

# Management of School Infrastructures and Learner's Intellectual Performances of Basic Education of Far - North Region- Cameroon

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## Abstract

The goal of this article is to analyze the influence of the quality of school infrastructures on intellectual student performances from primary school in Far North Region in Cameroon. In fact, the quality of school infrastructure has been examined thanks to interviews, questionnaires and observation within these institutions. 57 headmasters of the far-north region has been inquired. The results show that the planning, the construction and the permanent of school infrastructures influence the cognitive performances of learners in primary school. This explains a significant link between the management of school infrastructure and intellectual performances of learners of these schools. These results have been discussed in consideration of the works which defend that, internal factors are susceptible to positively influence school performances. These factors are: effectiveness of headmaster, sustain of school by community, regular governmental supervision, endowment of an effective device of teaching and learning, indispensable equipment, effective teachers and quality and adequate infrastructure.

**Keywords:** quality, infrastructures, perennial and teaching

## PROBLEM STATEMENT

The right to education is a global concern nowadays. Many scientists associate it closely with questions of democracy and human rights. The major role of education in achieving the Millennium Development Goals (MDGs) and now becoming the Objectives of Endure or Sustainable Development (SDO) is clear. The global dimension that have already assumed problems related to education, confirms the sense of emergency in the ongoing quest for short-term and long-term solutions. Since the end of the 20th century, the scientific and technological revolution has had a mixed impact on education and in most continents in the world. Over time, education has been transformed into a concern of life and a major axis of development. According to Bruno Suchant (1994), the aim of all education systems in the world is to transmit knowledge, wisdom and a common culture to children and adolescents. A comparison of the different education systems shows that this central objective is achieved at varied degrees from one country to another. At each new evaluation, classifications always give rise to passionate debates among experts and politicians on the respective positions of their countries in relation with the measure of educational systems and the quality of school and university infrastructures. The most often absent countries of these international rankings are in French-speaking Africa because of a proven failure of the quality of their education systems and their infrastructures.

The problems related to school quality raise up many great debates nowadays. These debates are committed at all levels: percentage of school attendees, quality of education, improvement of cognitive performance, level or standing of infrastructures, level of professionalization or professional integration of students etc. All these major themes are sometimes substituted to essential reflections on the future of the planet, particularly with regard to hunger, injustice, poverty and sustainable development.

And, in fact, the importance of these themes is undeniable, because education participates in all the individual or collective expressions of a society that evolves and sometimes wishes to emerge. For this reason, the economic development of a country must always meet the urgent challenge of providing a basic education in the near future to the whole population, which is an essential ingredient for its development. The commitment of countries to a simultaneous battle on the quantity and quality of educational systems as prescribed at the Dakar World Forum in April 2000 is a priority as far as developmental level is concerned. The imperative of enrolling more children in a school where children learn enough is now a priority. Without entering into a debate on the definition of quality, there is no doubt that the reference to these classes (in terms of knowledge and skills) is unavoidable. This raises the question of defining a standard relating to the quality of the primary school, which is not independent of the concrete conditions of student learning, such as teacher training, teaching facilities, adequate infrastructure maintained in good condition.

Today, education is as a pillar of the development of the Nations and it is a fundamental right of the individual. It is stipulated as such by a set of international legal instruments: the Universal Declaration of Human Rights (Article 26); The International Covenant on Economic, Social and Cultural Rights (Article 13); The Convention on the Rights of the Child (CRC) adopted by the United Nations in 1989; The Convention on the Elimination of Discrimination Against Women (CEDAW); The Declaration on Education for All (EFA).

Cameroon has also ratified these international conventions and has put in place specific legal provisions such as: the Revised Constitution of 1996; The General States of Education in Cameroon in 1995; The Law No. 98/004 of 14 April 1998 on the guidance of education in Cameroon

Moreover, education issues continue to be many scholars and politicians concern around the world. Problems related to improving the quality of education and access to education are not new. They have been discussed on numerous occasions at international conferences such as those in Addis Ababa in 1961 and Jomtien in Thailand in 1990.

The quality of basic education raises concerns in both developed and developing countries. Basic education is the basis or more, the foundation of the knowledge that a person should acquire for his or her future fulfillment. In developing countries, basic education is the only opportunity for young people of school age to acquire knowledge and literacy. Unfortunately, many of them miss this opportunity because, according to the 1990 UNESCO report, out of 95 million primary school children enrolled in 1988, 25 million did not reach class four and have then abandoned their studies without having learned to read and write. What more and according to the same source (op cit), South Asia, Latin America and the Caribbean have the highest drop-out rates. Another worthy fact in this report is that tens of millions of pupils generally pursue the basic education cycle until completion without acquiring a level of skills and knowledge that could enable them to improve their lives and shaping their future. Moreover, the repetition rate is important in many cases. By 1988, upon 38 African countries for which data were available, 21 had a stay down rate of more than 20%, of which 10 were over 30%. In Latin America and Africa, the stay down rates are particularly high in the first year and especially in the final year of primary schooling, where sometimes almost one pupil by two repeats the class and many children are too old as far as normal age is concerned (Unesco, 1990, In Brunswick, 1994), pp. 12-13.

Inherited from the colonial era, Cameroon's education system comprises two subsystems: the Francophone subsystem and the Anglophone subsystem. The Francophone subsystem is initially limited to the French-speaking regions of the country. Nursery and primary education is issued by the Primary School Certificate (CEP). The Anglophone subsystem was once limited to the two English-speaking regions; After 7 years of study, the diploma awarded is the First School Living Certificate (FSLC). After the accession of bilingual schools, there is an interpenetration of the two subsystems. Each of the two subsystems comprises three levels of education: pre-school (nursery), primary, normal (teacher training). In each of these levels the public and private sectors (lay or confessional) share the school population. Concerning the difficulties encountered in basic education, the State of Cameroon has set major priorities to achieve the universalization of primary Education For All by 2015. The aim has been to: extend preschool coverage in rural areas; improve the management and governance of the education system; to undertake the construction and equipping of classrooms; to recruit qualified teachers; to reduce repetition of schooling through the tightening of pedagogical supervision; to introduce and develop ICTs in the education system; Capacity building of staff; To deconcentrate the management of resources ... These are the priority axes of the Sectorial Strategy of Education validated in June 2006 and endorsed by the Technical and Financial Partners to development. With the support of these partners, notably as part of the accelerated implementation of "Education for All" and C2D, all these projects are in full development. The effective observance of these provisions and conventions ensures that all citizens in general have equal opportunities to participate in collective life, to develop their own personalities while contributing to national development. However, their realization remains generally linked to the political, economic, demographic, social and cultural constraints of the national education system (MINEDUC, 2001). The expansion of the Cameroonian primary school experienced a remarkable slowdown with the economic crisis in the late 1980s, leading to a high dropout rate (Aerts et al., 2000). The shortage of skilled teachers, their unequal territorial distribution and poor working conditions have contributed to a significant decline in both the quality of education and the access to it in the areas traditionally under-enrolled and difficult to have access.

Cameroon, like most countries in sub-Saharan Africa, has concentrated particularly on its education system in recent decades. The State has invested heavily in this sector, devoting a high percentage of its gross domestic product (3.5%). For 2008, spending on education represents 12% of public expenditure. The share of education expenditure devoted to nursery and primary education is 29% of public expenditure. This proportion of nursery and primary education remains low in relation to the amounts allocated to other levels of education.

In recent years, Cameroon has faced unprecedented financial crisis, whose ramifications slow down the development of public education and cause a chronic budget deficit. Thus, the share of the budget devoted to education is no longer sufficient to create infrastructures and to run public schools. Confronted with this crisis, the high population growth has led to an increase in the social demand for education that needs to be met. Meanwhile, the capacity in public schools has proved very inadequate to admit all children of school age. Demographic pressure increases the number of students in the classroom. This situation naturally influences the quality of education offered in schools.

Since the advent of decentralization and with the transfer of skills, primary schools are now managed by the Decentralized Territorial Communities (CTD). The general observation is that the construction and procurement

procedures are even more complex than previously. In fact, these municipalities are not always able to satisfy their specifications. Many schools are abandoned to themselves. The eyes have always been turned towards the tutelage which is the Ministry of Basic Education and which also has difficulty in renouncing this prerogative of management of economic and financial investments for the benefit of the CTD. The direct consequence is that there is a lack of infrastructure and an absence of the "minimum package" which sometimes came very late in schools.

If the abolition of tuition fees is a crucial contribution to the achievement of the objective Education for all, the substantive problem of education in Cameroon remains, the quality of its offer which is poor or insufficient in the regions of the Far North and East where most of the school infrastructures are a legacy of colonization. The quality of passable infrastructure in the city centers (Maroua) is almost non-existent in the peripheral departments and districts of the Region. The few buildings which the schools possess are in pitiable states; they survive thanks to the interventions conducted by the Parents and the Teachers' Associations (PTA) and despite the will of these associations, it lacks the financial means and an effective management method to do better.

The grounds for schools in the city centers are very small. Moreover, the architecture of schools is not uniform, as the distribution of infrastructures on the site too; in comparison with the Japanese schools in the South, which constitute quality infrastructures and references for the basic education sector. The color of each building or architecture depends on its donor (State, NGO, APEE, Politician). The majority of schools have no land titles. Hence the occupation of the school grounds by local residents. No school has an infirmary for first aid and yet the entire region is affected almost every year by epidemics of meningitis, cholera and a very high malaria rate which is one of the main causes of child mortality in the region. Canteens are non-existent in schools, children are served by uncontrolled vendors (without a medical certificate attesting to their good health) or peddlers whose quality of food is not controlled ... The library and multimedia centers are unknown in all schools of the region. All these difficulties encountered in the field of primary education do not promote quality education and lead to the abandonment of schooling by children in favor of other activities, since the school where it is supposed to produce well-being is rather perceived as a losing time and where the young pupil, is not sheltered from the inclement weather. It is on this basis that we have asked ourselves the question of whether the management of school infrastructures influences the intellectual performance of pupils in the primary cycle in the Far North in Cameroon. More specifically, do the planning, construction and sustainability of school infrastructure influence the intellectual performance of learners in the primary cycle? The main objective of this article is therefore to show that the management of school infrastructures and the intellectual performances of learners from this region are significantly correlated. Our choice of primary school is justified by the fact that it is the basis of education as the name implies.

Problems faced by many high school students are due to the shortcomings of primary education. In fact, the primary cycle conditions positively or negatively the continuation of a young learner's curriculum. As a matter of fact, this is where, more than ever, knowledge about reading, writing, and rules of all kinds are acquired and which will only be studied deeply later. A poorly negotiated primary cycle requires additional efforts to make the next course successful; Especially the one that leads to active life. Several theories hold this view: Bidwell and Mintzberg (1977); Gibberd (2007); Beck and Murphy (1998); François and Poupeau (2008); Meuret (2000); Duru-Bellat (2003) .

Concerning the theory of the professional bureaucracy of Bidwell and Mintzberg (1977), it belongs to the sociology of organizations and stipulates that the school is a well-organized structure in which teaching processes are ensured By well-trained professionals, such as teachers trained in teacher training colleges. They know their trade and exercise it diligently. In this type of organization, managers are less involved in decisions about how well the organization works. They trust the employees, but at the same time are demanding in the collaboration. Expectations are high in terms of results. For Minzberg, this structure, common to schools and hospitals, which he calls "professional bureaucracy", has many advantages: it produces professionals as responsible and highly motivated individuals who have very direct relations with their "clients" ( the pupils) and whose qualification increases with the repetition of the operations. This theory highlights the contradictory nature of school structures: bureaucracy prevails as well as teachers' professionalism.

Indeed, as a well-organized structure as stated in this theory, it would be expected that each link of the educational chain (educational community) can play its part to achieve the objectives set. Unfortunately, teachers in our context of life in Cameroon continue to assume their roles with satisfaction. Every year, the Far North Region, like all the other regions of the country, is allocated hundreds of qualified teachers. But, as soon as they took service and without having begun to collect their monthly wages, they left with their families to wait for the good season. As a result, almost all schools in the Region now have schools without a proper teacher or qualified teacher. Sometimes the headmaster is the only teacher to teach all classes.

As for the integrated model of building performance of Gibberd (2007), it analyzes the performance indicator system for school infrastructure in South Africa. Gibberd (op cit) found that the contextual analysis and the literature, which included a review of national education policies, made it clear that any approach to school

infrastructure should balance the need to catch up as far as the delay in essential provision services is concerned, such as running water and sanitation with a constant need to improve the quality of infrastructure in all schools. The model that has been developed seeks to satisfy all these requirements by defining the performance of the institutions in three areas: infrastructures, programs and people:

- with regard to infrastructures, they must have a good intrinsic functioning. This involves ensuring that buildings are weather-resistant, have strong foundations, low operating costs, and efficient use of space and resources.
- In terms of programs, infrastructure must be effective in supporting activities for which they have been built. For example, schools should offer the curricula currently in use and the prescribed modes of teaching and learning
- Finally, in terms of the people component, infrastructure should allow users to feel at home, Ease, stay healthy and meet their basic needs. They also need to ensure respect for human rights. This model allows us to understand the important role played by infrastructures in the quality of education, teaching and intellectual performance of pupils. In fact, with regard to the intrinsic functioning of infrastructures in the primary cycle of the Far North Region in Cameroon, there is a real problem of adequacy between buildings, costs and occupied space.

Very often, buildings are made of temporary material that houses the schools. In some cases, even though the buildings are of permanent material, their condition is unsatisfactory. Despite the presence of vast tracts of non-cultivable land, some schools are built on very small areas; Thus making it difficult to practice certain activities provided for in the official programs and even those provided by the school itself. The playground which is indispensable for the good development of pupils is sometimes almost non-existent. The classrooms do not meet the standards of legislation so much that students are clustered in the room like sardines in a box preventing the teacher from moving to get the message across in a hot, sultry room and without any ventilation. The human dimension of the organization would want to see man as the center of all workplace concerns. This implies that it should be given a prominent place in the organizational environment in order to meet its basic needs. Feeling better in the course of his work is a motivation for any worker.

Achieving such an objective requires the implementation of adequate living and working conditions. Curiously, when you look at the primary schools in the Far North Region for the most part, you realize that teachers' working conditions are deplorable and unmotivated. Schools under the tree, schools without water, without toilets where everyone manages as well as possible ... in short, schools without adequate infrastructure for the flourishing of the educational community. To this end, we can understand through this model the phenomenon of the desertion of classrooms by qualified teachers who can not bear these harsh working conditions. This has led in recent years to the introduction of teachers of trained or untrained parents to compensate for the deficit of teachers in public schools; everything which contributes to the poor quality of the lessons in these schools where the performance of the learners is very low.

Thus, the definition of performance in terms of infrastructure, programs and people can therefore help the actors concerned, such as An Inclusive Education Branch, to track progress annually and to undertake new programs to improve for its improvement.

Finally, the "school-effect" theory explains school performance according to the type of school attended. This theory is based on the work of Anglo-Saxon researchers (Beck and Murphy, 1998), who identified the specificities of successful institutions.

Francois and Poupeau (2008) showed that school is influenced by its environment as far as the composition of its audience and its spatial locations are concerned. It is influenced by its political, social, cultural, economic and technological environments. It is above all the aspects linked to geographical localization and socio-cultural aspects that lead these authors to classify schools into two main categories: so-called favored schools and so-called disadvantaged schools. A school in an area inhabited by economically and culturally well-off families is more likely to receive an affluent public and achieve a higher level of performance. On the contrary, a school in a disadvantaged area is more likely to receive a disadvantaged public and therefore has a low level of performance. The internal factors that can positively influence the performance of a school are: Effectiveness of the headmaster, community support for the school, regular supervision of government trusteeship, a provision of effective teaching and learning, indispensable materials, effective teaching staff and an adequate quality infrastructure (Meuret, 2000; Duru-Bellat, 2003).

This theory allows us to understand that the nature of the institution frequented with its attributes such as infrastructure, geographical location, and adequate material, qualified teaching staff, etc. play a key role in student performance. In fact, giving every child the opportunity to go to school is a necessary but not sufficient condition to benefit the gifts from education. In order for education to play a role in development, it would be necessary for students to acquire knowledge not only useful but also and above all valuable in the labor market. In order to achieve this, it is necessary to reconcile several things at once. Not only infrastructure management is sufficient to achieve this objective. It should also include other aspects such as geographical location, adequate

material, qualified teaching staff and socio-cultural aspects.

The Far North Region has been considered a priority education area for some years. The socio-cultural dimension which characterizes its populations makes this region a very under-educated zone. The aim is to raise parents' awareness of the role of education and literacy. This region is one of the poorest in Cameroon and has the lowest enrollment rate on a national scale.

In view of the above, students' intellectual performance may depend on the quality of infrastructure. Indeed, many schools are sorely lacking in minimal school infrastructure.

## II-METHODOLOGY

The need to educate more people has produced what may be called a sometimes anarchic creation of schools. The most important is that, the school must exist administratively, concerning the others, even one classroom can do. And that can remain a decade.

### - The target population and the body of hypotheses

School in Cameroon and in the remotest corners of the Far North becomes an immutable entity, whereas it must be comparable to a company that can evolve through strategic planning. This means that school infrastructure must be planned, built and sustained. Hence the three hypotheses deduced from the general hypothesis:

*GH- School infrastructure management influences the intellectual performance of pupils in the primary cycle in the Far North in Cameroon*

*RH1- There is a link between school infrastructure planning and intellectual performance of learners in the primary cycle of the Extreme-North region in Cameroon.*

*RH2- There is a link between building School Infrastructure and Intellectual Performance of Learners in the Primary Division of the Far North Region.*

*RH3- There is a link between sustaining School Infrastructure and Intellectual Performance of Learners in the Primary cycle of the Extreme Nord Region.*

Building school means realizing school infrastructure. However, nowadays, this construction is limited to the assembly of cinder blocks and the fixing of a roof without any norm or aesthetics. The result is that these classrooms are poor. They have no comfort. They are very small in size and very insufficient in number. As soon as they are put into service, they are overcrowded and teachers have difficulties to move around during classes. Finally, these infrastructures are very poorly maintained; there is certain disorganization between the stakeholders of education (MINEDUB, PTA, council). PTA tries sometimes at its level to do small jobs to the size of its available financial resources.

### - The survey and data collection

Exploitation of infrastructure management was done according to three variables, especially planning, construction and sustainability of infrastructures.

The questionnaire was then administered to headmasters, since they are in possession of all the data relating to the management of the school's infrastructure. This questionnaire enlighten us on the different strategies implemented to improve the educational offer, the management of the different success rates, the ratio of students per classroom and the various infrastructures. Most of the questions were closed, opened and preformed. The survey was planned according to the timetable which took the time span from May 2016 to July 2016.

The population of study is bounded at schools (in the Far North) selected by the C2D program. This means 57 schools. For our study we selected three by department, one in the chief town of the division and two schools located in the periphery; this means a total of 18 schools. The data were firstly taken in with the persons in charge of schools. In addition, we had interview sessions with 100 students from a few schools in the city of Maroua. The sampling strategy used here is random.

### - Data processing

The SPSS or *Statistical Package for Social Sciences*, is a software package that allows us to type, treat and analyze our data. We used version 21.0.

To analyze the data obtained from the survey, we performed the following steps: flat sorting used for univariate analysis, cross-sorting for bivariate analysis, use of a nonparametric test of Pearson Chi-square for inferential analysis, verification of hypotheses and the use of symmetric measurements to assess the intensity of the bond when its value is 0; (Because the more the value obtained differs from 0 and approaches 1, the more the link intensity is significant). However, the finding of an association between two variables does not automatically imply a causal relation. Thanks to this measure, we verified that the linkage established between the constituent variables of our body of hypotheses is low, medium or high.

### - Results

In this section we are going to test our body of research hypotheses. To make an inference on the basis of our research hypotheses, we will present the body of statistical hypotheses. It is a question of accepting or rejecting H0 (null hypothesis) and of accepting or rejecting Ha (alternative hypothesis) in the light of the comparisons of the calculated value of chi two with the read one.

The first research hypothesis links the school infrastructure planning and intellectual performance of learners in the primary cycle of the Far North Region in Cameroon.

Table 1: Crossing of school infrastructure planning and learner intellectual performance

	Value	ddl	Asymptotic bilatéral significance
Chi–deux of Pearson	12,659	6	---
Llikelihood Ratio	13,480	6	0,049
Linear association by linear	0071	1	0,036
Number of observations	57	0	0,935

The reading of Table 1 above shows that, the value of the calculated  $X^2$  is 12,659 and its probability of significance ( $0.00 < 0.05$ ), With a degree of freedom of 6 show that the association between the variables of school infrastructure planning and quality of teaching in the primary cycle is significant because the value of  $X^2$  read at the same degree of freedom is lower. This dependence between these variables is perceptible at the level of the value of the contingency coefficient which is 0.049. Infrastructure and program planning is therefore a major concern for development actors because it is through this leverage that the state can realize or anticipate the quality of infrastructures and indirectly its impact on the quality of teaching in the primary cycle of Far North Cameroon.

The second hypothesis concerns the construction of school infrastructures and the intellectual performance of learners in the primary cycle of the Far North region:

Table 2: Crossing of the construction of school infrastructures and the intellectual performance of the learners

	Value	ddl	Asymptotic bilateral significance
Chi – deux of Pearson	14,038	6	-----
Likelihood ratio	14,819	6	0,29
Linear association by linear	1,724	1	0,022
Number of observations	57		0,189

The reading of Table 14 is calculated value of  $X^2$  is 14,038 and its probability of significance ( $0.00 < 0.05$ ), with a degree of freedom of 6 show that the association between the construction of school infrastructures and the quality of teaching in the primary cycle is significant. The dependency relation is significant because the value of the contingency coefficient is 0.299. The realization of school infrastructures is one of the keystones of any school system, because it is from this that it becomes evident that planning is effective or concrete. Without adequate infrastructure, there will be a deleterious infrastructure environment within each institution and there will be a decline in the quality of the education provided. It is because of this fact that, it is extremely necessary in each management policy to place particular emphasis on the construction of infrastructures because it affects the quality of the teaching.

Finally, the third hypothesis of research links the sustainability of school infrastructure and the intellectual performance of learners in the primary cycle of the Far North region.

Table 3: Crossing of school infrastructure sustainability and learners' intellectual performance.

	Value	ddl	asymptotic bilatéral Significance
Chi – deux of Pearson	11,481	3	---
Likelihood Ratio	15,317	3	0,022
Linear association by linear	0,121	1	0,004
Number of observations	57		0,728

A reading the table above, the value of  $X^2$  calculated is 11,481 and its probability of significance ( $0.00 < 0.05$ ), With a degree of freedom of 3 show that the association between the construction variables of school infrastructure and quality of teaching in the primary cycle is significant. The significance of the dependence relation between these variables is strongly perceptible at the level of the value of the contingency coefficient which is 0.022. In addition to planning and building infrastructure, there is another phase of infrastructure management which is the one of perpetuation. In this connection, some officials of the schools encountered in the region declare that "once the State has built the buildings, it leaves them to the community, which in its turn does nothing to maintain them and perpetuate this investment.". We hear them say: "it is the patrimony of the State, it has only to deal with it!! ". Such remarks testify the indifferent postures of the educational community vis-à-vis of infrastructures. The patterns of thought suggest that the populations concerned reject their responsibilities and ultimately do not carry out any maintenance of these infrastructures; In the end, this situation will have a negative impact on their sustainability and consequently on the quality of primary school teaching in the Far North region of Cameroon.

After analyzing our research hypotheses and looking at the results obtained, we can say that infrastructure management significantly influences the intellectual performance of primary school students in the Far North region of Cameroon. Finally, as many education officials in this region have pointed out, and at the end of this survey, the "mismanagement" of school infrastructures will be solved by participative and responsible

management of the leaders and PTA.

### Discussion of the results

The objective of this research was to show the correlational link between infrastructure management and the quality of primary education in the Far North Region in Cameroon. We have come at the results which testify that, planning, construction and sustainability of school infrastructures influence the quality of teaching in the primary cycle. These findings are consistent with the work that argues that the internal factors that can positively influence a school's performance are: the effectiveness of the principal, the support the community brings to the school, the regular supervision of the governmental guardianship, The provision of an effective teaching and learning system, the necessary equipment, an efficient teaching staff and an adequate quality infrastructure. This work has been cited in our theoretical corpus and in our review of the literature. However, in contrast to work that emphasizes only on the school environment, we are convinced that, at the time of the SDOs, it remains very important to insist on infrastructure management because it has the advantage of containing within itself another no less negligible problem and fitting into sustainable development, namely good governance. The education sector will see its salvation if leaders in the educational scene incorporate all good practices in good governance in schools and universities.

### Conclusion

All the schools visited are full cycles. They have between 309 and 2600 pupils. However, some schools in the border areas have between 80 and 300 pupils. These localities are generally devoid of school infrastructure. The education community is currently carrying out a campaign to raise awareness among the populations concerned so that they can send children to school. Several schools operate with double flows and / or with multigrade classes. The whole school heritage is very inadequate. The ratio is 132 students per classroom. All schools selected for the study have a real need for properly equipped classrooms. Most schools in rural areas have no school infrastructure; Some schools located in urban areas such as Maroua, Yagoua, Kousseri, etc do not have enough space to build the infrastructure.

Some sites do not have the minimum requirements. They are: either cramped as in the public school of Djarengol Kaygama; Or presenting bad soil: clayey soil manifested by the swelling and the retreat of the clays as in the department of Logone and Chari; Or flooded for certain sites in the departments of Logone and Chari.

The health and environmental risks are to be considered. (Some schools as in Kousseri are located near the markets or constitute points of refuse discharge).

The problem of the management of the school toilet arises at the level of enough unsanitary toilets. They are not generally clean. Young people will relieve themselves directly around the classrooms or outside in the scrub. Under these conditions, the school and its surroundings may be infested with parasitic worms, with the possibility of the presence of waterborne diseases. And even when these latrines exist, there is no device of washing hands.

Concerning the problem of the security of school land, there are territorial conflicts in certain localities with individuals living on land belonging to the school. This is the case, for example, with the school in the Tergal district in Douala, which was forced to relocate itself in the Nylon district because the site was occupied by private individuals.

The degradations are fairly advanced on more than 65% of the school buildings visited in these zones. It is usually doors and windows that are vandalized or stolen, cracked walls, potholes on the ground, the non-existence of the pavement or the concrete of the degraded pavement, the absence of the plastering, the degraded paint, the roof carried away mostly by wind or lack of watertightness on the roof, false ceilings that are severely degraded, foundations eroded by runoff, etc.

Considering the observations made on the ground and the findings on the sites, some perspectives should be considered by specialists in the management of school infrastructures with a view to optimizing the quality of teaching in primary schools in the Extreme Region -North:

- The registration of land in order to secure the spaces reserved for the schools;
- Taking measures to fight against the vandalism of school infrastructures in urban environment;
- A social accompaniment of the program by sensitizing and structuring the community (PTA, school council, commune, etc.) with a view to the appropriation of the infrastructures carried out (maintenance of buildings, water points, bench tables, school latrines, shade tree planting in schools, etc.)
- Inspection by MINEDUB technical services of all degraded school buildings in all priority education zones. Demolitions of those with real risks of collapse (eg EPA Group 4 in Yagoua) should be considered;
- Establishment of a consultation framework for education partners involved in school buildings to harmonize the conceptual models of classrooms according to the different ecological zones and to plan interventions
- The development of new standards of design and organization of buildings in schools by MINEDUB, in consultation with MINTP, MINDAF and UNMIH;

-Securing of schools through the realization of certain unplanned works namely: Fences around schools in major urban centers, to limit: acts of vandalism; disturbing passages of residents and vehicles; the use of the school yard as garbage dump; Noise, due to proximity to the main thoroughfares, hospitals, markets, stadiums, etc.

-The involvement of the educational community in the realization of classrooms and facilities. It is situated at four levels for the appropriation of works:

1- Administrative and traditional authorities: they will be called upon to take measures against acts of vandalism in schools;

2- Local authorities: the mayors, together with the technical services concerned, grant MINEDUB sites for the construction of school infrastructures; Facilitate the securing of the land allocated by a registration with the services of the domains, and participate in the reception of the works with a view to appropriation them.

Taking the above-mentioned perspectives into account in infrastructure development policies by primary school education actors in the Far North region will contribute to better infrastructure management, and hence, probable improvement in the quality of teaching in this primary sector of education.

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