

# DISSERTATION PRESENTATION

## 2021- 2023

### INTEROPERABILITY OF SOCIAL PROTECTION SYSTEM (*SP-MIS*) WITH CIVIL REGISTRATION & VITAL STATISTICS (*CRVS*) SYSTEM



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# Screenshot Of Approval

**Dissertation PPT and Report**    

 **Diya Gouchwal**  
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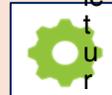
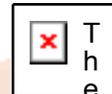
 **Divya Agarwal**  
PFA ppt for highlighted revision plus conclusion should be objective relevant.  Mon 6/12/2023 4:51 PM

 **Diya Gouchwal**  
Thank you ma'am for your valuable suggestions, I have made the required changes.  Mon 6/12/2023 5:43 PM

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 **Diya Gouchwal**  
Thank you ma'am for the approval. Get Outlook for iOS Wed 6/14/2023 11:43 AM

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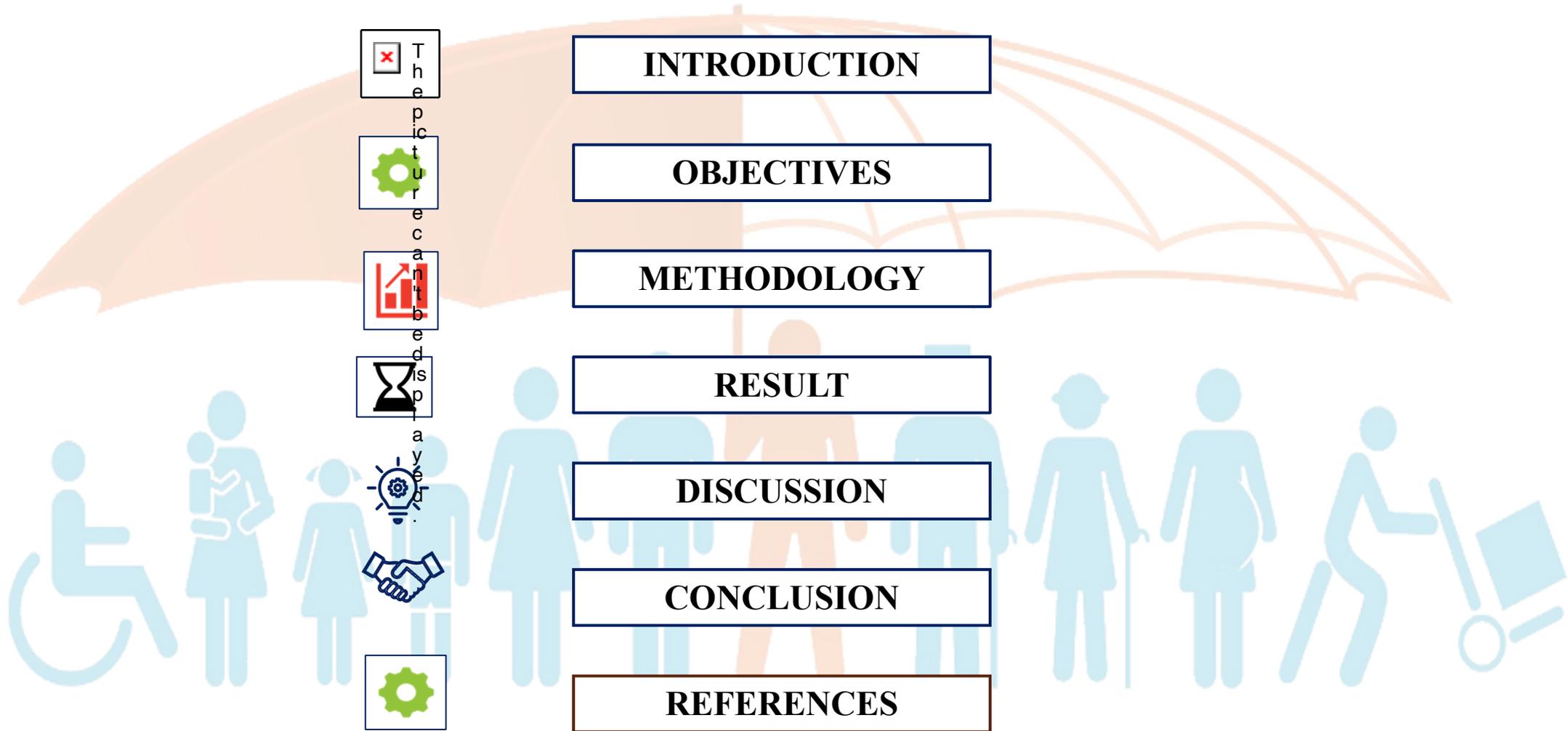
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# Introduction

## TITLE OF THE STUDY

**Integrating Social Protection- Management Information system (SP-MIS) with digital Civil Registration and Vital statistics (CRVS) system in six Countries: Literature based Study**

### Social Protection Programs

**Policies and programs aimed at reducing the economic and social vulnerabilities of children, women and families, in order to ensure their access to a decent standard of living and essential services.**



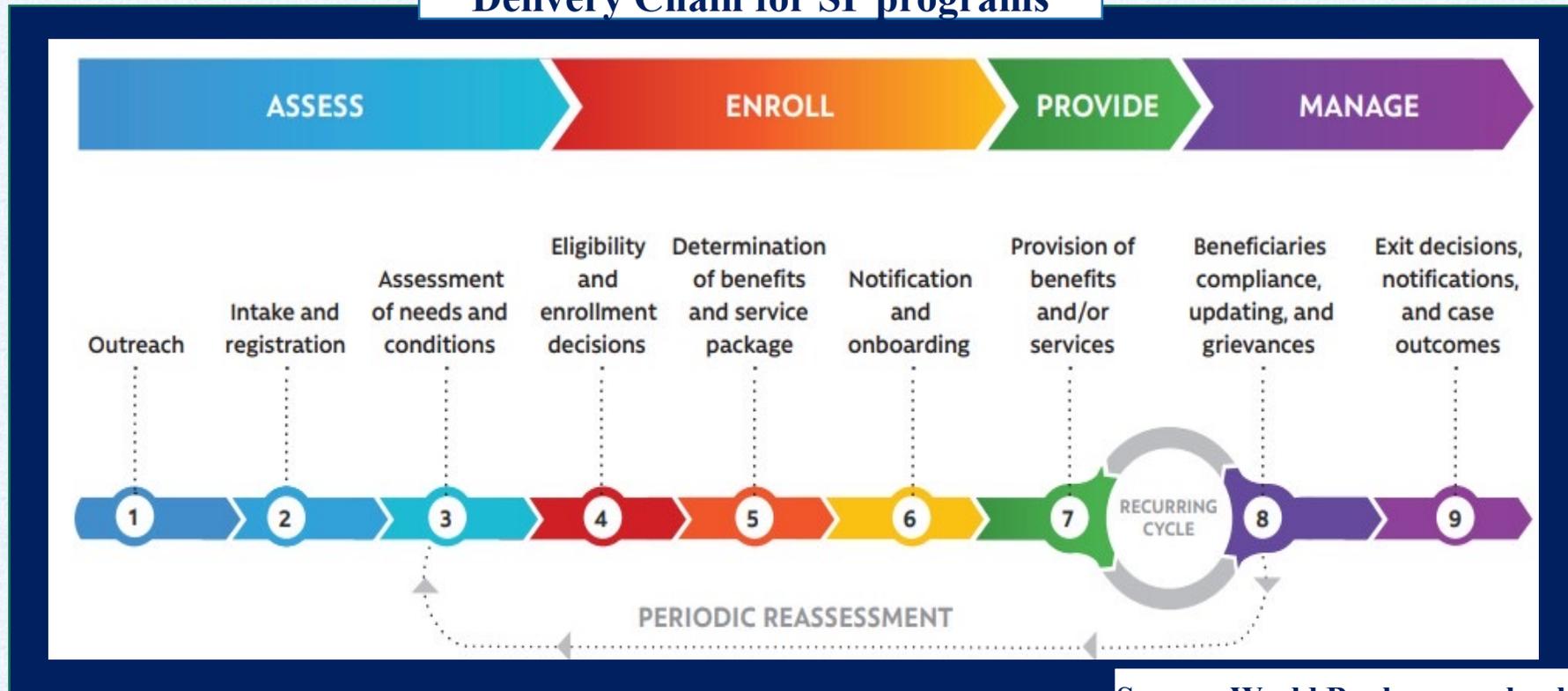
**To overcome financial and social barriers to accessing services**



**BREAKING INTER-GENERATIONAL POVERTY CYCLE**



## Delivery Chain for SP programs



Source : World Bank source book

### Civil Registration & Vital Statistics (CRVS)

A well-functioning Civil Registration and Vital Statistics (CRVS) system registers all births and deaths, issues birth and death certificates, and compiles and disseminates vital statistics, including cause of death information. It may also record marriages and divorces.



## Digital Social Protection

Information systems are indispensable for delivery of Social Protection

Social protection delivery systems are complex with multiple interconnected components

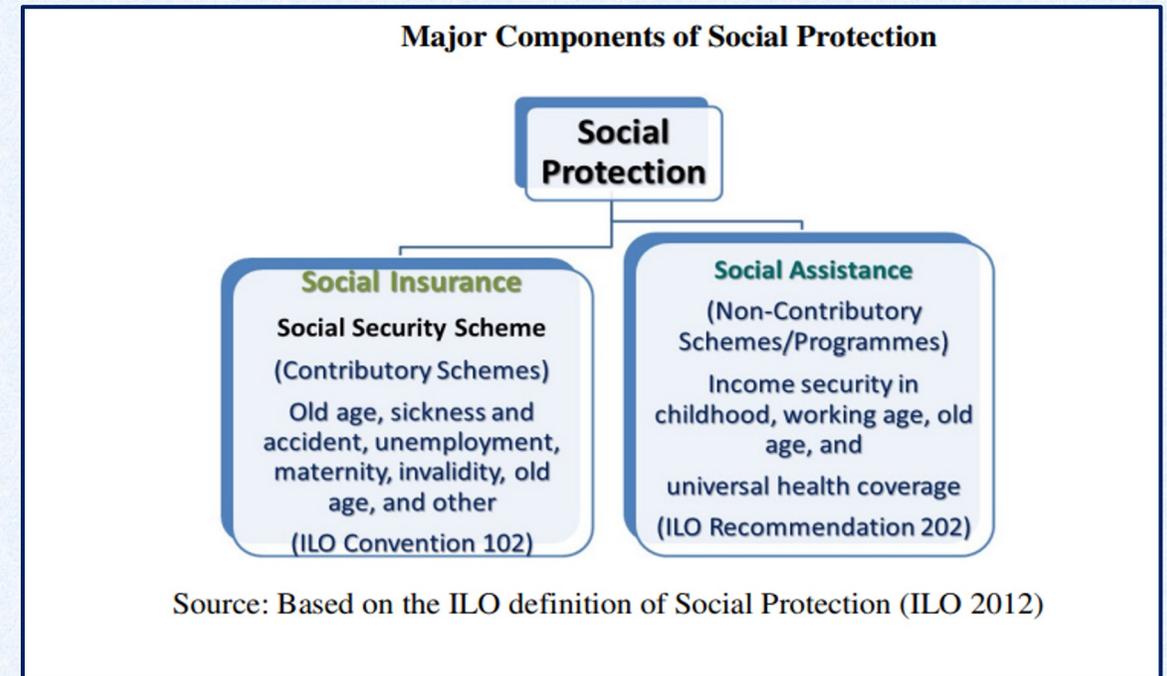
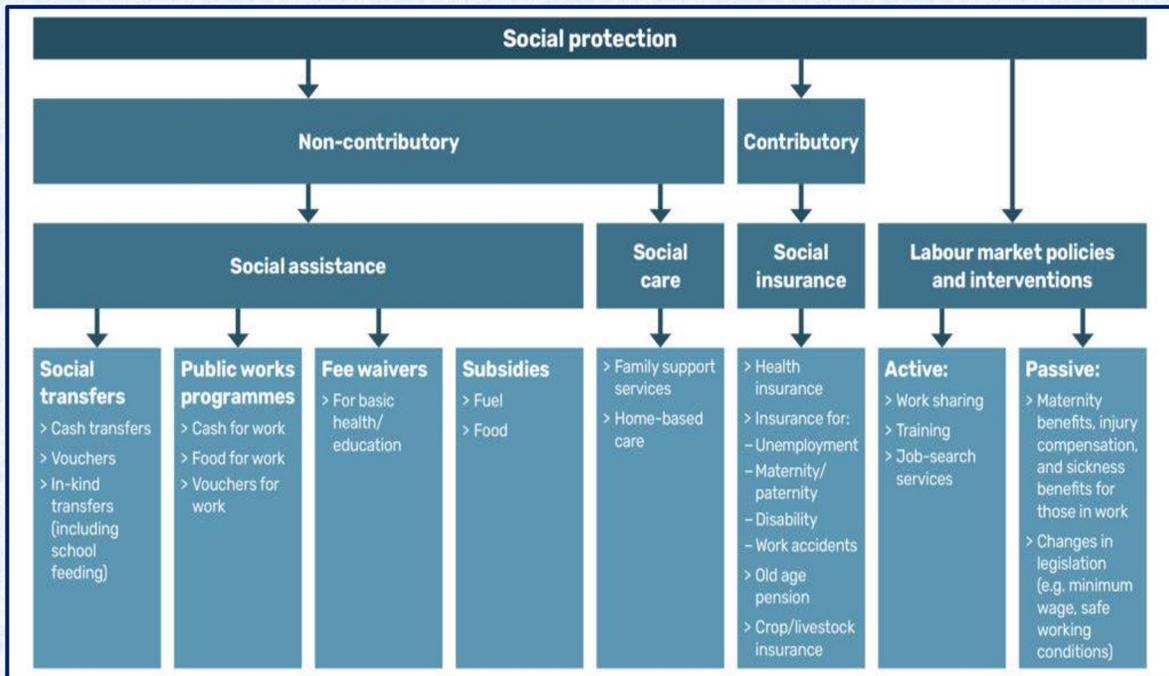
Integrated and interoperable social protection systems enable efficient, responsive service delivery

USP 2030 Vision : A world where anyone who needs social protection can

Social Registry, ID system, G2P system, integrated beneficiary registry, CRVS, Pension, program specific information system

Helps in eligibility and duplication check, targeting, administration, enhance user experience, adaptive social protection

# Types of Social Protection



Source: Based on the ILO definition of Social Protection (ILO 2012)

## According to the Literature Review,

“Efficient Delivery of social protection :Leveraging Interoperability with CRVS system”  
- Anita Mittal et.al.(2022)

“Civil registration & Vital Statistics in Healthcare systems”  
- Debra Jackson et.al.(2018)

“A multisectoral institutional arrangements approach to integrating CRVS & identity management systems ”  
- Samuel Mills et.al.(2019)



## Purpose & Objective of the Study

### AIM OF THE STUDY

The aim of this study is to identify the gaps in the existing Social protection systems in the six targeted countries and provide a solution to address the gaps through integration of CRVS (Civil registration & Vital statistics) system SP-MIS (Social Protection- Management Information system).

### OBJECTIVE OF THE STUDY

To develop a use case document that highlights the Interoperability between Social protection- Management Information system (SP-MIS) & Civil registration & Vital statistics (CRVS) system.

# Methodology

DATA COLLECTION



**RESEARCH DESIGN**



This is a secondary research (Descriptive Study) that will rely on the analysis of secondary data collected from the various web sources (Published articles, World bank documents, PubMed, Google scholar).

DATA ANALYSIS



**DATA COLLECTION**



Literature Review:

- A desk research was conducted to understand the use of Civil Registration and Vital Statistics (CRVS) for Social Protection (SP) program delivery.
- The study of six country cases -Chile, Argentina, Namibia, Tunisia, South Korea and Philippines.

IDEATION & PROTOTYPING



**DATA ANALYSIS**



Analysed information from various sources to create use cases for SP program delivery leveraging interoperability with CRVS.

Documented the business process flows of the identified use cases using sequence diagrams.

**Tools used :** Draw.io, MS-PowerPoint

DOCUMENTATION OF RESULTS



**SEARCH TERMS**



CRVS, Social Protection, Interoperability, Integration, Standards, identification, identification documentation, Digital Convergence Initiative, USP2030

## Results

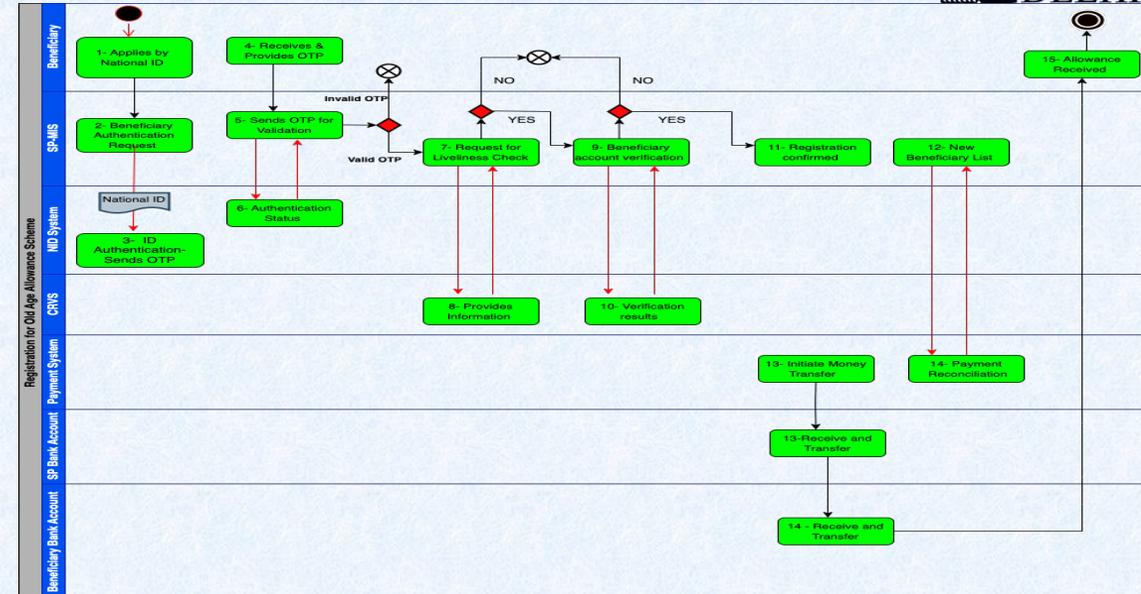
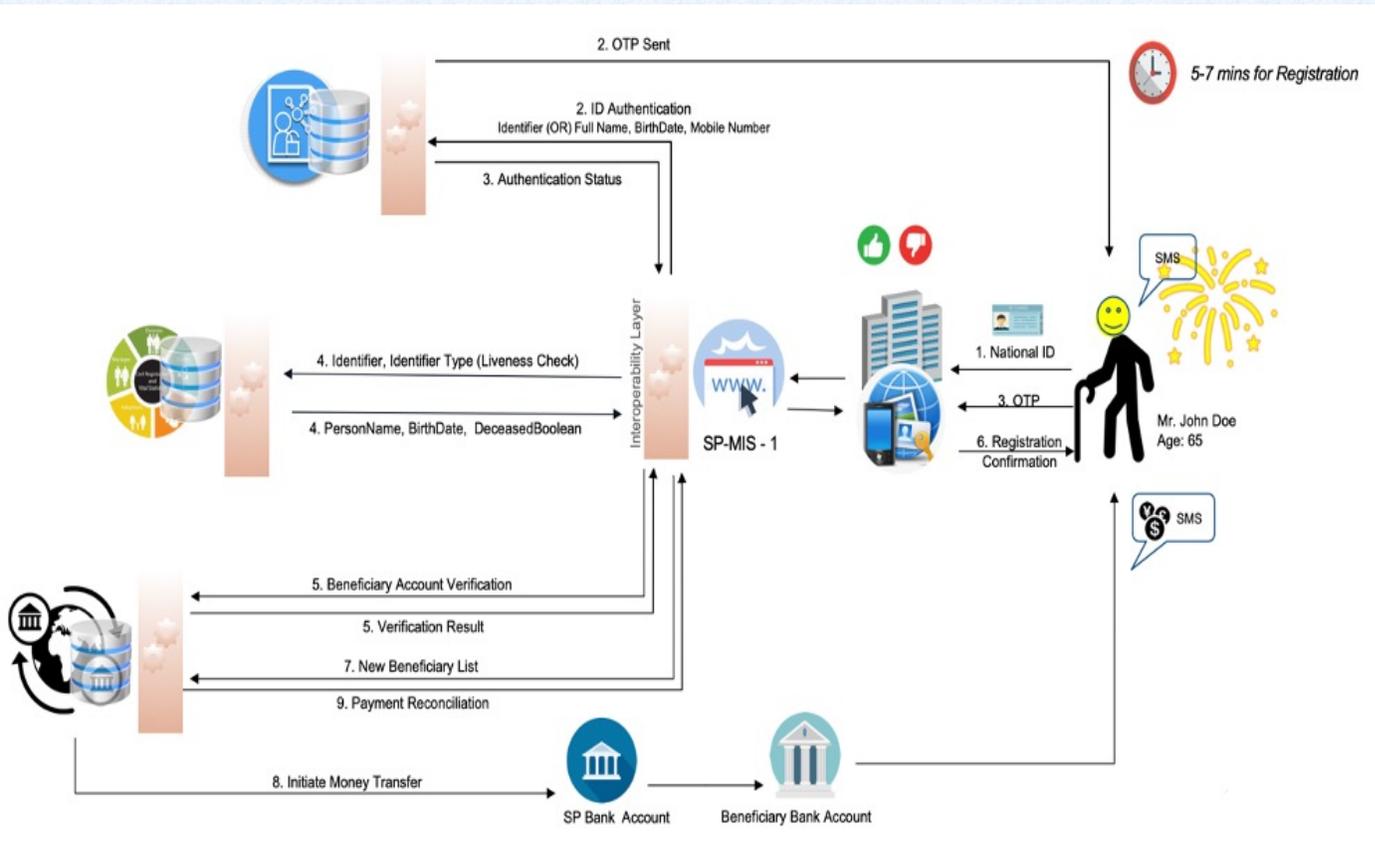
### USE CASES

1. Registration for Old Age Allowance Scheme
2. Registration for Widow Allowance Scheme
3. Registration for Child Benefit Scheme

# USE CASE-1

## Birth and Live Verification Use Case

(Old Age Protection Scheme Registration Scenario)- *Pensions scheme registration for old women and men*

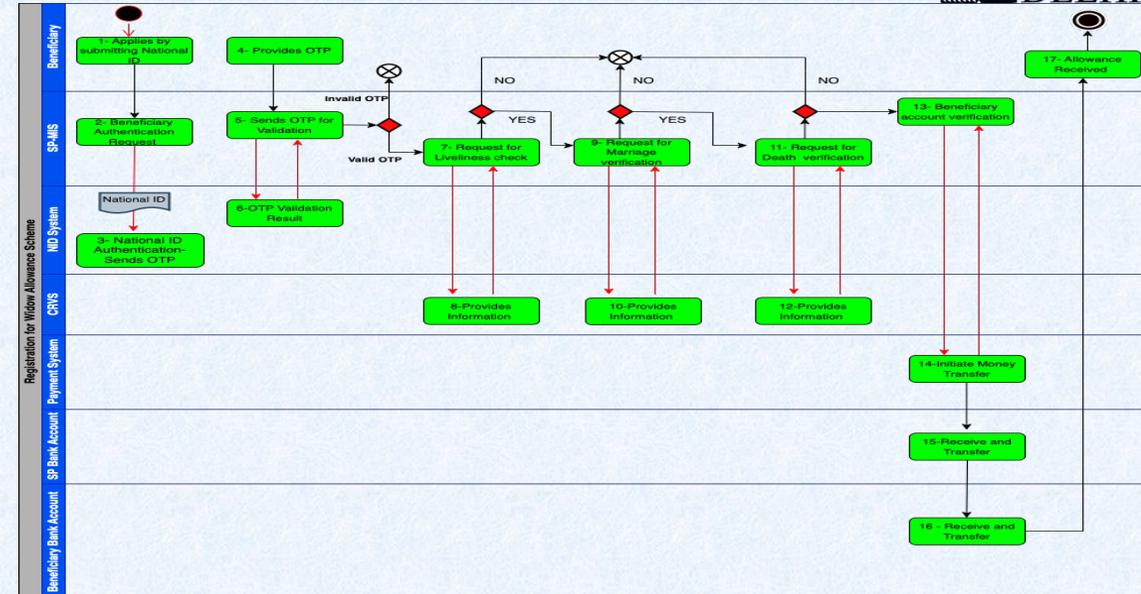
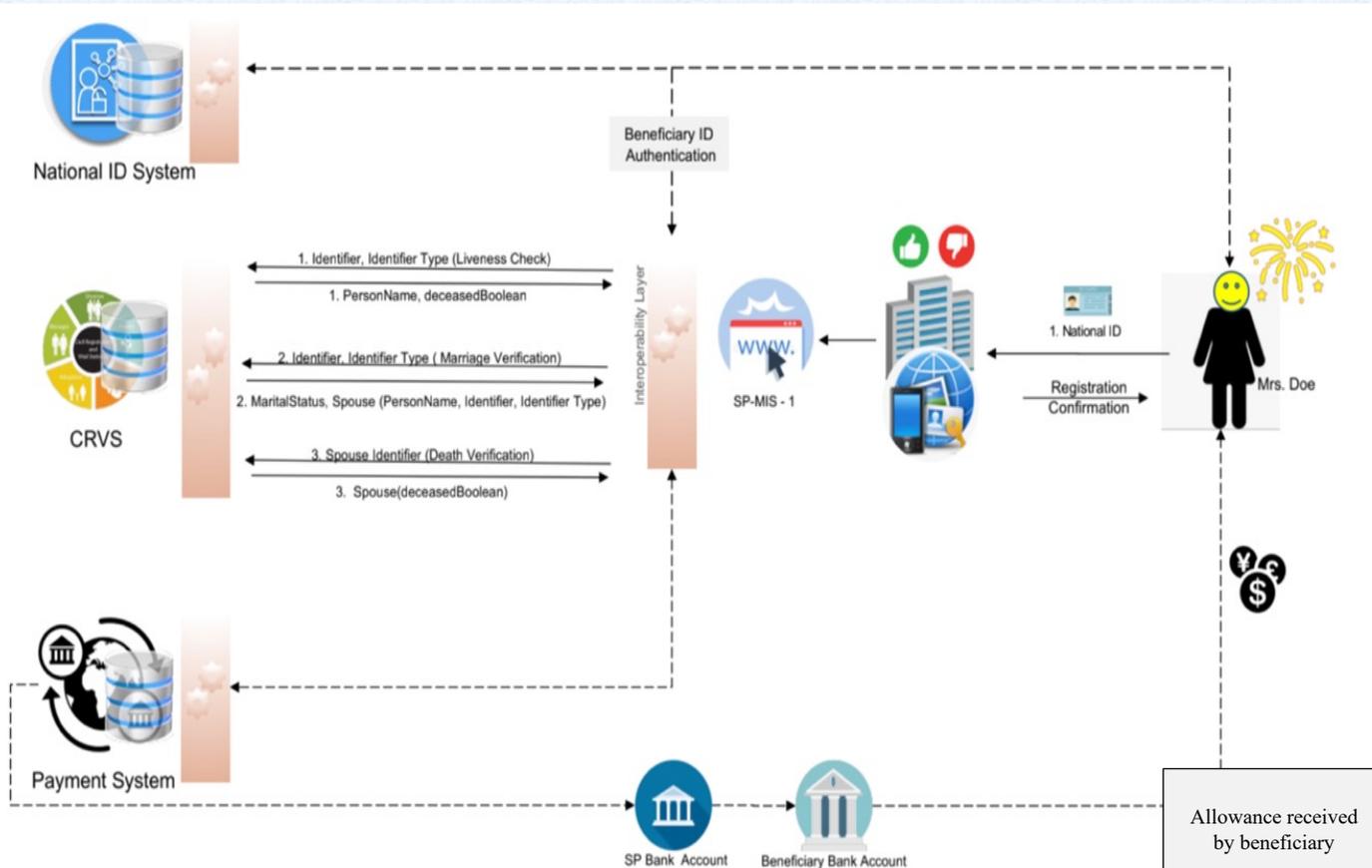


Sections	Description
Overview	An old age person chooses to register for pension scheme to get old age monetary benefit
Actors	Applicant, Registration Authority, Pension SP MIS, CRVS system, Middleware service
Assumptions	<ul style="list-style-type: none"> <li>Person already has a National ID and Birth Registration documents</li> <li>Person's birth event is registered in the Civil Registry</li> </ul>
Pre-Condition	<ul style="list-style-type: none"> <li>Person may provide National ID or Birth Registration Documents</li> </ul>
Process	As Shown
Post Conditions	<ul style="list-style-type: none"> <li>Pension related Online system are informed verification details</li> </ul>
Alternate Flows	<ul style="list-style-type: none"> <li>Person does not have a National ID</li> <li>CRVS returned with 'No Results' as a Response with Status / Error code</li> <li>Verification with CRVS response - Failed - No Match Found</li> <li>Verification returns with multiple matching records</li> </ul>

## USE CASE-2

# Birth, Death, and Marriage Verification Use Case

(Widow Allowance Scheme Registration Scenario)- **Widow pension to deceased Pensioners Spouse**

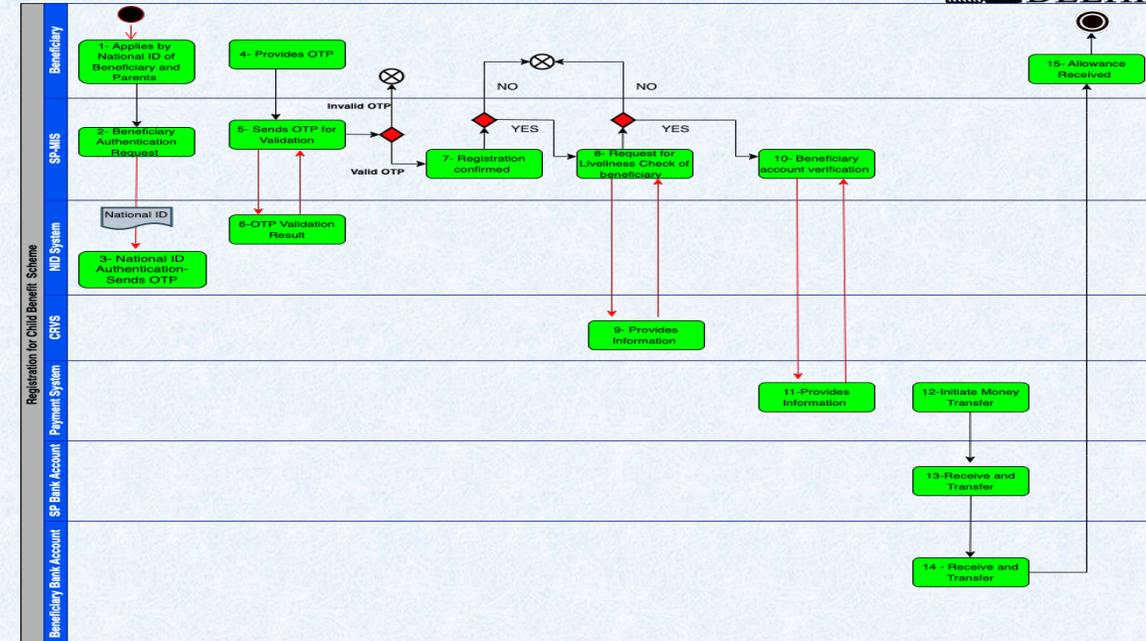
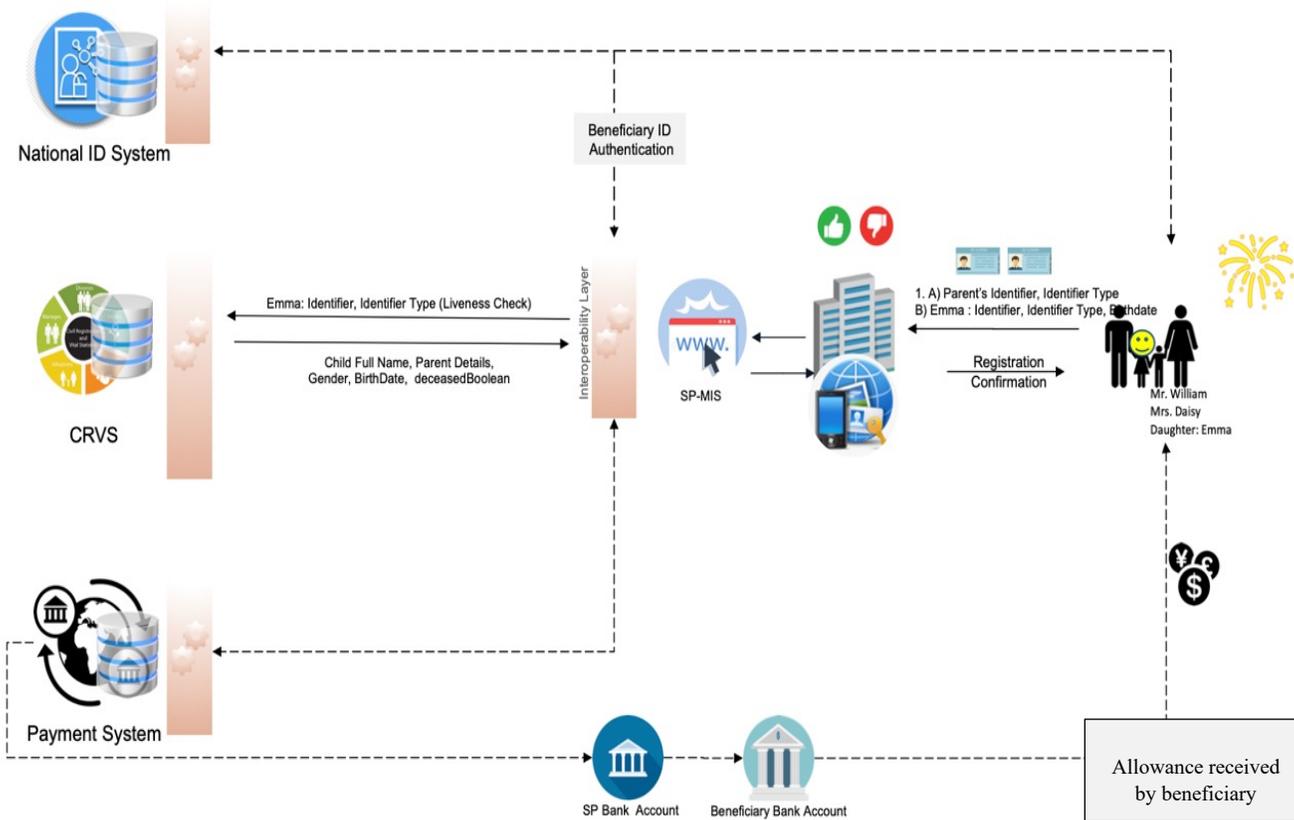


Sections	Description
Overview	Provide Widow pension benefits to the deceased pensioners widow
Actors	Widow, Deceased Person details, Registration Authority, Social Protection Widow Pension related Online system, CRVS system, Middleware service
Assumptions	<ul style="list-style-type: none"> <li>Widow already has a National ID, Birth Registration and Marriage Registration proof</li> <li>Widow also has deceased person National ID proof</li> <li>Event of widow birth is register in CR</li> <li>Event of Deceased person death is registered</li> <li>Deceased has only one Legal Spouse</li> </ul>
Pre-Condition	Widow to provide Death Registration Documents
Process	As Shown
Post Conditions	<ul style="list-style-type: none"> <li>Pension related Online system are informed of this successful verification</li> </ul>
Alternate Flows	<ul style="list-style-type: none"> <li>Widow does not have a National ID, Birth reg. or Marriage reg. proof</li> <li>CRVS returned with 'No Results' as a Response with Status / Error code</li> <li>Verification with CRVS response - Failed - No Result Found</li> <li>Verification returns with multiple search result</li> </ul>

# USE CASE- 3

## Birth and Live Verification Use Case

### (Child Benefit Scheme Scenario)- *Registration for Child Benefit Scheme*



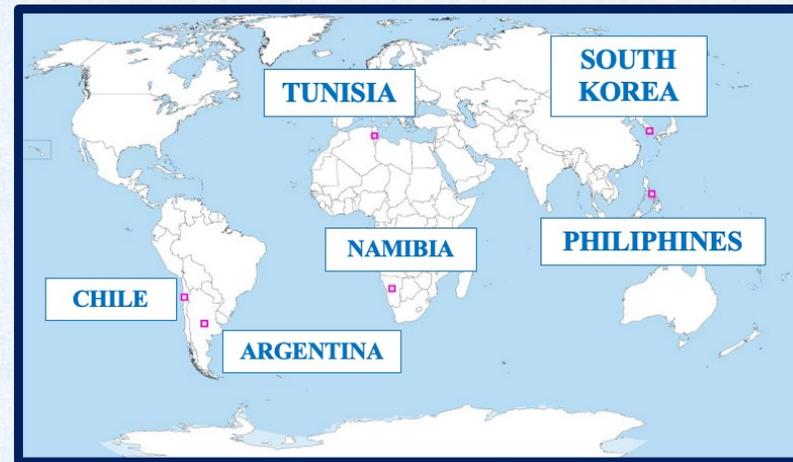
Sections	Description
Overview	Parent/Guardian chooses to register child for child benefit schemes (Cash Grant Programme, Malnutrition related Programme, Mid-Day Meal Programme, Infant and Young Child Feeding Programme)
Actors	Parents/Guardian, Child, Registration Authority, Social Protection System, CRVS system, Middleware service
Assumptions	<ul style="list-style-type: none"> <li>Child already has a National ID and Birth Registration documents</li> <li>Child's birth event is registered in the Civil Registry</li> </ul>
Pre-Condition	<ul style="list-style-type: none"> <li>Child may provide National ID or Birth Registration Documents</li> </ul>
Process	As Shown
Post Conditions	<ul style="list-style-type: none"> <li>Child benefit related Online system are informed about search details.</li> </ul>
Alternate Flows	<ul style="list-style-type: none"> <li>Child does not have a National ID/Birth Registration No.</li> <li>CRVS returned with 'No Results' as a Response with Status / Error code</li> <li>Search with CRVS response - Failed - No Match Found</li> <li>Search returns with multiple matching records</li> </ul>

## Discussion

Based on the country case studies and use case analysis it is evident that integrating social protection program information systems with digital CRVS systems has numerous benefits.

- ❖ Firstly, it can help governments ensure that their social protection programs reach their intended beneficiaries by establishing more accurate and up-to-date information on individuals by fetching the data from CRVS system. This can prevent fraud and ensure that program benefits reach those in need.
- ❖ Secondly, integration can reduce administrative burdens and streamline program delivery by automating registration and verification processes.
- ❖ Lastly, it can improve evidence-based decision making by providing governments with standardized data repositories and APIs that can be used to inform policy decisions and track progress towards development goals.

Overall, integration of social protection programs and CRVS systems has the potential to improve the lives of vulnerable populations and promote sustainable development.



Countries like Argentina, Chile, Namibia, South Korea, Philippines and Tunisia that have implemented policies, processes, and procedures to improve civil registration and combat poverty and exclusion.

For each of the countries, the result of the reforms they chose to undertake has been effective organizations able to provide efficient registration services and the identity credentials that are accepted by citizens, residents, and across the public sector.

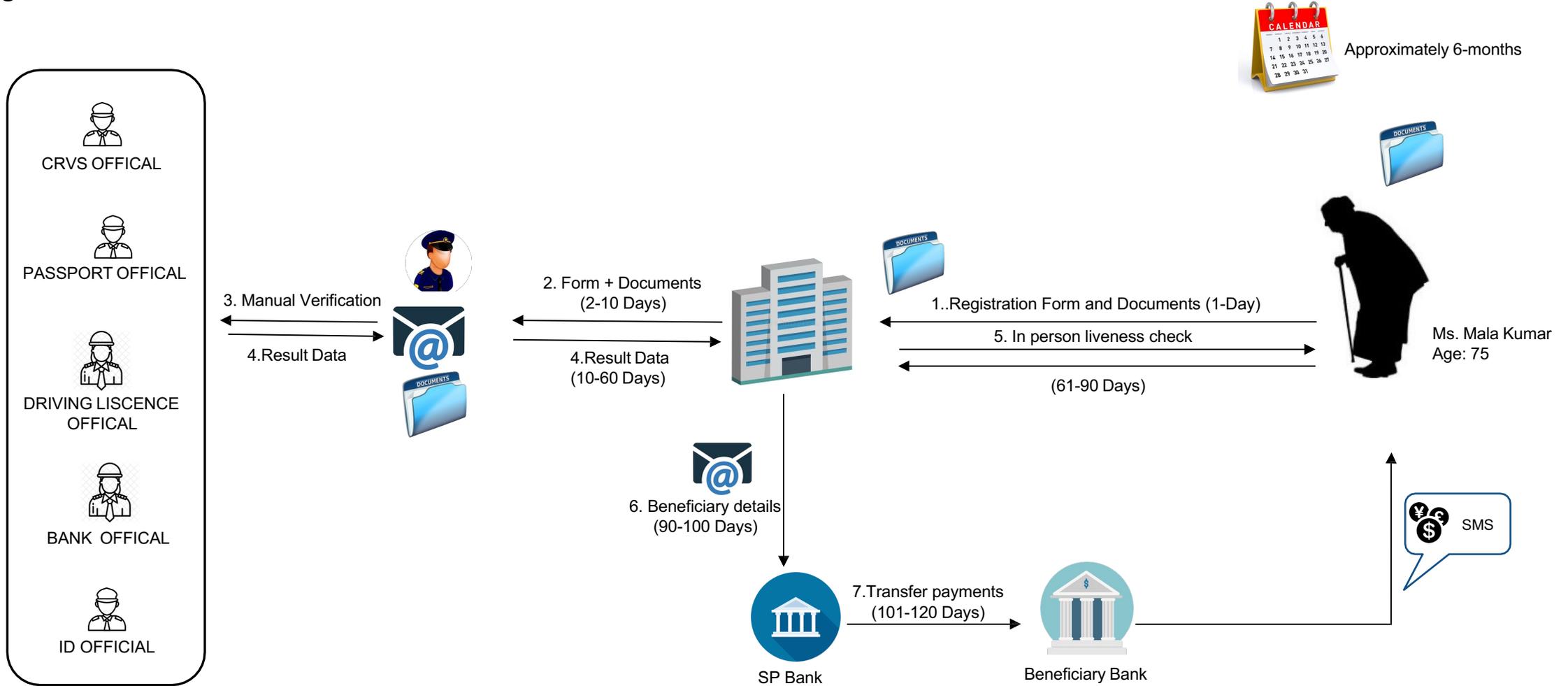
Key components of these changes have been strengthening the administrative structure of the civil register and addressing the organizational culture of the civil service

The six countries — Argentina, Chile, Namibia, South Korea, Philippines and Tunisia — have undergone very different processes for civil registration and social protection. They differ in the time this has taken, the scale of the reforms, how they arrived at their present arrangement, and the maturity of their linked civil registration and social protection systems.

- Quite a few low- and middle-income countries have deficient CRVS systems. Countries and multilateral organizations are working on strengthening their CRVS systems as they realize the need and potential of these systems for legal identity, administrative functions as well as statistical function.
- To realize the benefits and synergies of interoperability, well-functioning digital CRVS system and SP information systems are prerequisites. The CRVS system should be inclusive and with high coverage of the vital events to enable the SP systems to leverage the data for decision making in program delivery. The CRVS system and SP systems should ensure that both the systems are interoperable by design by adopting open standards which enable interoperability and avoid vendor lock in.
- However, important challenges should be resolved while developing interoperable systems. Despite potential benefits to the systems, achieving interoperability is not simple. Challenges encountered from country examples include legal and governance frameworks that do not support data sharing and interoperability; public concerns about data privacy, security and patient confidentiality; inadequate information and communication technology infrastructure and connectivity; issues of server hosting and data curation; and limited human resource knowledge, capacities and skills.

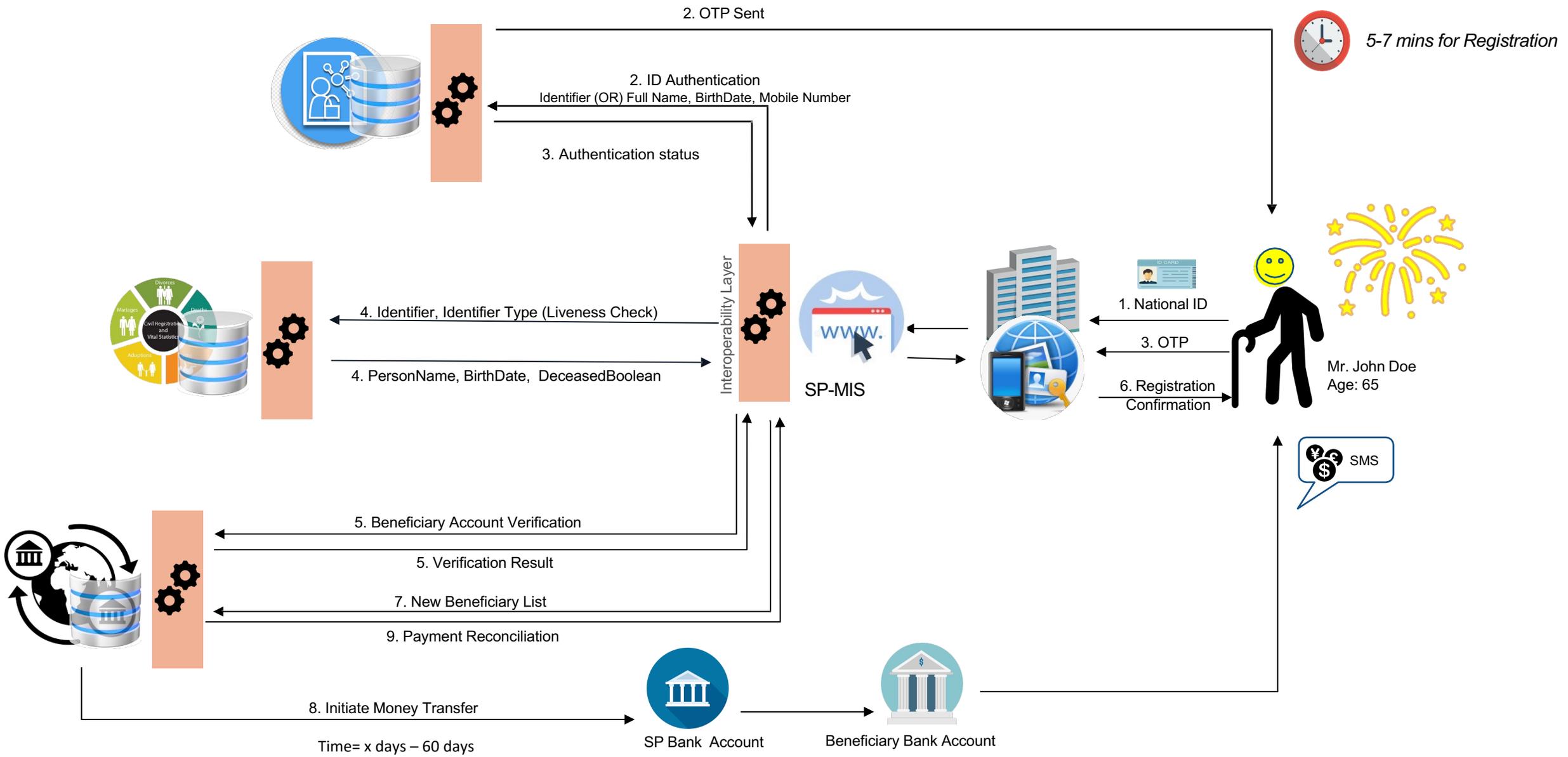
# Scenario – 1 : No Digital Systems

## Old Age Allowance Scheme





# Scenario – 3 : Interoperability with Digital Systems - Old Age Allowance Scheme



## Conclusion

Study focused on how data from CRVS could aid in eligibility determination and automate decision-making to determine if a person is eligible to receive benefits or not.

The use cases clearly demonstrated the importance of CRVS in providing eligibility information for social protection programs, enabling real-time decision-making.

Determining eligibility for the old age allowance program required verification of the age and liveness check of the beneficiaries in the CRVS system. These data attributes enabled automated decision-making and a seamless service delivery experience for those in need.

Additionally, the workflow for the enrolment process of the Widow Allowance program was prototyped based on automated decision-making facilitated by fetching additional data attributes of the spouse from the CRVS system.

Integrating social protection program information systems with digital CRVS systems has numerous benefits. It has the potential to improve the lives of vulnerable populations and promote sustainable development.

The strengthening of civil registration systems implicitly leads to better vital statistics, which provides a better foundation for decision-making and planning.

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Thank  
you

