Process documentation research of CAPI uses in VDSA project

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Introduction

Computer Assisted Personal Interviewing (CAPI) provides huge efficiency gain in household survey and data management over Paper and Pencil Interview (PAPI). ICRISAT - VDSA team introduced CAPI mode of survey in three villages of SAT India in 2014.

Objectives

- To assess and document process adopted in implementing CAPI mode for household survey in the VDSA project
- To assess lessons learnt for improving the process.

Methodology

The process adopted and lessons learnt in using CAPI in the VDSA project have been summarized here using Process Documentation Research (PDR).

Results and Discussions

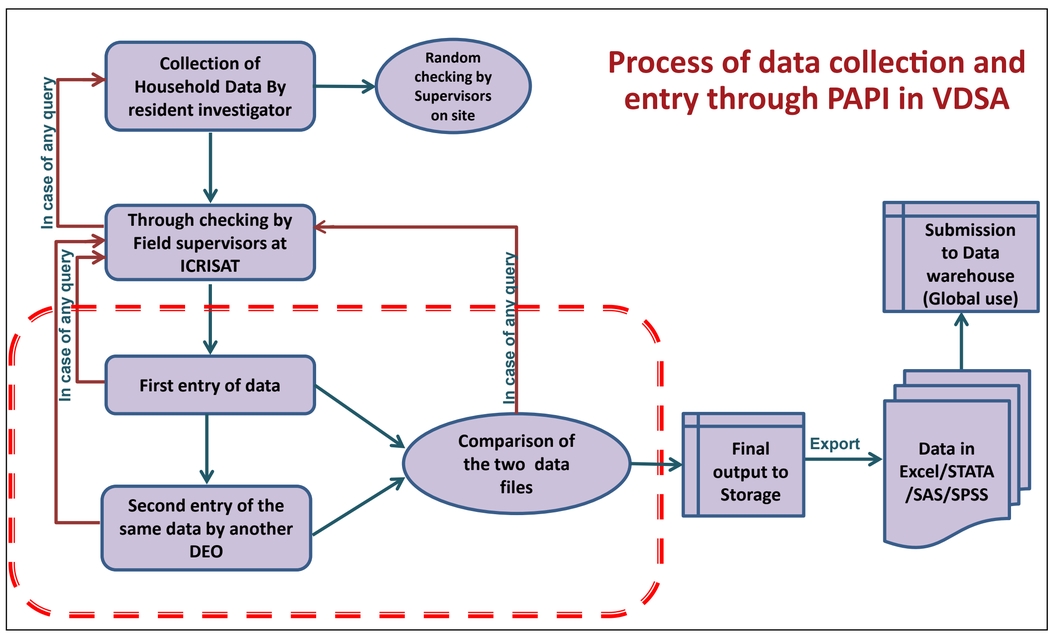

Fig. 1 Schematic diagram of lifecycle of VLS/VDSA with PAPI mode of survey.

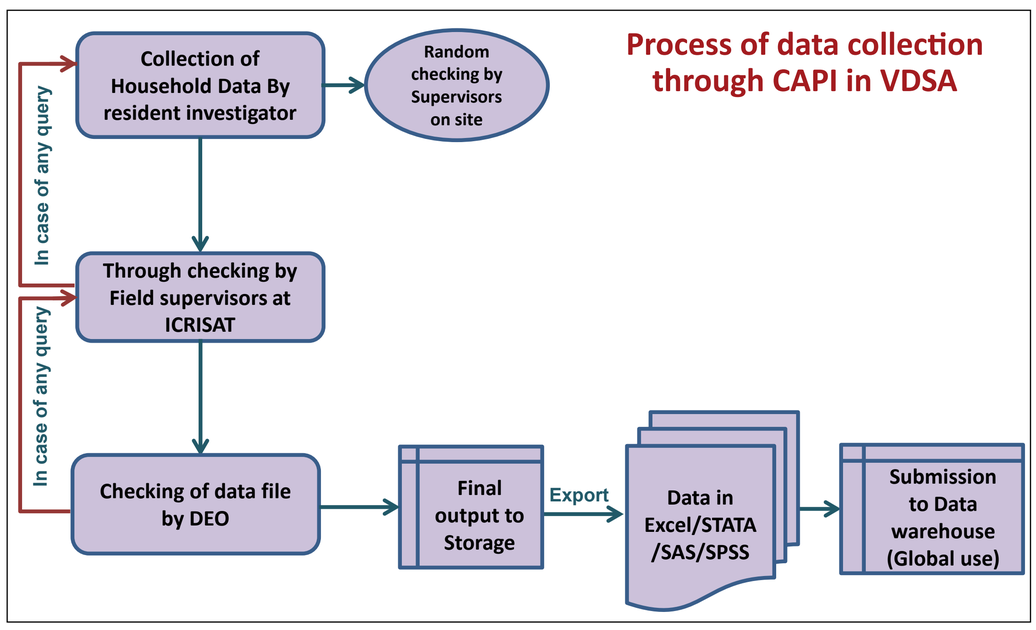

Fig. 2 Schematic diagram of lifecycle of VLS/VDSA with CAPI mode of survey.

Table 1. Timeline of various types of computer used in different phases of VLS/VDSA data management in ICRISAT.

Item	1975-84	2001-04	2005-13	2014 onwards
Computing machines used	PDP-11 computer	Desktop	Desktop	Laptop
Software used for data entry	CRISP package (Developed internally)	Microsoft Excel	CSPro2.6/ CSPro4.0	CSPro5.0 (CAPI version)
Data entry mode and process	Data entry operator at ICRISAT	Data entry operator at ICRISAT	Data entry operator at ICRISAT	Investigators in the field
Format of the data output shared	Text file	Excel file	CSPro data file(can be exported to excel, SAS, STATA)	CSPro data file
Media for backup of data	Tapes	Hard disk	Server and External hard disk	Server and External hard disk

Major steps taken for CAPI uses in VLS/VDSA

- In 2011, Samsung Tablet was tried for CAPI uses in three VDSA villages, but Field Investigators didn't like the instrument and we discontiued it.
- Extensively reviewed the available software and hardware for CAPI uses.
- After review and consultation with CAPI users in other CG centers, and NARS partners, we decided to use CSPRO 5.0 software for using CAPI in VLS/VDSA survey.
- We developed e-software program of all modules of VDSA survey instruments, and they were tested by supervisors in headquarters.
- We have been Pilot testing two modules in two villages since January 2014.
- A four-day training on CAPI was given to all 20 field investigators.
- From July 2014 onward, all the modules have been introduced in three villages.
- We found a huge saving on cost of operation related to supply and material items, supervision, monitoring and travelling costs in using the CAPI.
- With the help of NAFUNDI/USA, we are also developing e-checklist using ODK software (Android version), which will be field tested from mid-April 2015.

Table 2. Time saving using CAPI over PAPI.

	% saving of time
Field Investigator time in survey	40
Field Supervisor time in data checking and supervision	30
Data retrieved by the scientist for analysis (ex. Transaction & Livestock modules)	80

Conclusions

- High quality of household survey and compilation of quality data by using CAPI
- Efficiency in operation, and saving of huge cost and time in data processing.
- We can use the survey data within one month under CAPI, which otherwise would take over 6 months in using the PAPI mode of survey.
- Reduced transaction cost and hassle in a multi-location household survey.
- The annual cost of saving on supplies would be more than cost of laptop (Tablet) for the CAPI survey. Besides, there is huge saving on cost of manpower.

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ICRISAT's scientific information: **http://EXPLOREit.icrisat.org**

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