# A History of FDI in Hydropower Development in Nepal

## Prof. Dr. Kamal Raj Dhungel

Abstract: In Nepal, hydropower is an obvious target for foreign aid and foreign investment. To date, a number of notable hydropower projects were constructed through foreign aid and that history dates back to 1911, when the Britain supported the Pharping hydropower project near Kathmandu. Today, India, China, USA and Norway are investigating the prospects for Nepali hydropower development. This paper traces this history of Foreign Direct Investment (FDI) in Nepal.

Name

Pardi

Trishuli

Devighat

Sunkoshi

Panauti

Seti

Keywords: Foreign aid, development, donor, political interest, Hydropower, Nepal

## The Setting

Nepal's development history is relatively short (since the 1950s) and its struggles with sufficient funding characterize the many struggles to build better infrastructure.

The history of Nepal's infrastructure development is short, starting in 1956. Nepal is always subsistence or rather deficit economy that lacks the ability to invest in projects that require huge investments. When bilateral aid began coming into Nepal, there has been a constant tension between the donor's interest and Nepal's. Regardless, donors have played a large role in developing Nepali infrastructure, industry, agriculture, educational system, and health sector. Most infrastructures in Nepal have been built with bilateral grants. Key industries (e.g., textiles, paper, agricultural tools) were also supported by donor grants and investments. The key industries bolstered by FDI aimed to help Nepal utilize its human and natural resources more effectively and efficiently. In sum, FDI aimed to help make Nepali self-reliant and to provide the foundation for developing a stronger and more vibrant political system. I believe we can say that while donors have often had political motives of their own, those motives have been greatly outweighed by the benefits produced in Nepal.

Over time, bilateral grants have diminished replaced by multilateral loans and investment. Oftentimes, corporations private from developed countries have invested their capital through these multilateral arrangements. For instance, Surva Nepal, Dabur Nepal, and Standard Charter Bank were all the result of FDI. What this means is that the era of grants and social welfare investments are being supplanted by private interests seeking to earn profit and to motivate Nepali industry through profit.

### Foreign Aid and Hydropower

Hydropower has long been a coveted sector, and thus a target, of foreign aid. Starting with the Pharping project in 1911, built with British assistance, Nepal hydropower has attempted to harness these interested investments to unleash

what most believe could be an extremely profitable and beneficial industry for Nepal and the region alike. In the table below, I sort Nepali hydropower projects by category: 1) constructed through grants, 2) constructed through loans, 3) constructed through FDIs, and 4) constructed with internal and external financing.

Capacity (MW)

1

21

14.1

10.5

1.5

2.4

Set 1: Hydropower project constructed through grants (direct investment)

Funded by

India

India

India

China

China

Former USSR

Set 2: Hydropower project constructed through loans		
Kulekhani	92	WB, Japan Kuwait
Marshyangdi	69	KFW
Kaligandaki A	144	ADB, JICA, WB
Middle Marshyangdi	70	KFW
Upper Trishuli 3A (under con- struction)	60	China
Upper Marshyangdi (under construction)	50	China
Chameliya (under construc- tion)	30	Korea
Set 3: Hydropower project constructed through FDIs		
Bhote Koshi	45	USA
Khimti	60	Norway
Upper Karnali (to be started)	900	India
Arun III (to be started)	900	India
West Seti (to be started)	750	China
Set 4: Hydropower project constructed through both internal and external sources		
Jhimruk	12	BPC
Chilime	22	NEA
Upper Tamakoshi (under construction)	456	Local fund, NEA
Mai Khola (under construction)	20	Local fund and NRN
Table 1: Hydropower projects by funding source(s).		



# The First Set - Constructed Through Grants (Direct Investment)

In this set, India, China, and the former USSR were the main investors for the construction of these projects, which include some early India-sponsored projects such as Pardi (1 MW), Trishuli (21 MW), and Devighat (14.1 MW). Sunkoshi (10.5 MW) and Seti (1.5 MW) were built with Chinese assistance. And the former USSR financed the 2.4 MW Panauti project. We may believe that the USSR's interest in Nepali hydropower was motivated by its political competition with the US during the Cold War. In terms of bilateral assistance, grants were most commonly the form of investment through the 1970s after which we see more loans and fewer grants. The end of the 1970s also marks, largely, the end of bilateral assistance, replaced by multilateral investment.

#### The Second Set - Constructed Through Loans

After the 1970s, Nepal has relied on loans for hydropower from bilateral and multilateral sources, primarily from international finance institutions (IFIs) such as the World Bank and Asian Development Bank. Japan, Kuwait, Germany, China and Korea also collaborated with other institutions to fund Nepali hydropower projects such as Kulekhani I and II (60 MW and 32 MW), Kaligandaki 'A' (144 MW), Marsyandi (69 MW), and Middle Marsyandi (70 MW). These larger projects have been integral in meeting Nepal's rising electricity demands.

### The Third Set - Constructed Through FDIs

Structural adjustment programs, as designed through the World Bank and International Finance Corporation, and International Monetary Fund, in the 1980s and 90s drastically changed the modality of hydropower financing. Generally speaking, these programs required that recipient nations implement particular economic reforms in order to be eligible for loans. These reforms were intended to allow the free market to have a larger role in supporting a recipient nation's economy. FDI also refers to private international companies-such as GMR (India) and Sutlaj (India)-and parastatalssuch as Statkraft (Norway) to collaborate with IFIs to provide the necessary funding for larger hydro projects. In that vein, with contributions from IFIs, the US invested in Bhotekosi (45 MW), and Norway helped to finance Khimti (60 MW). Not only did the US and Norway provide financing but also technical assistance. Currently the Upper Karnali and Arun III projects (900 MW each) and West Seti (750 MW) are being developed by private foreign investment from India and China respectively.

The early success of Bhotekosi and Khimti promised a successful future for FDIs, but the political instability that has prevailed from 1996 to present has slowed the inflow of the funding. It is hoped that projects like Upper Karnali and West Seti will show foreign investment groups that Nepal can again be considered a worthwhile investment setting.

# The Fourth Set - Constructed Through Both Internal and External Sources

This final set marks projects built using Nepali capital or through a combination of Nepali capital and another country's. Jhimruk, built by the Butwal Power Company (12 MW), is an example of a Nepali funded endeavor. Chilime (22 MW) was funded through a combination of internal Nepali capital with Nepali expatriate investment. Currently, Upper Tamakoshi (456 MW) is being constructed largely through Nepali borne funds. Mai Khola (20 MW), meanwhile, will be built through local investment and funding provided by non-Nepali residents (NRN).

#### The Way Forward

Now that we've sorted the various funding categories of Nepali hydropower, I think we can see that FDI will be the dominant mode of hydropower financing in the future. Because Nepal has limited in-country capital, it is impossible for us to construct large scale hydropower projects that will fulfill the shared goals of 1) electrification, 2) support of industry, and 3) power trade to India.

However, we need several key pieces of legislation to be updated to adequately address the current hydropower environment. For example, the Electricity Act of 1992 has not been able to address issues related to mega projects such as concerns about resettlement, transmission line construction, and multiple use benefits. As well, this legislation does not provide a vision to manage a competitive bidding system that is transparent and open to the public for comment (Chalise et al. 2013).

Still, despite the promise and necessity of FDI, it is still a controversial matter in Nepal because many see FDI as a ceding of our sovereignty to foreign interests. While I appreciate this point of view, slowing the development of our hydropower resources has produced an environment dominated by the reality of load shedding, and an industrial sector that operates sub-optimally because it cannot get enough power for its production needs. If we can manage to develop our mega projects today (Upper Karnali, Arun III), we will avail the country of multiple benefits beyond electrification. These benefits include increased state revenue through power trading and sale, as well as future funding that will inevitably come when foreign interests feel confident that Nepal is a secure setting for investment. Developing countries around the world have made FDI an integral part of their economies: think of the mutual benefits gained by China and the US through their trade and financing agreements. It is high time that politicians and other stakeholders understand that in today's economic world, FDI is the key path for developing our country.

**Kamal Raj Dhungel** is Professor at Tribhuvan University, Nepal. He also earned his PhD at Tribhuvan University in 2008 for his thesis on "Trends and Patterns of Energy Consumption in Nepal". Prof. Dhungel has written more than a dozen academic books on the topics of energy and the economy in Nepal. Among those titles: Readings in Nepalese Economy, A Hand Book of Cost Benefit Analysis, Energy Issues in Nepal: A Macro Level Analysis, and Investment Prospects and Challenges for Hydropower Development in Nepal. He also serves on the editorial boards of several international journals, including the Platinum Global Journal of Social Science and Humanity (PGJSSH) and the International Journal of Econometrics and Financial Management.

Corresponding E-mail: kamal.raj.dhungel@gmail. com

#### References

Chalise, B, Shrestha, A, Rijal, P and Pyakuryal V N. (2013). Foreign Direct Investment: Towards Second Generation of Reforms, Sambriddhi, The Prosperity Foundation, p.14 and p.25

### **Suggested Reading**

- Dhungel, K. R. (2015).Unlocking the development of hydropower potential, Hydro Nepal, No. 10.
- Dhungel, K. R. (2014). Estimation of Short and Long Run Equilibrium Coefficients in Error Correction Model: An Empirical Evidence from Nepal. *International Journal of Econometrics and Financial Management*, 2(6), 214-219.
- Dhungel, K R (2008a). A Causal Relationship between Energy Consumption and Economic Growth in

Nepal, Asia Pacific Development Journal, 15(1) June 2008, UNSCAP, pp. 137-148.

- Dhungel, K R (2008b). Regional Energy Trade in South Asia: Problems and Prospects, South Asia Economic Journal, 9(1) (2008), SAGE Publications, New Delhi, India, pp. 173-193
- Dhungel, K R (2003). Income and Price Elasticity of the Demand for Energy: A Macro-level Empirical Analysis, Pacific and Asia Journal of Energy 13(2), New Delhi, India, pp.73-84.
- OECD (2008). OECD Benchmark Definition of Foreign Direct Investment FOURTH EDITION, P.14, (http://www.oecd.org/daf/inv/ investmentstatisticsandanalysis/40193734.pdf)
- Rakishen, P. (2004). Measures to Attract Foreign Direct Investment: Investment Promotion incentives. Economic and Political Weekly, January 3 (39), pp.12-16
- Sachs, J (2008). *Common Wealth, Economics of Crowded Planet*, Penguin Books, p.223.
- Lall, S (2000): 'FDI and Development: Policy and Research Issues in the Emerging Context', Working Paper No 43, Queen Elizabeth House, University of Oxford and Organization of Economic Cooperation and Development (OECD) (2002). Foreign Direct Investment for Development: Maximizing Benefits, Minimizing Costs, OECD, Paris, Chapters 1 and 3.