



DEVELOPMENT GAPS IN THE SPV SOCIETY AREA

AN APPROACH PAPER

1. Introducing the Area

1.1 An area of around 1.16 square kms has been acquired by the Lafarge Umiam Mining Ltd. for mining of limestone. The site is located about 2 km from Shella Village on the Nongtraï side of the River Umiam, Shella. At present, the mining operation is limited to a small portion of the above area.

1.2 It is understood that surface mining is being carried out by the Company at present. There is very little earthwork in the mining area. The limestone from the mining area, after being broken into small pieces is taken to the crusher located at about ½ km from the mining site. After crushing, the limestone is automatically conveyed into a conveyor belt and then transported through the conveyor belt up to the factory in Bangladesh over a distance of about 17 kms of which 7 kms of the belt lies within Indian territory.

1.3 So far as air pollution is concerned, there is a very little visible effect in the surrounding areas at present. However, the noise pollution affects the entire neighbourhood of the area, namely, the villages of Shella with all localities, Nongtraï, Mustoh, Nongwar, Laitkynsew and Nonglait.

1.4 The surrounding area of the mining operation, by and large, coincides with the Umiam Shella River Basin. The River Umiam takes its origin from the Shillong Peak after flowing from the plateau regions of Nongkrem, Smit, Nongkynrih, Laitlyngkot, Umtyngar and Mawphlang. The river passes through Mawphu, Thieddieng, Nongsteng areas and enters the River Umiam Shella Basin at Synnei and Umtlang Elakas then down to Sohlap, a locality of Shella, crossing the international border into Bangladesh. Another part of the Umiam Basin consists of the basin of the river coming from Laitryngew area of Cherrapunjee down to Nohkalikai Falls into Nongriat, then enters the Basin at Tyrna, Nongkroh, Ramdait, Mynteng Elakas, joining the main Umiam Shella River at the junction of Dew saw, Nonglyngkien and Nongwar Elakas. The mandated area which, conforms to the extent laid down by the Hon'ble Supreme Court of India, by and large, coincides with the Umiam Shella River Basis aforesaid.

1.5 Administratively, The area comprises of the following Elakas/areas along with the attached villages and localities within the District of East Khasi Hills, partly under the Shella-Bholagunj C.D. Block

and partly under the Mawsynram C.D. Block. The traditional nomenclatures of the administrative authorities over the Elakas/areas which are still in vogue today are also given below:-

Nongtraï	Wahadadarship of Shella Confederacy
Shella	Wahadadarship of Shella Confederacy
Mustoh	Wahadadarship of Shella Confederacy
Nongwar	Wahadadarship of Shella Confederacy
Laitkynsew	Syiemship of Nongkhlaw
Nonglait	Sirdarship
Dewsaw	Wahadadarship of Shella Confederacy
Tyngnger	Wahadadarship of Shella Confederacy
Lyngkhom	Wahadadarship of Shella Confederacy
Synnei	Sirdarship
Umtlang	Wahadadarship of Shella Confederacy
Tynrong Rumnong	Wahadadarship of Shella Confederacy
Tynrong Mawrap	Sirdarship
Nonglyngkien	Sirdarship
Ramdait	Sirdarship
Mynteng	Sirdarship
Tyrna	Sirdarship
Nongkroh	Sirdarship
Lawbah	Syiemship of Mawsynram
Sinai Mawshynrut	Sirdarship
Mawdon Mawkhan	Sirdarship

1.6 Apparently, the mining operation does not directly affect the entire area of the River Umiam Shella Basin. Some of the areas which are directly exposed to the mining site are much affected while the other more distant Elakas are not similarly affected. It has, therefore, been decided to treat the area of operation into a core area and non-core area. The core area comprises the Elakas at Sl. 1 to 7 and the non-core area includes the remaining 14 Elakas. Since the core areas are much more affected, greater emphasis has to be given to development activities of the core area with due attention to the basic development needs of other (non-core) areas.

2. Present Status of Development of Specified Sectors – Development Gaps Identified

The Society has been established to carry out development activities in the mandated area which include health, education, agriculture, irrigation and economy. Hence, a development initiative in the area under the Society has to conform to the directives of the Hon'ble Supreme Court of India. A review of the existing state of development and the observable development gaps in the above-specified areas has been given in the following paragraphs:-

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2.1 Health

There are, at present, four Government Primary Health Centres/PHCs in the area and three more are located adjacent to the area. There is no private run health infrastructure at present. Therefore, by general standards, the existing infrastructure on health care seems adequate. There are, however, certain perennial problems with the functioning of the Government Health Care system in this difficult area.

- i) Doctors are not always available for health care delivery in the area.*
- ii) Medicines are not always available within the area or with the PHCs.*
- iii) The PHC along with the attached facilities are not adequately provided.*

Adding to the above deficiencies in the existing Health Care infrastructures, there is a lack of sanitation in all the villages within the Society area. As a result, people succumb to a sudden attack of both water-borne and air-borne diseases. Besides, the drainage system is absent in all the villages and the village footpaths are trodden by both man and animals which act adversely on the health and well being of the village community. Most of the villages are not provided with safe drinking water and have no domestic toilet facilities. The general sanitation in all the villages is very very unsatisfactory.

Facilities for recreational activities which promote the well being of the village community in general, do not exist. Even school children are not normally involved in physical exercises like games and sports due to lack of facilities.

2.2 Education

The educational infrastructures existing in the area are as follows:-

- i) College – Nil*
- ii) Higher Secondary School – 1*
- iii) Recognized Secondary School – 7*
- iv) Elementary Schools/
Upper Primary Schools – 13*
- v) Primary Schools – 41*
- vi) Vocational School – Nil*
- vii) Technical Training School – Nil*

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viii) *Teacher Training School* – *Nil*

The main problems for improving the standard of education in the area are:-

i) *Lack of proper school buildings, properly designed to face the full blast of the monsoon storm, the area is located in the wettest place on earth. It is generally experienced that educational activities are quite often disturbed by heavy rains, especially during the summer season.*

ii) *Lack of good/trained teachers with higher academic achievements. The State's reservation policy on employment as had a very adverse effect on the quality of education. The area is remote and difficult to navigate and therefore attracts no good teachers especially at the Secondary level. Most of the local teachers are drawn from among those who could not find employment in urban and sub-urban areas of the State. Lack of good teachers with higher academic achievements has resulted in lowering the standard of performance of the students of local schools. There may be willing good and capable teachers from among the non-tribal communities of the State or from outside the State, but the reservation policy on employment places a big hurdle in acquiring the services of such persons.*

iii) *Lack of recreational facilities to attract students to the school.*

iv) *Lack of adequate classroom facilities. 2.3 Agriculture*

The area is not a known paddy or wheat cultivation area. However, paddy cultivation to a small extent is done over a small area under Shella, Nongtraï, Mawdon Mawkhan and Nonglait Elaka bordering Bangladesh. The area is, however, a well known traditional area of horticultural crops. The following crops are traditionally grown in the area: -

A. Non-Jhum Area

i) *Oranges*

ii) *Black Pepper*

iii) *Long Pepper*

iv) *Bay leaf (Tej Patta)*

v) *Arecanut*

vi) *Betel Vine (Pan Leaf)*

vii) *Litchis*

viii) *Pineapple*

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- ix) *Other citrus fruits*
- x) *Jackfruit*

B. Under Jhum Cultivation Traditional

- i) *Tapioca*
- ii) *Yam*
- iii) *Pumpkin*
- iv) *Vegetables*
- v) *Sweet Potato*
- vi) *Sorghum*

At present, the practice of jhum cultivation in the area has almost stopped. Most of the traditional jhum lands are now covered with grass broom cultivation. While carrying on with the above cultivation, the local people applied the traditional methods and over the years, the Government did not find it necessary to replace or modify them. Some of the crops have a long gestation period. This is the main disadvantage of the people and as a result, many of them do not carry on the plantation of the above crops on a large scale as was done in the past.

In the past, the people used to practice jhum cultivation on a large scale which ensured limited food security. However, jhum cultivation has not been encouraged by the Government of India and the State Government has tried to replace it by some form of settled cultivation. The reaction of the local people to the changes is to grow grass broom in traditional jhum lands in place of jhum cultivation. Grass broom is a short term crop with a small gestation period of two years or so. Thereafter, it is left to grow by itself without further input except for weeding/clearing operation once a year. The plant remains productive up to about five or six years after which period, the site of cultivation has to be changed as the soil is then depleted of nutrients and the plantation degenerated.

Despite good economic returns, the practice of grass broom cultivation is not better than jhum cultivation; in fact, it may be worse, as such areas are always susceptible to wildfires every year, causing great damage to the environment and its biodiversity and contributes nothing to food security.

There is a need to re-plant many areas with fresh and healthy plants as the existing plantations are disease-infested and some of them are decaying/degenerating.

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2.4 Irrigation

The entire area is not being served with any irrigation facilities at present. In the past, jhum cultivation did not require irrigation facilities as the growth and development of plants coincided with the monsoon season which brings a lot of rainwater. Even in the low lands where foodgrains could grow, there are no irrigation facilities. At present, paddy cultivation is done on a rain-fed system; the other traditional plantations as listed above are grown without irrigation being provided.

The problem of irrigation in the area is the absence of perennial streams which can provide a water source for irrigation facilities to the orchards especially in the dry season of Winter and Spring. Even Government departments have no schemes for such irrigation facilities for orchards and other plantation crops. In the past, the area used to experience some winter rains which is very essential for the growth of horticultural crops. At present, winter rain has been very erratic in occurrence and drought-like situation prevails in many gardens of the area, resulting in crop damages due to water scarcity. There is a need to improve the moisture regime of the area if agri-horticulture crops traditionally grown in the area are to regain their past glory.

2.5 Economy

The overall topography of the area can, perhaps, be described as hostile to human habitation. The area consists of deep gorges, steep sloping and rocky lands, full of rivers and streams crisscrossing it making mobility difficult. Before Independence and immediately after Independence, this area was very famous for the production of horticulture produces such as orange, pineapple, bay leaf, black pepper, areca nut, betel leaf, jackfruit and other citrus fruits which formed the backbone of the economy. The area formed the fruit basket of Khasi Hills and the then State of Assam. It was the well-known home of the Khasi mandarin which the area produced in huge surplus every year finding its way to distant markets in Dhaka, now in Bangladesh and in Kolkata, West Bengal besides flooding the local markets. As a matter of fact, before Independence, the area was very prosperous. Despite problems of mobility, the people found it easier to carry the produce on head load downstream to the border markets of Phali and Shella and exported their products to the then East Bengal Province through riverine routes or even up to Kolkata by planes.

After Independence, the trading with the then Sylhet District of East Pakistan now Bangladesh, was cut off. This forced the people of the area to carry their horticulture produce head load to the upland markets of Cherrapunjee and then Shillong. It is a very difficult process as there were no connecting roads to the area and it happens to be the wettest place on earth. Finding it hard to sustain livelihood with conventional horticultural practices, the people of the area have, over the years, out migrated, seeking a livelihood in other areas. This is borne by the fact that the decadal increase in members of families in the area is about 7.6% and of the population about 14%. Some of the progress of development indicators in the area are given at Annexure 1. As it is today, the area is thinly populated and some of the prosperous villages of the past like Phali in Nongbah Sirdarship, have ceased to exist

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and so is the Sirdarship itself. There is reason to believe that some of the present Elakas may meet the same fate unless corrective measures are undertaken.

The area under paddy cultivation being very limited due to hilly terrains, therefore, the people are still carrying on traditional means of cultivation on a reduced scale. While production of oranges and other citrus fruits has become negligible, plantation of traditional crops as discussed in the earlier relevant sub-paragraphs is being continued by the people of the area on a much-reduced scale.

Apart from agri-horticulture, the people of the area also are carrying on other minor activities viz:-

2.5.1 Animal Husbandry

The people of the area traditionally keep the following birds/animals on a free-range system:-

- i) *Poultry – Local variety*
- ii) *Piggery – Local variety*
- iii) *Goatery – Local variety*
- iv) *Dairy – Local variety*

The type of animals and birds which are traditionally kept are not economical and cannot support livelihood on a sustained basis. However, they provide supplementary income for sustaining the family. In the past, supplementary animal feed came from jhum cultivation. The jhum produces, as mentioned earlier, have good food value for both man and animal. Though there was man/animal competition in the utilization of jhum produces, yet a sizeable amount was always made available for animal feed. With the abandonment of jhum practices in favour of grass broom cultivation, the local supplementary feed whatever was available in the past is now cut off. The solution is for animal feed problem is to depend on the market. There are only a few suppliers of animal feed in the market and such supply is concentrated at Shillong – 70km away from the operational area. Quite often, the supply could not meet the demand of the sub-urban farmers. The rising feed costs also do not cover existing practices of Animal Husbandry. Thus, the introduction of Animal Husbandry as a means of livelihood requires enhancement of the scale of operation taking due consideration of feed supply which at present, appears to be a limiting factor.

2.5.2 Bee Keeping

Several local people are carrying on the traditional method of beekeeping for supplementary income. However, the activity is being carried out on a small scale on an individual basis. There is scope for organizing this activity for enhancement of farmers' income.

2.5.3 Fishery

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Captive Fishery is not a well-known activity of the people of the area. In the past, the rivers and streams provided a certain amount of fish protein to the local people. The production of riverine fish has declined over the years and nobody ever takes up such activity on a full-time basis. Creating artificial ponds by impounding streams has not been found very viable. Water sources do not provide sufficient water to the ponds during the dry season i.e. from November to April.

2.5.4 Trade and Commerce

With the closure of borders with Bangladesh, there is hardly any export of horticulture and fresh fruits into Bangladesh which was a very flourishing trade before Independence. The Border Hats lost their importance as trade centres. Therefore, depriving a large number of people of their livelihood from such Border Hats activities.

2.5.5 Industries

The area has not opened up to the development of industries whatsoever. Some people of the area have taken up mining of limestone/coal, etc., and marketed outside the area. However, the involvement of the people in such activities is still very small. Though the area is endowed with beautiful landscape and natural sceneries, development of infrastructures for tourism is yet to take place. While the area has great potential for mineral-based industries, the fragile ecosystem and the resultant environmental hazards will tilt the balance in favour of agri-based and tourism industries in the long run.

2.5.6 Transport & Communication

Out of fifty-odd villages in the area, about half of them are not connected with motorable roads. The remaining villages are connected through PWD roads, the conditions of which are not satisfactory. Absence of road connectivity renders mobility difficult posing a great challenge to the people to carry on their economic activities in the area.

It may not be possible to make motorable roads to all the villages due to topographical problems, road connection may, however, can be established in respect of the following villages with the existing roads viz:-

- i) *Lawbah to Mawdon Mawkhan*
- ii) *Lawbah to Sinai Mawshynrut*
- iii) *Mawsyrpat to Lyngkhom then Synnei*
- iv) *Mawkawir to Ramdait then Tynrong to Rumnong*
- v) *Tyrna to Nongthymmai to Lumsophie*
- vi) *Laitkynsew to Sohsarat*

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vii) *Mustoh-Shella road to five or six localities (Khers of Shella Village)*

viii) *Nongtraï-Shella road to Pyrkan*

Apart from road connectivity to the villages, there is also the need to connect to the agri-horticulture fields for transportation of the produces up to motorable points. While road connectivity is a difficult proposition, ropeway system could solve the problem to a large extent. The Border Area Development Department of the Government of Meghalaya had introduced the ropeway system in a few villages. However, the scheme has not been very successful. The possibility could be freshly explored.

Our Approach

Our approach for the development of the area will be guided by our vision of what the area would look like within a period of ten to twelve years and thereafter. It is an acknowledged fact that governmental development activities in the area have not been successful because of the communication problem and other inherent difficulties involved. While road infrastructure has been taken up by the Government, many of them are in a very poor state of maintenance, rendering many of them unusable during the summer season.

Taking into consideration the ongoing developmental activities of the State Government and the contribution which may accrue out of the presence of the Meghalaya Rural Development Societies and other autonomous bodies, the SPV Society is determined to move forward as a flag-ship intervention in the overall development of the area in the years to come, either individually or in collaboration with other developmental agencies.

3.1 Our Vision

Taking into account the existing status of development of the area and the inherent difficulties involved as stated earlier; it is the vision of this Society that within a period of ten to twelve years, the development status in respect of health, education, agriculture, irrigation and the overall economy, should be at par with other developed areas of the State, if not more. The development activities to be taken up by the Society should not only stop but also reverse the process of out-migration of villagers from the area. There should be a considerable surplus of veterinary products, horticulture produces and plantation crops like tea and rubber leading to the growth of agro-based industries. Road communication will be greatly improved paving the way to the tourism industry. Every family will operate a Saving bank account and the general outlook of the area will change considerably with general literacy and computer literacy improving. On fulfilling the above short term vision, the area should be coming up as one of the best-developed areas of the State in all aspects and will be ready for further development activities in secondary and tertiary sectors of the economy provided funding continues uninterrupted.

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3.2 Involvement of Local People in Determining the Developmental Needs in the Identified Areas

While Taking up developmental activities on specified areas, the Society adopts a bottom-up approach. Within the parameters of the specified development areas, the village community would be asked to submit the felt-developmental needs. For this purpose, the Society has, from the very beginning, involved the Village Authorities/Village Durbars, while setting up the Local Programme Implementation Committees (LPICs) consisting of five members two of whom being a lady and a youth. The members of the Committee are selected by the Village authority itself and approved by the SPV Society. This Committee will function as a go-between between the Village Authorities and the Village people on the one hand and the Society on the other hand. Specific guidelines have been prescribed to regulate their functions and the Society is giving them support to function effectively.

Concerning the individual beneficiaries, the approach of the Society will be to make the Local Project Implementation Committees (LPICs) to keep watch over the implementation of schemes and projects and to keep the Society informed of the progress of implementation. In the case of community projects such as school buildings, playgrounds, etc. for which well-defined management bodies exist, implementation of projects will be carried out through such bodies and the Society will provide financial assistance through appropriate instalments to be directly credited into the Bank Account of such bodies. In the case of livelihood projects, financial assistance will be provided in instalments to be credited into their bank accounts for implementation of such projects/schemes by them. The Society has also appointed implementing agencies for technical projects like roads and bridges, water supply and irrigation, etc. through appropriate MOUs.

With the Government departments, the approach of the Society is to join hands with the Government, if necessary, for implementation of new projects and would consider taking up community projects which have been abandoned by the Government. The Society may also act as an agency of the Government and may engage Governmental Bodies such as Missions, Societies, Corporations, in implementing development schemes and projects of the Society in the area.

3.3 Health

Under the present scenario of health coverage in the area, health problems, both mental and physical, will be addressed jointly with the Government or with any private health care institution established or which may be established in the area in future. Hence, our approach will be:-

- i) *Strengthening Government/private health infrastructures through contribution in kind or such facilities like necessary equipment, etc., required for upgrading the health care delivery system in the area.*

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- ii) *Assisting such health institutions located in the area for online connectivity with referral health institutions at Shillong, etc.*
- iii) *Working out a scheme with local health institutions for setting up medicine kiosks at such institutions.*
- iv) *Providing an adequate supply of safe and clean drinking water to all the villages.*
- v) *Total sanitation programmes will be implemented in phases in all the villages. This will include the construction of domestic and public sanitary latrines in every household and institution, construction of village footpaths and village drains and segregating animals and human dwellings.*
- vi) *Assisting village youths for construction of playgrounds.*
- vii) *Assisting village authorities in the construction of multi-purpose community halls in larger villages for recreational purposes and other village activities.*
- viii) *Strengthening Government initiatives on children Nutrition programmes.*

3.4 Education

Our approach towards improving the education system in the area are:-

- i) *Replacing old and temporary Primary, Elementary and Secondary School buildings with pucca ones appropriately designed to withstand the onslaught of monsoon rains and storms. The Society may prepare designs, plans and estimates for such school buildings, which may be implemented by recognized School Managing Committees themselves. Such intervention by the Society would be limited to non Government/recognized educational institutions. In the case of Government institutions, the Managing Committees of the local village authorities may apply for financial assistance for repairs and maintenance subject to production of permission/NOC from the competent authority of the Government.*
- ii) *Providing appropriate furniture to the schools as deemed necessary.*
- iii) *Constructing school playgrounds subject to land availability.*
- iv) *Providing sanitary latrines separately for boys and girls with drinking water.*
- v) *Arranging excursion trips for students of a few Secondary schools each year and assist in organizing sports and games in Upper Primary and Secondary schools.*
- vi) *Making available financial assistance to students of the area, who, on their own proceed for higher studies (post-Higher Secondary stage) in technical disciplines outside the State.*
- vii) *Organizing local training for teachers in some centres of the area.*

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viii) *Assisting local private Upper Primary Schools for entertaining teachers in Maths and Secondary Schools for teachers in Maths and Science with higher academic achievements.*

ix) *Awarding of stipends @ Rs.500/- per month for further studies to students of the area who secure 60% + in the Secondary and Higher Secondary Board Examinations.*

x) *Assisting the Government for implementation of programmes aimed at achieving cent per cent enrolment and total literacy.*

3.5 Agriculture

So far as the development of agri-horticulture of the area is concerned, the following approach will be adopted:-

i) *To enhance the production of food items, the Society will endeavour to:-*

a) *Encourage reclamation of lands for paddy and vegetable cultivation with irrigation facilities;*

b) *Revert to jhum cultivation practices.*

While activities at 'a' above have a limited possibility, activity at 'b' is not. Jhum cultivation has not been encouraged by the Government of India in the past and the State Government has tried to replace it with some form of settled cultivation. The reaction of the local people is to take recourse to broom grass cultivation instead of jhum cultivation in jhum areas. Our approach is to discourage such hazardous cultivation like broom grass cultivation in favour of more eco-friendly and settled ones. The people will be encouraged to carry out jhum operation in their fields to be followed with permanent plantation of tea, rubber, coffee, horticultural crops or economic species of trees for commercial purposes

ii) Growing of orchards will require irrigation (light irrigation) during the dry months. It is, therefore, necessary to create irrigation facilities to shorten gestation period and to facilitate other inputs which may be necessary for enhanced production. It is not possible to draw water from streams for irrigation as most fields do not have water sources and even if some of them have, water sources such sources remain dry during the dry season when the plants/crops need water the most. It is, therefore, necessary to look for other water sources for short term irrigation. Harvesting of rainfall which is quite heavy in the area with occasional winter rains is considered a possible solution and will be explored for the appropriate scheme.

iii) Working out a scheme for utilizing of jhum lands for jhum cultivation to be brought immediately under horticultural crops or tea or rubber or coffee plantation. The introduction of new plantations will be vital for the upliftment of

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the economy of the area which will provide necessary raw materials for processing industries. Besides jhum cultivation, even with traditional crops, would provide a certain amount of animal feeds which is almost non-existent today, besides being the most valuable and healthy organic food for man.

3.6 Irrigation

As discussed in the foregoing paragraphs, the normal system of irrigation has very limited applicability in the area. Wherever it is feasible, the Society will consider implementing schemes and projects in the area.

As mentioned under agri-horticulture items above, there is a case for light irrigation in the upland orchard plantations. The matter will be examined in detail and necessary schemes formulated to be made available to those farmers who have duly implemented the sanctioned horticulture schemes in the fields.

3.7 Economy

As stated at the beginning of this paper, the economy of the State is linked up with horticultural development. Our approach of development of agri-horticulture in the area has already been stated in the foregoing paragraphs.

Besides agriculture, there are other economic activities which the area is capable of lifting the economy of the area. Some of these activities are given below:-

3.7.1 Animal Husbandry

As discussed in the relevant paragraph earlier, the viability of Animal Husbandry as a sustained livelihood item depends on the scale of operation and the availability of animal feed. To reduce the severity of the problem and to make it sustainable, our approach will be to organize this sector of the economy on a cluster basis as far as practicable. All beneficiaries of Veterinary and Animal Husbandry schemes, in particular, will be encouraged to form a Society or Self Help Group. While each member will have a separate identity as beneficiary, in matters of purchase of feed and other input items he should be a member of the Society or Group. In case of chickens (Broilers) the cost of the feed for three months will be provided in the scheme and the case of Layers or Piggery or Dairy schemes, feed for six months will be provided in the scheme. After the above period is over, the beneficiaries should purchase the feed from their resources and sustain the activity.

They should try to produce supplementary feeds for the animals as much as possible either through the process of gardening or through jhum cultivation.

3.7.2 Road Connectivity

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Road construction in the area is a costly affair due to terrains and other logistics problems presented by the topography of the area. In respect to connectivity, our approach will be:-

- i) Wherever there is no PWD road connecting the villages of the area, the Society should step in to construct new roads. This, however, does not include repairs or maintenance of existing PWD roads. If, however, any road project or a part of it is abandoned by the concerned Government Department and if the concerned village authorities convert it into a village road, the village authority may seek assistance for restoration.
- ii) The Society may, however, take up joint ventures in construction of new roads/bridges with the Government Department in the area in such a way that the items of works to be undertaken by the Society should be identified/ specified.
- iii) Assisting the villagers to restore footpaths and footbridges linking the villages to the fields and ensuring village connectivity.
- iv) Will examine the possibility of a ropeway system for transporting field produces in the area by engaging renowned consultants.
- v) At present, there is no motorable bridge across the River Umiam. As the area develops economically, there will be a necessity for having at least two major bridges across the River Umiam. Such major works are expected to be undertaken by the Government. However, the Society will examine the possibility of a joint venture in such matters.

3.7.3 Fisheries

Given the above, it is proposed to modify our approach towards implementation of fisheries schemes and projects as follows:

- (i) Instead of individual fisheries schemes, multipurpose dug out/Impounding/dugout cum impounding water reservoirs, should be assisted by the Society, be it individual or community-based.
- (ii) The consultancy assistance of the Soil and Water conservation Department, who has the requisite expertise and experience in the field, should be sought.
- (iii) The minimum surface area of the water body that should be considered is 100 sq m or 1000 sq ft.
- (iv) The project cost should be as per the actual estimates framed by the consultant after a due survey done. The financial assistance to be provided by the Society is 70% of the estimated cost subject to a maximum ceiling of Rs. 50.00 lakhs.

3.7.4 There are other items bearing consequences on the economy of the area, namely, industries, trade and commerce, tourism, beekeeping, etc. It is too early at present, to suggest any appropriate

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approach for their development. They will be considered in the long term plans when the area has achieved the short term objectives spelt out above.

3.7.5 Cycle of financial assistance for Livelihood Schemes

Society will programme its activities such that all households in any village will be covered under any of the livelihood schemes within 4(four) years. After the completion of four years, the households will be entitled to further assistance for livelihood schemes. However, in the case of villages in the core area, the frequency will be once every three years. In exceptional cases of proven ability and dedication of the beneficiaries, financial assistance may be advanced in the form of additional units even before the expiry of the specified periods. Excess units, if any, made available to a family, will be adjusted against future assistance.

To ensure full utilization of the development potentiality of the area especially the land resources, the benefits of financial assistance under horticulture, plantation and processing schemes and projects are also extended to non-residential landowners of the area.

Conclusion

Having analyzed the development problem, having identified the development gaps in the specified development areas, having stated our vision and approach for achieving it, the ultimate guiding factor is the availability of fund on a sustained basis.

As per the order of the Hon'ble Supreme Court, M/s Lafarge Umiam Mining Limited is to deposit an amount of Rs. 90/- per ton of limestone dispatched to the factory in Bangladesh. The capacity for mining of limestone by Lafarge-Umiam Ltd. is fixed at 20,00,000 tons/year. This gives the maximum annual fund flow of Rs.18.00 crores to the Society's funding agency, i.e. the SPV Committee. Considering an ideal situation of non-stop flow of the above fund per year.

Fund to be received in the next 10 years – Rs. 180 crores

The amount already received by the Committee (say) – 50 crores

Amount to be earned as interests (in 10 years)- 20 crores

Total – 250 crores

The amount already released to SPV Society – 18 crores

The amount likely to be available in 10 years – Rs. 232 crores

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Tentatively we may earmark the above fund to different development areas over ten years as follows:-

- i) Health – 50.00 crores @ 5.00 crores/year
 - ii) Education – 45.00 crores @ 4.50 crores/year
 - iii) Agri/Horticulture – 50.00 crores @ 5.00 crores/year
 - iv) Irrigation – 10.00 crores @ 1.00 crore/year
 - v) Economy – 67.00 crores @ 6.7 crore/year
 - vi) Administrative expenses- 10.00 crores @ 1.00 crores/year
- 232.00 crores @ 23.2 crores/year

From the above appraisal of financial resources, it is clear that the amount of funding available is quite significant. With such investments in a small area, it is expected that a lot of changes should take place. What is important is to adopt a development strategy through an appropriate investment plan to achieve sustained development of the area. The approach suggested above aims at achieving that and will have to be reviewed from time to time.

After 10 years, most of the infrastructure projects will require maintenance and repairs. It may require about 10% of the annual budget or 2.3 crores per year. The fund available for actual development will be decreasing as the costs of inputs and the maintenance costs increase. It is, therefore, necessary to limit investment in infrastructure projects like roads, etc. which involves high maintenance costs, unless by chance there is an enhancement in the flow of fund to sustain the speed and the level of developmental activities.

In our approach, we have not projected any expenditure on projects related to natural disaster mitigation. The area of operation of the Society lies in the highly seismic prone zone of the North East India Sub-Himalayan belt. It may be recalled that in 1897 the whole area was destroyed by a heavy earthquake of Magnitude 8.7 in the Richter scale. There is every possibility of an earthquake of similar magnitude occurring in the near future.

The stability of the whole area of Umiang basin covered under the activities of the SPV Society might be highly disturbed by the present mining operations and under the present condition, a heavy earthquake of the magnitude of 8 + will cause more catastrophe than that which happened in 1897. Since the development mandate of the Society does not cover such an area, it will be advisable to treat this as a serious development gap which the State Government may have to address.

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