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UNDERSTANDING ALLOCATION AND FARMERS' ACCESS TO VARIED LEVEL OF AGRICULTURAL INPUT SUBSIDIES FROM DIFFERENT TIERS OF GOVERNMENT: A CASE STUDY IN KAVREPALANCHOWK DISTRICT, NEPAL

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ABSTRACT

Government support for essential agricultural services, such as agricultural input subsidies, is vital for empowering smallholder farmers. This study explores distribution and the factors affecting farmers access to varied level of government agricultural input subsidies in Kavrepalanchowk district, Nepal. The study relied on survey data from 219 randomly selected households. Results showed that 72 percent, 8 percent, and 20 percent of sampled households received less than NRs 15,000, NRs 15,000 to 30,000, and more than NRs 30,000 in input subsidies per year, respectively. Among the recipients of the input subsidy, the mean subsidy for electricity, chemical fertilizers, agricultural machinery, interest subsidy, and cash subsidy for the GI tunnel were NRs 4,061, 7,143, 35,633, 67,500, and 4,72,000, respectively. Results from a multinomial regression show that households with higher income, farms near roads, and registered farms receive a higher level of input subsidies. It is recommended that farmers register their farms either as a firm or company or as farmer's groups or cooperatives. To effectively perform their roles, there is a need to review the subsidy delivery mechanism, ensuring its reach to the most constrained farmers.

Keywords: Access, Delivery mechanism, Government subsidies, Multinomial regression, Subsidy recipients

1. INTRODUCTION

Agriculture support policies are implemented by the majority of the countries as a tool for agricultural and rural development (Chen et al., 2020). In the agricultural sector, input subsidies have been a popular policy instrument in both the developed and developing countries since the 1960s, and since then, subsidies have become an integral part of development policies (Dorward & Chirwa, 2011). Irrespective of the path of implementation, the aim of such policies is to increase efficiency of agricultural production, protect farmers, attain national food safety and security (Jelic et al., 2014) and ensure stable income for farming families (Daniel & Kilkenny, 2009).

Recent available data from the Organization for Economic Cooperation and Development (OECD) shows that the Chinese government in 2021 spent about $276 billion to support agriculture, while the European Union had support worth $96 billion in 2021. Meanwhile, during the same period, the US, Japan, and India spent about $107 billion, $36 billion, and $15 billion, respectively, in agricultural support (OECD, 2022). Government support can

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take several forms, such as price support programs, direct payments, and input support, to influence the cost and availability of farm inputs like credit, fertilizers, seeds, irrigation, water, etc. (Fan et al., 2008; Uddin & Dhar, 2018).

Though input subsidies are a contentious development strategy (Messina et al., 2017), Nepal's agricultural policies prioritize agricultural subsidies to improve agricultural production and productivity, improve food security, and reduce income poverty among smallholder farmers (Paudel & Crago, 2017). Agriculture is the mainstay of the Nepalese economy, employing 60.40 percent of the population and contributes about 24.10 percent to the national GDP (2021), but it is characterized by the dominance of small and marginal farmers following traditional and indigenous farming technology (GC & Hall, 2020). Such smallholder farmers have a low purchasing power of inputs (Bista et al., 2018), and cannot intensify the use of agricultural inputs on their own (Takeshima et al., 2017). But increased and improved use of agricultural inputs, viz. fertilizers, seed, irrigation, and mechanization, among others, is necessary for the transformation of subsistence agriculture to commercial agriculture (Houssou et al., 2017) and to bring agriculture-induced economic development (Hemming et al., 2018). So, the efforts of the government have always been directed towards the modernization and commercialization of agriculture through different approaches among which agricultural subsidy is the most notable. Three spheres of government (Central, Provincial, and Local), have brought subsidy packages for inputs subsidy for the promotion of the agriculture sector. The government of Nepal has spent nearly 17,000 million rupees in agricultural support in 2021 (MoF, 2023). Farmers are receiving input subsidies in chemical fertilizers, improved seeds, agricultural implements, irrigation technical backstopping, crop and livestock insurance premiums, business start-ups, interest, and mechanization.

Many needy farmers might be excluded from input subsidy services as they do not make efforts in seeking input subsidies. This might be because the technology supported might not meet their specific requirements (Anang & Asante, 2020). Smallholder farmers who do not have marketable produce might face difficulties in registering their farms or be a member of producer organization and therefore have problems in accessing input subsidy support (Wennink et al., 2007). Subsidy support can also end up favoring the large and influential farms rather than empowering smallholder farmers (Mustapha et al., 2016). Shrestha (2021) reported that there has not been a proper utilization of Nepalese agricultural subsidies and small farmers are not being benefitted from such policies owing to lack of proper information and higher political influence. There can be many factors influencing farmer's access to government input subsidies. Studies have reported gender roles in access to subsidies and found that male headed households were more likely to receive subsidized fertilizers in Ghana (Fisher & Kandiwa, 2014; Mustapha et al., 2016). The household with higher farming experience and more household income were more likely to receive agricultural subsidies as they were progressive farmers and early adopter of new agricultural technologies (Anang & Asante, 2020; Chibwana et al., 2012). Similarly, number of extension visits, political influence had positive impact on access to agricultural subsidies (Anderson et al., 2013; Dionne & Horowitz, 2016; Mustapha et al., 2016). Analyzing factors influencing access to

agricultural input subsidies can provide valuable insights to policymakers about ways to improve the agricultural input subsidy programs.

It is important to understand how government support for agriculture is being allocated and its impact on agricultural growth. Most of the earlier studies on access to agricultural subsidies were limited to African nations (Anang & Asante, 2020; Chirwa et al., 2011; Mustapha et al., 2016). Nepalese studies were focused on access to agriculture extension services (Ghimire et al., 2015), access to mechanization (GC et al., 2019), access to credit (Upadhyay et al., 2020) and issues on subsidy policies in Nepal (Shrestha, 2021). These studies have not covered the factors affecting access to agricultural input subsidies in Nepal. On what agricultural inputs, the farmers are receiving subsidy in Nepal has not been studied at farm level. So, the study was done to address this gap in literature. Detail study at the farm level can provide valuable insights into the farmers access to government subsidies, as subsidies will continue to be important in the future. This research can be important step towards developing a stock of knowledge on assessment of agricultural input subsidies in Nepal.

This paper investigates the factors that influence household access to different agricultural input subsidies provided by the government of Nepal using field-level data from three municipalities in Kavrepalanchowk district in Central Nepal. The paper is organized into four sections. The next section outlines the study methodology and econometric model of the determinants of access and data used for analysis. Section three presents the results and discussion on the results. Finally, section four presents concluding remarks.

2. METHODOLOGY

2.1 STUDY AREA AND DATA COLLECTION

The study was conducted in Kavrepalanchwok district of Bagmati province. Kavrepalanchwok is a hilly district with the total cultivable land of 61,598 hectares (MoALD, 2021). The major cropping patterns of the district are: rice-potato, rice-vegetables, and maize-vegetables. Panchkhal, Panauti, and Banepa municipalities of the district were purposively selected as these are considered commercial areas of potato and tomato production and use subsidized inputs. Smallholder farmers were sampled from these three municipalities. The study site was visited and information on the subsidy recipients in the fiscal year 2075/76 and 2076/77 were obtained from the Agriculture Knowledge Centre, the Prime Minister Agriculture Modernization Project (PMAMP), the Vegetable Development Directorate (VDD), and concerned municipalities. All subsidy recipients' farmers constituted a sampling frame. Then, simple random sampling was done to collect data from the farming household. The sample size was (n) was estimated using Slovin's formula.

$$n=\frac{N}{1+Nxe^2} \qquad [1]$$

Where, N = population size, n is the sample size to be estimated, and e is the margin of error (5 % for this study). Thus, sample size was calculated as $n=\frac{484}{1+484*(0.05)^2} = 219$. A fairly representative sample of 219 farming households were chosen for the econometric analysis. Data collection was carried out from August to September 2021. The secondary

information was collected from various sources, like journal articles, research papers, and reports prepared by the Agriculture Knowledge Centre, the Central Bureau of Statistics, Ministry of Agriculture and Livestock Development, and e-sources. The final data were analyzed using STATA 16.

2.2 MULTINOMIAL LOGISTIC REGRESSION MODEL

The multinomial logit model is used when there are more than two categories for the dummy dependent variable. The dependent variable may have ordered categories or unordered categories (Greene, 2012).

$E(Y_i^*) = \Sigma \beta_k X_{ki} = Z_i$, where Y_i is a dummy variable whose value equal to 1, 2, 3… [2]

A dummy variable with m categories requires the calculation of m-1 equations using a category with the highest frequency as a reference category.

$$In = \frac{P(y=m)}{P(y=1)} \beta_{mo} + \Sigma \beta_{mk} + X_{mk} = Z_m \quad [3]$$

Where, P (y = m) is the probability of the event happening,

P (y= 1) is the probability of the event not happening, or the reference category.

The observed household was classified into three groups by valuing the amount of subsidy they have received, including both the subsidy on capital cost and the variable costs. The household that received less than NRs 15000 were considered as low; NRs 15000 to 30000 were considered medium; and greater than NRs 30000 were considered high.The dependent variable, the level of agricultural input subsidy received by farmers, categorized as low, medium, or high, creates a categorical dependent variable with multiple unordered categories. In such a case, multinomial regression model is well-suited for analyzing factors influencing farmers' access to different level of subsidies.

The result of the multinomial regression calculates the odd ratio for all independent variables of both the subsidy groups, with an exception of the reference category. The exponential beta coefficients represent likelihood of a household receiving medium range of subsidy or higher range of subsidy with regard to the low subsidy for a unit change in the corresponding independent variables.

Subsidy class $(Y_i) = \beta_o + \beta_i X_i + v_i$ ... [4]

Where, Subsidy class = 1 low subsidy (reference group)

= 2 medium subsidy group

= 3 high subsidy group

Here the probability of getting a different amount of subsidy is specified as:

$$P(\text{high subsidy} = 3) = \frac{e^{Z3}}{1+\sum e^{Zh}} \qquad P(\text{medium subsidy} = 2) = \frac{e^{Z2}}{1+\sum e^{Zh}}$$

$$P(\text{low subsidy} = 1) = \frac{1}{1+\sum e^{Zh}}$$

Where, $\sum e^{Zh} = e^{Z2} + e^{Z3}$ and Z, denotes the logit values for the regressions.

The consistent estimates were obtained using the maximum likelihood estimation method. X_i denotes a vector of explanatory variables hypothesized to influence access to agricultural input subsidies namely respondents age, sex, education, household size, cooperative membership, farm size, household income, and location of the farm. The choice of the variables was made on the basis of existing literature and a priori expectation.

Literature indicates that a number of factors affect farmers' access to agricultural input subsidies. These factors include socio-economic, demographic, locational and institutional factors. The influential factors include respondents age, sex, (Fisher & Kandiwa, 2014; Mustapha et al., 2016) household income, farm size (Anang & Asante, 2020; Chirwa et al., 2011), farming experience, farmers group or cooperative membership and location of farm (Anang & Asante, 2020), and education of household head (Prakash et al., 2022).

3. RESULTS AND DISCUSSION

3.1 DESCRIPTIVE STATISTICS OF THE SAMPLE

Table 1 illustrates the socio-economic and demographic assessment of the respondents selected for the study area. The sample household head had an average age of 44.10 years. The average land holding was 0.33 ha. The mean farming experience of households in the study area was 11.28 years. On average, the farming area was at a distance of 0.37 km from the nearest road and 1.75 km from the nearest market (Table 1).

Table 1. Socio-economic characteristics of the sample household

Quantitative variables						
Variables	**Description**	**N**	**Mean**	**Standard deviation**	**Minimum**	**Maximum**
Land	Available land area in hectares	219	0.33	0.22	0.03	1.22
Age	Age of the household head in years	219	44.1	12.28	20	76
Family size	Total family members	219	5.52	1.58	3	11
Distance to market	Distance from field to nearest market in km	219	1.75	1.13	0.1	6
Distance to road	Distance from field to nearest road in kms	219	0.37	0.38	0.01	2
Farming experience	Number of years family had involved in agriculture	219	11.28	7.5	1	35
Qualitative variables						
Variables	**Description**	**N**	**Frequency**		**Percentage**	
Ethnicity	Brahmin/Chhetri	219	162		73.97	
	Janajati		44		20.09	
	Others		13		5.04	
Gender	Male	219	161		73.52	
	Female		58		26.48	
Education	Uneducated	219	34		15.53	
	Primary		69		31.51	

Quantitative Variables	Description	N	Frequency	Percentage
	Secondary		77	35.16
	Higher		39	17.18
Farm size	Small (less than 0.5 ha)	219	173	78.99
	Medium (0.5 to 2 ha)		46	21.01
Farm registration	1= Yes	219	70	31.96
Extension visits	1= Yes	219	47	21.46
Cooperative membership	1=Yes	219	131	59.82
Income Group				
(Monthly income)	Low (< NRs 20000)	219	23	10.5
	Medium (NRs 20000-40000)		91	41.55
	High (> NRs 40000)		105	47.95
Subsidy group	Low (NRs <15000)	219	157	71.69
	Medium (NRs 15000 to 30000)		19	8.08
	High (> NRs 30000)		43	19.63

73.52 percent were male-headed households. The ethnicity of the respondents was categorized as Brahmin/Chhetri, Janajati, and others. Others included Dalits and ethnic minorities. 74 percent of the respondents belonged to Brahmin/Chhetri, which was followed by Janajati (20.09 percent). The others included only about 5 percent of the respondents. Even though subsidies were targeted to benefit the marginalized small farmers, but the distribution shows that the agricultural input subsidies are not reaching the intended groups. The education level of the household head shows that 15.53 percent were uneducated, 31.51 percent of the household head had primary education, and 35.16 percent had a secondary level education (Table 1).

Farms were classified into small (less than 0.5 ha) and medium farms (0.5 to 2 ha) based on the Agriculture Development Strategy (ADS) classification. The majority of the farms (79 percent) were small farms. Out of the total samples, only 70 (32 percent) farms were registered. The total respondents were classified into three groups based on their monthly income. The classification was made based on the national average monthly income of NRs. 30,121. The household with less income than NRs 20,000 a month were classified as low-income groups, whereas households with monthly income ranging from 20,000 to 40,000 were classified as a medium-income group and households with monthly income greater than 40,000 were classified as high-income groups. Only 10.50 percent of the respondents had low income, 41.55 percent had a medium range of income and 47.95 percent of the respondents had a high income. Similarly, based on the monetary value of the subsidy the household had received, 71.69 percent of the household had received a low subsidy (less than NRs. 15,000); 8.08 percent had received a medium range of subsidy (NRs. 15,000 to 30,000) and the remaining 19.63 percent had received high subsidy (greater than NRs. 30,000) (Table 1).

3.2 AGRICULTURAL INPUT SUBSIDIES AND THEIR SOURCES

Agricultural input subsidies provided by the government were classified in terms of the items and their sources. The source was classified into three tiers of government namely federal, provincial and local units. The input subsidy granted by the Prime Minister Agricultural Modernization Project (PMAMP), the Vegetable Development Directorate (VDD), subsidies on chemical fertilizers, interest subsidies, insurance, and electricity subsidies were included under the federal government. Input subsidies provided by Agriculture Knowledge Centre were included under the Provincial government, while input subsidies provided by municipalities were listed under the local government.

Table 2. Distribution of agricultural input subsidies and their sources

Items	Source of subsidy			Average amount (NRs)	Minimum (NRs)	Maximum (NRs)
	Federal	Provincial	Local			
Machinery (minitiller, leg operated thresher, power tiller)	4	22	4	35633.33 ± 21943.86	5000	75000
Other agricultural tools (Sprayer, protective garments, mulching plastic)	0	5	50	3178.94 ± 1622.22	1000	11000
Plastic for tunnel	0	9	23	6195.3 ± 3218.10	1750	14000
Interest subsidy	15	0	0	67500 ± 27648.60	10000	131250
Electricity subsidy (Krishi meter)	13	0	0	4061.54 ± 3126.04	1200	12000
Cash subsidy for GI tunnel	4	5	0	472000 ± 362854.11	200000	1450000
Soil test and agricultural lime	0	0	14	850.43 ± 181.57	400	1200
Chemical fertilizers	219	0	0	7143.07 ± 5537.66	726.10	32816.97
Irrigation (drip irrigation sets, irrigation motor pump, solar irrigation system)	3	3	0	52250 ± 67387.47	6000	200000

Source: Field survey, 2021

The result showed that high-cost items like agricultural machinery, GI tunnels for tomato production, and solar irrigation were subsidized by the federal and provincial governments, while subsidies on small items soil testing, sprayer, and mulching items, were provided by local government. The mean subsidy amount on agricultural machinery like power tiller, mini-tiller, leg operated thresher, etc. was NRs 35,633.33. The small agricultural tools like sprayers, mulching items, and protective garments were mostly subsidized by the local government for which the mean subsidy amount was NRs 3,178.49 (Table 2).

Only 15 respondents had received a subsidized loan, and the mean amount in interest subsidy was NRs 67,500 per year. Mostly, the provincial and local governments had subsidized plastic for tunnels, and the mean amount of subsidy for it was NRs 6,195.3, ranging from NRs 1,750 to 14,000 for each household. The study area also had a subsidy on electricity provided using the Krishi meter through the federal government. The mean amount of subsidy received

by a household on electricity was NRs 4,061.54 per year. The mean cash subsidy provided by the federal government and provincial government on the GI tunnel was NRs 4,72,000. The mean amount of subsidy received by each household in chemical fertilizers was NRs 7,143.07 and it ranged from NRs 726.10 to 32,816.97. For irrigation mean amount of subsidy received by the farmer per year was NRs 52,250.00 (Table 2).

3.3 DETERMINANTS OF ACCESS TO AGRICULTURAL INPUT SUBSIDIES

As discussed in equation 3, thirteen explanatory variables, including socioeconomic variables and locational factors, were used to determine the probability of a household receiving a low, medium, or high range of subsidy. There was very less correlation among the independent variables as indicated by mean variance inflation factor (VIF) of 1.709 through the multicollinearity test.

Table 3. Results on multinomial regression to determine factors determining access to input subsidies

Subsidy class	Coeff.	S.E.	P>|Z|
Low- Less than 15000	**(Base outcome)**		
Medium- 15000 to 30000			
Monthly income	0.000021*	0.0001	0.0690
Training received	-0.3402	0.6073	0.5750
Farm registration	2.6194*	1.4370	0.0680
Household size	0.1514	0.1867	0.4170
Farming experience	0.0006	0.0452	0.9890
Distance to market (km)	0.5652	0.2442	0.8170
Distance to road (km)	-0.6886	0.7826	0.3790
Age	0.0107	0.3188	0.7380
Land (ha)	0.9120	1.3621	0.5030
Education			
Primary	-0.7764	0.8526	0.3630
Secondary	-0.3559	0.8682	0.6850
Higher	-0.9724	1.1619	0.4150
Ethnicity			
Janajati	-0.3968	0.7538	0.6010
Others	-13.3702	870.1029	0.9880
Cooperative membership	1.9061	1.4143	0.1630
Gender	-0.9959	0.6105	0.1100
Constant	-5.5303**	2.2169	0.0120
High (greater than 30000)			
Monthly income (NRs)	0.000263***	0.000008	0.0030
Training received	0.2867	0.4656	0.5380
Farm registration	2.4759**	1.0144	0.0150
Household size	0.0635	0.1520	0.6760
Farming experience (yrs)	-0.0089	0.0384	0.8150
Distance to market (km)	0.0593	0.2184	0.7860
Distance to road (km)	-1.2607*	0.7324	0.0850
Age (yrs)	0.0021	0.0252	0.9320
Land in ha	-0.2056	1.1522	0.8580

Subsidy class	Coeff.	S.E.	P>|Z|
Low- Less than 15000	**(Base outcome)**		
Education			
Primary	1.1003	0.9360	0.2400
Secondary	0.7351	0.9563	0.4420
Higher	1.5956	1.0428	0.1260
Ethnicity			
Janajati	-0.1416	0.6270	0.8210
Others	0.1501	0.9794	0.8780
Cooperative membership	0.8742	0.9920	0.3780
Gender	-0.1103	0.5543	0.8420
Constant	-5.3926***	1.7547	0.002
Log Likelihood	**-126.46**		
Likelihood ratio (Chi-square)	84.47		
Prob > chi square	0.0000		
Pseudo R squared	0.2504		
Number of observations	219		

Note: *, **, *** denotes significance at 10 %, 5 % and 1% level respectively.

Source: Field survey, 2021

The lowest subsidy group (less than NRs. 15,000) was used as a reference group. The first regression on a medium range of subsidy (NRs. 15,000 to 30,000) showed that two variables, namely income of the family and farm registration, were statistically significant. The monthly income was positive and statistically significant at a 10 percent level of significance. It means that households with more income relative to the low subsidy groups are more likely to receive a medium range of subsidies. Similarly, farm registration was statistically significant and positive at a 10 percent level of significance, which means that registered farms are more likely to receive a medium range of subsidies than unregistered farms.

The second regression on the high range of subsidy (more than NRs. 30,000) showed that income, farm registration, and distance to the road are statistically significant. The monthly income was positive and statistically significant at a 1 percent level of significance. It means that households with more income are more likely to get a high range of subsidies. The result is in accordance with Chibwana et al. (2012), Chirwa et al. (2011) and Lunduka et al. (2013), who found that poor and vulnerable households are less likely to receive fertilizer subsidy coupons in Malawi. The positive influence of household income on access to input subsidy was also observed in Ghana, where input subsidies were provided in the form of package of technologies, whose adoption was more in case of richer and progressive farmers (Anang & Asante, 2020). The reason for better access of wealthy household to agricultural services like input subsidies was their higher demand to services and financial strength to meet the cost of those agricultural services. However, in the context of farmers in the study area, there is obligatory provision of cofinancing by the farmers in major subsidy schemes as defined by the directives for the implementation of subsidy programs to agriculture related cooperatives and institutions for agriculture development, 2073 B.S. The poor farmers lack

the financial muscles to meet the matching fund which might have limited their access to higher level of input subsidies. Similarly, registered farms were more likely to receive a high range of subsidies than unregistered farms. Registration of farms might have formed a strong basis for beneficiaries' identification for the subsidy program as the major subsidy programs require the recipient to have valid institutional documents (registration, renewal, tax clearance, audit report). The smallholder farmers with limited access to information and extension might be unable to meet all these requirements. Distance to the road from the farming area was negative and significant at a 10 percent level which means that the greater the distance of the farm from the road, the farms are less likely to receive a higher range of subsidies. The finding is consistent with the findings of Fisher and Kandiwa (2014), Mustapha et al. (2016) and Paudel and Crago (2017), who observed that the access and impact of fertilizer subsidy declines along with the increase in distance between the nearest road and the market. The other variables like land, age, gender, education, ethnicity, household size, and farming experience did not have a significant effect on the amount of subsidy received by the household. We expected that households with more cultivable land were more likely to receive higher subsidies, but no significant effect was observed which is in contrast to the findings of Chirwa et al. (2011) and Fisher and Kandiwa (2014).

Analyzing the determinants of access to agricultural input subsidy shows that farm registration, household income and distance from the road were significant factors. Mostly, a higher amount of subsidies was reaching richer farmers which is against the primary objective of subsidy policy to support poor and smallholder farmers. This can be an inefficient way of stimulating increased production and productivity as the economic rents are received by the farmers who benefit from subsidy when they would have purchased inputs anyway without subsidy. Similarly, registered farms were mostly receiving subsidies while farmers' involvement in cooperative or farmer groups did not affect the amount of subsidies received. So, the government subsidy should be equally channeled through farmers' associations or groups to reach the most constrained farmers. Input subsidies should though aim to support all the farmers equally, the farmers away from the roads are not getting enough input support.

Table 4. The marginal effect after multinomial logit

Three levels of outcome	**Probability**
Y = 1 = Pr (Receiving low subsidy)	0.716
Y = 2 = Pr (Receiving medium subsidy)	0.086
Y = 3 = Pr (Receiving high subsidy)	0.196

Source: Field survey, 2021

The marginal effect after multinomial logit shows that the probability of receiving low subsidy amount was around 71.60 percent, a medium subsidy amount was 8.60 percent, and the probability of receiving the high subsidy was around 19.60 percentage for the farmers of the three municipalities of the Kavrepalanchwok district. Agriculture subsidies are provided following the directives for implementation of subsidy programs to agriculture related cooperatives and institutions for agriculture development, 2073 drafted by Ministry of Agriculture and Livestock Development. The subsidy programs have broader aims and focus on commercialization, value chain development, risk minimization, agricultural

infrastructure development, food security enhancement through increased production and productivity, social security, and conservation of local biodiversity. For achieving those aims, there are three ways of implementation: public subsidies which can benefit all (minimum support price, subsidy on insurance, tariff-free, electricity), targeted subsidies (for particular ethnic groups/caste, crop and livestock specific subsidies), and competitive subsidies that requires call for proposal, selection of the best, and agreement for subsidy (Shrestha, 2021). The low level of subsidy are particularly the public subsidies which are reachable to most of the farmers and constitutes smaller amount. So, the probability of receiving it is higher.

4. CONCLUSION

The three tiers of government in Nepal provide agriculture input subsidy support. The success of the input subsidies program depends on the delivery mechanism, the degree to which the most constrained farmers have access to it, and how they utilize it. This paper assessed what agricultural inputs farmers of Kavrepalanchowk are receiving subsidies and the factors determining farmers' access to agricultural input subsidies using multinomial regression models. Results revealed that farmers are receiving inputs on nine different agricultural inputs, including agricultural machineries and chemical fertilizers. Household income, farm registration and distance of farm from road were the main determinants of access to agricultural input subsidies in the study area. The input subsidies were being provided to the richer household rather than financially constrained poor households. It is suggested that farmers register their farms either as firm or company or as a farmer's groups or cooperatives to be eligible to receive higher level of input subsidies. The result also suggests that, to effectively perform their roles, there is a need to review the delivery mechanism to ensure the reach of subsidies to the most constrained farmers. Policymakers are also suggested to devise a mechanism to regulate agriculture input subsidy flow from different tiers of government.

DECLARATION

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