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Actors Involved in the Exploitation of Industrials Quarries and Their Involvements Strategies

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Abstract:- This research is bases on the identification of the actors, participating in the activities of quarries industrial exploitation in the west Cameroon and their strategies of implication. To carry out this work we have got used of maintenance guides and data collection according to different actors. These data have been analyzed with the help of Excel 2010. Here all actors are valued on the socioeconomic and environmental plan. We got for the state-controlled services and we have come with the result that, a total of implication is 43.84 percent divided as follow: 55 percent on the economic plan, 40 percent on the social plan and 36.66 percent on the environmental plan. However their exploitation includes a total implication of 53.2 percent divided as follow: 67.5 percent on the economic plan, 53 percent on the social plan and 42 percent on the environmental plan. For the local residents, we obtained a total of implication of 28.75 percent divided into 26.66 percent on the economic plan, 40 percent on the social plan and 15 percent on the environmental plan.

Keywords:- *Industrial quarries , Grid of Assessment, Actors, West Cameroon.*

I. INTRODUCTION

The exploitation of quarries, whether stone, sand or clay, like all other entropic activities, is an activity that has, on the one hand, impact on the environment. On the other hand, it is an activity that occupies a significant place in the development of the world economy and social well-being.

In the world at large, and in the tropics in particular, state leaders are establishing guidelines to be followed before, during, and after quarries and mineral exploitation. In Cameroon, as part of the management of the mining sector and the impacts related to its activities, the government of Cameroon has implemented a mining code followed by numbers of legal texts that aimed at preserving the environment and the safety of people. Moreover, it aims at promoting and encouraging the research and the exploitation of mineral resources, necessary for the economic and social development of the country as well as for the fight against poverty. In the west Cameroon, there are several quarries, both industrial and artisanal. Due to their impact on land use planning and socio-economic development in that region, we will be focused only on industrials quarries. So the question that arises is to know who are the main actors involved in the activity of industrial quarry exploitation? What are their different strategies and degree of involvement? In order to answer these questions, we conducted our study within industrial quarries in the West region of Cameroon.

II. METHODOLOGY

A. Geographical location of quarries in the West Cameroon

To carry out this research, we investigated a total of nine (9) industrial quarries in 5 of the 8 divisions of the West region of Cameroon. Figure 1 shows the location map of the different quarries surveyed.

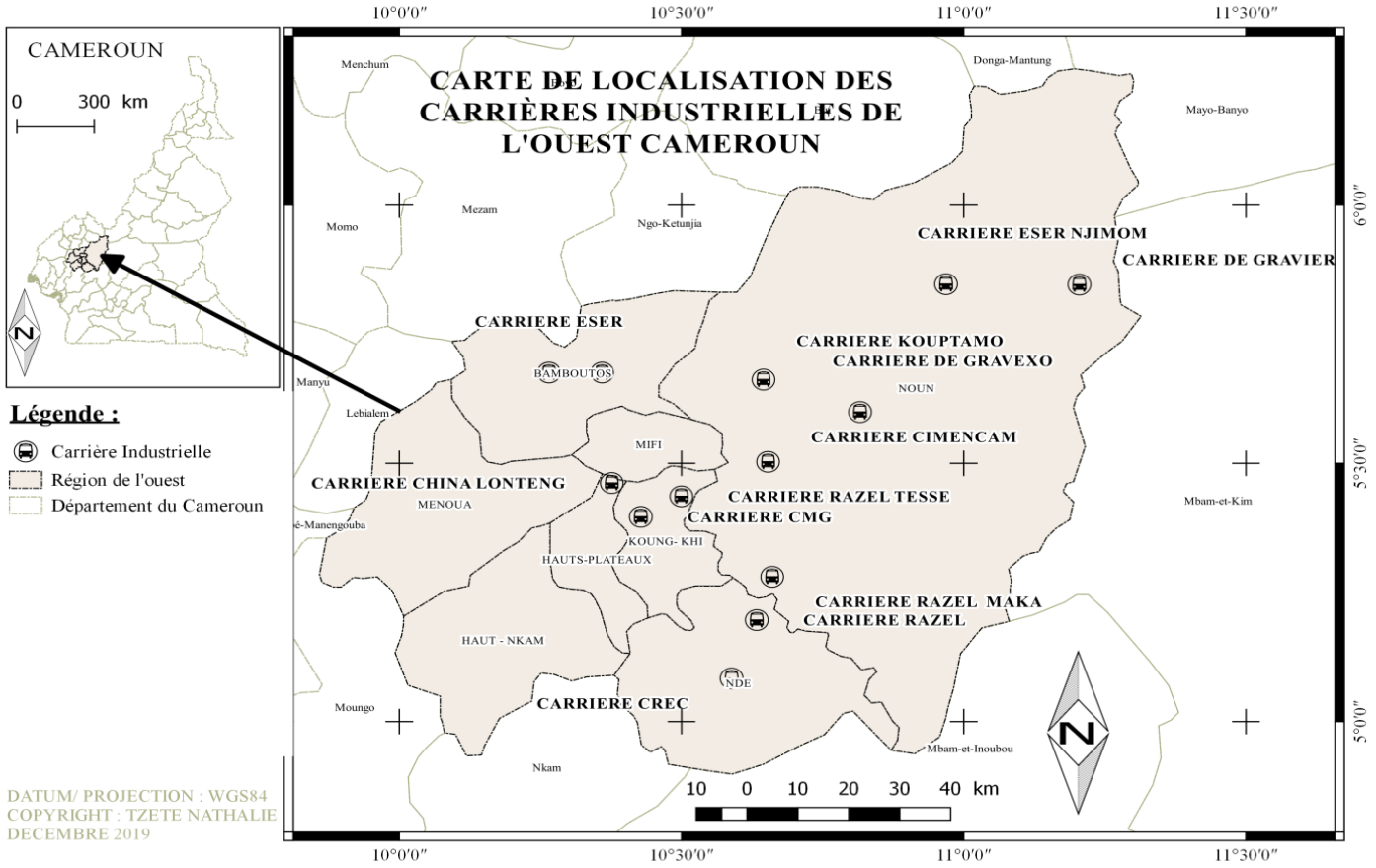

Fig 1: Presentation of industrial quarries in the West Cameroon

This figure 1, shows the industrials quarries distributed mainly in the Noun Division (MAKA, KOUPTAMO, GRAVEXO and CAPITSA) then in the Nkoung-khi Division (TESSE and CMG), in the Ndé Division (CREC), the Mifi Division (CHINA LONGTENG) and the Bamboutos Division (ESER).

B. Data collection and analysis

To carry out this research, two types of data were used, namely primary data, which was collected by interview guides with the various actors involved in the exploitation of industrials quarries. The secondary data were obtained through the bibliographic research of documents related to the topic. The data collected was analyzed using Excel 2010. Indeed, to clearly show the set of actors, we developed an analysis grid with the different actors, and we evaluated them on the sustainable development basis.

III. RESULTS

A. The operators of the quarry workers involved and their action strategies for socio-economic and environmental development

In the industrial quarries of West Cameroon, two main types of actors are involved, namely nationals and internationals. Nationals include administrative or state services, operators, and riparian whereas international communities are made up of quarry managers and managers who are all operators. From the point of view of the activities to be carried out, we mainly have three major groups of actors involved in the activity of industrial quarry exploitation, such as state services, operators and neighboring communities.

➢ *The state*

Administrative actors are a set of legal persons who are supposed to fight for the collective well-being before that of individuals within quarry. The ministerial department that intervenes full time in industrials quarries is the Ministry of Mines, Industry and Technological Development (MINMIDT). This ministerial sector in the West Cameroon is organized as follows: coordination of the activities of quarries and mines in the region headed by the Regional Delegate; monitoring the activities of the Regional Mining Activities Control Brigades responsible for the Chief of the Regional Mining Activities Control Brigade; The Department of Mines, Geology and Mining Cadastre, placed under the direction of the Chief of Service, is responsible for prepare titles and administrative acts relating to the geological mining sectors, control the execution of action programs in the mining and geology sector, ensure the updating of the provincial map of natural risks as well as the monitoring of activities relating to the mining cadastre. They has as offices, the Bureau of Mines and Geology, the Bureau of Mining Cadastre and the Regional Laboratory of Mines and Geology. Senior field officers and others for regional monitoring of research programs oriented towards the valuation of raw materials of mineral, agricultural and forestry origin and the implementation of activities relating to mining cadastres.

➢ *Operator*

Operators here represent the people who directly benefit from the activity of quarries. These operators can be nationals or internationals it is generally the businessmen here are the heads or leaders of the subcontractors; Loaders, welders, vehicle and machine drivers, electricians, miners, mechanics, crushing operators and laborers; the trainees as well as the number of staff (managers) ...

➢ *Riparian*

The residents here represent the populations located around the quarry sites. Generally the spaces occupied by the quarries are spaces which in the past were used by these populations for agricultural activities, hunting or fishing reason. These populations are deprived of this space, whereas they are supposed to be involved as much as possible in order to benefit equitably from this activity.

B. Strategy and involvement of the different actors from the socio-economic and environmental point of view

In quarries activities, various actors involved are divided into three categories, namely state services, operators, whether national or international, and local residents. The different strategies and their implications in this activity should target the Sustainable Development Goals. Thus, on the basis of the interviews, we had contacted various stakeholders. We also developed a grid in order to obtain the percentages of involvement of these actors. They were assessed on the basis of the three pillars model of sustainable development in order to better appreciate their degrees of involvement.

➢ *State plan*

The state, as the guarantor of the security of its populations, through its institutions, is responsible for complying with the regulations in force. In the industrial quarries sector in Cameroon, the main state service responsible for monitoring compliance and compliance with the regulations in force on industrial quarries facilities, is the Ministry of Mines, Industry and Technological Development. In addition to its regulatory control role, the Ministry, through its delegations, should ensure that the quarries activities contributed to socio-economic and environmental development in the locality where it is located. Thus, in the west Cameroon, industrial quarries are placed under the supervision of the regional delegation of the West, and the various departmental delegations of the constituencies in which they are implemented. We therefore conducted our interview with the regional delegation of the West and the Divisional delegations on behalf of the various industrial quarries surveyed. The figure 2 shows the percentages of the state involvement at the socio-economic and environmental levels.

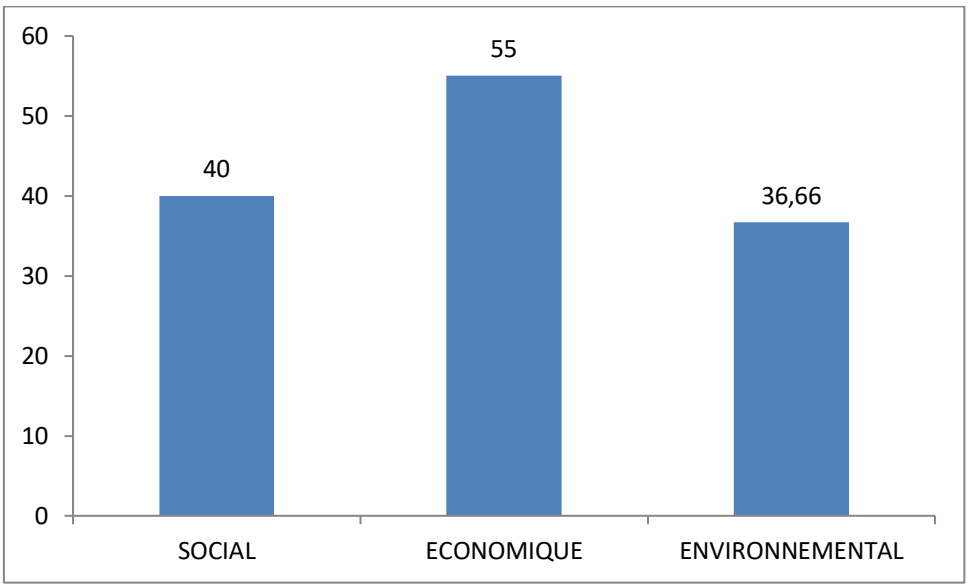

Fig 2: percentage of involvement of state services from a sustainable development point of view

Throughout the Figure 2, we notice that state services are more involved in the economic aspect with a percentage of 55 percentage. This can be explained by the fact that it deal with the financial area. Here the state ensures that all taxes related to the exploitation of the quarries are respected and carries out if necessary decent rehearsals on site to ensure that this is respected. After the economic component, we have the social component, with a percentage of 40 percent. This percentage shows that state services at this level do not fully play their role as guarantor of the populations because around the exploitation sites we find that the state services generally neglect the surrounding populations. Following the social component comes the environmental component with a percentage of 36.66 percent. This low percentage is explained by the fact that, during the various missions of state services, the environmental aspect is not seriously taken into account. Most of the time, site visits are only in offices with administrative staff. Figure 3 clearly shows the meaning of the involvement of states services as quarry activities are concerned.

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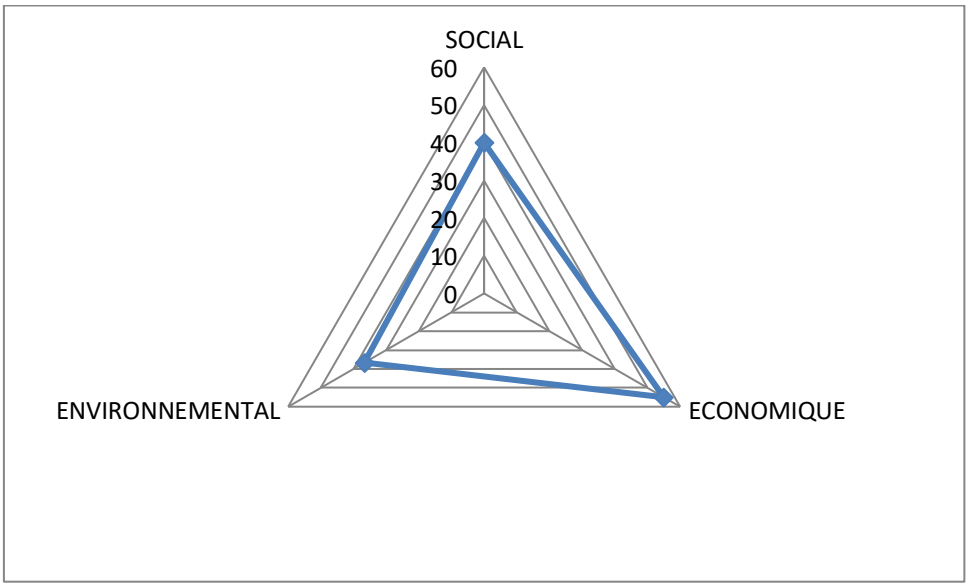

Fig 3: orientation of state services in quarrying activities

The Figure 3 presents with a shape of contour, defining in a precise way, the direction of orientation of the state services implication in terms of the quarries exploitation activities on the socio-economic and environmental plan. So, we can see an isosceles triangle which is more oriented towards the economic aspect. We can therefore conclude that, for the industrial exploitation of quarries to contribute significantly to sustainable development, the state have to redefine its involvement strategies, particularly on the socio-environmental aspects so as to improve the economic aspect.

➢ *Operator*

As mentioned above under quarry mining activities, the operator sends all those whose mining activity represents a source of direct income. Operators can be either national or international. Note that even if the role of exploitation in general boils down to the search for income, the latter also aims at contributing to the socio-economic and environmental development of the locality where the industrial quarry is implemented. Thus, during our research, we had interviews with officials and employers nine quarries industrial were surveyed in the West region of Cameroon. Figure 4 shows the percentages of operator involvement from a socio-economic and environmental point of view.

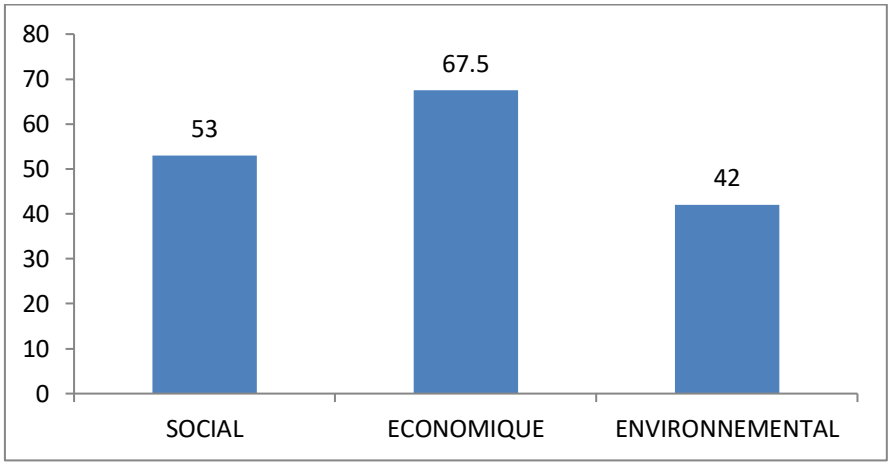

Fig 4: percentage of operators' involvement from a sustainable development point of view

The Figure 4, shows that the operators are more economically oriented, given the percentage 67.5. What explains this high percentage is the fact that as we have mentioned above, the quarries exploitation activity is a purely for-profit activity therefore the owners settle down to make money by exploiting the resource. Following the economy is the social component with a percentage of 53%. This high percentage is linked to the fact that, although the activity is purely for profit, the operators have an obligation to establish by the legislation in force to contribute to the social well-being of the populations located around the quarry site. The figure 5 illustrate the implementation in the community by an operator.

Fig 5: water point constructed by an operator in Bandjoun TESSE

The figure 5 is a water point in Bandjoun community. This water point was constructed by Razel Cameroon because it was installed at the TESSE Bandjoun quarry, where they exploited mine stones (granite).

Following the social component, comes the environmental component with a percentage of 42%. This percentage is less than 50 percent and it can be explained by the fact that although the taking into account of the environment is an obligation, it is still lagging behind because the operators are more focused on the gain seeking even though it causes a lot of damage to the environment. Therefore, the Figure 6 shows an overall orientation of operators in terms of sustainable development.

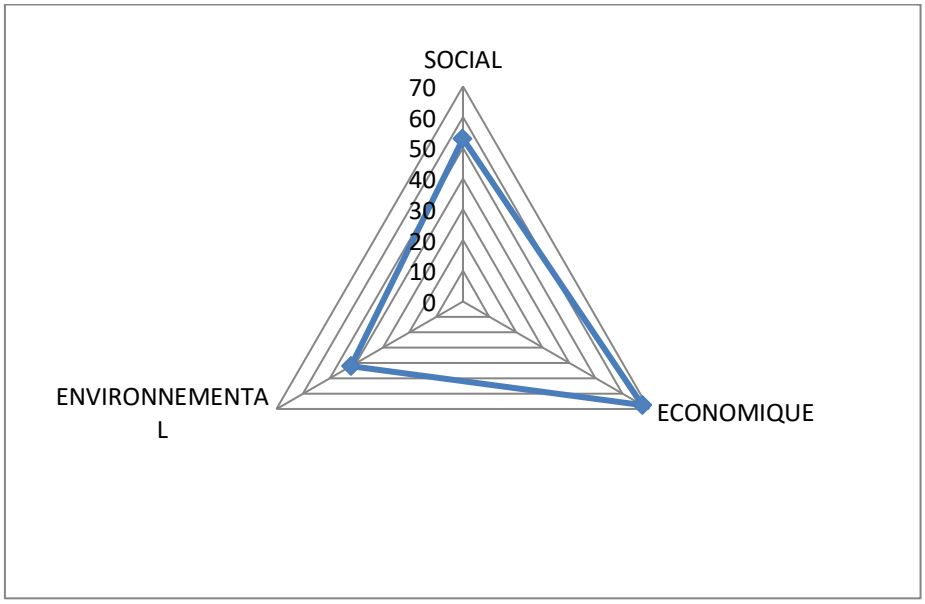

Fig 6: orientation of operations in quarrying activities

From figure 6, we have a contour shape precisely defining the direction of orientation of the involvement of the operators in the quarry activities on the socio-economic and environmental level so we can see a triangle with three different sides which is more oriented towards the economic aspect. We can therefore conclude that for the industrial exploitation of quarries to contribute significantly to a sustainable development, operators should review their involvement strategies, particularly on the environmental aspect and improve the socio-economic aspects.

➢ *Residents*

The residents represent all the populations located around the quarry, generally they constituted the populations of the community where the quarries activity is located. This activity should promote the development of the giving community and the community should also be involved so as to promote development their locality. We have carried out a survey around the sites where the nines industrials quarries are implemented. We also interviewed the populations in order to determine their involvement in socio-economic and environmental development. The Figure 7 presents the percentages of local residents' involvement in the industrial quarrying.

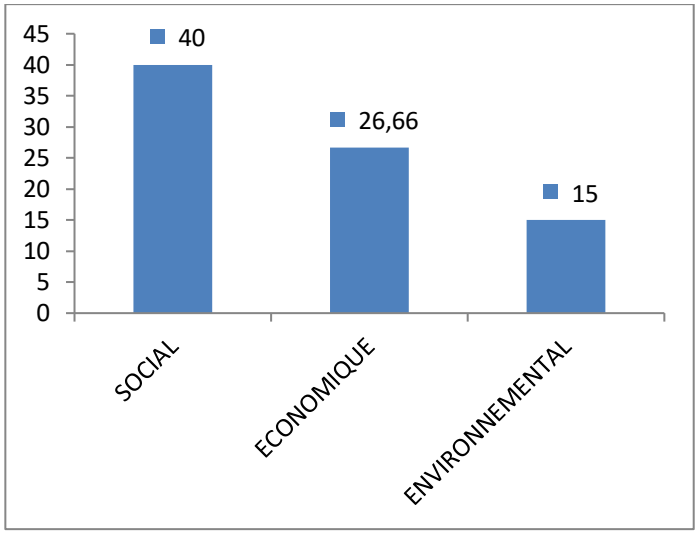

Fig 7: percentage of local residents' involvement from a sustainable development point of view

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The Figure 7 shows that residents are more involved in the social aspect, with a percentage of 40%. Although this percentage is low, this may explain that the populations seem to be more interested in their social well-being than anything else and they demonstrate it through multiple claims such as the improvement of roads among other. Following the economic section we have the social section with a percentage of 26.66%. This is explained by the fact that around the quarry sites, although this is not very representative, the populations struggle to develop economic activities. Figure 8 illustrate the direction of orientation of the residents on the plan sustainable development aspect.

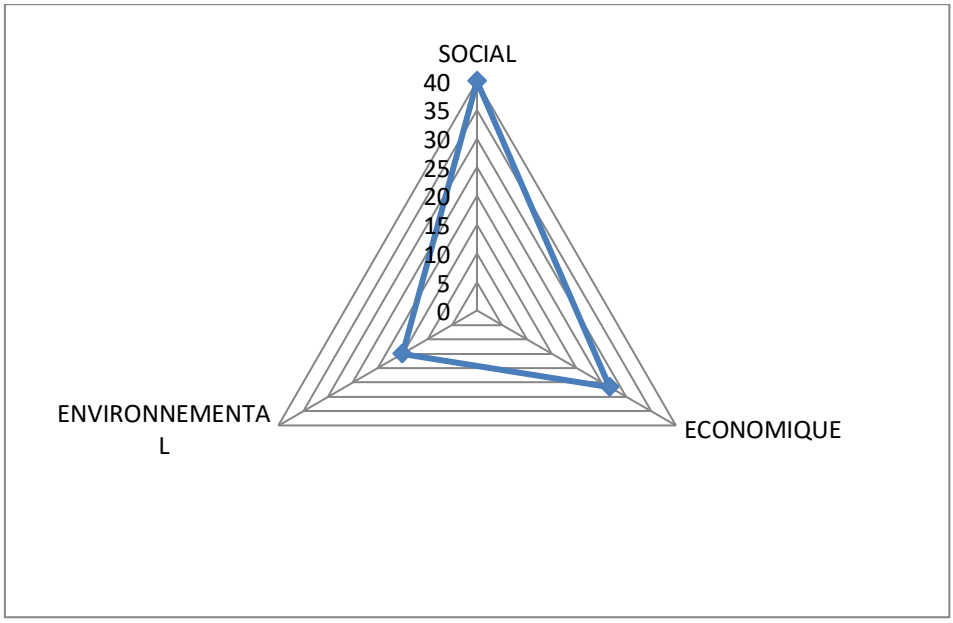

Fig 8: orientation of local residents in quarrying activities

According to figure 8, we have a shape of contour defining in a precise way the direction of orientation of the implication of the residents in the activities of exploitation of the quarries on the socio-economic and environmental plan so we can see a triangle with three different sides which is more oriented towards the social aspect. We can therefore conclude that for the quarrying industrial to contribute significantly to sustainable development, local residents have to review their involvement strategies, in particular on the environmental and economic aspects and improve the social aspects.

➢ *Summary and actor games in industrials quarries*

We have thus assessed each actor involved in the industrial exploitation of quarries in terms of sustainable development to determine their degree of involvement in this activity. Figure 9 shows these different percentages of involvement of the different actors.

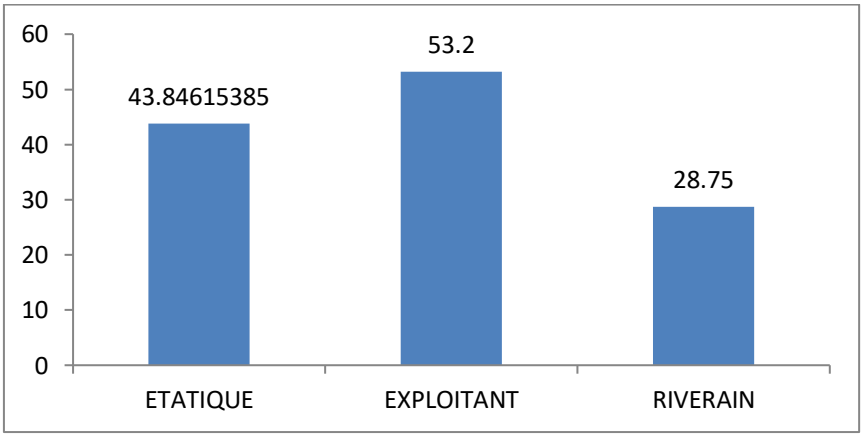

Fig 9: percentage of involvement of the different actors from the point of view of sustainable development

The Figure 9 shows from a sustainable development point of view that the operators account for a total of 53.2% followed by state services with a total of 43.84% and in the end residents 28.75%. The percentages of involvement of state services and residents are less than 50%, this is explained by the fact that, both on the resident's side and on the state services side, mutual efforts should be made to be better involved in the process 'activity. Figure 10 shows the actor game in industrial quarrying.

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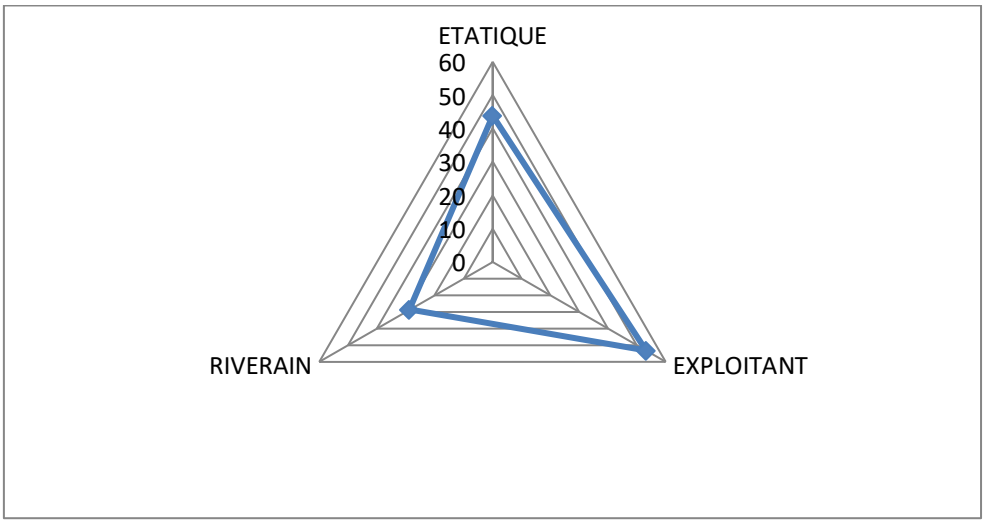

Fig 10: orientation of the different actors in quarry exploitation activities

According to figure 10, we have a shape of contour defining in a precise way the direction of orientation of the implication of the various actors in the activities of industrial exploitation of the quarries on the socio-economic and environmental plan. Thus we can see a triangle with three different sides which is more oriented towards operators. We can therefore conclude that for the industrials quarrying to contribute significantly to the sustainable development, local residents and state services have to review their involvement strategies.

IV. CONCLUSION

In summary, this research was about the identification of actors involved in industrials quarries and mining activities in the West Cameroon and their involvement strategies. From a sustainable development point of view, it emerges that the various actors involved in the quarries industry still have a lot to do to achieve equitable socio-economic and environmental development. In fact, we have obtained a total involvement of 43.84%, for the state services, broken down into 55% economically, 40% socially and 36.66% environmentally. For the operators a total involvement of 53.2% divided into 67.5% economically, 53% socially and 42% environmentally. For residents, a total involvement of 28.75% divided into 26.66% economically, 40% social and 15% environmental. It is therefore urgent for all these stakeholders to review their strategy of involvement in this quarrying industry activities.

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