

General Information

Brief description of the project: Mbengwi and Bamessing are two areas in North west region of Cameroon where neglected minerals as clays are exploited by artisanal miners.

Mbengwi central subdivision has huge deposits of kaolin raw material. This raw material has a high demand in the market, but actually it poorly exploited by artisanal miners. Kaolins have different aspects that influence their end use. The degree of crystallinity influences their luminosity, whiteness, opacity, gloss, thin film strength and viscosity, which determines their commercial interest. Kaolin uses are multiple. Its whiteness and plasticity make it particularly suitable for extensive use as filler, elongating agent, raw material for ceramics and as a pigment. It is also an important raw material for refractories, and a catalyst in the cement and glass fiber industries. Its two most important applications are the coating of paper to mask pulp fibers and the production of high-quality ceramic products. It is also used in many other industrial processes.

Bamessing displays heterogeneous clayey materials along Ndop plain and Sabga hill. These materials are exploited for traditional pottery, traditional furnace and the fabrication of fired bricks. Pots, vases, dishes, tiles and clay bricks have certain imperfections, making them unattractive and competitive on the national and international market. These imperfections concern the high permeability, the high roughness and the great fragility after the firing (cracking).

The objective of the project aim as valorising the kaolin production in Mbengwi locality and improving the quality of earthen fired products from Bamessing, North West region of Cameroon

Expected results:

- Estimate the quantity of the deposit which can help us to know the live span of the activity
- Improve the quality and quantity of the kaolin produce
- Improve the quality of fired products from Bamessing
- Improve on the livelihood of the artisanal miners and the community
- Minimized environmental issue (physical, health and safety, etc.)

Reports expected:

- known the live span of the mine (kaolin Mbengwi)
- added value to the products and sales
- Improved living condition and revenue for the community (Put in place a small plant unit)
- Increase awareness on environmental management, health and safety

Which success indicators will you use to measure the performance of your plan? (Include success indicators that go above activity implementation)

- Increase live hood and revenues of artisanal miners and the community at large
- Expected minimal injuries or accident
- Taking out rehabilitation initiative
- Increase in tax revenues

Which other strategic possibilities did you identify that you think will contribute to the success and durability of your project? (Include sub-regional and possible regional links)

The target market exists considering the numerous uses of kaolin in the world. With pharmaceutical and paint companies, ceramics industries, artistic, etc. We also intend to improve on the valorization of the traditional fired products from Bamessing

Which aspects of the training received shall be more useful in the implementation of your project? Explain

- Exploration (it can help us to determine the quantity and the life span of the mine)
- Processing (Improve on the process of dewatering to ameliorate the quality of the final product)
- Marketing (prospection of the market, business plan, management of a small scale unit)
- Health and safety of the workers (training and use of PPE)
- Environment (closure and rehabilitation)

What are your future plans? (Include supplementary professional development capacity building needs that you identified during the workshop).

We intend to add value to the kaolin produce in Mbengwi by

- collect raw material and do details analyses in the laboratory
- identified the producers,
- collect their needs (training, tools, etc) for their production
- train of the artisanal miners on the use of best practices (health & safety, quality, etc)
- book keeping and financial management
- create a small scale plant to produce refractory bricks and ceramic objects (floor tiles, faience..) at the level of the region

At Bamessing, we intend to add value of the traditional products by

- identified the producers, collect their needs (training, tools, etc) for their production
- train them on the use of best practices (health & safety, quality, etc)

ACTION PLAN

<div>Period</div> <div>Activities</div>	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
Activity 1 :	-Survey to evaluate the quantity of the raw material (kaolin of Mbengwi), - contact with the community and the council (Mbengwi	collect of samples and do details analyses in the laboratory, collect of additives raw materials (feldspaths from areas already known)	Identify all the producers and their needs, formation of group, legalisation, ..				

	and Bamessing)						
Activity 2 :			details analyses (physico chemical, mineralogical and thermal analyses, ...) from all raw materials collected	details analyses (grinding, crushing and best paste formulation in regard to the raw materials available..)			
Activity 3 :				Identification of the market, training on management and business plan, small equipment for the production unit	create a small scale plant to produce refractory bricks and ceramic objects (floor tiles, faience,) at the level region	create a small scale plant (suite), identification of small equipment to improve the production at Bamessing	
Activity 4 :							train of the artisanal miners on the use of best practices (health & safety, quality, etc)

Explanation

Doc: Documentation

Recon: Field reconnaissance

Anal. : Analysis

Phases	N°	Désignation	Total
Documentation et Equipements	1	Acquisition cartes topographiques et images satellitales	2 000 000
	2	Location tarière manuelle + petits matériels de prospection (GPS, Boussole, altimètre,...)	
	3	Location voiture pour déplacements sur le terrain	
Travaux géologiques de reconnaissance et collecte des matières premières	5	Survey to evaluate the quantity of the raw material (kaolin of Mbengwi), contact with the community and the councils (Mbengwi and Bamessing)	
	6	Collect of samples and do details analyses in the laboratory, collect of additives raw materials (feldspaths from areas already known)	
Caractérisation des matières premières, Formulation des procédés pour briques réfractaires, porcelaine et grès (kaolin de Mbengwi)	8	Analyse préliminaire des échantillons (minéralogie, chimie, céramique, granulométrie,...)	2 000 000
	9	Traitement des matières premières et compositions des pâtes céramiques à partir du kaolin	
Marketing et business plan, identification des filières de commercialisation (Mbengwi et Bamessing)	11	Identify all the producers and their needs, formation of group (CIG) with gender approach, legalisation, at the level of Mbengwi and Bamessing	1 500 000
	12	Identification du marché et circuit de commercialisation des produits	
	13	Business plan d'une unité de transformation du kaolin en produits céramiques (briques réfractaire, grès et porcelaine) au niveau de la région	
Amélioration de la qualité des produits traditionnelles céramiques des producteurs à Bamessing	15	Assistance à la maîtrise du traitement des matières premières et compositions des pâtes, au techniques de séchage et de cuisson (type de four, rythme et contrôle de température, ...)	1 400 000
	16	Business plan pour développement de produits de qualité (tuiles cuites, four de cuisine, etc)	
Train of the artisanal miners on the use of best practices (health & safety, quality, etc)	18	Organisation des séminaires (02) de restitution de la formation reçus à Limbé sur l'environnement, communauté, santé et sécurité dans l'exploitation des minéraux de développement au niveau des artisans miniers : (common initiative group (CIG)), 01 séminaire à Bamessing et 01 à Mbengwi; Ecourage women to own and inherit lands in the activities; Develop a closure and rehabilitation plan	1 000 000
		TOTAL	7 900 000
	20	Imprévis (5%)	395 000
		DEVIS	8 295 000

List

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