# THE IMPACTS OF MINERAL EXPLOITATION AND ASSOCIATED TRADE ON WILDLIFE IN THE DJA-BOUMBA MINING AREA EAST CAMEROON



Fig.1. Raising awareness through painting competition © M.L

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# 1. WILDLIFE ENVIRONMENTAL CLUBS ACTIVITIES

#### 1.2 PAINTING COMPETITION FOR YOUTHS OF THE ENVIRONMENTAL CLUBS

Few say that crayons and watercolours have much to do with sustainable management of wildlife. However, in the hands of the youths of the Dja-Boumba environmental clubs these school supplies can give shape and colour to the value placed on the sustainable management of wildlife in the mining area. Since today's youths are the future stewards of biodiversity conservation, their ability to illustrate this diversity and sustainable management of natural resources, especially wildlife provides hope that it will be respected.

This was the idea behind a painting competition recently organized by the project in the mining area. The painting competition was organized as one of project objectives to raise awareness among the students and pupils of the project area. School children between the ages of 10-20 were invited to produce painting about topics including sustainable hunting without comprising for the future generation, the impacts of overharvesting of wildlife, rearing of domestic animals and planting of vegetables as alternatives sources of protein and income to reduce pressure on wildlife and the impacts of removing vegetation on wildlife, through mining activities.

"The response was overwhelming", said Langa Serge, the field coordinator. We received more than one hundred painting from the youths of the project area. It was difficult to choose the winners". The preliminary selection was conducted by the Christian women group and a special committee of teachers of all the schools. The final selection was done by the members of the ecological monitoring committee.

The sensitisation booklet, pens and exercise books were distributed to the students and pupils that participated in the contest. The three winners' names were taken to mining stakeholders and they were given authorization to enter the mining sites, participate in workshops and asked question like; what efforts are stakeholders in the mining sector doing to integrate wildlife with industrial mining planning, design, budget and implementation calendar. They were given T-shirts, paining tools as well as certificates of recognition as clubs members.

The painting contest has shown that the students and pupils understand the message of biodiversity conservation and the sustainable management of wildlife for the future generation.

The project works with hunters, educationists, farmers, women groups, church leaders and policy-makers to support and integrate economic development (industrial mining) with the sustainable management of wildlife. To promote biodiversity conservation the project explores options for alternatives sources of protein and income, adding value to products, improved technologies in vegetables production and stakeholders' policy improvements on sustainable development as stated in the Rio Declaration Summit of 1992.

## 2. CHRISTIAN WOMEN GROUP ACTIVITIES

#### 2.1 HOME GARDENS FOR A HEALTHY FUTURE IN THE DJA-BOUMBA MINING AREA

In the Dja-Boumba mining area, home gardens represent a largely recognised source of nutritional plant diversity. According to a participatory rural appraisal (PRA) survey conducted by the project coordinator and his team, 70% of the sample households now have home gardens. Up to 57.1% of the species found in the gardens are used as vegetables. Pepper, okra, bean, tomatoes and condiments are some of vegetables associated with local food culture. In the Dja-Boumba mining area home gardens are also rich in fodder and multi-purpose tree species. Young shoots, leaves, flowers and buds contribute nutritional value to local cuisine.

Home gardens play an important role in fulfilling dietary and nutritional needs, which intend reduces pressure on wildlife harvest and trade. Although they cover only 5-12% of the land holding of mining area families, home gardens can supply up to 65% of their fruit and vegetable requirements. The production of these vegetables is free from chemicals which is the concern of the local communities as regards solid minerals exploitation in the project area.

The project reveal as one of its objectives to map out the levels of crop diversity, production and income generated in home gardens on a monthly basis and to provide training in book keeping which will ensure accountability and transparency.

The gardens are seasonally dynamic, with the villagers growing a variety of crops with different harvest times to ensure a constant supply of food and income. Activities calendar prepared by the local communities has help identify species to suit seasonal and local conditions. Please, see table one. The activities calendar blend current agricultural practices and cultural preferences thereby providing the potential of home gardens to improve people's livelihoods in the mining area without compromising for the future of wildlife resources.

A lot of awareness need to done with the local immigrants to take up these alternatives to bushmeat harvest and trade in the project area. Exploitation of wildlife has been promoted by the continuous influx of these local immigrants who have little information as regards the cultural heritage (Baka pygmies and the Nzime ethnic groups) and wildlife population in the mining area.

Table 1: Calendar of activities for the alternative sources of nutrients and income

S/N	CROP TYPES	MATERIALS	ACTIVITIES	SURFACE AREA	MONTHS											
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Pepper	Machetes and files	Clearing	50m <sup>2</sup>												
		Wreckers, hoes	Compost													
		Cans/hoes/diggers	Planting of seeds													
		Gloves and boats	Transplanting of seedlings													
		Insecticides/gloves	Insects treatment													
		Hoes, cans	Weeding/watering													
		Notebook, plastics/ gloves	Monitoring/ harvesting/ commerce													
2	Tomato	Machetes and files	Clearing	50m <sup>2</sup>												
		Wreckers, hoes	Compost													
		Cans, hoes, diggers	Planting of seeds													
		Gloves, boats	Transplanting of seedling													
		Insecticides/ gloves	Insect treatment													
		-	Weeding/watering													
		Notebook, baskets	Monitoring/ harvesting/ commerce													
3	Okra	machetes and files	Clearing	50m <sup>2</sup>												
		Wreckers, hoes	Compost													
		Cans/hoes/diggers	Planting of seeds													
		Gloves and boats	Transplanting of seedlings													
		Insecticides/gloves	Insects treatment													
		Hoes, cans	Weeding/watering													
		Notebook, baskets	Monitoring and harvesting.													

S/N	CROP TYPES	MATERIALS	ACTIVITIES	SURFACE AREA	MONTHS											
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
4	Condiment	Machetes and files	Clearing	50m <sup>2</sup>												
		Wreckers, hoes	Compost													
		Cans/hoes/diggers	Planting of seeds													
		Gloves and boats	Transplanting of seedlings													
		Insecticides/gloves	Insects treatment													
		Hoes, cans	Weeding/watering													
		Notebook, baskets/	Monitoring/													
		gloves	harvesting/													
			commerce													
5	Carrot	Machetes and files	Clearing	50m <sup>2</sup>												
		Wreckers, hoes	Compost													
		Cans, hoes, diggers	Planting of seeds													
		Gloves, boats	Transplanting of seedling													
		Insecticides/ gloves	Insect treatment													
			Weeding/watering													
		Notebook, baskets	Monitoring/ harvesting/ commerce													
6	Bean	Machetes and files	Clearing	50m <sup>2</sup>												
		Wreckers, hoes	Compost													
		Cans/hoes/diggers	Planting of seeds													
		Boats	Transplanting of													
			seedlings													
		Insecticides/gloves	Insects treatment													
		Hoes, cans	Weeding/watering													
		Notebook, baskets	Monitoring and Harvesting.													

#### 2.2 BREAKING THE BUSHMEAT TRADE CIRCUITS IN THE PROJECT AREA

The popularity of vegetables as an alternative source of nutrients and incomes has opened up significant markets to the increasing number of women group who choose to grow them, boosting their incomes as well as breaking the bushmeat trade circuits which women constitute a key factor.

The Christian women group is raising awareness among the mining workers by targeting their stomachs: meals of leafy vegetables are now being served at the restaurants in the mining area, instead of a piece of brush tail porcupine for lunch. The project has been particularly important for empowering women. The women have proof their roles as really matter in bushmeat trade circuits and they have learned to say no to the illegal hunters and traders from urban areas. The vegetables production provides a much better source of revenue than hunting and trading in bushmeat and bushmeat should be for family consumption. Household consumption of bushmeat should also be supplemented with the rabbits. To prevent men from hunting and trading in bushmeat, the rearing of rabbits has to be reinforced with more men involved and the activity must improved on the households livelihoods and alleviate poverty. Study carried by Makazi in (2011) revealed that the mining activities in this area contrast vividly with the desperate poverty of the people who inhabit it. This mining region has been far ages and homeland of the Nzime and the Baka pygmy's ethnic groups but they are do not benefit from these natural wealth.

## 2.3 Difficulties encountered

- ❖ The difficult involved in the alternative sources of income is the availability of the seeds when needed. The vegetables do not produce seeds for replanting and need regular supply from the urban centre.
- ❖ The challenge is also to ensure there is a market for these new products due to the perishable nature of the vegetables. The sells must be able to recover investment and production costs to enable sustainability of the project in long term.

❖ The integration of local immigrants into the programme; The increasing pressure of bushmeat harvest and trade is due to the population influx in the mining area to search for employment, mostly local labour without technical knowledge. The need to conserve the wildlife base today to ensure future harvest is not obvious to an immigrant currently enjoying healthy profits.



Fig.2. Vegetables sold in the local markets © M.L