Doyang, the biggest and the largest and also the most important river in Wokha district of Nagaland rises near the state’s southern boundary in Kohima district. The Angami people in whose area it rises calls it Dzu or Dzulu. It first flows almost north with slight turn towards east when it receives an addition of Saju, an eastward parallel tributary. The river then enters Zunheboto district still flowing northwardly. At the west of Litami, it makes westward bend and emerges in the western Lotha area in Wokha district and proceeds towards westward direction for sometime forming a boundary line between Sema and Lotha areas. But when it reaches the hills of middle range south of Pangti village it turns south and proceeds further crossing the district from the middle in between middle and upper ranges till it reaches the hills of lower range. On the southern border of the district it suddenly turns westward and then debauches the hills for the plains west of Koro village. Then it finally falls in the Dhansiri river in Assam plains. Many small streams have fallen into Doyang in its central and western parts. It has got three main tributaries, Tsui, Tullo and Tishi. Chubi, the second biggest river in Wokha district is the main tributary of Doyang in the district, which joins Doyang river south of Pangti village.

The Doyang river is locally called ‘POFU’ by the Lothas, which simply means ‘encircle’ because the river flows right through the middle of the district touching all
the three ranges encircling the whole district. This river has a strong economic attachment to the local people because it provides sufficient fertile plains and slopes for cultivation, and also strong traditional attachment because the area provides a good grounds for community fishing and hunting which are annual affairs for the locals. Besides, mention may be made of two significant attachments that the local people have with the river. It is believed that one of the great-great grand-fathers of Patton clan from Riphyim village by name Thyulong, while migrating to a new village called Lakhuti in middle range (beyond river Doyang on the northern side) had to crawl from the river bed to cross Doyang river since he could not swim. That particular place which is deep and shallow from where he had crawled is being called Thyulong Ezhu after his name in his memory by the locals irrespective of clans even today. So the people of Patton clan, particularly from Lakhuti and Riphyim villages have deep emotional attachment to this particular area of Doyang river. Unfortunately, the Doyang Dam, is being built here submerging this very place. Thus according to K. Patton of Riphyim village, at one stage there was a rumour that the proposed dam be called Thyulong Dam, however, that was not done. So the people of Patton clan from old Riphyim village (on whose land that particular place falls) had built a small hamlet just below the dam site near Lotha Bridge on the southern bank of river Doyang and named it ‘Thyulong Village’ in memory of their forefather.²

Secondly, it is said that once in the olden time, the villages of old Riphyim and Sanis had a friendship treaty taking an oath upon the waters of Doyang river, affirming their friendship. During which a fire was set in a small wooden plate which was then
released in the river to be floated. It was said that the wooden plate floated down to a
great distance without extinguishing the fire which confirmed their faith and loyalty to
the oath just taken. It may be noted that oath taking upon waters of a big river means
the river will drown them if an oath is broken. Such practices of oath taking upon the
name of big rivers, earth, forest, lightning and wildlife is prevalent among the Lotha
even today.

Doyang is not only important river for Wokha district alone, but it is equally
important for the state of Nagaland as well. In the valleys along the Doyang river,
modern system of cultivation like terracing and wet rice cultivation with irrigational
system are being carried out successfully. In Wokha district such major three areas are
near Pangti, Aree and Changsu villages locally called Jentsu hayi Rantsu hayi and
Jendong hayi. Besides terracing and wet rice cultivation vegetables and some kind of
fruits are also abundantly and luxuriantly grown in these areas.

As plains are rarely found along the Doyang river in the district, these plains
are areas of great significance not only for the people who own them but are equally
important for the people of the whole district. Efforts were thus made to encourage the
villagers to adopt modern system of cultivation. As a result of which wet rice
cultivation is successfully done here. These areas, in fact, became the 'Rice Basket' of
the local people. Besides, paddy, vegetables and various kinds of fruits are being
cultivated not only for self consumption but also for selling in the market. Doyang
river provides not only fertile plains but it at the same time provides a large variety of
fishes to the people of the district. And although people don’t take up fishing as a profession, there are some families in Pangti, Aree, Changsu, Yikhum and Riphyim villages who catch fish from Doyang river and sell them to raise their family income.

A BRIEF HISTORY OF THE PROJECT

The Doyang Hydro-Electric Project (DHEP) is located in Wokha district some 105 Kms. north-east of Kohima, the state capital of Nagaland in Lotha area. It is around 20 Kms from Wokha town on the Wokha-Merapani road. The dam site is situated approximately 2 Kms. upstream of the Lotha Bridge at the meeting point of Chubi (the main tributary of Doyang river in Wokha district) and Doyang river south of Pangti village to harness the waters of both rivers.

It is a Government of India Undertaking sponsored and financed by the North Eastern Council (NEC) and being executed by the North Eastern Electric Power Corporation (NEEPCO). The North Eastern Council was established by an Act of Parliament in 1971, and its formal inauguration on 7 November 1972, marked the beginning of a new chapter of economic development of the North Eastern Region. It may be noteworthy to mention here some excerpts from the inaugural address of the Prime Minister of India late Smt. Indira Gandhi. She said:

"The various political parts of this region are bound by several common characteristics. Their people share a variety and picturesqueness of dress and customs that is rarely equalled. If they have the good fortune to live in the midst of green and lush surroundings, nature also visits them with many hardships, torrential rain, floods,
and landslides. The very terrain presents formidable obstacles to communications. Roads and bridges are needed to connect one point with another and to serve the region as a whole. Rivers remained to be harnessed for common advantage. The resources of the forests and the wealth hidden in the soil must be utilised for the welfare of all.

The primary purpose of this Council is the development of the region for greater human welfare. The first principle of development is coordinated activity, I have no doubt that the different units of this region will gain by such coordinated works.5

True to its principle, the Council have lived up to its objectives in the various fields of development, particularly, roads and communications and power development in the entire North Eastern Region. Realising that the development of electric power is an important infra-structure and input for the accelerated economic development of the region, and also the region being a store house of hydro electric potentials, the Council has been giving due importance and priority to this sector. It is said that the meteorological, topographical and hydrological phenomena combine to make the region as a store house of fantastic hydro-electric potential not only in the country but also in the world. The region is blessed with two unique river basins, the lower Brahmaputra basin and the smaller Barak basin, both of which can be developed to bestow benefits to the entire country. Of the various benefits which the planned development of these river basins can bring, hydro-electric power generation is certainly the most attractive.6
Thus, the North Eastern Region is blessed with the highest hydro potential estimated to be about 49,000 MW in the country on account of the mighty Brahmaputra and its tributaries. And according to 8th Five Year Plan report, of the total 600 billion Kilo Watt an hour in the country, the North Eastern Region alone accounts for 239.3 MKWh. Against such background, the North Eastern Council put forth the idea of having an electricity utility corporation for planned development for power generation project. Thus, the North Eastern Electric Power Corporation (NEEPCO) came into being in April 1976 as a Government of India enterprise. And today, NEEPCO is in the forefront of power generation in the region, planning, promoting, organising, investigating, surveying, designing, constructing, operating and maintaining power stations in the entire North Eastern Region.

Sanctioning of the Project

Against this background, taking up of Doyang hydro-electric project by NEEPCO is of great significance not only to the state of Nagaland but also for the neighbouring states. With this aim in view the Government of Nagaland had initiated the investigation of Doyang hydro project as early as 1967. However, its report was made available only in 1980.

A detailed account of the sanctioning of the DHEP is incorporated in the letter of Kalpnath Rai, the then Union Minister of State for Power and Non-Conventional Energy Sources to the Minister of Power, Government of Nagaland, in January 1992.
For our benefit, it is important to reproduce some excerpts from the said document. It says:

“Doyang Hydro Electric Project was sanctioned by the Planning Commission in 1983 with an estimated cost of Rs. 96.31 crores on the basis of the project report prepared by the Government of Nagaland in 1980 with consultancy assistance provided by the CEA/CWC (Central Electricity Authority/Central Water Commission) for installation of 3x35 MW TG sets. After taking over execution of the project by NEEPCO in August 1983, a revised cost estimate was prepared for Rs. 128.61 crores, which was sanctioned by the Planning Commission in October 1984. However, during detailed survey and investigation work carried out by NEEPCO in the pre-construction stage, many important parameters of the project had to be revised and a complete reappraisal of the project proposal had to be made in consultation with CEA to make the project economically viable. As a result of this studies, the capacity of the project was reduced from 3x35 MW to 3x25 MW and the estimated cost of the revised proposal stood at 166.65 crores at 1987 price level. CEA clearance for the revised project proposal was received in August 1988, and the final approval of the Government of India on this was received in July 1989. Due to reappraisal of the project proposal, no major works could be started prior to the receipt of CEA clearance of the project in August 1988. The cost estimate was again revised at October 1990 price level to take care of higher cost of land acquisition, increased cost of works, price escalation for construction materials, provision towards environmental safeguards and interest liability on LIC loan component and these worked out at Rs. 251.01 crores. This estimate was submitted to CEA for techno-economic clearance in May 1991”.
This was, of course, cleared and sanctioned subsequently. However, some of the important issues like the reduction of size of the project from 105 MW to 75 MW has not been clarified leading to serious misconception among the people. The NEC annual report for 1989-90, clearly says that as part of pre-construction survey, NEEPCO got the prepared reservoir area of the project re-surveyed by the Survey of India. The revised survey indicated a major error in the area of reservoir and subsequently it was found that the capacity of the reservoir could stand reduced from 1510 million cubic metres to 800 million cubic metre. This necessitated a complete reappraisal of the project parameters. After series of consultation with CEA and CWC by project authorities it was felt that most suitable proposal could be to go for the project having an installed capacity of 3x25 MW. Accordingly, NEEPCO framed a revised project report envisaging an installation of 75 MW and submitted to the Government of India. The CEA, as mentioned, cleared the proposal of Rs. 166.65 crores at 1987 price level in August 1988, and final approval of Government of India came in July 1989. The Government of Nagaland on its part after completing the initial duties of negotiating the terms and conditions of land acquisition with the landowners, handed over the work to the NEEPCO authority under the agreement on 1st August 1983.

Size of the Project

The Doyang Hydro Electric Project envisages the construction of a 87.50 m. high rock-fill dam with an impervious core across river Doyang and create a reservoir having a live storage capacity of 370.0 m cum between FRI (Full Reservoir Level)
330.0 m and MDDL (Minimum Drow Down Level) 306.0 m The reservoir water will
be fed through a 427 m long, 6.0 m dia underground water conductor system to a
surface power house with an installed capacity of three units of 25 MW each. To
facilitate construction of the rock-fill dam, the flow of Doyang river is diverted
through a 12.0 m diameter concrete line tunnel of length 6330.0 m. There is also
provision for a chute spillway design for a peak flood discharge. This will be provided
through 11.0 m radial gates. The total catchment area of the reservoir is 2600 Sq. Kms.
and the reservoir submergence area is 2424 acres of land. The main contractual
works such as construction of Diversion Tunnel, Water Conductor System, Evacuation
of Power House, Steel Pipe Fabrication and Erection have been awarded to reputed
firms like M/s Gamon India Ltd., Bombay, M/s G.S. Jolly Ltd., Shillong and M/s
P.E.S. Engineers, Hyderabad.

Transmission

The transmission line project for DHEP was approved by the Government of
India in March 1985 at an estimated cost of Rs. 4087 lakhs. This transmission system
which is being executed by NEEPCO envisaged evacuation of power from Doyang
Hydel Project. There are three main transmission lines covered by the project namely:
132 KV Double Circuit Doyang-Dimapur Line (98 Kms.), 132 KV Single Circuit
Dimapur-Imphal Line (188 Kms.) and 220 KV Double Circuit Dimapur-Missa Kathia
line (112 Kms.). All these transmission lines have been completed. Also the
transmission line within the state, viz., Kohima-Doyang and Doyang-Mokokchung
lines are under construction.
Land Acquisition

The preliminary works of the project such as demarcation and acquisition of land etc. and other continuing investigation works had to be done by the Government of Nagaland. According to the Chairman-cum-Managing Director, NEEPCO, “as regards acquisition of land this job is to be done by the state government of Nagaland and they are the authority to fix the land prices as well and prices of zirat. Based on the assessment made by the government, this corporation would release the money to the government of Nagaland for disbursement to the different landowners, or fix price of land or zirat”. And accordingly the Government of Nagaland started negotiating with the landowners from way back in 1980s. Initially there was strong opposition from the landowners to part with their lands. Their tradition also does not permit them to dispose of their land outside the confine of their village. However, after a series of negotiations between the representatives of the government and the landowners, it was finally agreed on certain terms and conditions. According to Phyosao Jami, President, Landowner’s Union, DHEP, “in order to acquire the requisite 14000 acres of land for the purpose of DHEP, the Government of Nagaland made several appeals through many agencies to the landowners with many promises such as land compensation, employment facilities, contract and supply works, and also rehabilitation schemes to the affected people”. It may also be noteworthy to recall the representation of September 1988 by the Landowner’s Union. It says “Doyang project is being undertaken for the benefit of this state, with that hope we the landowners agreed to part our precious land, land to us means survival, land is our only means of livelihood. But we are ready to sacrifice all this with the hope that this project would help find
new avenues of livelihood". Thus, it was not an easy matter for the people to part with their land specially the traditional land. Parting with their land is parting with their pride and tradition. Their pride and sentiment are attached to their land. This is why disposing of land to outsiders and outside the village is prohibited by tradition. Thus, with so much difficulties, they have agreed to part with and provide the required land for the Doyang project. Thus, it culminated in signing an agreement between the landowners and the Government of Nagaland on 2nd February 1984.

Consequence to this agreement, the Government of Nagaland deputed a senior officer to DHEP as full time Administrative Officer with staff to carry out the work of surveying, demarcating and finalising the land compensation process. However, it is learnt that even the initial work of surveying and demarcating the required land could not make much headway as expected. It may be worth mentioning here what the former Administrative Officer had to say regarding this matter, because during his term as A.O. all these works were started. He said “due to the indifferent attitudes on the part of the Government of Nagaland, not to talk about the demarcation and finalisation of the required land and the compensation thereof, even the initial work of surveying the area could not make much headway. This was evident from the fact that during my tenure as A.O. the Government of Nagaland did not sanction the much needed fund for the works for three consecutive years which adversely affected the progress of the work on the project. For eight months I had to go without salary, he lamented”. Even then with his initiatives the surveying for the Helipad and the colony areas of the project was done and subsequently the first payment of land
compensation of Rs. 41 lakhs was made possible during his three years tenure from 1983-86. Looking back the state of affairs now, it is lamented that had there been fund as required, it could have easily surveyed the whole area and made the larger part of payment for land compensation with lower amount and according to the price level of that time without much difficulties as has been done in the first payment. Recalling the land compensation crisis that has come up at the later stages, it is observed that such indifferent attitudes of the government at the very initial and important stage of the project was a grave mistake. And consequently, the finalisation of the land compensation was delayed for quite some time. Therefore, it will be beneficial to look briefly into the matters pertaining to such a delay and its subsequent result. For this reason again let us go back to the letter of the Union Minister of State for Power in which the Minister had categorically clarified the position concerning the delayed settlement of land compensation issue. It says:

"The provision under land in the original project cost estimate of Rs 96.31 crores prepared by the Government of Nagaland was Rs. 1.55 crores for an area of 4478.95 hectares. This provision was raised to Rs. 6.59 crores for the same area on the basis of commitment given by the Government of Nagaland before the Planning Commission while clearing the project estimate for Rs. 128.61 crores. However, when the capacity of the project was reduced from 105 MW to 75 MW, the provision of land acquisition was reduced to Rs. 5.65 crores for a reduced requirement of 2567 hectares as per the cost estimate for Rs. 166.65 crores. It was, however observed that the cost of compensation for land acquired during the period July 1985 to December 1990, increased progressively from Rs. 13.000 per hectare to Rs. 95.000 per hectare mainly on account of cost of orchards planted on the land. During this period, an area of 1608 hectares of land was acquired at a cost of Rs.
8.75 crores. The progressive increased in the cost of land acquisition was brought to the notice of the Government of Nagaland on a number of occasion and it was clarified by them that the high cost areas were due to the presence of rich orchards in those selected areas and that the average cost of acquisition is going to remain reasonable. Accordingly, a provision of Rs. 15.70 crores was made on land acquisition for an area of 2567 hectares on the basis of average rate of compensation till December 1990. As per the actual ground survey conducted by the Government of Nagaland, the total area required for the project now stands at 3408 hectares and cost of acquisition works out to Rs. 31 crores including the amount of Rs. 8.75 crores paid so far".  

Such a sharp increase in the cost of compensation for land became a major problem for the smooth execution of construction work on the project. It also raised eyebrows as to how and why so much increase in the rate of land compensation has taken place within a span of few years. Did the orchards planted on the land really caused the increase in the amount to be paid? According to T.C. Kittan, ‘every inch of land became an orchard’. Of course, it is now practically impossible to pinpoint which area or who did it, but it is said that the same plot of land was measured times and again for compensation. These are some of the reasons why the prices of land and orchards increased progressively as mentioned. But the moot question which remains to be answered yet is why did the authority not thoroughly investigate into it as to expose such practices in black and white. The authorities only tried for compromise with the landowners by just cutting few percentages from the bills. One wonders now whether such a huge amount of compensation has really reached the real victims. The letter continues to say that due to increase in the cost of land compensation from Rs.
13,000 per hectare in July 1985 to Rs. 95,000 per hectare in December 1990, the NEC had issued instruction in February 1991, to defer payment of any further amount towards land compensation and the Secretary, NEC took up the matter with the Government of Nagaland and held meeting with them in March 1991. In pursuance of a decision taken at the meeting, the compensation bill for Rs. 5.05 crores for an area of 356 hectares was returned to A.D.C. Doyang project for reassessment on a more realistic basis. While reasoning the bills, there was a marginal reduction of about 9 percent in the cost of compensation and the same has not been accepted by the NEC in view of very marginal reduction in prices. In April 1991, a decision was taken to constitute a committee by the Government of Nagaland for sample verification of bills and fixation of rate of payment. Accordingly a high power committee was constituted by the Government of Nagaland in August 1991. The Chief Secretary to the Government of Nagaland informed the Secretary NEC that the committee found no justification to dispute the compensation rate already recommended by ADC Doyang project and DC Wokha and the state government had accepted the recommendation of the committee. As a result the issue could not be sorted out.20

When the payment of compensation was stopped during 1991-92, land compensation issue completely paralysed the construction work in the project. Thus, to resolve the crisis, the Government of Nagaland again appointed a Cabinet Sub-Committee. However, according to the representatives of the landowners, the committee did not play any constructive role as was expected from it. More fuel was added to the fire again when the committee recommended 40 percent cut from the
bills. This was against the interests of the landowners and this pushed the crisis further into its climax. The crisis thus could not be resolved again. This necessitated the intervention of Kalpnath Rai, the then Union Minister of State for Power, Government of India who personally came to Doyang project in March 1992 to assess the situation himself. He had several rounds of meetings with the landowners, Lotha Hoho and with the Government of Nagaland. It was learnt from him in many of his meetings with the people that a certain Cabinet Minister of the state even suggested to the Union Ministry advising them to abandon the project. However, the interest of the Government of India was not to abandon the project but to find solution to the problem of the project as well as the landowners, so that the much awaited Doyang Hydro Electric Project is commissioned in time. Therefore, the visiting Minister of India, after series of meetings with different sections of people came to an agreement with the landowners at 25 percent cut from the land compensation bills. Of course, Pangti villagers accepted it under protest. Thus the problem of land compensation was solved and land acquisition process completed when the final payment was made in 1992-93. A total amount of Rs. 26 crores was spent for land and orchards compensation for an area of 8420.41 acres. The Government of India thus paid Rs. 5 crores less than the actual ground survey conducted by the Government of Nagaland which worked out to be Rs. 31 crores. With the land compensation fully paid there was no major local law and order problem of serious consequences and the works on the project went smoothly then on.
Looking back at the events that took place, it is observed that had it not been for the intervention of the Union Ministry, the Doyang project could have been abandoned, even if not abandoned the problems may not have been solved till today. Therefore, to avoid further problems, mistrust and misunderstanding the Government of Nagaland and NEEPCO signed a Memorandum of Understanding between them on 26 August 1992, taking possession of the acquired land by NEEPCO on 99 years lease. A certificate of handing over and taking over of the total acquired area for DHEP was also signed. According to this certificate, the total land acquired (villagewise) for DHEP which was handed over to NEEPCO is shown below.

**Land acquired from different villages**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Name of the village</th>
<th>Area handed over to NEEPCO (in acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sanis</td>
<td>147.85</td>
</tr>
<tr>
<td>2</td>
<td>Yonchucho</td>
<td>134.92</td>
</tr>
<tr>
<td>3</td>
<td>Sunglup</td>
<td>169.22</td>
</tr>
<tr>
<td>4</td>
<td>Lakhuti</td>
<td>154.08</td>
</tr>
<tr>
<td>5</td>
<td>Pangti</td>
<td>2264.42</td>
</tr>
<tr>
<td>6</td>
<td>Aree</td>
<td>1296.41</td>
</tr>
<tr>
<td>7</td>
<td>Litami</td>
<td>345.49</td>
</tr>
<tr>
<td>8</td>
<td>Riphyim</td>
<td>1664.10</td>
</tr>
<tr>
<td>9</td>
<td>Yikhum</td>
<td>10.34</td>
</tr>
<tr>
<td>10</td>
<td>Changsu</td>
<td>1856.32</td>
</tr>
<tr>
<td>11</td>
<td>Nuniung</td>
<td>185.54</td>
</tr>
<tr>
<td>12</td>
<td>Seleku</td>
<td>111.43</td>
</tr>
<tr>
<td>13</td>
<td>Tsingiki</td>
<td>80.29</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>8420.41</td>
</tr>
</tbody>
</table>
POSITIVE ASPECTS OF DOYANG DAM

It would not be an exaggeration to say that technology has revolutionised our life particularly during the last three hundred years or so. The technological innovation is probably the most important factor responsible for modernisation in agriculture, industry and cultural refinement. Dams are useful for flood control, navigation, cheap energy and irrigation which help in giving high productivity. Their water is useful for both domestic and industrial purposes. They also have cooling effect on the local environment.

Power in the form of electric energy is the most important critical inputs in the growth of economic development of an area. It is an important source of commercial energy consumed by the households and per-capita consumption of electricity is regarded as an index for measuring standard of living as well as nation’s progress. M. Ramachandran has aptly remarked, “economic growth and energy consumption go hand in hand. The rapid increase in the demand for power in our country over the years has gone together with the economic growth during the same period. Power is both an essential input and an infra-structure”. Further, K.P. Roy, with his optimistic thought about the entire North Eastern Region has said, ‘in case of North Eastern Region the present scenario of the economic development should not be a cause for despair as its huge hydro electric potentials … can be developed to its own advantages for the benefits of the region as well as of the nation’. Therefore, with the increasing trends towards economic development, the demand for power has sharply increased. With the sharply increasing cost and rapidly decreasing resources of oil and coal, now
in use for power generation, men have begun a hectic search for alternative sources of energy. There can be no better alternative than the available hydro resources, even replenished by nature, devoid of pollution and unaffected by inflation.\textsuperscript{26}

In the context of Nagaland where development lags much behind as compared to other states, development of power and its adequate availability for productive uses is of vital importance. The lack of industrial development in the state is chiefly attributed to non-availability of adequate power supply. Without power there can be no industries, mineral exploitation and not even self-employment. Unfortunately, Nagaland presently produces no power of its own and is dependent entirely on purchase of power from other states. And hence, speaking about Doyang project, Gen. K.V. Krishna Rao, former Governor of Nagaland has said, “the completion of Doyang project will not only meet the entire power needs of the state but surplus power can be supplied to other states on commercial basis”\textsuperscript{27}

The present power scenario in the state is most regrettable and its crisis is more acute than ever. Instead of economic and infra-structural development, the present power availability of the state cannot even meet the total need for domestic lighting purposes. Out of total requirements of 32 MW, the state is getting some 12 MW to 15 MW only from other neighbouring states on purchase. Therefore, the per capita consumption of power in the state remains very low. For example, during 1995-96, the per capita consumption of power in the state was only 95.56 KWH.\textsuperscript{28} If the per capita consumption of power is an indicator of economic development and standards of
living, then the situation in Nagaland state is very disappointing. However, over the years the number of electricity consumers has sharply increased in the state. It may be recalled that the Nagaland state has the distinction of achieving the highest percentage of electrification in the region with 100 percent rural electrification by March 1988, by electrifying 1072 villages. Thus, with increasing number of consumers the demand for power has increased sharply. For example, from 1,00,928 consumers and 79.11 KWH consumption of power during 1992-93, it increased to 1,15,118 consumers and 110.01 KWH consumption of power by 1994-95.

Against this background the Doyang Hydro Electric Project was initiated. Therefore, in spite of its various shortcomings the project also involves numerous positive aspects from the developmental point of view. We will be failing on our part if these aspects of the project are left out from our purview. The following important developmental aspects may be considered as integral parts of the project.

1. The availability of cheap electric energy will motivate power consumption and bring in its wake new venture to be set up in the state as the state is endowed with high potentials of micro-hydel generation from its streams thereby increasing generation capacity. The availability of adequate power will induce growth impulses in the economy of the state which in turn will invite generation capacity to be established and process will continue to generate more surplus power on commercial basis and increasing revenue mobilisation of the state. Therefore, if power production is viewed as industry, there is justification to harness hydel
potentials and traded on commercial basis to the neighbouring states. Doyang
project has this avenue because out of its 75 MW, 50 MW will be supplied to the
other neighbouring states through regional grid under the aegis of NEEPCO,
which has undertaken the construction of the project.

2. Usually in the wake of hydro-electric project, comes more development such as
factories, mines, agro and forest based industries, roads and communication, etc.
Therefore, with careful and sincere approach to development, Doyang project has
a lot of scope for accelerating development in the state particularly in these
sectors. The availability of cheap flow of electric power will pave the way for the
state to venture out for economic and infrastructural development as well as
regenerate the already sick units in the state like Sugar Mill Dimapur, Wozheho
Cement Plant, Tuli Paper Mill and scores of smaller factories.

3. Electricity has become an essential requirement for improving the quality of life.
With increasing modernisation the consumption of electricity has become an
integral part of life. Hence, consumption of electricity in the household sector has
been growing at an accelerated rate and now we have reached where its supply is
not able to keep pace with the increasing demands even for operating various
domestic appliances such as cooking, heater, and many more appliances for
recreational and lighting the houses. It may be noted that Nagaland has the
distinction of providing electrification to 1308 villages and towns by 1996. This
purpose will be well served by the completion of Doyang project.
4. Welfare measure is another important area of development which the Doyang project could provide. It is observed that while the power consumption for welfare measures has to be planned and provided as a deliberate government policy, the commercial consumption would depend on a number of factors, specific policy measures are required to be taken by the state governments to provide for the total requirements of power for welfare needs. The Government of Nagaland should keep in mind this principle of welfare measures and plan. Accordingly the development of various power intensive welfare measures in the state like, pumping for irrigation and drinking water supply and public lighting etc. should be undertaken otherwise they will remain non-operational as at present. Doyang project has the opportunity to develop these sectors for uplifting the standard of living of the people of the state.

5. Such big project like Doyang has much job opportunities both in business and self-employment sector apart from enhancing state’s revenues and creating basis for industrialisation. As Satyan Phukan, former Chairman, NEPCO has said, the Doyang Electric Project will employ on an average 3000 workers per day during construction and will be manned by about 500 men after completion when it become operational. Thus, creating so much jobs for the people involving different sections is a great development in itself for the local people in particular and the state in general.
6. The project under NEEPCO have also created significant spin of benefits to the people in the region. Some of these are schools, health care centre, market complex, roads and communications, extension of banking services, postal facilities, community centres, training centres, parks and playgrounds etc. Thus it has completed the minimum basic requirements for a small hamlet like Doyang.

7. The economic rehabilitation schemes as agreed upon by the authorities to the land affected people, if implemented with care and sincerity have immense developmental potentials, particularly in transforming the unaffected areas into more productive through introduction of various planned and integrated schemes. For example, there are three viable areas of development suited to the region namely – live-stock farming, introduction of modern system of cultivation and horticulture to avoid jhumming and also massive economic plantation not only to the catchment areas but also to other selected and wasteland areas of the region. These are more suited to the region and will do more benefit to the affected people as well as for the smooth maintenance of the project.

8. Lastly, the most important and viable development aspect of Doyang project is the maintenance and stocking of Doyang reservoir in a planned manner which will give benefits to both the local people as well as to the project. The project has immense potentialities for development of tourism and fisheries. Already a large number of people have started visiting the project site specially during the winter season. It is observed that the reservoir of many storage stations have become
highly popular excursion areas. Easy accessibility from the roadways originally built to facilitate dam construction, as well as the magnificent views obtained from the dam crest, have made such reservoirs a place of considerable tourist attraction. The large number of visitors have so far not jeopardised operation in any way. The large reservoir surface area could give wide scope of recreational facilities like swimming and other water sports such as boating, sailing, rowing, and canoeing etc. Thus, an ample field of recreational activities is offered to the public.

The Doyang project when completed will comprise 6000 hectares of surface area giving wide scope for these recreational facilities. According to S.C. Jamir, the Chief Minister of Nagaland, the state government is contemplating to take up integrating schemes including tourism, fisheries development etc. Considering its immense potentials for development of fisheries in the catchment area, the Fishery Department has prepared technical estimate for development of fisheries which worked out to Rs. 5 crores. This is a very important project and is expected to greatly increase fish production in the state. If executed, these two projects will create more employment opportunities directly benefiting the local people and the people of Nagaland in general.

The Doyang Hydro Electric Project, therefore, has tremendous developmental scope if planned in a more concerted way and with sincerity. The overall belief of the people of Nagaland is that the Doyang project will prove to be the Golden Goose of Nagaland some day when the project is fully commissioned.
References

1. Litami, name of a Sema village in Zunheboto district.

2. The story of Thyulong and his migration is a known fact to the Patton clan of Lakhuti and old Riphyim villages. However, a detailed account of the story was supplied by Khondao Patton of Riphyim village, Rev. Anyimo Patton and Lonphio Patton of Lakhuti village. According to them, Thyulong had to crawl from the river bed several times to cross Doyang river while clearing the thick jungle to built Lakhuti village. And every time he crawled the river he had to carry a big flat stone and axe on his back so that he may not be floated out. Then on the final day, all his brothers from Riphyim village came down to the river side to see him off. And interestingly on this day, Thyulong, while crossing the river by crawling had to float out time and again thus crossing the river with great difficulty. His brothers meanwhile were watching him with great admiration and sorrow. They, bid him farewell by telling him that ‘O brother it is not we don’t love you that you have to take this decision to leave us, but it is of your own accord and decision to leave us, so even if you die do not put the blame on us’. Saying so, they bid a tearful farewell to their brother Thyulong, who along with friends from other clans had built Lakhuti village many years ago.

3. The story was based on the narration of Khondao Patton and Nrio Patton of Riphyim village, which was also confirmed by the villagers of Sanis.
Even today, the people of these villages are said to cherish and keep up to this historical event which their forefathers made.

4. **Jentsu hayi, Rantsu hayi, Jendong hayi**: these are the local names of the plain areas affected in the Doyang Valley in Wokha district. All these will be submerged once the dam is completed.


7. Ibid., p. 251.


15. Note Sheet of Chairman-cum-Managing Director, NEEPCO, Shillong, dated 10.10.88.


17. Representation of Landowner's Union to the Chairman-cum-Managing Director, NEEPCO, Shillong on September 26, 1988.


20. Ibid.

21. *Lotha Hoho* is the apex tribal body of Lotha Tribe in Wokha district.

22. Rs. 26 crores spent on compensation as disclosed by the Resident Chief Executive DHEP in the *Warrior*, May 1994, p. 15.


Aree, Litami, Riphyim and Changsu are all combined villages now known as Old and New.


31. Ibid., p. 259.


