

ACTING FOR LIFE

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Technical Note

The Construction of Commercial Agropastoral Infrastructures. From Apparent Simplicity to True Complexity in Implementation¹.

Introduction

Three main themes for intervention can be defined for the agropastoral sector: (i) Natural resources management, which includes agropastoral amenities (watering points, pasture areas, rest areas) and the securing of livestock corridors, (ii) the provision of inputs (livestock feed and veterinary products) and (iii) the development of commercial agropastoral infrastructures, in particular livestock markets and loading platforms. Ignored for many years, this last theme, which has a strong economic component, today occupies an important place in development projects.

The construction of infrastructures may at first appear easy. It is sufficient to target an area, to follow the progress of the work, and the results will correspond, to a certain extent, to the reception of the infrastructure built. However, achieving an infrastructure that is functional, lasting and contributes sustainably to the economic development of the areas in question requires a long and complex work regarding the social aspects of engineering, both upstream and downstream of the reception of the structure.

At a time when agropastoralism is becoming a strategic channel for the main technical and financial partners, and where large-scale programs are emerging² with significant components on the trade theme, it seemed pertinent to recall some principles and to detail the social aspects of engineering work based on the experience gained from the implementation of projects³ coordinated by AFL for more than 5 years.

1. Cédric TOUQUET, Program Officer for Africa. Acting For Life, 40 avenue de l'Europe, 93 350 LE Bourget.

2. We are referring here to the Regional Support Project for Pastoralism in The Sahel (PRAPS), World Bank, 250 million dollar duget, which has just begun, as well as to the Regional Investment Program for Livestock Development in Coastal Countries (PRIDEC) currently under development.

3. Since 2010, AFL has coordinated the following projects: the Livestock Productivity Support Project (PAPE) in Mali, Burkina-Faso and Benin, January 2010-October 2011, budget of 3.8 million euros, EU-AFL co-financing. The Regional Support Program for Livestock Productivity (PRAPE) in Senegal, Mali, Burkina-Faso, Benin and Togo, January 2012-February 2015, 2.8 million euro budget, AFD-EU-AFL co-financing. Support Project for the Preservation of Ecosystems and Biodiversity through Agropastoralism (PAPEBA) in Togo, February 2014-June 2016, 900,000 euro budget, AFD-EU co-financing. Project to Strengthen the Resilience of the Family Economy Through Livestock Productivity in southern and eastern Mauritania (PRREF), March 2014-February 2017, 1,700,000 euro budget, EU-AFL co-financing. Support Project for Livestock in eastern Chad (PAFBET), January 2014-December 2015, 600,000 euro budget. Project to Strengthen the Resilience of Agropastoralists through Securing Cross-Border Livestock Mobility, Promotion and Service Delivery in Mauritania, Senegal, Mali, Burkina Faso and Niger, January 2015-December 2017, 9,605,811 euro budget, DFID/AFL co-financing. Support Program for the Resilience of Agro-Pastoral Systems in West Africa (PARSAO), July 2015-July 2018, 3.8 million euro budget, AFD/DFID/AFL co-financing.



1. Social aspects of engineering upstream of the construction

The social aspect of engineering that needs to be developed upstream of any market infrastructure is based on 3 phases: a first phase of diagnosis, a second phase of tool building and multi-stakeholder consultations to refine the diagnosis, and a third phase dealing with the establishment of an institutional framework to prepare the ground for sustainable and optimal infrastructure management.

1.1 The diagnostic phase. The network above all, a market doesn't invent itself!

Following Jean Boutrais⁴, it is possible to distinguish⁵ (i) collection markets operating in a fairly limited area, (ii) long-distance grouping and shipping markets, (iii) relay markets which can be positioned as part of transhumance at strategic locations, such as border crossings, and (iv) terminal or arrival markets from which the animals are slaughtered and their meat marketed⁶.

Often appearing on the initiative of a few livestock traders who gradually structure a market activity, these markets are seldom autonomous and are part, at the territorial level, of genuine networks. As such, they do not appear just anywhere. To be functional, a market must be fed and therefore surrounded by livestock corridors allowing access to it. The days it operates must be calculated, so as to either avoid competition with other nearby markets, or in order to ensure a certain complementarity, since some animals may be coming from, or be destined to, these same nearby markets.

For example, in the border area delimiting Burkina-Faso, Benin and Togo, a trader collecting animals at the Kompienga market (Burkina Faso), which is held on Monday, can continue onwards, either to resell the animals or to continue to collect more of them, to the Koundjouaré market (Togo) which is held on Tuesday, then continue until the Matéri market (Benin), which is held on Thursday. This reticular logic can even continue further. From Matéri, the animals can be brought to the Tanguiéta loading platform. From there, some can be shipped to Savé, particularly to its market, which is held on Monday. They can then be escorted on foot to Nigeria.

In this way, markets depend on a complex network that cannot be disrupted through the simple construction of a commercial infrastructure, even when its positioning seems self-evident.

It would be counterproductive to build a market without pre-existing market activities. This principle is especially important in the face of major investments such as livestock markets. These are visible infrastructures, with undeniable political impacts which are sought by both elected officials and Professional Organisation leaders. In addition, it is well-understood that functional livestock markets provide significant revenues for communities.

In other words, many actors, without necessarily understanding the market networks of the area in which they are operating, request the construction of livestock markets. **The diagnostic phase must therefore look at the markets on the territory of the intervention and target already-existing market areas, going beyond the speeches made and the needs expressed.**

4 Boutrais Jean, From the Pastoralist to the Butcher, Livestock Trade in West and Central Africa, Autrepart, Paris (IRD), 2001, #19.

5. It should also be emphasized that this typology is not exclusive. Some grouping markets are also collection markets.

6. Like any channel, these terminal markets are positioned where there is demand and, thus, primarily at the level of the coastal countries, and especially their capitals (Lagos, Dakar, Abidjan). However, they can also be positioned inland, such as at the Mali-Senegalese border, near gold extraction companies.



1.2 Refining the diagnosis

Once the activity areas have been identified, a statistical monitoring system should be set up, if possible over a one-year period.

Month + year number	month	Cattle			Small ruminants		
		Livestock presented	Cattle sold	ratio	Small ruminants presented	Small ruminants sold	ratio
2-3	Feb-march 2012	2350	1410	60%	3730	2984	80%
4-2012	avr-12	2298	1378	60%	3714	2971	80%
5-2012	mai-12	766	462	60%	1238	989	80%
6-2012	juin-12	779	509	65%	606	396	65%
7-2012	juil-12	586	314	54%	1802	659	37%
8-2012	août-12	420	315	75%	781	315	40%
9-2012	sept-12	439	351	80%	1040	832	80%
10-2012	oct-12	388	310	80%	850	659	78%
11-2012	nov-12	463	370	80%	1392	1113	80%
12-2012	déc-12	619	390	63%	890	612	69%
1-2013	janv-13	701	430	61%	1002	785	78%
2-2013	févr-13	750	450	60%	1080	756	70%
3-2013	mars-13	619	390	63%	890	612	69%
4-2013	avr-13	701	430	61%	1002	785	78%
5-2013	mai-13	750	450	60%	1080	756	70%
6-2013	juin-13	301	240	80%	525	446	85%
7-2013	juil-13	240	192	80%	650	525	81%
8-2013	août-13	430	344	80%	610	520	85%
9-2013	sept-13	290	160	55%	641	346	54%
10-2013	oct-13	46	15	33%	207	83	40%
11-2013	nov-13	213	105	49%	589	255	43%

Statistical tracking table for the Komienga market (Burkina-Faso)-

The implementation of these tools is paramount. By quantifying the volume of activities, it will be possible, if trade-offs are to be made, to prioritize developments and to establish the size of the infrastructure to match needs as closely as possible.⁷

This work, if it cannot be carried out by the State's technical services, must be conducted by the Producer Organizations⁸ which ensure the synthesis of the data among the actors which manage the markets, and are often members of their organizations⁹.

Often, infrastructures must be created at a location other than the one in which the market activities were previously carried out. Delocalization may be justified by demographic pressure and the expansion near the original site of houses for residential use, or by the expansion of other facilities such as the creation of roads, thus requiring the movement of the site.

There again, it is not just about relying on a Land Use Plan when it exists, or targeting large open spaces. Building a market south of a city while most animals enter it through the north will force the animals to cross the city to feed the new market and could lead to the infrastructure becoming inoperative. If delocalization is necessary, it is therefore crucial to get the input of all categories of actors (Technical State Services, Communities and Producer Organizations) in order to better target the new site.

⁷ Another indicator revealing of the volume of market activity can be identified through the number of small businesses present on market days.

⁸ It is this system that is at work in projects coordinated by AFL.

⁹ The only bias in this approach would be a strategy which would overestimate the workforce in order to capture investment. However, this risk can be circumvented by reminding actors that these figures, once the investment has been made, will serve as a baseline to estimate the economic impact of the infrastructure, notably in terms of tax revenues for communities. And, if too large differences appear between the volume of activities and the revenues once the infrastructure has been completed, it could lead to problems in the management of this infrastructure.

1.3 Ownership of investment and management arrangements

At this stage, the area and scope of the development have been defined with all stakeholders. The question now arises as to the ownership of the site's land and the management arrangements for the future development.¹⁰

Given the areas of competence devolved to municipalities in most ECOWAS countries, land ownership of the site must revert to the municipality. Although this might sound obvious, obtaining a land title formalizing this ownership should not be overlooked. Very often, this requires a transfer of ownership to the municipality from the group of livestock traders who had previously been using the location. Obviously, it is necessary to reassure industry professionals that this change in land ownership does not mean that the mayor's office will manage the market. Indeed, to ensure its proper functioning, it must remain in the hands of sector professionals. Thus, in parallel with this transfer of ownership, it is essential to put in place the conditions and the clauses of a Public Service Delegation Agreement.

This choice to anchor investments in a decentralization framework is not only a matter of compliance with legal provisions. We believe that it is also a strategic choice to ensure the sustainability of the management and of the economic benefits associated with the infrastructure.

Indeed, in the event that public funding is used to develop land belonging to an organization governed by private law (NGO, PO, etc.) the public funding initially intended to benefit a maximum number of actors, such as breeder communities and, more generally, all local inhabitants, would eventually come to valueate land belonging only to a small group of actors representing its own interests exclusively.

Admittedly, it is equally true that communal property does not preserve against a monopoly of revenues by elected officials for their personal gain. However, while modalities for the renewal of associative bodies are not always respected (restoration of offices, elections, etc.), the renewal of these elected officials' mandate is, for its part, effective, limiting the monopolization of revenues over time.

What's more, the communal structure of land ownership associated with a Public Service Delegation makes it possible to ensure a balance of power. Indeed, although, when the land belongs to an association or a cooperative, there is often a tax that is paid regularly to the municipality and gifts sometimes provided to perform community works, the association often has the power to lower the taxes which it pays if these seem too high for it. Similarly, donations remain subject to the goodwill of the committees. By owning the land itself, the municipality can more easily negotiate taxes to match the profits derived from the market activities, as well as ensure their uniformity. This transforms gift-giving into an obligation.

This depersonalization of economic exchanges, notably through the limitation of gift-giving and the payment of profits not to an individual but to the Treasury, also favors the most impoverished agropastoralists, who do not always know the profits of the livestock markets, nor the sums paid to the communal budgets. Thus, by ensuring greater traceability, breeders will be better able to understand their contribution to the local economy, while farmers will become more aware of the benefits of livestock for the local economy. This could help lessen tensions between farmers and livestock herders, provided of course that access to information is facilitated. It would be possible to draw inspiration from the «social accountability» mechanisms already at work in English-speaking countries and in a few French-speaking countries, such as in this small rural community in

Burkina-Faso where the local executive justifies, at the end of the fiscal year, and in front of a popular assembly, how the proceeds of the "cart tax" (a tax created by the municipality to increase its own resources) were used.

This approach must be effectively adapted to the legislative context of each country and to the progress of the decentralization process. In any case, beyond the context, AFL's strategic approach focuses on building a community of interests around the same activity between different statutory groups. The municipal authorities must do their utmost to ensure that the market works, since they will be able to generate income from it and reinvest it in the community, thereby facilitating their re-election. And, for its part, the association in charge of the market's management also has every interest in making it work.

10. It is important to address these issues before the infrastructure is built in order to keep some room to maneuver if there is some reluctance on the part of certain categories of actors to implement some of the recommendations.

1.4- The construction of infrastructure

It is possible at this stage to prepare tender documents for the construction of infrastructure. However, again, multi-stakeholder consultations (devolved and decentralized technical services, POs) must be maintained both at the plan drafting level and at the monitoring level.

Indeed, these consultations can facilitate the correction of certain design errors. Here are the main points of attention, based on AFL's experience:

- a) Loading docks of limited width. Traditional docks are often built with a ramp. In order for the structure to support the weight of the animals, the latter's width is often identical to the width of a truck. Such dimensions may result in the simultaneous loading of several beasts, leading to risks of injuries for both the cattlemen and the animals. The construction of so-called modern cement docks is sometimes carried out using the same model. However, the advantage of using a more resistant material is to reduce the width of the corridor to around 75 cm in order to limit the passage to a single beast at a time, thus reducing the risk of injuries.
- b) The positioning of the loading docks. Loading docks must be positioned at the edge of the fence and the movement of the Titan trucks must also be calculated. If the dock is positioned on the side of a rural route, the trucks' placement will block the use of this route for vehicles for at least half an hour.
- c) Tubular versus solid fences. In the countries of the Sahel, solid-wall fences lead to a pileup of sand, making it possible for animals to pass over these fence walls after a few years. It is thus preferable to use tubular fences to close in livestock markets.
- d) Lack of multiple entrances. Animals feeding the markets often come from several directions. It may therefore be appropriate to provide more than one entry point to the market in order to facilitate its supply.

2. Making Market Infrastructures Sustainable. Beyond the "Project-Logic": the Territorial Approach .

As in any development program, five basic questions arise to ensure the sustainability of the developments carried out: (i) What type of monitoring and supervision should be put in place? (ii) How much does the monitoring and/or supervision cost? (iii) How will this service be paid for? (iv) What will the institutional anchoring be? (v) Who will supervise?

2.1- An integrated sector approach

The answer to the first question may seem self-evident. It is sufficient to collect statistical data on livestock markets and to intervene when activities seem to decrease abnormally in relation to a reference situation.

However, as has already been pointed out, the activities of livestock markets depend mainly on the availability of livestock corridors allowing for their supply. While these are trade routes, they are also transhumance corridors¹¹. Intervening only in the markets is therefore akin to confusing cause and effect.

The monitoring work must therefore focus not only on the functioning of livestock markets, but also, and especially, on secured corridors. In other words, the monitoring work must be understood in terms of an integrated approach to the sector, including both agropastoral development (corridors, watering points, pasture and rest areas), and market developments (cattle markets and loading docks).

With regard to the cost of monitoring, it is important to distinguish between monitoring and supervision costs. The monitoring costs of livestock markets are essentially negligible, since the management committees, which makes a profit on the sale of the animals, are also in charge of updating the statistical data.

11. Indeed, it is not appropriate to make a clear distinction between transhumance and trade strategies. Thus, many markets located on transhumance axes know their activity peaks during the descent of the animals towards the coast, as well as, especially, during their return.

When it comes to the corridors, the problem is more delicate for two reasons. On the one hand, close monitoring of corridors, which span several dozen kilometers, is difficult. It is therefore advisable to position management committees at the local level throughout the corridors, and to place each of these in charge of a section of several kilometers. For example, 9 monitoring committees have been set up on the 45km section linking the Ganta market to the Dadounga pastoral area and secured by the RECOPA in eastern Burkina Faso. That said, the use of these corridors cannot be taxed, otherwise the agropastoralists will stop using them.

The cost of supervision should be detailed in man/days to ensure both the processing of data on livestock markets, as well as the supervision of all committees present throughout the whole of a section.

The development of an integrated approach for the sector in all its components (NRM, trade, etc.) also makes it possible to look at the economic viability of the costs of monitoring and supervising the sector in a targeted area.

Indeed, merchant infrastructures generate revenues, not just for the management committees, but also for the local authorities. It is therefore on these revenues that it is possible to plan to cover the monitoring and supervision costs. In return, this monitoring and supervision allows communities to prepare their local development plans in a more precise and better-informed way, as well as to prevent, anticipate and limit possible conflicts related to the occupation of corridors by crop fields or passing animals.

2.2 Inter-local government authorities (municipalities/districts...) as an institutional anchor

While livestock markets are the responsibility of each local government authority, their supply cannot be ensured without the presence of safe livestock corridors which cross several municipalities, or without an input supply system located throughout the area in strategic locations, ensuring a better productivity.

The scale of intervention and reflection must thus, at a minimum, be at the inter-local government level (inter-municipality or inter-district for example). Analysis on the coherent development of agropastoralism in a given area must therefore be carried out by inter-local government entities.

On the basis of the existing statistical data allowing the revenues generated on market infrastructures to be quantified according to the assessment per kilometer of the monitoring/supervision costs of the corridors and the markets, it will be possible within these inter-local government bodies to define a key for the allocation of revenues between authorities in order to cover costs.

The presentation by the Association of Municipalities of Atakora and Donga (ACAD, Benin) at the launch workshop for the Strengthening of the Resilience of Agropastoral Systems in West Africa (PARSAO) perfectly illustrates the different stages of this process. The example is all the more relevant in that the targeted territory is limited to two market infrastructures (the Matéri livestock market and the Sépounga loading dock). In charge of the implementation of this mechanism in the area, these inter-local government entities will not have sufficient funds to recruit technical personnel able to ensure this supervision.

It would thus be interesting to see to what extent these inter-local government entities could contract with producers' organizations with technical staff having not only the competence, but also the knowledge of the players and their operating logic in order to ensure this monitoring and supervision for the sustainable development of agropastoralism in the area.

UKBID BRACED afa ACTING FOR LIFE AIRFRANCE PARSAO, L'approche territoriale (ACAD, département de l'Atacora, Bénin)

INFRASTRUCTURES MARCHANDES

MAB Transfrontalier de Matéri (F/UEMOA)




- Aménagement d'une aire de 3 hectares, clôturée
- Des abreuvoirs
- D'une rampe d'embarcation
- Un magasin de stockage
- 03 hangars de négoce
- Des box pour gros ruminants
- Des box pour petits ruminants
- Un parc de vaccination
- Un bloc administratif et vétérinaire
- Un logement pour l'agent d'élevage
- Un logement de gardien
- Deux latrines

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STATISTIQUES MAB MATÉRI

Mois	Nombre animaux Présentés	Nombre animaux vendus	Provenance animaux	Recette Mairie	Recette COGES
Aout 14	410	349	Togo (Koundjoaré) Burkina faso (Koumpienga) Benin (Matéri, Coby)	349 000	349 000
Septembre 14	419	379		379 000	379 000
Octobre 14	496	351		351 000	351 000
Novembre 14	449	318		318 000	318 000
Décembre 14	310	282		282 000	282 000
Janvier 15	417	375		375 000	375 000
Février 15	588	457		457 000	457 000
Mars 15	357	303		303 000	303 000
Avril 15	397	269		269 000	269 000
Mai 15	381	257		257 000	257 000
Juin 15	378	292		292 000	292 000
Juillet 15	424	374		374 000	374 000
TOTAL	5.026	4.006	4 006 000	4 006 000	

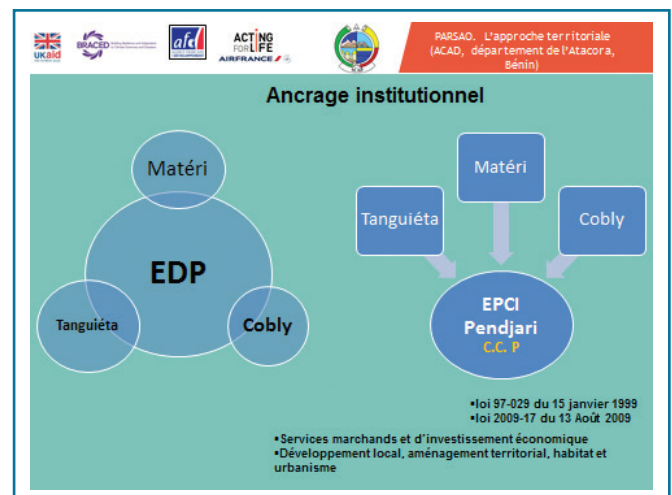
Source : mairie et COGES

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DISPOSITIF DE SUIVI DES PISTES

Comités de suivi du couloir de passage Doga-Tiéé

COGES	Tronçon couvert	cout suivi/an COGES	cout supervision annuel
Tiéé	Tiéé - Mamossa 4 Km	55 440	
Mamossa	Mamossa - Porhoun 7 Km	61 920	*02 sorties de 3 jours/mois (mars-juin)
Mossahoun/ Somou	Porhoun - Somou 8 Km	61 920	*01 sortie de 3 jrs/mois (juillet -février)
Yondisseri	Somou -Yondisseri 3,5 Km	48 960	
Nagassega-kani	Yondisseri Nagasseni-kani 4 Km	55 440	*Cout d'une sortie (entretien agent, carburant et entretien moto)
KANI -SERI	Nagassega-Kani -Kani-Séri 3 Km	48 960	
Tohanhoun-Cossi	Kani-Séri - chanhoun-Cossi 7 Km	61 920	
Pitiba	Tohanhoun-Cossi -Gouandé 6 Km	61 920	*Salaire superviseur (40% de temps)
Doga	Gouandé -Doga 8Km	61 920	
TOTAL	50,5 km	518 400 FCFA	1 696 000 FCFA
2 214 400	44 288/km/an	10 368/Km/an	33 920 fcfa



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Le dispositif technique et son financement

- Suivi** de proximité tronçon par les COGES Pistes:
 - constats, négociation, sensibilisation puis
 - transmettre les difficultés à la mairie via leur CA
- Supervision** par une OP (UDOPER AD) / ST-EPCI Pendjari
 - appui les COGES (PMQ)
 - Sensibilisation/Négociation/prévention/résolution des problèmes
 - Amélioration de la gestion des infrastructures par la bonne collaboration entre acteurs au niveau village, communal et intercommunal
- Conseil de communauté : 4 sessions EPCI /UDOPER**

Financement par une partie des recettes issues de la gestion des infrastructures marchandes: MAB Matéri et Q E de Tanguiéta proportionnellement au bénéfice .

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Le dispositif technique et son financement

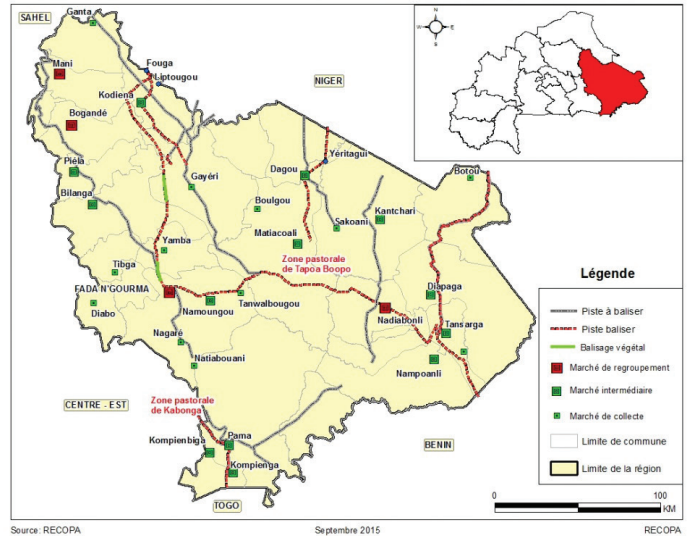
	Matéri (85%) 1 882 240 f	Tanguiéta (15%) 332 160 f	Total 2 214 400 fcfa
Cout du dispositif			
•Fonctionnement COGES Piste			
• Salaire superviseur (40%)	1 317 568	564 672	2 214 400
•Sortie terrain (Prise en charge superviseur, Entretien et carburant Moto)			
Pourcentage du Total	60%	25%	100%

3. CONCLUSION

Thus, the creation of infrastructures requires a long process regarding the social aspects of engineering, both upstream and downstream of the actual construction.

Three approaches must be at the heart of these interventions. The first is to maintain multi-stakeholder consultations throughout the process. Beyond terminology, the goal is to maintain a monitoring of all stakeholders, and to cross-examine the data when it is contradictory. Secondly, it is necessary to develop an integrated approach of the transversal sector in terms both of area, and of results. The creation of market infrastructures is a potential starting point for a coherent development of the sector in a given area. It must thus be systematically linked to other areas of intervention. The approach should be: The diagnosis has identified XX market as a priority. We will secure the corridors connecting the different markets in its network. We will secure the transhumance corridors which supply these markets during the dry season. We will strategically position livestock feed stores and veterinary services along these axes.

Finally, the concept of an integrated approach necessarily refers to a territorial approach. The development of the sector must therefore be conceptualized on the basis of a reasoned area scale, involving at least several municipalities/districts and thus justifying the institutional anchoring of this type of intervention to be the responsibility of inter-municipalities/districts.



ACTING FOR LIFE

40 avenue de l'Europe
93352 Le Bourget
France

Acting for Life is an association recognized to be of public benefit
(status granted by the decree of March 11, 2002)

Tel: (+33) (0)1 49 34 83 13 - **Fax:** (+33) (0)1 49 34 83 10
E-mail: contact@acting-for-life.org - **Website:** www.acting-for-life.com