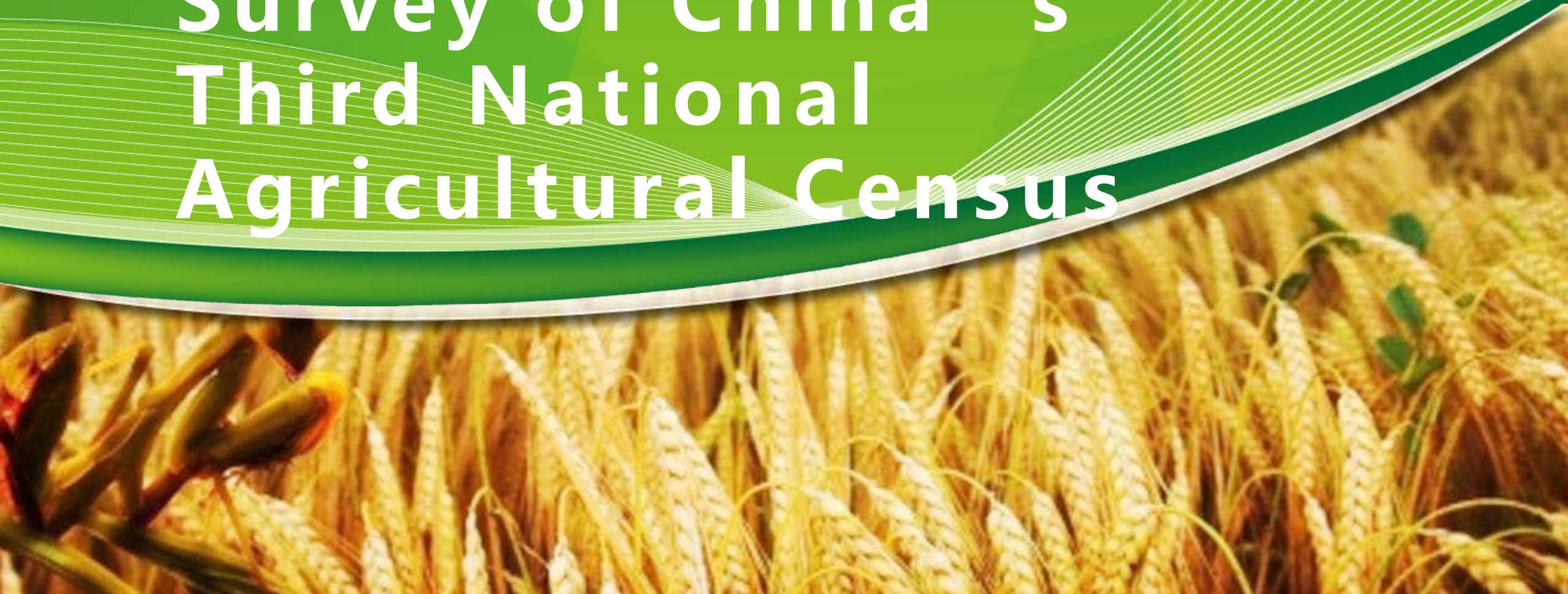




中国农业普查

CHINA AGRICULTURAL CENSUS

# Post Enumeration Survey of China's Third National Agricultural Census



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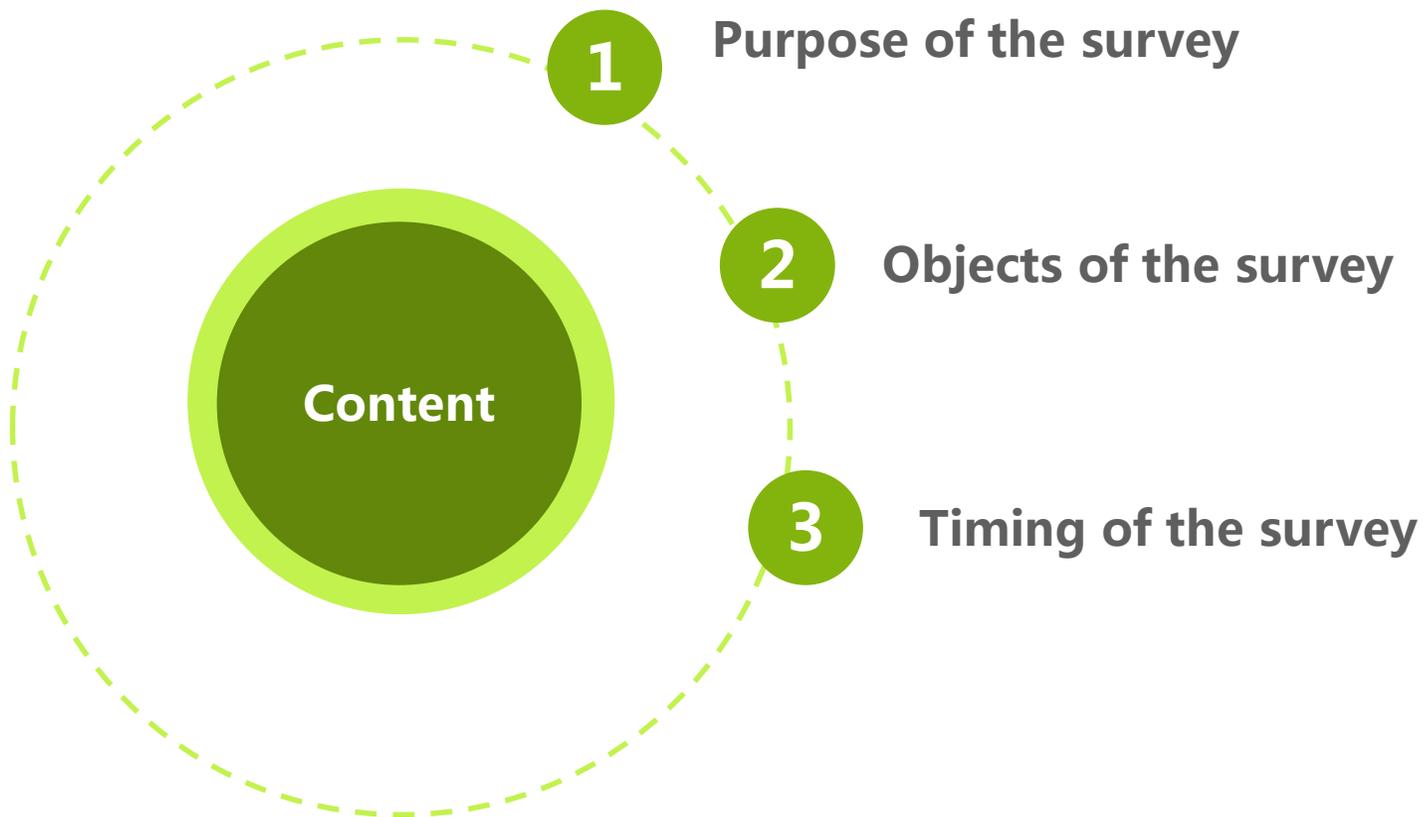
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- Post Enumeration Survey for Agricultural Census is an independent investigation conducted after the registration of the census.
- The purpose is to provide scientific basis for the evaluation of the quality and the rational application of the census data by verifying the integrity of the scope of the registration and the authenticity and accuracy of the contents of the registration.

# 2 Objects of the Survey

- The objects of the Third National Agricultural Census covers agricultural households, agricultural corporate, rural residential households with confirmed(contractured) tenure of land in the territory of PRC.
- It is conducted by door-to-door investigation.

- The standard time of survey content: the time of object is engaged in agricultural management activity and the time of census are consistent.
- The investigation time of the sampling object:  
April 18 - April 25.

*(The enumeration time of census is from January 1st to March 31st.)*

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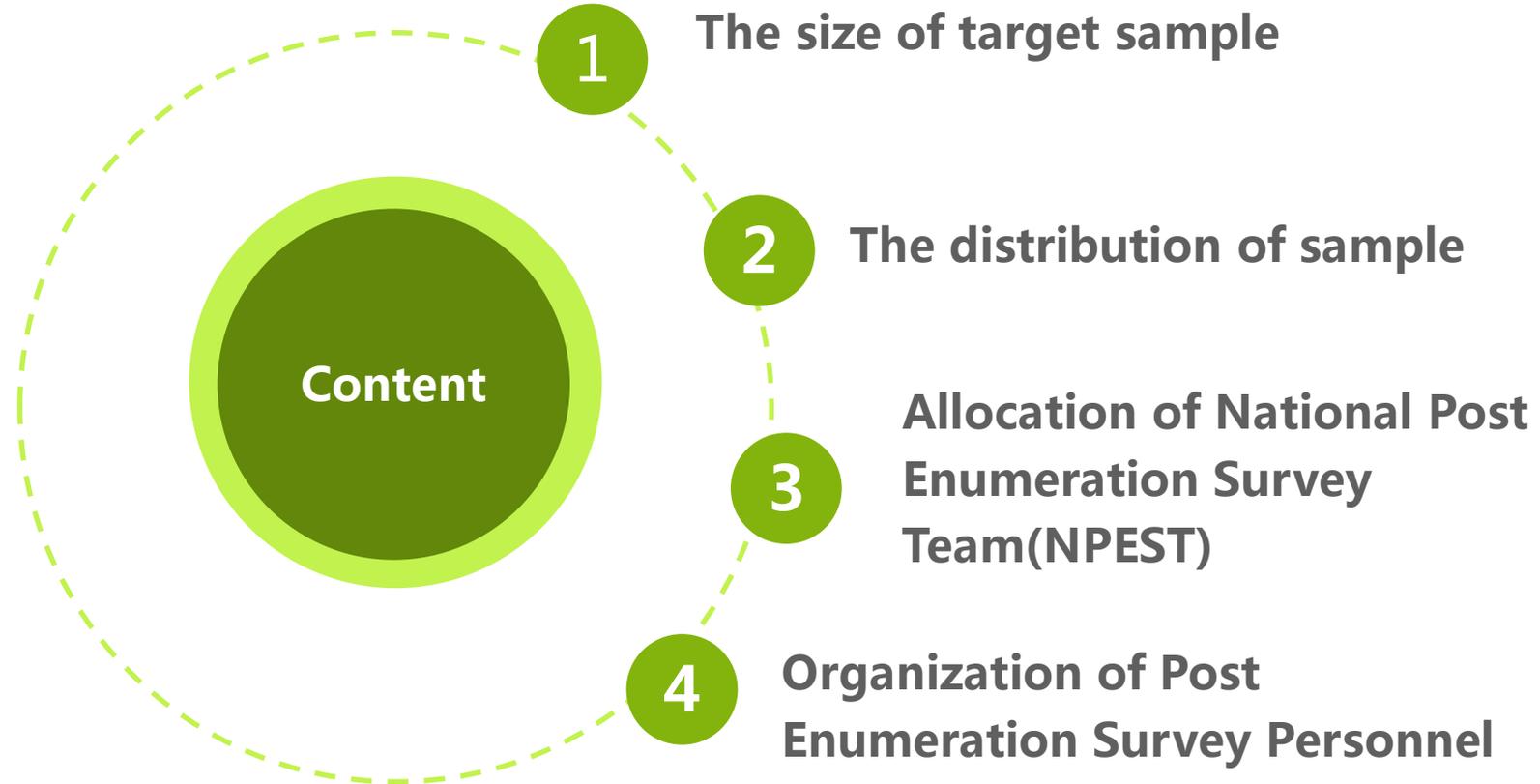
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# Sampling Design and Allocation



# 1 The size of target sample

The simple random sampling formula of proportional estimation is used to calculate the representative sample size for national census data quality evaluation. The calculation formula and results are as follows :

$$n = \frac{t^2 pq}{d^2}$$

If the confidence degree is 95%, then  $t=1.96$ ,  $P$  is the low limit error rate of a certain quality evaluation index of farmers, set as 3%, then  $q=1-p$ ; Meanwhile, let the allowable absolute error limit be  $d=3\%$ , and the calculation result is that about 20,000 sample households are needed.

# 2 The distribution of sample

According to the method of proportional to the number of households in each province level a sample of 20000 households was distributed. The distribution results are shown in the following table:

	样本量	小区样本数量	样本县数量
北京	400	4	2
天津	400	4	2
河北	1200	12	4
山西	600	6	3
内蒙古	400	4	2
辽宁	600	6	3
吉林	600	6	3
黑龙江	600	6	3
上海	200	2	1
江苏	900	9	4
浙江	700	7	3
安徽	900	9	4
福建	400	4	2
江西	700	7	3
山东	1200	12	4
河南	1200	12	4
湖北	900	9	4
湖南	900	9	4
广东	900	9	4
广西	700	7	3
海南	400	4	2
重庆	400	4	2
四川	1200	12	4
贵州	600	6	3
云南	600	6	3
西藏	100	1	1
陕西	600	6	3
甘肃	400	4	2
青海	400	4	2
宁夏	400	4	2
新疆	500	5	3
<b>总计</b>	<b>20000</b>	<b>200</b>	<b>89</b>



# 4 Organization of Post Enumeration Survey Personnel

- Under the leadership of the relevant departments or survey office of the National Bureau of Statistics of China, more than 137 government statistics personnel were assigned to form 37 **NPEST**.
- Each province level is equipped with a mobile terminal management system for the technical staff (about 31 persons) .
- The General Affairs Office of Agricultural Census of the State Council openly recruited social supervisors on the Internet and enrolled them into the NPEST. They organized media journalists to work with the NPEST and accepted media supervision(about 40 persons).

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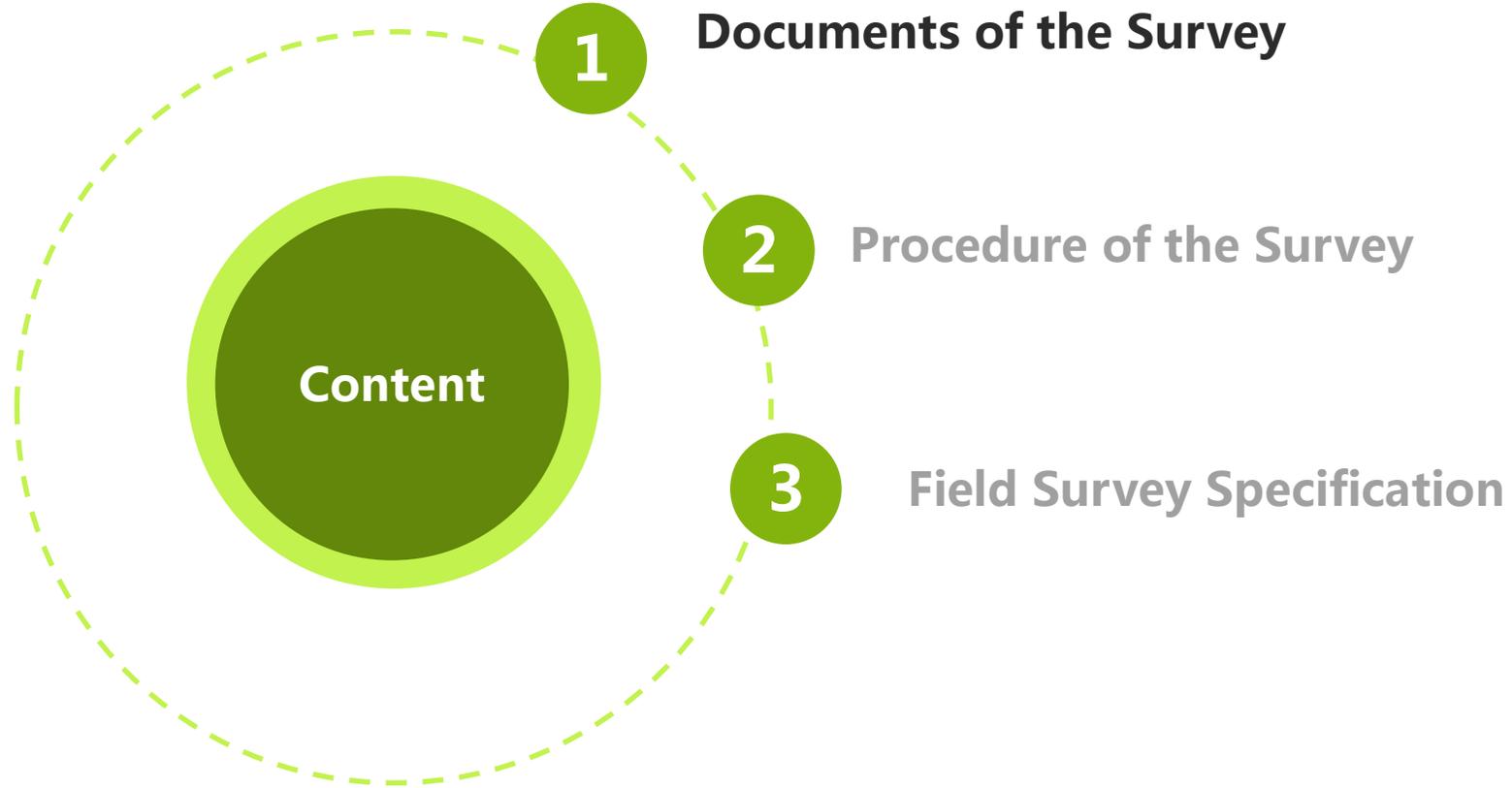
Workflow and Field Survey

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# Workflow and Field Survey



# 1 Documents of the Survey

“Notification on the Organization of the Post Enumeration Survey for the Third National Agricultural Census”

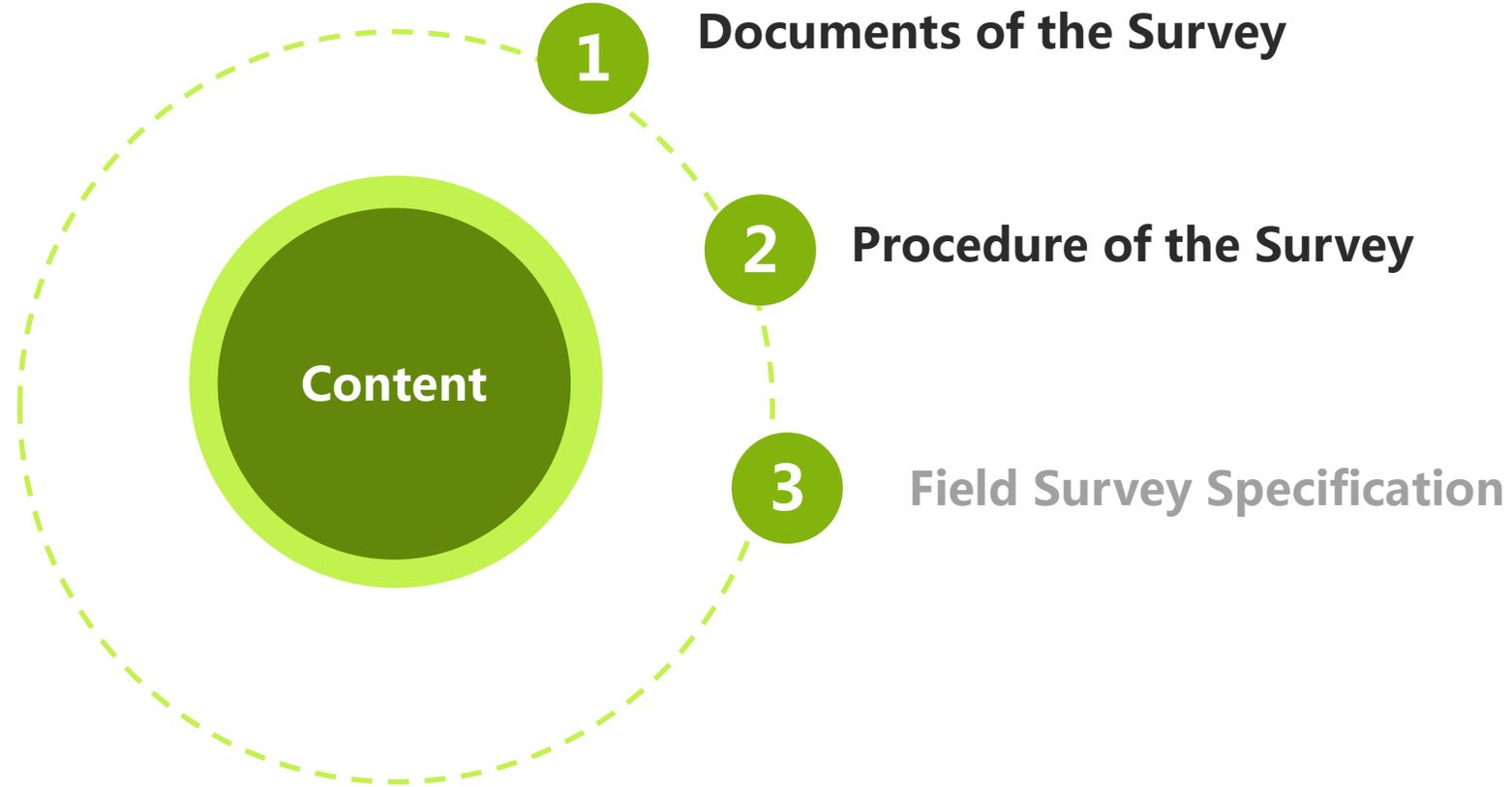
“Notification on the Issuance of the Post Enumeration Survey for the Third National Agricultural Census”

“Circular on the recruitment of social duty inspectors for the Post Enumeration Survey for the Third National Agricultural Census”

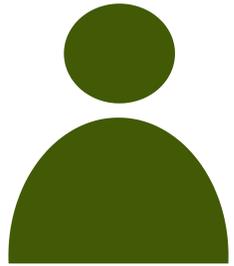
“Notification on the holding of a training course on the Post Enumeration Survey for the Third National Agricultural Census”



# Workflow and Field Survey Specification



# 2 Procedure of the Survey

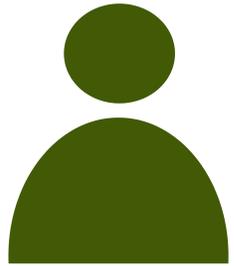


- 1 Location in The Steering Group Office of the Third National Agricultural Census of the State Council
- 2 Location at Centralized training for NPESTs
- 3 Location in the province level census office
- 4 Location in the county level census office
- 5 At the Sub-Enumeration Area of the census
- 6 Location in the county or town and township level census office

# 1 Location in The Steering Group Office of the Third National Agricultural Census of the State Council

- Sample selection for Post Enumeration Survey
- Sample list Printed by county level include county list and the sub-enumeration area list
- Export the electronic questionnaire which containing household (or agricultural corporate) code, household head name (or agricultural corporate name) to U disk
- Encrypted into the envelope by province level

# 2 Procedure of the Survey

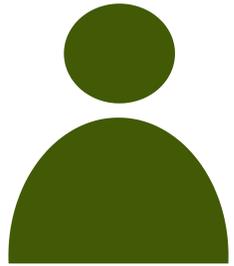


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## 2 Location at Centralized training for NPESTs

- Centralized training for NPESTs held by the Steering Group Office
- The content of the training : Arrange the program, Training personnel, PDA registration, Interview certificate issued etc.
- After the training, the NPEST must immediately go to the province level census office responsible for the survey
- The leader of each NPEST in the charge of the sealed envelope, survey schedule and informed province level census office

# 2 Procedure of the Survey



1

Location in The Steering Group Office of the Third National Agricultural Census of the State Council

2

Location at Centralized training for NPESTs

3

Location in the province level census office

4

Location in the county level census office

5

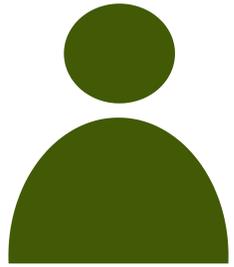
At the Sub-Enumeration Area of the census

6

Location in the county or town and township level census office

- The leader of the NPEST should preside over the meeting attended by the members of the NPEST and the director of the province level census office and other relevant personnel
- At the meeting, the leader of NPEST firstly gave a brief description of Post Enumeration Survey, then opened the provincial envelopes, read out sampled county name
- With the assistance of the province level census office, NPEST arranged trips and rushed to the sampled county

# 2 Procedure of the Survey

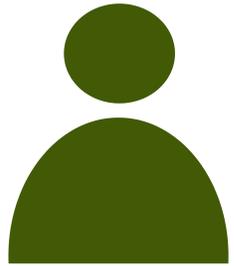


- 1 Location in The Steering Group Office of the Third National Agricultural Census of the State Council
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- 6 Location in the county or town and township level census office

## 4 Location in the county level census office

- NPEST should arrive at the sampled county on the day or next day when the envelope has been opened
- The leader of the NPEST should preside over the meeting attended by the members of the NPEST and the director of the county level census office and other relevant personnel
- The leader of the NPEST open the sub-enumeration area seal, announce sample of sub-enumeration area list, and give the U disk to NPEST members.

# 2 Procedure of the Survey



- 1 Location in The Steering Group Office of the Third National Agricultural Census of the State Council
- 2 Location at Centralized training for NPESTs
- 3 Location in the province level census office
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- 6 Location in the county or town and township level census office

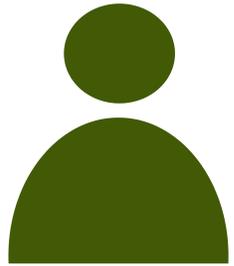
5

## At the Sub-Enumeration Area of the census

The members of NPEST in charge to

- Import the contents of U disk into the PDA
- Enter the sample of sub-enumeration area to interview household or agricultural corporate with PDA
- Upon completion of the initial data examine and verify ,directly upload to the Data Management Center of NBS

# 2 Procedure of the Survey



- 1 Location in The Steering Group Office of the Third National Agricultural Census of the State Council
- 2 Location at Centralized training for NPESTs
- 3 Location in the province level census office
- 4 Location in the county level census office
- 5 At the Sub-Enumeration Area of the census
- 6 Location in the county or town and township level census office

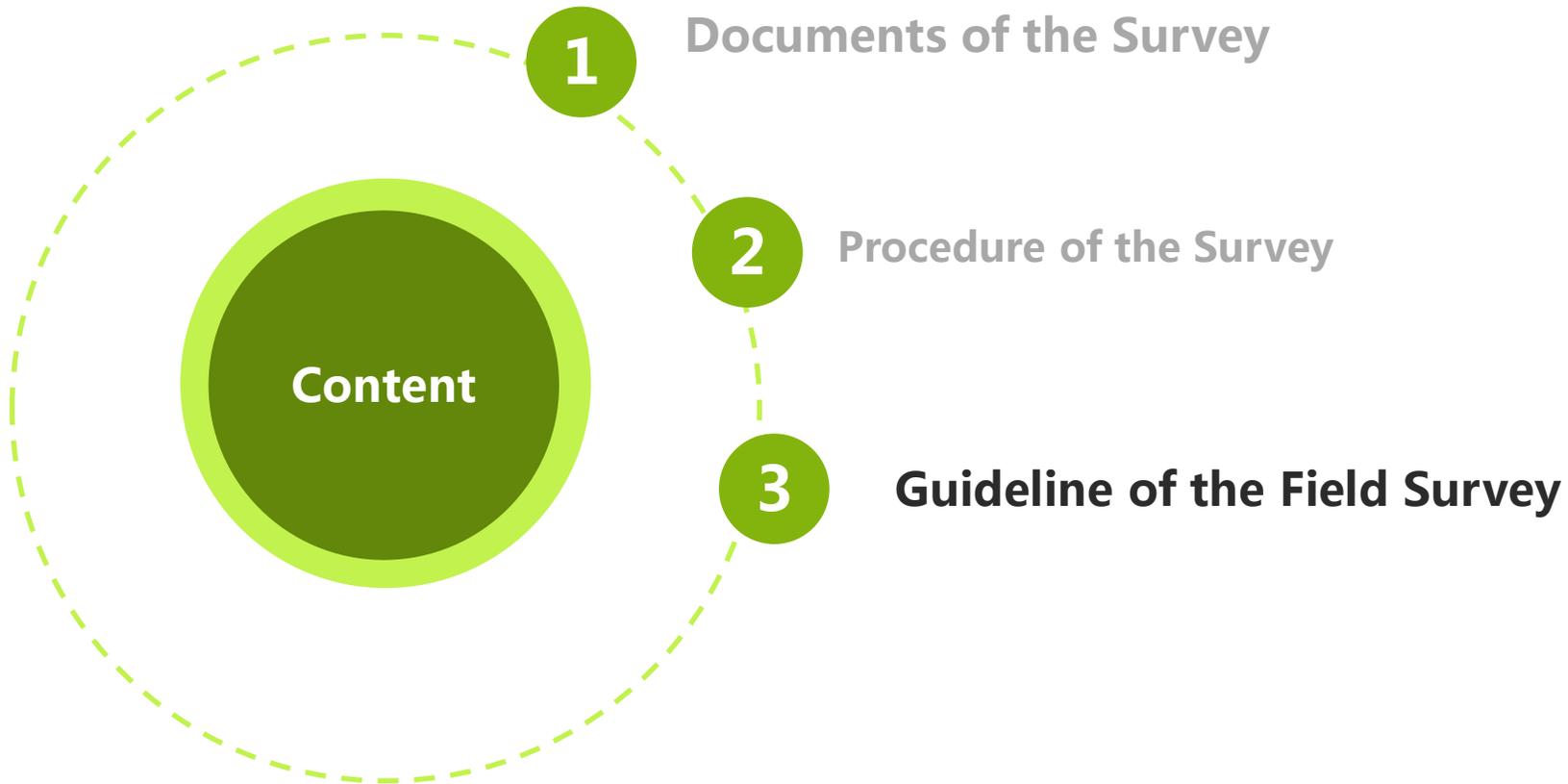
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## Location in the county or town and township level census office

The NPEST should take photographs of data from various sources, such as sketch map of enumeration area or sub-enumeration area, household or entity pre-investigation Form, etc.

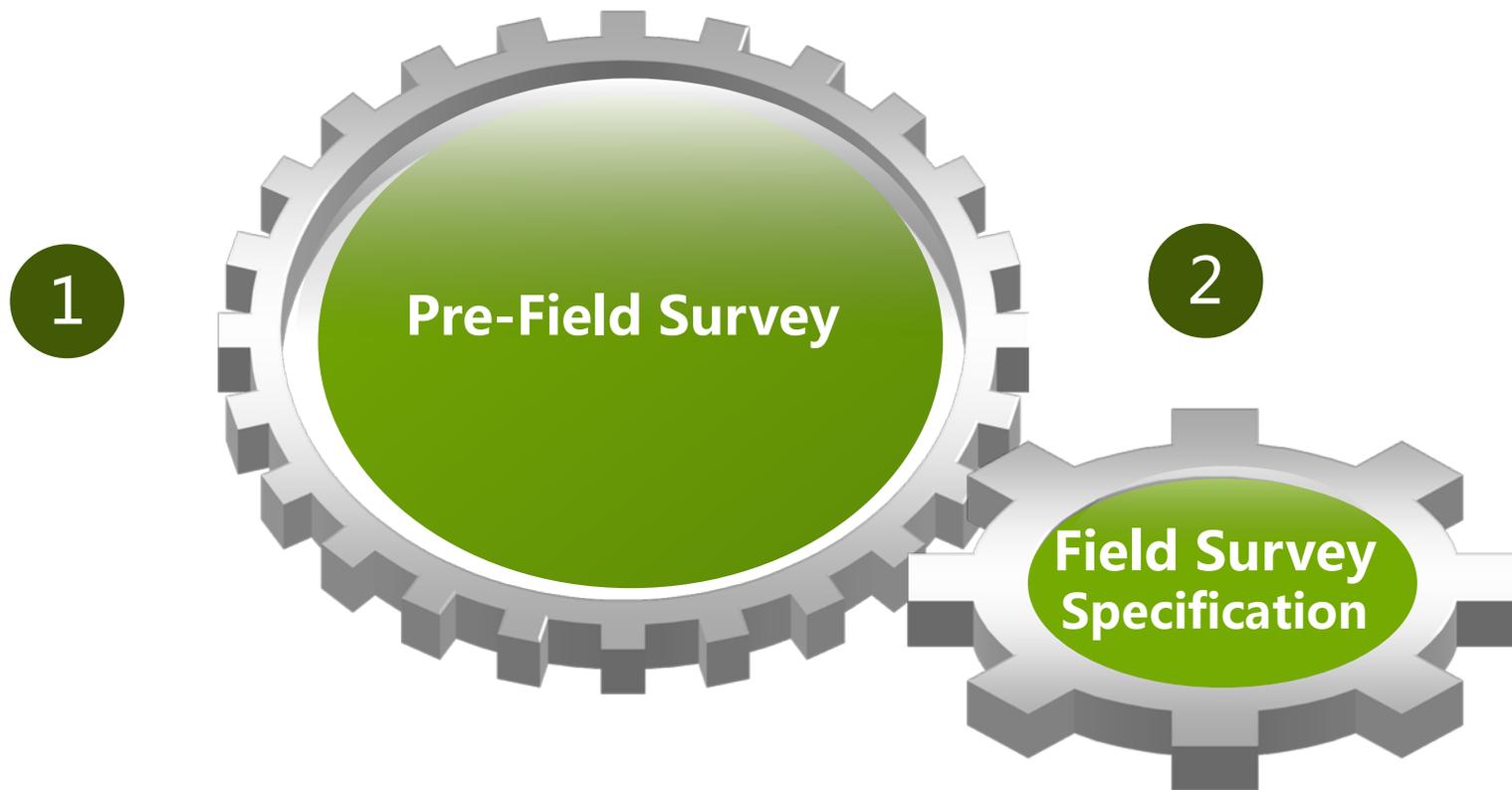
and send them to the mailbox of the Steering Group Office of the Third National Agricultural Census of the State Council

with the uniformly prescribed document number



# 3

## Guideline of the Field Survey



# 1 Pre-Field Survey

- Check Household or Entity pre-investigation Form
- ✓ Check the **source** whether meets the requirements of rules of agricultural census pre-investigation
- ✓ Comparison check the **List** of Household or Entity and the list of household or agricultural corporate which imported in PDA, especially for surplus and missing cases
- Hold the informal meeting with local residents, and to decide the route of survey
- ✓ According to the revised Household or Entity pre-investigation Form and sketch map of enumeration area or sub-enumeration area, determine the reasonable interview line, to ensure no miss or surplus
- ✓ Pay attention to the immigrant agricultural Household or large Scale agricultural Household

## Field Survey Specification

- Member of NPEST should:
  - ✓ Wear identification, clearly identify, explain the purpose, and use polite language
  - ✓ Inquire one by one according to the Questionnaire
  - ✓ Check the PDA input results at any time
  - ✓ Do it carefully to ensure that true and accurate information is collected , and Do not try to catch up
- In case of refusal to answer:
  - ✓ The local village committee and community should be invited to assist in carrying out the work
  - ✓ If they still do not cooperate with the NPEST, the survey should be ended and the reason should be indicated

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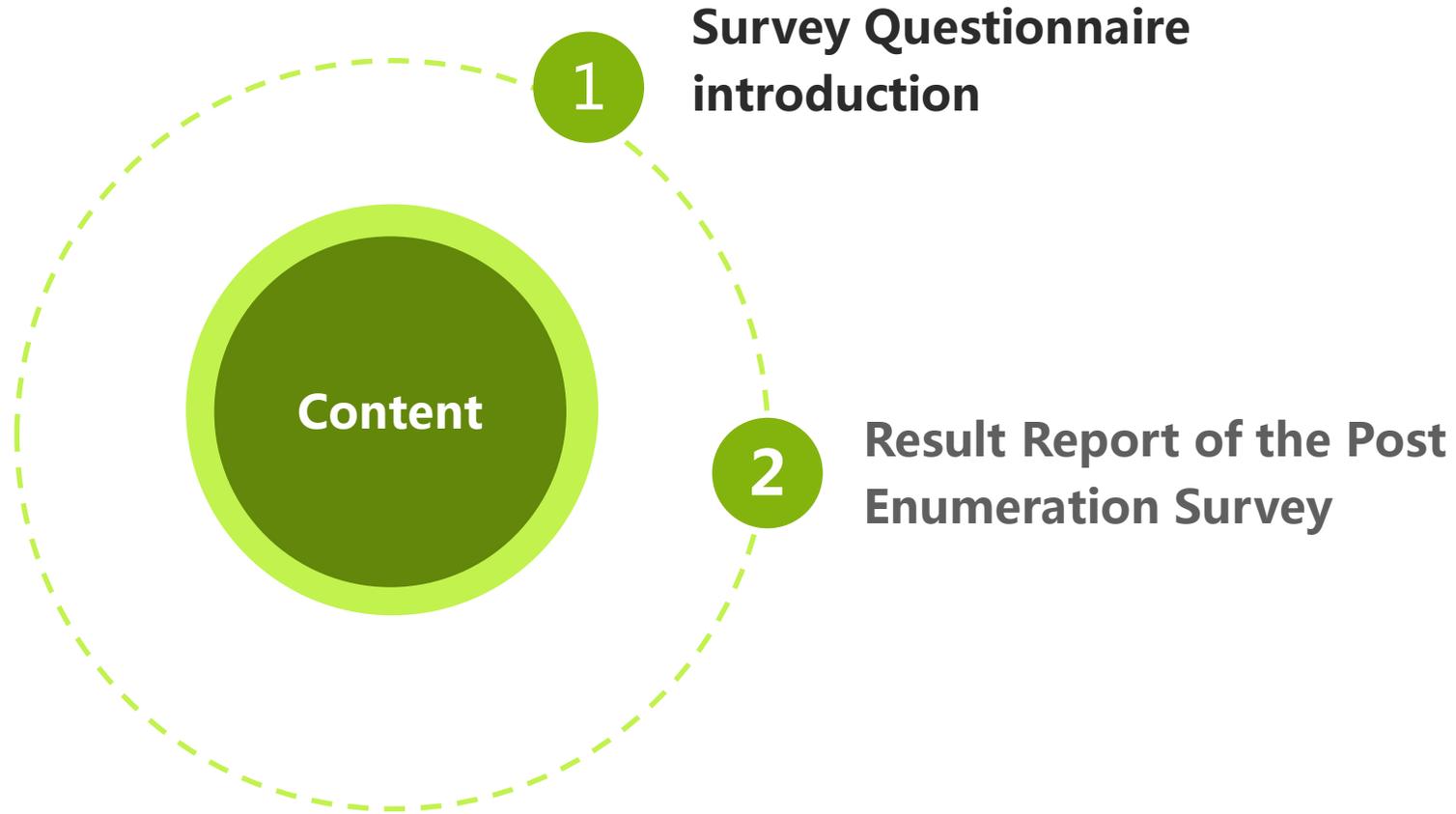
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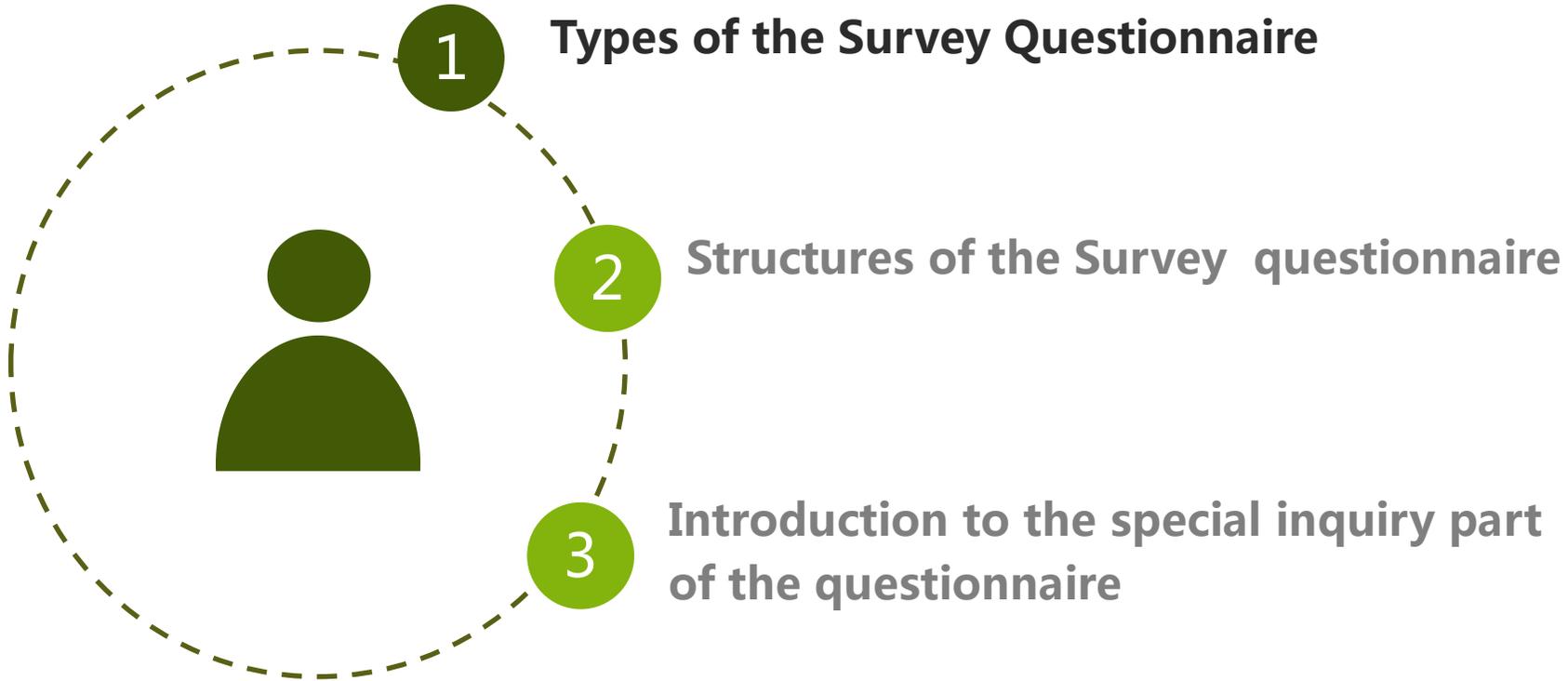


# The Questionnaire and Results



# 1

# Survey Questionnaire introduction

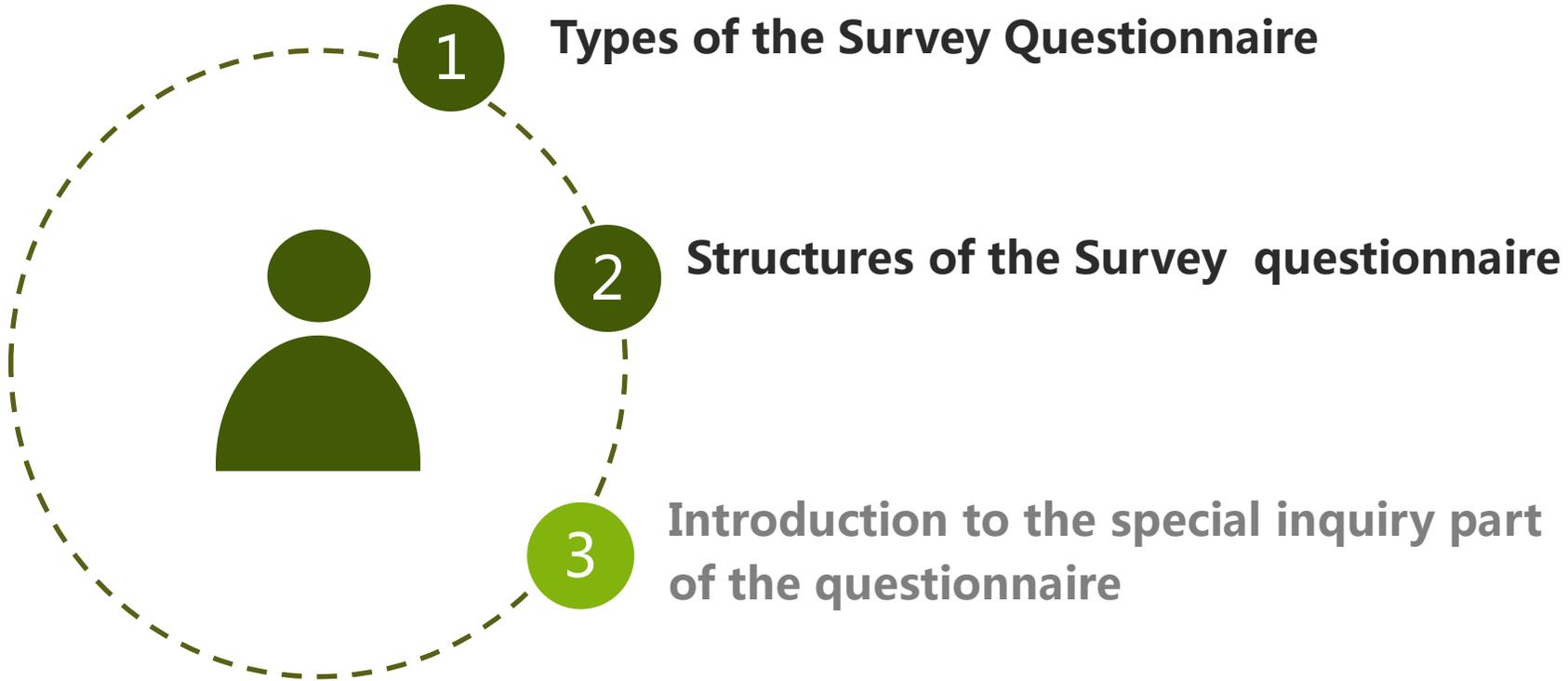


# 1 Types of the Survey Questionnaire

- **Targeted at Agricultural Census Objects:**
  - ✓ Household Survey Questionnaire
  - ✓ Large Scale Agricultural Households Survey Questionnaire
  - ✓ Agricultural Corporate Survey Questionnaire

# 1

# Survey Questionnaire introduction





第三次全国农业普查  
公民应依法履行如实申报调  
查项目的义务，调查的原始资  
料不向任何单位和个人提供。

### 事后质量抽查 农户表

表号：7 0 1 表  
制表机关：国务院农业普查办公室  
文号：国农普办字〔2017〕7号

普查区代码：□□□□□□□□□□□□□□□□ 普查区名称：\_\_\_\_\_  
普查小区代码：□□ 普查小区名称：\_\_\_\_\_  
户编码：□□□ H001 户主姓名：\_\_\_\_\_ 抽查级别

## Identification Part for the object

H001 本户是否参加了农业普查现场登记？（单选，选择 1、5 继续；选择 2、3、4、6 结束）

1. 是，并可以再次访问（继续）
2. 是，但已举家外出，无法访问（结束）
3. 是，但因其他原因无法访问（结束）  
具体理由：①是规模户（转到新增规模户）②重复 ③因服刑、疾病等特殊原因 ④拒访
4. 否，2017 年 1 月 1 日之后新增（结束）
5. 否，普查时未登记（继续）
6. 本户不存在（结束）

H002 本户的被访问者与普查现场登记是否同一个人？（单选） 1. 是 2. 否

## Special Inquiry Part

H002 户主的户籍是否在本乡镇？（单选） 1. 是 2. 否

H003 住户成员（与本户经济、生活连为一体的人）共有几人？\_\_\_\_\_人

H016 其中：在本户从事农业生产和管理 30 天及以上的几人？\_\_\_\_\_人

H022 本户拥有几处住房？\_\_\_\_\_处

H029 本户拥有小汽车几辆？\_\_\_\_\_辆

H051 本户确权（承包）的耕地面积\_\_\_\_\_亩

H070 本户 2016 年实际耕种的耕地面积\_\_\_\_\_亩

H071 其中：他人委托本户代耕代种的耕地面积\_\_\_\_\_亩

H101 名称	早稻	中稻和一年晚稻	双季晚稻	小麦	玉米
H102 代码	100	101	102	103	104
H103 播种面积(亩)					

H120 本户是否有确权（承包）或经营的茶、桑、果园？（单选） 1. 是 2. 否

H201 本户确权的林地面积\_\_\_\_\_亩

H204 本户 2016 年实际经营林地面积\_\_\_\_\_亩

H301 名称	生猪	牛	肉牛	奶牛	羊	鸡	鸭	鹅
H302 代码	300	302	304	305	309	317	320	323
H303 年末存栏(头、只)								

H324 本户 2016 年实际经营的牧草地（草场）面积\_\_\_\_\_亩

H400 本户是否有确权（承包）或经营渔业养殖面积，是否有渔船或从事渔业捕捞？

（单选） 1. 是 2. 否

H401 本户实际经营的淡水养殖面积\_\_\_\_\_亩

H403 本户实际经营的海水养殖面积\_\_\_\_\_亩

H500 2016 年是否为本户以外提供农林牧渔服务（如农机作业、灌溉、林木嫁接、孵化、种苗培育与繁殖等服务）？（单选） 1. 是 2. 否

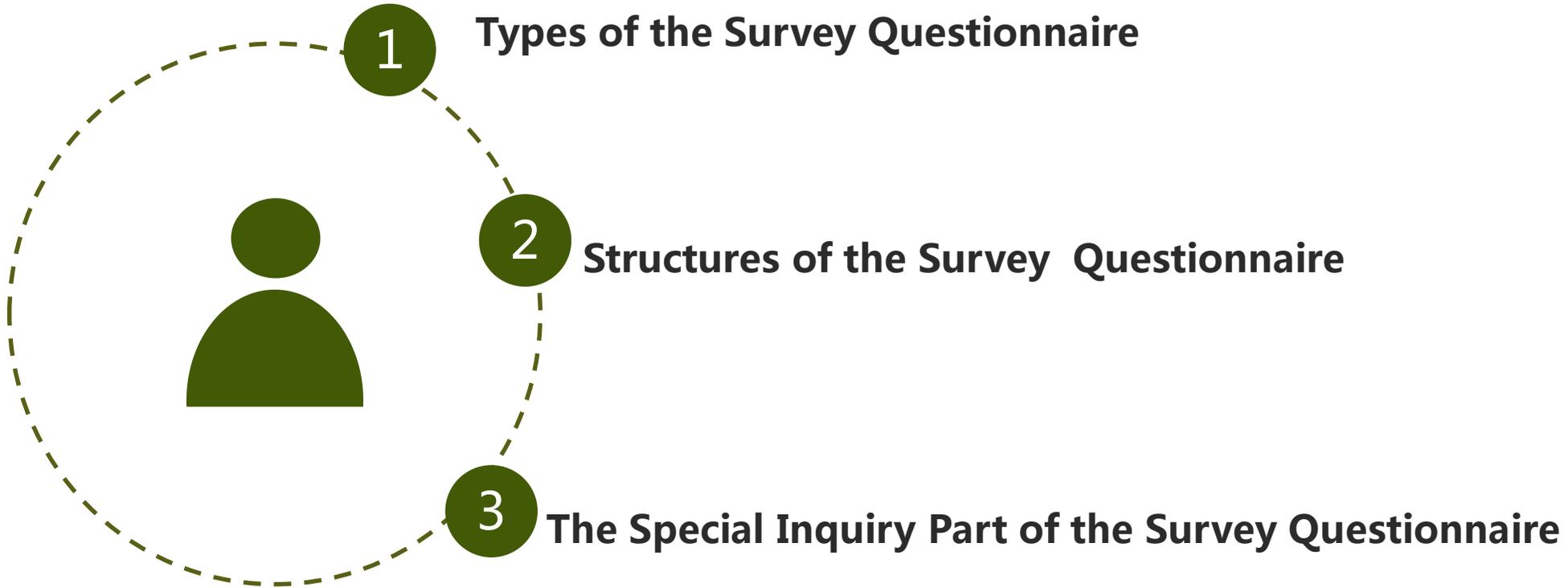
H601 本户 2016 年末拥有大中型拖拉机\_\_\_\_\_台

H602 本户 2016 年末拥有小型及手扶拖拉机\_\_\_\_\_台

## Repeat Inquiry Part

# 1

# Survey Questionnaire introduction



## 3 The Special Inquiry Part of the Survey Questionnaire

3.1 For:  
Household  
*and*  
Large Scale Agricultural Households

# 01 Whether this household has participated in the agricultural census registration?

- Inquire about the participation of the household during the agricultural census enumeration time
- Determine whether to continue the survey for the household
- There are 1-6 optional answers to this question



## 1. YES, continue to inquiry

Refers to the household participated during the agricultural census enumeration time, and accepted to the survey

**2. Yes, but the household has moved out of the agricultural census enumeration area at the time of the survey, and can't be inquired.**



Refers to the household although participated during the agricultural census enumeration time, but at the time of the survey, the household has moved out, neither could find the people of the household, nor find the person who know the situation of the household

### 3. Yes, but the household can't be inquired for other reasons.



① Object judgment error between household and large scale agricultural households, Need to exchange questionnaires and continue to inquiry



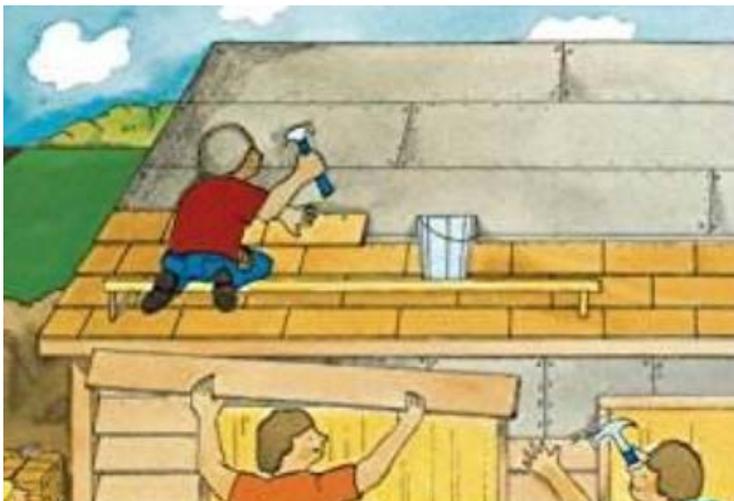
② Repetitive error : two or more household codes correspond to the same household



③ The household cannot be inquired due to special reasons such as prison sentence and illness.

④ Refused to be inquired  
After many efforts, the household is still unwilling to cooperate with the survey, so they have to record here and end the inquiry.

## 4 . No,The household is a new one after January 1, 2017



Refers to the household did not participated during the agricultural census enumeration time. Include the households that comes from outside town, and in this town establish a family, economic life is completely independent, completely depart with former family.



## 5 . No, the household were not registered during the agricultural census enumeration time



Refers to error of omission, the household is the object of census, but the census did not register, and object judgment error between household and large scale agricultural households.



## 6 . This household does not exist



After the search in the sub-enumeration census area, the household does not exist

## 3 The Special Inquiry Part of the Survey Questionnaire

### 3.2 For: Agricultural Corporate

## **DC01 Whether did this Agricultural Corporate attend agricultural census ?**

- **There are 1-6 optional answers to this question**



## 1. YES, continue to inquiry

Refers to the Agricultural Corporate participated during the agricultural census enumeration time, and accepted to the survey



**2. Yes, but it has been transferred to non-agricultural Corporate, not the object of the survey**



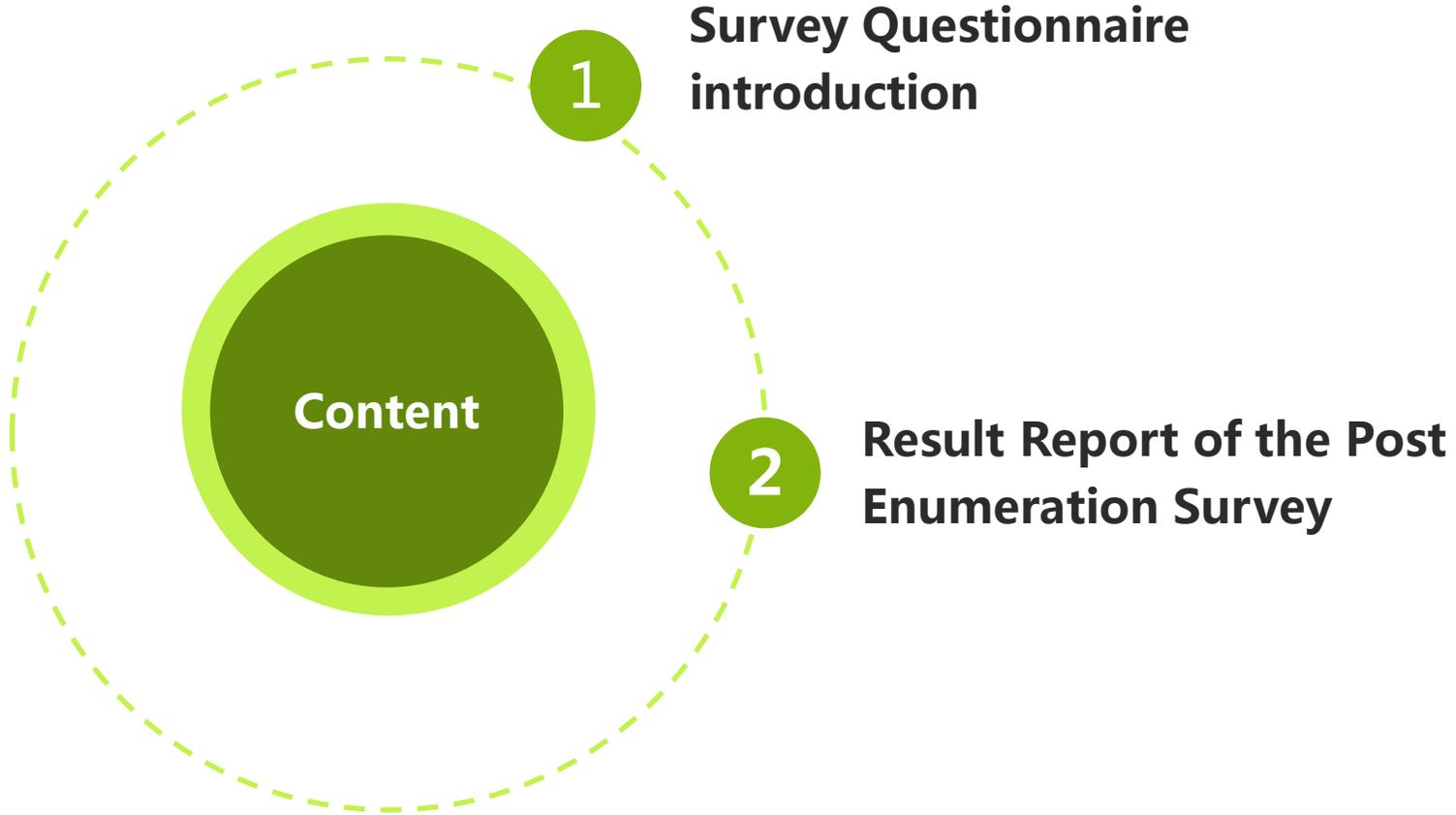
## DC01 本单位是否参加了农业普查登记？



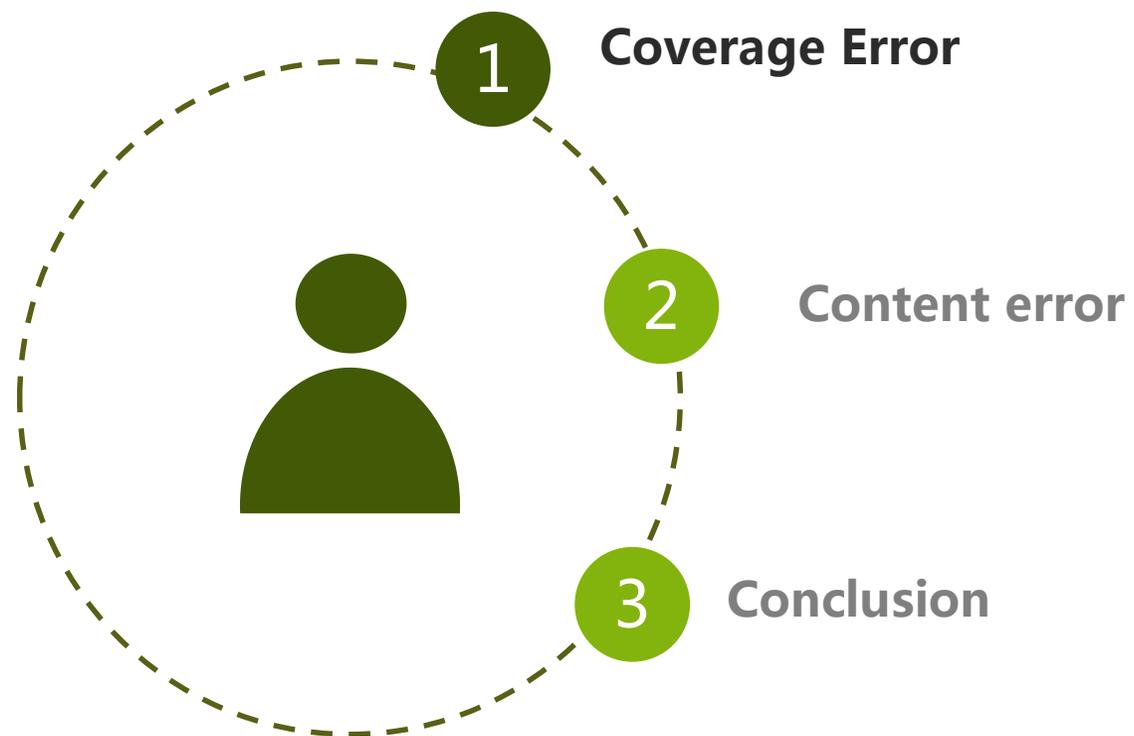
3. Yes, but it has been discontinued and cannot be interviewed.
4. No, new one after January 1, 2017.
5. No, they were not registered during the agricultural census enumeration time
6. This corporate does not exist.



# The Questionnaire and Results of the Survey



# 2 Result Report of the Post Enumeration Survey

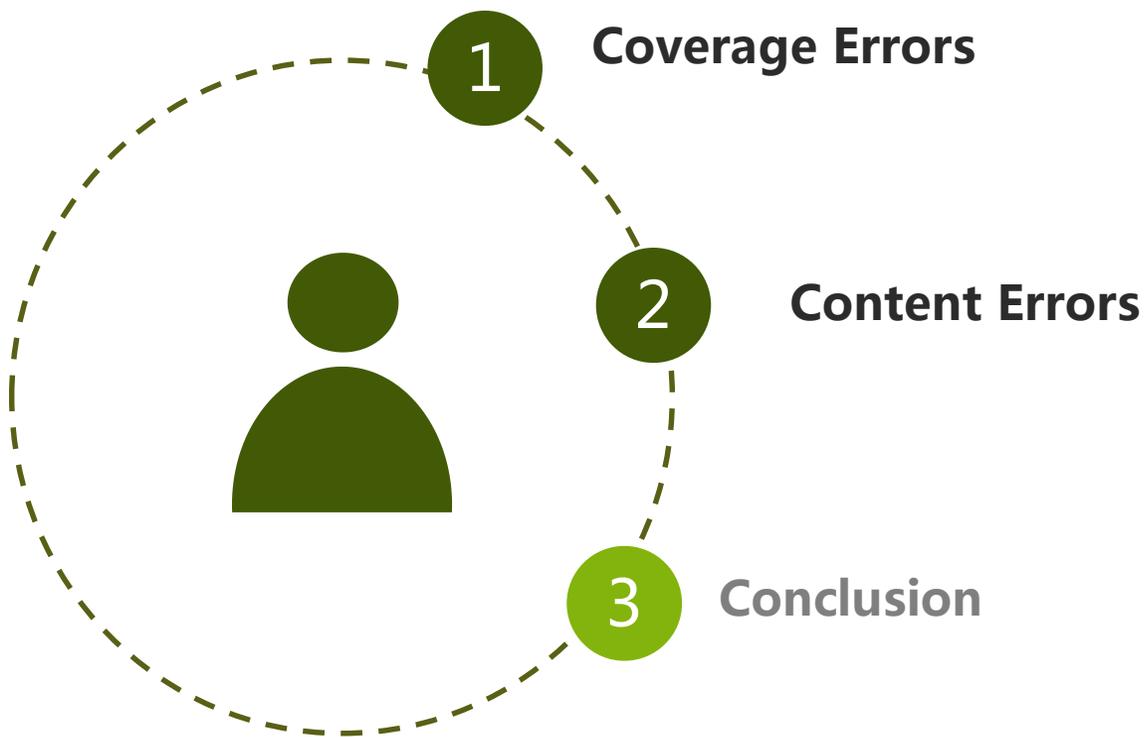


## 1 Coverage Error

The under-coverage error rate of agricultural census objects was 0.19%; the over-coverage error rate was 0.45%; the total coverage error rate was 0.64%, and the net coverage error rate (net over-coverage rate) was 0.26%.

Compared with the results of the Post Enumeration Survey for the Second National Agricultural Census, the error rate of net coverage is about the same (the net under-coverage rate of the Second Agricultural Census is 0.2%), the difference is that the Second National Agricultural census is a net under-coverage error, the Third National Agricultural Census showed a net over-coverage error.

# 2 Result Report of the Post Enumeration Survey



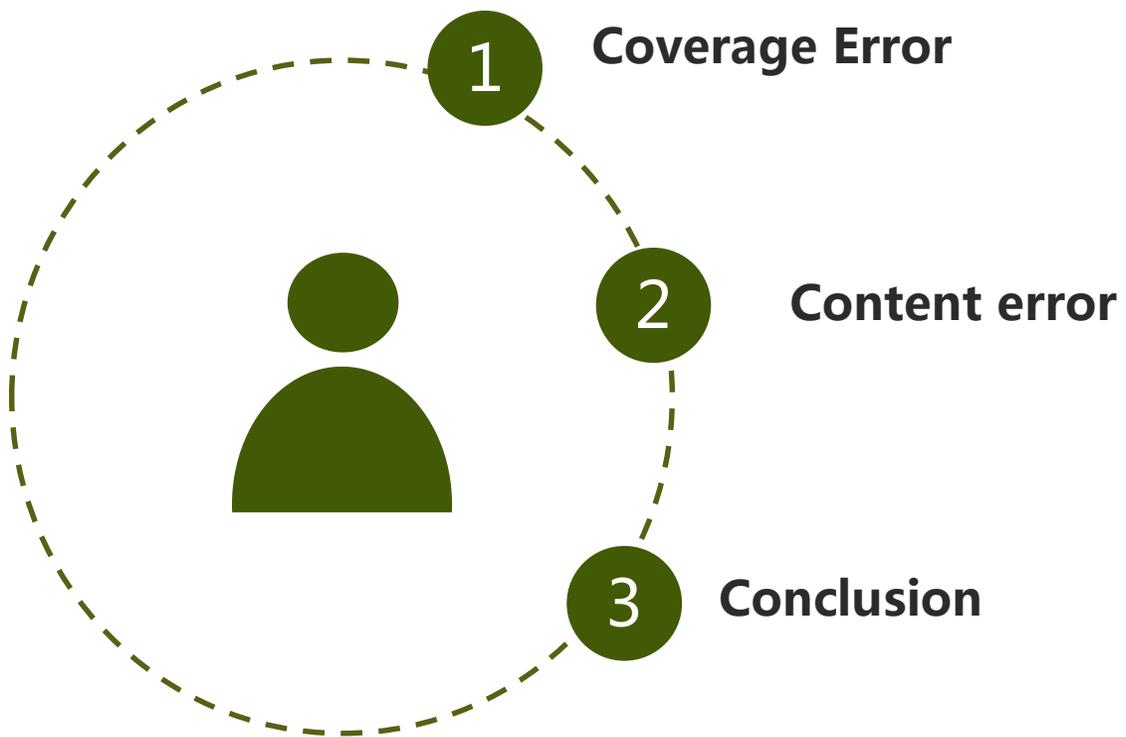
## 2 Content error

By comparing the number of 29 indicators of the Post Enumeration Survey with the Census enumeration values, the net difference of each indicator is obtained. The simple average of the absolute values of the net difference of each indicator gives the average content error coefficient, and the calculation result is 0.40%.

$$\bar{y} = \frac{1}{n} \sum_{i=1}^n \frac{|A_i|}{A_0}$$

- The Content error rate of the third National Agricultural Census is lower than 0.63% of the Second National Agricultural Census.
- The main reason is that the Second National Agricultural Census was using the photoelectric input method.
- The Content error includes the transcript error and the original data error.

# 2 Result Report of the Post Enumeration Survey



## Conclusion

The results of the Post Enumeration Survey show that the Third National Agricultural Census is within the design allowable range (design error rate is 3%) in the coverage error of the census object and the Content error, and the data quality meets the design standard.

THANKS

感谢关注