

ERASMUS+ PECUS
CASE STUDY SHEET

CS code	<i>ES-04</i>	CS Title	Recovery and Management Plan for Livestock Routes in Andalusia
GENERAL INFORMATION			
Type of case study	<input checked="" type="checkbox"/> National or regional level policy/plan/strategy <input type="checkbox"/> Local level policy/plan/strategy <input type="checkbox"/> Study/research <input type="checkbox"/> Project <input type="checkbox"/> Other		
Responsible body/Promoter	Regional Ministry of Environment and Territorial Planning, Junta de Andalucía (Andalusian Regional Government)		
Location (region, locality)	ANDALUSIA		
Geographical area covered	Andalusia is the Autonomous Community that has the most extensive network of livestock routes, which totals 34,082 kilometres in length (Source: Statistics. Andalusia Environment Report 2013)		
Year	<p>This plan was approved by means of the Agreement of March 27, 2001, of the Governing Council, and constitutes a basic instrument when planning the actions to be undertaken on Andalusian livestock routes.</p> <p>A 20-year term for the execution of the Plan was set.</p>		
Summary description	<p>The Plan for the Recovery and Management of Livestock Roads in Andalusia, approved by means of the Agreement of March 27, 2001, aims to provide livestock roads with a dimension of public utility that goes beyond traditional livestock use, highlighting their environmental functions: landscaping, rural development and citizen entertainment.</p> <p>The Regional Ministry of Environment and Territorial Planning, by virtue of the exclusive competence attributed by article 13.7 of the Statute of Autonomy to the Autonomous Community of Andalusia, addressed the regulatory development of the basic state legislation on livestock routes, through the approval of the Andalusian Livestock Regulations (Decree 155/98, of July 21). In its Third Additional Provision, the elaboration of the "Recovery and Management Plan for Livestock Routes of the Autonomous Community of Andalusia" is established.</p> <p>The priority aim of the Plan is to define the Andalusian Network of Livestock Routes, understanding it as the set of all the livestock routes of feasible recovery and with potential reception of any of the uses defined by the Plan: traditional use, tourist-recreational use and ecological.</p> <p>In addition, it establishes a program of actions necessary for the recovery and putting into use of the network, setting priority levels and collecting the budget estimate for each of the planned action and management models.</p>		
Link with laws/regulations and with other policies/plans/strategies (if any)	Regulation of livestock routes in Andalusia (Decree 155/98, of July 21). In its Third Additional Provision, the elaboration of the "Recovery and Management Plan for Livestock Routes of the Autonomous Community of Andalusia" is established.		



	<p>This plan was approved by means of the Agreement of March 27, 2001, of the Governing Council, and constitutes a basic instrument when planning the actions to be undertaken on Andalusian livestock routes.</p> <p>The Plan for the Recovery and Management of Livestock Routes in Andalusia was carried out by a multidisciplinary team made up of biologists, geographers, engineers, lawyers and historians, under the impulse and direction of the Office created for this purpose called the Office for the Livestock Road Plan, attached to the General Technical Secretariat.</p> <p>The Plan starts from considering livestock routes from a triple perspective:</p> <ul style="list-style-type: none"> • As a backbone of the territory. Its integration into the Andalusian Regional Planning Plan is based on the active participation that livestock routes provide in the articulation of the territory. • As a fundamental element in environmental planning, this role taking shape in the establishment of ecological corridors between administratively consolidated natural areas and with management plans as set out in Directive 92/43. • In attention to the role that livestock routes must play in rural development; since they can favour the fixation of the population in degraded rural areas, due to their high potential for the development of socio-economic activities, including nature tourism, enhancing the value of cultural and historical heritage, the empowerment of artisan products, etc.
PROBLEMS AND NEEDS TARGETED	
Problems	<p>Livestock routes make up a huge network of livestock routes in Andalusian that, beyond this largely abandoned function, represent a historical legacy of considerable value that brings us back to past customs and ways of life. It is the Autonomous Community of Andalusia, the one with the longest national length, more than 30,000 km, which represents 25% of the national total. It is 1984 when the Andalusian Government assumes exclusive powers in the area of livestock routes. In the first instance, these powers are assumed by the Andalusian Institute of Agrarian Reform (IARA) and later in 1994 by the Regional Ministry of the Environment. This last transfer coincides practically in time with the promulgation of the current Livestock Routes Law of March 23, 1995.</p> <p>This Law constitutes the starting point when analysing the work undertaken by the Andalusian Government in order to recover and put into use the important demand that livestock routes constitute. The reason is that it supposes a radical change with respect to the previous legislation. It is based on the affirmation that livestock routes, beyond their livestock function, constitute a historical legacy of capital interest, whose preservation must be guaranteed by the new functions and uses that current legislation assigns to them.</p> <p>Indeed, in the 21st century, this network plays a basic role for a modern society like ours. They constitute an essential element in the planning of the territory, they favour the diversification of the landscape -especially in urban environments- they promote biodiversity by enabling the genetic exchange of species and allow the development of free time activities compatible with respect for the conservation of the natural environment.</p>
Needs	<ul style="list-style-type: none"> • The need to establish ecological corridors between natural areas already administratively consolidated and with management plans is included in Directive 92/43 (Conservation of natural habitats and wild fauna and flora). • In the proposal of Places of Community Interest (SCI), formulated by the Andalusian Government, the need to connect the different protected territories in our region is also raised, in order to achieve continuity of the great natural units.

	<ul style="list-style-type: none">Andalusia is the region that has the most extensive network of livestock routes at the national level, which is why the network of ecological corridors in our Community has an adequate territorial base in the already existing Network of Cattle Routes.	
Quantitative data	<p>For the Recovery and Management Plan of the Livestock Roads of Andalusia, an execution period of the Plan was set for 20 years. The programming of actions was established in three phases according to the levels of importance defined for the Livestock Roads Network previously carried out based on the proposed methodology. In this way, Priority 1 Network was scheduled to be carried out in the period 2001-2010, priority 2 in the period 2011-2015 and priority 3 in the period 2016-2020. The kilometres that had to be delimited were 10,103 in 2010, to which 8,092 would have to be added in 2015 and 7,005 in 2020 (which makes a total of approximately 25,000 km).</p> <p>It was proposed to undertake the processes of recovery and putting into use of the routes in an integral way, so that all the roads that were being delimited were immediately adapted for the actions proposed in them. With this, it was intended that the use of the routes for the proposed uses, in the shortest period of time, would help to guarantee their respect, since the users themselves are the first interested in reporting any type of intrusion or impairment of the functionalities created or promoted by the Administration.</p> <p>Situation updated at 2018 (for more info on the typology of action please see footnote¹:</p> <ul style="list-style-type: none">2,153 files for demarcation were opened and 76% of those files have actually a final judgment rendered by a competent body (=1,669 delimited livestock routes).9,045 km of demarcated livestock tracks.96.58% of Priority 1.37.5% of the Andalusian Network. <p>Demarcation Action. Priority 1</p> <ul style="list-style-type: none">- Total Expected 9,857.00- Total Executed 9,045.00- Firm boundaries 6,620.00	
FOCUS, OBJECTIVES AND OUTPUTS		
Themes	Does the case study address this theme? (YES/NO)	If yes, how? (max 750 characters for each theme)

¹ The Plan for the Management and Recovery of Andalusian livestock routes defines the implementation of a series of administrative actions to achieve the Plan's own objectives. These include a process of classification, demarcation and marking of livestock routes in the Andalusian Autonomous Community since 1995.

Classification

The classification is an administrative act of a declarative nature, through which the existence of a livestock route, its name, the width of the layout and other general physical characteristics of the road are determined.

To guarantee legal support in the restoration and maintenance of the Network, it is necessary that all its routes are classified.

Demarcation

Through the demarcation the limits of the cattle routes are defined, including the troughs, resting places, sheepfolds and other places associated with livestock traffic, according to the approved classification.

This procedure is essential for the actual recovery of the livestock routes, and as a consequence, to define the practicable width to carry out the restoration of the livestock routes according to their subsequent use.

Edging

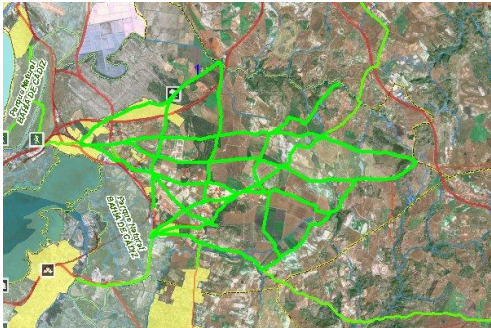


Once the boundary is approved, the boundaries of the livestock route are physically determined by marking and are permanently marked on the ground. Thus, the marking shows the limits and width of the livestock route through permanent landmarks (cairn).



Spatial planning	YES	<p>The integration of livestock routes in the Territorial Planning Plan is based on the active participation it provides in the articulation of Andalusia, and specifically:</p> <ul style="list-style-type: none"> • For making possible the connection of the urban system with the natural resources of the environment. • For contributing to the increase in the quality of life and social well-being: <ul style="list-style-type: none"> - Serve as a containment of the occupation of rural, natural or special patrimonial interest spaces. - Be an element that favours sustainable economic development. - Promote the diversification of the landscape. - Harmonise urban and rural activities in the territorial area. - Influence city planning, as a complementary element for the incorporation of environmental considerations.
Protection of environment (e.g. biodiversity, water, geomorphology, soil, climate...)	YES	It favours the conservation of the transhumant practice and the extensive livestock system that maintains and conserves different habitats such as the meadows, steppe areas and high mountain grasslands.
Protection/enhancement of tangible cultural heritage (e.g. historical paths, archaeological sites, architecture, terraces and field systems...)	YES	<p>Livestock roads favour:</p> <ul style="list-style-type: none"> - the enhancement of the value of Cultural and Historical Heritage, promoting craft products, etc - Serve as a containment of the occupation of rural, natural or special patrimonial interest spaces
Protection/enhancement of intangible cultural heritage (e.g. historical route networks, scenic views, folklore, food, music...)	YES	
Slow mobility (cycling routes, trekking paths, etc.)	YES	Livestock roads make possible the connection of the urban system with the natural resources of the environment.
Economic development of mountain & rural areas (e.g. tourism, agro-food production, agriculture, livestock breeding...)	YES	Livestock routes are an axis for rural development, by favouring the population's fixation in degraded rural areas due to their high potential for the development of socioeconomic activities, including nature tourism, enhancing the value of Cultural and Historical Heritage, promoting craft products, etc.
INVOLVEMENT OF STAKEHOLDERS		
Actors involved	The Recovery and Management Plan for Livestock Routes of Andalusia was carried out by a multidisciplinary team made up of biologists, geographers, engineers, lawyers and historians, under the impulse and direction of the Office created for this purpose called the Office for the Livestock Roads Plan, attached to the General Technical Secretariat.	
Involvement procedures	<i>No information available</i>	
Problems and challenges	The Plan for the Recovery of Public Routes in 2001 provided for the recovery of 17,398 kilometres of livestock routes in Andalusia in 2015. Although the Plan began to be	

	<p>implemented with force in the first years, by September 2016 only 10,103 km had been delimited. In other words, practically what should have been defined for 2010. In this context, it is important to keep in mind that the total number of kilometres classified is 33,777.</p> <p>The kilometres that had to be delimited were 10,103 in 2010, to which 8,092 would have to be added in 2015 and 7,005 in 2020 (which makes a total of approximately 25,000 km). Of course, the demarcation is a previous step to what is really the ultimate inalienable objective, which is the recovery of the good ex officio and its proper maintenance and conservation.</p> <p>The data provided by the Regional Ministry of Environment verify non-compliance with the Plan since 2013 in the provinces of Córdoba, Huelva and Jaén; and generalised in the eight provinces as of 2014 (0.24 kilometres in Granada and 3.2 km in Seville were delimited, in the rest of the provinces there were no registered demarcation action). In 2015, 2016 and 2017 there is no news of any demarcation.</p>
EXPECTED OR ACHIEVED EFFECTS	
Type of effect	Description <i>(max 750 characters for each type)</i>
Effects on the environment (e.g. restoration of habitats, increased biodiversity, climate change mitigation or adaptation...)	<p>The Regional Ministry of Environment and Territorial Planning has already demarcated in Andalusia a total of 8,959 kilometers of livestock routes within the Plan developed by the Board to recover these traditional roads - 89% of those classified as level 1 priority.</p> <p>Part of these resources have been destined to the maintenance of the Green Corridors (Puertas Verdes/Green Gates), implemented in all Andalusian municipalities with more than 50,000 inhabitants (and 20.000 inhabitants later on), within the framework of the Green Gates Program, which has allowed the creation of Free Space Systems in the agglomerations of Andalusia.</p> <p>These green infrastructures, after several years of implementation, required maintenance tasks in order to guarantee the safety of the significant number of users who use these natural itineraries on a daily basis, both for daily transport and for the practice of sports and leisure activities.</p>
Effects on immaterial, cultural assets (e.g. cultural landscape, scenic views, folklore...)	<p>Livestock Routes Law of March 23, 1995, and the Plan for the Recovery of Public Routes supposed a radical change with respect to the previous legislation. It is based on the affirmation that livestock routes, beyond their livestock function, constitute a historical legacy of capital interest, whose preservation must be guaranteed by the new functions and uses that current legislation assigns to them.</p>
Effects on material, cultural assets (e.g. restoration of historic artefacts or buildings, restoration of traditional terraces or cultivation systems...)	
Effects on social and economic aspects (e.g. new jobs, new enterprises...)	<p>As a consequence of the generation of extraordinary credits from the EAFRD Funds (closing of the 2007-2014 framework), the Regional Ministry of the Environment and Spatial Planning addressed actions aimed at the recovery of livestock routes, located in municipalities classified as "disadvantaged" by the Andalusian Sustainable Rural Development Plan, with the aim of providing them with an adequate and necessary green infrastructure for agricultural communications, which contributed to the economic revitalisation of these most depressed areas of Andalusia.</p>
IMPLEMENTATION ISSUES	

Financial resources	<p>The programming of actions was established in three phases according to the levels of importance defined for the Network. In this way, Priority 1 Network was scheduled to be carried out in the period 2001-2010, priority 2 in the period 2011 -2015 and priority 3 in the 2016-2020 period. Total foreseen budget:</p> <ul style="list-style-type: none"> - TOTAL 1st Phase 17,294,259,515 pts (103,940,506.07 euro) - TOTAL 2nd 8,749,696,015 pts (52,586,688.14 euro) - TOTAL 3rd 5,988,841,970 pts (35,993,635.03 euro)
Implementation procedures	<p>As a previous step to the development of the works, the proposed uses were defined and characterised as:</p> <ul style="list-style-type: none"> • Traditional use: livestock transit and access to agricultural farms · Tourist-recreational use: related to "rural tourism" • Ecological use: link of protected spaces, generators of biodiversity and corridors of fauna and flora. <p>Actions:</p> <ul style="list-style-type: none"> • Common actions: actions independent of the type of use assigned. It is about the classification, delimitation, marking and recovery of the livestock routes that make up each route, as administrative actions, and the signaling, cleaning and regeneration, landscape, as generic actions. • Specific actions: concrete actions for each intended use. <ul style="list-style-type: none"> - In the cattle routes, it is worth mentioning the isolation of the livestock route, in the event that the margin of the livestock route coincides with canals, roads or other infrastructures, in order to avoid accidents; the restoration of livestock infrastructures, such as: drinking troughs, resting places, sheepfolds, etc .; the incorporation of punctual elements of passage that facilitate the transit of cattle; plantations looking for shady areas, etc. - In tourist-recreational routes, the adaptation of the road is necessary to facilitate leisure activities such as hiking on foot, by bicycle or on horseback; the installation of light equipment for public use (bicycle parking, bike lanes and rest areas for the latter); plantations in order to achieve a landscaping improvement and make more attractive the use of livestock routes as walking routes, especially in urban settings. - In ecological routes, highlight the vegetable restoration, given the function to which they are called to play. <p>The following works were subsequently carried out:</p> <ul style="list-style-type: none"> • Elaboration of the work methodology: includes the selection, evaluation and weighing of the variables of interest for the defined uses, as well as the establishment of the procedure to be followed for data collection in the field. • Inventory: data collection on the defined variables. This work is carried out in parallel with the elaboration of the methodology. • Analysis of the information and allocation of uses: study of the potential of livestock routes to accommodate each of the proposed uses, and definition of priority routes for action. • Data capture in the field: in order of priority, the necessary data is collected for the recovery, restoration and application of the assigned uses on the roads. • Definition of the action and maintenance program: definition of the types of action to be carried out based on the combination of the proposed use and the current state of the roads.

	<ul style="list-style-type: none"> In addition, the necessary maintenance is analysed and the proposed measures are economically evaluated. These works were carried out on the classified livestock routes and those that were in the classification process.
SUPPORTING INFORMATION	
<p>Images (pictures, graphics, maps, charts, etc.)</p>	  
<p>References (including web links)</p>	<p>Fondo documental de vías pecuarias de Andalucía (Documentary collection of livestock routes in Andalusia)</p> <p>Inventario de vías pecuarias en Andalucía (Inventory of livestock routes in Andalusia)</p> <p>Mapa de vías pecuarias en Andalucía (Map of livestock routes in Andalusia)</p>