



Munich Personal RePEc Archive

**Understanding corporate social
responsibility of the corporate sector to
Sustainable Development Goal for energy
in Nepal**

Bista, Raghu

2 December 2018

Online at <https://mpra.ub.uni-muenchen.de/100111/>
MPRA Paper No. 100111, posted 09 May 2020 13:00 UTC

UNDERSTANDING CORPORATE SOCIAL RESPONSIBILITY OF THE CORPORATE SECTOR TO SDG 7: ENERGY FOR ALL: A LESSON OF DEVELOPING COUNTRIES, NEPAL

Dr. Raghu Bir Bista

Assistant Professor, Department of Economics, PMC, Tribhuvan University

Post Box No: 9137, Kathmandu, Nepal

E-mail: bistanepal@gmail.com

Abstract:

Sustainable Development Goal (SDG) 7: energy for all is a global agenda to Nepal, where about 85 percent rural population have not access to energy for lighting and about 40 percent of the bottom 20 percent extreme poor access energy. The government has been initiating alternative energy to reduce such huge energy gap. Still it is not sufficient for wider impact. The corporate sector's social responsibility is alternative hope for further collaboration. However, still energy for all campaign is sluggish. In this context, this paper examines CSR of the corporate sector in Nepal and its contribution in SDG 7: energy for all. The paper has employed explorative and descriptive method based on secondary and primary data. The paper finds a better knowledge of stakeholders about CSR but its fund is informal and small. Its size is unsystematically least. It is voluntarily nature to the corporate sector. Its impact is narrow. In SDG 7: energy for all, there is no knowledge about SDG 7, no CSR activity and event because of no mandatory, no knowledge and no idea. Therefore, almost all stakeholders opine to make it mandatory and prioritized SDG 7: energy for all for its positive impacts in the society at large and wider.

Key Words: *SDG, CSR, Corporate sector and CSR fund, etc.*

1. INTRODUCTION

Over a long time, the growing concern on the energy for all has been a serious issue in the world. Traditional growth theoretical literatures and empirical literatures have given serious attention on its need and importance at household and business sector. However, the World Development Reports (2018) shows massive population outside the energy grid. In this critical context, sustainable development is widely accepted approach in energy for considering future potential demand without compromising present demand. The approach that emerged first time in the report of the World Commission on Environment and Development by Brundtland (1987) argues

three pillars integrity for sustainable development: economy, environment and society. In addition, there are supplementary of additional pillars: culture and institution. In 2015, UN had made this approach as the 2030 Agenda with 17 Sustainable Development Goals (SDGs) and 169 associated targets for next 15 years. Out of 17 SDGs, SDG 7 relates to '*energy for all*' for reducing socio economic vulnerability and hunger for happiness. Thus, SDG conceptualizes its livelihood ingredient with target of universal access to affordable, reliable and modern energy services by 2030 by increasing substantial share of renewable energy in the world. In addition, SDG focus on expanding infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, small island developing states and landlocked developing countries. Thus, SDG makes energy as the global concern to bring massive population in the energy grid for their energy secured basic livelihood, welfare and happiness.

On this issue, there are large literatures out of which very relevant literatures are reviewed to understand energy, growth and welfare of the people. Like as household economy, it is a basic input of production and processing activities (Boulding, 1973) with the arguments of necessary input of the production of commodities and then consumption. The energy and growth nexus is a debate issue in which Boulding (1973) notes that their relationship is so close that there is a very strong, positive correlation between the input of energy into a society and its gross national product (GNP). All rich societies have high inputs of energy. Thus, energy is evident of as an ingredient of growth. Empirically, Costantini and Martini (2010) investigated the causality between economic growth and energy consumption for different sectors in OECD and non-OECD countries by using time series data. The result shows similar trends at the short-run, while they behave differently toward energy consumption at the long-run in the industrial sector. In transport, the result is positive but is negative in residential in both countries. Similarly, Cheng-Lang et al. (2011) tested the basic relationship between real GDP and electricity use in industrial and residential sectors in Taiwan based on econometric models by using quarterly time series data from 1982 to 2008. The result is positive in both cases: linear and nonlinear. Abid and Sebri (2012) examined the Granger causality approach to investigate the relationship between energy consumption and economic growth in Tunisia during 1980-2007 for the total economy as well as for the industry sector, transport sector, and residential sector. The result is positive in long term in Tunisian Economy.

However, few empirical studies have not found positive. Zachariadis (2007) examined causality between energy consumption and total economy (service and transport sectors) by using time series database of G7 countries from 1949 to 2004. The result indicates negative. Similarly, Belloumi (2009) examined the causal relationship between energy consumption and economic growth for the total economy in Tunisia using time series data during the period 1971-2004. The result is negative. In short run, Abid and Sebri (2012) in his study finds negative. Therefore, the energy and growth nexus are still paradox.

Despite such paradox situation between energy and growth nexus, its relationship with household welfare is positive. Eberhard and van Horen (1995) reviewed the empirical evidence on the health and wider social impacts of different energy sources in South Africa. The result is that children living in urban homes reliant on coal inhale more than five times the US EPA recommended 24-hour limit of 260 mg m^{-3} , while children living in rural homes reliant on fuel wood inhale more than nine times the US EPA limit. A health survey conducted as part of the same study revealed that children from coal-using homes were 190% more likely to develop respiratory illness (pneumonia, bronchitis, asthma, etc.) lower than children from the electrified homes. Thus, clean energy has improved household comfort and welfare. Similarly, Domdom et al, (1999) examined the relationship between energy and education in South Africa, where the poor household had not energy for lighting, except air polluted fuel wood energy. The result is that electric illumination significantly increases the number of hours that poor children are able to spend reading and studying. Thus, energy increases household welfare. Foster and Jean Philippe (2000) measured the impact of energy intervention on the poor and their welfare-an illustration from Guatemala by using quantitative indicators. The result is the electricity has improved welfare of the poor, although they have limited access to the electricity.

Literatures of energy mentions “*energy efficiency*” or “*energy saving*” for SDG 7: “*energy for all*”. There are alternative thoughts, *how can we talk such approaches without energy availability and accessibility to all*. Ongoing debates are on. It is ok in the rich societies. In case of the poor societies, it is not ok because these societies have not access to energy, except inferior energy in the wider energy gap scenario, although the developing countries have tried to reach out these societies through renewable energy. USAID (2008) provides evidence of low intensity of energy in Africa, Asia and South Asia and then low industrialization and high non-industrialized

activities (farming activities). In SAARC, it is 50 percent in average energy consumption, except Maldives (100%) and Sri Lanka (85%) (USAID, 2008). Nepal has also. It indicates the higher growth of energy demand for higher economic growth rate in this region (Bista, 2008, Bista, 2011 & Bista 2016). In this context, there is a growing concern about energy security one side and another about energy for all to reach out the poor societies.

About G-7 countries, studies indicate to develop and expand renewable energy (UK Parliament, 2007) with save energy, energy we do use is secure and emits as little carbon as possible; reforming the Renewable Obligation for 2020. South Asian countries have not such level of attention and efforts for energy security and distribution, except India. In this context, Nepal has gradually attended on hydro and solar energy production and generation not for energy security but for energy demand. Its present estimated energy demand is 1508MW out of which energy supply is about 69 percent. It means 31 percent energy gap, although Nepal has huge water resource potentials (83,000 MW) (MoF, 2018). Its distribution intensity is higher in urban areas (95.7%) than rural areas (4.3%)(Bista, 2008, Bista, 2011 & Bista 2016). However, about 82 percent population distributes in rural areas. Only 4.3 percent, it is 0.944 million rural population. Still, about 21.025 million rural populations (95.7%) have not access to energy. Almost rural populations are extremely poor using lower inferior energy consumption for heating. Its effects including indoor pollution induced health, higher health expenses, lower productivity, lower hours for learning, no television, no radio, no mobile, more leisure time and early sleeping. Out of total population, almost women, old age and children are more vulnerable (MoF, 2018). In this critical energy scenario, CSR contribution of the corporate sector to SDG 7: energy for all may be crucial and query for reducing rural population's vulnerability and improving socio economic level of these poor households and rural enterprises development. Few studies (Bista, 2004, Bista, 2005, Bista, 2009 Bista, 2011, Bista, 2017 & Bista, 2018) concern only MNC. However, none of literatures has focused on CSR for SDG 7: energy for all, despite its critical scenario. Therefore, this study is relevant.

This study examines the renewable energy as CSR of corporate sector in Nepal and its contribution in the energy scenario of Nepal. In addition, the study analyzes structure, pattern and trend of energy scenario in Nepal and the impact of the renewable energy at household level as target of SDG.

2. METHODOLOGY

2.1. Conceptual Framework

CSR concept emerged in 1917, when Henry Ford initiated social responsibility in terms of value of all stakeholders' interests as well as the social welfare of employees and shareholders (Lynach-Fannnon, 2007). In 1932, Dodd (1932) and Berle (1932) published their article on "For Whom Are Corporate Managers Trustees?" in a Harvard Law Review. In 1953, Bowen published a book, *Social Responsibilities of the Businessman* focusing on the relationship of corporation with society and need of business ethics (Carroll, 1979). In 1970, Milton Friedman (1970) continued this debate through his article on "The Social Responsibility of Business Is to Increase Its Profits," in the *New York Times Magazine*. Thus, CSR has received public and academic attention for social interest. Such evolution of academic perspective has contributed its modern concept. The literatures (Carroll, 1999; Engardio et al. 2007, Fanto , 1998 and Marinov & Heiman, 1998) mention CSR as the activities making companies good citizens who contribute to society's welfare beyond their own self-interests. In addition, Elhauge (2005) explains CSR as *sacrificing profits in the social interest*. In simple, it is social work of the corporate sector in the society. Similarly, Graff , Joshua and Small (2005), Portney (2005) and Reinhardt (2005) in their papers have offered similar arguments consistently.

Griffin (1998) defines it as the set of obligations an organization has to protect and enhance the societal context in which it functions. Social responsibilities of business mean responsibilities of business towards customers, workers, shareholders and the community (Afful, 2003). The government of India (2017) mentioned it as mandatory in the Industrial Policy. Miwa (1999) argue in the similar way in their papers.

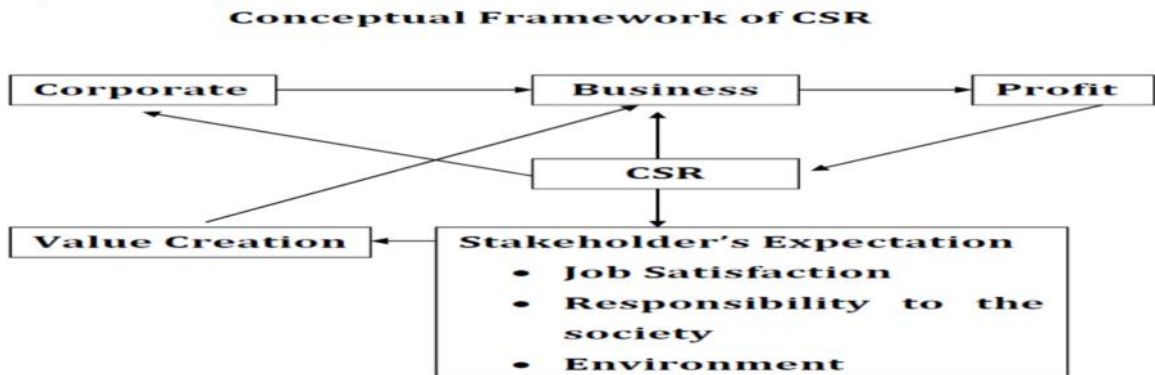
For corporate citizenship or responsible business, Carroll (1999) explains CSR having economic responsibility, legal compliance, ethical and philanthropy. It has three objectives: value creation, risk management and philanthropy (Figure 1).

Figure 1: CSR Framework



Multinational Corporates (MNCs) are profit motive. Their profit function is to maximize optimum level net profit at any cost. Profit maximization is possible when the corporate business is sustainable. Therefore, the corporate sector should responsible to the society as corporate citizen through CSR. CSR and profit have interdependent and positive correlation. If profit increases, CSR increase. If CSR increases, sales increases and profit increases.

Figure 2: Conceptual Framework of CSR



2.2. Data Sets and Data Collection Method

This paper employed explorative and descriptive research method under which we collected primary and secondary data. Primary data was collected through stakeholder survey through telephone and e-mail questionnaire. The stakeholder survey was conducted to five categorical stakeholders: policy makers, top officials and public relation officer of the corporate sectors, customer of the corporate sectors and general people. All stakeholders were selected from

Kathmandu Valley. Its size was 60. It was selected purposively for this study in the limited resources. The survey schedule was from April 15 to May 15, 2018. In the schedule, reliability and validity test was followed.

The secondary data and information collected from the published documents of the commercial banks, telecommunication, airlines and business groups, particularly their published audit report from 2008 to 2017. Out of total commercial banks (28), we selected 8 commercial banks by using purposive methods. The selected commercial banks included three different banks: joint venture banks (NABIL), private banks (Nepal Investment Bank, Mega Bank, Siddhartha Bank, and Citizen Bank) and public banks (Nepal Bank Limited, Agricultural Development Bank and Rastriya Banijya Bank). All public Banks provide their services to all 75 districts and almost villages. The joint venture and private Banks have covered only 70 percent districts, except Himalayan districts. In addition, in telecommunication, there were selected Nepal Telecom, Ncell, World Link and Classic Tech. In airlines, there were yeti airlines, Makalu Air and Buddha Air. Lastly, in the business groups, there were Khetan, Sharada, Vaidya, Panchakanya and Chaudhary. In addition, the relevant published documents were used for secondary information.

3. STUDY AREA

Nepal is a tiny Himalayan landscape (0.3 % of Asia and 0.03 % of the world) with 147181 km². This tininess carries a nature marvelous with divergent ecological beautiful materials (Himalayan series and wild rivers), along with 83000 MW hydro potential and unexplored ancient cities, cultures and mystic holiness (MoF, 2018). Remittance intensity in GDP is 29 % (Bista, 2008, Bista, 2011 & Bista 2016). Despite jumping GDP per capita of 1004US\$ and maintaining 5 % per annum growth the country is still one of 28 poorest of the poor country. The country has 26.4 million with decreasing growth rate of 1.35 % (MoF 2018). Out of total population, about 80 % population is still rural residents waiting for changing their welfare (Bista, 2008, Bista, 2011 & Bista, 2016). Despite a beautiful cache development agenda and policy, urban centric development model has not reached out properly to respond development chronic, lower paid informal employment, seasonal unemployment and poverty. However, lower energy per capita consumption drags them in the vicious cycle of poverty and vulnerability.

4. RESULTS AND DISCUSSION

4.1. Energy Scenario in Nepal

In the world, there is energy divide scenario. Advance economies (G7) have higher energy per capita consumption and production. For example, per capita energy consumption of USA is 314.1 GJ per annum and Japan has 162.5 GJ per annum. Developing and Least Developing Economies have lower energy per capita. For example, Nepal has 14.2 GJ per annum (WB, 2018). These figures provide evidence of extreme energy divide between developed and developing countries. Furthermore, it indicates development divide in terms of infrastructure expansion, technological advancement and sector productivity. Thus, the energy divide shows its inevitability of economic development and welfare.

Per capita energy consumption of Nepal (14.2GJ per annum) itself indicates about traditional dominated energy scenario (MoF, 2018). It means biomass led energy scenario in which biomass share is 85 %. Other source of energy is nominal as follows: 9 % fossil fuels, 3 % coal, 2 % hydroelectricity and 1 % renewable energy (Bista, 2008, Bista, 2011, Bista 2016 & MoF, 2018). This energy scenario is still consistent, although the government of Nepal has been giving top priority on hydroelectricity development, along with solar energy development over 65 years long plan development. This energy scenario and structure of the country indicates a higher energy demand led higher energy deficit and insecurity in which industrial, service and agriculture sector have barrier to expand and modernize towards higher efficiency and higher productivity. Sustainable and balanced higher economic growth rate is still issue. Similarly, it indicates no energy for modern household appliances for improving quality of life. If we observe biomass led energy scenario, it shows lower quality of rural life. Lastly, it indicates incapacity to exploit water resources potentials to generate energy to meet the growth of demand. Therefore, per capita energy consumption of the country is least and traditional.

Dissection to energy consumption sectors provides five major sectors: residential, transport, industry, commercial (services) and agriculture. Out of total consumption, residential sector consumes 87 % and then after transport consumes 6 %. It is followed by industry (5%), commercial (service) (1%) and agriculture (1%) (Bista, 2008, Bista, 2011, Bista 2016 & MoF, 2018). Thus, the residential share in energy consumption scenario is a dominant. It indicates the inability of economic sectors and transports to consume more. It is nothing, except their inadequate development and growth.

This scenario has two geographical landscapes: rural and urban. Urban is of 20 % population meanwhile rural is of 80% of population (CBS, 2011). There are different divides: infrastructure, social infrastructure, technology, literacy, employment, economic opportunities, accessibility, information, mobility, income level etc. Energy scenario in urban areas is fossil fuel dominated (LPG -40.2%, and kerosene-15.8 %). It is supplemented by wood (36.2%), biogas (3.2%), dung (2.5%), charcoal (0.2%) and crop residual (0.2%)(Bista, 2011b, Bista, 2011c, Bista, 2011d & Bista, 2013). However, in rural areas, biomass fuel dominates with 95 %. Biomass fuels include wood (81.4%), dung (9.1%), biogas (2.4%), crop waste (1.8%), charcoal (0.1%). Non-biomass fuels are LPG (3.9%) and kerosene (1.0%). Thus, urban society consumes fossil fuels and rural society consumes biomass fuels.

4.1.1. Renewable Energy Sources and Intensity

It is a naked fact that about 85% rural population has not access to clean energy for their welfare and happiness (Bista, 2011 & Bista, 2016). This critical scenario needs alternative source of energy: renewable energy to reach out them. Over 65 years plan development practices, the government has initiated to promote and develop it into five segments: biomass, wind, solar, biogas and hydropower (small and micro hydropower) (MOF, 2018). Its details are as follows.

- **Biomass**

Biomass is a major source of energy. Its domination is approximately 85 % (Bista,2011c, Bista, 2011d, Bista 2011e, Bista, 2013 & MoF, 2018). Rural households always use it for cooking and heating purpose (Bista, 2008, Bista, 2011, Bista,2011c, Bista, 2011d, Bista 2011e, Bista, 2013). Therefore, it is traditional and indigenous because of its traditional technology, small scale and unpredictable potentiality (Bista,2011c, Bista, 2011d, Bista 2011e & Bista, 2013). Studies mention it non-clean energy having indoor air pollution led health hazards (skin, respiratory, eye allergy etc.) and vulnerability.

The sources of biomass energy are agro residual, fuel wood fodders, grass etc. In agro residual energy, household extract energy from all residuals of agriculture activities (Bista,2011c, Bista, 2011d, Bista 2011e & Bista, 2013). Mainly, there are the residuals of paddy, maize, wheat, millets and soybean. Its share is approximately 61 % of total household energy consumption per annum (MoF, 2018). Household consumes this energy particularly for cooking and then heating. Despite indoor air pollution and CO₂ emission, such indigenous practices have cost free proper

management of agro residuals for energy and organic fertilizer. Therefore, almost rural households consider it as cooking fuel.

Fuel wood supplements to agro residual in the rural household fuel energy. In Nepal, its coverage is approximately 40 % of total land (5.8 million ha) having 429 million dry metric ton biomass. Its contribution share is approximately 40 % in household fuel. Out of total household activities, its energy contribution is 75 %. It is also traditional form of energy source in household (MoF, 2018). In Himalayan areas, its use is more than Hill and Terai. Its use is better than agro residual in terms of energy efficiency, cleanliness and scale. In general, households receive fuel wood from their own forest and plantation and the public forest. In 1950s, 1960s, 1970s and 1980s, higher forest population ratio maintains forest sustainability. After then, it declined with higher deforestation rate. Then after, the government-initiated community and lease forest models for forest conservation and preservation for sustainable supply of fuel wood (Bista,2011c, Bista, 2011d, Bista 2011e & Bista, 2013). In these conservation models, community has property right and ownership right on forest. Thus, the rural households have received fuel wood in the sustainable way.

Table 1: Renewable energy distribution

Renewable Energy	No	MW	Districts
Hydro power			
Small Hydro	26	76.7	
Mini hydro	40	14.95	31
Micro hydro	864	14.7	59
Pico Hydro	1262	2.45	53
Improved water mill	7686		46
Biogas			
Household	238587		72
Community	61		20
Institutional	111		25
Solar PV			
Household	227039	6.31	74
Institutional	259		42
Water Pumping	79		26
Wind			
off Grid	26	8.6	11
Biomass			
ICS	560167		48

Since 1990, the government has started improving energy efficiency through the installation of improved cooking stove (ICS) so that air pollution and highly dependency on fuel wood could be reduced. In 2018, its installation to household is 0.5 million. In addition, the government has installed biogas in rural households through subsidy scheme.

- **Hydropower**

Hydropower is a secondary source of clean energy in the country, where approximately 6000 river and rivulets with 45000 km length and Source: *Economic Survey, 2018*

174 billion cubic meters discharge have 83000 MW potentials (Bista, 2008, Bista, 2011 & Bista, 2016). In the world, its share is 2.2 % establishing Nepal at second rank after Brazil. Out of 6000 river rivulets, there are four Tibetan plateau origin major rivers: Mahakali, Karanali, Gandaki and Koshi with consistent water level in both seasons: winter and summer (Bista, 2008, Bista, 2009 & Bista, 2016). However, its utilization situation is just less than 1 % (1044.6 MW) over six decades plan development (Bista, 2008, Bista, 2011 & Bista, 2016). To accelerate hydro development, the government has liberalized hydropower development to the private sector as well as foreign investor (Bista, 2004, Bista, 2005a, Bista, 2005b, Bista, 2009, & Bista 2017). In coming years, hydropower installation rate is higher than before. Despite our potentiality and our concern, power deficit is the country's reality.

Out of 6000 river and rivulets, a large number of small rivers and rivulets are scattered in rural areas. Studies have identified their feasibility for small and micro hydro projects. Its modality has attracted local government, NGO, private sector and consumer groups. The government has promoted to small and micro hydro projects for wider divergence across all over the country so that the rural people can be a stakeholder as owner and as user to electricity. Its result is 108 MW small and micro hydro projects spreading 59 districts of total districts (77)(Table 1). At some extent, energy production, distribution and consumption are localized at relatively lower cost per unit. Households use such electricity only for lighting and television at nighttime and for small and micro industrial operation at daytime. For example, flour mill, grill factory, packaging, processing factories, electrical works, harvesting, cleaning etc. Thus, agriculture sector has used modern machines based on electricity meanwhile non-agriculture sectors are also expanded as economic activities.

- **Solar, Wind and Bio Gas**

Solar and Biogas are another emerging source of energy in the country. Rural households are far from national grid of electricity. Households have not energy for lighting. Studies have found solar energy as a good reliable alternative. There is 6.8 sunshine hours per day. Its potentiality is estimated 8GWh per day. Annually, it is 2920Gwh. It is only 0.01 %. Therefore, the government has subsidy policy to promote solar energy in rural areas of the country. As supplementary, NGO and INGO have also promoted solar energy. Its capacity is approximately 6.3 MW installing in 74 districts of 77 districts(Table 1). Its distribution is only 0.2 million households(Table 1). Recently, the government has promoted wind energy at few feasible locations.

Almost rural households farm livestock (MoF, 2018). Livestock provides milk and dungs. Milk provides protein and cash to the farmers. Dungs provide nutrition to crops in the farm. Studies have found its potentiality of biogas. It would give clean energy for cooking, heating and lighting. Then after, it provides organic fertilizer to the farm. Therefore, the government has installed at 0.23 million households in 74 districts (Table 1).

4.2. CSR Characteristics of Corporate Sector

Today's world business is of big corporate sector. CSR is an important variable of their corporate governance for more profit, more value creation and more responsibility to the society. Google is a top corporate in the world. The company has created 1 billion US\$ CSR fund. The fund is used for different philanthropy activities across the world. Therefore, it is not corporate sector's philanthropy choice but also mandatory legal provision.

CSR of the corporate sector (Bank and finance, airlines, telecommunication and business groups) is in their fact and figures disclosure in publication and internet. Whatever objectives of this corporate sector in CSR events are not meaningful, except its event, activities and impacts at the society. So far, concern with international norms, values and system of CSR and SDG, CSR of the corporate sector is very curious in depth about its characteristics. The survey to trap CSR characteristics of the corporate sector has employed seven indicators: No of Years for CSR, Regularity in some years, percentage of profit, CSR team, CSR events and CSR disclosure.

The sample corporate sectors are outcomes of the structural adjustment program: globalization, liberalization and privatization in 1980s. Almost corporate sectors have more than 30 years and less than 30 years long history. Let us talk about Nepal Bank (1937), NABIL (1984) and Nepal Investment Bank (1986). Nepal Bank was established in Rana Regime; meanwhile NABIL and Nepal Investment Bank were immediate after Structural Adjustment Program (SAP) 1980. The remaining three banks were established after the SAP II: Mega Bank (2010), Siddhartha Bank (2002) and Civil Bank (1993)(Table 2). Similarly, such history relates to airlines, telecommunication and business groups. This strong background supports the corporate sector with higher vertical and horizontal growth. However, CSR history of the corporate sector is unexpectedly least (1 %)(Table 2). Their CSR practices have not a long history.

CSR should be regular as norms, values and culture of corporate sector. Its regular activities and events have good and positive impact in the society in terms of welfare and development. Survey shows least size CSR of all corporate sectors. Its activities and events are irregular in terms of time and theme. Therefore, its impacts are nearly least.

For regular CSR activities and events, its CSR fund should be a big. If it is small, CSR activities and events will be irregular. Survey shows mixed scenario of CSR fund in the corporate sector. Interestingly, few corporate sectors have kept systematically certain percent in CSR fund. However, most corporate sectors have not, although they organize CSR events and activities.

CSR size of the corporate sector is generally 2 % of the profit as international practices. In USA and European countries, Apple, Google, Microsoft etc. have allocated more than 2 % of their company's profit. Survey shows that less than 1 % of their profit. It is negligible without systematic allocation in CSR fund. Airlines and Banking sectors have less than telecommunication and business groups(Table 2).

CSR is a responsible and sensitive issue to the corporate sector. Its level depends on institutional set up in the corporate sector i.e. CSR team. In general, the corporate sector has such team because it is not only philanthropy but also value and good will creation in the society. Survey finds no CSR team across the sample corporate sector. It means the level of CSR commitment, concern, sensitivity and responsibility in the corporate sector. All the corporate sectors have less commitment, concern, sensitivity and responsibility on CSR in the country(Table 2)

Table 2: CSR characteristics

Indicators	Bank & Finance Group	Telecommunication Group	Airlines Group	Business Groups
No of Years for CSR	10	6	3	8
Regularity in some years	yes	yes	yes	yes
CSR Fund	yes	yes	no	yes
% of Profit	0.04	0.14	0.03	0.1
CSR team	No	No	No	No
CSR events(Mean)	9	12	4	8
CSR disclosure	yes	yes	no	no

Source: *CSR Disclosure, 2018*

events will be positively strong. Survey shows negligible CSR team, fund and size having less CSR activities and events. Survey finds CSR events of all corporate sectors out of which

telecommunication group has more than Bank and finance, airlines and business group. Airlines group have least CSR events of all (Table 2).

CSR disclosure is an important means to publicize CSR fund, size, events and themes across time. This is transparency of the corporate sector. It is a good of corporate governance and ethics. Like as Apple, Google, Microsoft etc., CSR disclosure is available in the corporate sector's websites and the audit reports. Survey finds CSR disclosure in Bank and Finance and Telecommunication in websites. However, survey finds no CSR disclosure in Airlines and Business houses in websites.

4.2.1.CSR Fund

CSR fund is an inevitable fund structure of the corporate sector for CSR activities and events for complete social responsibility of the corporate sector so that the corporate sector could plan CSR activities and events over a year in accordance with the society's need and the corporate sector's objectives. CSR fund is trick issue to the corporate sector. Survey finds mixed scenario about CSR fund. Bank and Finance group, Telecommunication group and Business group mention the availability of CSR fund but Airlines group has not.

Table 3: CSR Fund

Industrial Groups	Is there CSR Fund?	
	Yes	No
Bank and Finance Group	√	
Telecommunication Group	√	
Airlines Groups		√
Business Groups	√	

Survey shows 50 % banks having such fund and 50 % banks having not such fund. Further, joint venture commercial banks have and state led banks have not(Table 3).

Source: *Field Survey, 2018* In case of telecommunication, 25 % telecommunication corporate has but 75% telecommunication corporate has not. Similarly, airlines have not. In business groups, majority has but minority has not(Table 3). Thus, corporate to corporate and firm-to-firm have different a picture of CSR funds.

Table 4: CSR Fund

Industrial Groups	Is there CSR Fund	
	Yes	No
Bank and Finance Group	4	4
Telecommunication Group	1	3
Airlines		3

Business Groups	3	2	Keeping CSR fund needs first knowledge about CSR fund and its need. Survey shows amazingly all corporate staffs having knowledge about CSR fund (Table 5). Further, survey finds most unsystematic nature of CSR fund, except few corporate having systematic. In case of airlines, survey finds no mandatory reason of No CSR fund, although they have knowledge about need of CSR fund (Table 5).
-----------------	---	---	---

Source: *Field Survey, 2018* Table 5: Reason for no CSR Fund

Industrial Groups	Knowledge about CSR fund		Is it systematic?		Reasons for no CSR fund			
	Yes	No	Yes	No	No practice	No mandatory	No Culture	No idea
Bank and Finance Group	8		1	7				
Telecommunication Group	4		1	3				
Airlines	3			3		3		
Business Groups	5		1	3				

Source: *Field Survey, 2018*

4.2.2. CSR fund Motives

Table 6: CSR motives

CSR motives	Frequency	%	Motive Ranking
Concern social issues	1	2	X
To be responsible to the society	4	7	VII
Creating social value in the society	2	3	IX
Promoting company's good will	9	15	I
Increasing customer	2	3	IX
Promoting social marketing	7	12	IV
Ethical obligation	3	5	VIII
Good cause	6	10	V
Pure religious objectives for satisfaction	5	8	VI
Charity purpose	4	7	VII
Social Obligation	9	15	II
National cause	8	13	III
Total	60	100	

Survey has found 12 motives of CSR: concern social issues, to be responsible to the society, creating social value in the society, promoting

Source: *Field Survey, 2018* company's good will, increasing customer, promoting social marketing, ethical obligation, good cause, pure religious objectives for satisfaction, charity purpose, social obligation and national cause on which there were scattered distribution of weightage of the respondents(Table 6). Based on frequency of the respondents, CSR fund has first motive of promoting company's good will and then after, it is followed by social obligation as second motive, national cause as third motive. Its details are in Table 6.

4.2.3. CSR activities of the corporate sectors

Table 7: CSR activities

CSR Activities	Frequency	%	Rank /Priority in CSR
Scholarship	10	17	III
Environment	5	8	VI
Awareness & Training	12	20	I
Emergency Aid	6	10	V
School building	11	18	II
Health camp	8	13	IV
Sanitation	4	7	VII
Heritage reconstruction	1	2	VIII
Total	60	100	

Source: *Field Survey, 2018*

Survey have identified 8 CSR activities including scholarship, environment, awareness and training, emergency aid, school building, health camp, sanitation and heritage reconstruction(Table 7).

The corporate sectors –Bank and Finance, Telecommunication, Airlines and Business Group have been conducting different social cause activities (CSR activities) in the country to be social accountable corporate. CSR disclosure 2018 and

In Table 8, the corporate sectors have given top three priorities on awareness to the people and training to the people and employee, school building to rural areas and scholarship to merit, deprived and girls. Then after, almost all corporate sectors have initiated health camp, emergency aid, and environmental program: Bagmati Cleaning Campaign and Tree Plantation, Sanitation and heritage reconstruction.

4.2.4. CSR’s Nature and Provision

Table 8: CSR nature

Industrial Groups	What is CSR's nature	
	Legal compliance	Voluntarily
Bank and Finance Group		√
Telecommunication Group		√
Airlines Groups		√
Business Groups		√

Source: *Field Survey, 2018*

be systematic and institutional. However, if it is voluntarily, it depends on executive team policy and program. It will be unsystematic and institutional. Its function will be irregular. Survey finds CSR nature is voluntarily. It means no legal compliance to the corporate sector(Table 8). Further, the corporate sector is free about CSR.

CSR nature and provision determines CSR allocation of the corporate sector. Therefore, it is very important to CSR activities and events. If it is mandatory, the corporate sector makes it an obligatory to allocate CSR. It will

Table 9: CSR pyramid

CSR Pyramids	Bank & Finance Group	Telecommunication Group	Airline Group	Business Group
Ethical responsibility	0	0	0	0
Legal provision	0	0	0	0
Philanthropy	1	1	1	1
Value creation	1	1	0	0

CSR pyramids have ethical

Source: *Field Survey, 2018* responsibility, legal provision, and philanthropy and value creation. International practices show all elements of CSR pyramids. Survey shows philanthropy CSR of the corporate sectors. In case of Bank and Finance Group and Telecommunication, the corporate sectors have tried to create good will value through CSR(Table 9). Naturally, the corporate sector has not understood properly to CSR tool in the corporate governance.

4.2.5.CSR size

Table 10:CSR size

Industrial Groups	CSR size		
	< 0.5 %	<1%	<2%
Bank and Finance Group	√	√	
Telecommunication Group	√	√	
Airlines Groups	√	√	
Business Groups	√	√	

CSR size is also voluntarily without mandatory provision because Industrial Policy has made it voluntarily nature (no legal compliance) to the corporate sector and the corporate sector has

Source: *Field Survey, 2018*

not understood the power of CSR tool to create value to their product and services in the society. Its reflection is a tiny CSR size. Survey shows less than 0.5% and 1% of corporate profit as

Table 11: CSR Fund Size

Industrial Groups	CSR Fund size		
	< 0.5 %	<1%	<2%
Bank and Finance Group	7	1	
Telecommunication Group	3	1	
Airlines Groups	2	1	
Business Groups	3	2	

CSR in all corporate sectors (Bank and Finance, Telecommunication, Airlines and Business Groups)(Table 10). It is negligible to fulfill the corporate sector's social responsibility but

they have freedom to decide about CSR size and use.

Survey shows 0.5% CSR of most corporate sectors and less than 1 % CSR of least corporate sectors across all corporate sector groups(Table 11).

4.3. CSR and SDG Survey with stakeholders

CSR and SDG survey provides the stakeholder's perception about knowledge, activities, satisfaction and need of CSR. The survey with stakeholders was conducted at micro scale (60 respondents) in above the sample corporate sectors through telephone and e-mail tools. The stakeholders include Policy Makers, Top Officials, Public Relation Officers, General Customer and General People.

4.3.1. About CSR

CSR is new idea to Nepalese corporate sector, although informal and individual philanthropy is culture in Nepalese society focusing more on humanitarian and religious grounds. Therefore, stakeholders must have a good knowledge about CSR for effective operational CSR activities in the society. CSR is not wider yet. Therefore, all stakeholders have a sufficient knowledge and information about CSR. It would be wrong assumption. Survey shows general customer and general people have least knowledge about CSR, except policy makers, top officials and public relation officers. It indicates poor, small scale and irregular CSR activities and events in the society targeting customer and general people and ineffective transformation of CSR policy from top level to bottom level.

The survey crosschecks CSR activities of the corporate sector mentioned in their websites and audit reports. The survey shows mix results in which customer and general people have rejected CSR activities opined by the policy maker, top officials and public relationship officers. This is divide opinion among stakeholders. It is possible when CSR activities and events are very small scale and inconsistent level. Its impacts and benefits are negligible. In another words, CSR activities and events are just for ad hoc business to the corporate sectors without target of value creation(Table 12). Naturally, it raises a query about its effectiveness.

Table 12: CSR survey

	Knowledge about CSR		CSR activities of the corporate sector		your satisfaction level		should the corporate conduct CSR	
	Yes (%)	No (%)	Yes (%)	No (%)	Good (%)	Poor (%)	Yes (%)	No (%)
Respondents								
Policy Makers	100		100	0	80	20	100	
Top Officials	90	10	90	10	70	30	100	

Pubic Relation officers	100		100	0	75	25	100	
General Customer	20	80		100		100	100	
General People	5	95		100		100	100	

The satisfaction level on CSR activities and events of the

corporate sector provides valuable inputs to the corporate sector and policy makers (Table 12). The survey shows mixed scenario in policy maker, top officials and public relationship officers with significantly poor satisfaction level, whereas 100 % customer and 100 % general people have not satisfaction on CSR activities and events of the corporate sector (Table 12). It indicates

Source: *Field Survey, 2018* ineffectiveness to deliver CSR's policy objectives to the target stakeholders for creating good will among them for promoting more sales of products and services.

In mixed scenario, there is a query about what next. All respondents have opined that the corporate sector should implement larger and wider CSR activities and events in the society for its good impacts and effectiveness(Table 12).

4.3.2. CSR of Corporate Sector and Clean Energy

Table 13: use of CSR

Industrial Groups	Is CSR fund used on clean Energy?	
	Active	Passive
Bank and Finance Group		8
Telecommunication Group		4
Airlines Groups		3
Business Groups		5

CSR disclosure 2018 and Survey have identified 8 CSR activities of the corporate sector including scholarship, environment, awareness and training, emergency aid, school building, health camp, sanitation and heritage reconstruction. There is not clean

Source: *Field Survey, 2018* energy as CSR activity, although the corporate sector of India has active on clean energy in CSR.

Based on CSR disclosure 2018 shows the passive mode of all corporate sector of Nepal on clean energy, except basic utilities (primary health, literacy, clean drinking water and sanitation and environment)(Table 13).

Table 14: Priority of CSR fund

Industrial Groups	Is clean energy listed in the priority of CSR Fund?	
	listed	not listed
Bank and Finance Group		8
Telecommunication Group		4
Airlines Groups		3
Business Groups		5

In addition, CSR disclosure 2018 shows only 8 CSR activities in which there is not listed clean energy. It is not only in one corporate sector. However, not almost all corporate sectors have listed clean energy in the list of CSR activities

Source: *Field Survey, 2018* (Table 14). Thus, clean energy is still not agenda of the corporate sector in Nepal.

4.3.3. About CSR and SDG 7: Energy for All

Above data and information on CSR fund and CSR activities and events of the corporate sectors are irregular and negligible. In this context, SDG 7 is emerging issue to the corporate sector in Nepal. In the world, the corporate sector plays an important role in the implementation of SDG by using CSR fund for lighting in the rural village and also clean drinking water and sanitation, primary health care and literacy campaign. CSR situation is not more hopeful but future is hopeful. Therefore, with a good and positive hope, the survey is an effort to understand where the corporate sector in SDG, particularly SDG 7 is: energy for all.

The survey on knowledge about SDG shows mixed scenario in which top officials, public relationship officers, customers and general people have not knowledge about SDG, except the policy makers. Thus, almost respondents have not knowledge about SDG.

Table 15: CSR and SDG

Energy is a basic livelihood. Massive rural population has not access to energy. Alternative

	Knowledge about SDG		CSR activities on clean energy of the corporate sector		No knowledge		No mandatory		No Idea		should the corporate conduct CSR on clean energy	
	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	Yes (%)	No (%)	Good (%)	Poor (%)	Yes (%)	No (%)
Respondents												
Policy Makers	100			100	60		20		20		100	
Top Officials		100		100	80		10		10		100	
Public Relation officers		100		100	50		25		25		100	
General Customer		100		100					100		100	
General People		100		100					100		100	

Source: *Field Survey, 2018* energy may be a good initiation. The state agency and non-state actors have initiated at small scale. It needs the CSR of the corporate sector. In India, the corporate

sector has wider impact in the society on lighting campaign. The survey shows no CSR activity on lighting campaign (energy for rural households)(Table 15). This acceptance indicates no social responsibility of the corporate sector to the deprived section of the society through CSR activity and event. Further, the survey digs out its reasons by using three reasons: no mandatory, no knowledge and no idea. Almost respondents have a reason of no idea and then no mandatory and no knowledge.

In this worst CSR on energy for all, the survey finds 100 % respondents on the need of CSR activity on clean energy. For it, their demand is CSR as legal compliance to the corporate sector (Table 15).

5. CONCLUSION

CSR knowledge, activities and practices of the corporate sector are better than before, despite its small, irregular and voluntarily nature. Its focus is only on basic utility of the people: primary health, literacy, clean drinking water, sanitation, and environment. Therefore, the corporate sector is unaware about SDG 7: energy for all, along with no CSR activity on this area because of no mandatory, no knowledge and no idea. Further, the corporate sector is not initiator to CSR activity to SDG 7: energy for all. Therefore, SDG 7: energy for all is needed to incorporate in the list of CSR activity and priority at policy and program level for broader good cause of lighting in rural areas. Then, Nepal can achieve SDG 17 by 2030. Otherwise, the effort of the government will not be effective to achieve SDG 17.

REFERENCE

- Abid, Mehdi and Sebri, Maamar (2012) Energy Consumption-Economic Growth Nexus: Does the level of Aggregation Matter?, *International Journal of Energy Economics and Policy*, 2(2): 55-62
- Afful, K (2003). "Corporate Social Responsibility". *Organization*. July September, Kathmandu:ODC
- Belloumi, M. (2009), Energy consumption and GDP in Tunisia: Cointegration and causality analysis. *Energy Policy*, 37, 2745-2753.
- Berle A. A. Jr (1932). "For whom corporate managers are trustees: A note". *Harvard Law Review*. USA: Harvard School of Law 45(8):1365-72.

- Bista, R.B. (2004). Foreign Direct Investment in Nepal: Regression analysis in aspect of GDP growth and export, *Economics Journal of Development Issues*, 5(2):93-110.
- Bista, R.B. (2005a). *Foreign Direct Investment in Nepal*. Kathmandu: Center for Integrated Development Studies
- Bista, R.B. (2005b). 'Direction and effectiveness of trade policy reform: A case study of Indo-Nepal trade development'. *Economic Journal of Development Issues*, 6(2): 26-35.
- Bista, R.B. (2008). *Economics of Nepal*. Kathmandu: Prativa Publication
- Bista, R.B. (2009). 'Liberalization and Productivity Growth in Nepal: A case of FDI firm', published in www.iioa.org/conferences/18th/papers/files/90_20091229030_ProductivityGrowthofFDIfirm.pdf Vienna, Austria
- Bista, R.B. (2011). *Economics of Nepal*. Kathmandu: New Hira Books
- Bista, R.B. (2011a). BIPPA and Foreign Direct Investment in Nepalese Economy: A policy analysis, *Artha Journal*, 31(1):1-5
- Bista, R.B. (2011b) FDI and Corporate Social Responsibility: A Developing Country Case Study of Nepal in *Corporate Social Responsibility: Critiques, Policies and Strategies* edited by Prasenjit Maiti, Sharda Publishing House: Jodhpur India.
- Bista, R.B. (2011c) Low Carbon Economy and Developing countries: A Case of Nepalese Forest in the book, *Advanced Analytics for Green and Sustainable Economic Development* (ed.) USA: IGI Global.
- Bista, R.B. (2011d) An alternative of community forest institution in Nepal in *Environment and sustainable economic development*(ed). Raj Kumar Sen and Somnath Hazra, New Delhi: Deep and Deep Publication.
- Bista, R.B. (2011e) Contract forest: Is it alternative to Community Forest, in the book, *Environmental Security and Sustainable Development in South Asia* New Delhi, India: Global Vision Publishing House.
- Bista, R.B. (2013) Environmental Investment in Community Forest Management: A case study of Mid Hill Nepal, *Journal of Environmental Investing* 4 (1) :50-69.
- Bista, R.B. (2016). *Economics of Nepal*. Kathmandu: New Hira Books
- Bista, R.B.(2017) Liberalization in Nepal: Structure, Determinants and Trends of FDI, *Winner Journal*, Indonesia Vol18(1): 33-41, March.
- Bista, R.B.(2018) Understanding CSR of Commercial Banks: Evidence of Developing country, Nepal, *Kaav International Journal of Law, Finance and Industrial Relations*, 5(1): 23-33, Jan-Jun.
- Boulding, Kenneth E (1973) "The Economics of Energy" *The Energy Crisis:Reality or Myth*, Washington: American Academy of Political

- Bowden, N., Payne, J. E. (2009), The causal relationship between U.S. energy consumption and real output: A disaggregated analysis. *Journal of Policy Modeling*, 31(2), 180-188.
- Carroll, A. B. (1999). Corporate Social responsibility. *Business & Society*, 38, 268-295.
- Centre Bureau of Statistics (CBS)(2011). Population Census, Kathmandu: CBS
- Cheng-Lang, Y., Lin, H.P., Chang, C.H. (2011), Linear and nonlinear causality between sectoral electricity consumption and economic growth: Evidence from Taiwan. *Energy Policy*, 38, 6570- 6573.
- Costantini, V. and Martini, C. (2010), The causality between energy consumption and economic growth: A multi Sectoral Analysis Using Non-Stationary Cointegrated Panel Data. *Energy Economics*, 32, 591-603
- Dodd E. M Jr(1932). “For whom are corporate managers trustees?” *Harvard Law Review* 45(7):1145–63.
- Domdom, A., Abiad, V. and Pasimio, H. (1999) Rural Electrification Benefit Assessment Study: The Case of the Philippines, ESMAP Draft Report, World Bank, Washington DC.
- Eberhard, A. and van Horen, C. (1995) Poverty and Power: Energy and the South African State, Pluto Press, East Haven, Connecticut.
- Elhauge, E(2005). “Corporate managers’ operational discretion to sacrifice corporate profits in the public interest”. In: *Environmental Protection and the Social Responsibility of Firms*—Bruce Hay, Stavins Robert, Vietor Richard, eds. Washington, DC: Resources for the Future.
- Fanto, J. A(1998). “The role of corporate law in French corporate governance”. *Cornell International Law Journal* 31:31.
- Foster, V. and Jean Philippe, T(2000). Measuring the impact of energy intervention on the poor— an illustration from Guatemala. *Infrastructure for Development. UK: Private Solution*
- Graff, Z., Joshua, Small, A. (2005). “A Modigliani–Miller theory of altruistic corporate social responsibility”. *B. E. Journals in Economic Analysis and Policy: Topics in Economic Analysis and Policy* 5(1):1–19.
- Griffin R.W.(1998). *Management* 5th edition New Delhi:A.I.T.B.S

- Lynch-Fannon, I. (2007). "The corporate social responsibility movement and law's empire: Is there a conflict?" *Northern Ireland Legal Quarterly* 58(1).
- Marinov, B and Heiman, B. (1998). "Company law and corporate governance renewal in transition economies: The Bulgarian dilemma". *European Journal of Law and Economics* 6:231–61
- Ministry of Finance (MoF)(2018) Economic Survey. Kathmandu: MoF
- Miwa, Y.(1999). "CSR: Dangerous and harmful, though maybe not irrelevant". *Cornell Law Review* 84(July):1227–54.
- Portney, P.(2005). "Corporate social responsibility: An economic and public policy perspective". *In: Environmental Protection and the Social Responsibility of Firms—Hay Bruce, Stavins Robert, Vietor Richard, eds. Washington, DC: Resources for the Future*
- Reinhardt, F.(2005). "Environmental protection and the social responsibility of firms: Perspectives from the business literature." *In: Environmental Protection and the Social Responsibility of Firms—Hay Bruce, Stavins Robert, Vietor Richard, eds. Washington, DC: Resources for the Future.*
- Reputation Institute (2017). CSR Ranking Report. USA: Reputation Institute
- UK Parliament (2007). "Energy Security", *Research Paper*. UK: UK parliament (URL: <http://www.parliament.uk>)
- USAID (2008). *Energy Security Quarterly*. January New Delhi: USAID SARI/ENERGY