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Report of Vietnam's General Statistic Office

I. Sampling methods are used in agricultural, fishery statistics, rationale, considerations, constraints and plans for improvement

Name of survey	Sampling methods used	Rationale	Considerations	Constraints and plans for improvement
- Survey on paddy yield and production by crop (winter-spring, summer-autumn, autumn-winter, and the main crop from May-Sep) - Survey on yield and production of other annual crops, - Survey on yield and production of perennial plants.	- Sample representativeness to district level, - Stratified sampling: First stratum : Communes; Second stratum: villages; Third stratum: Households actually growing and harvesting products in the survey period .(approximately 600 000 households), ≈ 5% of number of households using agriculture land. - Sample size at different stratum depends on characteristics and scope of cultivation in each type of district - Systematic randomly sampling method. The first sample unit selected is the one with value closest to the average value of the population.	- Save cost from travelling between enumeration areas; - Meet the needs of and convincing to managers at district and provincial level.	- Large sample size, cost much time, finance and human resources for survey activities; - Have not identified the sampling errors; - Have met the requirements of managers regarding more detailed production of new coming plants with high economic value.	- Reduce the sample size by just considering representativeness for provincial level, - Improve the sampling method at the first stratum by PPS method. - Add samples and generalize production for new special plants with high economic value; - Developing methods to reallocate for district level; - Going forward to estimating survey errors.
- Livestock survey 1st April, - Livestock survey 1 October	- Sample representativeness to district level, First stratum: villages (around 7000 villages ≈ 8.6% of number of villages raising livestock) . Second stratum: Households - The household sample size of each province, district is estimated with square root method, based on the number of households raising livestock in the whole country (around 140,000 households ≈1.8%);	- Meet the needs of and convincing to managers at district and provincial level. - Able to utilize the result of the Census to estimate the sample size; - Able to estimate sampling errors	- Large sample size, cost much time, finance and human resources for survey activities; - Have met the requirements of managers regarding more detailed production of new coming animals with high economic value.	- Reduce the sample size by just considering representativeness for provincial level, - Developing methods to reallocate for district level; - Going forward to estimating survey errors.

Name of survey	Sampling methods used	Rationale	Considerations	Constraints and plans for improvement
	- Systematic randomly sampling method applied to select sample units,			
- Livestock survey 1st January, - Livestock survey 1st July	The sample representativeness to provincial level, First stratum: districts (= one third of number of districts in the survey period 1st 4 and 1st October), expert method applied Second stratum (villages), third strtum (households) : include sample villages and households from survey periods 1st April and 1 October	- The sample result are basis to estimate quaterly livestock data	Only estimate data of some key types of livestock; No data for districts without survey,	- Developing methods to effectively reallocate data for district level;
Fishery survey 1st May Fishery survey 1st November	1. Aquaculture: - Sample representing provincial level, conduct for each type of key aquatic products, approaches and forms of aquaculture. First stratum (commune): for aquatic products with water surface area, select PPS approach; For aquaculture with cages and rafts, apply expert method. Second stratum (villages), third stratum (households), apply systematic randomly sampling method. Number of sample aquaculture households (around 43200 households ≈ 2.5% of number of households producing aquaculture	- Reducing sample size, - Able to estimate the production of key aquatic products	Not able to accurately estimate the sampling errors; The accuracy of generalization of fishery production of aquatic products except the key one of the whole country is not high The generalization results cannot represent district level	Improving sampling methods for country's non-key aquatic products by letting provinces conduct survey on 1-2 additional types of province's key aquatic products
	2. Inland fishery exploitation: Only conduct in some key provinces, sample representing provincial level, selecting sample at the first stratum (communes) according to expert method, Second stratum (villages), third stratum	Reducing sample size	The accuracy of data is not high	

Name of survey	Sampling methods used	Rationale	Considerations	Constraints and plans for improvement
	(households), apply systematic randomly sampling method.			
Monthly fishery survey (Survey on marine fishing production)	Apply FAO method for fishing statistics survey	- Can estimate the survey sampling errors; -Can estimate production of each type of fishery occupations.	Cannot update changes of fishery occupations in the survey period.	Apply the occupation change rate of the same period last year for the survey period

II. Some questions on application of sampling methods that are relevant to addressing the constraints and carrying out the plans for improvement

1. In agriculture and fishery statistics survey, we are not sure if we can estimate the sampling errors.
2. Viet Nam statistics must meet requirements of managers for data of agriculture and fishery production result to district level. If select sample to represent district level as current in Viet Nam, the sample size is very large and costly, so how to solve this problem?
3. In aquaculture survey, with some key products such as catfish, sugpo prawn, pacific white shrimp, we have made good sample framework. However, for other types of aquatic varieties, (many types) the sample selection with high representativeness and cost-saving is still a problem to us.
4. In all types surveys, the basic information such as harvesting area of plant products, area/ volume of aquatic products harvested, fishing ships by key exploitation occupations is critical for making the sample frame. In order to save the cost, currently we hire commune statisticians/ village heads/ agriculture and fishery extension officers as collaborators to collect this basic information. However, the accuracy of the data is not high, so I hope inputs from this workshop will help us to better implement surveys for this basic information.