



Government of Nepal (GoN) formulated Hydropower Development Policy<sup>1</sup> in 1992 and also promulgated Electricity Act and Water Resources Act. The following four reasons were cited as the rationale<sup>1</sup> for the formulation of the Policy:

1. “It is necessary to make **alternative arrangement to meet the interim demand** of the country till the above projects come into operation”. In this excerpt, the words “above projects” were used in reference to Arun-III (402 MW)<sup>3</sup> and Kali Gandaki (100 MW)<sup>4</sup>, which were expected to “be executed within a period of 7-12 years.”
2. “It is also necessary to construct new small hydroelectric projects to meet the **demand of those hilly and remote Himalayan regions** where the national electricity system has not been extended or would not be extended in the near future.”
3. “It is utmost necessary to extend proper distribution system in the **rural areas** where **electrification** has not been done, and
4. In order “to develop hydropower of the country by motivating national and foreign private investors in the electricity sector.”

The first two rationales, basically, focused on making alternative arrangements to meet the interim demand while Arun-III and Kali Gandaki A projects were under construction, by ensuring construction of small projects to serve hilly and remote Himalayan areas. However, the enabling law, the Electricity Act, 1992, does not suffer from such limitation; it was not intended to address just the interim requirement. Under this legal environment Khimti, Upper Bhote Koshi, and Indrawati III (totaling 112.5 MW) were constructed with foreign investment while a number of other projects have been built with local finance.

It is heart warming to note that the policy heralding private investment in the power sector in Nepal have had a successful trial. However, it needs improvement in a stratified manner so that each improvement reinforces the policy for the betterment. The policy works as a fulcrum in attracting private investments in the sector. Nepal is facing power shortage herself, and the huge power deficit in the neighboring India also affords a market for the excess hydropower generated in Nepal. In order to ensure that the planned capacity addition is realized to enable NEA to meet ever-increasing demand for electricity domestically as well as in the neighborhood, the policy needs to be rationalized and also made more responsive to the needs of potential private investors from Nepal and abroad.

## Changes based on Lessons Learnt

In 2001, a new policy (Hydropower Development Policy, 2001) was formulated to revise and improve the hydropower policy based on the (a) experience gained in the course of implementing the principles followed by the original policy, (b) emerging concepts in the international market and their impacts, (c) technological development, (d) possibility of export of hydropower, (e) possibility of foreign investment, and (f) commitment to environmental protection with a view to making it clear, transparent, practical, and investment-friendly. It was formulated to achieve following objectives<sup>5</sup>:

1. To generate electricity at low cost by utilizing the water resources available in the country.
2. To extend reliable and qualitative electric services throughout the Kingdom of Nepal at a reasonable price.
3. To tie-up electrification with the economic activities.
4. To render support to the development of rural economy by extending the rural electrification.
5. To develop hydropower as an exportable commodity.

## Salient Features

The new policy concept lays down strategies for its implementation. It has made provisions concerning the environment, water rights, investment in generation, transmission, and distribution, power purchase, etc. to attract investments from within and outside Nepal. It stipulates mandatory release of at least 10% of the minimum monthly downstream discharge of the river or stream by a project as environmental flow. In case it's Environmental Impact Assessment (EIA) study report calls for higher quantum as environmental flow, then the project is obliged to release that quantum of and low. There is also provision for acquiring necessary private and public land for implementation of the project, and the government is obliged to assist developers in this respect. A developer is made responsible for the rehabilitation and resettlement of any family that is displaced in the course of construction of power plant, transmission and distribution network, as specified by the GoN, at the cost of the project proponent.

The policy has also made provision for preventing adverse impact on the availability of water or water

rights of the project for which license has been obtained or license is not required. It envisages issuing licenses for study or survey as well as implementation of projects for generation, transmission and distribution of electricity, including captive generation. The policy stipulates specific timeframe within which license are to be issued. The survey license is for a period of five years while generation license will have a term of 30 to 35 years. Similarly, the term of the electricity transmission and distribution license is to be 25 years. The policy has waived the license requirement for projects of up to 1 MW.

There is provision for providing 50% of the royalty obtained by GoN from hydropower projects to the VDCs and districts that are directly affected by the power projects. The policy also envisages handing over responsibility of operation and management of small hydropower plants in mountainous rural areas outside the national power system to community groups.

### **Build, Own, Operate and Transfer**

The policy's fulcrum is the provision related to Build, Own, Operate and Transfer (BOOT) concept, making it mandatory for the transfer of the project to GoN in good running condition after expiry of license period without any compensation. Under the policy, a hydropower site has been treated in parallel to a concession and owner's title right over the power plant devolves to GoN upon completion of the term of the license. In order to ensure "good running" condition of such assets, the regulatory body (yet to be constituted) has been empowered to prescribe guidelines for repair and maintenance of main electric equipment and structure. The policy has also made provision for the involvement of GoN in the operation two years before the handover of the project.

Except in the case of captive plant, and where the plant owner directly uses the electricity, the policy has made it mandatory to execute a PPA to sell energy. By doing so the policy has failed to recognize that private sector investors also do implement merchant plant which will not sign PPA in advance; rather such plants are operated during the times of high tariff and are not operated when the tariff affords marginal return. The policy also has stipulated that the PPA shall be transparent.

In order to encourage foreign investments in the sector, provision has been made for granting non-tourist visa and work permit to investors, their representatives, experts, skilled personnel, and their families. Besides, the policy encourages hydropower projects to use Nepali labor, skills, means, and resources to the maximum extent possible in order to ensure that the benefit accruing from the backward linkage does percolate into the economy. Similarly, it also guarantees against the nationalization of power plants and against revocation of a license in contravention of the terms of the license.

### **Fiscal Provisions**

The policy provides for two-tier capacity and energy royalty with annual escalation of the latter by 5%. The rate regime is different for up to 15 years and after 15 years. Unlike the previous policy, it prescribes different rates for projects of different sizes, like 1 to 10 MW, 10 to 100 MW, above 100 MW, captive use project, export-oriented project, storage project etc. In India, an IPP is required to pay nominal water use charges and, additionally, has to provide 12% free power to the host State. However, an IPP in Nepal has to pay only a combined capacity and energy royalty and no free power is required to be provided. Compared to the nominal rates in Nepal, what an IPP has to pay in cash and kind in India is exorbitantly high, which has far-reaching implications for the economy—from high development costs to high prices that consumers have to ultimately pay for electricity or the macro economy has to internalize.

The policy has made provision to charge only a nominal 1% custom duty on the import of plant, machinery, equipment and spares for the construction or erection of the project. It has also made provision for the exemption of VAT on the import of these items.

According to the policy, custom duty and VAT facilities are also available for upgrading the capacity of a plant or for its necessary repair and maintenance because of exigency or natural calamity. It also guarantees that no tax, duty or governmental revenue in any form or title other than those levied in accordance with the agreement executed at the time of issue of license will be levied.

Moreover, the policy has made provision for exemption of income tax (also included in previous policy also). However, it was withdrawn by Income Tax Act, 2001 only to be reinstated with some modification by Finance Act, 2009 under which projects commissioned by April 13, 2019 are entitled to income tax holiday for first 7 years and a reduction by 50% for next 3 years.

### **Repatriation**

Under this policy, GoN makes firm commitment to assure repatriation for debt servicing (payment of interest and repayment of principal) and as return on equity, and the proceeds from the sale of such equity in the case of foreign investment.

### **Institutional Mechanism**

The policy envisages developing the Electricity Tariff Fixation Commission (ETFC) into a regulatory body to regulate the sector and also fix electricity tariffs and wheeling charges<sup>6</sup>. Under the policy, the private sector is entitled to use the national grid on payment of a fee (wheeling charge). Similarly, it has reposed the responsibility of study and promotion to Department of

Electricity Development (DoED), which is also a licensing authority. Water and Energy Commission Secretariat is to prepare a national load forecast, carry out system planning study, conduct preliminary identification of hydropower projects, conduct various policy research, etc. Electric Energy Management Research Institute is also to be set up.

Incidentally, Electricity Act 1992, promulgated to implement previous policy, has not been updated/changed to make it compatible with new policy.

## **Critique of Policy**

There are a number of areas in the policy that warrant improvement. This paper tries to deal with some important ones in the following sections.

### *Enforceability of the Policy*

The Electricity Act, 1992 was promulgated to make previous policy enforceable. In other words, the Act “implements” the vision enshrined in the Policy. In October 2001, GoN promulgated new policy, which supplanted the earlier policy. However, GoN is yet to effect changes in relevant legislation, including in the Electricity Act, 1992, thereby rendering the new policy (of 2001) unenforceable.

There are contradictions between the new Policy and the existing Act. This is sowing a lot of confusion in the private investors, and, therefore, inhibiting it from playing a significant role in hydropower sector. The new policy has made several changes to the existing policy, but when it comes to implementation, it is still the Electricity Act of 1992 that gets implemented. As an example, we can take the case of royalty. The new policy stipulates that energy royalty of 1.75% and 1.85% respectively to be charged to projects from 1 to 10 MW and from 10 to 100 MW sizes for first 15 years. But GoN is still charging 2% energy royalty to projects of all sizes in accordance with Electricity Act, 1992. Such a state of affairs discourages private investors.

### *Lack of Stability and Predictability in Policy*

Section 12(3) of the Electricity Act, 1992 stipulates “hydro electricity generation, transmission and distribution shall be exempted from income tax for 15 years from the date of generation, transmission and distribution of electricity for commercial purposes.” A number of projects have been built, being attracted by this exemption, and they are already enjoying the “income tax holiday.” But this facility was withdrawn in March 2001.

Income tax is a tax that is paid only if there is some income: no income, no income tax. Therefore, revenue officials have been doing their best to downplay the impact of the withdrawal of such exemption. Except for

some marginal sites, the impact of having to pay income tax at the rate of 20% (a concessional rate against the corporate rate of 25%) may not be that substantial. But the issue is that of stability and predictability of the policy, and the issue of income tax is just an example. Investors all over the world look out for stability and predictability in the policy under which they have to operate. This holds true more so in the case of infrastructure projects that are capital-intensive with relatively long gestation (construction) period and are long-term investments (recovery of investment with return possible only over a long time). Therefore, this particular step has been discouraging potential investors.

### *Lack of Vision for Energy Security*

Electricity is one of the sources of energy, and other non-renewable and unclean sources of energy are also used in Nepal, besides other renewable sources like solar, wind, biogas/biomass, etc. Traditional sources like firewood, agricultural residue, animal residue, etc. constituted 55% in FY 2015/16 and 40% of energy requirement is met by modern but unclean sources like coal and petroleum product. Electricity and renewable constitutes only 5%.

The nature has endowed Nepal with water resource aplenty but “forgot” to provide any fossil fuel like coal, gas, etc. Therefore, this policy should have focused on achieving energy security by harnessing water resource for most need, including displacement of fossil fuel and firewood; not only for lighting but also for industrialization, electrification of transportation and electric cooking, But sadly the policy has failed badly in this respect.

### *Failure to Capture Positive Externalities*

Hydropower development does not mean building only run - of - river projects; reservoir projects play much important role in meeting dry season demand (generates high value electricity). Such projects also generate positive externalities like lean season augmented flow in the downstream areas availing much needed water for human consumption, irrigation, fisheries etc. besides controlling flood during wet season. But the policy has completely ignored this facet of water use, which is criminal as there is no alternative to fresh water for water security and food security while there are both clean and unclean alternative for energy generation.

### *Faulty Licensing Policy*

By November 30, 2016, GoN has already issued 276 licenses for an assortment of projects of various sizes<sup>7</sup> in total for about 5,914 MW as detailed below:

Capacity Range	Number of Projects	Total Installed capacity
Up to 1 MW	172	121.98
1 to 25 MW	75	626.03
25 to 100 MW	16	933.61
Above 100 MW	13	4,232.7
Total	276	5,914.32

Table 1: Status of Survey Licenses Issued

And 117 Generation Licenses were issued for total installed capacity of 3,340.95 MW. However, so far only 50 projects with total installed capacity of 324.446 MW have been commissioned, while the country is facing load shedding problem caused by demand and supply mismatch. While only 91 projects with total installed capacity of 1,721.53 is under construction. A sad show compared to licenses issued for almost 400 projects with installed capacity totaling over 7,500 MW.

This is one of the main problems in the licensing policy. The current policy is to issue license for hydropower projects, irrespective of whether for domestic consumption or export, on “first come first serve” basis. People approaching GoN for license for any particular site can walk away with one if they are able to satisfy certain requirements.

There is not much to show for the huge number of licenses that have been issued. One meets people ranging from wanting to sell a license for a “price” to looking for a partner while the license holder is not able to mobilize even 10% of the required equity (even under the 75:25 debt equity ratio) on their own. On the other hand those who have financial strength to build hydropower projects have no access to licenses.

This phenomenon exists due to the fact that the policy is bereft of a mechanism to ensure that the applicant has access to necessary resources to implement the project. This problem has deprived genuine investors of potential sites and blocked the generation of electricity and thus the development of power sector thereby exacerbating power crisis. Similarly, such rent-seeking attitude of the license holders without financial strength is also additionally depriving the national treasury of the royalty revenue, which would have started flowing in had the policy made better provision to screen the applicants’ financial capabilities to implement a project.

#### *Hindrances to Dispute Settlement*

The Foreign Investment and Technology Transfer Act (FITTA), 1992 had no provision for the selection of foreign governing law for dispute settlement. For the proponents of the Khimti project, pioneer foreign investors, it was a sine qua non; they were unwilling to invest in Nepal unless they were allowed to choose foreign law to govern various contracts. Therefore,

Subsection (4) was added to Section 7 of FITTA in January 1996, in order to afford foreign investors an opportunity to choose foreign jurisdiction for dispute settlement. As Nepal has already signed the New York Convention on Arbitration, an arbitral award made in any country is enforceable in Nepal as long as the arbitration is conducted under the laws of the country where the venue of arbitration is located. This is one of the effective modes of dispute settlement. But the same cannot be said of other modes of dispute settlement.

Although, such a foreign investor is entitled to choose laws of any country, the decision of the foreign court is not enforceable in Nepal. The point can be illustrated with an example of a foreign investor, having exercised the right to choose English Law, will have to go to a court in England to settle dispute if s/he opts for the judicial settlement of dispute instead of arbitration. If the English court were to hand down a verdict in her/his favor, s/he would need the assistance of a Nepali court to enforce the verdict of English court in Nepal. However, the verdict of the English court, for that matter any foreign court, is not enforceable in Nepal.

Similarly, the liberty to choose foreign law implies that the investor exercising such choice will be entitled to adjudication under the law of that country even in the host country, too, where the project is located. But it is not even worth imagining that a court of Nepal will apply, for example Norwegian laws in the settlement of disputes; most in Nepal don’t even understand Norwegian language. In view of this, the liberty to choose foreign jurisdiction becomes ineffective.

Once foreign jurisdiction for the settlement of disputes under a contract has been chosen, a court in Nepal will not adjudicate a dispute under such contract even under Nepal law, as the governing law of the contract, freely chosen by the contracting parties, is the law of a country other than Nepal.

#### *Import duty Facility at the Cost of the Economy*

Pursuant to Clause 6.14.2 of the HDP 2001, no VAT is levied on the machinery, equipment, and spares thereof imported for a hydropower project. Similarly, Clause 6.14.3 of the policy waives customs duty on the import of machinery, equipment, and spares (except for the nominal 1%). This is a welcome provision in as much as attracting private investment is concerned. But due to such waiver, imported machinery, equipment, and spares become cheaper compared to domestic production because of which, Nepal fails to take advantage of the backward economic linkage. The investments made in the hydropower project will not percolate into Nepal’s economy by way of backward linkage.

#### *Sovereign Guarantee and PPA*

It is well known that government guarantee is met with disapproval from multilateral FIs in general. However, in order to perfect the security for hydropower projects, like Khimti and Upper

Bhote Koshi, GoN had to provide counter guarantee, without which these projects would not have been implemented (these were financed by multilaterals like International Finance Corporation, Asian Development Bank, etc. who themselves generally frown upon GoN issuing sovereign guarantee). In providing the sovereign guarantee as such, GoN has unconditionally and irrevocably guaranteed that NEA shall perform all of its obligations in time under the PPA to the proponents of these projects. If NEA is to fail, GoN is committed to pay the IPP the dues owed by NEA to the extent that GoN even foregoes its right of immunity as a sovereign government, citing the reason that the transaction contemplated by the PPA is of commercial nature.

However, such guarantee has not, generally, been available to domestic investors. It shows lack of a level playing field, as well.

### **Autonomy of NEA**

Pursuant to Section 4(1) of the Nepal Electricity Authority Act, 1984, NEA is an autonomous corporate entity. But, in practice, NEA does not get to exercise such autonomy most of the time. As the entire ownership of NEA vests with GoN, it is logical for it to receive policy directions from GoN through the board of directors (either ex officio representative of GoN or nominees of GoN) from time to time. But, NEA receiving executive instructions (non policy related) at times from GoN functionaries, oral or otherwise, amounts to the impairment of its autonomy.

The total installed capacity in NEA system is 855.886 MW<sup>8</sup>, of which it owns hydropower plants with total installed capacity of 531.44 MW making it responsible for operation of these power plants totaling while it needs to take care of the transmission and distribution of the total installed capacity in the system. In view of this, its 10,000-strong workforce is a case of over-staffing. With the change of every government, a number of people are invariably hired (with a few exceptions). When Rajiv Gandhi, late prime minister of India, declared, “These are not Electricity Boards, but Employment Boards,”<sup>9</sup> he could very much have been referring to NEA.

Even the appointment of NEA’s board members is done by MoE in a non-transparent and non-competitive manner without regard to academic qualification, experience and exposure. Furthermore, the Board has no say in the appointment of chief executive. All these are manifestations of encroachment on the autonomy of NEA, and it reflects poorly on the sector.

### **One-Window policy**

It is a common practice to set up a “one-window” institution to develop a particular sector. In Nepal, too, the policy envisages setting up such a window and designates DoED as the one-window for hydropower projects. However, investors need to secure permits and approvals from many other agencies under the GoN, and DoED just works as a

conduit for a developer to approach various other agencies within the government system. This has resulted in cumbersome processes, taking unduly long time, which has disenchanted/discouraged the existing IPPs as well as potential investors.<sup>10</sup>

### **Regulatory Body**

Regulatory body is the pivot of implementation of hydropower development policy. It simply doesn’t exist, nor has legislation for it been promulgated. Electricity Tariff Fixation Commission regulates just the tariff.

### **Recommendation**

1. In order to eliminate existing anomaly, obviously, new law conforming to HPD, 2001 needs to be promulgated forthwith.
2. The new policy assures that no change that will adversely impact the investors will be effected. But for want of legislation, this welcome piece of policy is not enforceable yet. The legislation which will make the policy that has this clause enforceable should be passed forthwith.
3. The policy needs to “shift gear” to achieve energy security in Nepal rather than excessive focus on export. Obviously, energy security doesn’t just mean no load shedding not only in the case of people with access to electricity but also to those without. It should focus on displacement of fossil fuel in the transport sector and kitchen including fire wood.
4. License for hydropower projects should not be issued to anyone and everyone walking in with an application. GoN needs to develop a mechanism whereby license is issued to only those who can show proof of their ability to invest a substantial portion of the estimated cost of the project. This can be implemented by requiring, for example, bank guarantee covering 10% of the estimated project cost. Such bank guarantee should be forfeited if the applicant doesn’t implement the project, which could be tantamount to recovery of royalty revenue to GoN, that it is deprived from by the failure of the licensee to implement the project.

Moreover, project licenses should be awarded on the competitive basis such that project is commissioned sooner and better revenue to GoN is assured.

5. In order to make the liberty to choose foreign jurisdiction for the settlement of disputes effective, GoN should make arrangements to allow the private sector investors to avail of all avenues of dispute settlement by, for example, allowing courts in Nepal to implement the verdicts of foreign courts.
6. In order to enable the economy to absorb the investments in capital-intensive projects, thereby reaping the benefits of backward linkage, GoN needs to provide import duty facility to only those items that cannot be manufactured or produced in Nepal in a cost-effective manner and of required quality in

necessary quantum and when needed.

7. As GoN furnishing sovereign guarantee causes distortions and also because the instrument does not belong to the age of economic liberalization, it should not be provided at all. If GoN thinks that sovereign guarantee needs to be provided to accelerate the development of the power sector, then it should be provided only for a limited fixed duration and ensuring level playing field.
8. In order to ensure that NEA actually enjoys the autonomy guaranteed to it by legislation, political interference of any type should be prohibited in the NEA. GoN should constitute a professional board comprising members with requisite education, experience and exposure for a fixed term. The board should be allowed to manage NEA professionally and also should be held accountable.  
  
One reason behind the high level of political interference in NEA is that a minister chairs the board. Both the chairperson and other members, as well as the executive director, should be chosen through a transparent and competitive process with provision for public hearings.
9. It makes no sense to make provision for “one-window” agency when such an agency is actually not able to function as one. In order to ensure that the power sector projects move on a real fast track, the one-window system should be implemented in the real sense. The turf wars between various agencies of the government can be eliminated by letting all departments concerned delegate necessary authority to DoED at the time of issuing license itself.
10. Legislation for regulatory body needs to be promulgated forth with and such a body needs to be formed with further delay.

## Conclusion

It goes without saying that having a policy that cannot be implemented does not make sense. Besides, as Nepal is not endowed with mineral resource while nature has bestowed her with ample source water resources, Nepal should strive to achieve energy security by harnessing water at the optimum level.

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## Footnotes

1. GoN (1992). Hydropower Development Policy, 1992
2. One thousand kilowatt constitutes one megawatt (MW).
3. The project, downsized to 201 MW and called “baby” Arun III, was planned to be built with financing from multi-laterals including the World Bank, which cancelled it on 3rd August 1995.
4. Although the capacity of the Kali Gandaki Project is listed as 100 MW in the policy, the project was commissioned in 2002 with the installed capacity of 144 MW.
5. GoN (2001). Hydropower Development Policy, 2001
6. A bill to establish Nepal Electricity Regulatory Commission was tabled in previous constituent assembly, but has yet to be passed.
7. Source: <http://www.doed.gov.np/index.php>
8. NEA (2013). Fiscal Year 2015/16 – A Year in Review.
9. Ruet, Joël (2005). Privatising Power Cuts?, Academic Foundation, p 82.
10. People have quipped in the lighter vein that the one window policy requires investors to climb through one window just to have to traverse many a doors.