

# How to create a register?

Regional Training  
Producing Register-based Population Statistics in Developing Countries  
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# Types of registers

- Administrative
- Statistical

# Administrative register – what is needed

- Legal base
- Establish identifiers
- Starting point – establish population
- Updating

# Units and variables

## Definition of units

- No problem for natural units (for example persons)

## Definition of population

- Example population register
- What persons should be included
- Resident population?
- Legal population/Nationals?

## Variables

- What information is needed?
- Important information items
- Technical variables
  - Date of registration, source variable etc

# Unique identifiers

- Identifying codes (ID-numbers) should not be changed during the lifetime of a unit
- Best solution: Using codes containing no information
- Example: Norwegian personal ID
  - Contain date of birth and sex: Changes may occur
  - Temporary ID-number changed to permanent ID-number
- When ID-numbers are changed: The NSO should establish links between ID-numbers
  - One solution: Statistical, personal ID (no information)

# Establish population

- Example: Central Population Register

Possible sources for a population

- Census
  - Legal base?
- Regional/local registers
  - ♦ Possible problem: No common identifiers
    - May cause double registration
    - Matching by using name, address, sex, date of birth
- Administrative sources other than registers
  - Possible problem: Not in an electronic format

# Updating

- Decide who shall be responsible for updating
  - Often several sources for updating of different attributes
- Updating must start immediately after population is established
  - Otherwise changes in units and attributes are lost

# The Norwegian Central Population Register (CPR)

- 1915: Registration for large municipalities
- 1940-45: Law on population registration for all municipalities
- 1945: Population registration transferred to Statistics Norway (SN)
- 1964: A central population register established in SN. Personal Identification Number (PIN) was introduced. **Example**
- 1991: Transferred to the Tax authorities
- Population registration authority. Two levels:
  - Regional Tax Offices
  - Central Tax Authorities





# Norwegian Central Population Register - updating

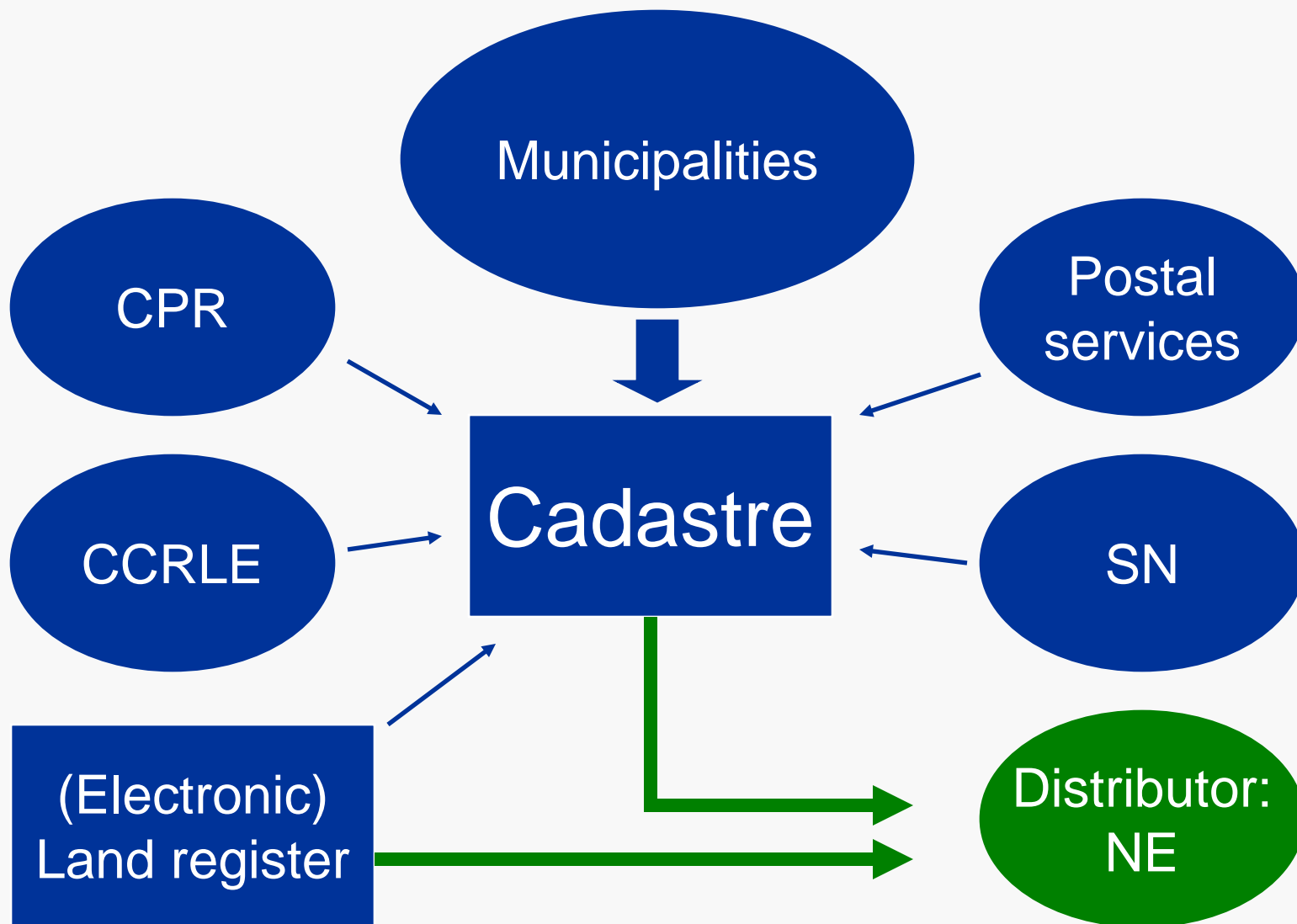
- Births and deaths: Hospitals
- Immigration, citizenship: Immigration authorities
- Change of address, emigration: Citizens
- Marriages, divorces, change of name, adoptions: Courts
  
- Administrative Central population register is updated every day
- The statistical population register is updated daily
  - All changes transferred to Statistics Norway

# Norwegian Cadastre

Register on Ground Properties, Addresser, Buildings, Dwellings and Digital maps

- Managed by the Norwegian Mapping Authority
- Started off with registration of properties in 1978
- Addresses from the Census of 1980
- Buildings from 1983
- Dwellings from 2001 (Census 2001)
- From 2008: Adding Digital Property Maps to the register system

# Contributors to the Cadastre



# Create a statistical register, what is needed

- Existence of comprehensive administrative registers of good quality
  - Access?
- Possibility to link units
  - Legal base?
  - Unique identifiers?
- Variables relevant to statistics
  - Or possibility to derive variables?

# Create a statistical register (2)

Consider use of more than one administrative register

- Population
  - Central or local/regional population registers
- Variables
  - Directly accessible or derived

# Statistical Population Register

- Target population for population statistics: Persons resident in the country
  - Or include even other groups?

## Central population register exists

- Is the target population in administrative population register?
  - Only nationals?
  - Including persons living abroad?
- Necessary to use more than one source register?

# Statistical Population Register (2)

## No central population register exists

- Necessary to combine several registers
- What sources are available?
  - Tax registers, social security etc
- Combine registers to improve coverage
- Possible problems: Under- and over-coverage, double counting



# Derived populations

- In Norway: No households register
- Household = All persons living in same dwelling
  - Combining ID for persons and dwellings
- Family
  - Married couples with or without children
  - Lone parents with children
  - Cohabiting couples, estimation?

# Derived variables – multiple sources

- Creation of new variables
  - Example: Current activity status
- Prioritisation of information for a given variable
  - Depending on quality and coverage
- Adjustment or correction of information
  - Obtain maximum consistency

# Time references and data on events

Registers well suited for creating longitudinal data

- Important to register dates of changes and events
  - Real point in time when possible: Births, deaths
  - Sometimes gradual changes: Industry of an enterprise
- Dates of actual changes and dates of registration
- Distinguish real events from corrections in registers

**Thank you for your attention?**