Land distribution pattern, food sufficiency, and poverty in Nepal
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ABSTRACT
This article attempts to show major land use system and land reform policy adopted by the government along with agricultural performance in different periods. The methodology used in this article is based on secondary data available from different rounds of Nepal Living Standard Survey (NLSS) and Economic Survey, Ministry of Finance (MoF) of the government of Nepal. Available literature is reviewed especially on land reform policies and agriculture development plan in different periods. The major findings of the study indicate that there is still vast disparities in the distribution of land where few people hold a large plot of land while a large number of small farmers are either landless or near landless. Most of them have 0.5 hectares of land. The concluding remark indicates that in an agricultural country like Nepal land ownership has a significant value especially for the rural poor where non-farm job opportunities are hardly available. Further, the policies and plan for developing agriculture sector are not working as per the requirement of the land-poor people and it has created social injustice and barrier in the rapid development process of the country. Due to lack of economically active manpower, most of the fertile land in the far remote area of the country is not used intensively. The poverty is linked with food sufficiency based on primary data collected through field survey.

Keywords— Land reform, Distribution, Agriculture, Inequality

1.BACKGROUND
Land management policies and its distribution pattern have the largest impact on agriculture development and agriculture sector has a significant role even in the non-agriculture sector. Agriculture is a major occupation for the livelihood of two third of the population in Nepal. Although, its share in GDP is declining slowly due to gradually increasing in-agriculture sector. The share of agriculture sector in GDP was 47.4 percent in fiscal year 1990/91 to 39 percent in 2001/02, it was estimated to be 27.6 percent in current fiscal year 2017/18 which was 28.9 percent in the previous fiscal year 2016/17 (MoF,2018). During the twenty-eight years period, the share of agriculture sector has decreased by 19.8 percentage point. It indicates rapidly decreasing the share of agriculture in the Nepalese economy.

Regarding the structural features of Nepal, the country consists of three ecological belts: the Mountain, the Hill, and the Terai. Production structures are more or less differ among the belts. The Mountain, which is situated areas above 3000m in altitude, covers 15 percent of the geographical area where livestock raising is the major form of agriculture. The crop production is nominal. The Hill area covers 300-3000 m in altitude, cereal crop and horticulture are major agriculture, livestock raising is a form of agriculture in some high Hill areas. Cereals and cash crops have a dominant role in agriculture in the Terai belt.

Structural constraints in the agriculture sector are other weaknesses, which largely reduce its capacity to respond to policy reform. Market attachment is weak due to sufficient road network which also effects on price incentives. Agriculture in Nepal is in the stage of low level of commercialization and still based on a subsistence level in terms of both food and cash crops. Commercialization is further lower in far remote inaccessible areas due to lack of road network, storage facilities, and low level of input used among others. Similarly, agriculture in Nepal is not so mechanized and very few farmers use power tillers. Similarly, fertilizer use is far below compared to the recommended level. Further, the structure is not favorable for credit and other required inputs. Rural credit markets are still dominated by the informal creditor.

2.OBJECTIVES
The general objectives of this article are to review land reform policies, plans, and programmes in Nepal. However, the specific objectives are:
- To analyze the landholding pattern.
- To analyze food sufficiency linked with poverty.
- To recommend policy options.

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3. METHODOLOGY

Both primary and secondary data are used. For secondary data, this article is based on microdata from different rounds of Nepal Living Standard Survey (NLSS) I, II and III respectively. It is a nationwide survey designed for collecting data on various aspects of the household. The NLSS followed the Living Standard Measurement Survey (LSMS) methodology developed by the World Bank (WB). The sophisticated model is not used in this article. Further, the economic survey of the government of Nepal and UNDP report is also used for secondary data. A simple table is used for analysis. Poverty with respect to food sufficiency is analyzed based on primary data collected through field survey.

4. LAND REFORM POLICY REVIEW

Land reform policy has a direct impact on the distribution pattern of land which is a principal productive asset. Nepal has adopted different reform policies to distribute land in a social justice manner and to increase productivity. After the abolition of the Rana regime in 1950, the government of Nepal made various attempts to reform the existing inequality in the distribution of land and to increase its productivity. Nepali Congress was the main political party then, and also had formed the government. The government had taken the slogan – 'land for the tillers'. The major policy level work done during that time was making the law in 1951 to make a list of tenants in Kathmandu valley, formation land reform commission in 1952, enactment of Land Act, 1957 for fixing rent at 50 percent to the tenants, abolition of granted or rent-free land in 1959, resettlement programme of 1956 and Forest Nationalization Act of 1957 (Adhikari, J. 2008) were the important task regarding policy level at that time.

In 1964, king Mahendra after his direct rule of Panchayat system enacted the land Act with the objective to divert inactive capital and excessive burden of manpower from land to other sectors of economy in order to accelerate the process of economic development; to improve the living standard of peasants, development of land by making equitable distribution of the cultivable land and by making easily accessible the necessary know-how and resource on agriculture and maximum increase in agriculture production. This Act was enacted by the then king on the advice and with the consent of Rastriya Panchayat. This Act has some features such as the abolition of grant or rent-free land, the interim provision on collection and recovery of land revenue, upper ceiling of land allowed to be owned by a person as a landowner and as tenant (Appendix, 1), restriction on acquisition of land, punishment, and compensation of land.

This act was also not implemented correctly due to its phase-wise implementation. The subsequent implementation was like an information to hide land above the fixed ceiling by making a duplicate document. Further, the Act was implemented not in favor of poor but in favor of landlords. The Act did not work as it was seemed popular.

In 1990, the partyless Panchayat system was abolished and new democratic government formed. This government instead of forming new reform policies, made the fourth amendment in 1996 the Act that was enacted in 1964 by the king. The purpose of the amendment was to eliminate the dual ownership by distributing the share of land to the registered tenants. Further, provision was made to the termination of right of tenants who were not registered within the given time. This provision could not include the unregistered tenants and its impact was negative. In course of time when the communist party of Nepal (Unified Marxist-Leninist) formed the government and it constituted a high-level commission to recommend the land reform agenda. The commission proposed some measures for land reform. Similarly, Nepali Congress lead government announced land reform programme in 2001 by reducing land ceiling fixed in 1964 when the Maoist armed conflict was at its peak point. The land ceiling of the King led government is given in appendix 1. Any of the reform policies are not fully implemented. And land reform policies are remaining only in policy level. There is always debate on which policy is superior.

There have been two major planning initiatives regarding agriculture development in the 1990s- the first one is the Agriculture Perspective Plan (APP) 1995 which was prepared to guide in the formulation of agriculture development policy. The APP was designed by setting specific measures to achieve targeted growth. For the market-oriented reforms in agriculture, the APP followed the ‘public good’ aspects of investment in agriculture and provision for state subsidies for key inputs were shallow tube-well, irrigation facility, and fertilizer. The APP was set to increase annual per capita agricultural growth to six-fold from the level of 0.5 percent to 3 percent (UNDP, 2004). This growth rate was expected to have a multiplier positive impact and increase non-agricultural growth in employment-intensive goods and services. This would generate employment opportunities and reduce the level of poverty. The next initiative was linked with Second Agricultural Programme Loan (SAPL) related to Asian Development Bank (ADB) signed in 1998. The SAPL had given emphasis on the involvement of private sector in agriculture by the process of market-oriented reforms mechanism. Input market liberalization was the key determinant of the SAPL. Conditionality of the SAPL has resulted in the deregulation of the fertilizer sector and the elimination of subsidies on fertilizer and shallow tube-wells. However, the SAPL policies were seen as against the APP.

The overall effect of these policies on agricultural growth is not so satisfactory. The APP and other reforms have partially succeeded to have a significantly positive impact on agricultural production. The objective of raising the growth of per capita agricultural GDP to 3 percent has not been reached every year. The average growth rate of agriculture GDP (2.97 percent) was not significantly different from that of population growth rate (2.08 percent) in the 1990s. The improvement in performance is marginal and does not indicate a basic shift in the agricultural growth performance. It is difficult to come to conclusion on policy shifts without controlling for other effective factors such as weather.
5. LAND DISTRIBUTION PATTERN

Access to land is essential for making rural poor capable and to avail opportunities available in the market. Rural poor cannot utilize such opportunities due to low and even no access to land. If sufficient access to land will be provided to landless. It will make them capable to utilize opportunities available in the market. Further, education and credit facilities will raise the socio-economic status of the poor.

5.1 South Asian Context

More than 60 percent of people in South Asia depend on agriculture for their livelihood. Three of every four poor people in these countries live in rural areas and almost 40 percent of the total population is poor. The agriculture sector accounts for about 23 percent of the GDP in the region, dominated by small-holder farmers (ANPFa, 2009). Agriculture continues to be a fundamental livelihood instrument for sustainable development and poverty reduction in these countries.

As land is a form of private property, due to neoliberal policies and increasing pressure from urbanization and industrialization, the land-sale market is active in both rural and urban areas, but the large transactions happen in urban land. Land values have been rising faster in Urban compared to rural areas. Land pooling and land plotting are a new economy as well as a social phenomenon and a new business in urban areas.

Over the last five decades, towns all over South Asia are swelling and fertile agricultural land is rapidly being transformed into non-agricultural land. Thus, land grabbing is becoming one of the prime causes of hunger and poverty, challenging food security in the region.

5.2 Nepalese Context

Under the formal legal provision, women in Nepal can access land through inheritance, land purchase, leaseholds, and government land allocations. The Constitution states that daughters and sons have equal rights to inherit ancestral property, and the constitutional mandate of equality takes precedence over inconsistent traditions, customs, and practices. Roughly, only 8 percent of all registered landholdings is in the name of women. Women hold about 5 percent of the land in Nepal (CSRC, 2012). Although the constitutional provisions are slowly getting through in urban centers, it has to go a long way for its effective implementation in the remote rural areas of the country, where the majority of the people live (CSRC, 2012).

A study has also revealed that land ownership reduces the probability of being poor in rural areas. The incidence of poverty among households that have own 1 ha or less of land (two-thirds of rural households) is close to a 50 percent poverty rate. The proportion of households with smaller land holding increased over time, while the proportion of larger land holdings (2 or more hectare) declined substantially, from 16 percent to 11 percent. Poverty declined more for the households with larger land holdings, indicating increasing returns to land (CBS, World Bank, DFID and ADB, 2006).

Land also has a nexus to other opportunities that can help in reducing poverty. Educational achievement is directly related to land ownership. In the third NLSS survey, it is seen that incidence of poverty declined for all educational groups, with a most dramatic decline in households headed by someone with 8-10 years of schooling. Similarly, landless and poor households have a tendency to have higher family size. Poverty is also higher in larger households and in households with a larger number of small children.

Dalit and Hill Janajatis are the ones who have a smaller size of land holdings or comprise a larger proportion of households being landless. Poverty rates among these groups remained higher than the average. In 2003-04 poverty rates were highest among Hill and Terai Dalits (46 percent) and Hill Janajatis (44 percent), though poverty rates have also declined in both groups (CBS, World Bank, DFID and ADB, 2006). Generally, excluded groups in Nepal own either no land or marginal land. Most of the landless people of Nepal, which account about 29 percent of the population, are Dalits and highly marginalized ethnic groups. Women’s access to land is also very limited. Only 10 percent of women have ownership of land and that too is almost half the size of the landholding owned by men.

At present, the commercialization of land and increasing interest from the private sector, government and Multinational and Transnational Companies (MNCs/TNCs), has resulted in land grabbing, displacing thousands of peasants in many South Asian Countries (FSNSA, 2011).

There is a thought that land redistribution will reduce the farm size, and it will create many small farmers and provide disincentives for large, efficient and commercial farming or large-scale argo business. There is also a thought that smallholder farming is inefficient and do not provide an economy of scale for investment. But small farm size has been the backbone not just in Nepal but also in many other countries. It is also argued that productivity has been highest in the farms controlled by single families. The ‘economy of scale’ concept is hardly appropriate in developing countries like Nepal, where there is plenty of cheap labor. As for example, Vietnam, which has the smallest farm size (0.2 ha/family), supplies a significant proportion of rice (12 percent) in the world market after its consumption (Adhikari, 2008). To reduce the disadvantage of small farms, it is increasingly recognized that resources are to be used intensively and modern technology suitable for such farms needs to be developed. If this can be done, then family farming will be the most suitable form of farming in terms of conservation of resources and sustainable farming. Therefore, other supports are also equally important along with improving access to land or land redistribution. This will also provide social justice in the ownership and control of land. This will eventually boost agricultural production.
Regarding international scenario, in countries that have affected land reforms, the reform has helped reduce poverty significantly, irrespective of the extent of success. If these countries had not adopted land reform at some point in the past many more people would have been living in absolute poverty. Finland, Poland, former Yugoslavia, Mexico, Bolivia, Japan, Taiwan, South Korea and India (West Bengal and Kerala) were able to improve their economic status because of the land reforms they followed. Such reforms also led to more production, improved nutrition of poor households, poverty reduction, inclusion in economic development, grassroots empowerment and inclusion in democratic society, reduction in social unrest, reduced urban migration and a better environment. Majority of households in Nepal are farm households. About 76 percent of the total households are agricultural households. And almost three-fourths of the agricultural households are male-headed households in the country. On average, 52 percent of agricultural household heads are literate. The estimated median age of the agricultural household head is 46 years. Out of total households in the country, 74 percent are agricultural households with land (households who have cultivated at least 0.013 hectares) and about two percent are agricultural households without land (CBS, 2011).

As per the NLSS report, fifty-three percent of the agricultural households operates less than 0.5 hectare of land and they are considered as small farmers and 4 percent operates 2 ha and more land who can be considered as large farmers. There is an uneven distribution of the agricultural land in the country. Small farmers operate only 18 percent of total agricultural land while 22 percent of the land is operated by “large” farmers. Gini concentration index is estimated at 0.51. This indicates an unequal distribution of land in the country. The index is zero when all farmers have the same area.

Similarly, about 95 percent of the agricultural households own land and 10 percent rent out some or all of their land to others. On the other hand, 32 percent of the households rent-in some land from others. And 5 percent do not own any land but operate land owned by others on a contractual basis. The share of the owned and operated land in total operated agricultural land in Nepal is about 82 percent while the share for rented-in form other households is 18 percent. Comparative study of the percentage of households by size of land operated from 1995/96 to 2010 is given in Table 1.

<table>
<thead>
<tr>
<th>Land Area</th>
<th>1995/96</th>
<th>2003/04</th>
<th>2010/11</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 0.5 ha</td>
<td>40.1</td>
<td>44.8</td>
<td>52.6</td>
</tr>
<tr>
<td>0.5-2 ha</td>
<td>47.0</td>
<td>47.2</td>
<td>42.9</td>
</tr>
<tr>
<td>2 ha and above</td>
<td>12.9</td>
<td>8.0</td>
<td>4.4</td>
</tr>
</tbody>
</table>

Source: Nepal Living Standard Survey 2010/11

The existing scenario of small farm size is due to the high rate of population growth (1.35) as per the latest census of 2011. When the family member of a household separate and their mutual land is also divided and there has been a decline in average plot size over time. An average farm size of about 1.13 ha per family was as per the report of 1981 agricultural census. Such size had fallen to around 0.96 ha per family by 1991 and it has come further down to 0.8 hectares in 2001 (UNDP, 2004).

6. FOOD SITUATION

The ultimate goals of land distribution and reform policy are the maximum use of the land resource by increasing the production and productivity and to increase the supply of food grain to the people. The new constitution (2015) of the federal democratic republic of Nepal ensures that every citizen shall have the right to food, food sovereignty as provided for in law and every citizen shall have the right to be protected from the state of starvation resulting from lack of foodstuff (Constitution of Nepal, 2015).

As per the National Agriculture Census of Nepal 2011/12, 40 percent of the households engaged in agriculture have sufficient food around the year from their own production. While the remaining 60 percent of households have less than sufficient food from their own production. Among the households having less than sufficient food around the year from their own production, because of small-sized landholding, 44 percent were in deficit for 4-6 months, 18 percent were unable to fulfill even three months, 23 percent were deficient in 7-9 months and the remaining 15 percent were in deficit for 10-12 months (CBS, 2012). Similarly, the district-wise food balance situation indicates that still there are 26 districts in food insecurity situation and about 41 percent of the population is unable to consume daily required calorie intake (NPC, 2013). For a person in Nepal, 2144 kilocalorie per day is required in average to pass a decent life as per Nepal Living Standard Survey 2003/04. People who cannot consume the required calorie intake are considered as poor and as per the economic survey of 2017, there are 21.6 percent people below the poverty line.

The average annual per capita availability of food grain is 325 kg, cereal 13.29 kg; fruit 31.3 kg; vegetable 107 kg; potato 74.9 kg; fish 2.1 kg; milk 61.9 liters; meat 11 kg and egg 30.8 pieces in the base year 2012/13 (Thirteenth Plan, 2013). However, imports of food and animal products have been increased by 11.6 percent, tobacco and beverage products have been increased by 5.0 percent and vegetable oil and fat have been increased by 9.8 percent (MoF, 2018).

The researcher has taken a sample of 646 from the rural and urban area of western Nepal, 323 from each. The interview was taken with household head regarding food sufficiency on the basis of their own production and the poverty line income/consumption was Rs. 19,261 set by the Central Bureau of Statistics.

The concentration of more land in a few hands indicates an inequality in the ownership of the principal productive asset and, as a result, inequality in income distribution. The landless and near-landless households have access to land through tenant and sharecropping system. This type of semi-feudal production relation has not provided an incentive to increase agricultural production.

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Table 2 shows the poverty measurement by food situation. Food is the major components of expenditure for the developing country like Nepal. Poverty headcount rate is zero among those who have a sufficiency of food from their own production both in rural and areas. But poverty headcount rate is more than double among rural household heads who have not food sufficiency compared to urban area. Data shows that food sufficiency has a positive impact on poverty reduction in the study areas.

<table>
<thead>
<tr>
<th>Area</th>
<th>Food Situation</th>
<th>Poverty Headcount rate (P0)</th>
<th>Poverty Gap (P1)</th>
<th>Squared Poverty Gap (P2)</th>
<th>Distribution of the poor</th>
<th>Distribution of population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rural</td>
<td>Food Sufficiency</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>25.22</td>
</tr>
<tr>
<td>Rural</td>
<td>Food Insufficiency</td>
<td>74.14</td>
<td>10.55</td>
<td>2.17</td>
<td>83.19</td>
<td>32.32</td>
</tr>
<tr>
<td>Rural</td>
<td>Total Rural</td>
<td>41.65</td>
<td>5.93</td>
<td>1.22</td>
<td>83.19</td>
<td>57.53</td>
</tr>
<tr>
<td>Urban</td>
<td>Food Sufficiency</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>23.13</td>
</tr>
<tr>
<td>Urban</td>
<td>Food Insufficiency</td>
<td>25.05</td>
<td>2.43</td>
<td>0.39</td>
<td>16.81</td>
<td>19.33</td>
</tr>
<tr>
<td>Urban</td>
<td>Total Urban</td>
<td>11.40</td>
<td>1.11</td>
<td>0.18</td>
<td>16.81</td>
<td>42.47</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>28.8</td>
<td>3.88</td>
<td>0.78</td>
<td>100.00</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Source: Field Survey

Table 1 shows the detail picture of poverty linked with the food situation. This table further shows that 25.22 percent of the total households in the rural area have food sufficiency while in an urban area, 23.13 percent have food sufficiency. But among those who have food insufficiency, the poverty rate is almost three times in rural as compared to urban area. Regarding the distribution of the poor, rural area has 83.19 percent and urban area has 16.81 percent household heads. In rural areas, 32 percent of the total households have food insufficiency while 16 percent have food insufficiency in an urban area.

The poor people have higher expenditure on the food item and they cannot allocate expenditure for education and health due to the low level of income, and the poverty cycle continues in the family after generation to generation.

7. CONCLUSION

Agriculture performance is still a burning issue for Nepal that depends largely on the agriculture sector. Nepal has low development status even in the industrial sector and the economy has been an import-based economy. To achieve best agricultural performance is absolutely necessary for import substitution and export promotion of agricultural commodities. We import a large quantity of food grain. Although, a large part of the land is under cultivation and water resource is in very limited use due to lack of irrigation facilities. Intensive farming is seen as an urgent need through the development of the well-irrigated system.

The concept of the small size of the farm is not so preferable nowadays due to technological development and specialization in agriculture which supports large-scale production through increasing inputs. In such a situation, the formation of a large farm and engagement of economically active manpower by attracting incentives through providing good remuneration will be a new system of agriculture development and land use policy required for the sustainable development of the economy through the maximum use of land resource and best performance of agriculture sector. This will also contribute to the development of the non-agriculture sector of the economy.

8. RECOMMENDATION

Agriculture sector could not be linked to other sectors of the economy without modernizing of this sector. Due to the failure to make people accept agriculture as a dignified occupation, this sector cannot be developed to the extent desired. There is an urgent need to implement agriculture policy and program that help to improve the agro-based industry in raising its production and productivity. The program should be launched to encourage production and consumption of organic and healthy food grains by promoting the use of organic pesticides in the agriculture system. Food sovereignty guaranteed by the constitution of Nepal needs to be ensured by raising the size of agricultural production while adopting the scientific method in food grain and cash crops farming system. Agriculture policy and programs have been directed towards this direction. Further, Agriculture Development Strategy is in implementation for next 20 years from 2015 to 2035. Objectives of this strategy are to make the country self-sustained on food grains; boost employment opportunities through the development of a competitive professional agricultural system; ensure food and nutritional safety and conserve the environment sustainably. This strategy should be implemented thoroughly.

Access to and control over productive assets such as land is a basic requirement for escaping from poverty, malnutrition, and disempowerment. In the predominantly agrarian nature of an economy, where land ownership and its holding is to be treated as a source of socio-economic and even political power and dignity, the degree of inequality in the distribution of landholding as measured by the Gini coefficient can perhaps be the most powerful indicator to catch such unequal control over land resource. If the land is equally distributed, the benefit of economic growth will be reflected in economic empowerment and hence increase the socio-economic status of poor through poverty reduction.

9. REFERENCES

APPENDIX

Table 3: Land Ceiling Fixed in 1964

<table>
<thead>
<tr>
<th>Areas</th>
<th>Ceiling Provision</th>
<th>Additional Areas for housing</th>
<th>Tenancy Right</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mountain/Hill Areas</td>
<td>80 Ropani (4.07 ha)</td>
<td>16 Ropani (0.8 ha)</td>
<td>20 Ropani (1.02 ha)</td>
</tr>
<tr>
<td>Kathmandu Valley</td>
<td>50 Ropani (2.54 ha)</td>
<td>8 Ropani (0.4 ha)</td>
<td>10 Ropani (0.5 ha)</td>
</tr>
<tr>
<td>Terai and Inner Terai</td>
<td>25 Bighas (16.93 ha)</td>
<td>3 Bighas (2.3 ha)</td>
<td>4 Bighas (3.07 ha)</td>
</tr>
</tbody>
</table>