

# Social Services for Mobile Pastoralists: Cross-sector Strategy Based on “One Health”

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## Abstract

Mobile pastoralist communities in Sahel countries have serious problems of access to social services. Classic strategies for social services were always based on a single sector, focused on settled populations, and hardly reached mobile communities. This paper aims to show a cross-sector approach as a part of solutions to provide social services for mobile pastoralist communities and describes the ongoing scaling-up process. The method used is based on a transdisciplinary approach which involves target communities and authorities in all processes through workshops and site visits. Interventions adopted the concept of “one health” benefiting of an added value of closer cooperation between human and animal health. This approach was tested with joint interventions between human and animal health, which provided access to health services for unreached communities and saved resource when compared with single sector intervention. Such approaches could be extended to other social services within cross-sector interventions such as the delivery of basic education in nomadic areas. Such a strategy was validated by the communities and authorities and was further transformed into a national programme after a series of six national stakeholders’ seminars. The cross-sector intervention will provide a minimum package of services (MPS) without compromising the structural services.

## Keywords

Mobile pastoralists, integrated cross-sector approach, transdisciplinary, one health, Chad

Mobile pastoralist communities in Chad are vulnerable and hardly have access to social services and particularly to health care. Women and children are more exposed in such condition. Under five, child mortality was high: 61/1000 (Weibel et al. 2011). Morbidity indicators rose: 17% for acute malnutrition, 40% for vitamin A deficiency, 34% for anaemia, and 60% for parasitic infection (Zinsstag et al. 2005; Bechir et al. 2010, 2012). In 2000, completely vaccination rate was nil among children (Daoud et al. 2000).

This situation is due certainly to the unsuitability of national health policies focused on the settled population with Primary Health Care 1978 (Alma Ata),

Health District System 1987 (Harare), and Community Participation 1987 (Bamako) as national intervention strategies (WHO 1978, 1987a, 1987b; MOH 2007). Other factors were the socio-geographical situation, the mobile pastoralist views on modern medicine, insecurity, and the

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accessibility of resources (Wiese, Donnat, and Wyss 2004; Fokou 2008). Among nomadic pastoralist communities, women and children are the most vulnerable groups, and they are not able to personally decide on the use of health services (Hampshire 2002).

On the other hand, health service is not only the priority of nomadic community. The creation of forums and open discussions among mobile pastoralist communities, decision-makers, and professional actors in the nomadic areas via periodic workshops emphasised that health interventions were important. But other problems raised were: having safety livestock, access to natural resources (grazing pastures and water), personal insecurity, and the lack of access to education, which all contributed to maintaining the vulnerability of the nomadic communities (Schelling et al. 2007). This priority was noticed also in Mali among Tamachek pastoralist communities (Bonfoh et al. 2007).

It is the reason why the first interventions used the apparent greater accessibility to veterinary services to reach infant and women. It was a joint human and animal's vaccination campaign. Concurrently with the joint vaccination campaigns, a comprehensive assessment recognised the necessity for integrating information, education, and communication in order to ensure a good understanding of the intervention (Bechir et al. 2004).

In 2005, with the support of UNICEF (United Nations International Children's Emergency Fund), some schools were created in nomadic areas. The basic education project was implemented in collaboration with the Ministry of Education and UNICEF-Chad.

The main donor of the nomadic health project ensured the sustainability of the two financed steps of the project by transferring it into a government-led program (Zinsstag et al. 2004).

In 2005, the second workshop of Gredaya allowed to renew reflection on the topic of integrated

programme through nomadic pastoralist communities.

The objectives of this paper aim to describe the steps of this cross-sector document which is the target to provide the basic social services in pastoral nomadic communities and reach the objectives of national development and the millennium development goals.

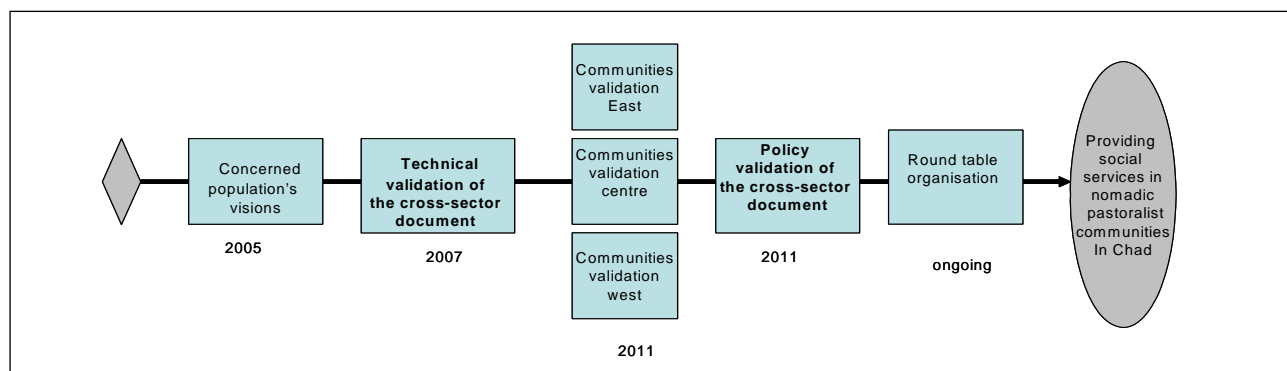
## **STEPS OF SETTING UP THE CROSS-SECTOR DOCUMENT**

The development of the cross-sector document was based on transdisciplinary approach, involving stakeholders, researchers, decision-makers, and target communities. Six types of stakeholders' (decision-makers, scientists, and concerned population and technicians) seminars were organised since the beginning of the cross-sector approach idea in 2005 until the final document submitted to "high authorities". Between these workshops, important meetings were organised with multiple partners to share information and write documents (see Figure 1).

## **CONCERNED POPULATION'S VISIONS**

In 2005, the nomadic health project organised a workshop to present the main results of human and animal health intervention in nomadic areas and share experiences with decision-makers (administration and military), scientists, and the concerned population on health issues. The main results of joint intervention were that in these period 21,511 infants under five, 14,762 women, and 244,255 animals were vaccinated. The base line of human vaccination coverage in this community was null when the project started. This system was highly appreciated by the concerned population.

After brainstorming exercises, the population explained clearly its interests for these actions but has mentioned other priorities without which it remained vulnerable. These priorities were: (1) access to



**Figure 1.** Steps of the Cross-sector Process.

**Table 1.** Comparative Demand of Nomadic Communities in Chad and Mali.

Rank	Demand in Tin Timaghayen (Mali)	Demand in Grédaya (Chad)	Integrated cross-sector approach
1st	Peaceful environment with regard to authorities and neighbours	Access to pastures	Pastoral code, security, transformation of tension and conflict, as well as dialogue among the communities
2nd		Good relations with agriculturalist on the transit zones crossed and pastureland during dry season	Legal and institutional framework for transhumance and dialogue
3rd	Access to pumped water for family consumption and gardening	Access to water	Infrastructure (water and market) for humans and livestock
4th	Education for children and access to information important for fighting poverty	Access to education for children and literacy for adults	Nomadic school with adapted education and training programme
5th	Human and animal care	Health care for their livestock and themselves	Joint intervention through “one health”

pastures; (2) peace and security; (3) access to water; (4) access to educations; and (5) health care. The conclusion of this workshop was to target a holistic approach with providing a minimum package of services (MPS). The similar priority was observed in Mali (see Table 1).

**TRANSFORMING PASTORALIST THOUGHTS INTO A PROGRAM**

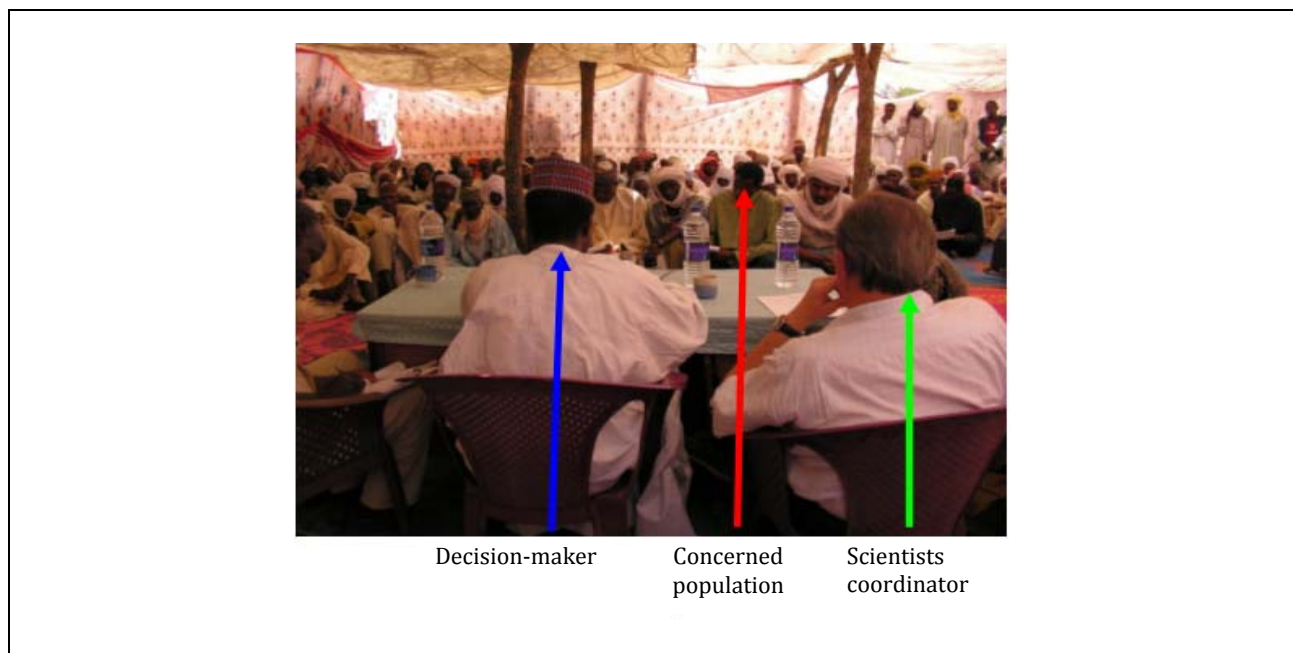
The first meeting was organised between the nomadic health project of Suisse Tropical Institute and the national vaccination programme of Health Ministry. The objective was to prepare the writing of the cross-sector document. The conclusion was to inform officially the six main target Ministries to each choose

two technicians for writing this document. The nomadic health project supports the linked expenditure. The six target Ministries were: (1) Ministry of Plan for Coordinating Cross-sector Aspect; (2) Ministry of Health; (3) Ministry of Livestock; (4) Ministry of Education; (5) Ministry of Interior and Public Security; and (6) Ministry of Environmental and Hydraulic.

Each ministry responded favourably and designed two technicians for writing document (see Figure 2).

**WRITING OF THE FIRST CROSS-SECTOR DOCUMENT**

The second step was to define the canvas for writing the cross-sector’s document for enhancing and



**Figure 2.** Workshop in Gredaya Chad 2005.

improving well-being, human and animal health, education, and lifestyle of nomadic communities with all technicians.

Five components were determined:

(1) Component I: to support human and animal health; involved Ministries were Health, Livestock, and Social Action;

(2) Component II: to support water and pasture accessibilities; involved Ministries were Environmental and Water, Agriculture, Livestock, and Interior;

(3) Component III: to support education; involved Ministry was Education;

(4) Component IV: to support the promotion of communication, culture, sport, and art; involved Ministries were Sport, Communication, and Culture and Art;

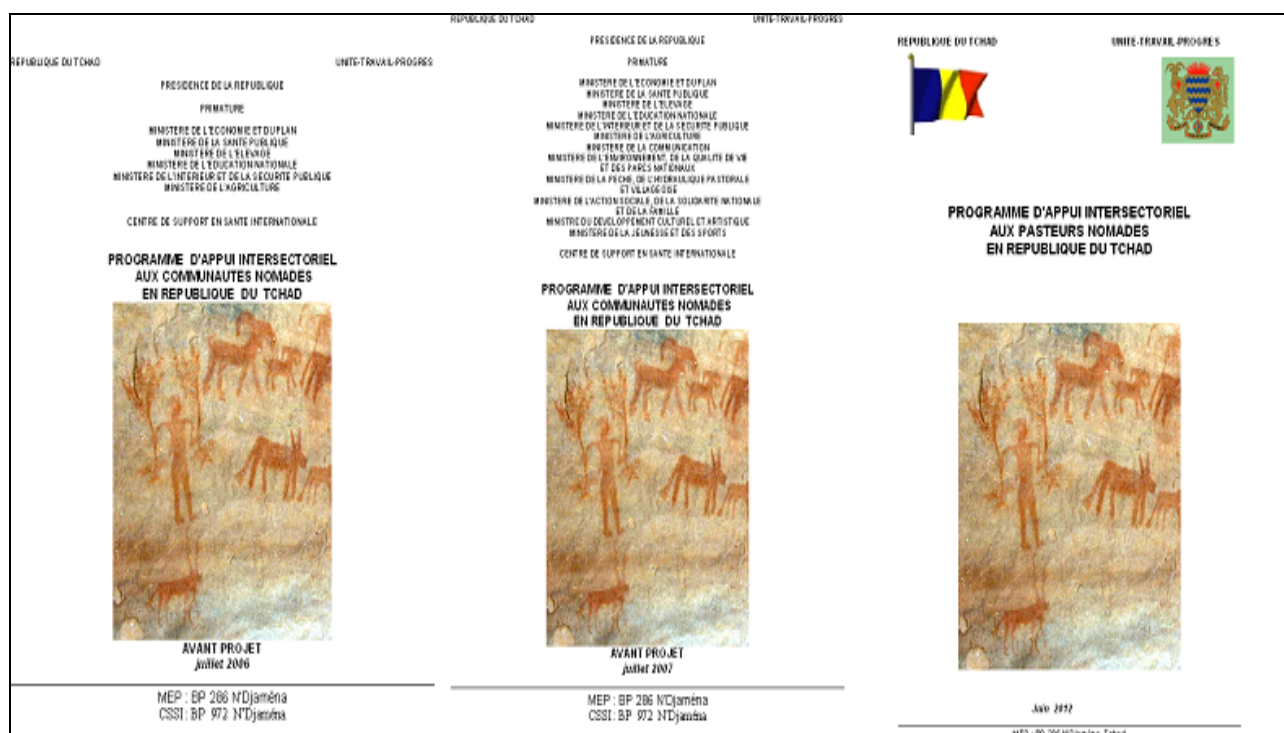
(5) Component V: Institutional support; involved Ministries were Plan and Interior.

With these components, five subgroups were organised to write components. A similar canvas was

used for each component, it concerned: (a) diagnostic; (b) objectives; (c) activities; (d) strategies; (e) outputs; (f) indicators; (g) localisation; (h) monitoring; (i) chronogram; and (j) budget.

Each participant was engaged for this canvas and monetary motivation was discussed and accepted.

The nomadic health project of Suisse Tropical Institute coordinated these activities and wrote the global overview of this document. A schedule was defined within each component and between components to write, combine, and harmonise the document. In 2006, the six involved Ministries were recomposed and created after government reshuffled and finally 12 Ministries were retained: (1) Ministry of Plan; (2) Ministry of Public Health; (3) Ministry of livestock; (4) Ministry of Education; (5) Ministry of Interior and Public Security; (6) Ministry of Environmental; (7) Ministry of Agriculture; (8) Ministry of Communication; (9) Ministry of Cultural Development; (10) Ministry of Fishing and Pastoral Hydraulic; (11) Ministry of Social Action and



**Figure 3.** Cross-sector Document Started With Six Ministries, Then 12 and Finished by All the Governments.

National Solidarity; and (12) Ministry of Sport (see Figure 3).

**VALIDATION OF THE CROSS-SECTOR DOCUMENT**

A comity of workshop organisation was implemented. It mobilised resources through governmental 50% and partners’ 50%. The workshop was intituled *What Development Policy for Nomadic Pastoralist in Chad?* The main target objectives were to analyse and validate technically the cross-sector document related to the social development of pastoralist communities in Chad.

The participants were 30% of the nomadic pastoralist communities, 26% from technical services of target Ministry, 23% from NGOs, and 21% from research teams.

Twelve communications were presented: four

scientific communications on research in nomadic areas, four nomadic communities’ presentation, and four technical services communication from main Ministries. After the plenary, three groups were organised on: (1) analyses of programme components; (2) interface and strengthening synergy between components; and (3) transition between the nomadic health project and the cross-sector programme.

The main results were:

- (1) A cross-sector approach based on iterative and participative process was adopted;
- (2) The pastoralists such as management of extensive issue for sustainable livestock system were retained;
- (3) The collaboration among scientists, actors, and stakeholders through the evolution of the programme was solicited;
- (4) The budget supported by governmental 50%

and donors' 50% was proposed;

(5) Three main geographical zones and other secondary zones were defined particularly in Sahelian area;

(6) Chadian government was engaged to perpetuate this approach.

### **CROSS-SECTOR INTERVENTION TRIAL AT DARFUR (BORDER CHAD-SUDAN)**

Between 2009 and 2011 interventions were developed on the border of Darfur in the Sila region. The project was intituled *Support Project on Human and Animal Health*. The recipients were the breeder-displaced populations and the host breeders. This project used the first component of cross-sector concerned human and animal health. The main result of this project was: 84% of infants and 48% of women were vaccinated within the displaced, transhumant, and host populations. On the other hand, 59% of livestock were also vaccinated.

### **MAIN CONSTRAINTS SINCE 2007**

Four important reasons created gaps on the evolution of the cross-sector document:

(1) The first one was the main leadership. Suisse Tropical Institute left from Chad and led all its activities, personal, and material to a new born national NGO: *Centre de Support en Santé International* (CSSI). This national NGO found another opportunity with the problem of Darfur and focused its interventions and attentions on the refugees and the internal displaced population in the East of Chad;

(2) The second reason was the end of the nomadic health project intervention in nomadic areas. The main actors who coordinated this process were involved in academic formations, Master and Ph.D. conducted outside Chad;

(3) The third important one was the absence of

partner's leaderships and real engagement from government. The Ministry of Plan did not fully play a coordinator role without outside support;

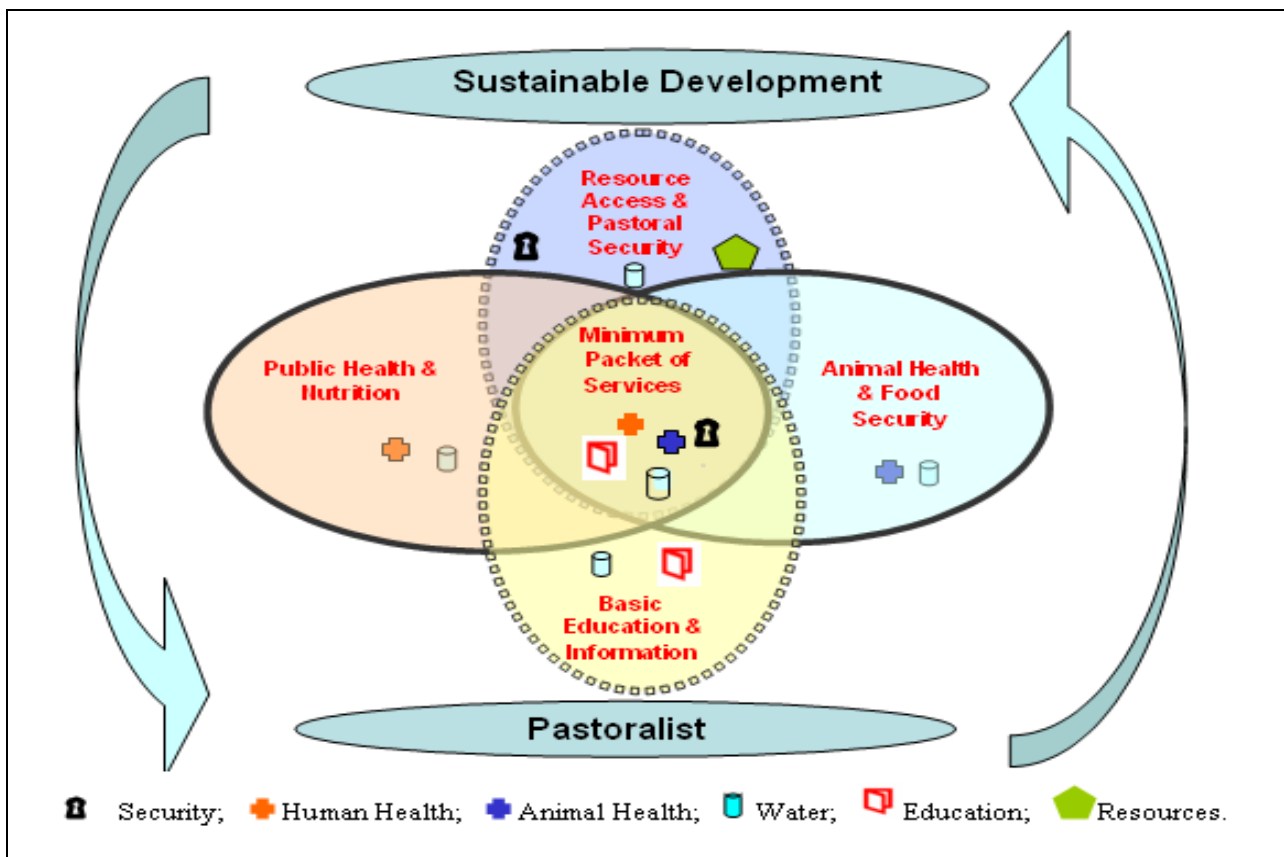
(4) The last one is the exorbitant number of involved ministries (12) in this programme. It was not easy to move together.

All these disabilities contributed seriously to slowing down the evolution of the cross-sector vision for nomadic interventions.

### **REOPENING OF CROSS-SECTOR DOCUMENT**

In 2011, a new dynamic reopened the cross-sector idea, discussed in the board of directors for CSSI. Research action would be an important part of the NGO and particular attention would be focused on the problematic nomadic communities. An update of the document was imperative. The main first redactors were invited for updating the cross-sector document.

Three regional workshops were organised in different pastoralist areas for communities' validations and taking into account the specificity of each group/area. The main communities retained were the transhumance breeder in Sila, of which the important group was Arabic. The main specific problem in this community was the difficulty to cross in rainy season during transhumance, the periodic rivers with strong current water; it often kills human and animal. The second workshop was organised in Hadjer Lamis, and the important group was Fulani. The most specific problem here was lack of the resource accessibility in the border. Every year the cornfields and the gardens of mangoes win the land. And, the last was the nomadic communities in Kanem, of which the important group was Gouran. The main specific problem in this area was the desertification: insufficient grass for animals and the increase of amplitude of their movement every year. After the communities' validation, the document was finalised and the central workshop for policy validation was



**Figure 4.** Holistic Approach of Cross-sector Intervention.

organised.

**ADDED VALUE WITH MPS**

Cross-sector document is based on a holistic approach for the sustainable development of pastoral system. The approach target to provide a MPS focused on educations, public health, veterinarian, natural resource and security for the well-being of pastoral communities. For these services, schematically four important sectors could support this package: public health and nutrition, resource access and pastoral security, animal health and food security, and basic education and communication. Figure 4 summarises this vision.

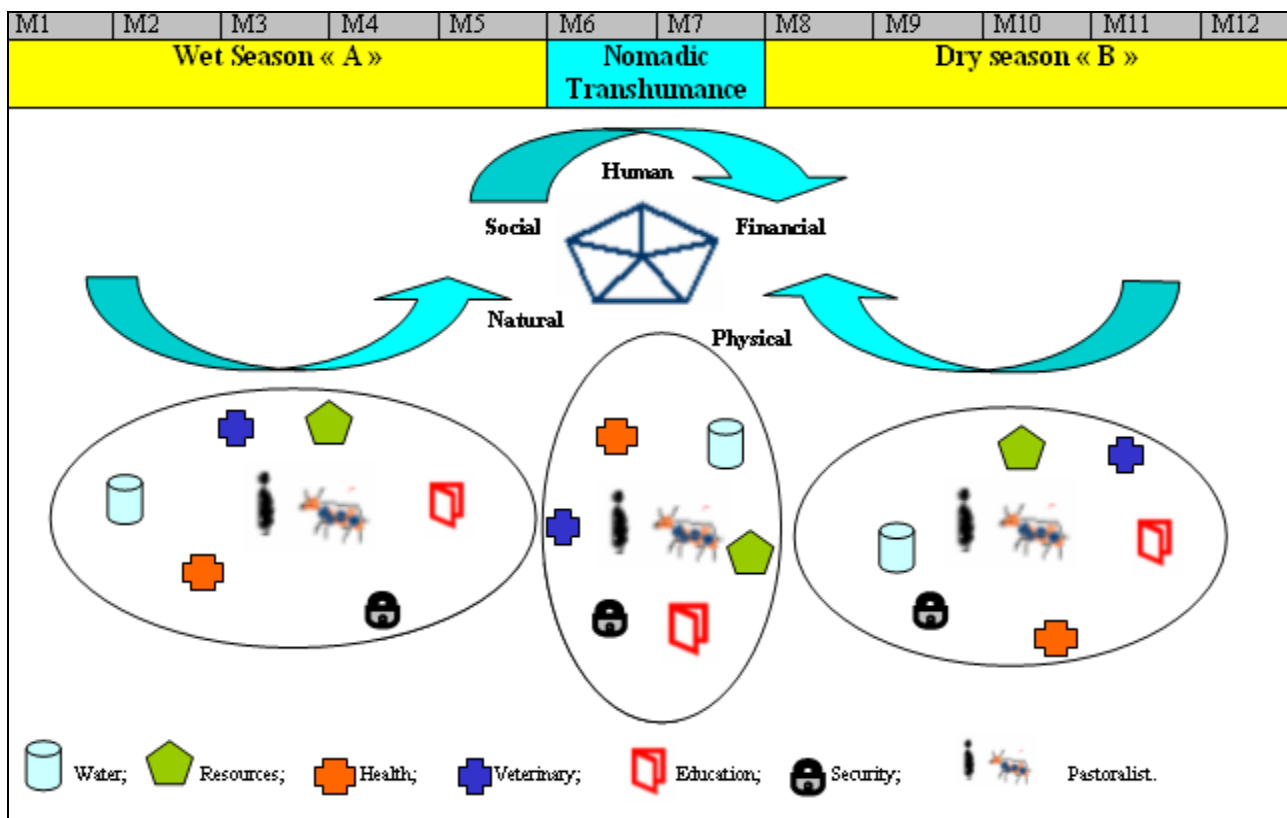
MPS will be available in each area frequented by

nomadic communities. It will be flexible with seasonal variations linked by pastoral movements. It will be provided in the concentration pastoralist zones frequented in wet season, in the similar concentrated zones in dry season and between these zones in the transhumance way. These providing services will take into account the five capital aspects: human, financial, physical, natural, and social issues linked with the specific lifestyle of pastoral communities (see Figure 5).

**SCIENTIFIC IMPLICATION AND INTERNATIONAL SHARING EXPERIENCES**

This idea of cross-sector document was supported by the National Centre of Competence in Research North





**Figure 5.** Intervention and Seasonal Variation.

South (NCCR-NS) through the Transversal Package Project on Extensive Production Systems in Semi-Arid Regions, and the Work Package 3 on Health and Environmental Sanitation. The NCCR-NS was involved in the finalisation of the document and the organisation of a central workshop for technical validation.

Two important workshops were organised also in Mali and Niger. The first one was in Tintimaghayan, a comun of Ber region of Tombouktou in 2006, and the second in Zinder in 2005. In these workshops, a similar problem of pastoral communities was observed and the priority of security and resource access were very important.

In 2011, WHO, UNICEF, and the Federal Ministry of Ethiopia organised a workshop on nomadic health. Seven countries were participated:

Chad, Mali, Kenya, Afghanistan, India, Mongolia, and Ethiopia. In all these countries, mobile teams were created to provide health service in nomadic communities. The holistic approach presented by Chad was appreciated and encouraged.

### “ONE HEALTH” CONCEPT

The “one health” concept evolved from “one medicine” was developed by Schwabe (1984) who recognized that the same paradigms were shared between human and animal medicine. The “one health” concept emphasised epidemiology and public health aspects (Zinsstag et al. 2005). Zinsstag, the main developer of this concept, which aimed at making full use of synergisms between human and animal health, mentioned that animals were



commonly used as sentinels for human health. The perspective for that and taking into account the environmental aspect should be changed. People should move from a perspective of animals as a risk to human health to a perspective of sharing risk between humans and animals and their environment (Zinsstag et al. 2009). The application of this concept requires a holistic thinking and a transdisciplinary approach, connecting academia and society, which should be the best way to involve all actors before, during, and after the implementation of a project.

## CONCLUSIONS

Health issues cannot be dissociated from other factors such as security, natural resources, education, and food accessibility and availability. A holistic intervention involving an inter-sector approach would be appropriate. Non-isolated or sector intervention would be successful in the context of general vulnerability. The advantage of a cross-sector approach is a reduction in the intervention costs and the provision of a range of essential services. The success of such an approach is reliant upon organised coordination between target populations and a formal monitoring system, in collaboration with the original research team. The latter will facilitate the early detection of, and response to, any problems with the process.

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