Integrated Data-based Poverty Alleviation to Achieve SDGs

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Abstract. Poverty alleviation is not an easy job. Lack of coordination, inaccurate data, and slow information are factors leading to inappropriate decisions making. This research aims to learn in detail about the Integrated Social Welfare Database (ISWD) and how to use the ISWD for Poverty Programs. This research used a literature study approach through collecting, classifying, analyzing, visualizing, validating data, and drawing conclusions. The results of the research showed that the ISWD is an electronic data system containing social, economic, and demographic information in Indonesia which consists of 16 variables, namely: welfare status of households and individuals, education, health, employment, and primary information households covering the lowest share of 40% of the Indonesian population based on welfare states. The ISWD provides many benefits for the central government, regional governments in Indonesia, for example, supporting the analysis or the planning of poverty alleviation activities/programs, determining the target beneficiaries of social protection programs such as the Raskin Program, Jamkesmas, Assistance for Poor Students, Family Hope Program, and other programs managed by the regional government.

1. Introduction

Poverty is a global phenomenon that overly concerns from year to year. This poverty problem does not subside and even tends to increase along with the community's increasing needs and the declining economic conditions of the State of Indonesia [1]. Poverty alleviation is the main target of development programs following the mainstreaming of the MDGs and SDGs agenda in the National Long-Term Development Plan (RPJPN 2005-2025). The development plan of the central and regional governments synergizes in a multi-sectoral manner so that the policy directions of the work plan support each other. However, one of the main challenges in poverty alleviation programs is correctly finding the target groups who will receive program benefits based on participation criteria and program goals [2]. Poverty data is important because it becomes the main consideration in the planning process of poverty alleviation programs and the accuracy of sorting out groups of people who are entitled or not entitled to become program participants. The effectiveness of targeting is believed to directly impact on the success of achieving the goals of social protection programs in alleviating poverty. In 2011, the Integrated Database for Social Protection Programs was launched and managed by the Indonesian National Team for the Acceleration of Poverty Alleviation (TNP2K) on the socio-economic criteria set by the program...
implementer. Based on data from poor families (21,969,925 people) and individuals (80,622,676 people) [3]. The data available in an integrated database can be used as input for poverty alleviation programs in various sectors of life.

This research aims to determine what the Integrated Social Welfare Database (ISWD) is and how to use the Integrated Database for Poverty Programs. Significant research was carried out as a research material ten years since the Social Welfare Integrated Database (ISWD) launch in 2011. However, the poverty rate is still high, based on Susenas data. In 2019, there was 9.22 percent of the poor in Indonesia. This research focuses on the variables of the Integrated Social Welfare Database (ISWD) and describes the use of the Integrated Database. Previous researches have focused on integrated data or policy implementation programs, while research has focused on both simultaneously.

2. Method
This research used a literature or library study approach [4]. In the first stage, researchers collected relevant data on poverty alleviation based on integrated data through scientific books, research reports, scientific journals, theses and dissertations, regulations, statutes, websites, encyclopedias, and other written and electronic sources. In the second stage, the documents were classified based on the level of relevance and need. The documents used were from 2006-2020. In the third stage, the researcher analyzed the data, namely capturing the essence of the research objectives through documents that had been classified based on the level of relevance and need. In the fourth stage, the researcher reanalyzed the collected data as raw data that needed to be identified with each other. The fourth stage was data validation, and the fifth stage was concluding.

3. Results and discussion

3.1. Integrated Social Welfare Database (ISWD)
Developing countries turn to a unified targeting system to better identify the poor and improve their living standards [5]. In the long-term dynamics of poverty, applying an asset-based approach results in a more satisfactory analysis of its relationship to the impact of market-oriented liberal policies [6]. Economic growth does not directly affect poverty, while economic growth indirectly hurts poverty through unemployment, and the influence of economic growth indirectly does not affect poverty through per capita income [7]. Every poverty management program must be understood thoroughly and interdependently. Ministries, regional governments, and other institutions running poverty alleviation and social protection programs can use data from the integrated social welfare database (ISWD). In Indonesia, the ISWD is a social protection program with an electronic data system containing social, economic, and demographic information. Integrated Social Welfare Data can be used to improve the quality of social protection program targeting. The ISWD is a proper mechanism to evaluate the feasibility benefits of integrated programs in the context of developing countries and to see the benefits of social programs [3].
Figure 1. Number of Households and Individuals and Welfare Status in Indonesia in 2019
Source: Integrated Social Welfare Database (ISWD). [3]

The ISWD has four advantages compared to the previous targeting system, i.e., using more indicators to measure household welfare, having a more comprehensive household coverage, implementing two targeting stages in household data collection, and implementing the Proxy Means Test (PMT), which can be used to see the past conditions of poverty assistance beneficiaries [8]. The ISDW is input for program planning, improving the use of budgets, and social protection program resources so that the number and target of program beneficiaries can be analyzed from the beginning of program planning. This will help alleviate errors in targeting social protection programs. Households in the unified database are grouped into groups called deciles. Deciles are group of tenths so that the entire household can be divided into ten deciles. The grouping of households in the unified database is as shown in Figure 1. 1st Decile is the household in the lowest 10% group, 2nd Decile is the household in the lowest 10-20% group, 3rd Decile is the household in the lowest 20-30% group, and so on, 10th Decile is the household in the 10% group with the highest level of welfare. Because it contains 40% of households with the lowest welfare rank, the unified database contains groups ranging from 1st to 4th Deciles [2]. The data set includes 16 social, economic, and demographic variables at the provincial level, such as the welfare status of households and individuals, education, health, employment, and basic household information, and it covers the bottom 40% of the Indonesian population based on welfare states.

3.2. Utilization of an Integrated Database for Poverty Alleviation Programs
Poverty alleviation programs in Indonesia have increased every year, but the number of poor people fluctuates every year to maximize poverty alleviation efforts by relocating less impactful budgets, increasing economic growth through economic policies. The budget for the Poverty Alleviation Program needs to be evaluated, especially the programs that have not been realized, so that the budget is more optimized for the benefit of the poor. The ISWD is a reference for setting targets for the Social Protection and Poverty Alleviation Program organized by the Central and Regional Governments. Data on the distribution of the number of households/families/individuals according to selected variables at the provincial/district/city/sub-district level can be obtained on the TNP2K website. Agencies or institutions that need more detailed data than the distribution data available on the website can send requests online via electronic mail [3]. Data from the ISWD is supplied free of charge. The ISWD can be used to conduct poverty alleviation activity/program analysis or planning. This data can be used by government agencies, research institutions, and non-governmental organizations, among others, to conduct analyses.
on socioeconomic indicators for the 40% of the population with the poorest socioeconomic conditions. These indicators can be used by government program planners to design relevant poverty alleviation programs as well as estimate the budget required for the program. Determine the intended beneficiaries of social protection programs. When the implementing agency for poverty alleviation or social protection programs has determined the eligibility criteria for program participation, the Integrated Database can provide data on the names and addresses of individuals/families/households for government agencies that manage social protection programs. Since 2012, for example, the ISWD has provided the names and addresses of beneficiaries of the Rice for Poor Families (Raskin) Program, Community Health Insurance (Jamkesmas), Aid for Poor Students, the Family Hope Program (PKH), and other programs managed by the Regional Government [3].

Figure 2. Relative Position of the Percentage of the Poor in Indonesia in 2019
Source: Central Bureau of Statistics (BPS). [3]

Based on the relative position data in Figure 2, the highest percentage of poor people in Indonesia is Papua Province, 27.53%. More specific data are available in the Unified Database created using a census approach. This method is intended to collect population data by ranking welfare from 1 to 4. Because it can identify data on the name of household head and the address of residence, this data is used as a reference in targeting (by name by address).

Social programs aimed at targeting poverty are critical welfare interventions designed to improve the welfare of poor households. Evaluation of these programs has been hindered by the fact that they were evaluated separately, which could result in an upward bias because individual outcomes were primarily driven by omitted programs [5]. It seems contributing to poverty alleviation for areas with areas found in integrated marine conservation areas (MCA). Positive impacts span all three poverty domains (security, opportunity, and empowerment), but the size of the effects and the timescales they manifest are mixed within each domain. Positive impacts appear to occur mainly during the implementation period after integrated MCA activities ceased, and poverty alleviation did not continue to increase [9]. Future efforts to draw valuable lessons from poverty alleviation evaluations require more policy-relevant data and methods than those used in the classic assessment of the average impact for those assigned to the program [10] how local knowledge can be used to signal the dynamics of poverty and local barriers to access [11]. The targeting of poverty alleviation programs follows a decentralized design that combines geographic targeting with community-based targeting [12].
4. Conclusion

Integrated Social Welfare Data is a computerized data system that stores social, economic, and demographic data in Indonesia consisting of 16 variables, namely: Welfare Status of households and individuals, Education, Health, Employment, and Basic Household Details which includes the lowest part of the 40% of Indonesian population-based on welfare states. Social Welfare Integrated Data is used by the Central Government, Regional Governments, and related institutions in Indonesia to improve the quality and targeting of social protection and poverty alleviation programs. It is recommended to conduct in-depth research on the impact of integrated data-based poverty alleviation programs.

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