

# The Case for Subsidizing Hydroelectricity Development in Nepal



Amir Manandhar

**Abstract:** We should stop using imported energy and have our own source of energy. When we have our own clean form of energy, the government or the developers should not hesitate to promote it. It's not only our nation's economy that we will be helping, but also the world environment that we will be protecting. We should find ways to reduce the import of petroleum products and to promote hydropower. Although the new government has shown keen interest in bailing Nepal out of the energy crisis, it needs to act now to bring acts and laws to promote hydropower. No law should be able to stop hydropower being developed. The government should spend on hydropower even if it has to tax petroleum products. It should provide incentives to hydropower developers.

**Key words:** Hydropower, renewable energy, CDM (Clean Development Mechanism), imported energy, cross subsidizing in hydropower

**The Nepal Government needs** to focus on sustainable energy and not on short term solutions. Fossil fuel is a finite, expensive and environmentally degrading form of energy. The use of such fuels should be reduced, especially in a developing country like Nepal where even the supply system of such fuels is unreliable. If we cannot manufacture environmentally friendly vehicles, we should at least try to reduce the use of such depleting resources.

## Cross subsidizing hydropower

Cross subsidizing hydropower will reduce the cost of developing hydropower, which in turn will enable developers to sell their generated electricity to the Nepal Electricity Authority (NEA) at a cheaper rate. In turn, buying cheaper energy will give the NEA more prospects to reduce its huge financial losses. Ultimately, it is the government that will benefit from this step. Therefore it will be a win-win strategy for government as well as for developers.

S.N.	Commodity	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07
1	Diesel	4,618,000	7,089,900	7,446,300	10,243,300	12,843,300	12,635,000
2	Petrol	1,059,300	1,420,400	2,065,000	4,723,700	5,813,600	6,675,800

Table 1. Imports of Petroleum Products into Nepal (Rs in 000's)

Source : FNCCI

Currently we have Rs 0.5 per liter tax imposed on petrol and diesel for pollution control. This is around 0.6% of the price for petrol and slightly higher for diesel. If this tax were increased to 5% in petrol and diesel, the revenue then collected would be 964 Million Rupees. If the revenue collected is used in hydropower, it is enough to build a 5 MW power plant every year. Further if it is wisely invested, equity capital for a 25 MW project could be arranged every year (Assuming project cost  $\approx$  \$ 2500/W, Debt: Equity= 80:20).

In addition, curtailing the nation's spending on imported energy will reduce green house gas emissions by millions of tons that, in turn, could generate billions of rupees through the Clean Development Mechanism (CDM).

Instead of trying to reduce the oil prices, we should focus on cross subsidizing the hydropower sector from the revenue generated from oil. This, of course, is not an easy step. It is not easy to ask people to stop using oil when we do not have

an alternative readily available. But the government should start promoting clean energy and not advocate using more imported energy. It should not make unwise decisions like that of establishing a 200 MW thermal plant.

## Nepal needs to spend in hydropower

In the recent budget speech, it was said that the government places high priority on developing the physical infrastructure. The development of 10,000 MW of hydroelectricity in 10 years is most welcoming, and also an ambitious plan. I feel, however, that we do not have any policies yet to match with this plan; not to mention the actions which have/have not been taken to make us realize that the government actually means to do what they say.

Even after the much awaited political change in Nepal, the pace of development of hydropower is still same. The Department of Electricity Development (DoED) has taken actions to discourage the license holders staying idle by increasing the renewal fees and the government has decided to abolish VAT in electro-mechanical equipments. But a lot more needs to be done. Action needs to be taken if due dates are not met from the government side as well. The VAT needs to be completely eradicated from hydropower in order to attract investors and speed up development.

Energy is the basis for an industrial revolution, and the sought for 10,000 MW increase in electricity in 10 years will, in my view, not only light up the nation but will also create enough excess energy to use for industrialization. Thus, Nepal should not hesitate to invest in hydropower. There is no gain by not investing in hydropower, but there are a lot of losses that we might face if we do not.

## Investment in renewable energy is the safest investment

The current financial crisis is due to a lot of speculations and no growth. The bubble will keep getting bigger as long as speculation is more than the growth in investment. The Asian financial crisis in the 1990s and the recent global financial crisis are directly or indirectly related to the same principle. It would not be a surprise if, in the near future, Nepal faces the same problem. There is no solid income

from international trade. None of the sectors are financially sound except remittance incomes from overseas work. Most of the investments in capital are in real estate, which are not secure in the long run. After the recent global economic crisis, experts have said that investing in renewable energy is the safest investment. Both demand and supply of energy will not deplete. So I do not see why we should not invest in hydropower.

We should, therefore, have clean and renewable energy as our first preference. We should have plans, policies and Acts to promote it.

-----  
*Amir Manandhar* has a B.E. in Mechanical Engineering from Kathmandu University, and an MBA from Webster University. He is associated with Shangri-La Energy Ltd.,

*hydropower developer and promoter, and is interested in hydropower development in Nepal, CDM (Clean Development Mechanism) and renewable energy.*

*Corresponding Address:*

*amir\_manandhar@hotmail.com, manandhar@gmail.com*

## References

Karmacharya, Janak Lal, 2006, 'Maximizing benefits from hydropower: A Nepal case', Hydro Nepal: Journal of Water, Energy and Environment 1(1):29-34.

FNCCI (Federation of Nepalese Chamber of Commerce and Industries); URL: [www.fncci.org/](http://www.fncci.org/)

MOWR (Ministry of Water Resources, Government of Nepal); URL: <http://mowr.gov.np>.