

INCREASED FALLOW LAND AND FOOD THREATS

A POLICY DISCOURSE

**Bharat Shrestha
Durga Pokhrel**

2016

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मोहनप्रसाद बराल
समापति
कृषि तथा जलस्रोत समिति

Mohan Prasad Baral
Chairperson
Parliamentary Committee on
Agriculture and Water Resources

FOREWORD

The question of equitable land access in Nepal is at endless debate. However, the ways to how it comes to a point has not yet defined. Land issues and struggle for it has a long history and has been stepped ahead without a solid shape and implication. Land advocator, planners, administrator and academia found dealing the issue at their own comfort but not to the front of comprehensive solution.

In contrast to ongoing land debate, the issue of leaving land fallow or abandon and its consequences to stable food supply has become an emerging concern at policy making bodies of the government, planners and policy analysts. Basically, state policy, laws and government wings dealing to land and natural resources seem deviated to stand at common perception to define whether the land is means of production or a marketable commodity. Obviously, the land, even the fertile one, compulsorily be used for farming. Nevertheless, the fact is different from what it should be.

Now the state is in restructuring processes and the question of optimal use of land and natural resources is indeed one of the key challenges facing Nepal today, and the way it will be addressed will have far-reaching implications.

I believe, this research based document, brought at hand from the efforts of Dr. Bharat Shrestha, College of Development Studies and MODE- Nepal, in advent of enforcing new constitution and state restructuring processes will be highly instrumental to the front of drafting policies for comprehensive use of land and natural resources.

Thank you.

Date : 17/01/2017

Mohan Prasad Baral
Chairperson

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We appraise valuable support and facilitation provided by NES members, particularly the former executive director Mr. Jagat Basnet and executive director Mr. Jagat Deuja of Community Self Reliance Centre (CSRC). I also wish to acknowledge units and department of the government of Nepal and individual thinkers whose report and articles reviewed and cited in this discourse.

We are deeply obliged to the Chair and the members of the Parliamentary Committee on Agriculture and Water Resources (PCAWR) of the parliament who spent considerable time and all-encompassing thoughts to perceive the critical issues on land fallow or abandon issues critical in solving the national problems of youth employment and acute food threats. We are equally thankful to all participant government officials, experts, academicians, professionals, NES members, students and farmer representatives.

We are personally thankful to my colleagues Durga Pokhrel who supported in writing and ground discussions and, Kumar Shrestha, Reeza Shrestha and Prakash Subedi for their support while doing reviews, executing interviews and workshop etc. Administrative support was given by Roshana Paudyal and secretarial work of Jagdeep Bantha. Both of their work was appreciable.

Bharat Shrestha, PhD
January, 2017
College of Development Studies

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ABBREVIATIONS

| | |
|------------|---|
| APROSC | Agricultural Projects Services Centre |
| CDP | Crop Diversification Project |
| CDS | College of Development Studies |
| CSOs | Civil Society Organizations |
| DADO | District Agriculture Development Office |
| DDC | District Development Committee |
| DFO | District Forest Office |
| DoA | Department of Agriculture |
| DLSO | District Livestock Service Office |
| DoLRM | Departments of Land Reforms and Management |
| GoN | Government of Nepal |
| ILC | International Land Coalition |
| MoAD | Ministry of Agriculture Development |
| MODE Nepal | Mobilization and Development - Nepal |
| MoL | Ministry of Labour |
| NPR | Nepalese Rupees |
| NLSS | National Living Standard Survey |
| PACT | Project for Agriculture Commercialization and Trade |
| VDCs | Village Development Committees |
| WFP | World Food Summit |
| NPC | National Planning Commission |

1.0 Background

Feeding about 800 million global population and their dependents choicelessly holds on what has been produced from the crop land. At global scale, the fact is intensely taken on by policy makers, economist, analyst or executives and most importantly from those nations, struggling on soil for basic livelihood. In the present day world, the developing countries including Nepal have significantly strived to achieve, at least, a minimum standard of sustainable agro-based economy, food sovereignty, and nutritional balance for all. Aligned with the motive, the multilateral and bilateral global development actors also have made considerable contribution. However, in Nepal, the contribution of agriculture to boost national economy and sustainable food supply as elsewhere in the world is not as much it should be. Contrary to the economy of developing countries, the history of currently developed economy of the first world countries, showed how agriculture dominant economic model gradually changed into this industrialized stage.

The start of formal agriculture, in Nepal, roots back in 12th century where paddy, maize and millet adopted as primary food crops. Quite later in 18th century, crop intensification increased along with localizing of potatoes, wheat and barley. Further, crop cultivation accelerated after the eradication of Malaria in 1950s which opened avenues for new settlements in *tarai*, the plain belt of Nepal that held high prevalence rate of Malaria. Following the Malarial eradication, the region haphazardly received new settlers from hills and mountains and Nepali origin from India. The fertile *tarai* came under cultivation with increased food supply and income opportunity for increased population but land ownership illicitly concentrated on feudal, local elites and kin of palace or persons seated in government.

The new settlement process in *tarai* eased to adjust increased population supplying basic needs and livelihoods. However, the legal

ownership unfairly concentrated on government influential that eventually induced organized landlordism in *tarai* as in hills and valley. Thus, subsequently, big owner do not feel the need to plough and real tiller do not own land, thereby leading a large portion of fertile land of the country remain fallow or semi fallow that results into retarded trend of production and productivity. Another fact is that existing legal system and social practices mandatorily regulate to divide and transfer land only to male heir causing geometric fragmentation of the land and making the land strategically unfit for commercial cultivation. In addition to this, the urban and semi-urban sites are being changed into housing and settlement area

Till date available records state that a total of 3.2 million hector is cultivated and is divided into 3.7 million holdings, (CBS, 2014). Viewing the area of land holdings of 34, 97,408 families own less than 0.5 hectare and 9, 98,818 families own less than a hectare, (Agriculture Census, 2011). While referring these facts, 44, 96,226 small holding Nepalese families could not feed themselves year round from the product what they get from the land they own, (CBS, 2012). Further, the existing agricultural infrastructures and extension services provided either is insufficient or unsustainable. Therefore, majority of Nepalese farming families, about 76.7 per cent, (NLSS, 2013) neither wish to continue the conventional farming nor have alternative livelihood opportunity.

2.0 Increasing Trend of Leaving Land Fallow

As per data record of NPC, CBS and Agriculture Ministry, about 21 per cent of the total land has been defined as cultivable land and out of which 40.3 percent of total cultivable land falls within foot range of mountain and hill zones, (Agriculture Census, 2011). Up to near past, the hilly range remained capable enough to make surplus agro-products feeding 56.7 per cent of total population of the country, (Agriculture Census, 2011). But the entire region is now fallen into food deficit area. One of the reasons that the century old shifting cultivation and animal husbandry having higher potentials and being environmentally feasible in the higher hills and mountain is now on the verge of disappearance.

The other reason is that the one of the working age people from each three households is working abroad and the same size of the remaining population is reluctantly waiting in queue. The size of crop land either of hills or mountain or *tara* significantly reduced. Neither of the locations or regions of the country remained having no food deficiency. Figures from Central Bank of Nepal and custom offices signified that the country caught up in unlimited pressure of food dependency.

Outwardly, the agriculture system of the country seems of individual types or family based but the agro-means and infrastructures are of communal nature i.e. not all cropping means like earthen canal, traditional agro-tools enterprises, and installation of wooden bridge across seasonally flooding rivulets or land management to avoid monsoonal disaster are impossible without communal efforts or involvement. A total of 2.8 million youths got labor permit from the Department of Foreign Employment in the last five years, (MoL, 2015) - the data excludes the statistics of non-official migrant workers, migrants with study visas, and the workers recruited for the Republic of Korea. These facts seem sufficient to figure out what challenges the rural women and old-age population are struggling with so as to arrange minimum agricultural means and supplies. At the same time sustainability or consistency of agriculture inputs is another challenge since all most 86 per cent of the total cultivated land is rain fed and no cultivator has assurance of timely and sufficient input supply. Moreover, the cultivators are not certain that how much they get as return due to unpredictability of input supply. Therefore, the smallholders are compelled to find alternatives, preferring a regular mode of income to crop cultivation in Nepal. One of the preferences is going abroad rather than to crop in Nepal which has no consistent return.

2.1 Some Major Event Influencing Population Distribution and Internal Mobility

Socio-economic disparity, political boycott and exclusion or rejection from enjoying state offered facilities and opportunities alone are not determining factors influencing irrational distribution of

population. The geo-physical position, land structure and geographical inaccessibility or remoteness or geographical challenges etc. are some obvious factors causing inequality in distribution of population and getting access to enjoy the benefits of natural resources or government managed facilities and opportunities. Naturally, it is desirable and necessary for the people to shift from scarcity to adequacy or from worst to best ever achievement and success to get certain level of satisfaction from life. In the same line, in course of Nepalese political and socio-economic movements, some significant incidences underwent causing greater impacts in population distribution and internal mobility of the people.

- (i) Political upheaval of 1990, resultant change in the ruling system, and promulgation of democratic constitution opened the country to external world by enabling access to information, technology, open- market system, and so on. However, real economic growth, resources mobilization and entire economic activities of the country are said to be unsatisfactory to address the expectations of people by provisioning fundamental livelihood for all. Having hold on the very inability of the state, a group of people having different political schooling and dissenting with the then ruling system instigated armed struggle in 1996. The impact of political unrest among people remained acutely high in remote location especially in lower middle class farming families. The unrest, ballooning around the country resulted into a forced displacement of thousands of people who either settled in adjacent area of district headquarter or migrated to *tarai* in search of security. Consequently, on the one hand the fertile land in urban and *tarai* ecological region turned into haphazard settlements and on the other, the fertile land in remote location left fallow.
- (ii) The lack of realistic and need based land use policy and mechanism for fundamental and comprehensive solution for the land related problems like the agenda of landless, squatter, land tillers is also responsible for change in demographic dynamics. Inability of general farmers to cope with the value of fertile land and unhealthy entrance of organized land broker caused unfair competition in real estate business which in long run will be an equally aggravating factor. Thus increased land pooling in urban area on the one side is arousing with multiplier cash benefit and

creating problems in supply of basic needs on the other side.

- (iii) Efforts to supply agricultural input, agro-chemicals, insecticides etc. from the government were appreciable but not adequate. The extension services, agriculture information and dissemination mechanism of the government remained weak. Small farmers habited in conventional farming and being less informed about proper use of chemical fertilizers and insecticides, haphazardly used all sort of these inputs, thus natural fertility of the land intolerably has reduced with subsequent reduction in production. Moreover, general farmer feel difficult and unsafe to make extra investment in agriculture and at the same time government offered improved agriculture utilities hardly reach in all farm yard to keep farmer interest affixed with agriculture.
- (iv) Employment shortage, low income opportunities, and weak and unstable internal economy for long discourage youths to engage and involve in internal economic activities and which has been intensified by labor recruitment policy of the government in foreign country and opportunity of higher study for Nepalese student in abroad attracted both the young learner and labor forces. Thus the youths find the foreign job and higher study better one rather than to continue traditional farming in Nepal. Therefore the agriculture sector is gradually being neglected.
- (v) Land resources in Nepal are not only attached with means to supply livelihood but signify social status, power structure and identity. For this reason, struggling for land is to struggle for rational existence. That is why the land still held within grip of higher class people like administrator, politicians and elites, very reluctant to let it go from their hold. Land use policy and program becomes instrumental to decide what laws and regulatory tools the government provisions for sustainable and efficient use of land and other productive resources. The latest policy instrument, 2015, came in effect. This also has no fundamental difference in embedded facts except the provision of qualifying land type and land allocation for what purpose any of the land parcel best suit. State mechanism along this policy are said to be committed to materialize the policy provision to make them reach the bottom and end land poor and poverty. However, the foremost right to protect landlordism still prevailed in the policy instrument. In this regard, referencing the secretary of the

ministry of land reform, *Balaram Baniya* writes in the *Kantipur* daily on 2 August 2016 that one family still legally keep 1.5 ha in Kathmandu and 7.48 ha in *tarai*. It is imperative to know what the family having this much of land in Kathmandu valley or in *tarai* is doing with. The probable answers are either deploy tenant having tenancy risk or crop oneself or does real estate business.

- (vi) Land access for bonded farmers, tillers and tenants is negligible, as much land they own is of lower quality i.e. rain fed, marginal, wreckage or not productive. Majority of small scale farmers, in the state with influence and dominance of landlordism, found difficult to derive livelihood and leaving means from such marginal land. The land reform Act of 1964 that guaranteed the dual right of the tillers over the land tilled is now in no effect. The land reforms Act of 1964 along its 6th amendment in 1996 seized the tillers right to claim land from landlord as tillers' compensation. Yet the land reform Act is still silent in regard to the tenant rights up to its 11th amendment.

Before 6th amendment of Land Reform Act of 1964 in 1996, farmer tilling land of any of the landlord under contractual agreement model or sharecropping had have legal assurance to claim compensation. And a considerable number of farmers were provided that opportunity. Though the tillers right to claim land from landlord as tilling compensation is confiscated, people having more land in their ownership still hesitate and fear whether the share cropper will seek for land compensation in return of getting land cultivated. Therefore, the big holders, despite having highly productive and fertile land for crop production, use for other purposes.

2.2 Real Estate Business and Land Boom

Land policy, laws and land regulation of the country deal land no differently to that of ordinary commodity. The trend of doing transaction as usual of marketable goods has increased in the case of land too. The current laws do not differentiate or identify or define which type of land is to use for what particular purposes and hence fertile land massively used other than agricultural purposes. In this

further affirmed from the statement of a legal correspondence, *Ram Sharan Thapa*, District Land Revenue Office, *Lalitpur* district, Nepal and a land broker of the same district that they said there is no need to come the land buyer and the seller in person as legal witness- only representative is enough to settle land transaction. The existing laws anticipate to transact land from any of land revenue offices registered in any of district of the country and a plot can be transacted unlimited times in a single working day meeting minimum legal formality.

Land broker, informally are so organized and interlinked that no land parcel in urban area is possible to sale without their consent and the regulative mechanism of the government and its local units can not intervene but just act as witnesses. The first quarterly report of the fiscal year of 2016/017 of the Ministry of Land Reform and Management stated that the revenue collection from registration reached to 250 percent more than projected in this quarter and claimed of being excellent in its mandate. ropani.com tells, “Nepal is not rebound in real sate business but an emerging hub.” The real estate boom began from Kathmandu Valley back from two decades and extended around the country. Either low land or fertile or irrigated or valuable for food production, the land parcel adjacent to road or road track, highways or populated location turning into concrete jungle. Is that the development model we desire to? The hills and mountain left fallow due to labor shortage and over migration whereas the fertile land of *tarai*, valley and inner *tarai* overcrowded reducing crop land significantly.

3.0 Consequences Induced Being Left Land Fallow

For country having agro- dominant economy like Nepal, the agriculture sector apparently determines to what extent the nation sets forth. Reduction in farm size and crop area significantly hit to the stable growth of national economy. Agricultural statistics published by the Ministry of Agriculture Development of the year 2015/016 states that the country imported food stuffs worth about 10 billion NPR. The report further states one of the due reason behind is labor shortage, youth migration, inadequate agro- infrastructure and

inputs. Agricultural investment both in fiscal and periodic project and program rose up. Government mechanisms from central to local level along individual and community afford to bring rational progress in agriculture is appreciable. NGOs, donor and bilateral institutions more or less supported to uplift agriculture sector. Against all the efforts and investment the agriculture sector yet not scales up to feed Nepalese citizens, create substantial means of living and support to national economic growth.

Agriculture Development Strategy 2014 is the outcome of embedded theme laid in the land use policy of 2012. Similarly, it is said that the agriculture policy and program ever made and executed in the country had been assessed in view of designing ever best suit agro-strategy for the country while making this strategy. The strategy is envisioned to assure improved livelihood, food sovereignty, economic growth, self-reliant, competitive and inclusive agriculture development model. It is yet to see how much the strategy becomes instrumental to gear up agriculture sector of the country.

The agriculture budget for the fiscal year 2061/62 B.S was 2.69 billion which rises to 20.81 billion in fiscal year 2071/72. Despite having times increment in investment in agriculture sector, its contribution to national GDP is negligible. Simultaneously, cropping area of paddy, maize, millet and buckwheat has been decreased by 7, 12, 19 and 40 percent respectively in the same period (MoAD, 2069B.S). In addition to this, the annual agriculture diary 2015 of Department of Agriculture (DoA) identifies 1030 hectares of land left fallow whereas only 3091 hectares of land was cultivated in the country.

The budgetary trend of the Ministry of Agriculture Development for the last ten years (from 2004/05 to 2014/015) found to be much progressive (Table 1). Naturally, against such an increment in the yearly budget, a visible outcome is expected.

Table 1: Agriculture Budget Allocation and Expenditure (Year (2004/05-2014/15))

| Fiscal Year | Budget Allocated In 000 | Total Expenses (in 000) | % | Increment to Previous Year in 000 | Growth % | Growth from Base Year 2061/62 | % |
|-------------|-------------------------|-------------------------|------|-----------------------------------|----------|-------------------------------|-------|
| 2004/05 | 2692285 | 2297979 | 85.3 | | | | |
| 2005/06 | 3364780 | 2801650 | 83.2 | 672493 | 24.9 | 891835 | 36.0 |
| 2006/07 | 3516279 | 3231689 | 91.9 | 151499 | 4.5 | 1043334 | 42.2 |
| 2007/08 | 4173853 | 3597457 | 83.1 | 660574 | 18.7 | 1703907 | 68.9 |
| 2008/09 | 5759500 | 5262419 | 91.3 | 1582347 | 37.8 | 3283555 | 132.9 |
| 2009/10 | 7876587 | 6882607 | 87.3 | 2117057 | 36.7 | 5403642 | 218.5 |
| 2010/11 | 10523526 | 8700392 | 82.6 | 2646931 | 33.6 | 8050581 | 325.5 |
| 2011/12 | 12431084 | 10299314 | 82.8 | 1907558 | 18.1 | 9958139 | 402.6 |
| 2012/13 | 12297141 | 11546630 | 93.9 | -133943 | -1.0 | 9824193 | 397.2 |
| 2013/14 | 21403127 | 18012271 | 84.1 | 9105983 | 75.0 | 18930182 | 764.5 |
| 2014/15 | 23283170 | 1806187 | 77.5 | 1880043 | 8.7 | 20810225 | 841.5 |

Source: Ministry of Agriculture, Budget Unit, 2073 B.S

But opposite to the inputs, no any appreciable achievement is felt in the area of agricultural development in this period. A major concern of this study was to assess whether the government efforts in terms of agricultural modernization and commercialization is satisfactory? However, 59.4 per cent of the total respondents of this study disagree towards rational use of agricultural resources.

Despite continuous increment in agriculture budget, the reducing trend of crop area, mostly of cereal crops, indicates whether our agriculture is in progressive direction? Are all state machineries mechanisms accountable towards the agriculture sector? Apart from this, the agro-exporters, up to near past, are compelled to feed its people from imported food now. Who would undertake retrospection to portray

what makes the expected achievement of agriculture sector retarded? To be optimistic, it's not being late to self-evaluate and step forward.

Land stands as identity. It is mandatory means to be identified in witness of state constitution, laws and regulation. Land is a means of projection of what fundamental rights and opportunities one is liable to claim and use from state. Because of the fact, the land takes the first place for socio-economic achievement in the context of Nepal. In our society, land value is attached to social sentiment and prestige. Therefore, it is not extravagant to struggle for land.

The situation seems uncanny, since inputs and outputs are not in line with planning. For instance, a mass of people is struggling for justifiable land access for land less and land poor on the side and on the other land *Maphiyas* (illicit land dealers) are grabbing the fertile land and their hold is becoming stronger and stronger. Apparently, a question raised whether the efforts made to lobby land access for land poor from donor, CSOs and NGOs is worth some? In the same fashion, the remittance is being used as much in feeding families as in plotting land for housing. The basic agricultural means like fertilizer, seed and technology etc. neither have timely and adequately reached at farmer's farm yard nor the farmers get fair price of what they produce. The small farmers are obliged to buy input at seller's price and sale the produce at buyer's price, eventually farmers have to bear extra losses. The situation is provoking the farmer to sustain life through purchased food rather cropping oneself.

The quantity of food imported some year back corresponds the fact of farmers' unwillingness, inefficiency of programs, and investment made in the agriculture sector. A status updates of food imports for the last five years reveals that the food dependency (Table 2) and deficiency for the country is being out of control. The situation ushers gloomy state of food security in the future.

Table 2: Rice Production and Import Status

| Fiscal Year | Production (mt) | Quantity of Rice | Value (Rs.) | Import (mt) |
|-------------|-----------------|------------------|-------------|-------------|
| 2066/67 | 4023823 | 2615494 | | |
| 2067/68 | 446027 | 2899180 | | |

| | | | | |
|---------|---------|---------|------------------|--------|
| 2068/69 | 5072249 | 3296962 | 11arba 53 crore | 165143 |
| 2069/70 | 4504503 | 2927927 | 13 arba 44 crore | 192004 |
| 2070/71 | 5047047 | 3280480 | 16 arba 93 crore | 241962 |
| 2071/72 | 4789000 | 3112950 | 25 arba 24 crore | 360579 |

Source: Paddy Production and Rice Import Status, Dhruva Narayan Manandhar 2073

The food import data of the first 10 months of previous fiscal year 2015/16 showed that Nepal is not deficient only in rice but also in a number of food grains. The data further illustrate, apart from India, Nepal imports food from Thailand, Bahrain, Japan, Italy and so on. As an agricultural country is increasingly being dependent on imported food, it arouses a number of questions that in which direction our economy is setting forth? Whether the country's economy is in illusion? Do our agriculture policy and programs correspond to the ground reality? Do agricultural commitments ever made replicate to what we practice at farm land? If yes, when the quantity of food imported will be displaced (Table 3). Government efforts made for agricultural commercialization and development neither does help to upscale the traditional agro-practices nor sufficiently intervenes with modern trend.

Table 3: Food Import Status of first 10 Months of the Fiscal Year, 2072/73 B.S

| Food Grains | Quantity imported in metric tons | Cost in Rs. '000' |
|-------------|--|-------------------|
| Rice | 4 lakh 52 thousand 8 hundred and 84 mt | 19343500 |
| Maize | 2 lakh 50 thousand 3 hundred mt | 7159600 |
| Wheat | 1 lakh 53 thousand and 100 m.t | 4145700 |
| Buckwheat | 2 thousand 5 hundred and 48 mt | 68721 |
| Barley | 1 thousand 3 hundred and 11 mt | 33838 |

Source: Custom Department 2072/73

Reduced youth involvement in traditional farming has opened up avenues for foreign employment. It is transitory solution but an opportunity to make state prepare to handle hammering stage of unemployment, low productivity, and the need of economic progress. Diverting youths in foreign job is not and cannot be an ultimate solution for the situation instead of exploiting own resources for sustainable economic growth.

4.0 Functional Interplay and Complementarity of Local Stakeholders: Why?

Department, unit and outlet of the Ministry of Agriculture from local to central are vital to decide, initiate and lead over all agricultural development initiatives and interventions. Moreover, the policies, programs and working modalities of parallel intra-governmental units functioning at different tiers of the government play an equally significant role to determine and influence agriculture practices. Labor shortage, urban centric education, inefficient agro-infrastructure, inability of outreaching innovative and experimented agriculture model at farmers reach, knowledge gap on climate change adoptability, geographical hurdles between service seekers and service provider etc. are some of the challenging facts to discourage well-functioning of agriculture. Neither the government entity mandated to agricultural development nor extension services alone address these issues and nor the government bodies found to have efficiently coordinated functioning at intra- agency or intra-unit level.

Barsha Angdembe of Phalante Dhankuta district, Jamuna Chaudhari of Narayanpur, Kailali district and Lila Devi Budha of Dadeldhura district, answer a query why young couple choose private School for their children, “ooh! Our efforts to maintain schooling manners in our babies go worthless. How much to care? Every day loss of dress buttons, cutter and pencils, slitting paper and books. Ooh! Have no hope to get our children learned from public school so get admitted at private school. No doubt, the public education system is far better and resourceful though guardians barely trust.”

Universities, Research Centers and Demonstration sites operated since long must have produced skilled manpower, efficient technology, improved seeds with various quality but whatever success these entities endowed with, not yet reached farmers. Millions of youths took off just to feed family, who would make them believe that they can earn more safely here than what they earn there? Who would convince the parents that government offered education is times better than the private school? Or how long the poor farmers are to be fooled or cheated from private input supplier? When to initiate economic movement for women and income poor? When the land less and tillers would have assured access to cultivable land? Farmers are yet to rely on middle man or on local shopkeeper for agriculture information or agro-input or for sale of agro-products. Unless responding all those, socio-economic transformation of the people will remain in papery commitments.

Considering such fundamental challenges and difficulties of entire farmers and income poor, the policy discourse had been expected to raise concern based on ground evidences and elaborative debate among stakeholders of different tiers for wider coverage. So that the issue of increased land idleness and food dependency be fundamentally addressed both in policy initiation and practices. To stimulate and look over public sector instruments offering agriculture and its related services, this study has made attempt to obtain information from district level government entities (Table 4) through discussions, workshop and interviews.

Table 4: District Level Stakeholders Consulted and areas of Consultation

| District Offices | Scope and Issues Discussed |
|--------------------------------|--|
| District Development Committee | Agricultural Infrastructure, agriculture related yearly programs, Achievement and Future Prospect |
| District Administration Office | Labor migration, internal mobility and social security |
| District Agriculture Office | Policy enunciation, government offered services and facility, technology transfer and extension services, youth focused agriculture, and agriculture subsidy |
| District Forest Office | Environment, ecology and bio-diversity, forest based economic activities, and forest management |

| | |
|------------------------------|--|
| District Land Revenue Office | Tenants land tillers and land ownership, land reform, management and land rights |
| District Livestock Office | Mobile animal health camps, insurance and breed improvement, fodder development, diary technology, and marketing |
| Agriculture Service Center | I.P.M. training and adaptation practices, agriculture information, commercial farming, and marketing |
| Women Development Office | Women access to land, women role in agriculture, decision making, benefit sharing |

5.0 How Relevant is it to Raise the Issue Now?

Though a common definition does not exist, a general understanding to explain the concept is viewed in terms of inactivity in and otherwise use of agriculturally viable land. In the context of Nepal, land abandonment has aggravated over the past couple of years due to outmigration (causing labor shortage), decreased competitiveness for agricultural produce (providing low return), negative social perception towards farmers, rapid urbanization causing conversion of farmland for alternative purposes, land speculation, socio-economic causes and agricultural/land reform policies. Such underlying causes have resulted in reduction of agricultural activities with an increase in landless population, rise in absentee landlordism, and decrease in rented, leased or tenant land.

This has a tremendous impact on food security and local livelihoods of poverty stricken, food deficit vulnerable population. Moreover, abandoned land is more prone to soil erosion in sloppy areas putting a threat to a fragile ecosystem on high disaster risk Nepal. Some estimates suggest over 30 per cent of total cultivated land is abandoned. For a country, where more than 75 per cent of rural population depends on agriculture, such estimates point to an alarming situation where people are unable to feed themselves while agricultural land is left fallow. Even under such scenario, the land use planning and programs have not considered utilization of abandoned land in an effective and efficient manner.

Similarly, the current debates on land reform point to ensuring access to land for the landless mainly through land consolidation and

distribution that they do not show any concerns with the huge amount of land that has been left fallow for years. Given that land is a scarce resource, land redistribution is not a sustainable solution. A more sustainable approach would be to identify alternative approaches of land access and usage. Rights to the tillers and farmers are important and can be enhanced through improved approaches to land use. The current debate on land rights is least concerned about alternative approaches of access to land and post-access utilization. Huge amount of abandoned land is one such resource that has potential to be utilized for the benefit of small farmers and tillers with appropriate policies in place. The Land Use Policy 2012 attempted to categorize land for optimum usage and management but it is still not implemented. The Land use policy further needs research-based evidences and alternative approaches to identify avenues of land access and approaches to utilization of land which would further successfully contribute to develop policy instruments for effective implementation.

The issue of land abandonment was widely raised during NES formulation process which was seconded by key stakeholders working on land issues representing CSOs, I/NGOs, government, donors and the communities. The College of Development Studies and MODE Nepal have been raising the issue of land abandonment amongst academics, government officials and CSOs as well as students who form the future generation. The proposed research has attempt to identify policy gaps on land and agricultural policies and gather evidences from the field to enhance advocacy on implementation of land use policy by advancing the debate of land abandonment and proposing alternative approaches to land utilization. It further aimed to strengthen capacity of land rights activists in understanding the issues associated with land use.

6.0 Basis of Issue Generalized and Foreseen

The state entities and concern ministries and department of the government from central to local units operated and functioning within specified mandate. Thus deserve being excellent what they did. But leaving land idle is too common either in hills, mountain or *tara*. We assume that if a land parcel used for production since long is left fallow at least two crop cycle and fed family from external sources is to understand as fallow. Whereas the cultivable land not cultivated since five years and more has been considered as abandoned land.

Perennial cropping like tree plantation and using multi-year crop to occupy land has been common that consequently reduced crop land. If nonfood product be salable in market indiscriminately to that of food crops, it may be generalized as an alternative means. But state laws treat the tree product differently to that of food crop. The legal formality to market tree product even if produced at private land are challenging. If a farmer whether and otherwise feel free to sale tree product produced at private land and could not cash out; how such cases be perceived? Whether the land is cultivated or not? Whether to be assured of secured food supply or not?

This policy discourse, in this regard, is an attempt to draw a common understanding and rationalization of the issue of leaving land fallow. The issues on the one literally analyzed to shape out a position paper and was widely discussed and debated among government ministries and department at central level together with the district level government units. Apart from this, information, evidences and understandings of academics, politicians, social mobilizers, land activist, I/NGO & CSOs workers, women and marginal groups and in general the farming communities had been collected through observation, workshop, interviews and interfaces. All the efforts made to incorporate views of various stakeholders regarding the issue and recommend the learning for policy replication for comprehensive solution of the problem aforesaid.

7.0 Objective of Policy Study

Prime objective of this research study was to advance the land use agenda through identification of policy gaps in land and agriculture policies, gathering of ground based information on causes and consequences of land fallow or abandonment leading to food problems and, advance the wide on these issues. In support to the prime objective, the study has placed efforts to specifically set the following sub objectives:

- (i) identify the fundamental factors that caused to leave the land fallow or abandoned
- (ii) document the socio economic, environmental and other associated consequences resulted through the increasing land fallow or abandoned
- (iii) advance the debate on issues (i) and (ii) above among the multi stakeholders from ground to the national platform and thereby to draw appropriate policy proposals and legal measures.

8.0 Study Concept

Obviously, the planner or policy makers or program executer wished to have better achievement in return of what they have afforded for positive change. Land resources in Nepal as elsewhere in the world is the prime one for both to feed and initiate and extend foundation for economic development. Policies and programs are made and executed to boost agro-based economy and thereby create employment and income opportunity for rural people. Despite all those affords, the agriculture sector rather to hold rural population loosing active manpower to work.

Rural youths see no hopes and future and are unassured whether the subsistence agriculture supplies basic needs and livelihood means so the young farmers found seeking appropriate alternative to derive living means. Fertile land from either of the ecological region of the country left idle or barren or are just occupy. The first quarterly report

of the ministry of forest of the fiscal year 2015/16 showed forest area increased from 39 per cent of few years back to 44.5 per cent in this year. Government statistics states to have about 20 per cent cultivable land out of total area of the country as forest area, which increased from 39 to 44.5 per cent it is apparent how it happens so. Is crop land of the country increase along forest? Or some land area included into Nepal?

As many issues raised and area of discussion covered, this policy debate is obviously inadequate. The debates and concerns regarding the case of being left land fallow brought in the common discussion among stakeholders of different tiers. Simultaneously, the debates have sufficiently induced grounds to further discussion and analysis on the issue. However, the studies not accurately estimate how much land? In which particular location? Of what quality and by whom such fertile land left passively? In totality the study was conceptualized to develop a position paper based on review of agriculture related policy and programs and finding gaps between what has been committed through policy and program and how much these commitment deviated while executing in real ground. Thus, the discussion and debates draw learning with appropriate alternative to recommend as policy option to concern stakeholders.

The study concept and policy debate was incepted from the facts of increased youth migration and consequent trend of food dependency in Nepal. The districts (Table 5) hard hit from both of the perspectives and sampled for this study are as under.

Table 5: District and District Location Surveyed During Study

| Development Region/ District | Youths Migrated | Total Land (ha) | Total Cultivable Land (ha) | % | Left Fallow (ha) | % | Food Deficit (Mt) |
|---------------------------------|-----------------|-----------------|----------------------------|------|------------------|-----|-------------------|
| Eastern | | | | | | | |
| Dhankuta | 9173 | 25488.7 | 19058.2 | 75.8 | 68.9 | 6.3 | 1423 |
| Central | | | | | | | |
| Dhanusha | 22259 | – | – | – | – | – | – |
| Mahottari | 16740 | 64977.2 | 59649.4 | 91.8 | 701.9 | | 12160 |

| Development Region/ District | Youths Migrated | Total Land (ha) | Total Cultivable Land (ha) | % | Left Fallow (ha) | % | Food Deficit (Mt) |
|---------------------------------|-----------------|-----------------|----------------------------|-------|------------------|------|-------------------|
| Western | | | | | | | |
| Rupandehi | 12325 | 141367 | 82622 | 58.44 | | | |
| Mid-western | | | | | | | |
| Dadeldhura | 11396 | 153800 | 19242 | 12.52 | 1419 | 7.38 | 19000 |
| Far Western | | | | | | | |
| Kailali | 3678 | 3235000 | 89935 | 2780 | – | – | – |

Source: (1) Labor Migration; A Status Report for Nepal 2014/15; 2) Agriculture Statistics 2014/15, Ministry of Agriculture

9.0 Methods Followed

A central level round table discussion and workshop organized in participation NES members, Leader and member of study team on the issue paper developed drawing and analyzing agriculture policy (APP, ADS), programs and laws to establish a discourse for policy debate. There was presence and active participation of high level representative of the Ministry of Land Reform, Forest and Agricultural Development of the government of Nepal on 18th May 2016. Referencing the ideas and suggestion from the concerned participants and their expertise, four districts (*Dhankuta, Mahottari, Kailali and Dadeldhura*) had been finalized as the destination for field study and evidence collection.

While completing central level discussion and finalization of sample district, an orientation workshop on the issues of leaving land fallow and its consequent impact had been organized in each of the sampled district prior to commence VDC level field work. The objective of each of orientation workshop was to select minimum two VDCs from each of the district having highest evidences of leaving land fallow, labor migration, and food deficiency in presences and participation of district level government line agencies (Agriculture Development, Women Development, Livestock, Land Revenue, Irrigation, Forest Offices), political leaders, land right activist, NGO workers, teachers and

professor etc. The study locations (Table 6) were purposively selected as sample VDC from each of the district.

During district level orientation, some representatives from government offices and political parties provided with information that *Dhanusa* and *Rupandehi* are having an acute problem of land fragmentations and abandonment and the districts incorporated in study and surveyed.

Table 6: List of VDCs and Municipalities of the Concern District Surveyed

| District | Locations (VDCs & Municipality) |
|------------|---|
| Dhankuta | Muga, Phalante and Ghorlikharka |
| Mahotari | Khayarmara, Hattilet and Laxminiya |
| Dhanusa | Bateswor, Bengadawar and Dhalkebar |
| Kailali | Dhangadi, Tikapur, Lamki and Narayanpur |
| Dadeldhura | AmargadiansParasuram |
| Rupandehi | Butwal and Adjacent location |

Information and evidences had been collected from each of the VDC and Municipality through workshop, FGDs, interviews and interfaces in participation of VDC level NGO workers, teachers, students, farmers, representative privileged groups, VDCs and service center official and civil society based on pre-defined checklist. The studies as to collect information and evidences were conducted at 26 locations of different districts and communities. In the entire package, 1383 people actively participated and expressed their views regarding the issue. Among them, 616 were academicians, 103 were government officials and the rest were from the community.

District level workshop organized based on review paper, information and evidences obtained from VDC level survey works among intra-official representatives of government line agencies regarding the concern of leaving land fallow and food threats.

While the final draft of the research study prepared with depth analysis of information obtained both at ground level with evidences in connection to the issues, the CDS and MODE made times sitting with the Members of the Parliament (December 25, 2026) and the formal workshop attended by 11 members of the Parliamentary Committee on Agriculture and Water Resources (PCAWR) was held on January 15, 2017 for rigorous discussions and influential support for the policy making. A one day workshop was chaired by the President of the PCAWR.

10.0 Locations Selected as Sample Districts

Dhankutael

Dhankuta is a hill district of Eastern Development Region of the country with surface area of 899 Sq. /km and regional hub of administration, education, infrastructure and development. Rich in biodiversity, wildlife climate, lower land elevation and altitudinal variation of (1000-3500) m from sea level. As of the data of the 2011 Census, 163412 people live in the district amongst them 86897 are female and rest are male. 74.8 per cent of the total area of the district was cultivated up to near past but reduced now to 62.39 and food deficit for the district was yearly 1423 metric tones (DADO, 2014/15). Absentees' population of the sample VDCs was 27.03 percent¹. Apart from DADO, Livestock and Irrigation office at the district, 8 agriculture service centers, one regional agriculture research center and training centers have been operated however, in average, less than 19 per cent household found having road access and less than 5 per cent said getting agricultural services from government institutions. As the regional capital itself is having such situation, it can be generalized that how better services are provided to the farmers of other remote district and what progressive agriculture they practice.

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1 Based on information at community workshop

Dhanusa and Mahottari

These districts represent the entire *tarai* region of central development region of the country. Both of the districts lack permanent irrigation system, despite that agriculture is major source of livelihood and employment. The flooding rivulets from *Chure* Range wildly damage crops and land every year. Higher landlessness among the poor is another problem in these districts as elsewhere in the most part of *tarai*. A social land use practices like (*Bataiya, Haliya, Badhuwa*)² are still in practice. Flood and wild life damage of most of the cereal crops is another challenge for the farmers. Besides, poor farmers, hard hit of lack of agriculture input and supply are also facing higher pressure of land demand from new comers and land broker. The area like *Dhalkebar, Bateswor* and *Bengadawar* of *Dhanusa* district and *Bardibas, Khayarmara, Laxminiya* and *Hattilet* of *Mahottari* district are suffering from land plotting and soil erosion. In average (35-40) per cent cultivable land is left fallow. In addition to the problems above, both of the districts are having acute problem of labor migration. As of the data provided at DADO office of *Mahottari* district about 12,160 metric tons food was inadequate for the last year. The bulk of problems related with agriculture sector tend to bring these districts under this study.

Dadeldhura

Dadeldhura district is representative district of the entire Far-Western region of the country. As per DDC survey of 2013, 24507 families constituting 75903 male and 66254 female live in the district. Out of 19242 hectares cultivable land of the district 1519 hectare left fallow and 72.89 percent families living in the district own less than one hectare land, (DADO, 2014). Most of the local foods like millet, maize, buckwheat fall at cultural forswearing among higher class family. For them using those food assumed to be socially inferior. Thus all most all *Thakuri* (decent of ancient feudal), preferred to work in *tarai* or India in hope to supply food for the family, and lately, very few young entering into Gulf Countries for labor work. Briefing status of land

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2 A form and system of exploiting landless poor from landlord

cultivation in the district, *Nabin Bhandari*, a local journalist and land right campaigner said that about 50 percent of the slope land that was used to cropping millet, maize and buckwheat up to near past left barren. Agro-Technician, *Ram Chandra Bhatta*, of DADO office of the district estimated that the district is deficit of 19000 metric tons food yearly.

Kailali and Rupendehi

Both of the districts remained as food basket not only to feed the internal inhabitants but also the hills and mountain dwellers of Western and Far- West. DADO, *Kailali* report of 2015/16 states out of 89935 hectare cultivable land of the district 17573 hectare has been left fallow. Justifying the fact, the campus chief of *Kailali* Multiple Campus of *Dhangadi* opined that the fertile land would no more remain if the government does not take any initiative to discourage the land plotter, middleman and land broker. Similar is the case of *Rupandehi*. *Kailali* is one of the ten districts of having highest absentees' landlordism in the country. On the top of that there is acute pressure of land demand at the adjacent road site from new migrant and 24.27 percent of the total family of the district found out of the district without legal witness (DDC, 2014/15). The land idleness is found to be encouraged from two sides, one parceling and plotting and two, draining people out from the district. Next, the *Rupandehi* district is located in central position and choicelessly has become a destination or a kind of dream land for the people from neighboring districts, thereby exerting high land pressure. Above all, the district is an emerging industrial hub of western region.

11.0 Analysis and Strategic Learning

Increased food deficiency and dependency is an immediate striking result of not exploiting the land resources at its maximum capacity. Yet the long term impacts of land abandonment in national economy, employment and in respect of sustainable development are far to imagine. Outwardly, our traditional agro-tools, skills, locally and

organically resistive food chain is replaced with deficient market product which silently exerted irreparable impacts on human health on the one hand and on the other devoid the locally build traditional agriculture practices and food pattern. A part from this, a little income, the women and old possibly made from livestock found discontinued along leaving land fallow. Some incidences have surfaced that the rural agro-wagers are found to have contractual access to plough land; however, despite some benefits it is found hard to meet the investment requirement.

Institutional initiation for agricultural development in Nepal began in 1960s along with the introduction of periodic plan. Except government efforts, parallely research institution, universities and a number of horticulture center, farms and demonstration site around the country have come up with related activities. These attempts and efforts are found to have lost their direction instead of disseminating and getting the best practices reached to the farmers. An agro-seed seller, at the main gate of *Pakhribas* Agriculture Research Center, *Dhankuta*, for a query that why farmers not applying agro-input and technology recommended by the center, responded that very few farmers know the center also work for farmer and agriculture. Agro-extension and dissemination services from government outlets are not effectively delivered. Work of non-government and academic sector also are found not being effective in regard of scaling up existing conventional agricultural practices.

(1) Ascertaining Why Land Left Fallow

Land Acquisition Act of 1977 and 1988 of the government of Nepal brought forth possibility to acquire private land, following which a dozens of cases of land acquisition witnessed only in Kathmandu Valley and opened up opportunity for physical construction. Till date, no laws of the country have defined that what type of land is to use for what particular purposes. Internal mobility of the people jumped up that (i) caused land fragmentation and haphazard construction and settlement within road proximity and (ii) reduce land cultivator in remote village. Small to larger land plotter and real estate business owner greedily oriented to lure innocent farmers provoking them to sale fertile land for commercial purposes.

What a fun! A trend erecting concrete building and promoting veranda farming has adequately received attraction at the cost fertile land. The inference is the outcomes of series of workshops, observations interviews, interactions among government and non-government actors working in areas of resource use, use right and agricultural development. A part from this, the study assayed possible printed document published from concerned agencies pertaining to the issue of land abandonment and consequent food dependency in Nepal. Some findings after meticulous exploration from the field are listed below;

- (i) Socio-cultural, economic opportunity, access to resources, and comparative advantages that people hope to gain found of producing an impulse in people to migrate. Disproportionate distribution of livelihood means and resources significantly encouraged to leave land fallow. Land structure, climate, soil fertility, market and most importantly, the knowledge and skill practice of the farmer in the east found more systematic and productive than that of western hills. Farmers from east found economically progressive and capacitated to buy land in *tarai* whereas the farmer from west hardly or cannot feed year round with what they produce.
- (ii) It is noted that the hierarchy among farmers in holding land and land size in mid and Far West *tarai* is high. Prevailing land tilling practice is replete with exploitation. Unlike other parts of *tarai*, the eastern *tarai* is found of having more similarity in land distribution pattern in terms of land size and quality³. 79 per cent of the participants presented at the community workshop at different location of *Kailali* district said that there was yet wider gap in owning agricultural land among the farmers. The real tillers yet own no land or too small in size or marginal they said.
- (iii) The academic discussion at *Kailali* and *Dadeldhura* district headquarter concluded stating the existing cultural and legal practice being more responsible to fuel the case of leaving land fallow. In *Dadeldhura* it was found that a family has transformed into a small village after two to three generations because the family divided into a number of nuclear families. Resultantly, the

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3 Based on community discussion

land fragmentation has become a complicate issue where a plot reduced to some square meter. The participants put their view that it was better to leave such small plot fallow rather to crop investing double of what would the yields.

- (iv) Booming urbanization and land fragmentation was acutely observed in the Eastern *tarai* whereas the cases of being landlessness among the real farmers and absenteeism of those farmers owning bigger plot found sensitive in the western *tarai*. However, the brotherly division of land among kin⁴ in mid and far western hills of the country seriously felt.
- (v) The agricultural patterns, means and tools in hills either east, mid or west Nepal seemed of community nature. For example, Iron tool maker, irrigation canal, wooden bridge to cross river etc., have been managed and operated with collective efforts of the community. But distressingly farming families from the hills either migrated to *tarai* or the male migrated for job or education or better opportunity. Moreover, government efforts to manage all those found inadequate. Further the problem was found to be promoted by reduction of working male from village and inadequate distribution of agricultural infrastructure in hill. This has significantly influenced and discouraged to continue traditional cropping in the area.
- (vi) Farmers raising livestock in *Phalante* and *Ghorlikharka* VDCs of *Dhankuta*, *Khayarmara* VDC of *Mahottari*, *Narayanpur* VDC of *Kailali* and *Jogbuda* stated to have better profit from this profession. But expressed dissatisfaction with the services and facilities available. Government provided facilities were said to be non- efficient and lengthy thus the farmers found compelled to buy costlier services from private service provider. Crop and livestock insurance regulation of the government of 2013, has been in action and fiscal budget of the year 2015/16 provisioned up to 75 percent grant to the farmers on agreed insurance premium. Official of DADO office of *Dhankuta* and *Dadeldhura* district clarified being unable to contract private crop and livestock insurer despite frequent calls and efforts.

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4 As per legal provision, the ancestral land is to divide among male offspring of land owning father

But a local agent of Neco Insurance Company, *Rupandehi* district opined that the current insurance regulation and environment is impractical, complex and troublesome to execute. In the study, 89. 73 percent of the participants or farmers stated that they had not heard about the facility. Are not the escapist nature of government, indifference or denial of insurer, and disinterest from insurance company to work out on this policy, in some way, befooling the poor farmer? Sarcastically, a milkman in *Pakhribas, Dhankuta*, said that he and his neighbor usually sell pure milk spending hours in route at 27 NPR/liter and they have to pay 25 NPR /liter of bottled water-which is so disheartening. Official of Nepal Dairy Corporation of *Pakhribas* branch detailed that the corporation cannot pay more than 27 NPR per liter for pure milk and cannot sale at less than 80 NPR for one liter of packaged milk. This fact tells who is exploiting whom? This suggests that the poor farmers are miles away from getting justice for their hard work- which is quite debasing and demoting.

- (vii) Increased production cost, greater wild life damage, disfavoring market for the farmers, no access to, and inadequate market information found hurdling the farmer to continue traditional farming. Rain fed farming is another fate to challenge; the situation of the farmers of *Bateswor* VDC of *Dhanusa* district clearly demonstrates that how difficult it is to coup up the problem of irrigation, where they are charged 100 NPR/month in receiving irrigation for one day in a month. But hardly get some liters as they were face to 16 hrs power cut. Rather to fight for a litter of water, most of the farmers adopt alternative means of living rather worrying of land going fallow.
- (viii) It widely believed that the land tillers should have assured and non-interrupt access to land, if not and otherwise, the agriculture sector seldom has progressive direction. This sentiment has been embedded in most of the declaration and commitment of the government, political memorandum and even from non-government sector. However, such attempt limited to form commission, political lobby and worthless debate rather than coming up with comprehensive solution for land disputes.

(2) Socio-economic and Environmental Impacts Induced from Land Fallow or Abandonment

- (i) In state of expecting no better hope to scale up living status of Nepali farmers, the consistent farming in Nepal, at least contributed to supply basic need and a little support to national GDP. But whatever effort has been made from the government and non-government sector especially from last two decade in areas of socio-economic and infrastructural development, remained ineffective to address people need and expectation. Being demotivated from fact, farmers are tending to seek appropriate alternatives, no matter what and how small it is.
- (ii) The youth either educated or literate deviated from entire agriculture and agronomic activity and influenced from external environment rather to promote agriculture, technical know-how, technology and skills of our own kind. Neither the country could adopt best agriculture practices nor developed of its own. Thus agriculture pushed aside instead of being developed as main streamed economic base.
- (iii) Along reduced crop land, crop types and production, greater deviation has been resulted in our primary food chain and food culture that caused an increase investment in food and at the same time eclipsed traditional food culture. For the reason, food dependency is rising and national food and nutrition balance is being disrupted.
- (iv) Along with land abandonment, food production decreased, internal employment reduced, further income opportunity and economic activity are being narrower and narrower.

(3) Policy Proposals to overcome the Problem of Land Fallow or Abandonment

Being based on the policy recommendation and alternatives received from field level discussion and study, should not the country devise agriculture policies and programs to entice the human resources, who are ready to migrate, to agriculture? Who is going to provide pragmatic lesson that the cost of agriculture production and investment would

exceed remittance received? Academia? Private Entities? State? Or non-governmental sector or peasants themselves? It is certain that agriculture sector will be eclipsed once governmental bodies and stakeholders fail to coordinate, collaborate and show sincerity.

While asked whether one choose village or town, one will obviously choose town for its education and health facilities. This is also one of the reasons that the village is facing scarcity of agriculture labor. It is tough to have migration controlled, balanced population distribution, balanced use of resources unless access to development indices is established-which deters hope of balanced development. Therefore, for the state and its bodies, it is a dire need to undertake agriculture and agriculture economy as a common mission.

In some places, for some reasons, it is noted that family of a farmer is inclined to agriculture related activities. But the case of educated population is different, for them farming and tilling is as demeaning profession or intake of millet and buck wheat diminishes their social prestige; or failure of state led agriculture development efforts to attract entire farmers to this sector is present reality. Discussion and interactions held with various sects during the study at the field level, the team of researchers after subtle analysis of settings and situation has proposed the following measures:

1. Agriculture Development Plan and Program

- (i) The study made an effort to know whether the modality of youth focused agriculture programs reached to the farmers and quantify the number of beneficiaries of these programs and found that most of the programs were ineffective. While inquiring on quality of service provided by district level government agencies-District Development Committee, District Agriculture Development Office, District Forest Office, District Livestock Service Office, District Women Network, they responded that technical services provided them is not up to the mark. The service provided from these government organizations is more regulatory and administrative than productive. They never reflected on the results of the services rather focused only on automotive deliveries. Therefore, now onwards there comes the need of making those services competitive, based on result not on demand of service and access. All agriculture services have to be

circulated among *dalit*, women, marginalized groups having fair competition within the groups- this idea represents the voice of people who are totally reliant on agriculture and the families of the farmers covered in the study.

- (ii) Agriculture infrastructures for agriculture development or advanced experiments for sustainable alternatives of it and to make the achievement of them reach to the farmers, periodic plans and investment are necessary. Farmers are unaware of various practices of farming, neither they are ready to shoulder probable risk. Therefore, the country has to take lead role in dissemination of new models, coordinate for investment and management. But in present, there is no cohesion among agriculture experts deputed by government, executive bodies, technicians, and programs. On the top of that planning, implementation and monitoring are carried out by different entities. The perfect synergy among the entities and their activities can only produce good result but they are failing to align with each other. Yet who should take the charge of failing them to achieve the intended result? To avoid the problem, continuity of ongoing programs, plan and investment is necessary irrespective to the frequent change in government; addition to that, conducive environment and stable working modality should be set up.
- (iii) High yielding varieties, fertile topography, suitable technology, storage efficacy, efficient market are the founding elements of modern agriculture. This could have been an appropriate measure to hold youth in agriculture sector but weak institutional capacity and unavailability of such programs at local level institutions has compelled them to emigrate. To discourage youth migration to foreign employment, the state has to portray a picture to depict how agriculture can provide sustainable way out compared to remittance from foreign employment and at the same time, it is necessary to avail them with youth focused agriculture credit and quality control in farming facilities.
- (iv) Debates and dialogues on issues like insurance for livestock and crops, contract farming, cooperative farming have surfaced but no such solid legal and practical initiatives are undertaken from government side. The government has to facilitate in formulation of provisions for easy leasing, contracting of fallow land, and subsidy in cooperative farming too.

- (v) The sustainable livelihoods and commercial farming are having intricate relationship. The commercial farming heavily relies on livestock and balanced use of forest resources but the integrative role and undertakings of community institutions are not cohesive. This disjunctive relationship invites the need of forming an agency to establish coordination in and among the local level institutions.
- (vi) The prevalent technology in agriculture is traditional in nature. The participants of discussion, mainly youths with higher secondary level of education from *Phalate* in *Dhankuta*, *Bateshor* in *Dhanusa*, *Jogbuda* in *Dadheldhura* and *Tikapur* in *Kailali*, put their prospects that the technology used in agriculture is not improved, full of hassles and unproductive. Contrary to the view, the experienced farmers agree that the traditional technology and skills are still productive and carry relevance but the problem is we failed to modify them. Here are some examples aligned with the view of the experienced farmers that the experience of veteran farmers of agriculture sector in the countries like Cuba, Thailand and Vietnam evoked a significant change in the sector. However, the government has not played any role to modify the traditional technology and skills, their protection, information dissemination among agriculture institutions and human resource. The very scenario of Nepal reads that the gloomy situation of today's agriculture is the result of inability to develop and promote traditional skills and technology; and failure to educate the farmers on modern agriculture, tools and technology. Thus, it invites the need of an institution to maintain link and coordination between traditional skills and modern agriculture practices.
- (vii) It is indubitable that improved seeds, chemical fertilizer and technology are to produce good result but farmers are not aware of their quality, production process, and composition of soil nutrients. As to ensure these aspects and farmer's welfare, the country should have played the primary role but 91percent of total participants 1383 responded that they have to rely on local business entities for agriculture tools and services. This dependency on local business entities has led the farmers to suffer from exploitation and financial loss. The government cannot remain indifferent to this critical condition faced by the

farmer. So the government has to take this issue into its account and act accordingly.

- (viii) The mechanism to keep farmers well informed on steep move of agriculture production due to climate change and risk management is quite weak. So is the mechanism to manage the declining interest of farmers in agriculture due to their inadequate knowledge of adaption for climate change and hybridization of seeds.

2. Land fragmentation, Infrastructure and Skill Development

- (i) Due to land fragmentation, farmers are facing problems like crop non-uniformity and difficulty in the procurement of instrument and technology. It has aggravated the problem of keeping land fallow. To cope up this problem, the government has to accomplish its mission of one village-one product and support with soil and climate test findings.
- (ii) Agriculture roads, farmer's schools, agriculture calendar, storage facilities, and market availability facilitate agriculture production. Being aligned with the purpose, these things are included in the programs formed at district level; however, they are not made available to farmers at local level. Therefore, easy availability of these things has to be ensured.
- (iii) All the participants agreed that regarding promotion of knowledge, skill and capacity building on agriculture, governmental and non-governmental organizations have significantly conducted trainings, workshops and seminars but utilization and practical parts are not strong to meet the goal. The study reveals that there were 63 farmers who had taken part in similar kinds of trainings but only per cent of them have used their knowledge and skill learnt in real life. These trainings and investment have not been influential regarding bringing change in practices followed by farmers since they were theoretical and superficial in nature which merely emptied national coffer and wasted time of farmers. People never involved in agriculture also took part in such trainings and received agriculture instruments but they never utilized them. Hence to check this

kind of malpractice in connection with trainings in the name of enhancing knowledge, skill and capacity of farmers, a reliable mechanism should be established so that knowledge can be transformed into practice.

3. Land Use

- (i) Clause 160 in the National budget 2016/17 clearly articulates that additional 25per cent tax penalty will be imposed on the farmer who leaves his/her land fallow. Yes, to enforce this provision is not so easy and at the same, it is inevitable to make sure of availability of irrigation, agriculture instrument, seeds, other minimal support and defined conditions from the side of government as to enforce such regulatory provisions. Besides that government does have clear understanding of how to estimate the production in the land left fallow. For that reason, instead of imposing tax it would be more rational to find the cause of leaving the land fallow and promote communal farming. Better government has to evaluate production level of previously cropped species and study the possibility of new varieties in the land and campaign nationwide awareness programs in this respect rather than imposing extractive tax on farmers or owners of the land.
- (ii) In context of Nepal, it would be more appropriate to view land as the source of production instead of perceiving it as the source of money, social and political prestige. Both citizens and state took land as saleable commodity or property which further helped nurture intermediaries. These intermediaries, be it an individual or an institution, have to come within legal framework and all transactions of land or fixed assets, selling and buying should be brought within tax coverage. To have transaction authority of land and other assets, the intermediaries have to be legally registered in office of company registrar and get financial audit done on annual basis. This will promote actual valuation of assets; revenue will increase; autonomy of intermediaries will break down; financial misuse and social distortion will reduce, and also it will reduce undue influence on landholders for abuse of fertile agriculture land. Such mechanism is inevitable which can bring intermediaries in legal framework and make their all financial transactions against land or fixed assets transparent.

4. Coordination , Agriculture Communication and Market

- (i) Farmers have a unanimous understanding that district level agencies like DADO, DFO, DLSO, DDC lack coordination and common strategy in their undertakings like community development, resource mobilization, livelihood enhancement, commercialization of agriculture, management of local production and employment. Consequently, larger portion of the budget of these agencies is spent on administrative and executive activities thereby reducing the investment on development projects. As the result, the projects accomplished sustain low quality, low sustainability, and low comparative advantage. These tendencies are common among district level agencies that should be uprooted as to attract youth farmers in agriculture.
- (ii) It is quite difficult to make a distinction that “is the local level service centers of department of agriculture, forest, livestock service, irrigation and environment for farmers or vice-versa?” It means services, facilities and assistance demanded by farmers from central and district level agencies are hardly given to them rather they have to accept what agencies coerce them to take- 59 per cent of the total participants in the study believe in this reality. Moreover those services, facilities and assistance are not transparent -which must be taken into consideration and controlled.
- (iii) There is low involvement opportunity for small holders in trainings, orientations and observations on modernized farming, crop varieties and their management. Most of the times, these opportunities are snatched by teachers, political activists, people from higher class and their relatives. Even in this study, the involvement of small holders was less than 10 percent of the total participants.
- (iv) There is no presence of government in regulation and management of agriculture resources and market neither do producers have control over them. It is because there is no clear provision that who should take control of these things -which has compelled farmers to think it is better to buy food products from the market instead of spending wealth and time to produce them in their fields.

- (v) According to the Indian business men at business hubs like *Kankadvitta* and *Biratnagar*, agriculture products of Nepal despite their popularity and good demand in Indian market do not have easy access to the market compared to the access that Indian products have in Nepalese market. While taking responses of local agencies in this respect, they suggest seeking remedy from central level agencies of both the counties. Moreover, failing to provide alternatives to the farmers in the situation of higher cost of production, transportation and labour and no insurance support for crops and yields is sure to intensify the problem of fallow land.
- (vi) The farmers expect assistance in agriculture sector from government to fight with the problem of higher investment compared to low return since they have to pay high rent for agriculture technology, warehouse, and information on agriculture.

5. Industry Led Agriculture, Model Test and Extension

- (i) The agricultural land is under individual ownership and fragmented to endless parceling. What would happen? If the state provisions laws devolving power to the local body of the government in capacity of consolidating private land and deploying third party cultivator to crop idle and passive land in mutual agreement of the land owner in assurance of providing a standard compensation along opportunity to work in the farm set in his/ her own land. If happen so, the land owner would have three fold benefits; (a) regular income in return of renting out the land, (b) wage earning from the work in farm and, (c) farming knowledge and technique transformed. Further, getting fallow land cultivate in this model effectively capacitate farmer to come up with own skill and enable them to invest in agriculture.
- (ii) Land falling in specific agro-ecological setting fit for specific crop and suit a particular cropping pattern. If there shall be such laws (land leasing/contract laws) and regulation opening avenues for national and international investors and experts to invest in agriculture consolidating land through periodic plans

and project, investors with higher investment and advance technologies would be encouraged to apply in this sector and thereby transformed the existing subsistence agriculture into market lead commercial agriculture.

- (iii) Long term agricultural plans and strategies made and executed, however, commitment and preparation to get such program reached to farmer's level of the government and aid agencies remain ineffective. For instance, the program and incentive offered from PACT, CDP and the crop and livestock insurance program along grant and subsidies in agriculture of the government of Nepal are said to be at failure stage. There could be number of reasons and loopholes why such program become less effective and deviated from mainstreamed objective of reaching to the real farmer, but program made without addressing farmers inability of technical and technological adaptation hit much. A technical package; basic agricultural skills like soil treatment, manure composition, breeding, technological application, quality assurance, market extension etc must go parallel to the farmer along agricultural program.

12.0 What could be the benchmark of Nepalese Economy: Remittance Fed Economy or Sustainable Agriculture?

The new culture of leaving fallow land and migrate to foreign country has emerged in Nepal. Behind that culture, the pattern of ownership, weak national agriculture policies and programs, unstable political situation or impractical education policies any of these can be responsible. Whatever is the reason ultimately fertile land being abandoned; unplanned urbanization being developed; youth labor being migrated, food import has increased, balance deficit has scaled up and the country's economy is contracting. In this scenario what could be the solution?

- (i) Prohibition of foreign employment and providing with relevant alternatives

- (ii) Complete restriction on land plotting
- (iii) Quick implementation of Land Use Policy-2012
- (iv) Discourage agriculture intermediaries
- (v) Motivate youth by providing credit, capacity strengthening, providing tools and techniques
- (vi) Establishment of market and assured accessibility

13.0 Some Innovative Agricultural Practices Relevant to adopt and experiment

Agricultural model developed with blend of state policy, research and local adaptation found more productive and successful. The developing countries like Cuba, Taiwan, Vietnam, Malaysia etc. have got greater success in agro-based economy promoting small and heterogeneous, co-operative and group farming. They prioritized agro-biodiversity, local technology and demonstrative learning; established mechanism to outreach farmers effectively and efficiently with national policy, laws, investment in infrastructure and industrialization. They promoted facilitation to link farmers, agro-scientist, and researchers to adopt new innovation. Some of the models adoptable and experimental in our context are:

(i) Agriculture Research and Development

Till the present time, the experiments and records showed that locally experimented, developed and innovated agriculture model developed from displace agriculture system and breed are found more suitable than newly adopted scientific models. But, in Nepal, less priority given to develop local breed. The farmers do not know what a scientist experiment is? Research plot or plant lab? Similarly a scientist do not know what an illiterate farmer does while cropping. For this reason, such a plate-form is required where the farmers, agro-scientist, planners, policy maker, investor, professor, student would have meaningful access at least at community level and experiment the new innovation in integrated manner ensuring involvement and

participation of either facets so that the learning would be easily disseminated and adopted.

(ii) Quality Production, productivity and Agriculture Garden

The concept of agricultural diversification and extension through institutional initiatives is not new for Nepal. A number of agricultural gardens and demonstration centers established and operated. But the farmers not yet informed what such garden is doing and how the farmer be benefited from such center. Government mechanisms mandated to lead agriculture seem only to administered administrative function rather to promote improved agriculture among farmers. Agriculture information, technology, input and services that are mandatorily to reach the farmers are not yet in access. Therefore, the concept of agriculture gardening with assured dissemination and extension are to be re-activated and promoted.

(iii) Small Landlordism, Bigger tillers and Innovative Agriculture

The big holders, in our context, are found to have favored the professions other than agriculture. But the majority of small holders are still in favour of cropping land as principal leaving means. What would happen if government makes mechanism to facilitate both the bigger land owner and those small holders desiring to do farming?

(iv) Improved Agriculture, Certification and Identification

Quality agriculture practice, certification and product identification are some of the basic requirements for any of the agro-products so as to ensure non-susceptible distribution targeting distanced consumers. Such mechanisms, in our context, are beyond practice. Then why not the concerned stakeholders and line agencies work in this line?

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Bharat Shrestha (PhD) is a development researcher and, has over 25 years of experience in research and development actions including higher education. He is the founder of MODE Nepal and College of Development Studies (CDS) and has played the lead role in initiating the graduate courses on development studies in Nepal and, continues to be its advisor. He has worked as the researcher/specialist/independent consultant for several Nepal-based and international agencies. His major contributions are in the fields of natural resources and land tenure in Nepal. He specializes in socio-economic and institutional aspects of common property resources, has led various professional teams for formulating national policies and plans. He is the chair of MODE Nepal and CDS. He was associated with the Kathmandu and Pokhara University as an Adjunct Professor and, currently, he is with College of Development Studies, Purbanchal University for research and teaching courses on Poverty and Livelihood, Agrarian Structures, Community Actions and Governance, Research Methods etc. He has several research reports, manuals, papers and books to his credit.

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MODE Nepal, primarily dedicated to the sustainable development of Nepal, is a non-political, non-profit making and non-governmental organization (NGO) registered with Government of Nepal under the Institution Registration Act 1976 and affiliated to Social Welfare Council (SWC) and the member of NGO Federation of Nepal. Motto of MODE Nepal is to foster mobilization, bottom-up planning, participatory approach and social equity for the betterment of all sections of the society. Itl believes in the philosophy of people's mobilization first for their full willful participation for any developmental endeavors that are primarily intended for their welfare.

ILC is a global alliance of civil society and intergovernmental organizations working together to promote secure and equitable access to and control over land for poor women and men through advocacy, dialogue, knowledge sharing and capacity building. The Coalition was established as an outcome of the Conference on Hunger and Poverty held in Brussels in 1995. Originally called the Popular Coalition to Eradicate Hunger and Poverty, in 2003, members formally changed the name to the International Land Coalition, in order to better reflect its mission, nature and objectives. ILC is served by a Secretariat hosted by the IFAD in Rome, Italy. It is supported by three regional platforms in Asia, Africa and Latin America.



