The Economic Cost of General Strikes in Nepal[#]

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Abstract

This paper reviews the key aspects of general strikes and analyses the economic cost of such strikes in Nepal. Data analysis shows that average direct cost of general strikes stood at NRs. 1.8 billion per strike day and NRs. 27 billion per year at current prices during 2008-2013. The lost output per year accounted for 1.4 percent of the annual gross output. The total accumulated output loss due to general strikes in the five-year period amounted to NRs. 117 billion. With such losses, general strikes decelerated annual GDP growth rates in a range between 0.6 percentage point and 2.2 percentage points during the study period. The impact of general strikes was quick and significant on inflation and tourist arrival rates. The monthly inflation rate jumped to over 9 percent as a result of two-day general strike while the strike called for three or more days led to an inflation of more than 10 percent. Similarly, tourist arrival declined over a lag. However, gross fixed capital formation and foreign direct investment appeared to be less affected by general strikes, which might be due mainly to their bottomed out levels.

Key Words: General Strikes, Economic Cost, Output, Nepal
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I. INTRODUCTION

The economy of any country is affected not only by economic factors but also largely by non-economic factors such as the political system, values and institutions. The political system plays a key role in determining the pace and direction of a country's economic performance. A country with a political system that strives to create conducive environment and facilitates investment can bring about drastic change in the economy and achieve higher rate of economic growth in a short span of time. In such economy, citizens have less motivation for participating directly in political activities as they are engaged in economic activities. Experiences of developed economies, where people have less time and interest for political activities indicate this fact. On contrary, in underdeveloped economies, citizens are exposed to various problems. So, they participate in political activities knowingly or unknowingly in the hope that their problems will be solved through political channels. Thus, a large section of population gets involved in political activities directly or indirectly. As a result, many political parties, their affiliates and interest groups come into existence in underdeveloped economies. These parties and activists normally put forth their demands or express their opposition through general strikes, blockades, lockouts, picketing and other similar activities. Such activities, in turn, lead to political and economic uncertainty, industrial insecurity, and thus may paralyse the overall production system.

During the 104 years of *Rana* autocratic rule and 30 years of *Panchayati* single party system introduced in 1960, Nepalese economy could not grow and people suffered from poverty, illiteracy and malnutrition. After the political change of 1990, people grew expectations that the new political system would bring better conditions to their lives, however, the situation could not improve due to political instability and unrest prevailed in the country. Instead, it turned worse and the economy even became weaker, which provided a ground to flourish a decade-long armed conflict. After all, the decade-long armed conflict came to an end in 2006, but political transition prolonged keeping socio-political agendas in front and the economic agendas aside. In this context, general strikes, blockades and lockouts organized by various political forces, labour unions, professional groups, business communities and civil societies have become common phenomena in Nepal.

Even though people from every walk of life have right to express their grievances and put forth their demands through legitimate means such as general strikes to put pressure on the concerned authorities, such activities often create inconvenience to the general public and bring serious negative impacts on the economy.

Against the above background, this paper tries to review key aspects of general strikes and examine the cost of such strikes to the economy of Nepal. The objectives of this paper are as follows:

- To prepare an account of the general strikes in Nepal.
- To construct a framework for determining the economic cost of general strikes.
- To estimate the cost of general strikes in Nepal in the last five years (2008-2013).

Rest of the paper is organized as follows. Section 2 surveys the literature on causes and impact of general strikes. Section 3 presents an account of general strikes in Nepal. Section 4 discusses the methods used for determining the costs of general strike. Cost of general strikes in Nepal is estimated in Section 5 using the methodological framework presented in Section 4. Finally, concluding remarks are presented in Section 6.

II. LITERATURE REVIEW

2.1 Causes Behind Strikes

In the industrial context, an economic strike is a suspension of production while workers and their employer argue about how to divide the surplus from their relationship. Thus, a strike can be viewed as a mechanism that allows workers to extract higher wages from more profitable employers (Kennan, 1986). According to Harvard Law Review (1921), strikes and boycotts are weapons of labours in industrial competition which can be classified based on their objectives into two general classes: (a) Strikes for immediate needs, like higher wages, shorter hours, better working conditions, etc. (b) Strikes for the strengthening of the unions – which include strikes to secure recognition of unions, strikes to secure re-employment of discharged fellow-workmen.

Hicks (1963) argues that trade union leaders embark on strikes occasionally in order to keep their weapon burnished for future use as weapons grow rusty if unused. A union which never strikes may lose the ability to organize a formidable strike, so that its threats become less effective. Morgan (1920) views work distaste as a fuelling factor for strikes. No man can constantly do a really distasteful thing and the distaste remains the same. The labour agitator knows that few men love their work, so that when times get a little abnormal and the wages that the men get will not buy as much as they would like, it is an easy matter to get them in a frame of mind where they will be willing to quit.

Tracy (1986) argues that higher industry employment reduces the probability of strike while Gunderson *et al.* (1986) find that strike probabilities are negatively associated with the change in real wage rates during the term of the expiring agreement. Kennan (1986) presents the evidence that strike incidence is high at the peak of the business cycle, but strike duration seems to fall when the economy is strong. Similarly, Cramton and Tracy (2003) demonstrate that strike incidence and duration move in opposite directions over the business cycle. Strike incidence is generally found to be pro-cyclical.

2.2 Impact of Strikes

According to Knowles (1955), estimating the cost of strikes is like other kind of warfare. Researchers have tried to study the cost of strikes using various approaches. However, these studies deal with the strikes and other methods of agitations carried out by workers in business firms and industries. No studies can be found examining the cost of general strikes carried out by political activists for political reasons.

Kennan (1980) argues that strikes are not Pareto optimal, since a strike means that the pie shrinks as the employer and the workers argue over how it should be divided. If the parties are rational, it is difficult to see why they would fail to negotiate a Pareto optimal outcome. Gagliardo (1941) highlights the benefits of the strikes and argues that the popular notion that strikes are unreasonably costly is not well founded. Real and fancied strike evils have led to many "solutions." The ordinary strike to increase wages, shorten hours or improve working conditions is a democratic alternative to authoritarian determinations.

Chamberlain and Schilling (1954) examined seventeen large strikes out of which 11 occurred in coal, 3 in rail, and 3 in steel industries. They enumerated various public supplies presumed to be affected by the strikes. They argue that strikes frustrate the rights of expectation which is expectation of buying what we need and selling our goods and services in order to be able to do so. They present the evidence that large sections of the public would welcome almost any substitute for the strike.

Kennan (1986) presents an account of the cost of the past strikes. In Britain in 1926 (the year of the general strike) about 9 workdays per worker were lost due to strikes. In 1979, the loss due to strikes was a little more than one day per worker. These are the extreme cases. In the 79 years following 1926, the number of workdays lost in Britain was less than 2 hours per year per worker. In the US, idleness due to strikes never exceeded one half of one percent of total working days in any year during the period 1948-2005; the average loss was 0.1 percent per year. In Spain, which historically has had high rates of strike activity, the average loss since 1990 was about one-fifth of a day per worker per annum.

III. GENERAL STRIKES IN NEPAL

"Bandh" in Nepali means "close" and it is the term used most often to describe a general strike. During a general strike, markets remain closed, businesses are shut, roads are deserted, and students remain at home. General strikes are happening frequently in Nepal and have become so common that the United Nations Department of Safety and Security (UNDSS), Nepal Office has recorded as much as 1205 events of general strikes in year 2010 alone. A public website, *nepalbandh.com*, has recorded 100 separate actions across the country in one month, and up to nine in one day. In addition to these major events, there are hundreds of smaller scale strikes and road-blockades in a year. This form of remonstration has increased since the nation's ten-year long civil conflict, and now is being utilized particularly by the major political parties and their affiliates. In the recent years, ethnic groups, journalists, and even teachers and security forces have organized general strikes, often bringing specific regions or sectors of the economy to a complete stand still.

The common types of general strikes that occur in Nepal are: (a) nationwide strikes (Nepal *Bandh*); (b) regional strikes; and (c) city strikes. The length and severity of a general strike depends on the motive behind the strike. In general, such strikes are called

on for one or two days. In some circumstances, a week or longer general strikes have also been occurred a few times. However, week-long general strikes are called less frequently.

The prolonged political instability in the country has provided the grounds for such frequent general strikes in Nepal. After the country was declared 'Federal Democratic Republic of Nepal', various political parties and interest groups have been fighting with each other to implement their agenda in the new political framework. Because of such disagreement and conflicting political agendas, the Constituent Assembly of 2008 could not write constitution even in four years' time. As a result, Constituent Assembly was dissolved in year 2012 and Second Constitution assembly election was held in November 2013 for the same purpose of writing the new constitution.

In January 2009, concern over future of business investment encouraged the government to appeal the political parties and general public to end the growing strike culture. This was followed by an agreement between major political parties to refrain from strike activities for six months, particularly those which would impact vital services such as industrial estates, commercial and banking sectors, educational institutions and major highways. However, this agreement did not work longer and the general strike culture resumed on issues of 'land reforms', 'government formation', 'civilian supremacy' and so on.

In February 2011, on the occasion of implementation of Nepal Tourism Year 2011, major political parties again pledged that they would not call general strikes considering their adverse impact on tourism and the national economy as a whole. Despite their written commitment, the *bandh* culture seemed hard to go away. From March 2011 through August 2013, altogether 1496 events of general strike[1] have been cumulatively recorded in individual district of Nepal.

3.1 Events of General Strike by Regions

For the whole study period, the events of general strike are found more concentrated in Terai (55 percent) in economic belts and Eastern part (32 percent) in development regions. Further, year 2010 has observed the largest number of general strikes which accounted for 27 percent of total such events (Table 1). It is important to mention here that 2010 is the year in which new constitution of Nepal was expected to be formulated after two year terms of Constituent Assembly after its election in year 2008. But Constitution Assembly failed to formulate a new constitution by the deadline and there was lots of hue and cry in May 2010. Later, the issue of 'autonomous states' and 'resignation of then Prime Minister Madhav Kumar Nepal' caused several days of general strikes.

[1] The general strikes have been counted at individual district level. It means that if there was a nationwide strike (Nepal *Bandh)* called on, then total strike number is counted equal to the number of districts being affected.

It is interesting to see that the events of general strike have abated in Terai from year 2008 through 2010. In early months of 2008 before Constitution Assembly election, there were many general strikes called in southern region demanding greater autonomy and more seats in the national legislature for the southern region. After Nepal government made an agreement assuring for fulfilling their demands, there was decline in such events. But, this trend increased in Hills. After Constitution Assembly election, the issue of 'who will be the head of government' and 'civilian supremacy over army' observed many events of general strikes. The government's agreement with Madheshi Group regarding Madhesh Autonomy was also opposed by many parties and in particular by Ethnic Groups, which again led to many events of general strikes.

Further, Eastern and Central Nepal are found more vulnerable to general strikes. Out of total events of general strikes, Eastern part saw 32 percent followed by Central part (25 percent) and Mid-Western part (16 percent), respectively (Table 2). The Eastern part had become victim of general strikes on the issue of 'Autonomous States' raised by various groups. In particular, only 6 districts of Eastern Nepal (Sunsari, Jhapa, Morang, Saptari and Siraha) recorded 18 percent of total events of general strikes in Nepal. In central part, Chitwan, Mahottari and Kathmandu Valley are found more vulnerable to general strikes which together recorded 9 percent of total events. Likewise, Banke (4 percent) and Dang (3 percent) appeared to be more vulnerable to general strikes in Mid-Western region, which together shares 7 percent of total events of general strikes in Nepal (Appendix A).

Table 1: Events of Strikes by Economic Belts and Development Regions

	Region	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*Total*	*Percent*
Economic Belts	Terai	556	529	459	371	419	109	2443	*54.9*
	Hills	133	326	543	284	184	78	1548	*34.8*
	Mountain	18	102	203	77	29	31	460	*10.3*
Development Regions	Eastern	256	304	343	288	161	82	1434	*32.2*
	Central	235	234	268	157	188	52	1134	*25.5*
	Mid-Western	89	154	257	76	120	38	734	*16.5*
	Western	76	183	165	91	64	17	596	*13.4*
	Far-Western	51	82	172	120	99	29	553	*12.4*
Total		707	957	1205	732	632	218	4451	*100.0*
Percent		*15.9*	*21.5*	*27.1*	*16.4*	*14.2*	*4.9*	*100.0*	

Source: United Nations Department of Safety and Security (UNDSS), Nepal Office

Table 2: Events of Strikes by Economic Belts across Development Regions

Economic Belt	*Eastern*	*Central*	*Western*	*Mid-Western*	*Far-Western*	*Total*	*Percent*
Terai	787	692	268	405	291	2443	54.9
Hills	488	363	301	231	165	1548	34.8
Mountain	159	79	27	98	97	460	10.3
Total	1434	1134	596	734	553	4451	100
Percent	32.2	25.5	13.4	16.5	12.4	100	

Source: United Nations Department of Safety and Security (UNDSS), Nepal Office

3.2 Number of General Strike by Action Initiators

In the category of action initiators, general strike has become the most favorite tool for political parties (36 percent) and rebellion groups (17 percent) to bargain on partisan demands with ruling party. Transport unions come at third position (9 percent) in this category. Fourth is the local communities (8 percent) followed by ethnic and alliance groups (5 percent) (Table 3). The ethnic and alliance groups are comprised of Brahman Samaj Nepal, Khas Chhetri Ekta Samaj Nepal, NEFIN (Nepal Federation of Indigenous Nationalities) and Newa Autonomous State Joint Struggle Committee.

Table 3: Events of Strikes by Action Initiators

Action Initiators	*2008*	*2009*	*2010*	*2011*	*2012*	*2013*	*Total*	*Percent*
Political Parties	367	402	604	91	104	53	1621	36.4
Rebellion Groups	158	264	105	132	37	46	742	16.7
Transport Unions	93	11	149	101	18	11	383	8.6
Local Communities	13	14	128	92	83	45	375	8.4
Ethnic & Alliance Groups	-	-	53	121	47	5	226	5.1
Business Communities	21	27	11	12	22	3	96	4.4
Students' Union	20	13	30	56	63	12	194	3.7
Struggle Committees	-	51	22	1	89	1	164	2.2
Trade/labour Unions	-	-	2	6	-	-	8	0.2
Others	35	175	101	120	169	42	642	14.4
Total	707	957	1205	732	632	218	4451	100.0

Source: United Nations Department of Safety and Security (UNDSS), Nepal Office

Moreover, the activities of political parties and rebellion groups are found highly focused in Eastern and Central part of Terai. Similarly, ethnic and alliance groups appeared to be more active in Eastern part of Hills. Struggle committees have comparatively higher activities in Eastern and Mid-Western part of Terai (Table 4).

Table 4: Events of Strikes by Action Initiators

Action Initiators	Economic Belts			Development Regions					Total
	Terai	Hills	Mountain	Eastern	Central	Western	Mid-Western	Far-Western	
Political Parties	832	580	209	419	448	308	249	197	1621
Rebellion Groups	440	231	71	429	127	43	98	45	742
Transport Unions	154	179	50	129	77	22	78	77	383
Local Communities	236	124	15	89	149	53	39	45	375
Ethnic & Alliance Groups	81	116	29	75	44	51	49	7	226
Students' Union	100	85	9	55	69	18	33	19	194
Struggle Committees	149	13	2	48	18	12	58	28	164
Business Communities	67	21	8	22	38	15	11	10	96
Trade/labour Unions	3	4	1	5	1	1	1	-	8
Others	381	195	66	163	163	73	118	125	642
Total	2443	1548	460	1434	1134	596	734	553	4451

Source: United Nations Department of Safety and Security (UNDSS), Nepal Office

IV. METHODOLOGY

4.1 Sources of Data

i. Population Data

The district level population data have been obtained from the final report of National Population and Housing Census 2011, while the share of employed population in each district have been taken from GIS Maps 2012, both published by Central Bureau of Statistics (CBS).

ii. Data of Employment, GDP and Average Earnings

Data of employment by GDP sector has been extracted from Nepal Labour Force Survey 2008; and that of GDP from National Account Statistics of Nepal 2012-13, both published by CBS. The figures of average earnings by GDP sector have been taken from Campbell *et al.* (2010).

iii. Data of Strike Days

The data of general strike days have been obtained from United Nations Department of Safety and Security (UNDSS), Nepal Office.

4.2 Study Period

The study covers the period from January 2008 to August 2013. However, (i) estimate of economic cost of general strikes and (ii) effect of general strikes on economy covers last five fiscal years, from 2008/09 to 2012/13; due mainly to unavailability of data.

4.3 Estimation Procedure

i. Estimating Population

The information of Population Census 2011 has been used as a base for estimating population of gap years through interpolation.

ii. Estimating Number of Employed Population

Since both the share of employed population in each district and total population of that district were available, the number of employed population was estimated by multiplying both figures.

iii. Estimating Number of Work Days Loss Due to General Strike

a) First, total employed population was classified into 17 sectors (e.g. agriculture and forestry, fishery, mining and quarrying, manufacturing, etc.) as per System of National Accounts (SNA).

b) Then, each sector was examined carefully to know whether it is affected by a general strike. The decision was fortified by experts' opinion and accordingly each sector was notified as 'Fully Affected'; 'Partially Affected' and 'Not Affected'.

c) 'Fully Affected' sectors have been given the full weight. 'Partially Affected' sectors have been given partial weights with discretion. 'Not Affected' sectors have been given zero weight.

d) Affected sectors have been added up into agriculture, industry and service categories. Though, employment in agriculture sector is not affected by general strikes and carries zero weight, it has been kept there to incorporate experts' opinion that about 5 percent of total agricultural gross output per day gets perished on a strike day.

e) The respective weights of these three sectors as per (d) above when multiplied by total employed population would give the estimate of employed population being affected by a general strike. Thus, each employed person would lose as many work days as general strikes are called for on the assumption that they would not work on these particular days.

iv. Estimating Average Earnings Per day

The value of average earnings per day for year 2008 has been taken from Campbell *et al.* (2010). For rest of the years, those values have been inflated by annual Salary and Wage Rate Index (SWRI).

To arrive at average earnings per day, first, we ruled out the earnings of those sectors which are not affected by general strike. Then, we categorized the remaining sectors into agriculture, industry and service and then took average of them.

v. Estimating Economic Cost of the Strike Day

This paper estimates the direct economic cost of general strike, i.e. cost incurred due to stoppage of economic activities only. It does not include the cost of spill-over effects of general strike and the cost of violence due to unavailability of socio-economic data. It is pertinent to mention that estimate of economic cost of general strike is based on secondary data rather than actual surveys, and this has its inherent limitations.

Strikes have been called at national as well as regional level (Zone/District level). As regional level strike cannot outline the effect of national level strike and vice-versa, therefore the economic cost has been estimated at individual district level and have then been summed up to arrive the national level estimates.

Assumptions:

- No one works on general strike day.

- The weights assigned to affected (full or partial) sectors, though based on the findings of Nepal Labour Force Survey 2008, have been carried out as same for entire study period.

Method:

i. The economic cost of general strike has been estimated at current prices.

ii. Firstly, the total 'lost work days' has been multiplied by the 'average per day earning of employed population'. Since labour is an input of the production process, values thus obtained resembles the intermediate consumption of that sector.

iii. Therefore, the value obtained as above has been adjusted with Gross Output - Intermediate consumption (GO/IC) ratio of that particular sector (agriculture, industry or service) to get the lost gross output, and hence had been termed as Lost Gross Output (LGO).

4.4 Estimating Effects of General Strike on Economy

The effect of general strike has been analyzed on five macroeconomic variables viz. GDP growth rate, inflation, gross fixed capital formation (GFCF), foreign direct investment (FDI) and tourist arrivals. Except inflation and tourist arrivals, data of other variables are available in annual frequency. Moreover, the values are available at national level only. Therefore, general strike days at district level have been made compatible with those variables, *i.e.*, district level general strike days have been converted into values equivalent to nationwide strike days in proportion with 'total lost work days, if no one work for a day'. Then, its correlation with other variables has been examined to conclude its effect.

4.5 Estimating GDP Growth with and without General Strike

i. Since the economic cost of general strike has been estimated in terms of gross output, it was found not suitable for comparing with GDP growth rates. Therefore, LGO has been rectified by GO/GDP (Gross Output-GDP ratio) to obtain lost domestic product (LDP) at current prices. Then, LDP at current prices were divided by the GDP deflators of the particular fiscal year to obtain LDP at constant prices (LDP*).

ii. The LDP* of each fiscal year has been added to the GDP of that year to arrive at 'GDP without general strike' (GDP*=GDP+LDP*).

iii. To come with by how much is the GDP growth rate affected by general strike, the growth rates of GDP 'with and without strike' have been compared.

V. FINDINGS

5.1 Cost of a General Strike

i. The direct economic cost of one day nationwide general strike is estimated to be NRs. 1.8 billion. It implies that one day nationwide general strike brings NRs 1.8 billion loss to Nepal, majority coming from service and industry sector. Agriculture sector is the least affected one by strikes. Moreover, at district level, Kathmandu bears the largest amount of gross output loss (6 percent) of total gross output loss of Nepal followed by Morang (4 percent) and Jhapa (3 percent), if there is one day nationwide general strike.

ii. In the last five fiscal years, the total accumulated output loss due to general strikes is estimated to stand at NRs. 117 billion at an average rate of NRs. 27 billion per year at current prices. The lost output per year value represents 1.38 percent of the annual gross output.

Table 5: Gross Output Loss due to Strikes

FY	*Loss in a day (NRs. in millions)*	*As % of per day Gross Output*	*Loss in a year (NRs. in millions)*	*As % of Annual Gross Output*
2008/09	1345	32.54	13239	0.88
2009/10	1574	32.41	31930	1.80
2010/11	1849	32.75	22578	1.10
2011/12	2155	34.10	35842	1.55
2012/13	2527	35.96	13615	0.53
Average[2]	**1797**	**33.28**	**27114**	**1.38**

Source: Authors Calculation

5.2 Sectoral Effects of General Strikes

i. Effect on Economic Growth

The general strike has significantly affected the annual GDP growth rates of Nepal decelerating GDP growth rates by 0.59 percentage point up to 2.15 percentage points (Table 6). The highest loss in annual GDP growth rate has been observed in FY 2009/10 and lowest in FY 2012/13.

Table 6: GDP Growth Rate Scenario

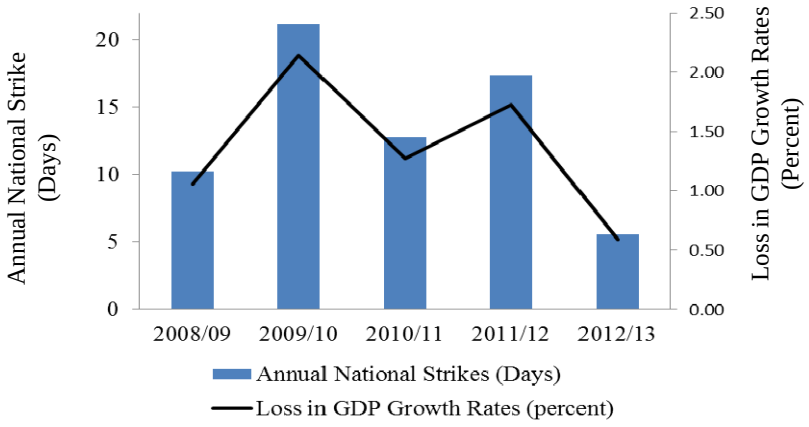
Fiscal Year	*GDP Growth Rate*		*Loss Due to Strike*
	With Strike	*Without Strike*	
2008/09	3.90%	4.96%	-1.06%
2009/10	4.26%	6.41%	-2.15%
2010/11	3.85%	5.12%	-1.27%
2011/12	4.48%	6.21%	-1.73%
2012/13	3.56%	4.15%	-0.59%

Source: Authors Calculation

Graphical comparison shows that loss in GDP growth rate increases with the increase in number of nationwide strike days. The highest number of nationwide general strikes and also the highest level of GDP loss have been recorded in FY 2009/10. Similarly, the second highest number of nationwide general strikes was recorded in FY 2011/12 and the loss in GDP growth rate was also the second highest in that year (Figure 1).

[2] As the number of *bandh* days varied in different Fiscal Years, this weighted average has been obtained by assigning a weight to each Fiscal Year based on total number of *bandh* days in that Fiscal Year in comparison with total number of *bandh* days in 5 Fiscal Years covered in this study.

Figure 1: Strike Days and Loss in GDP Growth Rates

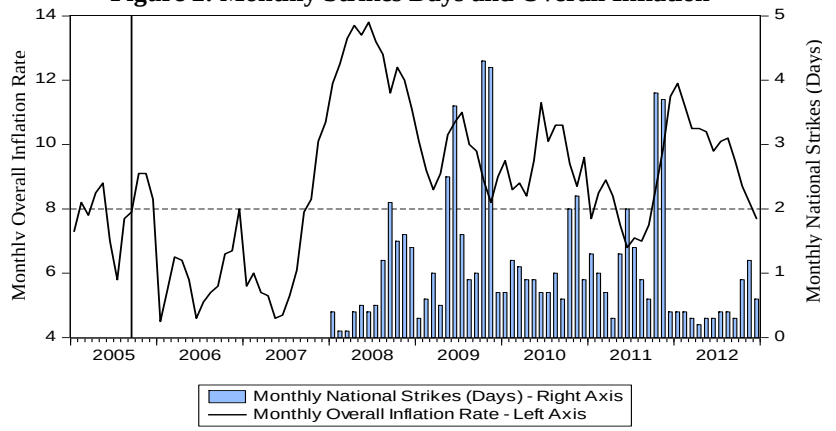


ii. Effect on Inflation

The monthly inflation rates have shown one to two month lagged response to nationwide general strikes. In particular, the subsequent monthly inflation rates have crossed a level of 9 percent whenever there was a two-day general strike in the previous month. Further, three or more days of general strikes resulted to an inflation rate of higher than 10 percent except in 10th and 11th months of FY 2009/10[3]. In 7th, 8th and 9th months of FY 2010/11; in spite of number of general strike days not more than one day, inflation rates are higher than 10 percent (Figure 2). This indicates that nationwide general strike is one of the major causes of higher inflation rate.

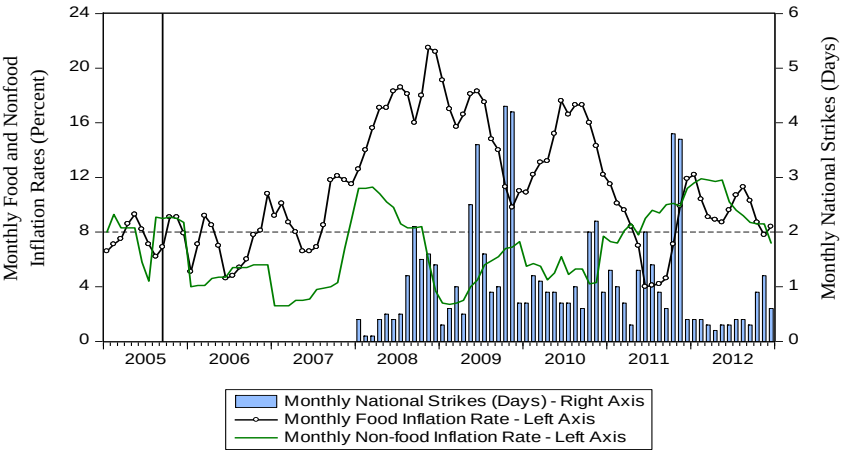
[3] In all figures, year 'N' implies FY N/(N+1). For example, Year 2009 is in fact FY 2009/10 and so on.

Figure 2: Monthly Strikes Days and Overall Inflation



Further, the degree of response of the food inflation to general strike was found to be higher than that of non-food inflation. Whenever there was a general strike for 2 or more days, food inflation remained on higher side reaching 21 percent in FY 2008/09. Non-food inflation also showed positive correlation with number of general strike days; however its response was not as strong as that of the food inflation (Figure 3).

Figure 3: Monthly Strike Days and Food and Non-food Inflation



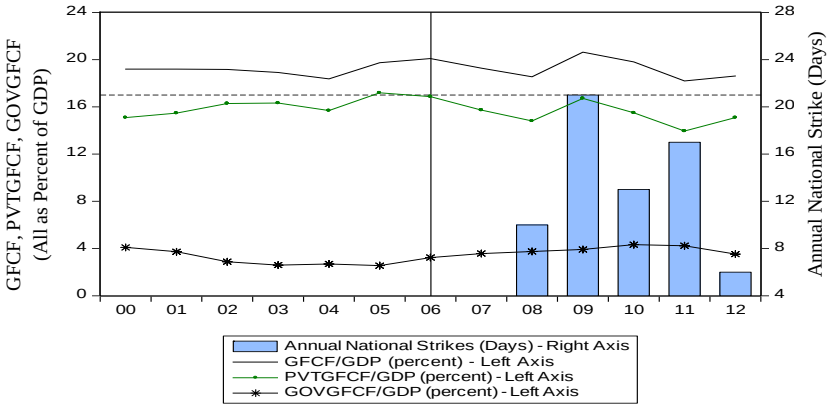
iii. Effect on Gross Fixed Capital Formation

In Figure 4, the annual gross fixed capital formation along with its components i.e. government fixed capital formation (GOVGFCF) and private fixed capital formation (PVTGFCF), all as percent of gross domestic product (GDP) have been presented against

number of strike days. Before Peoples' Mass Movement (*Jan Andolan*) in 2006, the private fixed capital formation is as high as 17 percent of GDP, which declined in most of the later years except in FY 2009/10. It might be because of positive response of private sector to Constitution Assembly election held in 2008 with the hope of political stability and the expectation of better economic scenario. However, the second half of FY 2009/10 observed the highest number of strike days compared to the same periods of the last 5 years. The effect was seen in subsequent years and the private fixed capital formation kept on declining. Capital formation increased only in FY 2012/13 (Figure 4).

However, the government fixed capital formation remained almost constant throughout the study period which indicates that there was no effect of general strikes on it. It might be because of the very low level of government fixed capital formation observed for many years. Overall, the gross fixed capital formation seemed to be less affected by general strikes.

Figure 4: Strike and Gross Fixed Capital Formation



iv. Effect on Foreign Direct Investment

Since, data series on strike days were not sufficient to conclude its specific 'cause and effect' relationship with FDI inflow, we fitted a regression line between number of general strike days and FDI as percent of GDP. It showed a negative relationship, hence indicating that increasing number of general strike days tend to repel FDI inflows (Figure 5). The graphical presentation shows that FDI inflow increased in FY 2009/10 in spite of the highest number of strike days and remained almost at the same level in 2010/11, although the number of strike days decreased significantly (Figure 6). It indicates that general strike is not the primary repelling factor for FDI inflows.

Figure 5: Regression Line

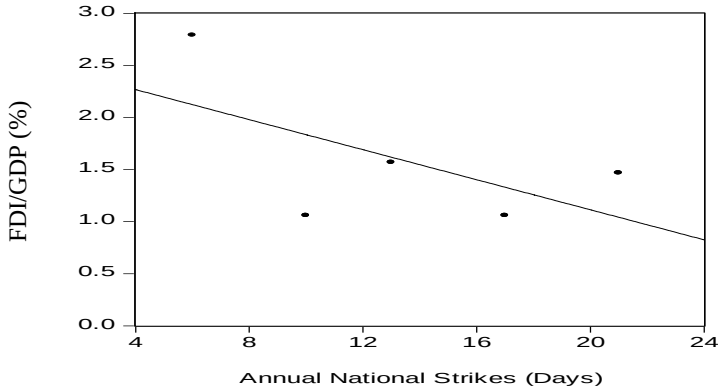
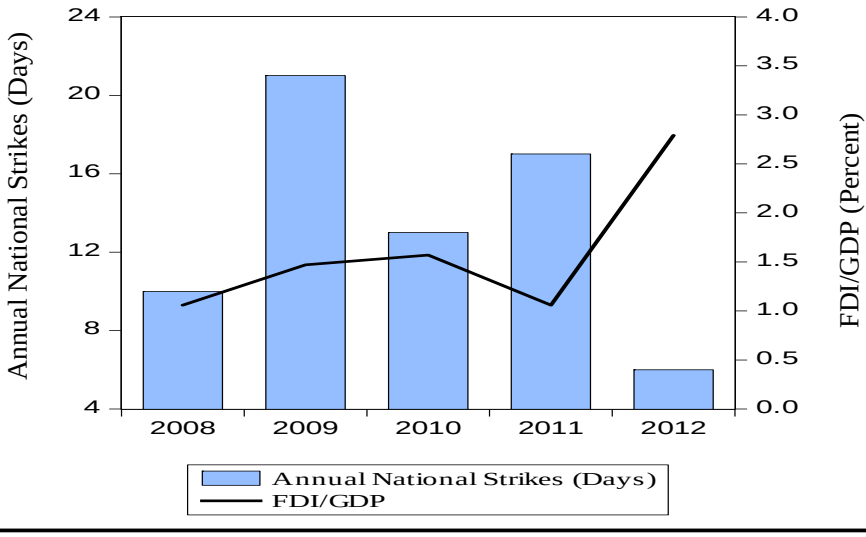


Figure 6: Strike Days and FDI

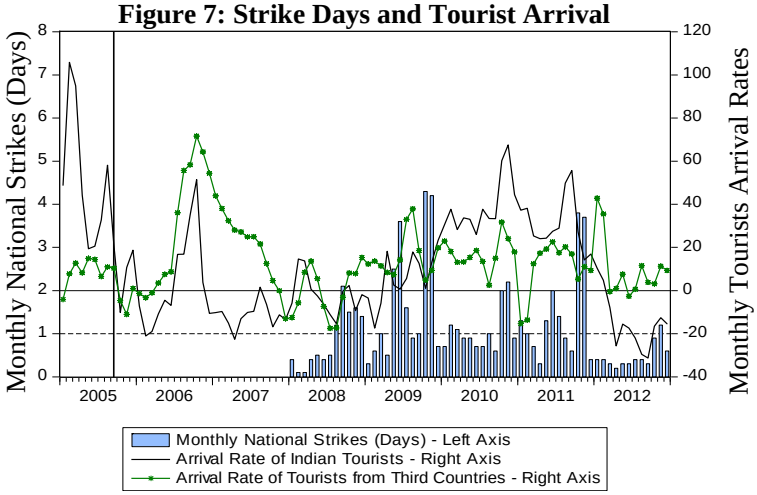


v. Effect on Tourist Arrival

The total annual tourist arrival (by air) to Nepal has increased consecutively in the last five years in spite of varied span of general strike days in Nepal. However, analysis of the monthly tourist arrival data shows a lagged negative effect of general strike on tourist arrival (Figure 7). It means that tourist arrival in a particular month is not affected by the strike days of the same month, rather its impact is observed in later months. Frequent calls for general strikes would give negative message to the world and therefore, tourists could cancel their plan for security and safety reason as well as to avoid unnecessary hassle in travel. Specifically, tourists from third countries have responded sharply to

strikes in comparison to Indian ones, hence indicating that tourist arrival from third countries is more sensitive.

Figure 7: Strike Days and Tourist Arrival



VI. CONCLUDING REMARKS

Nepal has witnessed four political systems such as 104 years of *Rana* autocratic rule, 30 years of *Panchayati* system, 16 years of democracy and a period of federal democracy after 2007. With each major political change, the expectation of the people for better conditions increased but these were never met. Rather performance of the economy slackened and there was no improvement in per capita income growth and living standard of the people due to prolonged political instability and unrest. Socio-economic backwardness made people to get involved in political activities directly or indirectly that led to the emergence of many political parties, their affiliates and interest groups in the country. These parties and activists put forth their demands or express their opposition through strikes, blockades, lockouts and other similar activities, which often created inconvenience to the general public and brought serious negative impacts on the economy. During January 2008 through August 2013, altogether 4451 events of strikes have been recorded in Nepal, whose concentration is higher in Terai (55 percent) in economic belts and Eastern part (32 percent) in development regions. Political parties and rebellion groups have called for general strikes at higher frequency (36 percent and 17 percent respectively) to bargain on partisan demands with ruling party. Transport unions come at third position (9 percent) in this line. Local communities (8 percent) falls on fourth position followed by ethnic and alliance groups (5 percent).

Regarding the economic cost of such general strikes, it is found that one day's nationwide strike in Nepal brings a loss of about NRs. 1.8 billion, mostly coming from service and

industry sectors. At this rate, Nepal has incurred a total output loss of NRs. 117 billion in a period of five years ranging from 2008 to 2013 at an average of NRs. 27 billion per year at current prices. Out of this, Kathmandu, Morang and Jhapa bear the largest chunks of gross output loss (6 percent, 4 percent and 3 percent, respectively) at district level. The total output lost per year due to strikes makes 1.38 percent of the annual gross output.

The effects of such strikes have been observed to be significant in GDP growth rate, inflation and tourist arrivals rate. Annual GDP growth rates of Nepal have decelerated by 0.59 percent in FY 2012/13 and up to 2.15 percent in FY 2009/10, while monthly inflation rate shows one to two months lagged effect in response to strikes. Two-day general strikes pushed the monthly inflation 9 percent, while three or more days' general strikes caused the monthly inflation to remain above 10 percent with a lag. Similarly, tourist arrival is also found to be affected by strike with a lag. In response to strikes, tourists from third countries have responded sharply by postponing their trips in comparison to that by Indian tourists. However, gross fixed capital formation and foreign direct investment did not appear to be affected significantly by general strikes. This may be due to their bottomed out levels.

Nepal is a country with high prospects for economic growth. But at present, it is the poorest country outside the African region. If the political stability is restored, hydropower generation, diversification of tourism sector and development of agriculture and industry sectors can change the face of the country in short span of time. On the contrary, continuation of strikes, blockades and lockouts would further deteriorate the economy of the country. Therefore, political parties and their affiliates should think about the cost incurred by strikes and blockades before calling for such activities. They need to find some alternatives of strikes in order to direct the country toward growth and prosperity. The government and the concerned authorities also should correct their attitude of not listening to the genuine voices until and unless some costly strikes and closures are organized. This necessitates the development of a culture of addressing a matter timely and honestly.

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Appendix A: List of General Strike Days in Individual Districts

SN	Districts	2008	2009	2010	2011	2012	2013	Total	Percent
1	Achham	-	4	14	7	4	-	29	0.7
2	Arghakhanchi	1	9	8	4	1	-	23	0.5
3	Baglung	-	9	8	3	3	-	23	0.5
4	Baitadi	-	4	17	9	1	-	31	0.7
5	Bajhang	-	4	14	10	-	1	29	0.7
6	Bajura	-	4	15	8	2	3	32	0.7
7	Banke	23	29	35	34	28	7	156	3.5
8	Bara	28	18	21	10	12	-	89	2.0
9	Bardiya	24	26	24	15	14	5	108	2.4
10	Bhaktapur	3	6	12	15	1	1	38	0.9
11	Bhojpur	6	8	10	6	3	-	33	0.7
12	Chitwan	3	20	34	46	41	9	153	3.4
13	Dadeldhura	1	5	23	14	19	5	67	1.5
14	Dailekh	-	4	14	-	2	2	22	0.5
15	Dang	25	33	28	14	37	4	141	3.2
16	Darchula	-	4	16	11	2	3	36	0.8
17	Dhading	3	7	12	4	3	1	30	0.7
18	Dhankuta	8	19	17	20	14	5	83	1.9
19	Dhanusa	35	13	15	10	17	12	102	2.3
20	Dolakha	2	7	8	2	-	-	19	0.4
21	Dolpa	-	4	11	-	1	-	16	0.4
22	Doti	1	5	16	9	7	-	38	0.9
23	Gorkha	-	8	12	6	-	-	26	0.6
24	Gulmi	1	10	8	7	2	1	29	0.7
25	Humla	-	4	11	-	2	3	20	0.4
26	Ilam	17	16	28	29	7	7	104	2.3
27	Jajarkot	1	4	13	-	11	-	29	0.7
28	Jhapa	35	30	36	49	36	11	197	4.4
29	Jumla	-	4	11	-	4	2	21	0.5
30	Kailali	30	29	31	34	42	9	175	3.9
31	Kalikot	-	6	14	2	1	1	24	0.5
32	Kanchanpur	19	23	26	18	22	8	116	2.6
33	Kapilbastu	25	27	15	9	12	5	93	2.1
34	Kaski	2	9	12	5	8	-	36	0.8
35	Kathmandu	15	6	28	20	33	10	112	2.5
36	Kavrepalanchok	6	6	9	5	6	1	33	0.7
37	Khotang	7	8	12	7	-	2	36	0.8
38	Lalitpur	3	5	9	9	7	-	33	0.7
39	Lamjung	-	9	9	8	-	-	26	0.6
40	Mahottari	27	39	17	2	31	2	118	2.7
41	Makwanpur	1	8	17	11	5	-	42	0.9

SN	Districts	2008	2009	2010	2011	2012	2013	Total	Percent
42	Manang	-	5	7	2	-	-	14	0.3
43	Morang	34	36	32	31	16	13	162	3.6
44	Mugu	-	4	11	1	1	-	17	0.4
45	Mustang	-	5	7	1	-	-	13	0.3
46	Myagdi	-	7	8	10	1	1	27	0.6
47	Nawalparasi	26	28	16	8	13	2	93	2.1
48	Nuwakot	4	7	9	3	2	6	31	0.7
49	Okhaldhunga	5	8	12	4	-	1	30	0.7
50	Palpa	1	11	8	3	3	-	26	0.6
51	Panchthar	11	18	27	18	6	4	84	1.9
52	Parbat	-	9	9	3	3	-	24	0.5
53	Parsa	36	18	15	4	9	1	83	1.9
54	Pyuthan	3	6	14	2	5	-	30	0.7
55	Ramechhap	2	7	7	1	-	-	17	0.4
56	Rasuwa	7	12	10	2	-	2	33	0.7
57	Rautahat	29	22	13	6	9	-	79	1.8
58	Rolpa	3	4	14	2	3	-	26	0.6
59	Rukum	3	4	14	2	4	1	28	0.6
60	Rupandehi	20	20	17	9	13	3	82	1.8
61	Salyan	4	5	14	1	3	-	27	0.6
62	Sankhuwasabha	2	12	16	16	9	8	63	1.4
63	Saptari	36	32	17	17	8	2	112	2.5
64	Sarlahi	26	20	12	4	6	-	68	1.5
65	Sindhuli	2	6	10	1	3	5	27	0.6
66	Sindhupalchok	3	7	10	2	3	2	27	0.6
67	Siraha	38	27	19	12	10	3	109	2.4
68	Solukhumbu	1	6	8	4	-	-	19	0.4
69	Sunsari	37	39	36	39	43	13	207	4.7
70	Surkhet	3	17	29	3	4	13	69	1.6
71	Syangja	-	9	10	4	2	-	25	0.6
72	Tanahu	-	8	11	9	3	5	36	0.8
73	Taplejung	3	14	34	16	4	6	77	1.7
74	Terhathum	6	10	19	14	4	7	60	1.3
75	Udayapur	10	21	20	6	1	-	58	1.3
	Grand Total	707	957	1205	732	632	218	4451	100.0

Source: United Nations Department of Safety and Security (UNDSS), Nepal Office

Appendix B: Gross Output Loss per Day due to General Strike in Individual Districts

SN	Districts	Industry and Service Sector Gross Output Loss per day due to bandh (in Million Rs)				
		2008/09	2009/10	2010/11	2011/12	2012/13
1	Achham	17.42	20.26	23.70	27.65	32.46
2	Arghakhanchi	10.45	11.97	13.78	15.81	18.27
3	Baglung	13.45	15.48	17.91	20.67	24.00
4	Baitadi	14.67	17.00	19.80	23.01	26.90
5	Bajhang	12.77	14.93	17.55	20.57	24.26
6	Bajura	9.52	11.21	13.25	15.63	18.55
7	Banke	19.60	23.12	27.42	32.42	38.57
8	Bara	26.82	31.52	37.26	43.89	52.04
9	Bardiya	20.02	23.30	27.26	31.80	37.33
10	Bhaktapur	13.36	15.86	18.93	22.51	26.94
11	Bhojpur	10.97	12.50	14.31	16.34	18.77
12	Chitwan	24.10	28.32	33.47	39.43	46.75
13	Dadeldhura	8.22	9.58	11.22	13.10	15.39
14	Dailekh	15.26	17.84	20.96	24.55	28.95
15	Dang	24.15	28.31	33.36	39.18	46.33
16	Darchula	8.07	9.37	10.94	12.74	14.92
17	Dhading	21.22	24.41	28.22	32.54	37.77
18	Dhankuta	9.24	10.61	12.26	14.12	16.37
19	Dhanusa	30.34	35.33	41.37	48.30	56.76
20	Dolakha	11.27	12.86	14.75	16.87	19.41
21	Dolpa	2.53	2.98	3.52	4.15	4.93
22	Doti	13.01	15.01	17.41	20.13	23.43
23	Gorkha	15.58	17.83	20.50	23.52	27.15
24	Gulmi	15.61	17.87	20.56	23.59	27.24
25	Humla	3.53	4.16	4.93	5.81	6.91
26	Ilam	15.14	17.47	20.27	23.45	27.31
27	Jajarkot	10.24	12.08	14.32	16.93	20.13
28	Jhapa	36.50	42.73	50.29	59.00	69.67
29	Jumla	7.72	9.06	10.70	12.60	14.92
30	Kailali	33.69	39.69	47.02	55.52	65.98
31	Kalikot	5.12	6.05	7.19	8.52	10.16
32	Kanchanpur	20.18	23.65	27.87	32.73	38.70
33	Kapilbastu	29.54	34.60	40.74	47.82	56.50
34	Kaski	20.94	24.74	29.39	34.80	41.47
35	Kathmandu	68.37	82.74	100.66	121.85	148.44
36	Kavrepalanchok	19.70	22.66	26.19	30.19	35.03
37	Khotang	13.51	15.37	17.59	20.06	23.04
38	Lalitpur	19.96	23.76	28.44	33.90	40.68
39	Lamjung	9.65	11.04	12.71	14.59	16.85
40	Mahottari	26.75	31.17	36.54	42.69	50.21

SN	Districts	Industry and Service Sector Gross Output Loss per day due to bandh (in Million Rs)				
		2008/09	2009/10	2010/11	2011/12	2012/13
41	Makwanpur	19.23	22.28	25.97	30.17	35.28
42	Manang	0.42	0.47	0.52	0.58	0.64
43	Morang	46.58	54.35	63.76	74.58	87.80
44	Mugu	4.02	4.74	5.61	6.63	7.88
45	Mustang	0.95	1.08	1.23	1.41	1.62
46	Myagdi	6.68	7.68	8.88	10.24	11.89
47	Nawalparasi	34.92	40.74	47.78	55.89	65.78
48	Nuwakot	15.25	17.48	20.15	23.16	26.79
49	Okhaldhunga	9.78	11.19	12.88	14.77	17.06
50	Palpa	12.88	14.78	17.05	19.62	22.73
51	Panchthar	11.03	12.63	14.53	16.69	19.28
52	Parbat	8.76	10.01	11.50	13.17	15.18
53	Parsa	27.74	32.55	38.40	45.17	53.46
54	Pyuthan	12.88	14.93	17.40	20.22	23.65
55	Ramechhap	12.16	13.93	16.05	18.43	21.30
56	Rasuwa	3.03	3.48	4.01	4.62	5.34
57	Rautahat	30.00	35.35	41.89	49.47	58.79
58	Rolpa	15.10	17.50	20.38	23.68	27.69
59	Rukum	11.18	13.00	15.20	17.72	20.79
60	Rupandehi	33.69	39.65	46.91	55.32	65.66
61	Salyan	15.62	18.21	21.34	24.94	29.34
62	Sankhuwasabha	8.86	10.19	11.79	13.60	15.79
63	Saptari	28.37	33.03	38.67	45.14	53.02
64	Sarlahi	33.34	39.13	46.17	54.31	64.29
65	Sindhuli	15.52	17.97	20.91	24.27	28.34
66	Sindhupalchok	18.51	21.17	24.35	27.93	32.24
67	Siraha	27.62	32.13	37.59	43.84	51.47
68	Solukhumbu	7.16	8.23	9.51	10.95	12.70
69	Sunsari	32.46	38.13	45.03	53.00	62.80
70	Surkhet	15.44	18.13	21.40	25.18	29.82
71	Syangja	15.64	17.83	20.45	23.38	26.90
72	Tanahu	16.47	19.00	22.05	25.51	29.70
73	Taplejung	7.80	8.92	10.27	11.79	13.61
74	Terhathum	5.77	6.57	7.52	8.58	9.86
75	Udayapur	15.44	17.94	20.97	24.44	28.67
	Sub-total	1288.51	1502.79	1762.62	2061.37	2426.62
	Ag Output Loss/Day	56.79	71.18	86.13	93.39	100.34
	Total Loss/ Day	**1345.30**	**1573.97**	**1848.75**	**2154.76**	**2526.96**

Source: Authors' Calculation