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# TRADE STUDY SERIES :

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A look at petroleum &  
fertilizer supply in Nepal

Pramod Rijal, Akash Shrestha  
Serene Khatiwada &  
Manish Basnyat

Edited by  
Sarita Sapkota



Published by  
Samridhhi, The Prosperity Foundation

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**Published by**

Samriddhi, The Prosperity Foundation

P. O. Box: 8973, NPC 678

416, Bhimsengola Marga, Minbhawan Kharibot

Kathmandu, Nepal

Tel. : (+977)-1-446-4616, 448-4016

Fax : (+977)-1-448-5391

E-mail: [info@samriddhi.org](mailto:info@samriddhi.org)

Website: [www.samriddhi.org](http://www.samriddhi.org)

Photo Courtesy: Govinda Siwakoti and Dipesh Shrestha

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First edition: February 2015

Price: NRs. 200/-

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## About the Authors

### **Pramod Rijal**

*Pramod Rijal is a Research Associate at Samriddhi, The Prosperity Foundation where his focus areas are on hydropower and foreign investments. He has been previously associated with Nepal Development Watchdogs (NDW), United States Institute of Peace (USIP) and National Economic Concern Society (NECS), and Nepal Stock Exchange (NEPSE) on several researches in Kathmandu. He is also a teacher of Economics at King's College and Campion College and has contributed a number of articles in various national dailies. He holds a Master degree in Economics from Tribhuvan University.*

### **Serene Khatiwada**

*Serene Khatiwada is a Research Assistant at Samriddhi, The Prosperity Foundation where his focus areas are petroleum trade, agriculture and hydro power policies. He frequently blogs and writes articles based on the findings on the policy research he conducts in these areas. He holds a B.A Honors in Economics from Hansraj College, University of Delhi.*

### **Akash Shrestha**

*Akash Shrestha is a Research Officer at Samriddhi, The Prosperity Foundation and has previously co-authored a for The Foundation. He was also one of the founding members of the Nepal chapter of Youth for Nepal (YFN) - a New-York based non-profit working to create social entrepreneurs out of the Nepali youth in the fields of health, education and environment. Prior to joining Samriddhi, he was involved with the Himalayan Bank Ltd. He is a student of Business Administration and has written numerous newspaper articles, blog posts and radio capsules from a free market perspective*

## **Manish Basnyat**

*Manish Basnyat has extensive experience of working in the development sector with national and international organizations. He was Chairman of Digo Paribartan Nepal (DPN) until September 2010 where he provided expertise in formulating economically viable development project proposals and went on to establish a network of 18 NGOs working in mid and far western Nepal. He was also the Creative Director and Co-editor at Advance Monitor. He has also trained professionally in organizations such as The Asia Foundation and the Standard Chartered Bank in Dhaka, Bangladesh.*

*He received his Masters in Politics and Economics from the University of London and has authored a number of papers, including, 'Old Recipes, New Formulas: Consequences of a Different Kind'- How South Korea followed Germany's economic and social development path with a difference.*

## **Sarita Sapkota**

*Sarita Sapkota is a Communication & Development Coordinator at Samriddhi, The Prosperity Foundation where she looks after the development and implementation of communication strategies that helps The Foundation reach out to its key stakeholders She has significant experience of working with non-governmental organizations as a social work student and a professional and has also led a youth organization, "Youth For Nepal". She is also a contributor to a regular column in a national daily and a radio program producer and presenter at Hits FM 91.2. She is a graduate of Political Science from Tribhuvan University, Kathmandu.*



## Acknowledgements

We would like to present our deepest gratitude to a number of individuals and organizations who helped us in coming this far with this research. Many thanks to the authors of this trade study series Mr. Akash Shrestha, Mr. Manish Basnait, Mr. Pramod Rijal and Mr. Serene Khatiwada. Also, our most sincere gratitude to Ms. Sarita Sapkota for her valuable inputs to this study in addition to the final editing that gave shape to it. We also would like to thank Ms. Arpita Nepal for the continuous guidance and encouragement she gave when our research hit dead-ends – her guidance indeed gave us the path to a smooth continuum. Another important individual who provided, feedback and guidance at every step of this study has been Ms. Laura Liu of the Atlas Network, whom we cannot thank enough.

Many institutions and individuals have supported the publication of this research paper by participating in a series of consultations and providing their valuable inputs. We would specially like to thank Mr. Bhagwan Khatiwada (Ministry of Agriculture and Cooperative), Prof. Amrit Man Nakarmi, Mr. Saroj Pandey (Former President, Petroleum Dealers' Association), Mr. Mukunda Ghimire (Director, Nepal Oil Corporation), Ms. Parvati Lama (Manager, Namuna Mahila Cooperative), Pragya Shakya (Beed Management) for giving us time and enriching this study with their perspectives on the issues. Additionally many thanks to Mr. Santosh C. Kunwar for adding value to our perspective from his experience with the liquid fertilizer business and Mr. S.K. Shrestha of Mero Agro Pvt. Ltd.

We also have to thank few institutions for providing valuable data, without which the study would have been incomplete. Our thank you to Citizens' Investment Trust, Employees' Provident Fund, Facts Research and Analytics, and Ministry of Commerce and Supplies. The support shown by government officials, academicians, experts, business and political leaders during the study period has been very instrumental in the completion of this study – we wish to thank them for their continuous encouragement.

**Samriddhi, The Prosperity Foundation**

February 2015





## Preface

Nepal embarked upon economic liberalization in the early nineties with the vision of growing the country's economy through the involvement of private sector in a leading role. Based on this, the private sector was expected to become more active in trade (both domestic and international), while the state played the role of facilitator and regulator. However, the wave of liberalization did not catch pace in the following decades and the state is still a major player in the economy – running over thirty Public Enterprises (PEs) in different sectors, where a number of them are monopolies. Even in sectors where the state is not running a monopoly, it has adopted policies and set rules of the game that are different than those that the private sector is subject to. This has contributed to the creation of bottlenecks that restrain the growth of private sector and flourishing of trade.

In Samriddhi, The Prosperity Foundation's attempt to understand constraints arresting Nepal's growth prospects and finding sound policy options to address them, it has brought about this publication to identify and understand sanctioned barriers to private sector's involvement in trade and its –present and future– consequences on consumers and the economy. This trade study series titled 'A look at petroleum and fertilizer supply in Nepal' looks into trade in two sectors –fertilizer and petroleum– where government monopolies persist.

As an agrarian economy with two-thirds of its total population engaged in agriculture, low level of agricultural productivity is a major problem. One of the reasons behind this is the fact that farmers lack access to sufficient fertilizers to boost agricultural yield. With the government taking the sole responsibility of providing its farmers with fertilizers at an affordable rate, subsidies and monopoly on fertilizer trade have become two obvious policy choices. This has successfully kept the private sector at bay when it comes to fertilizer supply in Nepal. Given several limitations to the current provisioning of fertilizer supply, Nepalese government's inability

to avail quality fertilizers to domestic farmers in sufficient amount and required time has resulted in excessive black marketeering, distribution of low quality fertilizers in the Nepalese markets and consequently, food shortage in Nepal.

Similarly, supply of petroleum products that fuel most of the economic activities in the country is also monopolized by the state. Bilateral agreement between the Government of Nepal and Government of India dictates that the state-run utility, Nepal Oil Corporation Ltd. can only import fuel from Indian Oil Corporation Ltd. On the other hand, lack of a legal provision bars the private sector from entering the petroleum trade business. Additionally, with the subsidization of petroleum products in the Nepalese market, the government monopoly runs on a loss. Thus the government has been frequently injecting huge bail-out amounts to keep the utility running over the years – at the expense of the taxpayers.

The combined import of agricultural and petroleum products in Nepal surpasses USD 2 billion, which represents over 40% of the fiscal budget of Nepal for the year 2013/14. Yet, the very fact that both fertilizer and petroleum supplies are made through government institutions has meant that these institutions do not have to face competition and therefore, the incentive has been low to perform efficiently and avail quality services to the people at low prices. In the meantime, government control in these sectors has meant that private sector's ability to partake on trade of either fertilizers or petroleum products has been compromised. The ultimate impact of the existing trade regime of both products has been on the consumers who face frequent shortages and adulteration of both goods in addition to other problems.

This study has been prepared to highlight the costs incurred by the existing barriers in the free trade of these goods on the consumers and the economy. With the findings made under the aforementioned aspects, this study lays down a set of recommendations that can take the burden off taxpayers, smoothen supply of both the products in the country and allow market forces to act freely in a private sector friendly business environment.

## Abbreviations and Acronyms

AICL	Agriculture Inputs Company Limited
APP	Agriculture Perspective Plan
CB	Commercial Banks
CIT	Citizens' Investment Trust
DADO	District Agriculture Development Office
EPF	Employees Provident Fund
FAO	Food and Agriculture Organization
GDP	Gross Domestic Product
GOI	Government of India
GON	Government of Nepal
ILO	International Labor Organisation
IMF	International Monetary Fund
IOC	Indian Oil Corporation
IPP	Import Parity Price
LPG	Liquefied Petroleum Gas
MM	Marketing Margins
MoCS	Ministry of Commerce and Supplies
NLPGIA	Nepal LPG Industry Association
NOC	Nepal Oil Corporation
NPDNA	Nepal Petroleum Dealers' National Association
NPTEF	Nepal Petroleum Transport Entrepreneurs Federation
NRs.	Nepalese Rupees
NTC	National Trading Company
PAF	Price Adjustment Factors
PSF	Price Stabilization Fund
RFT	Refinery Terminal
SAP	Structural Adjustment Programs
SKO	Superior Kerosene Oil
USAID	United States Aid for International Development

The Nepali year is based on the Bikram Sambat Calendar and is approximately 57 years ahead of the Gregogrian calendar (2062/1/1=2005/4/14)

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# PART 1

## TOWARDS A BETTER PETRO-TRADE REGIME IN NEPAL

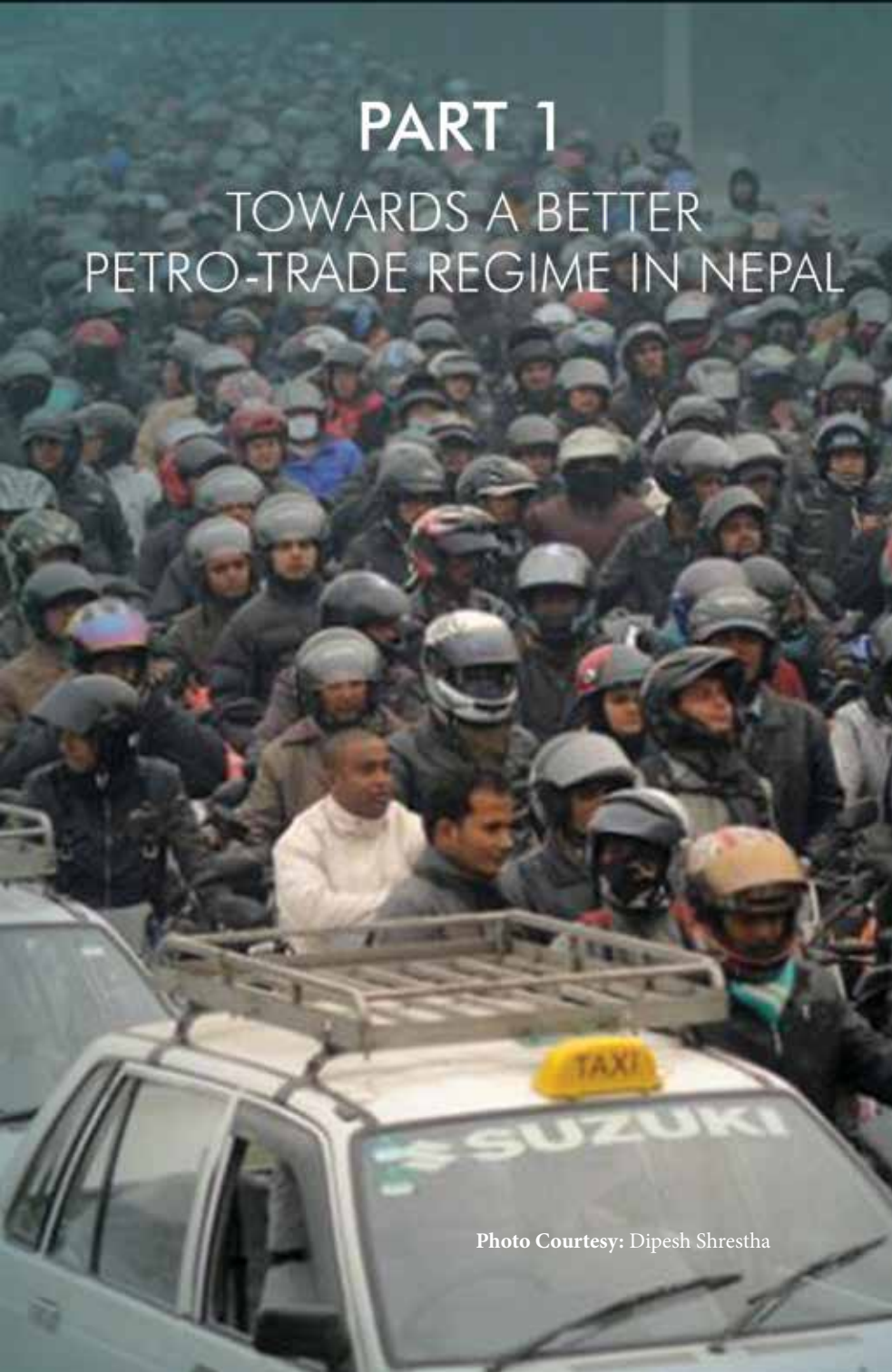


Photo Courtesy: Dipesh Shrestha



# Executive Summary

With over Rs. 100 billion (USD 1.049billion<sup>1</sup>) worth of imports per year, petroleum products are the biggest imports in Nepal. This figure amounts to over a fifth of the fiscal budget of the country. This further suggests that petroleum products play a significant role in every realm of people's lives in Nepal. 100 percent of petro-products in Nepal come from external sources. Yet, the trade of petroleum products is completely in the hands of a single organization – the government owned Nepal Oil Corporation (NOC). The sole importer of petroleum products in Nepal, the NOC, operates without a governing Act and for the most part, sets the rules of its own game. The sheer volume of its transactions and the absence of any governing legal principle make NOC prone to excessive politicization and corruption. The current financial health of NOC, lack of accountability towards taxpayers and the lack of economic soundness in policy and operations render consumers extremely vulnerable.

The current trade regime of petroleum products has imposed severe costs upon consumers. Firstly, consumers are subjected to a series of domestic **taxation** on petroleum products that are imposed by the government. NOC further practices **price control**<sup>2</sup> and cross-subsidy among products. In addition to these trade-related barriers, the monopoly nature of NOC; precarious measures taken by the government in sustaining the monopoly like **acting guarantor on loans that NOC acquires from various sources**,

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1 06.15.2014 NRB exchange rate (buying) 95.32

2 NOC has adopted Automatic Fuel Pricing in petrol and diesel since September 30, 2014. However, the prices of other petroleum products are still regulated. Therefore, there still exists partial price control. Furthermore, less than one month into the practice, automatic pricing mechanism has already started to face objections from petroleum dealers as having followed an impractical and incomplete approach to arrive at final retail prices. For more, read

- <http://www.karobardaily.com/news/2014/09/automatic-pricing-for-fuel-starts>
- [http://www.myrepublica.com/portal/index.php?action=news\\_details&news\\_id=84959](http://www.myrepublica.com/portal/index.php?action=news_details&news_id=84959)



and presence of **cartels and syndicates among the dealers and retailers** in the country have added further burden on the consumers. Given the tax regime on petroleum products and cross subsidization, NOC's financial health has been dramatically deteriorating in the last decade.

The **Memorandum of Understanding (MoU)** signed between Indian Oil Corporation (IOC) and NOC, which also paved way for all following agreements between these two enterprises, can also be established as a major contributor to the plight of NOC. Charges like **Refinery Terminal (RFT) Price, Price Adjustment Factors (PAFs) and Marketing Margins**, that were included in the selling price of petroleum products while exporting to NOC meant that Nepal was indirectly paying for Indian customs as well. While NOC was unable to exert the right amount of pressure on its Indian counterpart to review the terms of agreements such that both players were on level terms, the **managerial inefficiencies of NOC** itself cannot be overlooked. Overall, there is a plethora of reasons that has led to the sorry state of petroleum trade in Nepal.

This paper intends to look at the costs that have been imposed upon consumers due to existing trade barriers in Nepal's petroleum industry. Although this study has certain limitations such as lack of access to sufficient relevant data and time constraints, the paper tries to substantiate its claims via some rudimentary calculations. With the findings made under the aforementioned aspects, this paper lays down a set of recommendations that can take the burden off taxpayers, smoothen petroleum product supply in the country and allow market forces to act freely in a market-and-private-sector friendly business environment.

# I. Factors paralyzing the petro-trade regime in Nepal

## 1. Indo-Nepal Petroleum Trade agreement

NOC's current monopolistic trade regime largely stems from the historical ties of the Nepal Oil Corporation (NOC), and the Indian Oil Corporation Ltd (IOC). This association began in 1974 when they signed an MoU under active involvement of the two governments. The MoU set the IOC as the sole exporter to the NOC of all petroleum products required in Nepal. Prior to signing this MoU, there were multinational brands like Exxon distributing petroleum products through their own outlets in Nepal (Sharma & Shrestha, 2007). After the oil nationalisation policy in India in the 1970s, multinational companies like Burmah-Shell, Caltrex and others sold off their equities and exited the Indian market (Fundinguniverse, n.d.). Leaving the Indian market meant that these companies would no longer operate in Nepal either. As a result, in coordination with the Government of India (GoI) and the Government of Nepal (GoN), IOC and NOC entered into a bilateral agreement.

Import prices of petroleum products are defined solely by the IOC. These prices are revised fortnightly or monthly. Prices of petrol and diesel are revised by IOC on a fortnightly basis while that of LPG, kerosene and Air Turbine Fuel (aviation fuel) are revised on a monthly basis.

India sells these petroleum products to Nepal on Import Parity Price (IPP) basis. IOC adds its refinery costs, transportation costs and marketing margin on its export prices to NOC (Prasain, 2014). Since there are neither any competitors in exporting business nor any in the importing business, IOC enjoys this privilege of setting prices based on its discretion.

## **2. Lack of an Act governing the petro-trade regime**

The lack of a clear governing policy is one of the prime hindrances keeping the private sector from entering into business. The Ministry of Commerce and Supplies, along with a group of experts have been working on bringing relevant reforms to the petroleum trade scene in Nepal. Various reports have also been tabled in the cabinet of Ministers recommending the adoption of an automatic pricing mechanism, making the NOC board autonomous, and creating price stabilization funds to absorb the shocks in fluctuations of international petroleum prices and the likes.

In March 2013, GoN issued the Petroleum and Gas Transaction Regulation Order through Nepal Gazette, paving way for the private sector to open up refineries, and importing firms or LPG bottling plants to begin in Nepal. The Nepal Petroleum Dealers' National Association (NPDNA), Nepal LPG Industry Association (NLPGIA) and Nepal Petroleum Transport Entrepreneurs Federation (NPTEF) then pressured the government to roll back the order, demanding that GoN issue a Petroleum Act first. There is a Petroleum Act, formed in 1983. However, experts have since often called for a more comprehensive and private sector friendly Act. The Ministry of Commerce and Supplies tabled a new Petroleum Act in Parliament in 2010. This was returned for further consultation and the Act has not materialized since. Under such a scenario, experts have also asked the government to roll back the Regulation Order, stating that given petroleum is a very competitive and high-risk industry, a mere Regulation Order might not be able to mitigate all possible future consequences of an absent governing Act (Prasain, 2013.) The regulatory order has been put on a hold ever since. Consequently, NOC still remains the only importer of petroleum products in Nepal.

## **3. Price manipulation of petroleum products**

The IOC controls the export price of products to Nepal. Additionally, the Board of Directors at NOC controls the prices of petroleum products in Nepal (The Himalayan Times, 2014). Prices of these petro-products are

subject to heavy manipulation once they enter Nepal, and customs duties and customs service charges are applied at entry points. The NOC imposes volume-based lump-sum taxation on petroleum products. The exact calculation of this form of taxation is questionable in itself as volume of petroleum products fluctuates as per the temperature differences in various places.

A 13% VAT is imposed after the customs clearance. Other components of the selling price of petroleum products include costs such as transportation and insurance; NOC's overhead expenses; NOC's technical loss coverage; interest payments; dealer commission; and dealer expenses and profit/loss amounts (see Annex I: NOC's Selling Price Breakdown for details).

NOC further cross-subsidizes its products. In the pretext of availing LPG to the poor and rural populace of Nepal at affordable prices, the urban populace has been subjected to arbitrary pricing in other petroleum products, mostly petrol and diesel. As is discussed in the latter sections of this paper, this policy has yielded serious unintended consequences, such as the NOC recording perennial losses; the government having to intervene to keep NOC in business; and taxpayers having to avail loans to NOC while paying the principal and interest themselves.

#### **4. Inefficiency of NOC**

In June 2014, Nepal faced a petroleum shortage as a result of four consecutive public holidays. To this, the official response of NOC was that “the refueling stations ran out of fuel due to public holidays...” (Nepal National, 2014). This is a remarkable example of how inefficient the oil supply monopolist of Nepal is.

As a government monopoly, the NOC operates under a set of rules that are different from what private institutions are subject to. The NOC neither has to depend on investors for capital, nor does it have to depend on consumers for revenue. From historical experience (examples are discussed

in the following sections), it is clear that the NOC can just turn to the government whenever it meets a financial difficulty, and the government is always willing to bail-out or help NOC in any other way as necessary.

These factors have also given rise to a situation where NOC has absolutely no financial incentive to perform efficiently as an institution. In the last decade, NOC has recorded only one profitable year. In the same time period, the public has been forced to face numerous instances of petroleum shortages, adulteration and unfortunately, clearly turned to the black market as a solution.

In terms of poor corporate governance, managerial inefficiency is also evident. For instance, the NOC's supply was disrupted by public holidays. In regards to its leverage ratio, despite the cross-subsidy scheme the estimated ratio as issued by the yearly audit of the Ministry of Finance (Annual Performance Review of Public Enterprises) reveals the debt to equity ratio of NOC to amount to 344:1. To put that in perspective, US banking giant Lehman Brothers had a leverage ratio of 31:1 when it collapsed in 2008.

## II. How it affects the public

The petroleum trade regime in Nepal is clearly highly inefficient. The NOC purchases petroleum products from India paying economic costs, but sells them in Nepal for social and political prices. This has not only affected the health of the NOC, but also posed a huge entry barrier to other competitors and compromised the best interests of consumers. The existing trade regime of petroleum products has created a system whereby all negative impacts and burden are borne by the final consumers.

### 1. Impact of cross-subsidization policy & price control

Cross-subsidization of petroleum products, counter-intuitively, is the ill-practice that puts the consumers and taxpayers at great risk. Whilst monopolies should theoretically derive arbitrary profits, the NOC has been suffering financial losses for over a decade now.

The NOC subsidizes LPG gas, but attempts to fund it through increased taxes and increasing prices on its other products (Annex 2 shows how diesel and LPG are cross-subsidized by levying high taxes on n petrol).

Additionally, since demand of petroleum products is inelastic to price levels, this has created a mechanism conducive to price control. The International Monetary Fund (IMF) states that, in accordance with logic, petroleum is one good that boasts a high price elasticity in the long run.

“Based on a review of 124 developed and developing countries, Dahl (2012) estimates a range of values for the demand price elasticity between

-0.11 and -0.33 for gasoline, and between -0.13 and -0.38 for diesel. Long-run price elasticities are estimated to be larger than those found for the short-term. For developed countries, Goodwin and others (2004) found a mean price elasticity for fuel consumption ranging from -0.25 (short run) to -0.64 (long run).” (International Monetary Fund, 2013)

As a result of the high price inelasticity of demand NOC is free to set prices at its discretion and consumers will pay regardless. For instance, in the case of Superior Kerosene Oil (SKO) consumer prices in Nepal are 315% higher than that of India and 17% higher than that of Bangladesh (Parikh Committee, 2013). In the case of Liquefied Petroleum Gas (LPG) the consumer price in Nepal is 121.7% above that of India and 45.8% above that of Bangladesh (Parikh Committee report, 2013). Despite these figures, LPG is still a major contributor to financial losses recorded by NOC (USD 8.92 million per month on average, as of June 2014).

The fact that the NOC is sitting on a loss statement means that this system of certain products’ prices increasing more than others is not working out. Consumers—the majority of whom consume LPG as well as at least one other petroleum product—are paying increased costs for no efficient reason.

## **1.1 The vicious circle of petroleum supply in Nepal and government bailout**

The profitability of the NOC largely depends on the trading mechanism between the IOC and the NOC and the domestic policy that the NOC operates under. The NOC imports petroleum products from the IOC, and resulting payments are made in two installments within the next 30 days. The combined profits from all other products still fall short of losses made on LPG by hundreds of rupees per cylinder. As a result, the NOC fails to recover its investment made in the import of products from the IOC. This renders the NOC unable to pay the installments for the previous lot of petrol imports from the IOC, at which point, the IOC refuses to do any further business with the NOC until the past dues are cleared.

Foreseeing the impending shortage of petroleum products in Nepal, the GoN intervenes and directs institutions such as the Employees Provident Fund (EPF), Citizens' Investment Trust (CIT), and some commercial banks in the country to avail loans to the NOC as a government guarantee. This is taxpayers' money (mostly in form of saving, some as taxes paid to government). These taxpayers are also the final consumers of petroleum products in Nepal.

The same business cycle continues every year, and debt keeps increasing. The NOC continues to make losses and continues to acquire taxpayers' money as loans. Amidst all of this, the loans acquired via CIT and EPF have never been paid. Interests are however paid duly by adding the interest payment component in the selling price of petroleum products.

Lack of financial planning, as evinced by the perennial losses and ever-accumulating outstanding loans, threatens to disrupt the petroleum product supply in Nepal in the future. Under current trend, NOC has been availed loans as and when required, under government guarantee and without taking into account whether or not it has a repayment plan.



Fig 1: Vicious circle of petroleum imports in Nepal



Given the Indian counterpart ( the sole exporter of petroleum products to Nepal) has to be paid whether or not the NOC makes profit, domestic institutions seem to have been used as sources of unlimited funds.

### 1.2. Added cost to consumers (taxpayers)

NOC has never made principal-repayments of the loans it has acquired from taxpayers through institutions like EPF, CIT and GoN. On the other hand, the NOC has been paying its interest liabilities on its loans. This has given rise to another vicious cycle in terms of interest payments made to these institutions. For every unit of petroleum product sold in

Nepal, the NOC adds a fee under ‘interest expenses’ heading, which is in turn paid by the final consumers. (See Annex I for NOC’s selling price break-down.) The NOC charges Rs. 4 (4.2 cents) per liter/ cylinder of petroleum product sold to Nepali consumers as ‘interest expenses.’ To put it simply, the NOC gets loans from taxpayers’ savings (who are also final consumers) and adds the burden of interest payment of these loans to the taxpayers, operating at a loss all the while.

Table 1: NOC’s loan portfolio

S.N.	Description	Outstanding Loans (USD)*
1	Loan from The Government of Nepal (GoN)	\$132,616,450/-
2	Citizens’ Investment Trust (CIT)	\$93,684,430/-
3	Employees Provident Fund (EPF)	\$129,563,580/-
4	Commercial Banks (CB)	\$28,745,280/-
5	Indian Oil Corporation (IOC)	\$26,227,440/-
Total		\$410,837,180/-

Source: *Parliamentary Study and Recommendation Committee Report, Nepal, 2014 A.D*

\* 06.15.2014 NRB exchange rate (buying) 95.32

## 2. Added cost of living due to unscientific taxation.

The unscientific taxation policy implemented by the government adds to the costs of living in Nepal, particularly in cities such as Kathmandu. Firstly, GoN imposes volume-based lump-sum taxation on all petroleum imports. Neither the line ministry nor NOC has any justification over why this kind of taxation has been preferred to weight-based taxations that offer protection against the fluctuations in volume as per the temperatures that these products are subject to at different points in time and different places.

Another discrepancy is the high customs levied upon petroleum, despite it being less polluting than diesel. Petrol, which fuels the most common private means of transportation, motor-cycle and light cars (which are also treated as a luxury item by GoN) is taxed the highest. Diesel,

which fuels the public means of transportation and other heavy plants used in farms and industries, is taxed the lowest. The justification that can be deduced from NOC's website is that of cross-subsidization. Final Petroleum prices set by the government consists of 45% of government revenue tariffs in addition to the landed cost price at various depots prior to import. These prices offset the losses majorly made by LPG and diesel.

Table 2: Break-down of duties levied over petroleum products

Petroleum Product	Custom Duty (%)	Custom Service Charge (%)	Road Maintenance Tax (%)	Environment tax (%)	VAT (%)	Total Government Revenue (%)	Profit per Unit (%)
Petrol	22.2	0.0515	5.515	0.644	22.4	45.328	12.39
Diesel	2.496	0.0499	2.496	0.874	15.15	20.818	-12.19
Kerosene	2.53	0.0051	0	0	0	2.58	17.56
ATF* domestic	2.705	0.0515	0.4895	0	21.19	23.40	37.36
LPG	6.116	0.0262	0	0	11.12	16.624	-37.63

Source: Parliamentary Study and Recommendation Committee Report, Nepal, 2014 A.D

\*ATF: Aviation Turbine Fuel

Note: NOC practices lump-sum tariff mechanism. Tariffs are imposed on NRs. per kiloliter on Petrol, Diesel, Kerosene and Aviation Fuel and NRs. per metric ton on LPG. These tariffs have been converted into percentage per unit simply to show what they look like in per unit terms and analyze the tariff mechanism further.

This system of loss coverage proves to be highly shortsighted as the major flaw in the system of accumulating loans is offset by consumers' money taken in the form of heavy government revenues. As a basic necessity in today's world, petroleum products are inelastic to price fluctuations. Thus, taxes of any form are entirely transferred to the consumers through the pricing mechanism. As majority of people in the middle class population strata use petrol as their vehicle oil, the taxation policy on petroleum products directly increases the cost of living of these people and subsequently reduces their quality of life.

### 3. People's wealth (likely to be) compromised

Government ownership of the NOC is likely to compromise people's wealth in future if reform measures are not initiated. The NOC already holds debt of over \$409 million. As its losses continue to grow, it does not have the required means to pay back these loans other than using the government guarantee. In this section we look at these compounding loans. To put this into perspective, we also look at the direct financial burden forced upon the shoulders of an active laborer through the inefficiency of NOC. Finally, we look at what possible measures could be taken to pay back these loans, and how they risk compromising the wealth of Nepalese people (or even foreign nationals).

#### 3.1 Loan keeps piling up at NOC

The primary data of loans collected from CIT and EPF suggests that loans undertaken by the NOC are accumulating (See Annex III, IV & V). The average increase in loans per year from EPF is 32.7%, reaching a maximum of 120.69%. The average increase in loans per year from CIT is 91.751%, reaching a maximum of 265.49%. The fact that a calculation of average increments in loans received by the NOC can be made is in itself a serious factor. Simple reason for this is that the NOC is not an expanding business, making regular repayments and generating incremental profits.

Table 3: NOC's loan portfolio

S.N.	Description	Outstanding Loans (USD)*
1	Loan from The Government of Nepal (GoN)	\$132,616,450/-
2	Citizens' Investment Trust (CIT)	\$93,684,430/-
3	Employees Provident Fund (EPF)	\$129,563,580/-
4	Commercial Banks (CB)	\$28,745,280/-
5	Indian Oil Corporation (IOC)	\$26,227,440/-
Total		\$410,837,180/-

Source: Parliamentary Study and Recommendation Committee Report, Nepal, 2014 A.D

\*06.15.2014 NRB exchange rate (buying) 95.32

This creates an alarming scenario. Given that the NOC has always transferred the cost of operations to the consumer, these increased loans from CIT are most likely going to increase the prices of petroleum products. In other words, the interest payment fee levied upon each unit of petroleum products is due to increase because all the interest charges are transferred to the consumers.

The loan amounts are increasing every year and only interest payments are being met. This means, in light of increasing interest rates, if the current structural and operational framework of the NOC persists, it will never be able to pay back its due principal amounts. In theory, an institution has to make some profit to diffuse the outstanding loans and to smoothen their financial health. In the current scenario, the NOC has failed to make any profit out of their transactions. This calls for a structural reform of NOC. If the NOC fails to acknowledge this aspect, this could eventually create a credit bubble that could burst.

### **3.2. Financial burden per laborer**

The Annual Household Survey (2012/13) carried out by the Central Bureau of Statistics shows that 57% of the total population of the country falls under the economically active population (15 years to 59 years). 78.4% of this population is currently employed. Using these, we can calculate the burden of the NOC loan that a laborer has to bear, once they enter the labor market (See Annex V, VI & VII).

With the current amount of outstanding loans of NOC (USD 409 million) and the current labor force in the market (12.42 million, according to World Bank data), an active laborer has to bear USD \$33.07 worth of NOC's loan.

If the current trend at NOC continues until 2021, without things getting any worse, it will put a burden of USD \$81.67 per laborer in the Nepalese market. One has to bear in mind that these projections include only EPF and CIT. Loans from commercial banks, GoN's loans and

other creditors are not included. If all these institutions are taken under consideration, the financial burden per laborer increases even further.

### **3.3 Compromising people's wealth to save NOC**

Under the current business model (lack of financial planning and cross-subsidization), it can be safely assumed that the NOC will never repay its losses. In the meantime, the outstanding loan figures are rising by the year. One of the most difficult financial decisions to make for the NOC could be about attending to these outstanding amounts once creditors start mounting pressure. One possible way out could be that the NOC default on the liabilities altogether.

Another possible solution to this problem can be that a provision be made in the fiscal budget. This leaves the government with three possible sources of funding: one, printing money; two, increasing tax revenues by imposing higher taxes on the people; and three, acquiring a loan or grant from donor agencies. Either way, the burden of funding will be borne by the taxpayers (either domestic or foreign) once again. If the government prints more money, it devalues the wealth of entire Nepalese population by creating excess money supply and increases inflation. The second option is directly levying additional taxes on consumers to pay back loans. In the process, the government deprives people of keeping ownership of the wealth they have earned. If government goes for the third option, the grants will come from foreign taxpayers' coffers and payments of loans from the international community will require the government to take one of the first two options.

This only worsens the deal for Nepalese consumers. Since the NOC is a monopoly that controls the prices of petroleum products in Nepal, it will have no incentive to remove these monetary and fiscal burdens from the people even when these outstanding loans are paid back. This puts the consumers at the added risk of being subject to NOC's mismanagement. This will be the case as long as there is no other competitor in the market and there is price control.



### III. Recommendations:

The existing petroleum trade regime and the cost that it is imposing on the consumers need to be addressed practically. This paves way for the private sector to compete and relieve consumers and taxpayers from bearing the brunt of the NOC's inefficiency. In light of the findings and consultations held with experts, the following recommendations are laid down to reform the petroleum trade scenario in Nepal.

1. The Ministry of Commerce and Supplies (MoCS) could take up the responsibility of formulating an Act to govern the petroleum trade in Nepal. The Act should open up the petroleum sector for private sector competition. In the absence of clear policies and lack of mitigation mechanisms to deal with complexities that could arise during trade, the private sector is actively discouraged to venture into such uncharted territory. This has acted as a huge entry barrier in terms of opening up the industry for the private sector.

2. Duties that are applicable in various petroleum products could be reviewed. Currently, the NOC has a monopoly over the supply of petroleum products throughout Nepal. When complemented by the authority to control prices, this means that consumers have to bear the entire burden of this inefficiency. Opening up the industry to the private sector will possibly not be successful in bringing in any private players unless duty policies are reviewed. While the NOC can cross subsidize its products, the private sector's intention will be to churn profits out of trade while offering service to the consumers. When the NOC can afford to set duties and selling prices at its discretion in the pretext of government guarantees, it would be difficult for the private sector if it were to compete with a government owned service provider that cross-subsidizes its services to the extent that it runs on a loss of millions of rupees every month.



3. The petroleum industry could adopt automatic pricing mechanism. Since all consumers are having to bear the cost of cross-subsidizing petroleum products at a situation when the targeted consumers are not receiving the desired benefits of this cross-subsidizing policy, it can be safely argued that this is not a very practical move by NOC. Ministry of Commerce and Supplies (MoCS) could step in if a certain target group has to be subsidized. MoCS could come up with a different policy to provide subsidy service to the target groups. Applicability of voucher systems could be studied and piloted in the first phase. MoCS should be careful enough not to impose the burden of its social welfare on any particular enterprise or the entire consumer group.

4. Until all necessary home-works are done in order to implement automatic pricing mechanism (which includes opening up the industry for private sector, designing target group benefit plan, etc.), one short-term alternative could be to establish a Price Stabilization Fund (PSF). Since petroleum product pricing is a highly political issue in Nepal, rampant fluctuations could produce various externalities in the market. In this case, MoCS could establish a PSF at NOC. Under PSF mechanism, prices would only be allowed to freely fluctuate within a specified range. In case of a large and sudden surge in the international prices of petroleum products, a portion of the fund could be utilized to absorb the price-rise above the upper limit of the specified range. When prices fall below the lower limit of the pre-specified range, the selling price could be maintained at the lower level and profits made thereof could be channeled back to the fund.

5. It is high time that NOC focus on setting its financial planning right. As can be seen from the findings above, lack of financial planning by NOC has transferred immense financial load to the consumers and the taxpayers. It is also likely that this burden will be transferred to the future consumers and taxpayers as well. When the industry opens up to more competition, NOC could lose some portion of its market share and business volume. If that happens, the financial health of NOC would only get worse – further jeopardizing the taxpayers' savings. NOC needs to formulate and implement a sound financial plan as an accountability measure to the taxpayers.

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# Annexes

## Annex I: NOC's selling price breakdown

Description	Petrol NRs./ Ltr	Diesel NRs./ Ltr	Kerosene NRs./ Ltr	Aviation Domestic NRs./Ltr	Aviation Tax Free International NRs./ Ltr	LPG per cylinder Barauni Rate
IOC Price (Eff 16 July, 2014), Raxaul, NRs/KL	81.63	80.35	79.29	77.85	77.85	1,514.22
Total Government Revenues	35.22	16.68	2.04	18.97	0.44	246.84
NOC Interest Expenses	4.00	4.00	4.00	4.00	4.00	56.80
Transportation and Insurance Expenses	2.26	2.26	2.26	2.30	2.30	118.44
NOC's Admin Expenses	0.50	0.50	0.50	0.50	0.50	7.10
NOC's Technical Loss	1.06	0.61	0.52	0.58	0.50	1.39
NOC'S Dealer Commission/Profit to Gas Company & Gas Dealers	2.89	2.04	2.35	-	-	62.55
Dealer/Udhyog Expenses	1.29	0.84	0.91	-	-	52.54
Total Cost Price/ Landed Price	128.84	107.28	91.87	104.21	85.59	2059.88
Retail Selling Price	134.50	105.50	105.50	143.00	131.60	1,470.00
Profit/Loss Per Liter/Cylinder	5.66	-1.78	13.63	38.79	46.01	-589.88
Monthly Sales, KL or MT	20,000	75,000	2,500	3,000	7,000	1,500,000
Monthly/Profit/ Loss, Crores, NRs	11.32	-13.37	3.41	11.64	32.21	-88.48

Source: Nepal Oil Corporation, Official Website

## Annex II: Break-down of duties levied over petroleum products

Petroleum Product	Custom Duty (%)	Custom Service Charge (%)	Road Maintenance Tax (%)	Environment tax (%)	VAT (%)	Total Government Revenue (%)	Profit per Unit (%)
Petrol	22.2	0.0515	5.515	0.644	22.4	45.328	12.39
Diesel	2.496	0.0499	2.496	0.874	15.15	20.818	-12.19
Kerosene	2.53	0.0051	0	0	0	2.58	17.56
ATF* domestic	2.705	0.0515	0.4895	0	21.19	23.40	37.36
LPG	6.116	0.0262	0	0	11.12	16.624	-37.63

Source: Parliamentary Study and Recommendation Committee Report, Nepal, 2014 A.D

\*ATF: Aviation Turbine Fuel

Note: NOC practices lump-sum tariff mechanism. Tariffs are imposed on NRs. per kiloliter on Petrol, Diesel, Kerosene and Aviation Fuel and NRs. per metric ton on LPG. These tariffs have been converted into percentage per unit simply to show what they look like in per unit terms and analyze the tariff mechanism further.

## Annex III: NOC's loan history with Employees Provident Fund (EPF)

EPF loan Breakdown(All monetary value in US Dollars)*				
Year	Loan Amount*	Amount paid*	Cumulative Loan*	Increase Percentage
2004/05	11,540,080		11,540,080	
2005/06	0	524,550	11,015,530	-4.55%
2006/07	0		11,015,530	0%
2007/08	8,392,780		19,408,310	76.19%
2008/09	5,245,490		24,653,800	27.03%
2009/10	0	2,622,740	22,031,050	-10.64%
2010/11	8,392,780		304,23,840	38.1%
2011/12	36,718,420		67,142,260	120.69%
2012/13	16,785,560		83,927,820	25%
2013/14	29,899,290		110,155,270	31.25%
2014/15	15,736,470		129,563,580	17.62%

\*Source: Employees Provident Fund

## Annex IV: NOC's loan history with CIT

CIT loan Breakdown(All monetary value in US Dollars)*			
Year	Loan amount *	Cumulative Loan*	Increase Percentage
2010/11	11,854,800	11,854,800	-
2011/12	0	11,854,800	0
2012/13	31,472,930	43,327,740	265.49%
2013/14	29,374,740	74,800,670	76.264%
2014/15	18,883,760	85,291,650	25.25%

\*Source: Citizens Investment Trust (CIT)

## Annex V: NOC's loan history with EFP and CIT vis-à-vis Annual Net loss history (in USD '000)

Year	Loan from EFP*	Loan From CIT**	Total Loan Amount	Loan Growth Rate (%)	NOC's Annual Loss***	Loss Growth Rate (%)
2010/11	8,392	11,854	20,247		8,812	
2011/12	36,718	0	36,718	81.35	32,626	270.24
2012/13	16,785	31,472	48,258	31.43	99,979	206.43
2013/14	29,899	29,374	59,274	22.83	26,227	-73.77
2014/15	15,736	18,883	34,620	-41.60	100,083	281.6
Average			199,118	23.50		171.13

\* Source: Employees' Provident Fund

\*\*Source: Citizen's Investment Fund

\*\*\*Source: Parliamentary Study and Recommendation Committee, 2014

## Annex VI: Population projection by age group 2001-2021 (in '000)

Age Group	2001	2006	2011	2016	2021
Children (aged 14 years and below)	9098.2	9698.4	10168.5	10660	10919.1
Economically active population (15-59 years)	12650.7	14606.1	16614.5	18587.1	20818.5
Elderly population (aged 60+)	1402.9	1582.3	1802	2080.5	2434.6
Total	23151.8	25886.7	18585	31327.3	34172.1

\*Source: Labor and Social Trends in Nepal, 2010, ILO)

## Annex 7: Calculation of financial burden per laborer

Loan amount of NOC in 2021 (from EPF and CIT only)  
=  $119.12 \times 1.2357 = 872.53$  mil

Loan amount of NOC in 2021, factoring for inflation = 1700.32 mil

Number of laborers in 202 = 20.82 mil

Financial burden per laborer= USD 81.67

# PART 2

## IMPROVING FERTILIZER TRADE FOR BETTER SUPPLY



Photo Courtesy: Govinda Siwakoti





# Executive Summary

Nepal is predominantly an agrarian country with 88 percent of the population living in rural areas and 78 percent of the adult rural population engaged in agriculture (Joshi, Conroy & Witcombe, 2012). Agriculture sector accounts for one-third of the gross domestic product (GDP) making fertilizers critical to people's livelihood (DoA, 2014). Because of rapid increase in population, land holdings are fragmented and scattered. Recent findings indicate that it is unlikely to enhance economic output through further expanding farmland since most arable land has reached its capacity. Thus, fertilizer plays an important role in increasing Nepal's agricultural yields.

Following over 10 years of deregulation, Government of Nepal has re-introduced a subsidy scheme in chemical fertilizers in 2009. Now much of the market has been primarily supplied by state entities such as Agriculture Inputs Company Limited (AICL) and its affiliates along with National Trading Corporation (in recent years) under government subsidy . Since then, private sector has been driven out of market as they are unable to compete with subsidized monopolies. Furthermore, it is difficult for an individual to register a chemical fertilizer company in Nepal although the demand for fertilizers continues to escalate.

However, current subsidy program fails to meet the picking demand of farmers. Most fertilizers in Nepal are now supplied by black market. Returns from agriculture sector remained low and per capita GDP is only US\$140 per agricultural worker (DoA, 2014). With little scope for increasing area under cultivation, population growth has led to falling average farm size and increasing fragmentation, which results in growing poverty. This paper aims at evaluating the government's current subsidy regime and examining challenges faced by fertilizer trade in Nepal.

Evidently, Nepal's subsidy scheme has failed to meet its policy goal. According to the Agriculture Perspective Plan (APP), fertilizers and related subsidies are expected to constitute around 70 percent of the total economic growth target in Nepal (FAO, 2011, p. 59). However, among the estimated 700 – 800,000 tons, only approximately 75,000 tons is demanded from formal channels. About 75-80 percent of the demand is currently met by black market trade (Pandey, 2013). Even though agriculture constitutes 33.87 percent of GDP, farmers engaged in farming are generating very low yields and income (MoF, 2014, p. 184).

# 1. Introduction to the Problem

Nepal is one of the most food-insecure countries in Asia in large because the average growth rate of major cereals is far below the average population growth rate of 1.2 percent in 2013 (World Bank, 2013). In fact, Nepal is the only country in South Asia where population growth surpasses the growth rate of cereals. Growth rate of rice, maize, and wheat production in Nepal is the lowest in South Asia. Yields of cereals in Nepal are comparable with the Indian state of Bihar, which shares similar agricultural climatic conditions and cropping systems (Joshi, et al., 2012).

“I have little choice but to use the smuggled stuff,” says Padme Kami, 60, in Banke District, a farming area where some 340 families reside. He buys fertilizer from India at 34 rupees (39 US cents) per kilogram - the same price as government-subsidized fertilizer. “But it does not work” (IRIN, 2012). There are millions of farmers like Padme in Nepal who depend on farming as their only source of living. Recent surveys and studies indicate that farmers who face stock-outs at home are suffering a greater loss due to supply shortages and an unreliable quality of fertilizers.

Despite an annual subsidy of \$33.4 million - which accounts for almost 25 percent of the government budget in 2012 - followed by another one Billion Rupees (\$10.22m USD) subsidy in 2013, fertilizers remain unaffordable for farmers and yields remain at an all-time low (IRIN, 2012). According to the Ministry of Agriculture, fertilizer costs are up to three times higher in Nepal in comparison to neighboring India. This is one of the reasons why farmers have turned to black market for meager amounts of fertilizers often of unreliable quality.

Evidently, Nepal's subsidy scheme has failed to meet its policy goal. According to the Agriculture Perspective Plan (APP), fertilizers and related subsidies are expected to constitute around 70 percent of the total economic growth target in Nepal (FAO, 2011, p. 59). However, among the estimated 700 – 800,000 tons, only approximately 75,000 tons is demanded from formal channels. About 75-80 percent of the demand is currently met by black market trade (Pandey, 2013). Even though agriculture constitutes 33.87 percent of GDP, farmers engaged in farming are generating very low yields and income (MoF, 2014, p. 184).

## 2. Background on Fertilizer Policy in Nepal

Prior to 1997, the Agricultural Input Corporation (AIC) controlled fertilizer imports and distributions through government subsidies. However, supply and distribution of these fertilizers was erratic, and subsidies tended to benefit richer farmers more than poorer farmers. As a result, the government decided to deregulate the market in 1997. This was achieved through: (i) removing the AIC monopoly and allowing the private sector to import and distribute fertilizers, (ii) phasing out fertilizer subsidies, (iii) decontrolling wholesale and retail prices of fertilizers (Agrifood Consulting International, 2003). These policies paved way for private traders to stand at equal footing with the AIC, which later disseminated into the Agriculture Input Company Limited (AICL) and the National Seed Company Limited (NSCL) (Shrestha, R.K., 2010). All subsidies were completely removed by November 1999.

The private sector had been active in the supply chain for over 10 years before the subsidy regime was reintroduced. The rationality for reintroducing the subsidy regime was the concern that fertilizer sales from both AICL and private traders had been declining since 2003 (See Table 1) (Shrestha, R.K., 2010).

Table 1: Sales of Fertilizers after Deregulation (,000 M.T)

Year	AICL	Private	Total	Growth Rate
1997/98	91.178	17.55	108.73	
1998/99	88.35	68.477	156.83	44.24
1999/2000	71.46	76.727	148.19	-5.51
2000/01	45.22	101.145	146.37	-1.23
2001/02	39.358	101.408	140.77	-3.83
2002/03	70.746	103.636	174.38	23.88
2003/04	20.493	118.265	138.76	-20.43
2004/05	31.811	90.895	122.71	-11.57
2005/06	13.295	78.258	91.55	-25.39
2006/07	25.169	65.679	90.85	-0.77
2007/08	6.646	47.107	53.75	-40.83
2008/09	7.133	8.325	15.458	-71.13
Average annual growth				-10.23

Source: Agri. Input Supply Monitoring Section, MOAC, 2010

In 2009, the government reintroduced the subsidy scheme and named AICL - the state-owned enterprise that was reported to have underperformed for many years - its major procurement importer and distributor of subsidized fertilizers across the country (AICL, 2014). In the 2014/15 fiscal year budget, Rs. 5.48 billion (\$56million USD) was allocated as a subsidy for 255 thousand metric tons of chemical fertilizer, amounting to 23.53 percent of the fiscal budget. Part of the subsidy also covered its own business operational cost. Moreover, fertilizers were also granted to CTC (Crush, Tear and Curl) tea industries upon a request from the Tea Producers Association.

However, past mistakes from the late 1990's are being repeated. Subsidies are provided through sparsely scattered cooperatives to Nepalese citizens who have up to 15 Ropanies (0.764 hectares) of land holdings in the hilly areas and 4 hectares of land holdings in the terai (plain land) region (MoAD, 2012). Without a monitoring and record keeping system, subsidized fertilizers are eventually supplied to all farmers, including those who are able to afford full market prices(Lama, P., personal communication, July 10,

2014)<sup>1</sup>. This results in an economically inefficient allocation of the subsidy. In addition to this poorly managed regime, a separate state agency named the Salt Trading Corporation Limited (STCL) also began to import fertilizers, beginning in 2013. Quite evidently, government monopolies import almost all of the fertilizers supplied in country and distribute them through selected cooperatives in different localities.

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1 Ms. Parbati Lama is a Manager of Namuna Mahila Cooperative.



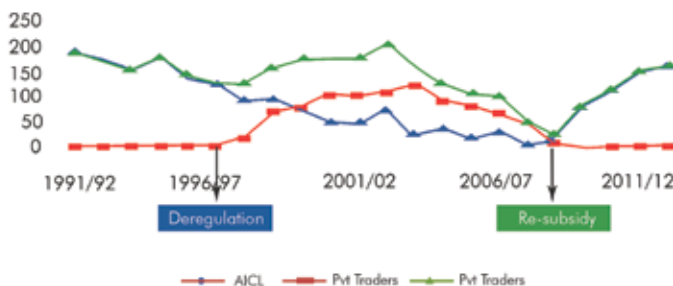


### 3. Problems with Current Subsidy Scheme

#### A. Private companies are driven out of market

Financial loss due to AICL's underperformance is often filled by government funding, tax revenue or grants collected from donor countries. Private parties are not able to compete with government-backed companies due to a price disadvantage by up to 50 per cent (Wanzala-Mlobela, Fuentes & Mkumbwa, 2013). As a result, the private sector becomes less active as there is little incentive for state-owned enterprises to reform (See Figure 1). Despite the government's rationale for phasing out the private sector, instead we find the highest fertilizer sale occurred during 2002-2003 when the private sector's market share surpassed the public sector by 10 percentage points (See Table 2).

Figure 1: Impact of policy changes in fertilizer market



Source: Agricultural Input Supply Monitoring Section, MOAC, 2010

Table 2: Market Share of Private Sector in fertilizer supply from 1997/8-2010/11  
(,000 M.T)

Year	Public Sector	Private Sector	Total	Market Share	
				Public Sector	Private Sector
1997-1998	91.178	17.55	108.728	83.9	16.1
1998-1999	88.35	68.477	156.827	56.3	43.7
1999-2000	71.460	76.727	148.187	48.2	51.8
2000-2001	45.220	101.145	146.365	30.9	69.1
2001-2002	39.358	101.145	140.766	28	72
2002-2003	70.746	103.636	174.382	40.6	59.4
2003-2004	20.493	118.265	138.758	14.8	85.5
2004-2005	31.811	90.895	122.706	25.9	74.1
2005-2006	13.295	78.258	91.553	14.5	85.5
2006-2007	25.169	65.679	90.848	27.4	72.6
2007-2008	6.646	47.107	53.753	12.4	87.6
2008-2009	7.133	5.677	12.810	55.7	44.3
2009-2010	10.329	Nil	10.329	100	Nil
2010-2011	110.013	Nil	110.013	100	Nil

Source: MOAC and AICL (as cited in Nepal Fertilizer Demand and Plant Nutrient Assessment, P. 33)

## B. Import from India less desirable than black market

Nepal's agricultural market is significantly influenced by India. India has provided more subsidies in chemical fertilizers than Nepal, making its fertilizers much cheaper than those imported to Nepal. However, the supply and quality of fertilizers sold on black markets are often unreliable and vary case by case.

Regulatory barriers prohibiting exports of chemical fertilizers to Nepal from India are also high. A license is required for a company to export fertilizer related products. Additionally, businesses will need to seek a quota permission and prepare self declaration certificates issued by statutory auditors that verify no concession/subsidy has been claimed for

the intended export (DoC, 2014). Consequently, Nepal consumes roughly five times less kilograms of fertilizer per hectare compared to its Indian counterparts (28.4 kilo/hectare Vs. 163Kilo/hectare) (World Bank, 2014). A survey among consumers indicates that fertilizers in Nepal are 28 to 141 percent more expensive than in India, which contributes to the growing appeal of black market sales (See Table 3).

Table 3: Price difference between India and Nepal due to Subsidy

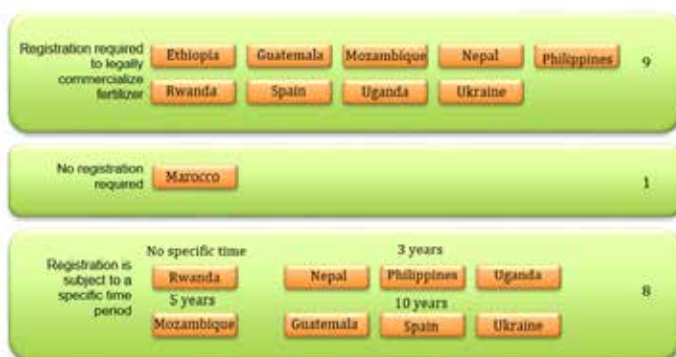
Type of fertilizer	Price per Metric Ton in India (2012)	Price per Metric Ton in Nepal (2012)	Percentage difference [(Nepal-India)/(India)]
Urea	\$86.81	\$208.89	141%
DAP	\$382.60	\$488.61	28%
Potash (MOP)	\$196.83	\$345.58	76%

Source: Department of Fertilizers, Government of India and Agriculture Inputs Company Limited, Nepal

### C. Difficulty registering a fertilizer supplying company

The company registration process for importing chemical fertilizers in Nepal is lengthy. It often takes more than two years to register as a fertilizer business (Kunwar, S. C., Personal Communication, July 2, 2014). Complex licensing procedures have also prevented many private businesses from entering the market (Shrestha, S. K., Personal Communication, July 28, 2014). Some private parties are importing liquid chemical fertilizers that are not imported by AICL, however, liquid chemical fertilizer is only considered when the subsidized granular fertilizer through both formal and informal channels is unavailable. Nepal is among one of the nine countries where registration is still required for commercializing fertilizers.

Figure 2: License required for fertilizer trade by country



Source: Enabling the Business of Agriculture database, 2013

## D. High cost of subsidized trade

According to the Yellow Book issued by the Ministry of Finance, the targeted subsidy for the fiscal year 2013-14 is NRs. 6 billion (USD 61.3 million) with achieved subsidy amounts to NRs. 50 million. The total cost to consumers, inclusive of the subsidy amount and administrative costs for the year 2013, could thus be tentatively estimated by summing these two together. This yields an estimate of NRs. 6.521 billion rupees (USD \$666 million) (See Table 4, Annexes I & II) that is footed by taxpayers in Nepal.

Table 4: Agricultural Inputs Corporation Limited Cost to taxpayers for the fiscal year 2069/70 ( In Lakh NRs)

Annex I	Description	Amount (NRs. In Lakh)
1	Net Operating Income	2742
2	Administrative Expenditure	1705
3	Depreciation	139
4	Interest Payable	986
5	Total Cost to Taxpayers	2742-(1705+139+986)= 88

Annex II	Description	Amount (NRs. In Lakh)
1	Net Operating Revenue	2448
2	Net Operating Profit	745
3	Administrative Cost	2375
4	Depreciation	115
5	Interest Cost	279

Source: Yellow Book 2071, Ministry of Finance

A portion of the large cost associated with trading fertilizers in Southeast Asia comes from marketing costs. The steep increase in marketing costs is mainly due to the related increase in fuel prices, cost of manual laborers, cost of packing and packaging materials, and services like transport, handling and storage. In certain areas of Bangladesh, transportation costs compose more than 70 percent of the total marketing costs for dealers. As a landlocked country, lack of proper infrastructure facilities is mainly responsible for increasing marketing cost and contributing to increasing the price of fertilizers (Mujeri, M.K., Shahana, S., Chowdhury, T.T & Haider, K.T., 2012).

Table 5: Fertilizer Marketing Costs at Current Rates in Nepal

Cost (US \$/mt material)		
	Urea	Di-Ammonium Phosphate
Ex-factory price bagged/Import price CIF bagged (1)	329.4	389.2
Transportation (2)	48.7	48.7
Handling (3)s	18.9	31.1
Transportation and handling costs (2+3)	67.6	79.8
Total cost (1+2+3)	397.0	469.0

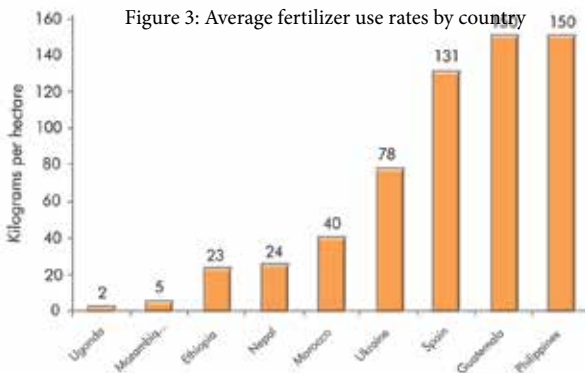
Source: AICL and AIMS/MoAC compiled in Misra 2010 and Pandey 2010

## E. Absence of an effective monitoring & evaluation program

Activities by state-owned entities such as AICL are very poorly

monitored and evaluated. In practice, farmers with a larger area of land (i.e. 0.75 ha in hills and 4 ha in terai) can buy as much subsidized fertilizers located in their vicinity as their poor counterparts in the hilly area can (Lama, P., Personal Communication, June 2, 2014). Subsidies of chemical fertilizers have unfortunately assisted unintended rich farmers who, unlike poorer farmers, are capable of purchasing at market price. Past failure is being repeated, and this practice is clearly inefficient.

Due to the acute shortage of fertilizer supplies of good quality, the average fertilizer use rates remain very low. It is perceived that most of the soils in Nepal are being heavily mined through continuous crop production. Due to lack of sufficient nutrient replenishment and adequate soil conservation measures and practices, soil health and nutrient reserves deplete, leading to yield reduction and desertification in the long run (Mujeri, M.K., et.al, 2012) (See figure 3).



Source: *Enabling the Business of Agriculture database, 2013*

## 4. Policy Recommendations: A Future Direction

### **A Deregulation and Engagement of Private Sector**

**I**t is critical for the government to see the importance of using development assistance as a way to achieve sustainable growth rather than merely addressing short term needs. A short-sighted fertilizer policy will only continue to constrain agricultural growth and depress agricultural incomes. In a healthy and open market, the government should create a suitable environment for the private sector to compete, innovate and eventually benefit consumers. After analyzing the supply and demand equation, import costs, distribution options and the pros and cons of fertilizer subsidy, a report from USAID has established that several adjustments are needed in Nepal to encourage growth in agricultural sector.

Nepal, as a small country, is affected by the fluctuation of world commodity prices. However, phasing out the private sector does nothing to address fertilizer shortages in the country. In fact, it has intensified the situation and forced more farmers to the black market. Without active participation of a private sector, the market will be less informed of real economic situations and prone to more risks.

The government should further deregulate the market and place the private sector at equal footing with the AICL and other state-owned entities. Private importers provide fertilizers on time and extend loans occasionally to farmers, making them attractive to rural farmers who are constrained with access to AICL fertilizers (Raut, et.al, 2012). The active role of a private sector will invigorate the market. One way to allow more businesses entering the market would be tailoring and simplifying the registration process.



## **B. Introduction of Voucher System**

Experiments have proven that subsidizing consumers directly through financial institutions is more effective than subsidizing conglomerates and business entities. Introducing a voucher program where banking facilities are available will not only significantly reduce administrative/operational costs derived from underperforming businesses, but also helps targeting the right group and track policy outcomes (Gregory, 2006). It also provides more choice to consumers.

The current subsidy regime which operates through AICL has several weaknesses which render it unsuccessful: 1) Inefficient implementation: very few poor farmers have access to subsidized fertilizers, whereas wealthier farmers can still access it. 2) Part of the subsidy went into operational/administrative cost of AICL which shows a level of poor governance. 3) In some areas where demand fluctuates (usually hilly and remote), cooperatives are often unwilling to supply fertilizers (Minto & Bebson, 2013). These and many other weaknesses leave the voucher program to be a better overall strategy to Nepal's agricultural development. This is also aided with Nepal's relatively developed financial system.

Voucher programs have proven to be successful in many countries that are in a similar situation. In Nigeria, the government introduced a voucher program under the Agriculture Transformation Agenda (ATA). Both agricultural yields and farmers' income improved remarkably under new market conditions (Takeshima, Nkonya & Deb, 2012, p. 1). Fertilizer subsidy programs in Ghana were omnipresent before its adoption of the Structural Adjustment Programs (SAP). Nevertheless, administrative inefficiencies and problems like rent seeking and corruption have often caused late and inappropriate delivery of fertilizer. However, the use of agriculture input vouchers in 2009 turned the situation around. Research and development efforts in designing a similar voucher project that is relevant to Nepal should be encouraged.

### **C. Facilitating trade at borders**

Nepal is landlocked and has few natural raw materials (in particular natural gas that is required to make fertilizer.) This offers limited options in terms of providing feedstock for local manufacturers. The most efficient option for Nepal is to import from India and other countries that have comparative advantage in producing fertilizers (USAID, 2014).

Currently however, since Nepal has a porous border with India (a country that provides considerable fertilizer subsidies to its own farmers) makes formal trade less attractive. The government of Nepal should work with the government of India at national and state levels to enforce existing fertilizer policies with regard to adulterated fertilizer distribution. Rather than compete with subsidized fertilizers from India, the Nepalese government should explore ways to legalize it and promote more open trade lines with India. This will eventually promote agricultural development on both sides and reduce food insecurity in Nepal.

Foreign direct investment can be directed towards infrastructure and road projects. Reducing the cost of transportation will reduce the price of formal traded fertilizer, increasing the incentive for farmers.

### **D. Liquid Fertilizer : An Alternative to Granular Fertilizer**

Liquid fertilizers contain the same nutrients found in granular fertilizers. Therefore, two litres is sufficient for large areas of land. Plants can use liquid fertilizers immediately as the chemicals in them are more readily available. Moreover, liquid fertilizers are more effective than granular fertilizers because it can be directly applied through the leaf of the plant, and this also reduces leakages. In addition, liquid fertilizers can be used more accurately in smaller amounts. They are available in air tight containers and cause fewer chemical reactions and quality degradation.

Solid chemical fertilizer is heavy to transport with low profitability. Thus, the unit cost of transportation and marketing costs are high. In

addition, it is very difficult to deliver granular fertilizers to higher hilly areas of Nepal, which constitutes the majority area of land, due to an absence of good transportation networks. Therefore, agricultural yields remain very low in such areas despite government subsidies. Using liquid fertilizers as an alternative can help overcome this challenge.

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## Samriddhi, The Prosperity Foundation an introduction

Samriddhi, The Prosperity Foundation is an independent policy institute based in Kathmandu, Nepal. It works with a vision of creating a free and prosperous Nepal. Initiated in 2007, it formally started its operations in 2008. The specific areas on which the organization works are - Entrepreneurship development, Improving business environment, Economic policy reform and Promoting discourse on democratic values.

Centered on these four core areas, Samriddhi works with a three-pronged approach—Research and Publication, Educational and Training, and Advocacy and Public Outreach. Samriddhi is dedicated to researching Nepal's economic realities and publishing alternative ideas to resolve Nepal's economic problems. Samriddhi is also known for creating a discourse on contemporary political economic issues through discussions, interaction programs, and several advocacy and outreach activities. With successful programs like “Last Thursdays with an entrepreneur” and “Policy Talkies”, it also holds regular interaction programs bringing together entrepreneurs, politicians, business people, bureaucrats, experts, journalists, and other groups and individuals making an impact in the policy discourse. It also hosts the secretariat of the ‘Campaign for a Livable Nepal’, popularly known as Gari Khana Deu.

One of Samriddhi's award winning programs is a five day residential workshop on economics and entrepreneurship named Arthalya, which intends to create a wave of entrepreneurship and greater participation among young people in the current policy regime. Samriddhi was the recipient of the Dorian & Antony Fisher Venture Grant Award in 2009, the Templeton Freedom Award in 2011 and the CIPE Global Leading Practice Award in 2012.

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