

## CHAPTER II

### AUDIT APPROACH

Sustaining social security schemes at envisaged scales, managing growing complexities and reaching out to the destitute families spread across the State is by itself a daunting task. The bouquet of schemes envisioned under the NSAP framework supplemented by the schemes of the State Government has inherent design and implementation challenges. The situation becomes further challenging since the BPL households, which is the target population for social security assistance, comprises a substantial 42 *per cent* of the total households in the State. The annual allocation for social security pension schemes is increasing over the years and for the year 2014-15 it constitutes 68 *per cent* of the total outlay for social security schemes. Considering the criticality of achieving its intended outcomes, escalating financial outlays and relative impact of pension schemes, which aim to provide monthly financial support to alleviate economic deprivation, it was decided to conduct the performance audit of social security pension schemes implemented in the State of Kerala.

#### 2.1 Audit objectives

A background analysis of empirical evidence and relevant data available from various sources was carried out for an appreciation of a macro perspective of the schemes and discerning broader trends to determine the direction of audit and to set appropriate audit objectives.

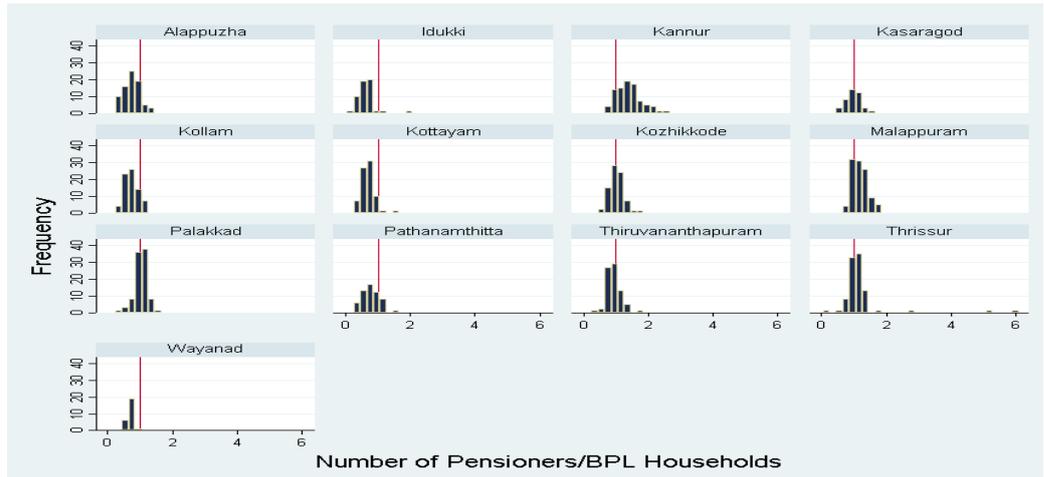
A preliminary analysis of the primary data of beneficiaries – the Sevana database<sup>1</sup> was carried out in combination with secondary data on BPL households, GPs and ward level census data. The secondary data on BPL households and census data provided insights into the targeted population for social security schemes. The data bases provided an overall assessment of the nature and extent of beneficiary coverage across the various districts in terms of the ratio of beneficiaries to BPL households. The outcome of such ward level data analysis for each district, summarized in the graphs below (**Chart 2.1**), broadly suggested a potential incidence of both under coverage and over coverage of targeted population - defined as possible exclusion of eligible population (exclusion errors) or inclusion of non-eligible population (inclusion errors) respectively. Greater the number of bars to the right side of the redline<sup>2</sup> for any district greater would be the number of wards with a possible higher incidence of inclusion errors while if a district has a greater number of bars to the left side of the red line more wards in the district may have a higher incidence of exclusion errors. The height of the bars represents the potential extent of the respective errors in each ward.

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<sup>1</sup> Sevana data base is the beneficiary database of social security pensions maintained by Information Kerala Mission - the e- governance project of State Government of Kerala.

<sup>2</sup> Redline – denotes a position of equality between eligible population and BPL households (implying one eligible person in each BPL household)

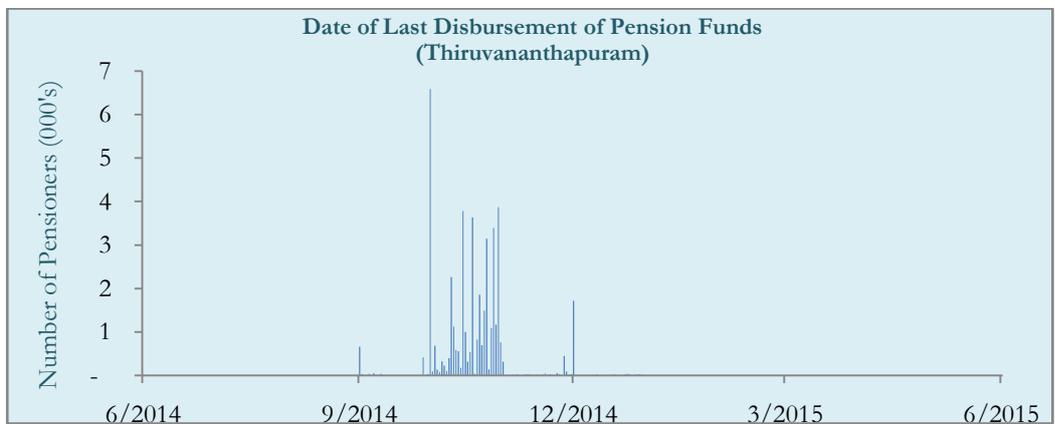
**Chart 2.1- Graphs showing the possibility of inclusion and exclusion errors in each District**



The distribution of wards in the above graphs suggested a substantial degree of existence of both types of errors and provided insights that evaluation of wrongful inclusion and exclusion of beneficiaries in the social security pension schemes should be a major focus of audit.

Similarly an analysis of the primary data (Sevana database) in combination with the trend of expenditure on social security schemes indicated an irregularity in terms of both the timing and the amount of disbursement. An example from the Thiruvananthapuram district’s disbursement history presented below in **Chart 2.2** demonstrates that there was no system for providing monthly payments, which undermined the pension schemes’ goal as an income support scheme.

**Chart 2.2 – Graph showing the pattern of disbursement of pensions in Thiruvananthapuram**



Preliminary analysis of Sevana database conducted in June 2015 revealed that the majority of pensioners (89.5 per cent) had received their last pension payment in the year 2014. Thus trends emerging across districts suggested that evaluation of the disbursement process should also form a part of audit focus.

Therefore, based on the analysis of empirical evidence, the performance audit was undertaken to ascertain whether the:

- system in place for identifying beneficiaries under each scheme was adequate and effective, and to determine the
  - extent of exclusion of eligible population;
  - extent of inclusion of non-eligible population; and
  - factors contributing to the exclusion and wrongful inclusion
- scheme funds were optimally utilized and disbursement of benefits to eligible beneficiaries was made in timely and regular manner with minimal difficulty to the beneficiaries.

## 2.2 Audit scope

The scope of this performance audit is limited to the five social security pension schemes namely (i) Indira Gandhi National Old Age Pension Scheme (IGNOAPS), (ii) Indira Gandhi National Widow Pension Scheme (IGNWPS) (iii) Indira Gandhi National Disability Pension Scheme (IGNDPS) (iv) Pension for Unmarried Women (PUW) and (v) Agriculture Labour Pension (ALP) implemented by the State through local bodies. A five year period was considered as an optimum time span to evaluate the performance of the social security pension schemes and therefore the performance audit covered the period 2010-11 to 2014-15.

### Audit sample

A structured process was adopted to determine an appropriate sampling method, sampling procedure and the sample size to address the audit objectives and to evaluate the pension schemes while retaining the random, representative nature of selection. Considering the nature of the performance audit, 'Probability Proportional to Size Without Replacement' paired with the ratio of number of pensioners to BPL households was adopted. A multi stage sampling procedure was adopted to select sampling units at different levels - Municipalities/GPs, wards, households and respondents for field process audit/administering the structured questionnaire to the target population.

**Selection of GPs and Municipalities:** As of March 2015, there were 978 GPs and 65 Municipalities (including five Municipal Corporations) in the State. Out of this population, 25 GPs and seven Municipalities were selected. Since the target BPL population for the pension schemes was mostly considered to be concentrated in the GPs, the GPs were selected based on the ratio of number of pensioners to BPL households. For selection of Municipalities, the expenditure incurred on pensions was considered as the criteria for selection because the BPL households were more or less evenly distributed and expenditure pattern reflected the extent of coverage of pension schemes in Municipalities.

**Selection of wards:** Wards within each GP/Municipality was considered as the basic sampling unit since the wards are the lowest formations in the organizational hierarchy of local bodies. A sample size of 180 wards was

determined using an user friendly open source software (R studio)<sup>3</sup> with a 90 *per cent* confidence level and an error margin of five *per cent*. The sample size of 180 wards was broadly divided between GPs (140 wards) and Municipalities (40 wards) in accordance with their proportion in the combined sample of GPs and Municipalities. Selection of number of wards within each GP/Municipality was then determined in proportion to the BPL households in each GP/Municipality to reflect the targeted population representation. Actual selection of wards was done based on systematic sampling.

**Selection of households and respondents:** Similarly the sample of 2,880 households from the selected 180 wards for administering the structured questionnaire was determined using the R studio software. In order that the selection reflects the representativeness of the targeted population the sample size of 2,880 households was divided into two samples and (i) 1,080 households were selected from the beneficiary list (Sevana database) (ii) 1,800 households were selected from the BPL list representing the potential beneficiary population. Further, to ensure appropriate coverage of respondents across all wards, the sample size of 2,880 households was broken into a sample of 16 households (10 from BPL list and six from beneficiary list) from each selected ward. A purposeful sampling was used to select the 10 households from the BPL list to ensure that households that were extremely poor, moderately poor and marginally poor were included in the process and the BPL list was ranked and stratified into three categories as under.

Rank above 30 (Poorest)	-	A category (6 households)
Rank between 20 and 30 (Medium)	-	B category (3 households)
Rank below 20 (Less poor)	-	C category (1 household)

On this basis, the structured questionnaire was administered to 8,075 respondents in 2,880 households. Details of the selected sample units are given in **Appendix I**.

### **2.3 Audit criteria**

The audit criteria for the performance audit were derived from:

- Kerala Panchayat Raj Act, 1994, Kerala Municipality Act, 1994 and Rules made thereunder;
- Guidelines of NSAP issued by GoI; and
- Guidelines and orders related to pensions issued by the State Government.

### **2.4 Audit methodology**

In order to appropriately address the audit objectives, the methodology adopted included examination of records, data analysis, obtaining information and discussion with officials from various related offices - Information Kerala

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<sup>3</sup>R Studio is an open source Integrated Development Environment for 'R' – a programming language for statistical computing and graphics.

Mission, LSGD, Social Justice Department, Director of Panchayats, Office of the Labour Commissioner, Land Revenue Commissioner, District Collectors, Post Master General, selected Municipalities and GPs.

A structured questionnaire was designed and administered on a sample of the targeted population to elicit information on the various pension schemes. The structured questionnaire used to gather evidence is given as **Appendix II**. Digital data collection tools comprising POS devices<sup>4</sup> and the kobo tool box platform<sup>5</sup> were used for automated capture of questionnaire responses and real time summation and analysis of responses respectively. The responses were aggregated and analysed to determine the extent of exclusion of eligible population and wrongful inclusion of non-eligible population in the selected sample of GPs/Municipalities.

As the sample of GPs/Municipalities were derived using a focused approach to determine the extent of exclusions and wrongful inclusions a statistical technique was adopted in order to estimate results that are statistically representative of the overall population at the GP/Municipality level. The statistical technique involved application of sampling weights to the sample findings to restore the relative significance of GP/Municipality. The extent of exclusion of eligible population and wrongful inclusion of ineligible population, thus obtained, provided the reasonable estimates for the overall population.

## 2.5 Organisation of audit findings

The audit findings are contained in Chapters III and IV of this report. Audit findings, conclusions and recommendations relating to each of the two audit objectives have been reported in two distinct chapters to facilitate easy comprehension and follow up.

## 2.6 Acknowledgement

The performance audit commenced with an entry conference with the Principal Secretary to Government, LSGD in July 2015, where the audit methodology, scope, objectives and criteria were discussed. Audit acknowledges the co-operation and assistance extended by the officials of the respective departments, GPs, Municipalities and other offices at various stages during conduct of the performance audit. After conclusion of audit and the consolidation of audit findings a draft report was forwarded to Government on 30 December 2015 and replies were sought for. The reply of the Government to the draft report is yet to be received. Subsequently, an exit conference was held with the Principal Secretary, LSGD on 21 January 2016, in which draft audit findings and recommendations were discussed. The discussion was fruitful and the Department provided an assurance to initiate remedial measures as appropriate and to respond to the Audit report.

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<sup>4</sup> Point of Sale/Service hand held devices used to digitally capture responses to the structured questionnaire

<sup>5</sup> Kobo tool box is an open source suite of tools, including software, for field data collection and analysis.