



Current and Imminent Data Collection Challenges Faced by IBGE

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Complex establishments and agricultural surveys in Brazil: the case of sugar cane sector

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Enhancing Data for Complex Agricultural Establishments

An International Expert Working Group

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Eminent challenges

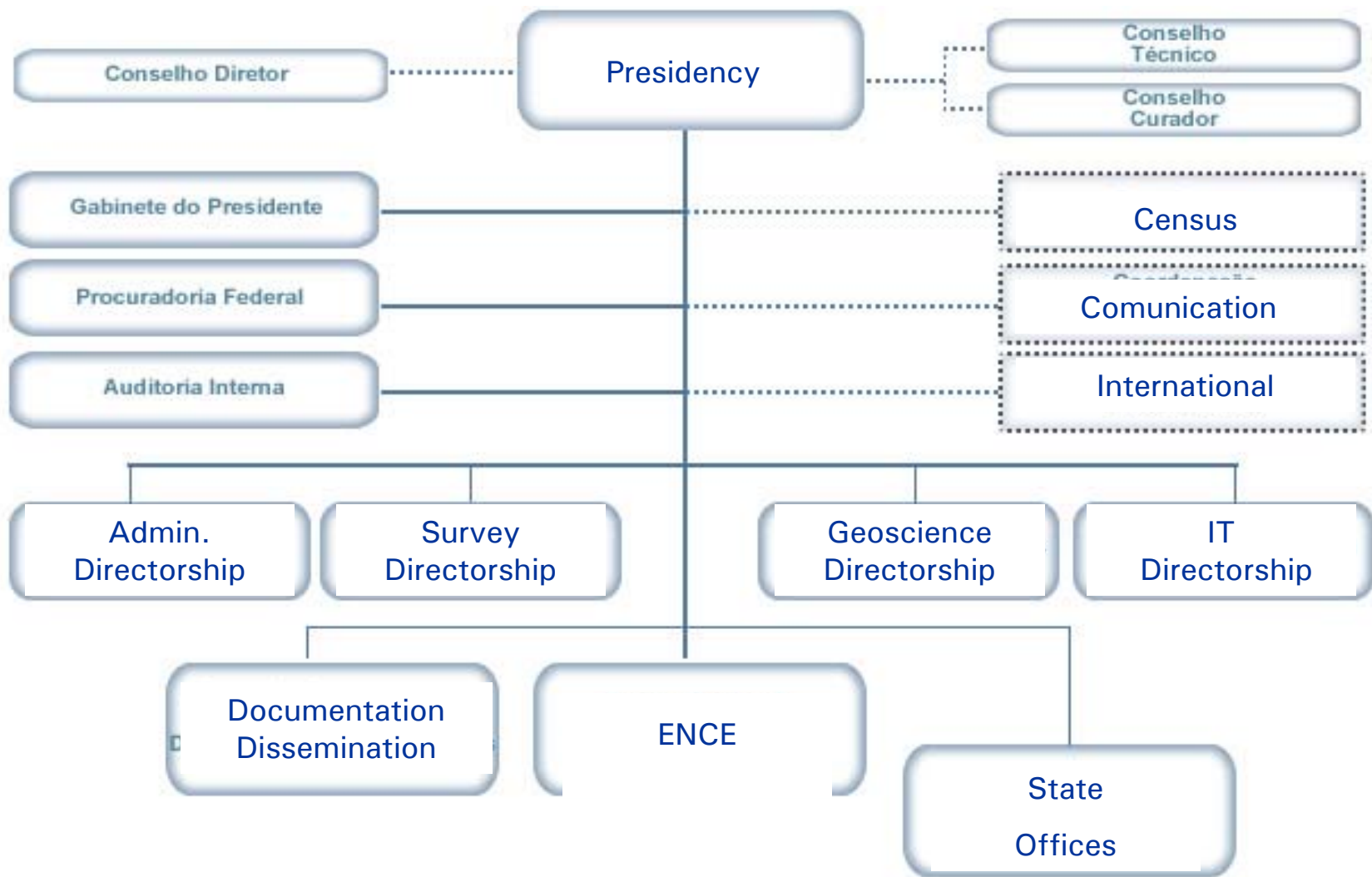
- Main Projects
- Some proposals

IBGE's Organizational Structure



- Higher direction collegiate organs
 - Board of Directors, Technical Council, Curator Council
- Direct assistance to the President
 - President's Cabinet
- Sectional and administrative bodies
 - Internal Audit, Federal Attorney, Executive Directorate
- Core business and support organs
 - Directorate of Surveys,
 - Directorate of Geosciences,
 - Directorate of Information and Technology,
 - Centre of Documentation and Dissemination of Information,
 - National School of Statistical Sciences – ENCE (since 1953)
- Decentralized organs
 - 27 State Units and 530 Local Offices

Organograma : IBGE



IBGE Field Structure

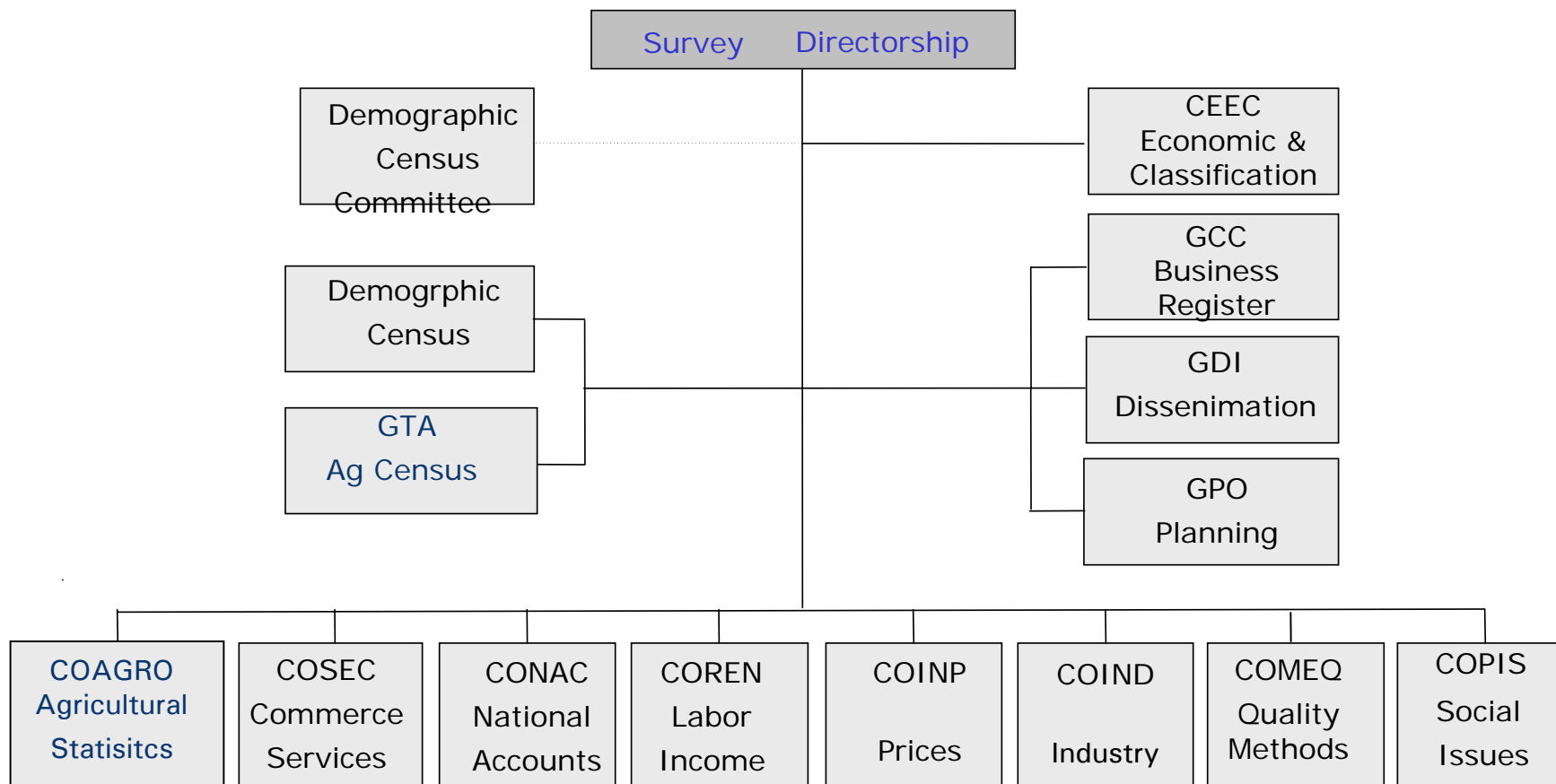
27 State Offices

532 Agencies (Local Offices) in 497 municipalities covering

5 563 Municipalities

Employees	TOTAL	Permanents	Temporaries
TOTAL	9 152	6 879	2 273
Head Quarters	2 551	2 447	104
State Offices	2 496	2 421	75
Agencies	4 105	2 011	2 094

Surveys Directorship Organogram



Business Statistics

- New model (since 1995 - The end of economic census and economic data in the enterprise level)
- Basis of the new system
 - Business Register - CEMPRE
 - National Classification of Economic Activities
- Annual and Monthly Surveys

Mining and Manufacturing Industries, Construction Industry, Trade and Services

Economic Statistics

- Synthesis
 - System of National Accounts – annual
 - GDP - Gross Domestic Product
 - System of Regional Accounts
 - Gross Domestic Product of Municipalities

Agriculture Statistics

- Census of Agriculture

- Annual Surveys
 - Municipal Agricultural Production Temporary and Permanent Crops (PAM)
 - Municipal Livestock Production Survey (PPM)
 - Extractive Agriculture and Forestry Production (PEVS)

- Short-term Surveys
 - Systematic Survey of Agricultural Production (LSPA – monthly)
 - Animal slaughter, milk production, leather, eggs
 - Survey of Stocks

Agriculture Statistics

- Census of Agriculture

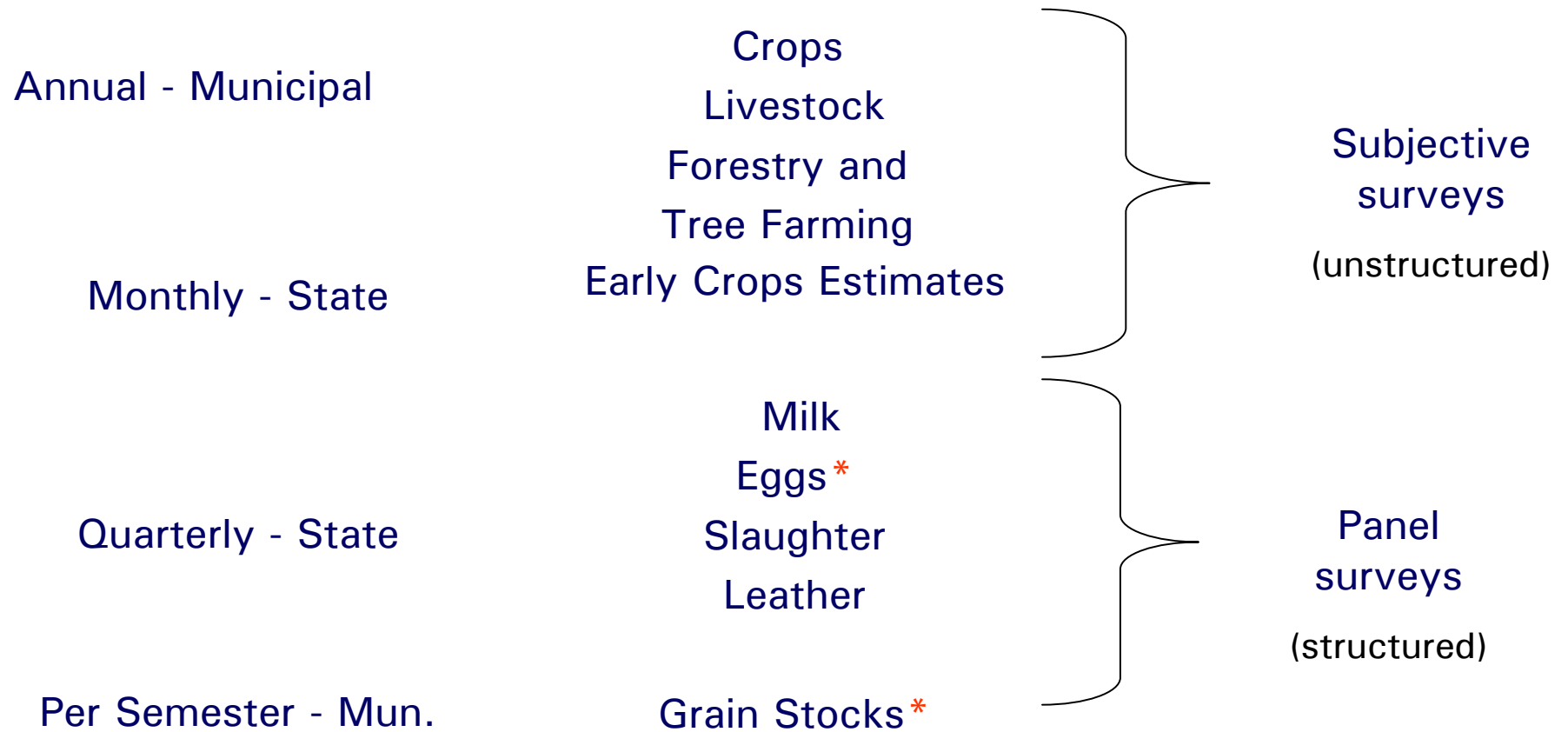
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Prices Statistics (monthly)

- National System of Consumer Prices Indexes (11 areas)
- National System of Costs Survey and Indexes of Construction – SINAPI
- Implementation of Producer Price Index (manufacturing)
 - will be released in 2011, April

Continuous Surveys



Agricultural Census*

* Farm providers

Continuous surveys general characteristics

The objective of these surveys is to collect data about the agricultural production, without engaging in more technical economic, social, environmental or detailed analyses.

Annual agricultural information and early crops estimates are based on subjective indirect survey methods: estimates (instead of statistical data) referring to the municipalities are obtained through specialized informants (administrative sources and/or local personal reporters, including enterprises). National, states and municipal boards assess and approve the estimates, mainly for crops.

Conjunctural data about livestock production and grain stocks are based on panel surveys (mostly of manufacturing companies)

National and State estimations are obtained by municipal data aggregation.

Continuous Agricultural Surveys of IBGE

Indicators	Surveys	Investigate Units	Periodicity	Release Level
Conjunctural	Systematic Survey of Agricultural Production – early estimates (LSPA)	Many Reporters (Municipal Survey)	Monthly	By States
	Production of milk (LEITE)	Diary Industries, Meat Industries and Tanning Industries	Quarterly	
	Animal Slaughter (ABATE) and Leather (COURO)			
	Egg Production (POG)	farms		
	Stocks (Crops) (ESTOQUES)	Storage Units And farms	Semestrial	
Structural	Municipal Agriculture Production – Crops (PAM)	Many Reporters (Municipal Surveys)	Annual	By Municipality
	Municipal Livestock Production (PPM)			
	Extractive Agriculture and Silviculture (PEVS)			

Method
Complete enumeration by direct interview

2006 Census of Agriculture characteristics

Statistical unit

- Agricultural holding - as defined by FAO WCA 2010

Limits

- no matter area size, purpose of production, land tenure, value of sales
- all sectors of agriculture
- includes forestry
- excludes family gardens

Coverage

- Entire country, rural and urban areas (85,147 Enumeration areas)

Method

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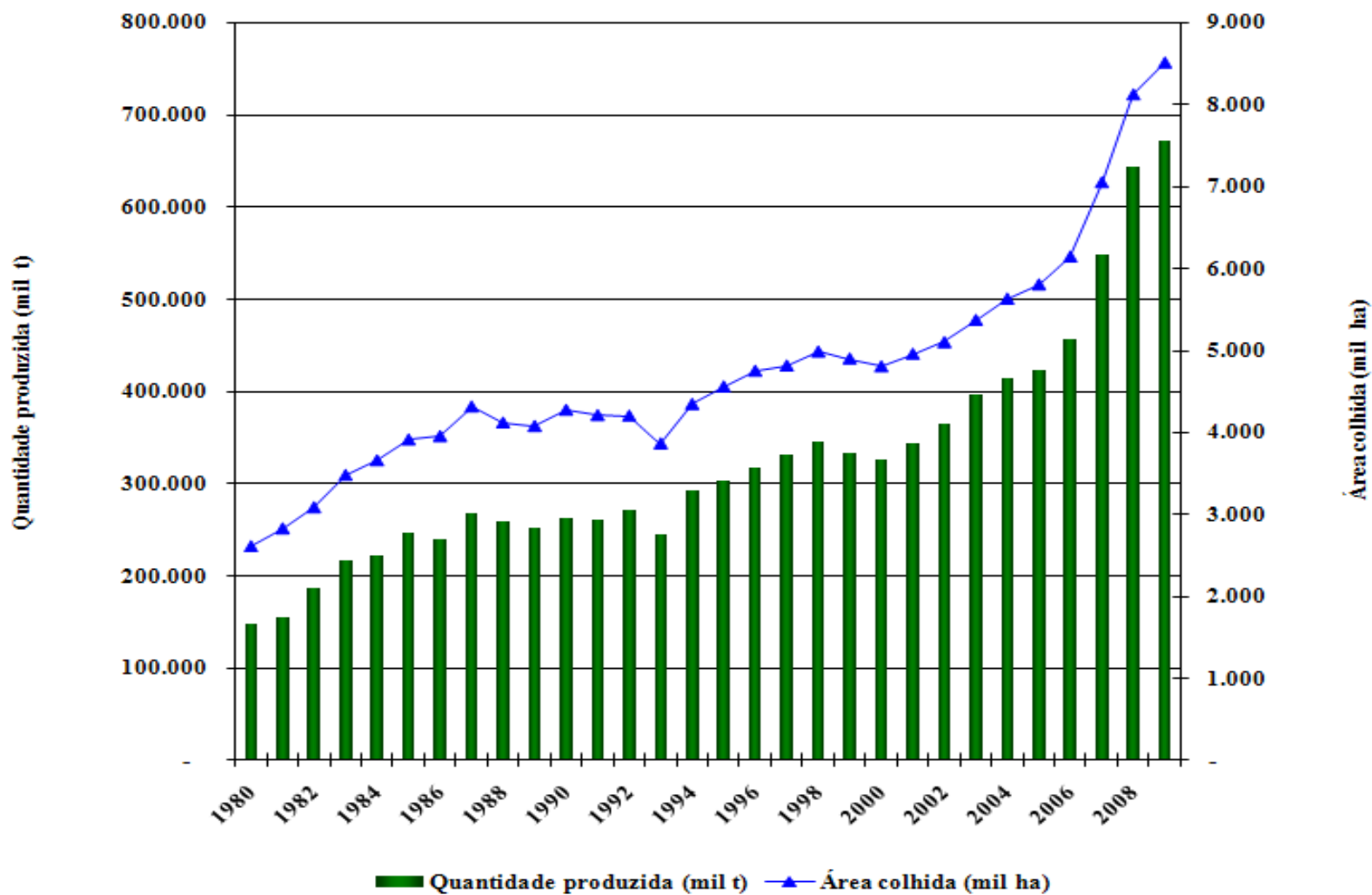
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Current Data Collection Challenges

- Complex establishments and enterprises are respondents for all kind of surveys
- Main challenges are related to:
 - Multi-activity enterprises
 - Enterprises with many establishments
 - Absent producer of big farms
 - Office separate and far from the establishment

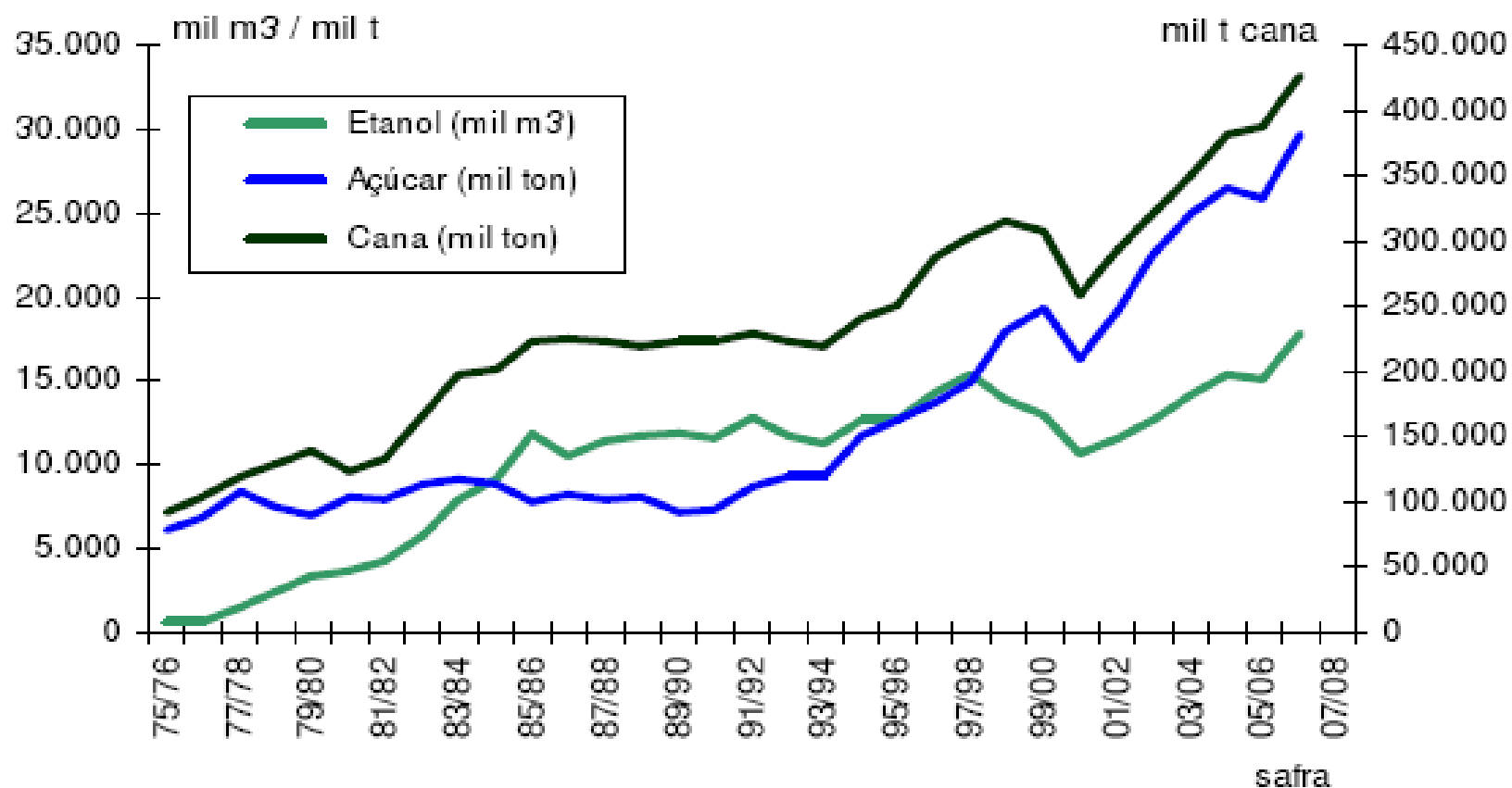
Sugarcane mills are the most numerous and typical example

Sugarcane sector case

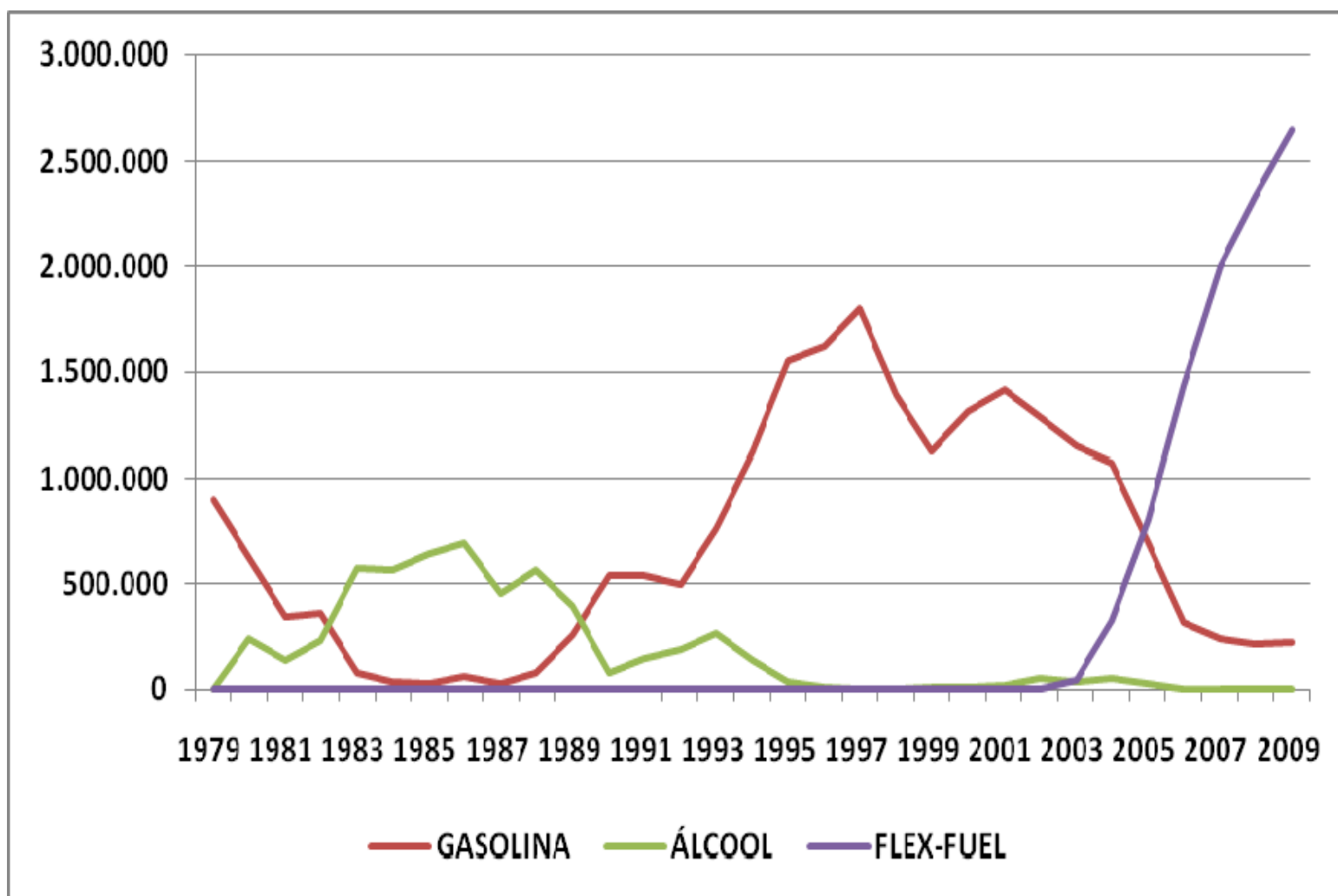


■ Quantidade produzida (mil t) ▲ Área colhida (mil ha)
Sugarcane production and area

Sugarcane sector case



Sugarcane sector case



Sugarcane sector case

- More than 400 Mills
- An average of 1.4 MM ton by year
- 80% from the Mills (own or rent land)
- 20% from ~ 60,000 independent farmers
- → Integration and centralization

Sugarcane sector case

- A Sugar cane Mill → hundreds spread establishments
 - 2006 Ag Census ad-hoc agreement
 - → 1 form by municipality
- In many cases: 1 form complete
others just area and production

Sugarcane sector case

- In Business Surveys the unit of investigation is the enterprise in Ag surveys the establishment

Sugarcane Mill financial data includes agricultural expenses like fertilizers, pesticides, fuel, etc.

- Intermediate consumption is over estimated
- value added under estimated

Main IBGE projects under development

- 2010 Population Census
- Design the Integrated System of Household Surveys
- Design the Agricultural Sample Surveys System - SNPA
- Revision of the Process and Program of Economic Statistics Production
- Enlargement of the geographical coverage of Consumer Prices Indexes \Rightarrow national coverage
- New approach of Population Census

National Agricultural Holding Sample Surveys System SNPA

- **Business case**

- **Unit:** Agricultural holding (and linked HH)
- **Registers:** List and Area frame (census tract)
- **Sampling:** Dual frame (population split – corporate/big X family)
- **Main Variables:** production, income, expenses, techniques
- **National surveys** of the events of greatest significance

PNPA - Agricultural Production Survey (quarterly)

SNPA - Data collect procedures

Elementary unit: Agricultural holding

Respondent unit: Companies (pessoa jurídica)

Producer/Family (pessoa física)

The most usual situation is:

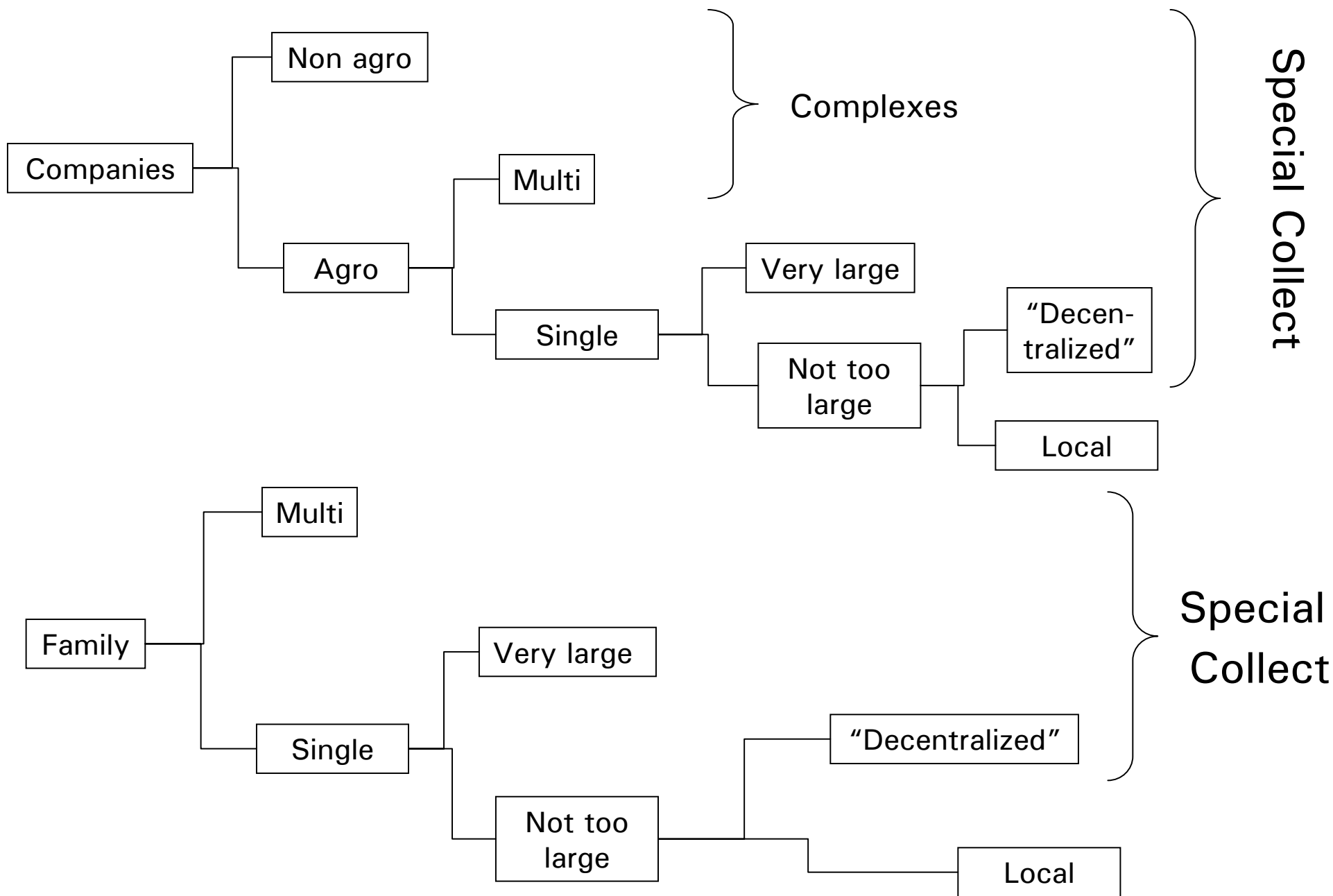
holding \equiv family \equiv household

Another important cases:

companies establishment (complex or not)

holdings (same company or family)

“decentralized collect” (holding \neq household or headquarter)



Some Proposals

Built a strong register

All Complex establishment covered by the list frame

Special forms for complex enterprises

Coordenating business and agricultural surveys

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