

Farmers/stockbreeders Conflicts: concerted management of the natural resources by local communities (case of the Maro canton in the Moyen Chari in Chad).

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Abstract: The ground is not elastic whereas men living there increase regularly in number and needs. The techniques of exploitation and emphasizing of the natural resources in order to improve their living conditions move also, in time and in space, in quantity and quality. Then, the interference of these various parameters increases the capacity of consumption of each other of the space which does not vary [1]. Consequently, it results land tensions and conflicts with many material and social loss. Face the persistence of this crisis, certain local communities despaired to await solutions from high authorities, try to face realities by a concerted management of their problem while defining corridors of transhumance and arrangement system of conflicts. The area of the Moyen Chari in southern of Chad is not excluded [2]. This article analyzes in general the question of transhumance in Chad before apprehending the particular case of the mode of management of the phenomenon by actors implied in the natural resource sharing through the case of the canton of Maro in the area of the Moyen Chari.

Keywords: Maro Space-Rural-Conflict-community

INTRODUCTION

The breeding sector represents into Chad alone 53% of the GDP of the rural sector coming in second position after agriculture. The livestock is primarily made up of the bovines (more than 7 million), of sheep-caprine (8 million) and came lines (3 million). The contribution of the value of the production of the meat and milk to the national economy is estimated at 155 billion F CFA in 2002 while the capital of the ruminants represented a capital of more than 1000 billion and was at the origin of an annual monetary flow of more than 140 billion at the same year. But more than 80% of the Chadian livestock is subjected to a mobile pastoral system very diversified tributary of water and pasture [3].

Formerly, the migration of the livestock was done towards the west in the area of the Lake Chad at the borders with Cameroon, Niger and Nigeria and South-east with the border Chado-Sudanese borders and some rare time at the southern part of the country because of the distance to traverse to reach the markets of the countries of the south. But since more than one decade, these principal points of attraction became hostile and transhumance is directed exclusively towards the South. The first reason of migration of the stockbreeders in this zone is related to the search of the

pasture and feeding troughs due to the austere climatic factors characteristic of the septentrional part of the country. The second is justified by the search of the market and safety. The animals are regularly submitted to the exactions of the hijackers and to the soldiers come beyond the borders and even those from the interior in dissidence in search of food...

The presence of the stockbreeders in the South of the country is, nowadays, a source of many tensions and conflicts with the turn of the division of spaces to which suitable solutions are not often brought. They are sometimes badly circumscribed, sometimes maintained by local authorities who are at the same time actors and judges. Consequently, per year, these conflicts continue to make expressed damage losses of the tangible properties and lives human being added to the other major challenges most urgent to which must face the rural producers of a country of the Sahel [4]. They result in general, on the one hand, of the lack of positioning of the corridors of transhumance and on the other hand question of peaceful coexistence of the various socio-professional layers namely the farmers and the stockbreeders.

The site of research is one of the 7 cantons of the sub-prefecture of Djeké-Djeké. The latter is a

component of the department of Grande Sido in the area of the Moyen Chari the extreme South of Chad. Geographically it is limited in the North by the Moyo canton, in the south by the RCA, the East by the canton Moussafoyo and Gourourou and in the West by the Bendanan canton. It nowadays counts 48 villages and 10 ferricks. According to data's of the National Center

of Support to the Reintegration of the Refugees of Maro, the population of the canton is estimated at approximately 133.828 inhabitants including 51.918 Refugees from Central Africa Republic and turned over Chadian left again in the camps of Bêlom and Maïngaman whose multitude increases the pressure on the natural resources.

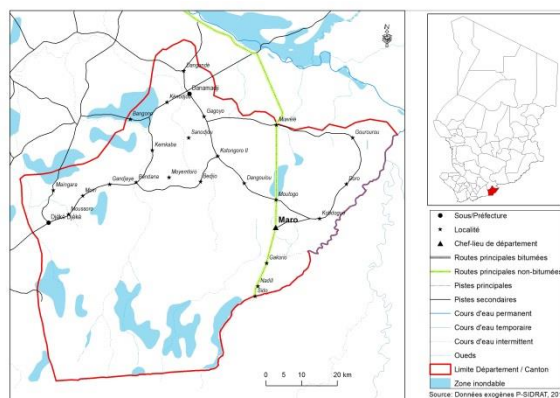


Fig-1: site of research

The principal practiced activities by the population are in particular agriculture, breeding, fishing, picking, the craft industry and the small trade. Breeding is practised as well by sedentaries stock breeders. Generally, sedentaries associate agriculture to breeding. While breeding constitutes the mono-activity of nomads. The latter, in search of the pasture and of feeding trough, remain in the zone between June and September which correspond to the agricultural working life. The interference of the pluriactivity by various socio-professional categories induced with the problems of space management and resources which often leads to open conflicts. In the absence of the mechanisms of prevention of these conflicts, safeguarding of peace and cohabitation the phenomenon is recovered and exploited by ones and others. Then, conscious of the misdeeds of these problems, certain communities decide to bring there an attempt to solutions by the local means and materials. Such is the case of the country communities of the zone of study.

METHOD AND MATERIALS

To understand the motivation of the actors concerned with the phenomenon, the already carried out solutions and actions and to lead, we based the method of research on the investigations, the talks and the direct observations. If the investigations were carried out by individual met into the ground starting from a card drawn up for the circumstance, the talks were made in a participative way on three levels. The first two talks were carried out purely inside each occupational class (farmers and stockbreeders) and the last one saw the participation of the two communities (farmers and stockbreeders) brought together in the public space of the villages concerned with work.

The investigations were managed as well with the civil, administrative people usual of the zone. Near civil the required objectives are the comprehension of the causes, of the consequences as well as the constraints and the actions posed where necessary. They are consisted of the agricultural producing peasants, the agro stockbreeders and the pastors. 15 villages out of 48 were covered in which 450 people were surveyed and 5 ferricks out of 10 with 2 people by ferrick. The participative diagnosis brought together 118 people all professional categories confused. Near the administrative authorities, usual and of territorial safety the subject of the investigations the background information such as the modes of management of conflicts were, the means implemented for the safeguarding of peace the cohabitation of the two communities which are forced to live together.

The observations of ground enabled us to understand and appreciate the information collected during the collective diagnoses and the actions practically carried out on the ground. They are the modes of occupations of the grounds by the two communities and the officially agreed layouts of passage, the zones put in prohibition and the mechanism of follow-up of work realized by the implied actors. The collected data are recut with those collected with a preliminary phase. With this phase, it was a question of making state of place of work completed about the set of themes at the national and local level to direct our work and of avoiding the beaten tracks.

RESULTS AND COMMENTS

Method applied to conduct with the analysis of two phenomena closely dependent. They are in

particular the migratory phenomenon and its immediate consequences on the one hand and on the other hand the mode of management of the conflicts and the strategies implemented by the actors implied to solve the problems.

Factors and impacts of the migrations

Three principal factors are at the origin of the movements of the pastors in Chad in general and in the canton of Maro in particular namely the research of the pasture, the insecurity and the search of the market.

Table-1: Results of participative diagnoses of the problems by causes, constraint, proposals and actions realized

Problems	Cause	Constraints	Proposition	Actions
Migrations	- Scarcity of pasture; - Insecurity; - Market ; - Lack of hydro-pastoral installation		Construction of the enclosures	Zoning of the agricultural and pastoral zones of the canton
Lack of corridors of transhumance	Incapacity of the State to equip the services of breeding	Lack of will with the respect of commitments	The beaconing of the old corridors of transhumances	Sensitizing with the respect of the corridors of passage and transhumance.
Devastations of the Fields	Lack of corridors of passage	- Non-observance of local authorities by the communities - Partiality of authorities in the activities undertaken by the two communities	- Delimitation of agricultural and pastoral zones - Traced corridors of passages inter village/ferricks	- Beaconing of the corridors of transhumance - Zoning of the agricultural and pastoral zones of the canton
	Lack of access to water	the non-observance of conventions and commitments by the two communities	Sensitizing of the two communities on non-violence and the peaceful cohabitation	Beaconing of corridor of passage for the access to the wells and the ponds
Fields in the vicinity of the ferricks	- Ignorance of the limits; - Non-observances of the limits.		Regrouping of the fields	Recommendation with the regrouping of the fields
Acts of cruelty on the animals by the two communities	- Recrudescence of devastation; - bad management by the actors.	Lack of commitment and of will of the implied actors	- Sensibilisation : - Construction of livestock enclosures	Sensitizing with the interest of the safeguarding of peace and the cohabitation
abusive cut of the trees and the bush fire	Extension of agriculture and the breeding	Lack of will and of commitment of the two actors	Promotion of the Community reforestation	Setting in prohibition s of the significant zones

Source: our investigations, May-June 2015

The search of the pasture and feeding trough

It is known in Chad that the bastion of the breeding is the large North. Constituted of the Sahara and Sahel zones covering on the whole 1.090.920 km² i.e. 85% of the surface of the country, this part of the country becomes of less and less favorable with the breeding (Cf. figure n°1). The Saharan zone, beyond 16 N, covers 600 350 km² is approximately 46.75% of extended from Chad [12]. The climate is very austere there. Annual pluviometric average recorded is often lower than 200 mm there. The vegetation is reduced to

the oases and the *ouadi* men and animals share. This situation brings the stockbreeders to sometimes final sometimes seasonal migration towards the following Sahel zone for the pasture. The latter lies between the 12 and 16 N. It extends on a surface from 490.570 km² is 38, 21% of the territory [12]. It reigns there a characteristic climate with two alternatives namely the dry season and the rain season. Annual average precipitations lie between 300 and 600 mm, the dry season lasts eight month, from October to May, the rain season from June to September. What allows the

intensification of the breeding in the zone making of him the principal activity of the rural ones or even of certain townsmen by interposed people. But the importance of the multitude of the pastors on the one hand and the new manner of feed the herds, on the other hand, very quickly will have an influence on vegetation [6]. Indeed, the new system of pasture adopted by the stockbreeders consists in cutting down the shrubs since the trunk and pruning the branches of trees around whose the animals are parked. Rejuvenation takes time and gradually vegetable cover is exhausted. Then, the South with the soudian climate and where the pasture is possible at any season proves from now on the most accessible place for the sector. These herds come to be added to those of the agro-stockbreeder increasing the load of consumption of the natural resources.

For the zone of Maro, since nearly one decade, the migration of the herds is with double direction. The first is that of the national pastors of North towards the South and the second is that of returned Chadians and taken refuge Central African of the RCA towards the interior of Chad. Among the population of the canton estimated at 133.828 inhabitants, 51.918 are listed refugees and turned over Chadians come from the Central African Republic [7]. If it is difficult to have the number of herds of the new stockbreeders come in the zone, each of the 5 ferricks visited during the investigations counts, at least, two households coming from the other side of the southern border of the country.

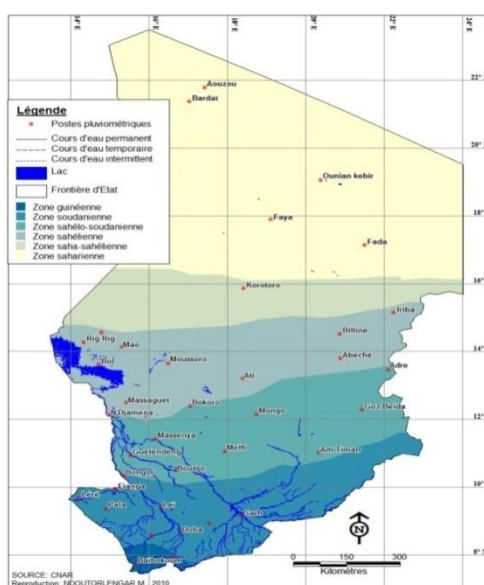


Fig-2: The climatic distribution of Chad

The frontier insecurity

With the first cause of mobility of the stockbreeders mentioned above that is added related to the frontier insecurity of certain countries bordering on Chad. Indeed, the access to South-east and South-west is made impossible during the three last decades because of the hostilities as well intern in Chad as those of the close countries. Since the years 1980 the border of Chad with Libya constitutes a permanent danger to the stockbreeders for several reasons. First is related to the occupation during more nearly one decade of the band of Aouzou, the extreme north of the country by Lybia. At that time the forces of safety were placed on each side of the very crossed border making it perilous. It was followed from there by instabilities of the period after Gadafi which made also move soldiers and civil at the border and even inside of Chad. The intern fratricidal wars during whom the caves of the solid masses of Ennedi and Tibesti were used as refuge to the Chadians rebels also constituted a threat for the stock breeders. The West also remains hostile because of the

raids and the hijackers. Indeed, the border with Sudan is useful until today, not only of ground of combat between the governmental forces and the rebels of Chad but also the back base of the Sudanese rebels. The borders with Niger and Nigeria are considered dangerous because of the presence of the hijackers and recently because of the misdeeds of islamist terrorists "Boko Haram ". Thus, to escape the exactions and raids, the direction of movements of the pastors is from now on the South of Chad (Cf. figure n°2).

The surge of the animals in zone of Maro is also, partly, related to the question of safety. Indeed, are among the livestock of the zone of the animals come beyond the Southern border. The breeding practised by the new ones come is multiform. Some lead their herds themselves while others entrust them to knowledge or against a remuneration to settle in the camps of Bélom and Maingaman after having been recorded and taken charges by the HCR. Remunerations are in currency and in kind. In the first case the amount and expiry of

remuneration leaves the consensus of the two parties while in the second, to entice the peasants, the stockbreeders propose in general to the herdsman or to the parents of this one of calves for rendered service. The number is of one to two calves per season. But often at the end of the season, the owner finds a reason

to be demolished the herdsman. If this last one is not shown to have engaged its owner in compensation after devastation of fields, he disappears in nature with the pastors [8]; Claude ARDI [9]. In the 5 last years, 3 herdsman children disappeared which one of them is not found till now.

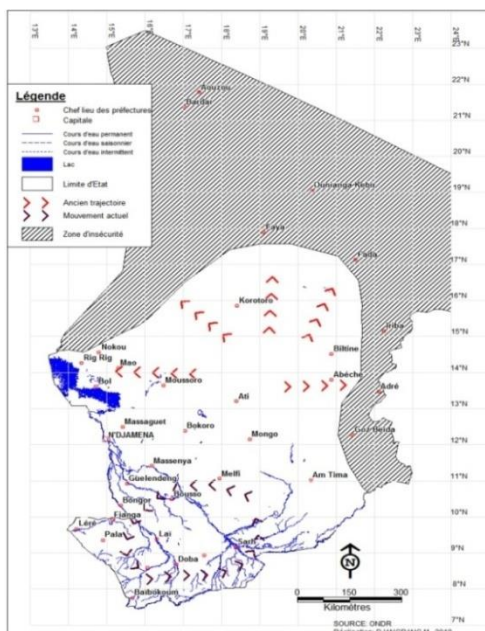


Fig-3: Movements of pastors

The search of the market

With the frontier insecurity related to the civil wars of certain close countries (Libya and Sudan) and to the exactions to hijackers and the expansion of nebula islamistsect "boko haram" in others (Nigeria, Niger and Cameroun), the cattle markets, formerly profitable in these quoted close countries are tightened almost inside the country. Then the domestic markets, forsaken at one time, take again importance. In the South of the country also shelters largest of them. Some give to the border of

the Central African Republic and others with that of Cameroun (Cf. figure n°3).The area of the Moyen Chari, with it only, accounts 9 markets with of cattles of which the most are namely the market of Roro, that of Sarh and Sido which is in the zone of research. This last is in the zone and four others not less significant namely the markets of Danamadji, Gourouro, Moutogo and of Djeké Djeké are also established on a ray of less than 100 km of the zone.

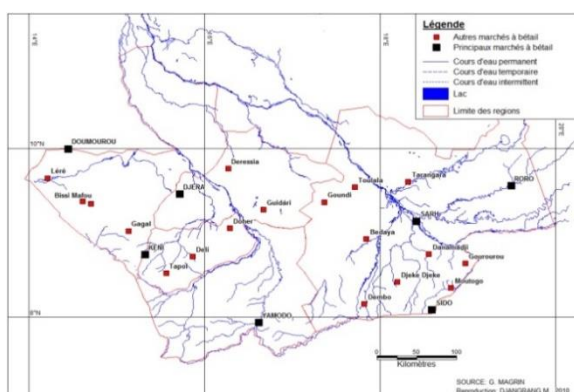


Fig-4: Markets with cattle in the South of Chad

Thus the research of the pasture, feeding trough, safety and the market, contributed to the migration even the progressive sedentarisation in the South of Chad where the principal activities are agricultural. This transhumance, generally, neither is

channeled nor followed by the qualified services for reasons related to the material, financial insufficiencies even technical.

The corridors of transhumance with vague contours

On the national level the construction of the corridors of transhumance goes back to the year 1969. They skirted, for the majority, the principal roads and had for main goal the control of the herds towards the markets of cattle or the parks of vaccination. Nowadays these corridors are started for several reasons. The first is related to the deliquescence of the layouts. Indeed, after more than four decades, in the absence of the renewal and from maintenance the beacons which bordered the layouts had fallen in disuse. Some even purely simply disappeared. The wells of transhumance, rudimentary facts of materials, were stopped and others colonized by the vegetation especially those of the southernmost zone. In more the sketches of these layouts were not with the range of the users who are stockbreeders and farmers. Even if they were it, the latter which are for the majority illiterates are far from including/understanding their use. The second reason is attached to the increase in the livestock on the one hand and agriculture on the other hand. The first census of the breeding which goes back to the year 1976 gives a total figure of six million livestock. The results of the second census, being able to bring precise details, are not yet known but one estimates at nearly 20 million UBT of livestock (MERA, 2010). At the local level the growth of the number of the cattle was supported by the surge of the Central African refugees turned Chadians including one great number also practises the breeding [10].

Moreover, no pastoral alteration work of hydraulics and layout of passage to the example those carried out in the sahelian zone by the project "Almy Al Afia" isn't undertaken until now in the zone. The extension of emblavées surfaces was supported by the process of mechanization of agriculture related to the increase in the resources re-inflated by the oil incomes, the emergence of the new commercial cultures and the increase in the population. Thanks to the incomes of oil, the Chadian State undertook great projects of agricultural development and food safety. To this end,

to propel agriculture, tractors were placed at the disposal of the regional services of agriculture. The access to the machines is made available and without restriction on the peasants if those is capable to spend a sum of 10 thousand francs CFA per hectare. This money is paid via the National office of Rural Development (ONDR) to the National Project of Food Safety (PNSA) to ensure the maintenance of the machines and the fuel during the ploughings. According to information's collected from the regional delegation of agriculture and environment, the Moyen Chari recorded 93 tractors of which 23 are at present operational in our zone of study.

The uncertainty of the cotton incomes related to the fluctuations of the world levels also supported the emergence of new commercial cultures at the sides of cotton [11]. They largely increased the capacity of consumption of spaces of the rural producers in the south of the country. With these first factors of consumption of space is added the demographic growth. Since the year of first traced corridors of transhumance until now, the population passed from 6 million to 12 million is the double. Thus the surface emblaved by people who was estimated at 2 ha on average passed to between 5 to 6 ha and the villages multiply and extend occupant from space to the detriment of the breeding which faces the challenges of the climatic change [12].

Farmers/stockbreeders conflicts

Maro, zone in the climatic conditions and the vegetation which are specific to the soudania field, shelters several categories people with the socio-professional activities which sometimes separate sometimes are imbricated. The nature and the range as well as the mode of resolution of the Community conflicts depend on the one hand bonds which exist between the activities of the implied parties and on the other hand, on the bond and the duration of the time of their cohabitation.

Table-2: Typology of factors and way of conflict's managements

Belligerents		Nature	Width
Stockbreeder	Stockbreeder	pain-killer	maitrizable
Agricultor	Agricultor	pain-killer	maitrizable
Agricultor	agro-stockbreeder	quarrelsome	maitrizable
Agricultor	Transhumantstockbreeders	opened	Degenerated

Source: inquire of ground, May-June 2015

The conflicts between the other socio-professional categories either are often contained or easily soluble while those which oppose the farmers to the transhumant stock breeders in particular are, very often, opened and fatal. They are related to two principal causes. The first is attached to the need for seasonal establishment of the stock breeders' transhumant. Indeed, the installation of the transhumant is

done in the majority of case without dialogue with the resident peasants. With the result that the ferricks are established either near the villages or in the fields put in fallow by the farmers. Second is related to the non-observance of the rights of the ones and others. One attends cases where the pastors refuse to recognize the old corridors of transhumance or the two categories do not admit the installation offericks or of villages. With

the origin of this behavior one notes the crumbling of the will of started cohabitation the numbers year's civil hostilities which prevailed in Chad. The proximity of the ferricks of the villages or the fields support the eruption in the fields by herds which often amount to tens of head and which the follow-up is generally

assured by an insufficient number of the herdsmen (CF Photographs n°1).It results from this from the conflicts between the communities' resident related to the natural stock management [1, 2]. These conflicts cause, by year, of the losses of human lives and material in the rural areas.



Fig-5: Photograph n°1: an example of divagation of in southernmost Chad (Stereotypes; NDOUTORLENGAR, 2011)

From 2011 to 2014 the number of conflicts farmers and stock breeders' transhumant in the zone is estimated at 169 including 13 cases of human loss of life all confused communities and many hectares of fields devastated by the herds.They often become extensive because of the absence of mechanism of prevention and management of the conflicts giving free course to laxism, favoritism and the exploitation. The gap in the law and sometimes impunity a long time lead the owners of the devastated fields and the herds, victims of the acts of cruelty, to make return themselves justice by violence. The resolution of the conflicts in the local brigades of the police force and the gendarmerie are far from marrying waitings of the implied parts. The amounts of repairs are fixed without evaluation of the devastated fields and the value of animals victims of cruelty. But repairs returned to the plaintiffs is often largely on this side those garnered. The recrudescence of disproportionality lead an awakening of awakening from where need for thinking a mechanism by the local actors of prevention and management of the conflicts in the zone.

Concerted management of the natural resources

The process of concerted management of prevention and management of conflicts by the actors implied in the phenomenon in zone is done in three phases:

- The setting in prohibition of a certain number of significant sites;
- The district of the parks of vaccination to cattle;
- The construction of the zones of package and the corridors of passage and transhumance.

Putting in prohibition of the sites

In the name of the protection of the rare species or in the process of disappearance and of the crowned places, two sites are put in prohibition in the canton of Maro.It is about:

- zone which covers the villages of Mousmba, Maro, FermeTaguinan, kobdogué, Bimbagué and Mbobiri populated of the bamboos which the new method of pasture can possibly decimate;
- Community forest started not only by the stockbreeders but also by the populations of villages of Nelmbi, Mianvelé, Bélomon, Moutoungo and Kemkaga which draw there what over steers.

Parks of vaccination

The project of installation of the Community parks of vaccination has two objectives. First is to make single and stable the points of vaccination. What can not only make available the agents vaccinators but reduce their problems of inter-villages mobility related to the insufficiency or the inexistence of the means of displacement. The second objective is related to the concern of the exploitations of the stockbreeders by the actors of vaccination. Thus, it was projected to set up 4 parks of vaccination in four different villages according to their geographical position. They are the villages of Bidja, Briya, of Yabet and Yaroungou. No park is carried out yet because of the difficulties of mobilization of the material and financial resources.

Construction of transhumance and passage corridors

The corridors are consisted of the beacons installation by regular intervals according to whether one defines an access passage to the pasture or the feeding trough or a zone of package. The model of

beacon envisaged to build is of concrete circular form 0,12 m in diameter with a 1,50 m height above ground-level and an anchoring of 0,40 m is, on the whole, a length of 1,9 m. The part above ground-level is painted colors sharp (white and red). But in the absence of the means of the originators, the concrete beacons are replaced on the ground by tree trunks painted in white with lime. To define the corridors, the beacons are laid out by regular intervals of 200 m in the direction of the length and 60 m in the direction of the width of the corridors. The circular parks of forms are defined by a district of the beacons laid out by intervals from 400 to 500 m according to whether space is large or small.

Thus the two old corridors of transhumance were restored. It is about that which leaves the Maikissa village in the Moyo canton while crossing the village of Bidja II and give on the Central African border and that coming from the Moussafoyo canton while passing by Yabé. This last ramifies into two. The first branch passes by Ngonmolo and progresses until Doro in the Gourourou Canton. The other connects which goes from Yabé passes between Mousmba and Kobdogué according to the prolongation of the large river Sido. All things considered three new Community corridors inter-villages were outlined (cf appears n°3).

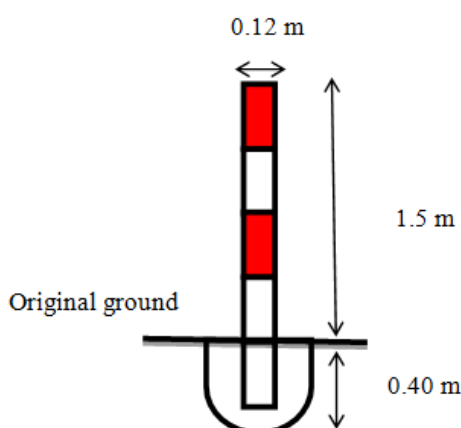


Fig-6: Diagram of the beacon

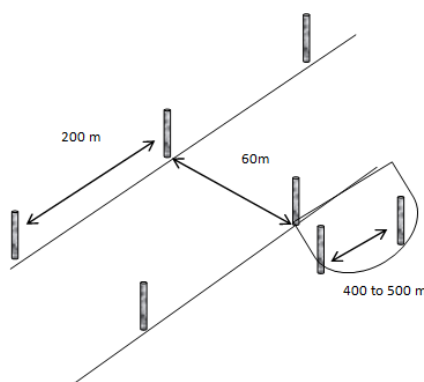


Fig-7: Sketch of transhumance and package corridors

This various Community work is matched injunctions and fines in the event of infringement. The peasants are prohibited to establish the fields with a distance of less than 300 m of the zone put in prohibition and corridors of transhumance against a fine of contractual of 100.000 F CFA. The field's traps are also prohibited to the agricultural producers. I.e. they must be grouped. It is also conjoint with the transhumant

stockbreeders to respect the limits of the corridors of transhumance, the zones put in prohibition and package. The contraveners are condemned to pour a fine of 1.500 F CFA per capita of its cattle. Finally the beacons are protected by injunctions to pay a fine going from 100.000 to 1.000.000 F CFA for any person found responsible for their destruction.

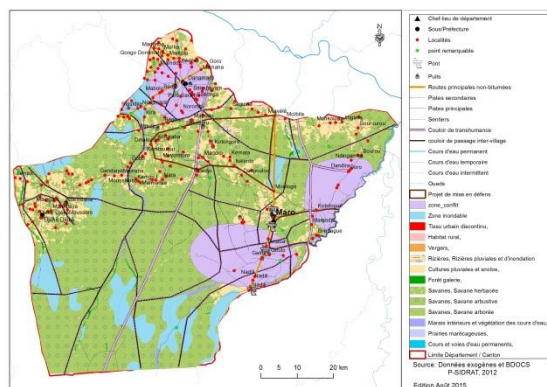


Fig-8: Installation plan figure.

CONCLUSION

The intercommunity conflicts and especially between farmers and stockbreeders constitute a barrier to the socio-economic blooming of the rural communities. In Chad, brooded and exploited by all and sundry, they come to be added to the climatic risks, the poverty of the grounds and the progressive turning into a desert to which the producers and stockbreeders are daily held to face for their survival and that of the cattle. The recognition of the living conditions of a community by itself is an awakening of conscience and the attempt at resolution of the problems with which it is confronted by the means of edges is a search of development. Such is the case of the communities of the canton of Maro in the area of the Moyen Chari in Chad. Having included/understood the range of the threats of their environment and having perceived that the resolution of their problems starting from outside or by actors other than the buildings is not for today, they have started from the small means and materials, built corridors of transhumance, zones of package and vaccination and put certain sites in prohibition. But financial means cruelly limits the scale and the success of their project of territorial installation.

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