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The Challenges of Implementing Inclusive Education Programs in Outermost, Frontline, and Underdeveloped Areas

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Abstract
The government has initiated an inclusive education program as an effort to enhance educational equality for children with special needs who experience physical, mental, and social limitations. This policy is regulated under Law No. 20 of 2003 concerning the National Education System and further elaborated in Ministerial Regulation No. 70 of 2009 on Inclusive Education, where inclusive education is defined as an educational system designed for children with special needs and/or children with special talents so they can learn together with other students in regular schools. Inclusive education has been implemented nationwide, including in Outermost, Frontline, and Underdeveloped Areas (3T), although challenges persist in fully implementing inclusive education in schools. This study aims to describe the challenges faced by educational institutions in implementing inclusive education in 3T areas. The research employs a literature review method by analyzing 25 academic articles related to the primary topic of inclusive education, sourced from Google Scholar, Research Gate, Elsevier, and several books. Based on the reviewed studies, challenges in implementing inclusive education in Indonesia, especially in 3T areas, include: teachers' insufficient qualifications, making it difficult to provide the best services for children with special needs; a curriculum that is not flexible enough to meet children with special needs, causing difficulties in understanding learning materials; inadequate facilities and infrastructure; and limited support from parents, communities, and the government in the implementation of inclusive education. To achieve effective inclusive education, collaboration, commitment, and concrete efforts from all stakeholders are necessary to ensure children with special needs receive equal educational opportunities.

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INTRODUCTION

Inclusive education has become a global issue that continues to receive support from various parties to ensure the right to education for all. Inclusion is a means of responding to the diversity of learners by increasing learning participation and reducing exclusion within and from education (Arriani et al., 2021). Inclusive education is implemented to accommodate the strengths and weaknesses of children with special needs by providing a conducive and supportive environment that fosters their self-confidence. The organization of inclusive education aims to create a tolerant future generation capable of understanding and accepting all forms of diversity, thereby preventing discrimination in society (Sahrudin et al., 2023). Ideally, policies regarding inclusive education should be outlined in the prevailing laws and regulations in Indonesia. Article 28H, paragraph 2 of the 1945 Constitution states that everyone has the right to receive special facilities and treatment to obtain equal opportunities and benefits for achieving justice. To support this mandate, the Indonesian government has issued policies, including Law No. 20 of 2003 on the National Education System, further elaborated in Minister of Education Regulation No. 70 of 2009 on Inclusive Education for learners with disabilities or those with exceptional intelligence or talents (Suprihatiningrum, 2021).

The implementation of inclusive education has been an international agenda through the Sustainable Development Goals (SDGs), particularly Goal 4: "Quality education that ensures inclusive and equitable education and promotes lifelong learning opportunities for all" (Loewe, (2012); UNESCO, (2015) as cited in Asamoah et al., (2023); (Bappenas, (2023)). Furthermore, inclusive education mandates that all children, without exception, should have access to quality social and educational rights across all types, pathways, and levels of education, making it a central agenda in education (Direktorat Pembinaan Sekolah Luar Biasa, 2011). Thus, the core principle of implementing inclusive education is that all children can learn and receive education without exception, enabling them to develop their potential, including children with special needs.

Children with special needs are those with limitations or unique characteristics in physical, intellectual, social, and emotional aspects that affect their development. Children with special needs require optimal attention and support from parents and families ((Winarsih et al., (2013); Suharsiwi, (2017); Saputra, (2016); Rudiyati, (2011)). According to Rezieka et al., (2021), understanding children with special needs can be categorized into three aspects namely: Biological (Related to genetic disorders, such as brain injuries that may result in multiple disabilities); Psychological (Evident in behaviors and attitudes, including learning difficulties (slow learners), emotional problems, difficulties in social interaction and speech (e.g., autism), as well as issues with attention, impulsivity, and hyperactivity, as seen in children with ADHD (Attention Deficit Hyperactivity Disorder)); Socio-cultural (Children with special needs are recognized as having different abilities and behaviors from other children, requiring special handling). Despite their limitations, children with special needs must receive equal treatment from all parties, ensuring the fulfillment of their rights so they can grow and develop properly. They also have fundamental rights, including the right to express opinions, access to welfare and healthcare services, equal rights and responsibilities as citizens, and the right to education (Simanjuntak, 2008).

Education for children with special needs is a crucial aspect that must be fulfilled. Inclusive education serves as a solution to the educational challenges faced by children with special needs, as it is based on the principles of equality, justice, and individual rights. According to Praktiningrum,

(2010) One of the primary conditions for building an inclusive society is the implementation of an inclusive education system by the government. Essentially, inclusive education brings new hope for children with special needs and their parents to access formal education in regular schools without fear of discrimination from society or their social environment, allowing them to be seen as equal to other children (Trimurtini et al., (2020) as cited in Minsih et al., (2021)).

Over time, the implementation of inclusive education has expanded beyond major cities to all regions in Indonesia, aiming to ensure equal access to education for all. However, despite the increasing number of schools adopting inclusive education, it does not necessarily guarantee an improvement in educational quality. The implementation of inclusive education remains challenging (Muzdalifah et al., (2017) as cited in Minsih et al., 2021)). Field findings indicate persistent difficulties, particularly in frontier, outermost, and underdeveloped areas, known in Indonesia as "Daerah Terdepan, Terluar, Tertinggal (3T)". Many schools in these regions are still reluctant to implement inclusive education due to inadequate infrastructure, a shortage of professional teachers, an inaccessible curriculum, parental concerns about placing their children in regular schools, and a general lack of public awareness about children with special needs ((Minsih et al., (2021); Simanjuntak, (2008); Rudiyati, (2011); Darma & Rusyidi, (2015)). Research by Syarif, (2018) highlights the need for equitable access to education, particularly in 3T areas, which requires support from both the government and society to achieve educational equity.

To maintain the study's focus, the author has selected several relevant articles for review and analysis. A study on the implementation of inclusive education in Thailand by Vorapanya & Dunlap, (2014) found that transitioning from policy to practice remains a significant challenge. Many school leaders and teachers in Thailand have limited understanding of inclusive education practices, requiring time to develop infrastructure and effective teaching methods for children with special needs. Additionally, inclusive education in Thailand must be examined through cultural, religious, and historical perspectives. In Europe, studies on inclusive education emphasize the importance of accessible infrastructure and the need for schools and universities to facilitate education for students with disabilities to ensure academic success Moriña, (2017). Schools should not only provide access but also revise policies and practices to guarantee full participation in learning activities. Similar challenges are observed in Indonesia, particularly in urban areas, where the number of public schools implementing inclusive education has increased. However, several issues persist in its implementation ((Anjarsari et al., (2018); Ni'mah et al., (2022); Suprihatiningrum, (2021); Handayani & Rahadian, (2013); Rudiyati, (2011); Muhibbin, (2021)).

This study differs from previous research, which primarily discussed the implementation of inclusive education, government policies, and evaluations of its implementation. Instead, this study focuses on the challenges of implementing inclusive education in 3T areas. These regions require multi-stakeholder attention due to the ongoing disparities in accessibility. The contribution of this review is to enrich the field of Social Welfare Studies regarding the provision of inclusive education for children with special needs. Therefore, the purpose of this study is to identify the challenges in implementing inclusive education in 3T areas. Implementing inclusive education poses challenges for schools and society, necessitating collaboration among various stakeholders to support its success. This collaboration is crucial to help children with special needs develop their potential, receive proper education, and foster a more inclusive and socially just society.

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METHODS

The present study utilizes a literature review as its research approach. Prior to drafting the manuscript, a search was conducted to identify previous studies that have been published on the implementation of inclusive education. The literature review includes discussions of prior research in the form of scientific references related to the study, as previously explained by other authors (Hermawan, 2019). Furthermore, the author filtered previous studies to select sources relevant to the research topic, which were subsequently cited in this study. Based on this approach, data collection in this research was carried out by examining and exploring various reference sources, including reputable scientific articles, books, and report documents in both print and electronic formats. This study also utilizes other data sources and relevant information related to the research topic. The databases used for the search include Google Scholar, Research Gate, Open Access Repository, and Sage Journal. The obtained references serve to complement and support the study of inclusive education, particularly regarding the challenges in implementing inclusive education in underdeveloped, frontier, and outermost (3T) regions.

RESULT AND DISCUSSION

Frontier, Outermost, and Underdeveloped Regions (3T)

Indonesia has unique geographical and socio-cultural factors. Its geographical conditions include several areas or locations that are difficult to access, which hinders the distribution of educational access (Mahaswari, 2018). In communities living on remote islands, deep forests, or mountainous regions, access to education—particularly the availability of schools—is highly challenging due to limited basic infrastructure. Additionally, school facilities such as classrooms, textbooks, and libraries remain inadequate (Hartono in Mahaswari, 2018). Similarly, socio-cultural factors also impede educational access in certain regions, as some communities perceive schooling as an unfamiliar concept that may disrupt their traditions. This is exemplified by the case of the Suku Anak Dalam in Jambi (Manarung in Mahaswari, 2018).

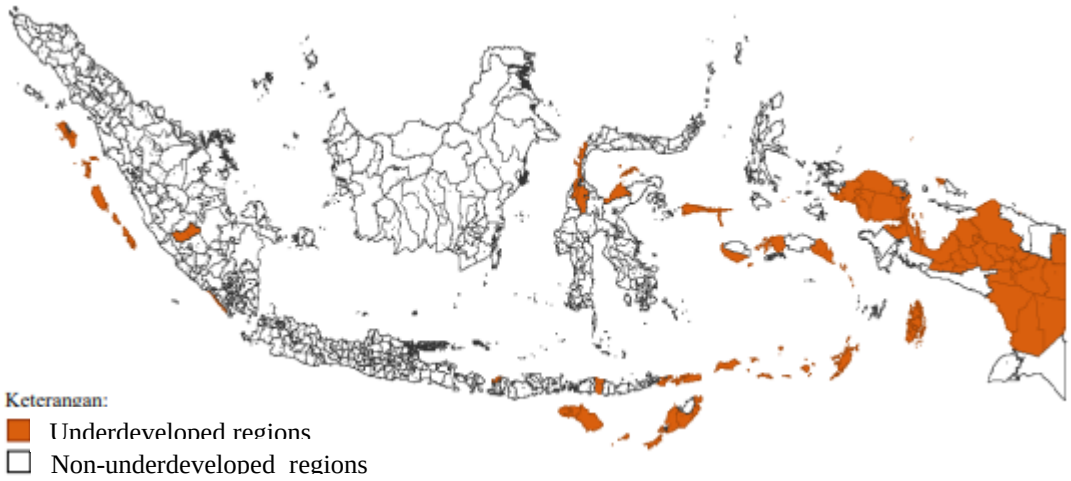

Fig 1. Map of the Distribution of Underdeveloped Regions in Indonesia for 2020-2024
Source: Presidential Regulation No. 63 of 2020, processed by Busmah & Sugiarto, (2020)

Regulations regarding 3T areas are stipulated in Presidential Regulation of the Republic of Indonesia Number 63 of 2020. As presented in Figure 1, which illustrates the distribution of underdeveloped regions from 2020 to 2024, there are 11 provinces that still fall into the 3T category.

These include: North Sumatra Province with 4 regencies; West Sumatra Province with 1 regency; South Sumatra Province with 1 regency; Lampung Province with 1 regency; West Nusa Tenggara Province with 1 regency; East Nusa Tenggara Province with 13 regencies; Central Sulawesi Province with 3 regencies; Maluku Province with 6 regencies; North Maluku Province with 2 regencies; West Papua Province with 8 regencies; and Papua Province with 22 regencies.

The classification of 3T areas is based on predetermined criteria, such as the economic conditions of the community, the quality of human resources, the availability of infrastructure, regional financial capacity (fiscal), accessibility, and regional characteristics (Hastrhoro, H.A., & AMbarwati, N. (2016) as cited by Syafii, (2018)). Furthermore, Minister of Education and Culture Regulation Number 34 of 2012 defines special areas as those that are remote, border other countries, are inhabited by isolated indigenous communities, are affected by natural and social disasters, experience emergency situations, and are located on the outermost small islands. Based on this definition, the criteria for special areas include limited access to transportation, a lack of public facilities such as electricity, healthcare services, information and communication facilities, clean water infrastructure, and educational facilities (Rewa, 2021).

Furthermore, Presidential Regulation Number 131 of 2015 defines underdeveloped regions based on several criteria that remain insufficient and require improvement, including economic conditions, the quality of human resources, infrastructure, regional financial capacity, accessibility, and regional characteristics. Based on this regulation, there are 122 underdeveloped areas that still require serious attention from the government. One of the government's efforts to address this issue is by prioritizing the development of the education sector as part of the national development program (Aina, Siswidiyanto & Hayat, 2021). The 3T areas, which are generally border regions, face concrete challenges, including limited communication access and a lack of facilities that support the teaching and learning process. These issues hinder the development of standardized educational facilities and the provision of teaching staff in these regions.

In terms of educational attainment, the disparity in 3T areas is significantly higher than in non-3T areas (Riyadi & Ghuzini, 2021). This is because educational levels in 3T regions are not accessible to all communities due to several factors, such as limited information access and extreme geographical conditions. The lack of equitable education in 3T areas has always been a major concern. These regions are often associated with limitations and underdevelopment, making it difficult to achieve equitable education, particularly in the context of an inclusive education system. In general, the implementation of education in 3T areas faces various challenges, particularly concerning the human resources of teaching staff. These challenges include a shortage of teachers, uneven distribution, qualifications that do not meet standards, a lack of competence, and a mismatch between teachers' educational backgrounds and the subjects they teach. Other issues include high dropout rates, low educational participation, insufficient infrastructure, and limited access to facilities that support the teaching and learning process (Syafii, 2018). Ensuring equitable and inclusive education in 3T regions is essential for achieving the Sustainable Development Goals (SDGs). This effort must be continuously carried out in an integrated and sustainable manner while involving multiple stakeholders (Maula et al., 2023).

Inclusive Education

In accordance with the Minister of National Education Regulation Number 70 of 2009, inclusive education is an educational system that provides opportunities for all students, including those with

disabilities and those with exceptional intelligence and/or special talents, to participate in learning within the same educational environment as their peers. This inclusive education system serves as a solution to the previous segregated education system, where students with special needs or exceptional talents were placed in special schools with separate teaching methods, thereby limiting their potential for optimal development. Inclusive education values diversity, does not discriminate against children's rights, and recognizes that every individual is equally valuable in society (Irdamurni dan Rahmiati, in Irdamurni 2019). his aligns with the objectives of inclusive education as stated by Sumiyati (in Hasmyati et al, 2022) which include ensuring access and opportunities for all children, including those with disabilities, to receive their right to education, achieving equitable quality learning based on students' conditions and needs, and fostering individuals with social sensitivity who are integral members of their families and communities.

Several key aspects are essential in implementing inclusive education, including: 1) Students, comprising both regular students and students with special needs; 2) Educators, who play roles as classroom teachers responsible for providing learning activities for both students with special needs and regular students according to their abilities, subject teachers who teach specific subjects based on their qualifications, and special education assistants who provide specialized educational services, including intervention and compensatory services for children with special needs in inclusive schools; 3) Assessment, which is conducted to understand students' conditions, such as their potential, abilities, needs, and characteristics, serving as the foundation for designing individualized learning programs and support services to foster their development; 4) Curriculum, which includes the National Standard Curriculum, the Accommodative Curriculum Below the National Standard, and the Accommodative Curriculum Above the National Standard; 5) Classroom management, which can be implemented through various approaches, such as regular classes, regular classes with the support of special education assistants, or special classes; 6) Accessibility, where schools are responsible for providing children with special needs-friendly facilities that consider safety, ease of use, functionality, and independence (Irvan & Jauhari, 2018).

According to Vaughn, Bos & Schumn (in Efendi 2013) the models of inclusive education are categorized into the following classes: 1) Regular class (full inclusion), where children with special needs participate in learning alongside other students in a regular class using the same curriculum; 2) Regular class with clustering, where children with special needs learn with other students in a regular class but within a special group; 3) Regular class with pull-out, where children with special needs study in a regular class with other students but are occasionally withdrawn for individualized instruction with a special education assistant or mentor; 4) Regular class with clustering and pull-out, where children with special needs study in a special group within a regular class and are periodically withdrawn for special instruction; 5) Special class with integration, where children with special needs study in a special class within a regular school but join regular classes for certain subjects; 6) Full special class, where children with special needs receive full-time education in a special class but remain within a regular school setting

Furthermore, the concept of special needs students in inclusive education is categorized into two groups: First, temporary special needs students, referring to children experiencing learning and developmental difficulties due to external factors. Second, permanent special needs students, referring to children facing learning and developmental difficulties due to internal factors, which directly result in disabilities, such as vision loss, hearing impairment, and intellectual

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developmental disorders. According to Arriani et al., (2022) the Guidelines for Inclusive Education Implementation explain that to facilitate teachers' understanding of the diversity of special needs students, as regulated by Law No. 20/2003, a classification of ten categories of special needs students has been established.

First, students with visual impairments (blind), referring to children who cannot see clearly within a distance of six meters or have a visual field of less than 20 degrees in diameter. Second, students with hearing impairments (deaf), referring to children who have difficulty receiving information due to hearing loss, whether or not they use hearing aids. Third, students with intellectual disabilities (mentally retarded), referring to children with significant intellectual limitations that affect their ability to complete academic tasks and engage in social interactions. Fourth, students with physical and motor impairments (physically disabled), referring to children with permanent disabilities in body parts (bones, joints, muscles), movement disorders due to muscle atrophy, neurological disorders (Cerebral Palsy), and/or limb paralysis (Polio). Fifth, students with emotional and behavioral disorders, referring to children who do not have intellectual impairments and can follow the standard curriculum, albeit with specific adaptations. Sixth, slow learners, referring to children with intellectual potential slightly below the average of their peers (IQ typically between 70-90) but not classified as having intellectual disabilities. Seventh, students with specific learning disabilities, referring to individuals experiencing fundamental psychological or central nervous system disorders affecting their ability to listen, speak, read, write, calculate, and other social skills. Eighth, students with exceptional intelligence and special talents, referring to children with above-average IQ and creativity, as measured by standardized intelligence tests. Ninth, students with Autistic Spectrum Disorder (ASD), referring to children experiencing developmental disorders affecting their ability to interact, communicate, and behave during their growth period. Tenth, students with Attention Deficit Hyperactivity Disorder (ADHD), referring to children experiencing emotional and behavioral disorders characterized by difficulty maintaining attention, excessive physical activity, and impulsive behavior.

Every student has the right to access education that is responsive to their needs, including children with special needs. Inclusive education remains a concept developed from fundamental rights; however, its implementation requires a practical framework, as illustrated in the following diagram.

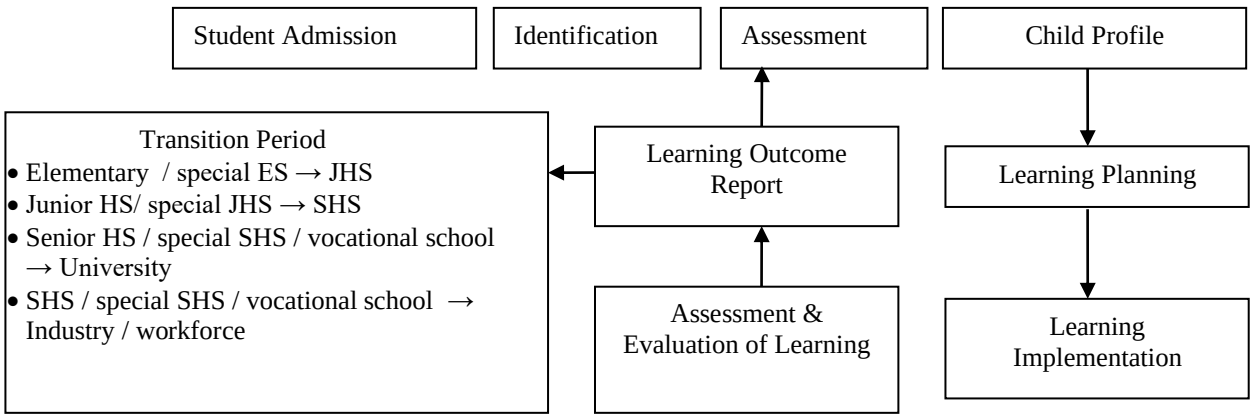

Fig 2. Flow of Inclusive Education Implementation
Source: Arriani et al., (2022) in the Guidebook for the Implementation of Inclusive Education

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The Transition Period is a crucial phase for students to adapt to a new environment, a new system, and different learning methods from those they previously experienced. This transition period includes the shift from elementary school/special elementary school to junior high school, from junior high school/special junior high school to high school/vocational school, from senior high school/vocational school/special senior high school to higher education, and/or from senior high school/vocational school/special high school to a new workplace or industry. The admission process for students with special needs in each educational unit is regulated under Government Regulation No. 13 of 2020 on Reasonable Accommodation for Students with Disabilities, particularly in Article 11b, which includes the provision of affirmative admission selection through an inclusive special pathway based on the student's physical condition, supported by a statement from a doctor or specialist. Following the admission process, there is an identification or assessment phase. The identification process involves recognizing the diversity of students through observations, interviews, tests, or document analysis. Meanwhile, the assessment process is a systematic and comprehensive activity to identify students' obstacles, needs, strengths, and challenges to ensure they receive appropriate educational services.

Educational institutions must also develop student learning profiles after completing the admission and individual capability identification processes. This learning profile includes information about barriers, characteristics, impacts, service strategies, and media needed for intervention. The data presented in the learning profile contains information about the student's identity, academic abilities, social-emotional skills, motor skills, health conditions, and level of independence. Furthermore, educational institutions must design a learning plan based on the assessment results and student profile. This learning plan is developed by teachers and includes long-term annual goals and short-term daily objectives. The core process of inclusive education implementation is the teaching and learning process. At this stage, teachers conduct learning activities based on planned modifications, including adjustments to content, the use of assistive tools, time and place of implementation, as well as teaching methods tailored to students' needs.

In addition to regular learning activities, an Individualized Education Program (IEP) is also implemented in inclusive education. This program is specifically designed by teachers to address students' individual challenges, which are identified during the planning phase to determine whether they require an IEP. To monitor student progress, educational institutions conduct assessments of the learning process. This assessment aims to measure students' achievements through stages such as defining assessment objectives, developing assessment instruments, conducting assessments, and processing assessment results. The outcomes of student learning assessments are then reported to parents or guardians to communicate students' competency achievements and necessary follow-up actions. The format and reporting mechanism are determined by the school, while students' graduation is based on the learning process in accordance with the applicable curriculum.

The Urgency of Inclusive Education in Indonesia

Not all individuals with disabilities can attend Special Schools, therefore, the government has been striving to provide education for them in schools near their residences. These schools are specially programmed to become inclusive schools (Amalia & Kurniawati in Purbasari et al, 2022). However, this initiative has not been fully realized in 3T (Frontier, Outermost, and Disadvantaged) regions, where the number of schools is still very limited, and accessing them often requires

traversing difficult terrain. Due to the urgency of inclusive education as a government priority in fulfilling the right to education, in 2019, the Indonesian government sought to collect data on children with special needs in each region to formulate appropriate policies. Inclusive education aims to ensure equal opportunities for children with special needs to develop their potential, similar to other students in regular schools. The inclusive learning model is the latest approach for children with special needs, based on the principle that every child, regardless of differences or disabilities, should learn together in the same educational environment whenever possible (Irawati & Winario, 2020). Therefore, inclusive education is a solution to fulfilling every child's right to education and should be implemented at all levels of education throughout Indonesia.

Challenges in Implementing Inclusive Education in 3T Area

Indonesia has been promoting inclusive education since 2010. However, its implementation in the field remains far from expectations due to several challenges, particularly in 3T areas. The first challenge is the lack of government commitment and support. (Lukitasari et al, 2017) explained that the government has not seriously addressed inclusive schools in terms of funding and the provision of qualified special assistant teachers. (Fernandes, 2017) also highlighted that inclusive education policies are implemented using a top-down approach, mandating schools to adopt the inclusive education system despite various limitations, including inadequate infrastructure.

The second challenge is the shortage of human resources to support learning. This is evident in the limited number of special assistant teachers for children with special needs. A common issue is that these teachers often lack knowledge of how to handle children with special needs due to their backgrounds in general elementary education (Ni'mah et al, 2022). Consequently, special assistant teachers can only assist children with severe disabilities, failing to monitor the development of other children with special needs in detail, thus limiting the effectiveness of individual learning programs (Fernandes, 2017). The shortage of special assistant teachers is primarily due to the lack of financial incentives from schools, which have constrained budgets (Anjarsari, Efendy & Sulthoni, 2018).

The third challenge is the inaccessibility of the curriculum. Ideally, an inclusive education curriculum should be flexible and tailored to the characteristics of students and the institutions implementing it. However, the current problem is that inclusive education curriculum and assessment methods are not fully aligned with children's needs (Ni'mah et al, 2022). The national curriculum standards applied to regular students are also used for children with special needs, resulting in their failure to graduate due to misaligned evaluation standards that do not consider their intellectual abilities and competencies (Ni'mah et al, 2022).

The fourth challenge is suboptimal school management. School principals are responsible for managing inclusive education, covering budgeting, infrastructure provision, curriculum development, student and teacher organization, and community relations (Zaini in Ni'mah et al, 2022). However, issues persist, such as the lack of teacher involvement in planning, inadequate task distribution and supervision, unprepared administrative and human resources for inclusive education, and ineffective teaching and learning processes due to the absence of specialized programs or services for children with special needs (Agustin, 2019).

The fifth challenge is inadequate infrastructure. Agustin (2019) stated that most inclusive schools lack appropriate learning media for children with special needs. Infrastructure constraints also include limited accessibility features, such as special toilets, guiding blocks, and ramps.

The sixth challenge is collaboration with parents or guardians. Schools implementing inclusive education must collaborate with parents or guardians. Some parents lack awareness of how to care for children with special needs, leading to feelings of shame and reluctance to enroll their children in regular schools (Intan et al, 2020). This also requires support from parents of regular students to instill tolerance in their children to prevent discrimination and bullying against children with special needs.

In line with this, (Purbasari et al 2022) also highlighted similar challenges in implementing inclusive education in 3T areas. Many schools providing inclusive education in Indonesia still need to enhance teachers' competencies to offer appropriate services for children with special needs (Andriyani in Purbasari et al 2022) nd develop skills in modifying the curriculum to meet children with special need's needs (Anjarsari et al in Purbasari et al 2022); Inclusive schools must also improve infrastructure to support children with special need's learning potential (Putri & Ajisuksmo in Purbasari et al 2022) nd strengthen collaboration with relevant stakeholders, such as doctors, psychologists, therapists, or related organizations (Amka in Purbasari et al 2022); Furthermore, inclusive schools must foster stronger relationships with parents and communities to create disability-friendly learning environments and reduce discriminatory treatment toward children with special needs (Ratu in Purbasari et al 2022); Lastly, awareness and cooperation from children with special's parents are essential in supporting their children's potential development.

Stakeholder Efforts in Supporting the Implementation of the Inclusive Education System in 3T Areas

The improvement of inclusive schools must be carried out comprehensively and sustainably, reaching a wider area, particularly the frontier, outermost, and remote regions of Indonesia. Several efforts can be made to support inclusive education in 3T (frontier, outermost, and remote) areas, including: 1) Providing awareness and understanding of inclusive education for students and their parents; 2) Developing planning and commitments that involve parents of children with special needs to create a truly inclusive environment; 3) Reviewing and improving the implementation of inclusive schools to align with inclusive principles; 4) Providing training and development programs to ensure educators have a strong understanding of inclusion and the skills needed to implement it effectively; 5) Identifying the needs of students, especially children with special needs, by involving parents and professionals; 6) Developing a curriculum that considers the diverse educational needs of students to enable them to learn and grow optimally (Rahmah, 2023).

CONCLUSIONS

Inclusive education has also become an international agenda through the Sustainable Development Goals (SDGs) to enhance learning opportunities for all individuals. The goal of implementing inclusive education is to ensure equal access to schooling for socially and economically vulnerable groups, such as the impoverished, individuals with disabilities, and remote indigenous communities. In Indonesia, inclusive education is regulated under Ministerial Regulation No. 70 of 2009 issued by the Ministry of National Education. This regulation provides opportunities for all students, including those with special needs or exceptional intelligence and talents, to participate in regular education alongside their peers. Since 2010, educational institutions across Indonesia have begun implementing inclusive education, welcoming students with various

challenges, including visual impairments (blindness), hearing impairments (deafness), intellectual disabilities (cognitive impairments), motor impairments (physical disabilities), emotional and behavioral disorders, slow learning, specific learning difficulties, autism, hyperactivity, as well as students with exceptional intelligence and talents.

The implementation of inclusive education is expected to reach all regions of Indonesia, including urban, rural, and especially frontier, outermost, and disadvantaged (3T) areas. The 3T regions pose significant challenges in implementing inclusive education due to their remote locations and lack of infrastructure. Based on a review of various studies, the challenges of inclusive education in 3T areas are generally similar to those in non-3T regions, including: 1) Lack of government commitment and support; 2 Limited human resources, particularly specialized teachers for children with special needs; 3) Inflexible curricula for children with special needs; 4) Ineffective school management; 5) Inadequate facilities and infrastructure; and 6) Insufficient collaboration between schools and parents. These challenges become even more complex in 3T regions, which are often isolated, with difficult road access, long travel distances, and limited school facilities.

To improve the implementation of inclusive education in Indonesia, efforts from multiple stakeholders, particularly active participation from schools, are required. These efforts include raising awareness about inclusive education among students and parents, fostering disability-friendly school environments, providing training for educators to enhance their understanding and skills in supporting children with special needs, and developing curricula tailored to the needs of children with special needs. In this regard, the researcher provides several recommendations for the government to optimize the implementation of inclusive education in 3T areas, including: 1) Establishing learning facilities in each district to improve access to education; 2) Preparing qualified educators and professionals to provide specialized services for children with special needs; 3) Conducting public awareness campaigns on the importance of inclusive education in 3T regions; and 4) Modifying curricula and teaching methods to meet students' specific needs. Due to the limitations of this study, the author recommends that future researchers conduct further studies on local government policies to assess their effectiveness in addressing educational challenges in 3T areas, develop curriculum models, and conduct empirical studies on the direct implementation of inclusive education in specific 3T regions.

CONFLICTS OF INTEREST STATEMENT

The authors have no conflicts of interest to declare. All co-authors have seen and agree with the contents of the manuscript and there is no financial interest to report. We certify that the submission is original work and it is not under review at any other publication.

AUTHOR CONTRIBUTIONS

Djulaiha Sukmana and Eka Nurwayuliningsih conceived of the presented idea. Yolandika Arsyad and Eka Nurwahyuliningsih developed the theory and conducted the literature review. Djulaiha Sukmana and Icuk Muhammad Sakir verified the references. All authors discussed the results and contributed to the final manuscript.

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