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## Power struggle for natural uranium of Himalaya near China border

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### ABSTRACT

This study analyzes “power and politics on the natural uranium of upper mustang region” of Nepal. By mixed method, study has concluded that there is strong political power struggle between different stakeholders to gain the ownership, and economic benefit. Study conducted a cross sectional survey on 32 households among 120 houses of central lo-manthang then analyzed obtained simple data set. Among 32 respondents, 29 are in favor of local government regarding its ownership. 23 are not ready to share benefit equally to province and central governments. 24 of them are not ready to share it to foreign powers but 29 are agree to sell it with economic benefit. Study explains the power and political struggle over the uranium resource of upper mustang region by linking it with the global references and leading theories.

### KEYWORDS

power; politics; struggle;  
natural uranium; stakeholder

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### INTRODUCTION

Uranium demand is complicated and there are many different factors that affects how much of it is needed. The main factors currently affecting uranium demand are the following: politics, population, technology, development, and the clean energy movement. The scarcity hypothesis indicates that people have the most power when the resource they possess are hard to come by or are in high demand.

Uranium, the most atomically unstable natural element on earth, has a unique place in the global geopolitics of resources. It provides energy to millions of people by applying its small amount. Its isotopes are used in powering space crafts and nuclear medication. It is also reason of many of the deadliest threats, including nuclear devastation and radioactive waste. Its mining had caused bitter conflict with indigenous and local people and testing of nuclear weapons had left a toxic legacy. Uranium-235 is the only naturally occurring fissile isotope, which makes it widely used in nuclear power plants and nuclear weapons. Uranium-238 is fissionable by fast neutrons, and can be transmuted to fissile plutonium-239 in a nuclear reactor. Another fissile isotope, uranium-233, can be produced from natural thorium and is also important in nuclear technology (Berkely, 2007). Uranium isotopes maintain a sustained nuclear chain reaction. This generates the heat in nuclear power reactors, and produces the fissile material for nuclear weapons. Depleted uranium (238U) is used in kinetic energy penetrators and armor plating (Emsley, 2001; L. Morss., 2019; Tissot et al., 2020; Hammond C.R., 2000; Seaborg, 1968; A. Bleise, et.al., 2003).

The main focus of the study is to discuss about the condition, use and power struggle among stakeholders over the natural uranium of upper Mustang in Nepal. Lo Manthang is a rural municipality near of Tibet border in middle of Himalayan range. Power and politics refer to the political interest to take benefit and overall right of natural uranium. The department of geology and mines had confirmed occurrence of uranium in valid amount, mixed with soil and rock which is likely to purify. It is mostly demanded and expensive metal in earth although it has too much expensive process of purification. Since World War II, it is estimated that there have been more than 150 wars. Of these, relatively few have been large scale conflicts between countries; most about 80 percent have been civil wars in developing countries. Policymakers and scholars have studied these conflicts closely to try to understand why violence occurs and how future conflicts could prevent, agreeing that the root of conflicts are complex and that many political, economic, and historical factors together cause states to fail. Throughout history, countries have battled over natural resources.

Between 1950 and 1976, fishing rights contributed to disputes between England and Iceland in three Cold Wars, although the disputes were ultimately settled through diplomatic means. One natural resource that will be a likely source of major conflict is water as many of the world's major rivers and underground aquifers cross national boundaries. In several African nations, lucrative mineral resources like oil, diamonds, and other strategically important minerals have fueled ongoing conflict. Sierra Leone, Congo, Liberia, and Angola have all experienced horrific civil wars in recent decades, and a major factor in those wars has been over diamonds. All four countries have been devastated by warfare due primarily to predatory governing elites using their control over the resources to enrich themselves and outfit armies used to maintain their command.

According to the United States Agency for International Development (USAID), "valuable minerals become conflict minerals when their control, exploitation, trade, taxation or protection contributes to, or benefits from, armed conflict." Conflict minerals have varied commodity values and occur in many geographical locations: for example, diamonds in Western Africa, amber in Russia, and gold in Indonesia. While minerals such as gold and diamonds hold significant value as gems, all minerals generate revenue and power for governments, rebel groups, or whoever owns the land or has the ability legally or illegally to extract them. Furthermore, conflicts over minerals do not necessarily stay within boundaries; neighboring countries sometimes compete for resource wealth and thus exacerbate conflict or prevent peacebuilding. Diamonds are the conflict minerals that have received the most attention. Some natural resources play a central role in the well-being of the local community and some are used for trade purposes. Natural resources, both renewable and nonrenewable, that are controlled by the state are used as exports by the government to attain profit and power. Developed countries have established an industrial infrastructure that relies heavily on imports of natural resources, and mineral-rich countries are positioned to supply that demand. Perhaps the best example of developing countries organizing to control their own fate is the Organization of Petroleum Exporting Countries (OPEC), which works to protect the interests of oil-producing countries while maintaining stable oil prices and reducing the potential for conflict (Thomas, F. 1999).

Theories in the Marxist tradition have emphasized the conflicts of interest between groups with more or less control and ownership of natural resources. These approaches argue that free markets create such great disparities between the "haves" and the "have-nots" that social conflict is inevitable. The domination of superstructure to substructure in order to rule resources leads towards conflict (Marx, K., Engels, F., 1962).

As discussed above we normally could figure out that biased and unsystematic distribution of natural resource could bring conflict within the stakeholders. In this context understanding the status of power and politics on natural uranium is crucial to Nepali society. Natural uranium of Lo Manthang has been one of the major concerns now on politics, especially power and politics in local, provincial, national and international context.

## LITERATURE REVIEW

The major uranium use was for military purpose and was also used as a colorant in ceramic glazes and tinting in early photography. Its radioactive properties were not recognized until 1896, and now very useful for energy sector as fuel in nuclear power reactors to generate electricity. It has a meaningful space on weapons applications, small nuclear reactors, medical and industrial purposes around the world. (Amelin Y., et al, 2010; Filippova, L.G., et al, 1978). Of the naturally-occurring uranium isotopes, only uranium-235 can sustain a chain reaction. In the sustained chain reaction, each fission produces enough neutrons which trigger another and so on the fission process is maintained without supplying external source of neutrons. In contrast, uranium-238 cannot sustain a chain reaction, but it can be converted to plutonium-239, which can. Plutonium-239, virtually non-existent in nature, was used in the first atomic bomb tested July 16, 1945 and the one dropped on Nagasaki on August 9, 1945. ;(U.S. Environmental Protection Agency, 1983), (ATSDR, 1999). According to IAEA (2005), High enriched uranium (HEU) was the essential nuclear material used for both military and peaceful nuclear applications. Historically, HEU, with <sup>235</sup>U assays of 20 to 98%, has been used for manufacturing nuclear weapons, naval propulsion fuel and fuel for research reactors. Large HEU inventories were built up in the USA and former USSR/Russia, largely for national defense purposes. The former USSR/Russia is estimated to have produced 1050 tonnes of HEU between 1950 and 1988.

The USA produced 750 tonnes of HEU between 1945 and 1992. Approximately a total of 67 tonnes of HEU were produced by other nuclear weapons States (NWS). While most of the HEU were produced for military purposes, smaller quantities have been used as fuel for civilian research and power reactors. Uranium's primary demand source is world electricity production (Burke, A. 2009).

Anthony Burke (Professor of Politics and International Relations in the School of Humanities and Social Sciences at the University of New South Wales, Canberra) states the geopolitical intrigue around uranium and the dilemmas of justice and security to which its development has given rise. Burke traces the generative powers of a formidable metal which has shaped world politics in profound ways. Highlighting the toxic and dangerous effects of uranium through its entire production chain and failed attempts to control its uses, Burke makes an urgent humanitarian argument for nuclear disarmament (Burke, A. 2017).

Meredith J. Deboom (2011) in the journal of current Chinese affairs discuss about the Chinese investment on Namibia's Uranium sector. Husab uranium mine is one of the largest investment of china in Africa to date. Article develops a theoretical framework of hybridity to analyze the geopolitical and ecological implications of China's rising global influence in uranium mining. It explains how Husab has resuscitated Namibia's uranium industry and facilitated the political goals of both Chinese and Namibian leaders. Husab's materialization of "South-South solidarity," however, also appears to be deepening the marginalization of minority communities near uranium mines. Far from paradoxical, this uneven distribution of benefits and costs is as intertwined with nuclear geopolitics as it is with the materiality of uranium mining. This analysis draws on two years of fieldwork in Namibia between May 2011 and January 2017.

Cindy Vestergaard, (2015) also have discussed about the usage and complexities about the uranium in his report of DIIS (Danish Institute for International Studies). The uranium industry is highly complex and is continually being reshaped in response to increased competition, market internationalization, nuclear accidents and geopolitical concerns. It is multinational, with public and private cross ownership in which a number of interests: commercial, economic, strategic and non-proliferation can overlap or collide. Today's buyers and sellers of uranium are functioning in a far more complicated regulatory landscape, with a larger number of actors and stakeholders than ever before. The Governing Uranium project has mapped this complexity across fifteen producing and/or consuming states. It highlights that the nuclear industry is heavily regulated in the recognition that uranium is not like any other rock. An increasingly globalized civilian nuclear market requires greater harmonization of regulations and best practices across all states including the nuclear weapons states.

Brendan Bromwich (2018) in Journal of Eastern African studies drawn attention to the fact that: Darfur as a political entity and the nation of Sudan as a whole are contested. Within the international discourse, debates on the role of natural resources have tended to focus on the national conflict and hence the political significance of natural resources to the violence in Darfur has been neglected. Paper also describe three types of conflict due to the natural resource which are global, national and local conflict.

Vasundhara Sirnate (2009) from university of California have conducted a descriptive study on the politics on uranium mining of Meghalaya, India. Meghalaya contains 2,75,000 tonnes of high-grade uranium (enough to ensure India's self-sufficiency) in the West Khasi Hills district, the largest such reserve in the country which can settle the nuclear fuel dependency issue once and for all. The Khasi tribe is numbered at about 1.3 million out of the total state population of just over 2.3 million people. Khasis, along with Jaintias and Garos are linguistic and ethnic minorities in India and had revolted against mining. Study concludes that the Khasi Students Union (KSU) oppose the mining project with the reason of; health concerns, displacement (up to 30,000 tribal will be displaced) and influx control.

Hilma Shindondola-Mote (2019) had describes about the uranium mining in Namibia, which is the fourth largest supplier of uranium. The major receivers of Namibia's uranium are Japan (41% in 2006 and 28% in 2007), North America (28% in 2006 and 30% in 2007), Europe (17% in 2006 and 13% in 2007 and Asia (14 % in 2006 and 29% in 2007).

Study states in Namibia general knowledge and awareness about the nuclear industry and its complex of impact on humans and the environment is negligible. In order to make use of their democratic rights and influence development towards sustainability, citizens need to understand issues and problems related to the nuclear industry. Namibia has started taking the lead in filling this gap through education and awareness drives, targeting the general public. Study concludes that- Mining has short-term benefits, but long-term consequences. The negative effect on the health of the community is sometimes subtler and unexpected. Namibia therefore needs a clear strategy to evaluate the sustainability, ethics and responsibility of external investment in the extractive sectors. The minerals and prospecting Act 1992 cover all prospecting and mining of all minerals does not address uranium as a special kind of mineral. According to the study The Current Minerals Act of Namibia does not make provision for the control of uranium exports and safeguards as per guidelines of the International Atomic Uranium Agency. The current Act has a section that prohibits the exploration and mining of uranium without the consent of the minister. Namibia is signatory to the safeguards agreement and has been implementing the guidelines as per International Atomic Uranium Agency.

A descriptive report of IAEA (2009) focuses on the criteria necessary for the sustainable development of uranium mining and processing operations in the context of the four cornerstones of sustainable development, namely: Environment, Social issues, Economics and Governance. The social aspects of sustainable development must Ensure the fair distribution of the costs and benefits of development for all those alive today, Respect and reinforce the fundamental rights of human beings. Report says- It is clear that mining operations can have both positive and negative economic and social impacts on communities. Mining can provide employment and business opportunities to local communities. However, improperly managed mining activities can adversely impact the environment and the local population, and in the worst cases result in displacement of local settlements. A key result of studies is the conclusion that companies must obtain a 'social license' based on consultation and participation between primary stakeholders, and that appropriate policies and strategies must be adapted to the realities of an operation.

Martin, B. (1982). Wrote about the Australian Anti-Uranium movement. The anti-nuclear movement in Australia has a long history. A 2009 poll conducted by the Uranium Information Centre found that Australians in the 40 to 55 years age group are the "most trenchantly opposed to nuclear power. Indigenous land owners have consistently opposed uranium mining and have spoken out about the adverse impact it has on their communities. The British nuclear tests at Maralinga were found to have left significant radiation hazards in land given back to the Maralinga Tjarutja people, and the issue continues to cause indigenous opposition. The Canberra anti-uranium movement from 1975 on many activists recognized that the anti-nuclear power struggle was not simply over environmental impact, but centered on the issue of the location of political and economic power in society.

Gregoire, E. (2011) Have described about the uranium mining problems and conflict of Niger. According to the paper, The Republic of Niger is among poor country, but expecting a second uranium boom. The pursuit of raw materials by northern and emerging countries has allowed Niger to generate significant financial revenues. Furthermore, this recent competitive climate characterized by a redistribution on the geopolitical and economic landscape, has resulted in the end of the French monopoly over yellowcake (uranium ore concentrate) exports. The dominating Areva group has been undermined by the arrival of Chinese companies keen to exploit Africa's oil and mineral wealth, resources which are essential for the development of the Republic of Niger. In order to understand these new challenges and the current balance of power struggles pertaining to Nigerien uranium, their study have analyzed the impact of exploitation on Niger's domestic and foreign politics as well as on its economy. The pressure from emerging countries on the French domain is one of the consequences of globalization, where the Saharan Niger appears as a new pole in the race for raw materials and in a new "South-South" dynamic. If there has been a geopolitical and economic redistribution, Niger wins, due to the rise in uranium price and the forthcoming increase in production. By 2015 it will be the second largest uranium producer in the world behind Canada and ahead of Kazakhstan. This economic upturn, which Nigeriens were no longer expecting, may improve the financial situation of the country, and perhaps lead to a second uranium boom.

Nepal lies in the central part of 2500km long Himalayan belt. Almost 83% of Nepalese territory is mountainous. It is an underdeveloped country with vast natural resources like Water, Minerals, Forest, varieties of Agricultural products and Medical herbs.

For the economic development of the country exploitation and proper use of such valuable resources especially mineral resources is very important. The mountainous region and the geological environment there in is suitable for metallic, nonmetallic/ industrial and fuel mineral deposits as well as huge amount of construction materials and dimension/ decorative stones. Continues efforts are extremely necessary to find out more mineral deposits, timely exploitation of these known resources and make multiple uses of these mineral commodities for the benefit of the people. Researches has proved large amount of Uranium is found in Makawanpur Dristict's Dhiyal Village Development Commitee-3, Kalapani and Tin Vangala area, nearly 60 miles from Kathmandu, Capital city of Nepal. The last study has done in 1988 had found there were more than 27000 times higher radioactive infrared has found. One micrograms of a stone have 3636 points Uranium counted; study done by the Geologist Krishna Prasad Kafle. Another study found there was radiation counted 525/per second, which is 27000 times higher than normal area (kafle k.p., 2011). There were too many studies have done from 1980's to count radiation on this area, till now. All of these studies have proved there were large amount of Uranium, but till now the uranium mine has not utilized by the government, or local residents. It is most smuggled metal in the world.

To be clearer on what theories suggests and relevance to this issue, the section 'theoretical framework' has further discussion.

### **Research Gap**

Lots of studies have been carried out by researchers, organizations and aid agencies relating to the natural resources of Nepal and conflict related to them. Most of the researcher have addressed about the right to equally utilize natural resources like water, forest and all of them have suggested the equilibrium distribution of resources to manage conflict over it. Some paper had figured out the conflict management system of Nepal. However, no research has been conducted yet in order to explore and examine the power and politics on natural uranium in Nepalese society from political perspective. Despite the states vast scope for the study of natural uranium in the context of power and politics, it has been ignored by political scientists, scholars and researchers. This research is a breakthrough as it is first of this kind in Nepal.

### **RESEARCH METHODOLOGY**

The study has used mix method. It elaborates its findings by analysis of four different theories in the related field, Review of literature and also on the base of analysis on collected data. This study has used a structured questionnaire to conduct survey. A cross sectional survey was carried. Interview is one of the popular methods for the collection of data in analytical research method. In interview, to prevent unwanted information, respondents were requested to give needed information verbally in face to face relationship. It is relatively more flexible tool than any written inquiry form and permits explanations. Study has also set a rapport as pre arrangement of the study and interview as described above.

### **Universe and Sample**

The study has assumed one household is equal to one respondent. The total household of central Lo Manthang is 120. It means the sampling population is 120. 32 households are studied. 32 samples are equal to 26.66 percentage of the total population. Due to late or off seasonal field visit/survey, most of the villagers were moved down towards nearer cities to escape from extreme cold (seasonal migration). The study has collected data from remaining households which are enough representative for the universe.

Both quantitative and qualitative nature of data are used and are based on primary as well as secondary sources. Primary data were collected through field survey with the help of direct and indirect interview from the list of questions. Similarly, secondary data were derived from relevant books, journals, reports, magazines, newspaper articles etc. available in the issue about danger of natural uranium on neuron health of upper Mustang region. Also, the ideas of this research are based on secondary sources such as books, scholarly journals and periodicals related to the field. Most of the data were collected from Central Library of Tribhuwan University, online library of American Embassy in Kathmandu, Research and Management Shell of Political Science and online databases.

**Data Tabulation/ Interpretation**

An informal unstructured interview has been taken with leaders from mustang region who accept and is interested to give their perception. The version of eight leaders is stated below with their consent during interview. Since the obtained data is very simple in nature, this study just has tabulated and described as follows:

**QUESTION 1/TABLE 1:** How interested are you in the NU available in upper mustang region?

<b>Answer option</b>	1	2	3	4	5
<b>Count</b>	21	8	2	1	0

Where,

1= Very Interested

2 = Somewhat Interested

3 =Not very Interested

4 = Not at all Interested

5 = Don't Know

**QUESTION2/ TABLE 2:** How Important it is to preserve that NU for future?

<b>Answer option</b>	1	2	3	4	5
<b>Count</b>	23	5	0	0	4

Where,

1= Very Important

2 = Somewhat Important

3 =Not very Important

4 = Not at all Important

5 = Don't Know

**QUESTION 3/ TABLE 3:** What do you think, the most important stakeholders for the Natural Uranium?

<b>Answer option</b>	1	2	3	4	5
<b>Count</b>	29	1	2	0	0

Where,

1= local Government

2= State Government

3=Central Government

4=International institutions

5= Don't know

**QUESTION 4/ TABLE 4:** What do you think who should provide security to that natural uranium mine is best?

<b>Answer option</b>	1	2	3	4	5
<b>Count</b>	32	0	0	0	0

Where,

1= Nepal Army

2= Armed Police Force

3=Nepal Police

4=Locals

5= International institutions

**QUESTION 5/ TABLE 5:** Have you ever raised your voice regarding natural Uranium of Mustang Region?

Answer option	1	2
Count	9	23

Where,  
1= Yes                      2= No

**QUESTION 6/ TABLE 6:** Is it better to share equal ownership and benefit with all three governments?

Answer option	1	2	3	4	5
Count	1	8	18	1	4

Where,  
1= Yes Definitely                      2= Yes probably                      3= No probably  
4= No definitely not                      5= don't know

**QUESTION 7/ TABLE 7:** If you are asked to ownership and benefit sharing of that natural uranium must go to international superpowers too, what would you say?

Answer option	1	2	3	4	5
Count	1	7	13	9	2

Where,  
1= Yes Definitely                      2= Yes probably                      3= No probably  
4= No definitely not                      5= don't know

**QUESTION 8/ TABLE 8:** How much attention would you feel that western superpowers are paying about the NU of Mustang?

Answer option	1	2	3	4	5
Count	29	2	0	0	1

Where,  
1= A lot of attention                      2= Some attention                      3= A little attention  
4= No attention                      5= Don't know

**QUESTION 9/ TABLE 9:** Are you agree with the statement that "NU belongs to Local government and local people only"?

Answer option	1	2	3	4	5
Count	19	7	1	5	0

Where,  
1= Strongly Agree                      2= Agree                      3= Neutral  
4= Disagree                      5= Strongly disagree

**QUESTION 10/ TABLE 10:** Are you agree on the statement that NU should sell to western countries and earn from that?

Answer option	1	2	3	4	5
Count	6	23	2	1	0

Where,

1= Strongly Agree

2= Agree

3= Neutral

4= Disagree

5= Strongly disagree

Informal interview with local political Representatives.

- (1) Mr. Prithvi Subba Gurung (Former Chief minister of Gandaki Province).  
 "This is the serious matter and it directly deals with public health, multinational trade and national economy and even foreign relations. I think the central government will conduct everything needed because it comes under the ministry of industry, commerce and supply. If central government let it to us, we are capable, but I think it will not be so. In my opinion, it is better to sell to third nation by process of global bid. But the public health is important.
- (2) Mr. Chandra Bahadur Gurung, (Former Parliament member from Mustang)  
 "First of all, we have to find out its volume, and quality. After that, if government of Nepal become capable to purify/proceed it, we should not leave or delay to take its benefit, otherwise by the process of global bidding, we could give other to proceed. But locals must be in the center of benefit. None of harm is acceptable. By geographically, China is near to the resource. I think, if china gives interest, it will be better to give to China. Otherwise it will be better to open for tourism/research purpose only'.
- (3) Mr Indra Dhara Bista (Provincial parliament member of Gandaki province from Mustang)  
 "It is a new topic and have not discussed widely about its utilization and the trade. The state government should adopt the necessary technology and equipment for purification of uranium and overall process should conduct by the state government rather than central government".
- (4) Mr. Ganesh Sheerchan, (Political leader, Nepali Congress, Mustang)  
 "We should dig it up and purify. This is the property of Nation. We should not give it to foreign. Otherwise we leave it till we became capable. If it has health hazard then, we have to plan immediately".
- (5) Mr. Ngawang Kunga Bista (Ward Chief of NU Mine area, Lo-Manthang)  
 "We haven't received any kind of official letter from the department and ministry. If government decides to dig it up and proceed, we will accept in certain term and conditions. Like, the people should not be affected and the settlement will not be evaporated in any condition".
- (6) Mr. Lakpa Wangdi Gurung (Local Youth)  
 "The police post is 20 km near than the border. Nobody is watching the activities on border. We should give its security to Nepal Army. Valuable goods are disappearing day by day. We could not enter to china, but Chinese vehicle easily enter up to Tsarang 31 km far from border and distribute their gifts. The Korala Border (Nepal-Tibet border) is closed now, but the foreigners visiting border by reserving Jeep are maximum. Most of the ambassadors have visited Lo-manthang. Foreign agencies are supporting on Reconstruction, Electricity and telecommunication. We will support the local government to purify it and the healthier trade because we believe in the principle that locals first in utilization of natural resources".
- (7) Mr. Ramesh Gurung (Youth Activist, Mustang)  
 "We should declare the Uranium Mine area as a restricted area till Government of Nepal become capable to deal with it with proper law and nuclear policy. It could be open for the tourism and study purpose. We have to give full responsibility of security to Nepal Army. After being able to deal with it or making clear national uranium policy, we could sell the uranium ore to international superpower to gain benefit from it but locals should be in center of benefit".



(8) Ms. Chhring Lhamu (Youth Leader, Mustang)

“We will welcome if government decide to take advantage from natural resources. But we have to care the health of all public. Local as well as overall nation should take benefit from it”.

### **THEORITICAL FRAMEWORK**

There are various models/theories who describe the utilization of natural resource in political perspective. It is really hard to figure out how power politics influence the utilization of natural resources because maximum existing model deal with the management and economic perspective where there is always a space to deal with cost and profit, Market and demand. Very few of models have described with the power and politics and its influence while utilizing the natural resources. Here, four models have specially deal with the political perspective.

#### **Elite Theory**

The term 'elitism' is used to describe a situation in which power is concentrated in the hands of a limited number of people. As a term, "elite" usually describes a person or group of people who are members of the uppermost class of society, and wealth can contribute to that class determination. Elitists tend to favor social systems such as meritocracy, technocracy, and plutocracy as opposed to political egalitarianism and populism. Elitists believe only a few "shakers and movers" truly change society, rather than the majority of people who only vote and elect the elites into power (Robert A. 1977) In political science, elite theory is a theory of the state that seeks to describe and explain power relationships in contemporary society. The theory posits that a small minority, consisting of members of the economic elite and policy-planning networks, holds the most power and that this power is independent of democratic elections. Through positions in corporations or on corporate boards, and influence over policy-planning networks through financial support of foundations or positions with think tanks or policy-discussion groups, members of the "elite" exert significant power over corporate and government decisions. The basic characteristics of this theory are that power is concentrated, the elites are unified, the non-elites are diverse and powerless, elites' interests are unified due to common backgrounds and positions and the defining characteristic of power is institutional position. Elite theory opposes pluralism (more than one system of power). Elite theory argues either that democracy is a non-realistic ornament as it is traditionally viewed in the conservative Italian tradition, or that democracy is not realizable within capitalism, as is the view of the more Marxist-compatible contemporary elite theory permutation (Bottomore, T., 1993; Putnam, R. D., 1977; Floyed H. 1953). The Italian school of elitism is based on two ideas: Power lies in position of authority in key economic and political institutions. The psychological difference that sets elites apart is that they have personal resources, for instance intelligence and skills, and a vested interest in the government; while the rest are incompetent and do not have the capabilities of governing themselves (wright, M.C., 1956).

Vilfredo Pareto emphasized the psychological and intellectual superiority of elites, believing that they were the highest accomplishers in any field. He discussed the existence of two types of elites: Governing elites and non-governing elites. He also extended the idea that a whole elite can be replaced by a new one and how one can circulate from being elite to non-elite. Gaetano Mosca emphasized the sociological and personal characteristics of elites. He said elites are an organized minority and that the masses are an unorganized majority. The ruling class is composed of the ruling elite and the sub-elites. He divides the world into two group: Political class and Non-Political class. Mosca asserts that elites have intellectual, moral, and material superiority that is highly esteemed and influential (Floyed H. 1953).

Elite theory discusses about the decision-making power holds the special group of minority or elite who are capable of performing the required action. If same principle is applied as described above the theory, the overall decision to utilize the uranium resource goes to the elite who are capable of doing required action or who are in power or who are ruling the community or the state.

#### **Social conflict theory**

From a social conflict theorist/Marxism point of view social class and inequality emerges because the social structure is based on conflict and contradictions. Contradictions in interests and conflict over scarce resources between groups is the foundation of social society, according to the social conflict theory (Engels & Marx, 1848).

The higher class will try to maintain their privileges, power, status and social position and therefore try to influence politics, education, and other institutions to protect and limit access to their forms of capital and resources. Whereas the lower class in contradiction to the higher class has very different interests. They do not have specific forms of capital that they need to protect. All they are interested in is in gaining access to the resources and capital of the higher class. For example, education: the lower class will do everything to gain access to the higher-class resources based on democratizing and liberalizing education systems because these forms of capital are thought to be of value for future success. The various institutions of society such as the legal and political system are instruments of ruling class domination and serve to further its interests. Marx believed that western society developed through four main epochs, primitive communism, ancient society, feudal society and capitalist society. Primitive communism is represented by the societies of pre-history and provides the only example of the classless society. From then all societies are divided into two major classes master and slaves in ancient society, lords and serfs in feudal society and capitalist and wage laborers in capitalist society. Weber sees class in economic terms. He argues that classes develop in market economies in which individuals compete for economic gain. He defines a class as a group of individuals who share a similar position in market economy and by virtue of that fact receive similar economic rewards. Thus, a person's class situation is basically his market situation. Those who share a similar class situation also share similar life chances. Their economic position will directly affect their chances of obtaining the things defined as desirable in their society (Haralambos H. 1995; Marx K. 1971; Banks A.S. 1971).

Marxist accounts of political class domination typically begin with the state and its direct and indirect roles in securing the conditions for economic class domination. There are three main Marxist approaches to the state: instrumentalist, structuralist, and 'strategic-relational'. Instrumentalists see the state mainly as a neutral tool for exercising political power: whichever class controls this tool can use it to advance its own interests. Structuralists argue that who controls the state is irrelevant because it embodies a prior bias towards capital and against the subaltern classes. And strategic-relational theorists argue that state power is a form-determined condensation of the balance of class forces in struggle. Ralph Miliband expresses this view in writing that 'the ruling class of capitalist society is that class which owns and controls the means of production and which is able, by virtue of the economic power thus conferred upon it, to use the state as an instrument for the domination of society. Structuralists regard the state as a capitalist state because it has an inherently capitalist form and therefore functions on behalf of capital. Structuralists argue that the very structure of the modern state means that it organizes capital and disorganizes the working class. The state's exclusion from direct control over the means of production makes its revenues depend on a healthy private sector; thus, to secure its own reproduction as a state apparatus, it must ensure the profitability of capital. Subordinate classes can secure material concessions only within this constraint if profitability is threatened, such concessions must be rolled back. Yet capital cannot press its economic advantages too far without undermining the political legitimacy of the state (Marx, K. 1911; Marx, k., Engles, F., Lenin, V.I., 1984).

As described above, an upper-class state will always be capable of dominating the lower class. It is applicable in the case of the government bodies. As Marx describe about the attempt of upper state to capture the right over resource, the same phenomenon could happen on the utilization of natural resource. A well-equipped, capable from economic, equipment, and manpowered state could capture the natural resource of upper Mustang. That state could be the state government, could be national government or third country's government or private organization.

### **Community Based Natural Resource Management System (CBNRMS)**

Community-based natural resource management (CBNRM) refers to the collective use and management of natural resources in rural areas by a group of people with a self-defined, distinct identity, using communally owned facilities. The aims of CBNRM are to: obtain the voluntary participation of communities in a flexible program that incorporates long-term solutions to problems arising from the use of natural resources. The management of these resources should be placed under the custody and control of resident peoples to provide appropriate institutions under which resources can be legitimately managed and exploited by local people for their own direct benefit. These benefits can take the form of income, employment, and production of venison. It provides technical and financial assistance to communities that join the program to enable them to realize their objectives.

The focus of CBNRM is not merely the wise management of natural resources. As important, if not more important, is the need for community development, local self-government and the creation of local institutions for the management of common property resources. Without exception, provincial and national governments have begun building the concepts of CBNRM into their policies and strategies. CBNRM became the dominant conservation and development paradigm of the 1990s and its principles have been confidently adopted by international aid agencies and lending organizations (Fabricius, et.al., 2001; Brosius, J., et al., 1998).

The terms that are commonly used to describe participatory approaches are collaboration, co-operative, community and co-management, all of which are “employed to convey participatory sentiment and sharing of power”. These approaches increase participation by civil society in decision-making and promote the sharing of rights and responsibilities in natural resource management. The prominence of CBNRM has resulted from sustained interest in participatory forms of natural resource management. In southern Africa CBNRM “has absorbed an enormous amount of development effort and analytical attention”. CBNRM is based particularly on advocacy by non-governmental organizations working with local groups and communities, on the one hand, and national and transnational organizations, on the other, to build and extend new versions of environmental and social advocacy that link social justice and environmental management agendas with both direct and indirect benefits observed including a share of revenues, employment, diversification of livelihoods and increased pride and identity (western D., Wright R.M., 1994; Rao Y.S., et al., 1998).

In spite of disabilities, the local community of Lo manthang could try to practice CBNRM model because it is an example of success in Nepal on managing and promoting community forests.

### **Dependency Theory**

The dependency theory was originated in 1949 by contribution of Hans Singer and Raul Prebisch. According to the theory, resources flow from a "periphery" of poor and developing countries to a "core" developed countries, enriching the latter at the expense of the former. It is a central contention of dependency theory that poor states are impoverished and rich ones enriched by the way poor states are integrated into the "world system". Prebisch's initial explanation for the phenomenon was very straightforward: poor countries exported primary commodities to the rich countries who then manufactured products out of those commodities and sold them back to the poorer countries. The "Value Added" by manufacturing a usable product always cost more than the primary products used to create those products. Therefore, poorer countries would never be earning enough from their export earnings to pay for their imports. Dependency can be defined as an explanation of the economic development of a state in terms of the external influences--political, economic, and cultural--on national development policies (Suknel, 1969 p23; Arno T, 2003; Santos TD, 1971). As we see that in dependency theory, resource flows from poor state or underdeveloped state towards the rich or developed state. Nepal itself is not able to manage all necessary equipment's and arrangements for the purification of the Natural Uranium available in Upper Mustang region. There are also various difficulties regarding the uranium policy for selling it to the second country and proper utilization within the nation. All of them indicates that there are more possibilities of utilizing the Uranium by capable second country.

### **Delimitation**

The weaknesses of the elite theory show an unclear system of how it reaches its goals. It does not explain how it gathers and lumps all the minorities into the same group. It also doesn't consider the implications of a society that is not run by money but out of concern of future well-being of its citizens. It completely disregards any possible social or economic basis for class-stratification. This is a way of asserting that authority-subordination relationships are the basic relationships in society (Bachrach, P., 1969; Mills, C.W., 1956). Also, the CBNRMS have leave remarkable image in managing the Nepalese forests, it could be failed in the case of the natural uranium extraction. It gives all rights to the community in equal participation and equal benefit basis. It will be more useful and scientific only in one condition that the community is capable of conducting all process from milling to selling. But, the nearer community of upper Mustang is an ethnic group of small people who are not familiar with the importance and market of the natural uranium.

The community is also not rich with equipment and technology or what is needed to extract the uranium. Marxist approach is also agreed with the fact that small group who is capable of doing required action will claim the benefit and opportunity of community. Here in research, we have concern about how the natural resource of the Uranium will be utilized and who will be more beneficial from it. Although above described theories have their own respective limitations, it's clear by concept that the stakeholder or a state who is rich in equipment, enough with the structure, connected with the market and have experience of working with mineral will claim the YELLOWCAKE.

## DISCUSSION

As in table 1/ question 1 and 2, maximum respondents have shown their interest towards Uranium Processing and are on favor to preserve the uranium resource for future use. According to table/question 3, 21 among 32 or (65.6%) respondents have said the most important stakeholder for the uranium resource is Local government while 8 or (25%) said Provincial government and 3 or (9.4%) said Central government and only 1 or (3%) said international institution. It means maximum number of locals want to give processing authority to local level government. They think local government or the most important stakeholder of the natural resource and it must be in maximum benefit. According to informal interview, Mr. Chandra Bahadur Gurung, Mr. Ganesh Sheerchan, Mr. Ngawang Khunga Bista, and Mr. Lakpa Wangdi Gurung have showed more concern towards the benefit of locals at first. But, Chief Minister Mr Prithvi Subba Gurung and provincial parliament member Mr. Indra Dhara Bista have different opinion that 'the resource should be proceed by central or Provincial government and should benefit equally for all Nepalese. Both have stated that the whole human settlement should evaporated if needed. In such scenario, the central government also give attention to proceed or utilize it. According to the table/question 6, 19 among 32 or (59%) respondents are not ready to share the benefit equally to all three governments. Among them 9 or (28%) are seems to be agree on equal share. Also, from the table 9, 26 among 32 or (81.25%) respondents have said that the uranium belongs to local government only. So, it clearly figures out that there is strong power struggle between three government bodies and local people to take benefit from the uranium. According to table 7/question 7, 22 among 32 respondents or 69% respondents are not ready to share the benefit towards international institutions. Also, from the table 8, 91% respondents have feel a lots of attention given by international superpowers to the uranium resource of upper mustang. But according to table 10/question 10, 90.6% respondents are agreeing to sell the uranium to other countries and earn from them. It makes clear that the local people want to sell the uranium and the want more benefit than the provincial and central government. The overall data shows that: there is a strong power struggle between the international institutions/ countries, Central government of Nepal, provincial government and locals to take benefit from uranium.

Elite theory states that the decision-making power is limited in the hands of limited peoples of the society. The limited number of people means that the peoples who are in touch of higher-level government bodies, leaders, educators, and businessman. The leaders of the lo-man thang and local government will focus to the public benefit whereas national government will tend to focus national interest. In this way, the elite theory also theoretically supports to the power struggle between the stakeholders. Social Conflict theory states that the conflict in society arose from the unequal differentiation of resources and benefits. The uppermost class always tend to continue their privileged right to get benefit from the resources and the lower class tend to tackle them by asking the equal opportunity and access. Thus, according to the theory, uppermost class denote to the central government which wants to rule the uranium mine. And it wants to fulfill the national interest but, the locals and local governments will tend to have equal benefit from it or more benefit from the Uranium. In this way a strong power and political struggle over the natural Uranium arose. Current elite theory defines 'elites' as actors controlling resources, occupying key positions and relating through power networks. Elitism oppose the pluralism. It assumes that democracy is not realizable within capitalism. The elitist of small number will tend to control over the vital decisions of society. The elites may be the political leaders, social activists, teachers, priests, parliament members, government representatives and et al. from the elite perspective we may be clear that elitist will tend to control over the natural uranium resource. The public leader's opinion will get more priority while making the policy and plan. Their opinion will be associated with the governments interest and according to the governments demand. A few numbers of public representatives could decide what to do with it. The local government is totally attached with the daily life of local people and also it has faced public demands, problems and suggestions.

The local governments opinion will be in favor of the locals. As in discussion and data above, the local government representative has concerned more with the public or local's health and benefit whereas the state level and central representative have focused on the national interest and national benefit. The small numbers of people who are in decision making state could decide that the uranium of upper Mustang should be operated by the central or the state government. If it could not be possible, they may consider the selling of that resource to the international superpowers in any cost. The chief minister of Gandaki province Mr. Prithvi Subba Gurung, Ganesh Scherchan and Chandra Bahadur Gurung also have suggested that if the uranium of upper Mustang have the capacity to change the overall nations economic status, we should utilize it at any cost. They also suggest that if the nearby residential area "Lo-Man thang" get affected by the uranium mining, the overall settlement should be evaporated from its origin. But the settlement was an important archaeological site of 1400 BS and it is helping the nation by welcoming large number of tourists every year. Similarly, other local levels leader and activists along with local respondents have suggested to regulate by the local or the state government. Otherwise they also put their argument to sell the uranium ore to the third international power. In such situation, the central and state government as an elite will tend to use the resource according to their demand and interest where local government bodies will obey it forcefully. If the locals oppose the situation of conflict could arise.

In another hand, the social conflict states about the class struggle between upper class and the lower class. The higher class will try to maintain their privileges, power, status and social position - and therefore try to influence politics, education, and other institutions to protect and limit access to their forms of capital and resources. Marx and Engels have described about the two classes of economic i.e., the owner and the slaves. Here in case of lo-man thang, we could divide the classes into three steps i.e., the higher class are leader of national level & international institutions, middle class are state level political leaders, businessman, local priests or leaders, & educators, lower class are the local public and indigenous people. They all has a kind of influence in decision making and policy making process according to their own capacity. According to the theory, every class wish to continue their influence in their own favor. If the uranium of upper Mustang seems to give more benefit to them, they will make the decision according to their own favor. The national interest and the national level or the uppermost class will also wish to decide according to the national interest. The state/ province level middle class & locals or lower class also wish to make plan and policy according to their favor. So clearly it seems to have a struggle between the different classes. That struggle could be between the international / national level or uppermost class and the middle class, uppermost class and lower class, and also middle class and lower class.

Meredith J. Deboom, discuss about the Chinese investment on Namibiya's Uranium sector, Vasundhara Sirnate (2009) from university of California have conducted a descriptive study on the politics on uranium mining of Meghalaya, India. All of these studies have discussed about the class and power politics over the natural resource of uranium. The lower class will also tend to tackle to stop the influence of middle and uppermost class. At that situation, the upper and middle class use their political power, instrumental power and all kind of resources to gain benefit from the resources. Where the local or lower class also tend to defense them applying whatever they have. So, by analyzing in this angle, there is also a strong power and political struggle over the uranium of lo-man thang. According to the informal interview and the analysis of the data, the lower class is seeming to be able to defense to the influence of uppermost class. So, it will be very difficult to gain maximum benefit from the uranium without the consent of locals or the lower class.

According to the CBNRMS. This model is role model in the world for the utilizing the natural resources related to the forest. In Nepal community forestry concept is the role model and successful concept in utilizing the resources from the forest. Community-based natural resource management (CBNRM) refers to the collective use and management of natural resources in rural areas by a group of people with a self-defined, distinct identity, using communally owned facilities. According to the model, community will collectively work and collectively get benefit from their own group work. In the case of Natural uranium of upper Mustang, the same model could be applicable if the local community is capable of operating it well. For that the community must be capable in heavy equipment, machines and overall technical instrument for the mining and milling. For the CBNRMS, the locals will need to be permitted by central agency of the government, and permitted to sell the product.

The overall operation process is too much difficult which could be heavy in front of the local management system. Also, it is too much costly and maximum invest is needed which may be impossible for the locals. So, in that logic the CBNRMS model is not suitable till the locals became capable. But the locals will tend to get maximum benefit from it, whatever model is used for mining.

According to the Dependency theory, originated in 1949 by Hans Singer and Raul Prebisch, resource of poor and underdeveloped nation flows towards rich and developed country. The lower economic class could not buy the goods and commodities by paying high cost and upper class utilize the natural resource for the means of production. Nepal itself is not able to manage all necessary equipment's and arrangements for the purification of the Natural Uranium available in Upper Mustang region. There are also various difficulties regarding the uranium policy for selling it to the second country and proper utilization within the nation. All of them indicates that there are more possibilities of utilizing the Uranium by capable second country.

## CONCLUSION

The study analyzes the power and political struggle over the natural uranium found in Upper Mustang region of Nepal using mix method. On the basis of analysis of literatures related with it and theories, this research concludes that the power tussle usually happens in case of gaining benefits from rare and valuable natural resources. Descriptive analysis has been carried out on basis of four ruling theories in social science, the elite theory, the social conflict theory, dependency theory and the CBNRMS. Simple data obtained by cross sectional survey was analyzed. 65.6% of respondents have said the most important stakeholder for the uranium resource is Local government. 59% of respondents are not ready to share the benefit equally to all three governments. 81.25% of respondents have said that the uranium belongs to local government only. 69% of respondents are not ready to share the benefit towards international institutions. Since maximum locals did not want to share benefit easily to other stakeholders, conflict is predictable during mining. The resource area is very near to ancient settlement but, locals are also not in favor to evaporation of whole settlement from 13<sup>th</sup> century. 91% respondents have felt a lots of attention given by international superpowers to the uranium resource of upper mustang. 90.6% respondents are agreeing to sell the uranium ore to other countries and earn from them. By the analysis of four leading theories, data and literature review, this study concludes: there is a strong power struggle between its different stakeholders to get more benefit from uranium available in Upper Mustang. Conflict is predictable between different stakeholders (Locals, National government and its bodies and international institutions). Agreement between all stakeholders is also not so far in case of selling the ore to foreign state/institution.

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