The Loss of Arun III

Dr. Ram S. Mahat

(In Defence of Democracy)

Perhaps no single develoment issue attracted as much attention, controversy, and debate in the early nineties as the Arun III Hydro Project located on the Arun river in Sankhuwasabha district. This project was identified by a JICA reconnaissane study in the Koshi basin, and screened further on the basis of energy capacity, distance from the load centre, accessibility, and rough cost benefit analysis. As one of the four attractive projects identified by JICA, it was subsequently studied upto the pre-feasibility level. In 1987, a Least Cost Generation Expansion Plan (LCGEP) was prepared with the help of a Canadian firm called Canadian International Water and Energy Consultants, based on an inventory of projects studied upto the pre feasibility level. The Plan had concluded that the most economic generation sequence to meet the forecasted demand through 2005 would be a combination of load management, thermal power, and a two stage Arun III project. The study had considered various options including both thermal and hydro projects ranging in size from 10 mw Modi to 660 mw Kaligandaki 2 and an update of LCGEP in 1990 had reconfirmed that Arun III was part of the least cost plan. The total generation capacity of the project was 404 mw of electricity.

The Project

This background information shows that when the elected Government of Nepali Congress took over in mid-1991, Arun III was already developed as an essential part of Nepal's least cost energy plan for the medium term. In response to the concerns about macro-economic affordability, this project was redesigned in 1992 as a two-stage project of 201 mw each; this again being reconfirmed as part of the least cost plan in 1994. Fed by mountain glaciers and aquafiers, the most attractive feature of this project was the firm energy it produced throughout the year. Unlike other projects developed and identified for the future that generated very low firm energy, ranging from 15 to 60 percent of the installed capacity in lean seasons, Arun III provided about 85 percent of the firm installed capacity even in the dry season of December-April, when the need for load-shedding normally becomes acute in Nepal.

The total estimated cost of the project, as of 1994, was US $ 1.08 billion, of which about two third was committed by external agencies, entirely in the form of grants and soft loans. The principal donors included the IDA ($175 million), ADB ($127 million), Germany ($125.4 million), Japan ($150 million), and France, Switzerland and Finland ($ 46 million).[1] Of the main sources, the German assistance was an outright grant. The Japanese had commited soft loans convertable into grants **and** the World Bank and ADB loans represented soft credit payable over a period of 30-40 years at less than one percent service charge. Others were grant-cum-credit. A rough calculation showed that the foreign assistance package had a seventy percent subsidy element in it and the annual power generation from the project at the prevailing power tariff at that time would yield approximately five billion rupees. The debt servicing obligation and operational costs of the project would take about one fifth of this revenue, leaving approximately four billion rupees as net revenue to the Government for investment in other priority sectors.

One important component of the project was the 122-kilometre access road to be completed at the cost of $ 124 million. The high cost of the road was mainly attributed to its design and the method of construction. It involved simultanous construction at

[1] The project figures in this section is mainly based on the World Bank Staff Appraisal Report of the project.

different sites, transportation of construction materials by helicopters—in view of their locations at inaccessible places—and extreme sensitivity to environmental concerns.[2] Highly capital intensive methods were used with the objective of shortening the period of road construction as delays in completing the road would delay the construction of the power project, which in addition to pushing up the normal project cost would mean a sacrifice of the power revenue. The road was important from social and regional development standpoints and it further made possible the development of second phase Arun III plus the Upper and Lower Arun. The combined power capacity of these projects was an estimated 844 mw, making the overall power generation among the cheapest in Nepal.

The Nepali Congress government supported and approved the project after being satisfied with its attractiveness. This was further reconfirmed after being subjected to rigorous appraisal and scrutiny at various levels from technical, economic, environmental, social, and regional considerations by national and international experts. The country had already spent US $20 million for pre feasibility, feasibilty, and the engineering designs. Various other studies concerning the environment, seismology, hydrology, resettlement, and GLOF had also been completed, and their appropriate prescriptions incorporated into the project design. Dozens of public hearings and consultations were conducted at the national level and with local bodies, user groups, and other stakeholders including the inhabitants of the project-affected areas. The support was enthusiastic, particularly from the affected areas where roads were expected to bring benefits to the local population.[3]

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[2] Restrictions were placed on placed on helicopter flying to ensure safe distance from the river bed so that the mating habit of rare fishes is not disturbed. Ajit Thapa, former MD of Nepal electricity Authority quoted in Spotlight, 8-17 October, 2004.

[3] See, *The World Bank Staff Appraisal Report, Arun Three Hydro Electric Project* 29 August 1994.

A period of approximately eight years was spent in these activities as well as in negotiating with various donor countries. Each participating donor had made a thorough appraisal of the project and found it attractive. Furthermore, the donors had their own parliaments, boards, and other bodies where development projects are scrutinized and debated. Arun III had passed through all these tests and financial assistance had been committed after a long and ardous process.

Controvesy and Cancellation

Unfortunately, the project attracted unprecedented debate and controversy both within and outside the country by a powerful network of international non-governmental organizations. A lot of arguments were made and much was written on the issue of Nepal's hydropower in general and Arun III in particular. The opposition instigated by business interests and the thermal lobby was natural. However, the staunchest anti-Arun campaign was launched by international NGOs and their local counterpartes in various financial capitals including Washinton D.C., Manila, Tokyo, and Bonn.[4]

The controversy took a political turn when the Communist Party of Nepal criticized the G.P. Koirala-led Nepali Congress government for promoting the project without creating a national consensus and studying alternative scenarios. They were also suspicious of the role of ‘commission money’ behind the project. We, at the National Planning Commission, became the target of much criticism for pursuing a wrong 'mega projects' policy in the hydro sector, and negotiating this 'expensive project'. In a haste to find faults in our approach, facts were mixed with fiction, till their distinction became blurred. The

[4] Some of the lead international NGOs opposing this project were UK and USA based International Rivers Network, International Technology Development Group, the Globe International, Greenpeace, Environment Defense Fund and Friends of the Earth. Prominent Nepali NGOs opposed to the project included Alliance for Energy, INHURED International, The Arun Concerned Group.

situation reached its climax when the General Secretary of Nepal Communist Party (UML) Madhav Kumar Nepal shot a letter dated 18 October 1994 to the World Bank President expressing “serious reservations about the way the project has been designed and proposed”. He also wrote that he would undertake a fresh review of the cost-benefit and the environmental side of the project before taking any final decision, "if elected to form a new government in Nepal.” The letter also questioned the mandate of the then ‘caretaker’ government to make a decision on such a vital project. The timing of this letter could not have been more critical, Nepal was preparing for mid-term elections, and the World Bank Board was scheduled to give final approval to the project on the 3rd November 1994.

It is absurd that the letter mentioned a lack of project debate in Nepal’s parliament, and challenged the competence of the 'caretaker' government to take a decision. Both these assertions were at variance with the truth. First, the project was debated in the parliament based on the motion of public importance tabled by a prominent UML leader.[5] Second, the question of the competence of a ‘caretaker government’ was not valid, since the project had already been negotiated and processed by the full-fledged cabinet before the announcement of the election.[6] The only formality remaining was the approval by the World Bank Board of Directors. Naturally, the World Bank took the content of the letter seriously, as it came from the leader of the major opposition party which stood a chance of winning the election. Consequently, it deferred the final project decision on the project.

The mid-term elections in November produced a hung parliament with no party winning majority seats. The CPN (UML) which emerged as the single largest party formed a minority governmant. In view of the party’s earlier position on the project, it tried to

[5] UML Leader Jhalanath Khanal had tabled a Motion of Public Importance on the subject.
[6] Government assumed the ‘care-taker' status after the announcement of the election date.

procrastinate a decision on the project. The anti-Arun campaign was gaining strength. A new mangement had assumed office in the World Bank and they did not share the same commitment to the project as their predecessors. Sensing the seriousness of this problem, this author, as a member of Opposition, tabled a Motion of Public Importance in the House of Representatives demanding an immediate Government decision on the project. I warned that any delay to take a decision could lead to the loss of the project, on which the nation had invested so much energy, resources, and time. The debate on the Motion continued until late night with unprecedented participation. Practically all party leaders including some members of the ruling party spoke in favour of an immediate decision. The response from the Minister of Water Resources was non-committal, raising several questions about the design and cost of the project, which he said “needed to be sorted out” before any decision was nade. Subsequently, the Minister dashed to Washington D.C., naively believing that he could reduce the project cost by redesigning a project which was already processed for final formal approval. The project had already been subjected to thorough scrutiny from all possible angles by the best possible professionals.

The World Bank was not convinced of the Government's commitment to the project. On 3rd August 1995, the new World Bank President James Wolfensohn cancelled the project “in agreement with the Government of Nepal”. Referring to his telephone conversation with Prime Monister Manmohan Adhikari, he said priority would now be given in "devising and implementing alternative strategy of meeting its needs for electric power"[7]. In cancelling the project, the President gave three reasons, namely :

i) concern regarding Nepal’s management capability to meet the demands and long list of actions which the project of this size and complexity would involve;

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[7] *The World Bank News Release No.96/Soo8*. August 3, 1995.

ii) difficulty in gaining popular support in implementing a number of measures including power tariff and prioritization of public expenditure and;

iii) difficulty in mobilizing additional $30-40 million cost overrun as a result of the delay in project implementation.

These arguments were not very convincing. The first two concerns were raised many times before, and were fully addressed. The Inspection Panel which the Bank had set up to review the social and environmental questions raised by NGOs found no fault in the way the project was designed. The President had cancelled the project without even discussing it with the Board of Directors, where other cofinancing partners would have presented their respective positions. In fact, some of the concerned financing partners were surprised at the World Bank's decision. It was particularly surprising since it had championed this project for about a decade. In this way, the Bank had virtually led the country to a 'no option trap'.

One immediate fallout of the project was the joy and celebration by the anti-Arun NGOs. The World Bank management had been the target of attack of this group for promoting 'destructive megaprojects,' and its new President who came from an investment banking background was equally criticised. The President's decision pleased this group; his acceptability with them established. It is sad that even Joseph Woods, a World Bank Vice President who had worked hard to promote this project, fell in line with the new management's approach. He said "the signal we would send out is that the Bank no longer supports infrastructure projects like this."[8] Ironically, just a few months after this decision the World Bank approved a mammoth 1450-mw Ghazi-Barotha hydroelectric

[8] See press release of 4 August 1995 by International River Network. Joshep Woods, together with the then NPC member responsible for the energy secor Binayak Bhadra, had visited various countries addressing the concerns raised by the civil society organizations about the project.

project in Pakistan and a 11-km Jamna Bridge in Bangladesh. This only indicates how a small and poor country tends to fall victim to the changing approach of mega institutions influenced by a network of interest-groups.

Allegations vs Facts

Let us now review the allegations labeled on Arun III against the facts. The first criticism was that Arun III was a huge project costing more than Nepal's annual budget. It was alleged that Nepal did not have the management capacity to implement such big projects and only big international contractors and their local commission agents would prosper. It would crowd out small scale projects and Nepal would not be allowed to promote project above 10 mw after accepting Arun III. Therefore, an alternative approach was necessary with an emphasis on small projects to be implemented by indigenous capacity. Second, it was pointed out that this project would cost $3,800 per installed KW whereas private companies could produce power at half that price. The project would make the power tariff unaffordable and the loan component of the project would impose a huge debt servicing burden on the economy. Third, the project would have adverse effects on natural resources such as land, forests, fisheries, and the socio-cultural environment of the Arun basin where 450,000 population of 10 ethnic groups lived. In this context, there were comparisions made with the controversial Narmada project of India.

Small Vs Big Debate

The charge that Arun III's cost was equivalent to one year's national budget did not make economic sense, since the project expenditure was spread over eight years; and it did not crowd out other priority development activities. The allegation that the Nepali Congress government favoured only big projects was equally invalid since one of the important policy departures made by the National Planning Commission in the early nineties was the emphasis given to the micro sector, particulary in energy generation, irrigation, roads, and similar development projects. Programmes were formulated to implement small hydro and other similar schemes for districts which had no access to electricity. We even invited agencies who were advocating small projects to take up the challenge of implementing mini hydro schemes in such districts for which government would provide every conceivable support.[9] The most outstanding example of the an indegenous hydro plant was the Butwal Power Company. Thanks to the plants untiring efforts during the last three decades, they had reached a stage when they were in a position to execute a project of the scale of Khimti (60 KW), after completing Tinau (1 MW), Aandhi Khola (5 MW) and Jhimruk (12 MW). Recognizing the pioneering contributions made by Dr.Odd Hofton in this field, the NC government had extended national honors to him.

I myself had called several meetings at the NPC inviting our banks and other financial institutions to find ways of mobilizing domestic resources to support the Khimti project. Similarly, the Governemnt developed the Kali Gandaki A project and brought it to the bankable level. A number of other smaller projects such as Modi Khola, Bhotekoshi, Puwa Khola were pushed forward for further investigations and detailed engineering studies to bring them to thier implemention stages. The Hydro Power Act enacted by the NC government had paved the way for all these projects because the Act made it possible for private parties, local and/or foreign, to invest in hydropower. It was a very sensible move in the context of increased global competition for soft credit and limited investment capacity of the Government.

[9] Some of these NGOs were invited in the National Planning Commission at my initiitive. They replied that their job was advocacy and therefore would not be involved in implementation side.

The proponents of the alternative approach had proposed to transfer the planned Arun III funds for the construction of ten different smaller scale projects to spread the risk. This looked fine in principle, but experience showed that the process of developing alternative hydropower projects is far more difficult and time consuming. They take a long time for investigation, feasibility, detailed engineering, financial mobilization, and subsequently implementation. Furthermore, donors only consider financing identified and studied projects after their own careful appraisals. It was childish to believe that the funds committed to Arun III could easily be transferred to other projects. Furthermore, the duration for implementing one medium hydro project from the stage of investigation to implementation and final commissioning ranges from 6 to 10 years, even if the whole schedule is strictly followed with clock-work precision.

Even as Arun III was under negotiation, we in the Government thought it wise to promote another medium sized project, Kaligandaki A, to meet the intermediate power needs. The World Bank was against this if we were to proceed with Arun III as they thought that it would prove difficult to manage and Nepal's macro economic situation could not afford both projects. We rejected this proposition and went ahead with further developing this project with UNDP and subsequently Nordic assistance. Thanks to the excellent work by our experts, we were ultimately able to convince the World Bank and others about the macro affordabilty of both projects. Kaligandaki A consequently became part of the agreed investment plan and was included in the future resource envelope. Therefore, the conditionality regarding NEA not being able to take up project beyond 10 MW without prior World Bank consultation became redundant. The clause was not in a position to prevent the Government from starting other projects, if one could show that the project would not divert resources from Arun III and jeopardise its implementation.

In a country with so much hydropower potential and so little use, the question of big versus small is rather academic. For Nepal's hydropower development, a one dimensional approach is simply insufficient and wrong. There should be space for projects of all sizes. Small, is of course, beautiful, and sometimes is the only answer to provide electricity to remote mountains and hills. Hence, the programme of that electrify small distant villages and mini hydros for hill district headquarters and growth centres not connected by the grids. Similarly, the medium and large hydros are essential for our grid systems and export purposes. In the first half of the 1990s, Nepal's energy demand was increasing at a rate of approximately 15 percent i.e. about 40 MW annually. It was simply impossible to meet this ever-increasing demand by limiting our options to small projects. Furthermore, more power supply was required to meet the existing unmet demand, where 90 percent of the population had no access to electricity. The liberalization policy initiated by the NC Government had set in motion a surge of industrial initiatives but power supply remained the main constraining factor. Many investors visited Nepal with investment proposals, provided the Government would assure them of the required amount of energy. The historical electricity sales curve also showed big sales growth in years when major hydro projects were commissioned. Therefore, the challenge for policy makers and planners is developing projects of all sizes and from all sources - private, public, internal and external. Without such an approach, meeting the ever increasing electricity demand would not be possible, let alone for export and making it an engine for growth.

Debt Burden, Power Tariff and Project Cost

The allegation that the project would impose a huge debt burden on the economy was false as even skeptics accepted that the most attractive feature of Arun III was its financial package. Over half of the external assistance was in the form of grants. The remaining debt portion was of a concessional nature carrying around 1 percent interest rate and payable over 40 years, with a grace period of an additional 10 years. As noted above, the project would have generated a minimum of five billion rupees ($100 million) annual revenue at the prevailing tariff at that time. At the present rate it would be about eight billion. Not more than 20 percent of the revenue generated by the project would have gone to service debt, the rest being available for investment in other priority areas such as poverty alleviation, rural development, education, and health. Out of all the investment projects supported with external credit in Nepal, it is only the investments in hydro power and telecommunications that has generated revenue sufficient not only to service debt, but also produced large amount of 'social profit' for government investment. Even a relatively small hydro power complex like Kulekhani I presently generates an annual revenue of Rs 828 million, of which 160 million is used to serve debt, thus generating a net revenue of Rs 668 million annually. Similarly, Marshangdi generates a net revenue of Rs. 1010 million annually.[10]

It was also amusing to see some critics belabouring to present a high energy cost from Arun III by adding elements not allowable in normal economic practice and conventional project analysis. Financial costs were combined with economic costs and the cost of installed capacity was calculated instead of the cost of energy generation, particularly that of firm energy. Arun III had an edge on the question of year-round firm energy. Others calculated the investment in Arun at future prices, and compared its economics with past investment and prevailing tariffs without price adjustments. Such estimates were obviously misleading.

[10] Figures are for Fiscal Year 2003/04 available from the NEA.

Despite the continued reminder of load shedding, one often forgotten aspect of the Nepalese power scenario is the mismatch between the energy demand and supply, particularly when examined on a seasonal basis. As the bulk of the power supply is derived from the existing run-of-the-river projects, the power supply during the dry season is much below their installed capacity, resulting in huge power deficit in the dry season. This problem could be remedied either through the development of large storage projects or projects which give firm energy throughout the year. The alternative to this is to generate power through diesel-fired thermal plants or imports from India. Arun III could generate firm energy throughout the year, thereby preventing the need for importing large quantities of fossil fuel. Such imports would pose logistical problems, increase external dependence, cause environmental damage, and drain forex reserves. It is also important to note that the cost per unit of thermal power is much higher than the normal hydro-based tariff rate.

In fact, of all the projects studied until then, Arun offered the cheapest firm energy, that is at the rate of 5.94 cents per kw/hr. This cost was to the NEA, not to Nepal as the external assistance received by the Government in grant and concessional loans is subsequently re-lent to Nepal Electricity Authority at the rate of 10.25 percent interest. If one takes into account only the cost of the project to the national economy, the production cost of both firm and average energy by Arun III would be less that 2 US cent per kw/hr. We did not come across any firm proposal which would generate power at a cost even remotely close to this figure. This cost would even come down further if one were to consider the common infra-structural facilities such as roads, dam/intake, transmission lines, camp facilities whose costs were fully absorbed by the proposed project. These facilities accounted for nearly 50 percent of the total project cost. As these facilities are available for the subsequent phase of Arun III and other projects in the Arun valley, the implication was "higher energy cost now and lower cost for future". If one were to further take into account the use of the access road and transmission lines for other projects including the Lower and Upper Arun, with total the generation capacity of 643 MW, the energy generation cost would come down to be among the cheapest in the world.[11]

Some critics raised the issue of affordable energy price, which was reasonable. The issue of affordablity ultimately depends on the cost of energy generation which varies from one project to another. One question was often asked: if Arun III could generate cheap energy why was a tariff increase of approximately 88 percent required over a period of nine years from 1996. The tariff question is related to an arrangement between HMG and the NEA, under which HMG treats all investment on Arun III as well as past investments as loans to NEA at the rate of 10.25 percent interest. This requires NEA to increase the tariff rate in order that sufficient resources are generated to pay back the loan to HMG at the agreed rate of interest. The rationale behind this arrangement is two fold. First, it is to ensure that NEA generates necessary resources to finance local costs of Arun III, as well as other power projects so that HMG does not have to divert its resources from other priority sectors to finance the hydro power development programme. Second, it is to impose some financial discipline in our public undertaking by charging tariffs which reflect the cost of production so that the grant or soft money provided by the international community is not treated as free gifts to be squandered by providing cheap utilities.

In sum, the question of tariffs is not linked with the energy generation cost of Arun III. Any government serious about tariff issues would consider other feasible means to moderate it. Such possibilities include reducing system losses, increasing the efficiency of NEA, reviewing the valuation of past investment and bringing them to realistic levels,

[11] It is roughly estimated that the cost would be $ 2,221 per Kw installed capacity and $ 3.21 per KW hour

and capitalization of some of the NEA debts which would reduce the interest burden. Even one percent reduction in the interest rate could bring down the electricity cost by 22 paisa per unit. These are all internal things which could be done by any government in due course without complicating project negotiations with the donors. The main point is that the NEA should become a commercially viable and efficient entity capable of generating a minimum internal rate of return on its investments after servicing its debt.

Criticisms were also made that implementation of projects such as Arun could lead to concentration of wealth in a few hands, as it would enrich big contractors and commission agents. Contractors and businessman play their roles in any business, big or small, even in closely-held economies, and tend to benefit financially. But it would be impractical to stop a road or irrigation or a power project simply because some contractors, agents, or businessman could benefit from them. There are some accepted rules of the game. If there is international capital coming from agencies like the World Bank or the Asian Development Bank, one has to accept international competitive bidding to the member countries for major contractual and procurement works. Under bilaterally-funded projects, contractors from the concerned donor countries will get the contract. If we do not accept such conditions, the recipient countries are free to choose a different type of financing model, and forget about foreign assistance. One cannot avoid big contractors in such projects, but any government worth its salt has the responsibility to bring these contractors and agents under the its tax net, and make them pay in line with their true earnings.

Environmental Issue and the Narmada Comparison

Some critics abroad were bent on exaggerating the environmental and cultural damage from this project. Comparisons were often made with the controversial Narmada Dam of

India without considering the fundamentally different natures of the two projects. A group of Western NGOs said:

> The threatened area is one of the last virgin forests in the Himalayas. The road would endanger a proposed national park, the Milke Danda area, as well as the Hurure-Chilchia cloud forest. Three sal forests would also be at risk…….the dam will destroy fisheries...21 bird, 42 plant, and 13 fish species, including the migratory Copper Mahseer are among the endangered or threatened plant, mammal, butterfly, reptile, bird, and fish species.[12]

One has to accept some trade offs between environment and modern development. Construction of infrastructure projects like hydropower, roads, and irrigation create negative environmental impacts, but such projects are also vital to improve the living conditions of the people. Otherwise poverty itself will destroy the ecological balance. What is important is a proper mitigation plan to minimise the negative environmental impact from such projects to maintain a balance between environment and development. This was adequately done with respect to Arun III. This was not a reservoir project involving large scale displacement of families, but a simple run-of-the-river project. The simple 50-hectare reservoir proposed in the project did not displace any family or submerge any farm land. The construction of the access road and the transmission lines to evacuate the power to the national grid created some resettlement and compensation problems. The total affected families numbered 958 of which only 119 were seriously affected. The project had provisions for attractive compensation package including substitute land, cash, and employment for at least one member of the seriously affected families.

[12] Extracted from the presentation made by the NGO delegation to the 27th ADB Annual Meeting in Nice, France.May 1994.

To compare Arun III with the Narmada Dam, which involved the construction of a huge reservoir displacing a population of about 67,000 largely indigenous tribals and submerging approximately 11,000 ha of forest land, was simply ridiculous. The project had the Regional Action Plan and Environmental Mitigation Programme with a total budget of US $ 18.6m to mitigate the negative impacts on the environment. Adequate provisions were also made for forest conservation, environmental mitigation, preservation of biodiversity, religious monuments, artefacts, and the development of microhydro and rural roads.

A National Loss

Arun III was lost, and with it the attractive financial package whose benefits included the huge social profit potential to boost the national revenue also vanished. The Eastern Development Region has been prevented from precious developmental opportunities which the multiplier effects of this project would have created. The dream of the poor people of the Arun valley - who are forced the pain of carrying bags of salt, fertilizer, and other essentials for several days - to have a road to ease their drudgery was dashed.

It may be a long while before the project is brought back for implementation. The internal capacity to develop the project does not exist and the possibility for availing grants and soft loan packages is extremely remote. Accessing concessional loans for a capital investment project of a commercial nature like electricity will be increasingly difficult in the coming days. Such credit is in short supply, but in high demand from other high priority sectors of noncommercial nature throughout the developing world. It is also estimated that about a trillion dollars will be required for financing the power sector expansion plans of low income countries during this decade. As the international financial institutions are unable to meet this requirement with soft loans, alternative sources including the commercial loans and private capital will have to be mobilised under harder terms and with higher repatriation of dividends and debt servicing requirements. Even this does not seem remotely possible under the country’s present investment climate and in the absence of access road in place. Even in the unlikely scenario of getting the capital investment, the project cost will be several times higher.

The naïve belief, that the funds committed for Arun III could be transferred to an alternative approach did not materialize. The World Bank had promised to fund an alternative power generation plan, but in the last eight years after the cancellation of Arun, not a single project of power generation was supported by this institution. An umbrella project called Power Development Fund with IDA credit of US $75 million (compared to $ 175 million committed to Arun III) was recently approved with the objective of supporting private sector projects. But its implementation is yet to take off. Thanks to the then Government's foresight in promoting the Kaligandaki A, the country did not go dark. The Asian Development Bank and the Government of Japan were successfully pursuaded to jointly support this project. This support was irrespective and independent of Arun III and therefore, there was no transfer of funds committed to Arun. Only the funds committed to Arun III by Germany was transferred to Mid Marshyangdi Hydro Project, and that too after a lot of persuasion.

One positive development in the last decade has been the development of private sector power generation. But the foreign exchange implications and other unfavourable aspects in the power purchase agreement due to poor negotiations have caused a tremendous financial burden on the NEA. The total sales proceeds from the power procured from the private producers is less than what the NEA pays as the procurement price. The NEA is obliged to buy all power produced from these schemes irrespective of their marketabilty, particularly in the surplus season. The NEA loses approximately a billion rupees annually on this account.

The debacle of Arun III has a lesson, if only we are prepared to learn it. Project preparation and investment for the scale of Arun III takes many years of time, money, and effort, even when goodwill and congenial atmosphere for development assistance prevail. But it takes a few months of determined activism to destroy it in this world of instant global communications. Opposition to such project can always be expected from the global network of organizations for ideological and other reasons, but when national policy makers themselves fall prey to wrong and motivated advice, the nation suffers. Once undone, recovery cannot happen early and easily.