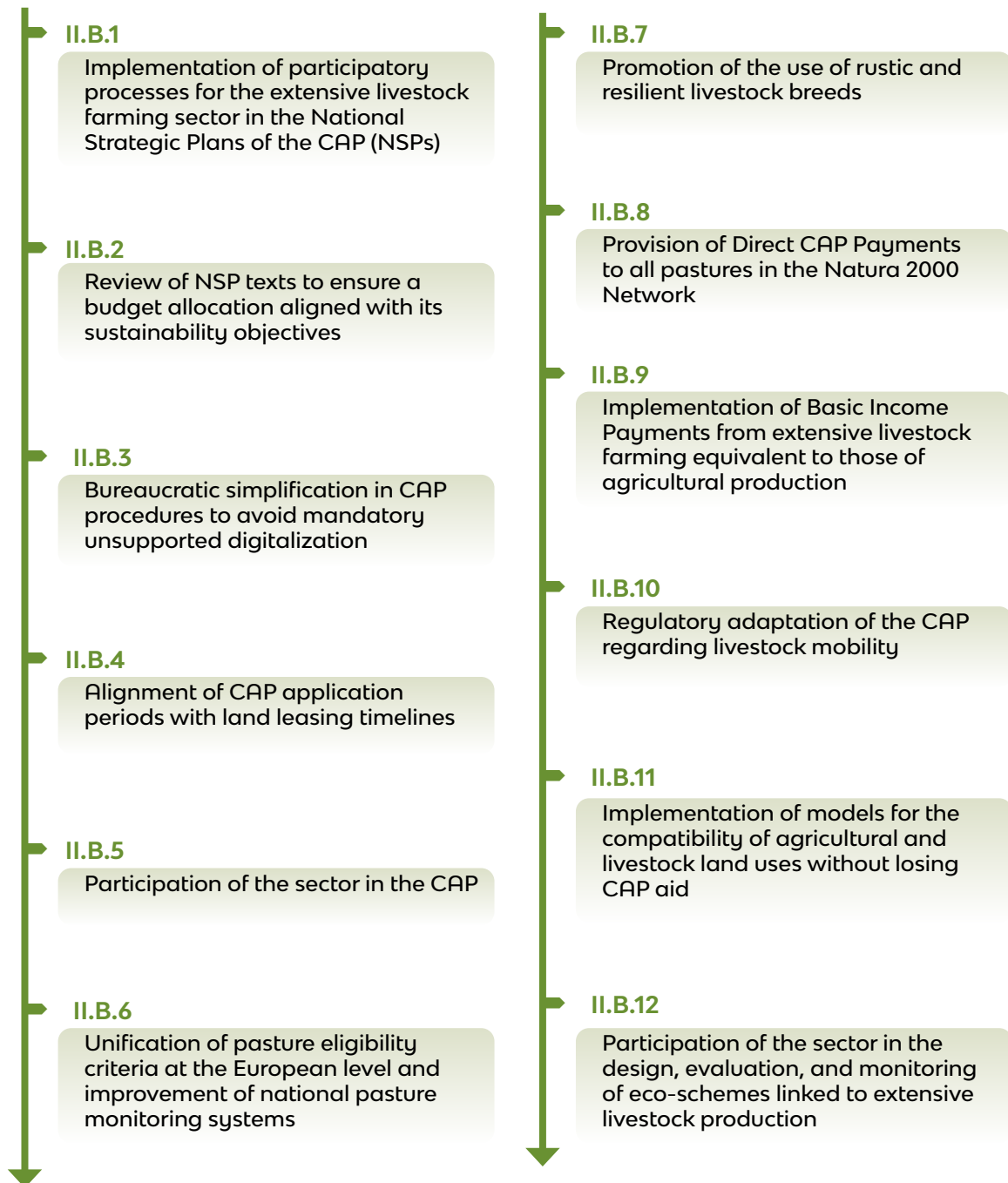
Objectives:

- ✓ Raise awareness about the responsibility of the CAP and its national implementation in the European agricultural model.
- ✓ Ensure the participation of the extensive primary sector in CAP strategic plans at national and regional levels.
- ✓ Recognize the key role of pastoralism in vegetation management and facilitate its use.
- ✓ Differentiate the concepts of EL at the regulatory level so that it receives adequate support



Specific actions:

The 12 actions that define this measure are aimed at **incorporating extensive livestock farming as a differentiated activity in the CAP**, particularly concerning three fundamental lines: the participatory inclusion of the extensive livestock sector, the increase of **budgetary support and ease of access to subsidies**, and the establishment of administrative facilitation.



II.C Improve inter-administrative coordination and territorial integration in order to harmonize regulations

Challenge:

The livestock sector identifies the lack of coordination and communication among administrations managing one same territory at different levels as the main obstacle to the sustainability of extensive farming operations. It is necessary to coordinate agricultural and livestock policies with other sectoral policies (water, consumption, rural development, territorial planning, forest management, or nature conservation). This coordination requires joint actions and aligned efforts to achieve objectives tailored to the needs of each territory.

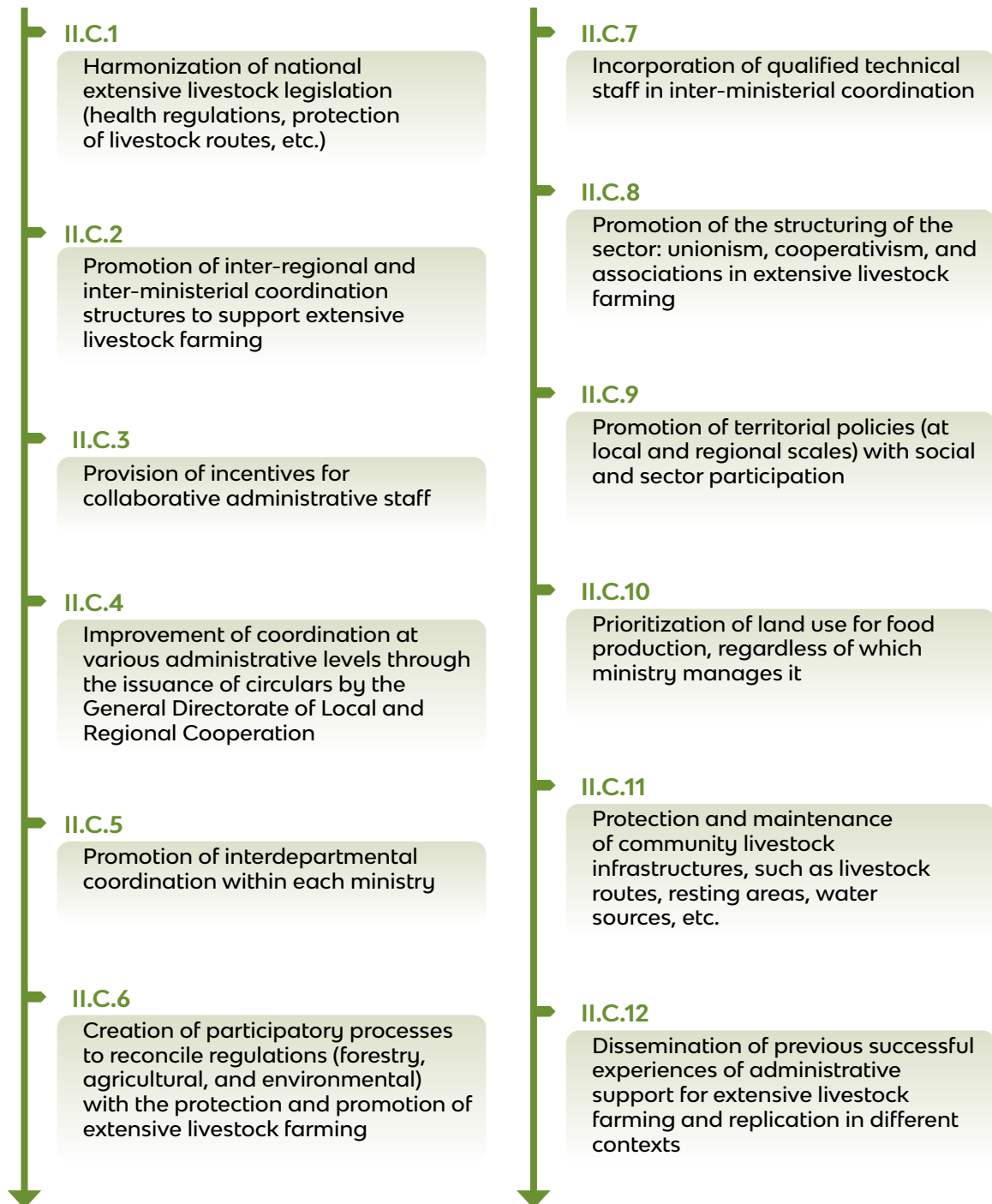
Objectives:

- ✓ Turn the administration into an ally of extensive livestock farming (identifying obstacles and establishing solutions).
- ✓ Optimize inter-regional, inter-ministerial, and intra-ministerial coordination for the creation of synergistic territorial policies.
- ✓ Replicate successful previous experiences of policies and plans with the administration as an ally.
- ✓ Establish and improve associations that strengthen the positioning of the sector at the political and market levels.
- ✓ Create strategic, sustainable, and participatory territorial planning as a tool for integration and inter-administrative coordination.



Specific actions:

This measure consists of 12 actions to be implemented at both regional and national levels, aimed at **facilitating synergies among all administrations** involved in regulating extensive livestock farming and the livestock sector itself:



II.D. Training and Awareness-Raising for Professionals in the Sector Affected by Livestock Farming Regulations

Challenge:

Public administrators lack knowledge of the needs and specificities of extensive livestock farming (EL), as well as its socio-environmental importance.

Objectives:

- ✓ Raise awareness among professionals about the significance of EL.
- ✓ Train sector professionals on the specific characteristics and needs of EL.
- ✓ Develop and implement regulations better aligned with the needs of EL and adaptable to climate change.
- ✓ Strengthen these regulations through multi-stakeholder participation and governance processes.
- ✓ Facilitate spaces for dialogue and peer-to-peer learning among producers, technical staff, and public administration.



Specific Actions:

This measure is structured into 14 actions spanning three areas of implementation:

- Implementation of training plans for technical and administrative personnel involved.
- Development of specific action and research plans to adapt extensive livestock farming to change.
- Creation of sectoral groups capable of representing the interests of extensive livestock farming.



II.E Support for differentiated marketing and promotion of extensive livestock products

Challenge:

Extensive livestock operations have low economic profitability due to stagnant selling prices for their products, coupled with the progressive increase in production costs and dependence on external inputs. As a result, the viability of this livestock activity is being jeopardized, with its survival reliant on the provision of public subsidies. In this regard, it is essential to increase the commercial benefits of these products and promote their regulated inclusion in the EU's public food procurement.

Objectives:

- ✓ Improve social recognition of extensive livestock farming and achieve certified differentiation of its products.
- ✓ Consolidate specific commercial channels for its products (proximity chains and quality food circuits).
- ✓ Promote and protect infrastructure for the processing of extensive livestock products.
- ✓ Advance in associationism and the establishment of networks that favor the positioning of extensive livestock farming in the market.
- ✓ Regulate the promotion of extensive livestock products in public food procurement.



Specific actions:

This measure is operationalized through 15 actions that can be grouped into three fundamental blocks: 1) **improving the production and marketing** of products, 2) **creating networks** that strengthen visibility and give weight to the livestock sector in decision-making, and 3) **providing specific economic** support from public administrations through payments for the environmental services provided by this activity:



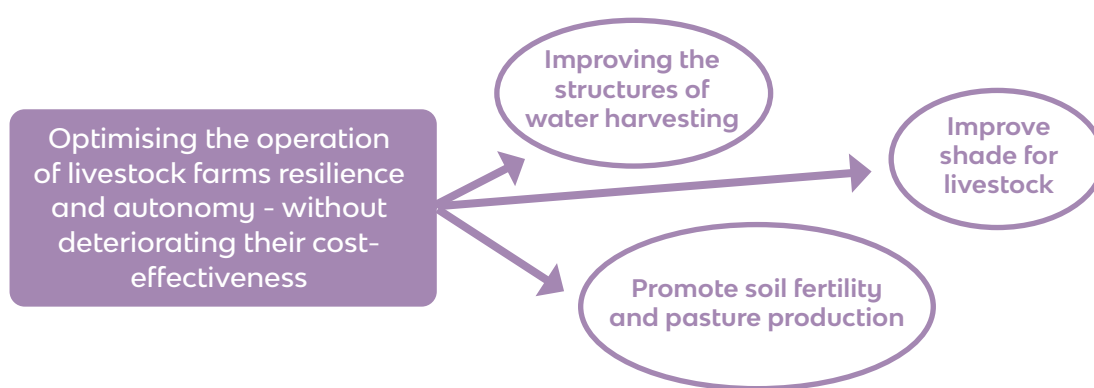
III. Lines aimed at improving management and handling



III.A. Improving the adaptability of livestock farms

Challenge:

Climate change is expected to significantly impact extensive livestock farms, which are more vulnerable due to their close ties to the land. Critical factors already identified include the increasing scarcity of rainfall, rising temperatures in Mediterranean Europe, and the occurrence of extreme weather events. The challenge at the local level is to mitigate the damage caused by water and heat stress, as well as food supply issues stemming from damage to soils, pastures, and forage.



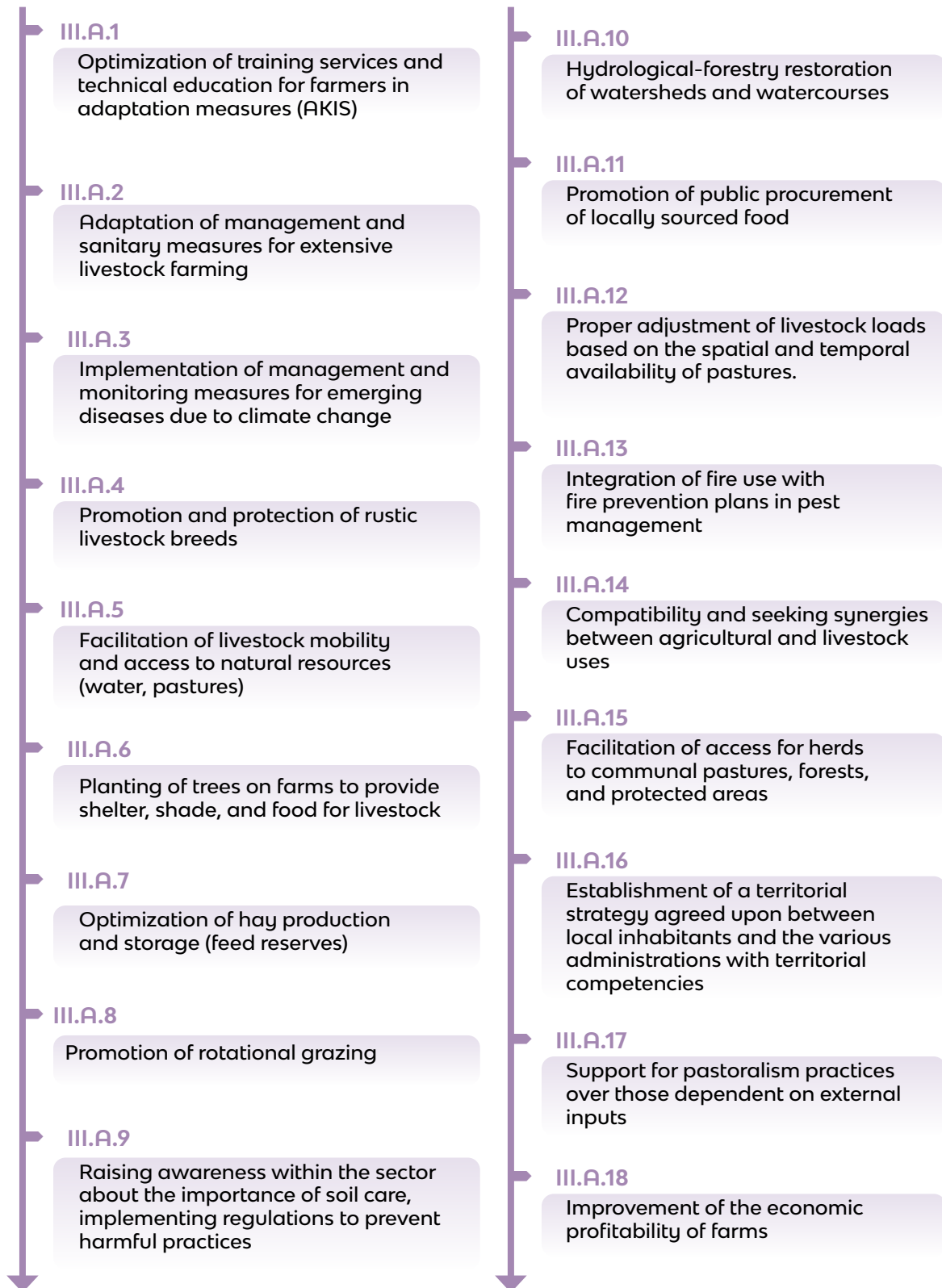
Objectives:

- ✓ Improve training and advisory services to the sector (AKIS).
- ✓ Promote livestock mobility and the use of rustic breeds (adaptation to climate change).
- ✓ Enhance the management and protection of biodiversity, soil fertility, pastures, forage, and water resources (both quantity and quality).
- ✓ Preserve and increase shaded areas for livestock (both natural and artificial).
- ✓ Provide farms with economic compensation insurance for extreme weather events.



Specific Actions:

This measure is supported by 18 specific actions aimed at **ensuring animal welfare and long-term food availability for livestock**. These actions target both technical and farm-level operations, as well as the **support and supervision provided by various public administrations**. They are intended to facilitate and coordinate all necessary processes for the proper management of the land on which each farm is located.



III.B. Improving water management in line with adaptation needs

Challenge:

Global water scarcity, together with the lack of drinking water sources, is the main concern and urgency for the extensive livestock sector in adapting to climate change.

The challenge is to optimise the management of this resource, which begins with the precise and differentiated calculation of the water footprint generated by extensive livestock farming. In order to fine-tune this calculation, it is necessary to consider not only the overall water consumption in meat production, but also three factors in relation to the entire production cycle: the type of water sources consumed, the volume of water used and the available volume of fresh water.

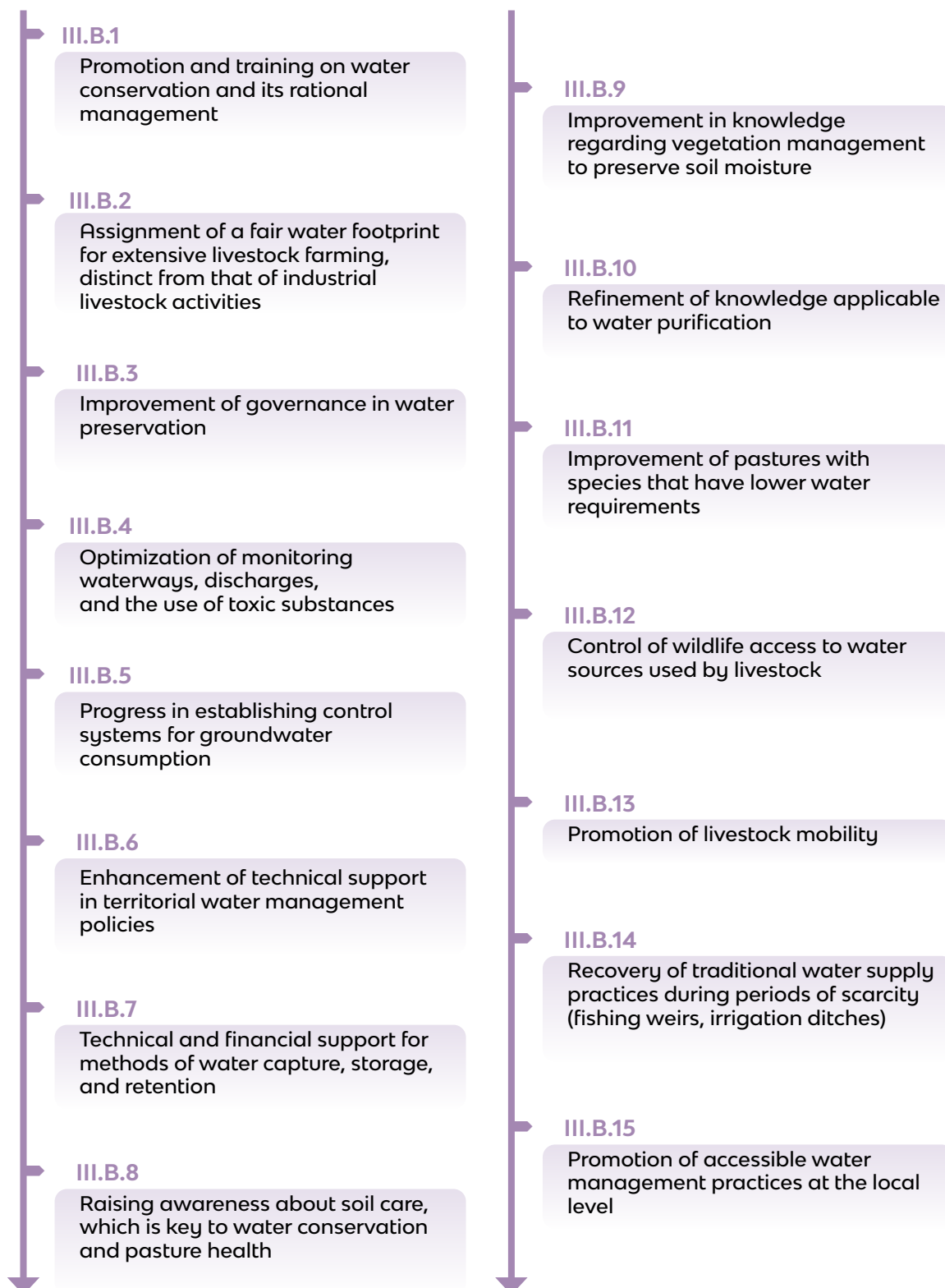
Objectives:

- ✓ Ensure sufficient access to quality drinking water for livestock in extensive systems.
- ✓ Promote and raise awareness of the fair water footprint of EL.
- ✓ Encourage dialogue among relevant authorities (sectoral and water policies) to create synergistic interventions.
- ✓ Facilitate sector involvement in decision-making regarding water planning and management.
- ✓ Support the incorporation of efficient water capture and conservation systems.
- ✓ Promote and encourage livestock mobility in response to water resource availability.
- ✓ Preserve and recover traditional water management practices adapted to water scarcity.



Specific Actions:

The 15 actions that detail this measure focus on transforming **the water governance model**, including the **participation of the livestock sector in decision-making**. In this way, cooperation and shared responsibility are encouraged to ensure the supply and sustainability of water resources.



III.C. Recognition, facilitation, and support for livestock mobility

Challenge:

Currently, traditional forms of mobile livestock management—transhumance and trasterminance—are on the verge of disappearing. Land management policies and various health regulations have progressively favored intensive practices and sedentary management of herds. This is compounded by the growing lack of generational renewal and the serious deterioration of essential infrastructure for the movement of herds.

The challenge to be addressed is the recognition of livestock mobility as a key element in the adaptability of extensive livestock farming, protecting the infrastructure that enables it and facilitating it at the bureaucratic and administrative levels.

In 2019, transhumance was formally registered on the UNESCO List of Intangible Cultural Heritage of Humanity, making the gradual abandonment of these practices extremely inconsistent with their significant global importance.

The mobility of animals grants extensive livestock farming much of its capacity to adapt to future scenarios of increasing climatic aridity in Mediterranean Europe. Moving livestock—whose breeds are specially adapted to itinerancy—provides various sources of food and water according to the season, making it an irreplaceable and exemplary method of environmental sustainability in the production of animal-derived food. The recovery of this activity requires a political reform that facilitates, protects, and promotes it.

Objectives:

- ✓ Optimize the management of extensive livestock farming by increasing knowledge (research and monitoring).
- ✓ Train and raise awareness globally about the importance of livestock mobility.
- ✓ Develop facilitating regulations and institutions.
- ✓ Encourage the movement of herds (direct aid to livestock farmers and land leasing).
- ✓ Differentiate and promote products from transhumant livestock.
- ✓ Protect and recover traditional livestock routes and associated infrastructure.

Specific Actions:

These 18 actions converge in four areas of focus: **research and promotion of transhumance**, global recognition of the benefits of livestock mobility and its dissemination, **improvement/ expansion of routes/community spaces for mobile herds**, and modification of regulations that favor the immobilization of livestock.



IV. Lines of reinforcement of research and strengthening of the social fabric



IV.A. Strengthening research, transfer and monitoring for the adaptation of extensive livestock farming to climate change

Challenge:

Research is one of humanity's most powerful tools for the successful development of any initiative. It is essential to collect and evaluate relevant information, obtain objective and comparative data, and implement replicability of effective strategies in different locations in order to collectively build useful knowledge for adaptation.

This line of action is considered cross-cutting to all eleven previously explained and is based on the study of various aspects of extensive livestock farming, from a scientific-technical to a social approach. Simultaneously, complementary tasks of monitoring and oversight are needed to track the evolution of its performance, ensuring the fulfillment of the main objective proposed in this SAP, which is to strengthen its resilience and ability to adapt to the current and future climate crisis.

Objectives:

- ✓ Fund and establish criteria to create scientific-technical research lines on extensive livestock farming (environmental services and adaptation needs to climate change).
- ✓ Fund and promote participatory research with a social perspective on extensive livestock farming to support and regulate the sector.
- ✓ Support the two-way transfer of knowledge between research centers and the livestock sector.
- ✓ Implement monitoring plans for extensive livestock farming: focusing on viability and adaptability to climate change.



Specific actions:

This measure, composed of 13 actions, is divided into two main areas of action: a) tracking and monitoring scientific **information on extensive livestock farming in relation to climate change**, and b) developing R&D&I initiatives with a transdisciplinary and multi-agent foundation, **capable of generating new knowledge and transmitting** it to public administrations and the livestock sector, thereby advancing towards sustainable management of extensive livestock farming.



IV.B. Measures to strengthen social fabric and governance to adopt an inclusive adaptation strategy at the sector level

Challenge:

The extensive livestock farming sector lacks representation in decision-making processes for policies and plans that impact their operations, with no active participation in territorial planning and management. Strengthening networks and sectoral organization is essential, as the absence of a structured sector prevents fluid communication with public administrations regarding the needs of the activity or the land it occupies. This makes it difficult to implement climate change adaptation measures.

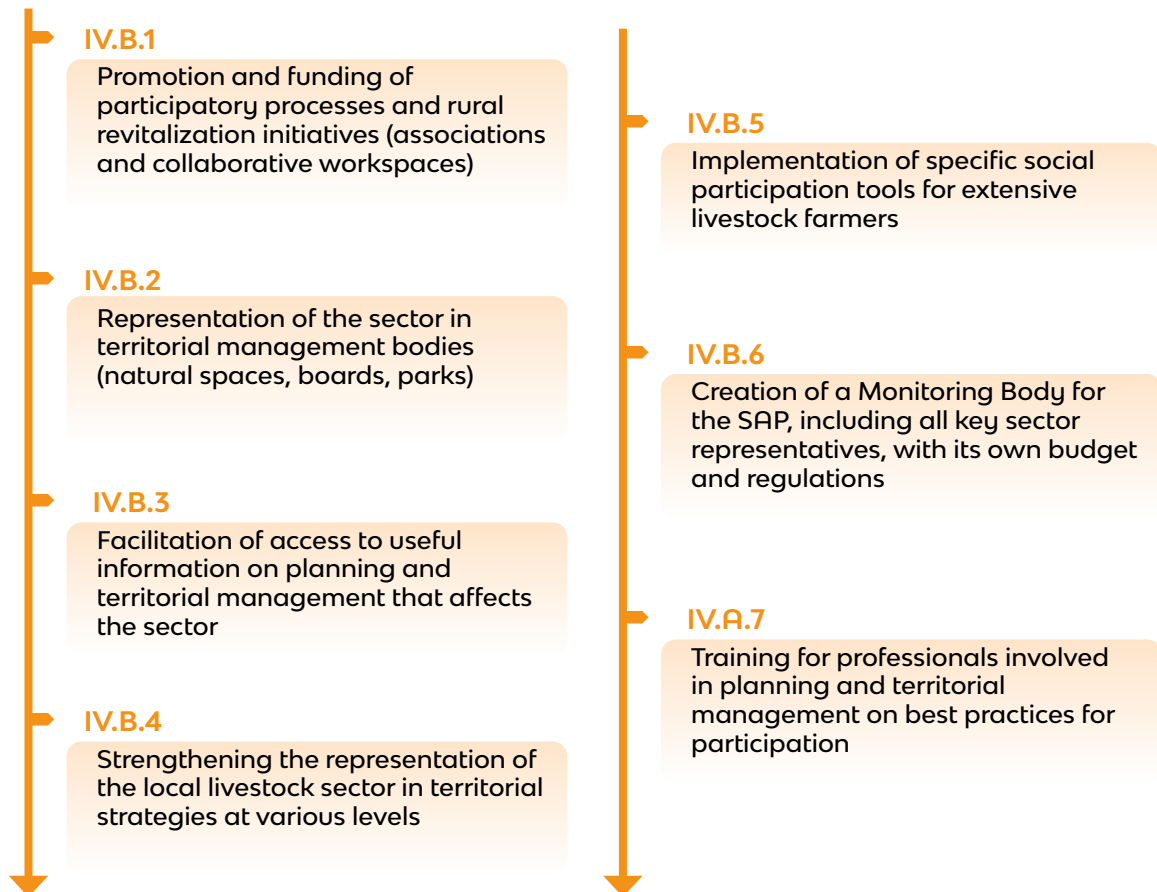
Objectives:

- ✓ Promote multi-agent and tangential participation of the sector in spatial planning and management.
- ✓ Networking and structuring the sector (at local, regional, national and European level).
- ✓ Encourage participatory culture in the livestock sector.
- ✓ Promote the participation of the sector in territorial planning and management directly affecting farms.
- ✓ Facilitate the representation of the sector in all administrative and territorial management bodies at different levels.



Specific Actions:

The seven actions described are structured into two main areas. On one hand, they aim to facilitate participatory processes that involve the various sectors concerned. On the other hand, they focus on including the extensive livestock farming sector in the different territorial management bodies that impact their operations.





10 | PASTORALISM, A KEY ACTIVITY FOR THE FUTURE

Pastoralism is recognized by renowned international organizations (FAO, United Nations Environment Programme (UNEP)) as an essential activity due to its territorial connection, its role in closing energy and material cycles, and its importance for the nutrition and food security of many people and communities, especially those living in more extreme environments. Additionally, it is a critical asset in achieving a green economy that ensures the security and well-being of millions of people, as well as an effective and indispensable tool in the fight against climate change and the preservation of the health of multiple habitats.

Extensive livestock farming is also a key activity for climate change adaptation in the primary sector across many European regions. Furthermore, it can help Europe move toward greater food sovereignty and autonomy, shielding the continent from the instability of global markets, the influence of geopolitical conflicts, and helping to mitigate shortages or extreme weather events.

Pastoralism provides numerous environmental services to society and strengthens rural economies, offering a fundamental contribution to addressing the demographic challenges faced by rural areas in Europe.

All these contributions stand in stark contrast to the ongoing decline of this activity, which faces serious issues such as the lack of generational renewal and profitability. Extensive livestock farming also suffers from a lack of market and administrative distinction from industrial production, which floods the market with low-cost products that lack the environmental and social values offered by extensive farming.

Therefore, the adoption of the measures outlined in this Strategic Action Plan is of urgent importance and requires the collaboration of all sectors and stakeholders, along with its implementation across various administrative levels.



They shared words, romances, memories, and wishes. The cowbells rang faintly. In the morning, they gathered their flocks and marched in search of the horizon.

As they marched, they wove the land with trails, paths, and roads –no one knows if it was tooth and hoof or the gaze of a shepherdess that gave each place its name.

This document is a path, and like the valleys, it has been woven with the wisdom and insights of the women and men who wanted to share their experiences with us.

To all of them, thank you.

