



Establishment Based Statistics as Supplementary to Agriculture Statistics

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Outline of Presentations

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Rationale

- The agriculture sector contributes nearly 28 percent of Nepal's Gross Domestic Product and supports the livelihood of more than 74 percent of the population.
- About 21 percent of the land is cultivable of which 54 percent has irrigation facilities (CBS, 2013) with per household land holding being only 0.7 ha.
- The rapid economic growth is impossible without the growth in the agriculture sector. In this context, agriculture statistics has significant role, Hence, it is very important to enhance the production (collection to publication), maintaining quality and updating of agricultural statistics
- The availability of reliable and timely agriculture statistics is the core element for policy formulation, implementation, monitoring and evaluation of agriculture policies and development programs of the country

Rationale (cont.)

- Nepal is committed to achieve the Sustainable Development Goals (SDGs) by 2030 by building on the success of the Millennium Development Goals (MDGs).
- Utilization of agriculture statistics has significant role in respect of achieving sustainable development goals, food security and reducing the poverty in the country.
- The global ambitions have also been aligned in the new constitution of Nepal, periodic plans and annual budgets with the social, economic and environmental development aspirations.
- This paper covers formal agriculture based establishments, methodology and results based on Economic Census 2018 like, number of establishments, employment status, characteristics (gender and other issues) of manager and owner, business operation information, tenure and area of agriculture business place, account keeping practices, and access to credit etc.

Agriculture Statistical System of Nepal

- Ministry of Agriculture and Livestock Development (MoALD) and CBS are the two major agencies responsible for generating agriculture statistics.
- MoALD is responsible for generating current agriculture statistics whereas CBS is undertaking Census of Agriculture (decennial) and other ad hoc agriculture surveys.

Agricultural Censuses in Nepal

- 1961-62 First
- 1971-72 Second
- 1981-82 Third
- 1991-92 Fourth
- 2001-02 Fifth
- 2011-12 Sixth:- marks 50 years of census operation in Nepal
 - A system of integrated agricultural censuses and surveys-World Programme for the Census of Agriculture 2010
 - Modular Approach
- 2021-22 Seventh census is at the planning phase (follows WCA 2020 guidelines and method)

The Establishment and ISIC

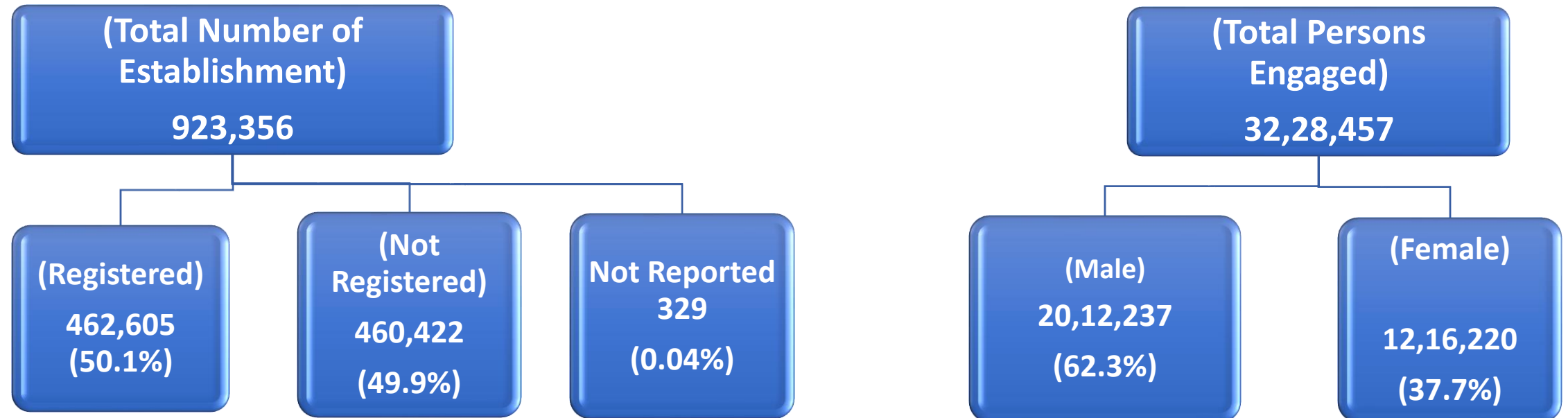
- *Establishment is an economic unit that engages, under a single ownership or control - that is, under a single legal entity - in one, or predominantly one, kind of economic activity at a single physical location – for example, a mine, factory or workshop.*
- **ISIC Revision 4**
 - It constitutes 21 sections of various economic sectors.
 - According to ISIC category, Section A defines the agriculture, forestry and fishery sector which is further divided into three divisions, 13 Groups and 42 Classes.

Brief of Nepal Economic Census, 2018

Final Results of National Economic Census 2018 of Nepal

Number of Establishments

(Nepal) 923,356 establishments



Establishment density

Establishments per 1,000 persons

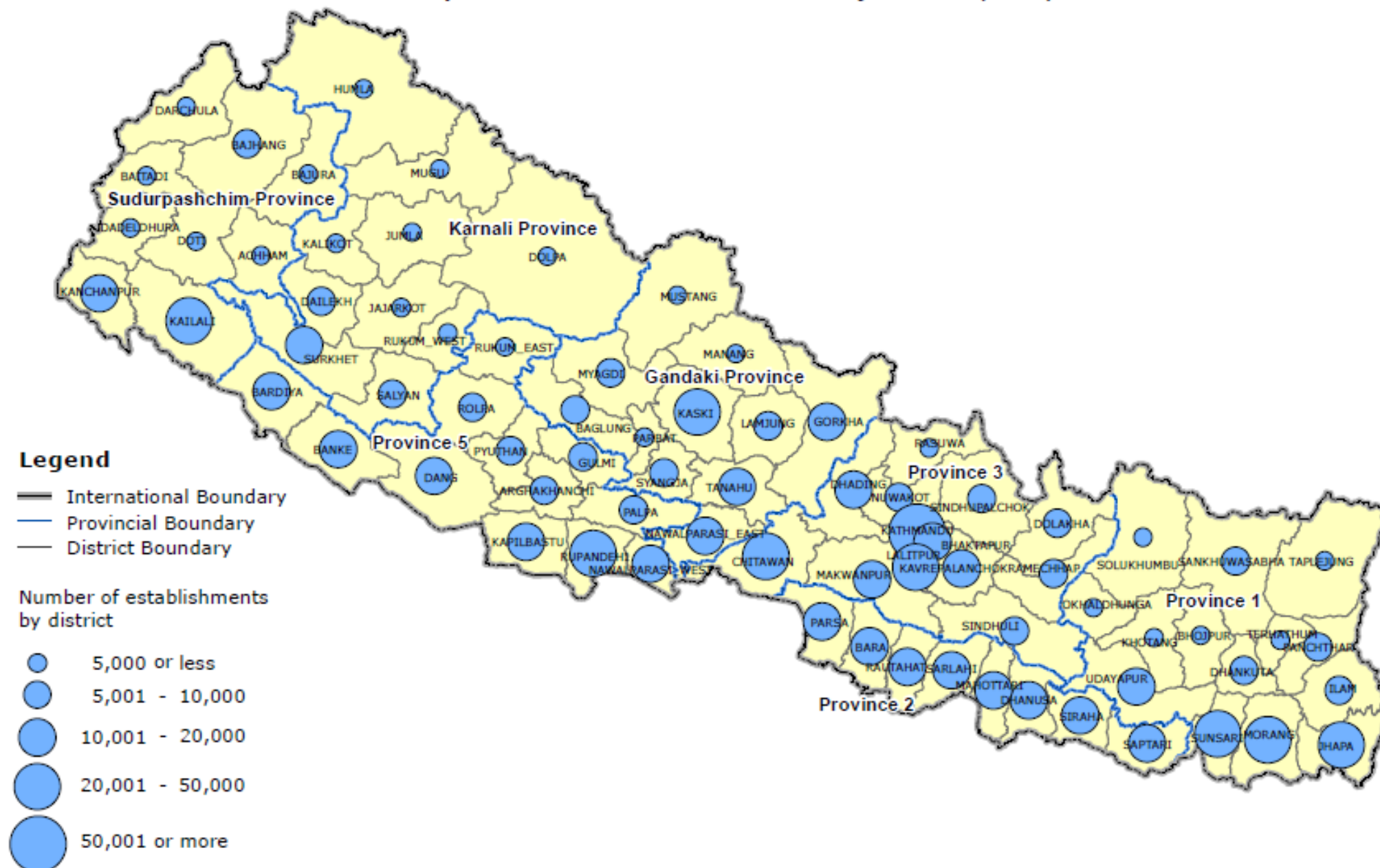
Number of persons engaged per establishment

6.3 per square KM

31.6 establishments

3.5 persons

Map 1. Number of Establishments by District (2018)



Number of Holdings, and Agriculture Based Establishments of Nepal

S.N.	Basic Units	Number	Farm Population (Number of Persons Engaged)	Source of Data	Remarks
1	Agriculture Holdings	38,31,093	20,552,543	National Sample Census of Agriculture 2011/12 of Nepal	
2	Agriculture-based Registered Establishments	24,229	106,410	National Economic Census 2018 of Nepal	
	Total	3,855,322	20,658,953		

Source: CBS, Nepal

International Standard Industrial Classification (ISIC)

- Three divisions are
 - Crop and animal production, hunting and related service activities
 - Forestry and logging
 - Fishing and aquaculture
- At 3 digit level

011	Growing of non-perennial crops
012	Growing of perennial crops
013	Plant propagation
014	Animal production
015	Mixed farming
016	Support activities to agriculture and post-harvest crop activities
021	Silviculture and other forestry activities
022	Logging
023	Gathering of non-wood forest products
024	Support services to forestry
032	Aquaculture

International Standard Industrial Classification (ISIC)

At 4 digit level

Division	ISIC 4 DIGIT	Section Activities	No of Establishments	%
Crop and animal production, hunting and related service activities	0111	Growing of cereals (except rice), legum	43	0.18
	0112	Growing of rice	16	0.07
	0113	Growing of vegetables and melons, roots	1,723	7.11
	0114	Growing of sugar cane	2	0.01
	0116	Growing of fibre crops	3	0.01
	0119	Growing of other non-perennial crops	48	0.2
	0122	Growing of tropical and subtropical fru	42	0.17
	0123	Growing of citrus fruits	88	0.36
	0124	Growing of pome fruits and stone fruits	28	0.12
	0125	Growing of other tree and bush fruits a	41	0.17
	0127	Growing of beverage crops	89	0.37
	0128	Growing of spices, aromatic, drug and p	221	0.91
	0129	Growing of other perennial crops	110	0.45
	0130	Plant propagation	482	1.99
	0141	Raising of cattle and buffaloes	1,894	7.82
	0142	Raising of horses and other equines	1	0
	0144	Raising of sheep and goats	1,421	5.86
	0145	Raising of swine/pigs	517	2.13
	0146	Raising of poultry	5,118	21.12
	0149	Raising of other animals	229	0.95
	0150	Mixed farming	144	0.59
	0161	Support activities for crop production	65	0.27
	0162	Support activities for animal productio	7	0.03
0164	Seed processing for propagation	96	0.4	
F	0210	Silviculture and other forestry activit	11,073	45.7

Composition of Agricultural Establishments by ISIC Division

SN	Division of Agriculture Activities	Number of Establishments	%
1	Crop and animal production, hunting and related service activities	12428	51.3
2	Forestry and logging	11141	46.0
3	Fishing and aquaculture	660	2.7
	Total	24,229	100

Source: National Economic Census 2018, Nepal

Composition of Agricultural Establishments managed by sex of manager

SN	Division of Agriculture Activities	Sex of Manager			Total
		Female (%)	Male (%)	Not reported (%)	
1	Crop and animal production, hunting and related service activities	17.6	82.2	0.2	12428
2	Forestry and logging	12.1	87.7	0.1	11141
3	Fishing and aquaculture	9.1	90.8	0.2	660
	Total	14.8	85.0	0.1	24229

Source: National Economic Census 2018, Nepal

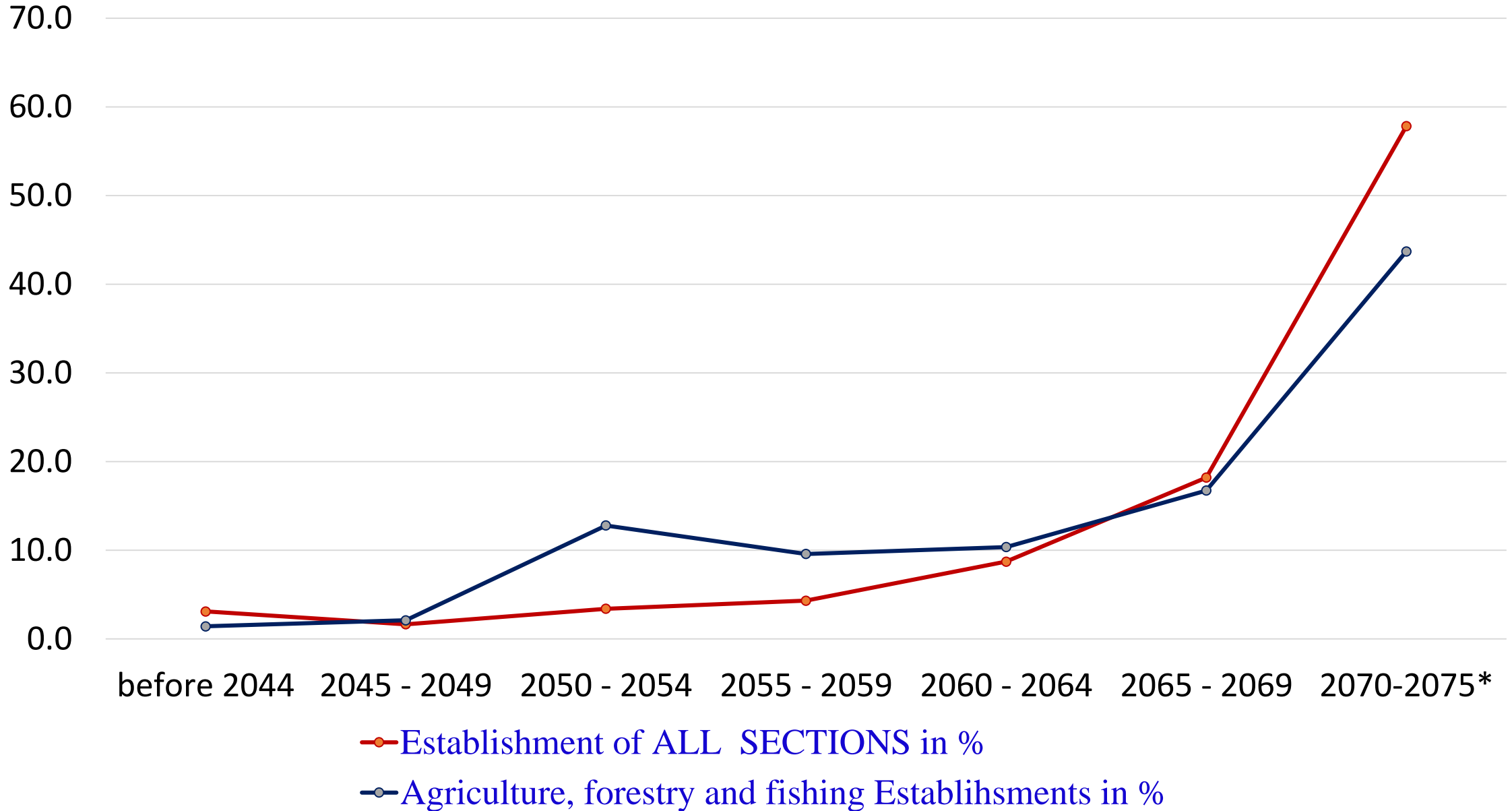
Number of Establishments by Sex of the Owner

		No				%			
	Section of NSIC 3 Digit	Both	M	F	NA	Both	M	F	NA
Total		24,229	10,146	1,993	12,090	100.00	41.88	8.23	49.90
011	Growing of non-perennial crops	1,835	930	294	611	7.57	3.84	1.21	2.52
012	Growing of perennial crops	619	318	44	257	2.55	1.31	0.18	1.06
013	Plant propagation	482	397	60	25	1.99	1.64	0.25	0.10
014	Animal production	9,180	7,391	1,447	342	37.89	30.50	5.97	1.41
015	Mixed farming	144	114	17	13	0.59	0.47	0.07	0.05
016	Support activities to agriculture and post-harvest crop activities	168	38	8	122	0.69	0.16	0.03	0.50
021	Silviculture and other forestry activities	11,073	363	62	10648	45.70	1.50	0.26	43.95
022	Logging	12	6	1	5	0.05	0.02	0.00	0.02
023	Gathering of non-wood forest products	44	16	2	26	0.18	0.07	0.01	0.11
024	Support services to forestry	12	0	1	11	0.05	0.00	0.00	0.05
032	Aquaculture	660	573	57	30	2.72	2.36	0.24	0.12

Percent Distribution of Establishments by Daily Working Hours

S.N.	Division of Agriculture Activities	Daily Working Hours (Establishments in %)					Total in Number
		Below 4 hours	4-7 hours	8-11 Hours	12 Hours and more	Not Stated	
1	Crop and animal production, hunting and related service activities	8.7	8.6	15.0	66.5	0.6	12500
2	Forestry and logging	54.9	35.9	3.3	4.3	1.6	11141
3	Fishing and aquaculture	3.8	5.9	11.5	78.6	0.2	660
Total	Total	29.9	21.1	9.6	38.4	1.0	24229

Trend of Year of Start of Business by the Establishments



Percent Distribution of Establishments by Tenure Status (Building/Room)

SN	Division of Agriculture Activities	Tenure Status (Building/ Room) in Percent						Total
		Own	Rented	Lease or Contract	Others	Not Applicable	Not Reported	
1	Crop and animal production, hunting and related service activities	73.5	10.5	2.7	5.9	7.2	0.1	12428
2	Forestry and logging	26.5	9.5	0.3	30.1	33.4	0.2	11141
3	Fishing and aquaculture	64.1	8.3	5.3	3.2	19.1	0.0	660
	Total	51.6	10.0	1.7	17.0	19.6	0.1	24229

Percent distribution of entities who keep accounting records

SN	Division of Agriculture Activities	Status of Account Keeping in Number			Total
		Yes	No	Not Reported	
1	Crop and animal production, hunting and related service activities	61.3	38.5	0.2	12224
2	Forestry and logging	84.9	14.7	0.4	11020
3	Fishing and aquaculture	73.0	26.9	0.2	655
	Total	72.5	27.2	0.3	23899

Status of Whether Borrowed Financial Loan or Not

SN	Division of Agriculture Activities	Status of Whether Borrowed Financial Loan or Not (%)			Total
		Yes	No	Not Reported	
1	Crop and animal production, hunting and related service activities	50.1	49.9	0.0	12224
2	Forestry and logging	2.3	97.6	0.1	11020
3	Fishing and aquaculture	44.7	55.3	0.0	655
	Total	27.9	72.0	0.0	23899

Agriculture-based Registered Establishments as a Frame for Agriculture Survey and Census in Nepal

- The list of registered agriculture establishments from NEC 2018 was taken as a sample frame for a pilot Agriculture Survey, 2019 in Nepal under AGRIS Program.
- The establishments are categorized in 12 groups,

S.N.	Agriculture farm	S.N.	Agriculture farm	S.N.	Agriculture farm
1	Cattle farming	5	Poultry	9	Fishery
2	Buffalo farming	6	Vegetable farming	10	Nursery
3	Pig farming	7	Cereal crop farming	11	Mushroom farming
4	Goat farming	8	Fruits farming	12	Bee farming

- In upcoming NSCA 2021 both Household and Non-household agriculture holdings will be captured.
- An updated list of the registered agriculture establishments from NEC 2018 will be used as a frame for the non-household agriculture holdings (commercial/institution ag. holdings) in the NSCA 2021.

Issues and Challenges

- Statistical business register (SBR) has not been established yet.
- A growing number of agriculture establishments/commercial farming.
- Most of the agriculture establishments (commercial farms) are operated by households.
- Lack of a clear threshold for commercial farms.
- Multiple sources to obtain registered agriculture farms.
- Updating of the registered Ag. Establishments from NEC 2018 is a challenging work before NSCA 2021 due to time and resource constraint.
- Higher users demands of data for commercial farming/ag. establishments.

Conclusions

- Agriculture is the major economic sector in the national economy which has a greater potential for the prosperity of the country. Creating the robust and sustainable agriculture statistical base is basic requirements to start with the planning and implementing the agriculture development programs to achieve the welfare as well as happiness of Nepalese people.
- Development of the statistical infrastructure is very crucial for the sustainability of the national statistical system which only can ensure the coverage of units and the quality of agriculture statistics making available on regular basis. Hence, economic census has been an effort in creating the basic statistical infrastructure of the economic statistics towards establishing statistical business register (SBR) of the country.
- The economic census has been the good start to capture the registered agriculture establishments in the statistical history of Nepal which glimpse the pattern of composition among other industries as well as with comparison to established household-based agriculture census of Nepal.

Recommendations

- A regular program on population and agriculture censuses only cannot reveal the entire agriculture structure in the country. The coverage of establishment-based agriculture industry in the scope can only complement the entire picture of agriculture statistics.
- Time has come to establish and to use administrative registers with survey and census microdata to produce social, economic and agricultural statistics as in many countries.
- The global strategy to improve agriculture & rural statistics has recommended the countries to improve agricultural and rural statistics in relation to quantity and quality of agriculture statistics. Frame data for agriculture is indispensable to integrate agriculture census and economic census. National Strategy for Development of Statistics (NSDS) of Nepal has also given high priority for the integration of Surveys and Censuses.
- Integrating the registered based frame of agriculture establishments along with household-based agriculture holdings in conducting agriculture sample census 2021/22 may result in comprehensive and extensive scope of the entire agriculture industry. Further, national statistical system towards generating quality agriculture statistics can be enhanced via incorporating the establishment-based agriculture holdings in the forthcoming agriculture census or other surveys.

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Thank You!

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