

**Implication of ICR for the 2010
Population and Housing Census :
Thailand Experience**

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Presentation Outline :

- **Background of Population Census in Thailand**
- **Initiative of Using IT in Data Capturing**
- **Experience of Using ICR**
- **Lesson Learnt of Using ICR**
 - **Advantage**
 - **Disadvantage**
- **Future Plan**

Background of Population Census in Thailand :

1909

1919

1929

1937

1947

Ministry of Interior

1960

1970

1980

1990

2000

NSO :

- from 1960 : to undertake in **the** year ending with "0"

- in 1970 : the 1st Housing Census together with Population Census.

Initiative of Using IT in Data Capturing :

1960

1970

1980

1990

Manual Data Entry System

2000

IT Assisting : ICR

Image Scanning and ICR

- **Image Scanning technology :**
 - **A system used to capture data from questionnaire, fax or internet with a minimum amount of human intervention.**
- **Type of Image Scanning :**
 - **OCR (Optical Character Recognition)**
 - **OMR (Optical Mark Reader)**
 - **BCR (Bar Code Reader)**
 - **ICR (Intelligent Character Recognition)**

Experience of Using ICR :

- **The 2000 Population and Housing Census**
- **The 2003 Agricultural Census**
- **The Monthly Labor Force Survey**
- **The Household Manufacturing Industry Survey**

Comparison of Manual Data Entry and ICR System

Item

Data Entry

ICR

Workload

4,901.6 mil. keystrokes

46.6 mil. pages

Appropriate Time

10 months

10 months

Budget

34.1 mil. baht

6.3 mil. baht

Personnel

408 persons

80 persons

Lesson Learnt of Using ICR

Advantage :

- **Suitable for large-scale sample survey and census, release data more rapidly.**
- **Reduce time and cost of data processing.**
- **More accurate and reliability for data capturing.**
- **Image of questionnaires, stored in small files, more convenient to archive and retrieve.**
- **Require less personnel.**

Lesson Learnt of Using ICR

Disadvantage :

- **Strictly designed questionnaire; size, paper, color, figure and answer box.**
- **Record questionnaire with fixed pencil and handwriting.**
- **Distribution and return questionnaire should be careful.**

Future Plan

- **Expanding ICR system to regional center.**
- **More training provided to enumerators.**
- **Alternative plans for data capturing.**