PERFORMANCE EVALUATION OF THE ELECTRONIC-BASED POPULATION ADMINISTRATION INFORMATION SYSTEM (SIAK) POLICY AT THE DEPARTMENT OF POPULATION AND CIVIL REGISTRATION OF SOUTH NIAS REGENCY

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Article Info	ABSTRACT
	This study evaluates the performance of the Population Administration Information System (SIAK) policy at the South Nias Regency Department of Population and Civil Registration (Disdukcapil). Using William N. Dunn's six criteria—effectiveness, efficiency, adequacy, equity, responsiveness, and appropriateness—the research employs a descriptive qualitative approach with data triangulation from interviews, observations, and documentation. Informants include Disdukcapil officials and community members using the services. The findings show that SIAK has improved service effectiveness by speeding up the population document recording and printing processes. Efficiency has increased in terms of time and cost, though challenges like limited network infrastructure and low digital literacy persist in remote areas. Service adequacy and equity have improved, but public participation in reporting population events remains low. While institutional responsiveness has improved, digital complaint channels and inter-agency coordination need further enhancement. The SIAK policy is deemed appropriate, aligning with national regulations. Meta-evaluation results indicate excellent evaluation quality, particularly in propriety (81.3%) and accuracy (83.3%).
Keywords:	
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1. INTRODUCTION

Population administration is a fundamental element in the governance of a modern state. The legal identity of every citizen not only serves as a form of administrative legality but also as a foundation for accessing various rights and public services, such as education, healthcare, social protection, and participation in democratic processes. Therefore, an effective population administration system is an essential prerequisite for ensuring social justice and inclusive development.

In an effort to strengthen this system, the Indonesian government has developed the Population Administration Information System (SIAK) as a digital platform to facilitate national population registration and civil recording. However, despite the nationwide implementation of SIAK, significant challenges remain, especially in rural areas like South Nias Regency. Unequal information and communication technology (ICT) infrastructure is a major barrier, limiting access to population administration services, particularly in remote sub-districts lacking local technical implementation units (UPTs) of the Population and Civil Registration Office (Disdukcapil). The absence of UPTs at the sub-district level has caused disparities in achieving electronic ID card (e-KTP) recording targets.

Previous studies on SIAK's implementation have focused largely on urban and well-developed areas, with limited attention given to the challenges faced by rural, underdeveloped regions with infrastructure limitations. This gap in research underlines the importance of evaluating the effectiveness of SIAK in South Nias, where technological barriers, budget constraints, and geographical isolation hinder the system's full potential. While SIAK aims to improve data accuracy and service delivery, it is unclear how well it has succeeded in remote areas with limited resources.

The urgency of this research lies in addressing these challenges. As digital transformation in public administration becomes increasingly critical, understanding the impact of SIAK in regions with limited infrastructure is essential. Evaluating this policy can offer insights into improving service delivery, enhancing digital literacy, and ensuring equitable access to public services. Additionally, this study provides a much-needed exploration of how SIAK can help bridge the gap in services between urban and rural populations, ultimately fostering more inclusive development.

In South Nias, the lack of adequate infrastructure and low digital literacy in rural areas significantly complicates SIAK implementation. Moreover, budget reductions have further hindered efforts to expand services. This research seeks to provide a comprehensive evaluation of SIAK's performance in South Nias, focusing on these geographical and socio-economic challenges. By examining this in-depth, the study will contribute to the broader discourse on the role of digital administration systems in underdeveloped areas and help shape future policies aimed at overcoming these barriers.

2. RESEARCH METHODS

This study employs a descriptive method with a qualitative approach. The aim is to reveal and deeply understand the process and significance of the electronic-based Population Administration Information System (SIAK) policy at the Population and Civil Registration Office of South Nias Regency. Qualitative research allows the researcher to describe social phenomena in detail through direct data collection from relevant informants, inductive data analysis from specific to general themes, and interpretation of the meaning derived from the collected data (Creswell, 2009 in Kusumastuti & Khoiron, 2019: 2–3). This approach was chosen because it is particularly effective for exploring social phenomena and understanding reality from the perspectives of the individuals directly involved (Barlian, 2018; Harahap, 2020 in Hasan et al., 2022: 8).

The research was conducted at the Population and Civil Registration Office of South Nias Regency. Fieldwork was carried out from December 2024 to March 2025, following a preparatory phase from September to November 2024. The informants in this study consisted of SIAK policy implementers and service users. These informants were selected purposively based on their deep knowledge of SIAK policy implementation. Key informants included the Head of the Office, Heads of Divisions and Sections, SIAK operators, and community members who access population administration services. This purposive sampling method enabled the researcher to obtain data from credible and competent sources related to the research topic.

Data collection techniques used in this study included interviews, observation, documentation, and triangulation. In-depth and semi-structured interviews were conducted to explore the informants' perspectives and experiences regarding the SIAK policy. Participant observation was employed to directly observe the system's implementation activities in the field. Documentation was used to review policy documents, performance reports, and relevant regulations. Triangulation was applied by combining various techniques and data sources to enhance the validity and reliability of the findings. This step aligns with the guidelines provided by Sugiyono (2008) and Stainback (1998), emphasizing the importance of triangulation to strengthen the understanding of phenomena and the credibility of research data.

In the data analysis process, the researcher employed thematic analysis techniques by identifying, categorizing, and interpreting the main themes related to the six policy evaluation criteria proposed by William N. Dunn: effectiveness, efficiency, adequacy, equity, responsiveness, and appropriateness. Data from interviews, observations, and documentation were analyzed concurrently to obtain a comprehensive overview of the SIAK policy's performance. This research method not only provides a descriptive account of the policy implementation but also evaluates the extent to which the policy meets the population's administrative needs in a fair, efficient, and targeted manner.

3. RESULT AND ANALYSIS

South Nias Regency is an autonomous region established under Law Number 9 of 2003 concerning the establishment of South Nias Regency, Pakpak Bharat Regency, and Humbang Hasundutan Regency in North Sumatra Province. Geographically, this region is located on the western side of Sumatra Island, bordered by Nias Regency and West Nias Regency to the north, the Indian Ocean and Mentawai Islands to the south, and the Indian Ocean to the west. The regency spans an area of 2,487.99 km², including 104 islands within its administrative boundaries. As of 2023, South Nias consists of 35 districts, 2 urban villages, and 459 rural villages, with a population of 382,539. The main economic activities include agriculture, fisheries, and tourism—particularly in the Sorake Beach area, which is recognized as one of the best surfing spots in the world (Regional Secretariat of South Nias Regency, 2024; South Nias in Figures, 2024).

Administratively, the Department of Population and Civil Registration (Disdukcapil) of South Nias Regency aims to provide transparent, accessible, and timely administrative services. Its vision is carried out through three missions: establishing a responsive and professional governance system, implementing a population administration system based on the Population Administration Information System (SIAK), and integrating population data management into a reliable public information system. These strategic directions aim to improve public satisfaction and promote good governance in population administration services (Regional Secretariat of South Nias Regency, 2024).

Disdukcapil's organizational structure is guided by Law Number 23 of 2014 on Regional Government and Regent Regulation Number 01.5_58 of 2016. The department is led by a head and supported by several divisions, such as Population Registration, Civil Registration, Population Information Management, and Data Utilization and Service Innovation. Each division has sections responsible for planning, service delivery, documentation, evaluation, and innovation. Through this framework, Disdukcapil continuously strives to enhance service quality and contribute to regional development (Regional Secretariat of South Nias Regency, 2024).

In this study, the researcher conducted direct interviews with informants to gain deeper insights into SIAK implementation. These interviews were complemented by field observations to examine the system's practical operation and identify encountered challenges. Supporting documents were also reviewed to ensure data validity and strengthen the analysis. This approach offers a comprehensive view of the digital-based population administration policy's performance in South Nias Regency.

Aspect of Effectiveness of the Population Administration Information System

Based on interviews, observations, and document analysis, it was found that SIAK's implementation still faces challenges related to equitable access. Collaborative efforts among local government, village authorities, and the community are essential for improving accessibility. Strategic steps such as optimizing infrastructure, increasing public outreach, and strengthening mobile services are crucial to addressing access gaps.

The research aligns with William N. Dunn's (2017) perspective on policy effectiveness, which stresses that the system's success depends not only on its existence but also on its accessibility and benefits to all targeted groups. Limited ICT infrastructure, especially in remote areas, remains a major challenge. As indicated by the Department of Population and Civil Registration of South Nias Regency, residents in remote sub-districts face difficulties accessing services due to poor internet connectivity. This finding aligns with the DPR RI report (2022), which highlights infrastructure as a major barrier in digital services, particularly in 3T (frontier, outermost, and disadvantaged) areas.

In addition to infrastructure, digital literacy is a key factor. Many residents, particularly the elderly and rural dwellers, prefer manual services due to their limited understanding and lack of digital devices. Economic factors also contribute to this disparity, as not all citizens can afford smartphones or the necessary internet services. Interviews with residents, such as Wilman Telaumbanua from Lahusa Sub-district, revealed that despite the availability of online services, many people still visit Disdukcapil offices due to these barriers.

To address these challenges, the local government has adopted a mobile service strategy, where officers visit villages to assist residents with their population documents. This strategy, as suggested by the DPR RI report (2022), aims to bridge the gap in service access. Continuous outreach and digital literacy initiatives are vital for improving understanding of SIAK services.

Despite these challenges, SIAK's implementation represents an important step toward more inclusive population administration. By strengthening cooperation between local authorities, community leaders, and

residents, it is hoped that digital services will become more accessible and equitable, benefiting all South Nias residents.

Aspect of Efficiency of the Population Administration Information System

Efficiency in SIAK is not solely determined by the technology used, but also by the readiness of human resources, supporting infrastructure, and effective dissemination strategies. Recommended actions for improving efficiency include:

- Enhancing human resource capacity through intensive technical training to reduce service disparities.
- Strengthening internet infrastructure in sub-districts with poor connectivity.
- Expanding mobile service delivery to overcome accessibility issues.
- Reinforcing digital outreach strategies to improve public awareness of the importance of digital registration.

These measures will contribute to further improving the efficiency and effectiveness of SIAK in South Nias, allowing for optimal and inclusive service delivery.

Aspect of Adequacy of the Population Administration Information System

Based on interviews, field observations, and documentation, several strategies can be implemented to enhance the adequacy of SIAK, including:

- Expanding infrastructure, such as strengthening internet networks and providing service equipment at sub-district offices.
- Improving public understanding through digital literacy programs and outreach.
- Regular training for civil registration officers to enhance technical skills and accelerate data validation.
- Optimizing data validation and updating processes, ensuring real-time data accuracy and better coordination between agencies.

Despite improvements in effectiveness and efficiency, SIAK faces challenges in service adequacy, with uneven infrastructure and limited public participation remaining significant barriers.

The Equity Aspect of the Electronic-Based Government System

The research found that while digital services are available, their utilization has not been optimal in all areas, particularly due to limited infrastructure and low digital literacy. Economic factors, such as the lack of devices or internet access, further limit equitable access to SIAK services. To address these issues, the local government has implemented a mobile service strategy to provide on-site assistance to residents in remote areas. Strengthening cooperation with village officials and enhancing outreach efforts are key strategies to bridge the access gap.

The Responsiveness Aspect of the Electronic-Based Government System

Recommendations for improving SIAK's responsiveness include enhancing mobile and online service access, improving public outreach, optimizing data updates, and fostering better coordination between Disdukcapil and other local agencies. These measures will help ensure that population data serves as a reliable foundation for better public services and development policies.

The Accuracy Aspect of the Electronic-Based Government System

The accuracy of SIAK's implementation in South Nias aligns with national regulations and has improved service efficiency. However, challenges remain, especially in areas with limited infrastructure. Improving direct services, expanding public outreach, and increasing mobile service coverage are essential for further improving data accuracy and ensuring that SIAK meets the needs of the community.

4.   CONCLUSION

Based on the results of the research conducted on the implementation of the Population Administration Information System (SIAK) in South Nias Regency, and in response to the research questions, the conclusions of this study are as follows:

Performance of SIAK Policy Implementation

The performance of the SIAK policy implementation in South Nias Regency has significantly contributed to improving the quality of population administration services, particularly in accelerating the recording and printing of documents, reducing time and costs, and increasing data accuracy. However, challenges remain, particularly in remote areas, due to limited technological infrastructure, human resources, and low digital literacy.

- Effectiveness of SIAK Implementation

  Administrative services have become faster and more standardized. However, community participation in reporting civil events remains low due to geographical constraints and insufficient socialization efforts.

- Efficiency of SIAK Implementation

  The use of digital technology, including electronic signatures and standard HVS paper, has reduced service costs and time. However, a lack of operator training and limited infrastructure continue to hinder optimal efficiency.

- Adequacy of SIAK Implementation

  SIAK has improved access to population documents, but its benefits have not been fully realized in the 3T (outmost, frontier, and least developed) regions due to issues with literacy and public understanding.

- Equity in SIAK Service Delivery

  A service gap exists between central and remote areas caused by limited network access, human resources, and geographical distance. The expansion of mobile services and a more active role of village governments are needed.

- Responsiveness to Community Needs

  The system is able to respond more quickly to public needs; however, public complaints and the handling of technical issues need improvement through digital reporting systems and better inter-agency coordination.

- Accuracy

  The policy has been implemented in accordance with national regulations and supports the updating of population data. However, there is a need to strengthen digital inclusion and sectoral policy integration.

Factors Hindering the Optimal Implementation of SIAK

- The factors hindering the optimal implementation of SIAK include:
- Inequality in technological infrastructure across regions.
- Imbalance in the number and competence of SIAK implementation personnel.
- Low public participation due to limited understanding and lack of information channels reaching remote areas.

Strategies to Improve SIAK Service Coverage

- The following strategies can improve SIAK service coverage:
- Establishing Technical Implementation Units (UPT) of the Civil Registration Office at the sub-district level.
- Enhancing mobile service delivery by considering geographic and socio-cultural conditions.
- Strengthening digital literacy and public outreach on electronic-based population services.
- Developing user-friendly mobile-based online service applications for the community.

Meta-Evaluation of the Policy Evaluation Process

The evaluation of the policy evaluation process (meta-evaluation) indicates that the quality of the primary evaluation falls under the "very good" category. The evaluation meets most of the professional evaluation standards based on the JCSEE (1994) framework, particularly in the aspects of Propriety (81.3%) and Accuracy (83.3%). The evaluation is also considered operationally feasible (Feasibility 66.7%) and provides benefits, although improvements are needed in disseminating results and engaging stakeholders (Utility 64.3%). Therefore, this primary evaluation can serve as a valid foundation for policymaking and as a basis for improving the SIAK policy to be more inclusive, accountable, and oriented toward public service in the future.

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