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Gabriel Faimau,
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Walter Sisulu University, South Africa
Tunahan Degirmenci,
Sakarya University, Türkiye

*CORRESPONDENCE
Babongile Moto
✉ s226118584@mandela.ac.za

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Rethinking the Expanded Public Works Programme for sustainable income generation in South Africa: insights from Duncan Village

Babongile Moto*, Purity Hamunakwadi and Sijekula Mbanga

Department of Building and Human Settlement Development, Nelson Mandela University, Gqeberha, South Africa

Background: Expanded Public Works Programmes (EPWPs) in South Africa aim to tackle unemployment and poverty, particularly in informal settlements, by offering temporary employment and skills development. Despite more than a decade of implementation, concerns remain about their long-term impact on sustainable income generation and community development.

Methods: This study adopted an interpretivist research design, using qualitative methods to investigate the effectiveness of EPWPs in Duncan Village, an informal settlement in the Buffalo City Metropolitan Municipality. Data was collected through in-depth interviews with five key informants from the Department of Public Works and local government, alongside four focus group discussions involving 40 EPWP beneficiaries. A thematic analysis approach was applied, complemented by a comprehensive literature review to contextualize findings.

Findings: The findings revealed that EPWPs contribute to short-term employment, improved self-worth, and basic skills development. However, the programmes are hindered by coordination challenges, inadequate administrative support, and misalignment between skills training and local labor market needs. Participants emphasized the necessity of accredited training, access to microfinance, and stronger interdepartmental collaboration to support long-term livelihood strategies.

Conclusions: EPWPs play a valuable role in providing immediate relief to vulnerable communities, but their transformative potential remains limited without structural improvements. To increase their impact, policy interventions should prioritize sustainable skills development, improve administrative coordination, and enhance post-programme support mechanisms to foster entrepreneurship and long-term employment. These findings contribute to the growing body of international literature on public employment programmes, drawing parallels with similar initiatives such as India's MGNREGA and Brazil's Bolsa Família.

KEYWORDS

Expanded Public Works Programmes (EPWPs), sustainable income generation, unemployment, poverty alleviation, skills development, programme implementation, socioeconomic empowerment, South Africa

1 Introduction

Public works programmes (PWP), including Expanded Public Works Programmes (EPWPs) in the South African context, have emerged as crucial mechanisms for addressing unemployment and poverty in developing countries like South Africa (Botha, 2019). The effectiveness of these programmes in fostering community development and income generation, particularly in marginalized areas, warrants closer examination. Historically, public works programmes have been employed as countercyclical policy tools during economic crises to generate employment opportunities and stimulate demand (Webb, 1992). In colonial Africa, labor-intensive projects were common, while several Asian nations had long-running public works initiatives (Ravallion, 1990). However, recent research suggests a significant misalignment between the objectives of EPWPs and their practical implementation, particularly at the municipal level (Moeti, 2013; McCord, 2017). EPWPs are often viewed more as infrastructural development initiatives rather than mechanisms for job creation. In this regard, despite the implementation of EPWPs, South Africa continues to grapple with high unemployment and poverty rates, especially among youth and unskilled populations (Statistics South Africa, 2021). Informal settlements, housing millions of people, often lack basic public utilities, exacerbating socio-economic challenges (Human Sciences Research Council, 2019). The EPWP, initiated in 2004, aimed to address such issues by providing temporary jobs and skill development opportunities. However, evidence of its impact on reducing unemployment and poverty remains limited.

Despite the significant scale and longevity of EPWPs, a critical gap persists in understanding their role in facilitating sustainable income generation post-programme, especially in informal settlements. Most existing studies focus on programme outputs such as job numbers and training provided, rather than long-term economic outcomes for participants. This study contributes to bridging that gap by focusing specifically on post-EPWP livelihood trajectories and the sustainability of skills acquired, an area that remains underexplored in South African and international literature.

In this context, Duncan Village, a township in the Buffalo City Metropolitan Municipality (BCMM) in the Eastern Cape province of South Africa, represents a critical case study for examining the real-world impact of the EPWP. This informal settlement is home to a large portion of the province's disadvantaged population, with many residents facing high levels of unemployment and poverty. EPWP interventions in Duncan Village have focused on various categories of work, including infrastructure development, environmental management, and social services, which fall under different arms of the programme. Despite these interventions, challenges remain in translating temporary job opportunities into sustainable income and business ventures. This area presents an opportunity to assess how the EPWP can more effectively support beneficiaries in transitioning from temporary work into long-term socio-economic empowerment.

This study aims to critically evaluate the effectiveness of the EPWP in Duncan Village, particularly focusing on whether beneficiaries could achieve sustainable income generation through securing decent jobs or establishing businesses post-programme.

A clear distinction between the different arms of the EPWP was made, with a focus on the categories that directly impacted community development, such as the environmental and social services sectors. By addressing these issues, the study provided insights into the strengths and weaknesses of the programme, offering recommendations for improving programme outcomes in the region.

Unlike prior studies that have predominantly employed economic or administrative lenses, this research is anchored in the theoretical frameworks of poverty alleviation, sustainable livelihoods, and community development. These theories offer a multidimensional view that recognizes not just employment but also human capability, local assets, and social networks as critical to achieving sustainable development outcomes.

The rest of the article is structured as follows: first, the theoretical development section discusses theories such as the theory of poverty alleviation, community development theory, and sustainable livelihoods framework to view the effectiveness of EPWPs in generating sustainable income for the beneficiaries. Second, related literature on other similar government programmes such as the EPWPs from international best practices is presented. Third, the research methodology is presented, followed by the findings and discussion section. Thereafter, the implications of the study for theory, policy, and practice are discussed. Lastly, the conclusions and recommendations are presented.

2 Conceptual and theoretical frameworks

Expanded Public Works Programmes (EPWPs) have been used globally across diverse sectors as instruments to support livelihoods, especially in contexts characterized by high unemployment and income inequality. These programmes were designed to create short-term, labor-intensive employment opportunities for marginalized communities, aiming to reduce poverty and socio-economic disparities while fostering income generation and improving livelihoods (Glen and Mearns, 2021).

In the South African context, EPWPs are primarily positioned as part of the government's social protection toolkit, intended to provide immediate income support alongside opportunities for upskilling and social inclusion. In this framework, income generation refers to participants earning income through short-term EPWP engagements that can potentially lead to further employment or entrepreneurial opportunities. These opportunities offer a crucial income lifeline to individuals who typically face barriers to formal employment due to educational or skill deficits (Glen and Mearns, 2021).

However, achieving sustainability in income generation is essential when assessing the longer-term impact of such programmes. As Von Fintel (2017) observes, sustained income generation encompasses continued access to employment or income-generating activities after exiting the programme. Without this transition, beneficiaries risk falling back into economic vulnerability, thereby limiting the programme's long-term poverty alleviation impact.

This highlights a fundamental challenge—while EPWPs can offer temporary relief, they may not sufficiently address systemic barriers such as low skills levels, educational inequities, and weak labor market absorption. In this regard, EPWPs risk becoming palliative rather than transformative unless they are integrated into a broader developmental agenda that includes skills development, enterprise support, and labor market reform (Cronin and Mearns, 2019).

This study addresses a key research gap by moving beyond traditional evaluations that focus only on short-term employment metrics. It critically engages with how EPWPs contribute to (or fall short of) enabling sustainable livelihoods in informal settlements such as Duncan Village. The study's conceptual framework emphasizes the importance of examining the intersection between temporary employment, skill-building, and the transition to long-term income opportunities.

To this end, the research is underpinned by a multi-theoretical approach:

- **Poverty Alleviation Through Employment Theory:** This theory posits that public works programmes can temporarily reduce unemployment and poverty by absorbing large numbers of low-skilled laborers (Ravallion, 1990). However, its effectiveness depends on whether the jobs created translate into broader economic opportunities.
- **Community Development Theory:** This framework underscores the value of empowering communities through participatory processes, skills transfer, and capacity building, leading to enhanced local agency and resilience (Botha, 2019). In the context of EPWPs, community-based selection of projects and inclusive participation become key indicators of developmental effectiveness.
- **Sustainable Livelihoods Framework (SLF):** Rooted in development theory, SLF focuses on individuals' access to five key forms of capital—human, natural, social, financial, and physical—as enablers of sustainable wellbeing (Lotz-Sisitka, 2020a). EPWPs can enhance some of these assets, particularly human and financial capital, if implementation is strategic and sustained.

By combining these theoretical lenses, the study offers a comprehensive framework for evaluating EPWPs not only as job creation tools but also as vehicles for sustainable livelihoods. This integrated approach allows for a more critical assessment of the programme's potential to support socio-economic transformation, especially in the structurally disadvantaged spaces such as Duncan Village.

3 Literature review

Globally, public works programmes have been implemented across various countries and regions with varying degrees of success. The literature provides valuable insights into their effectiveness in enhancing income generation and promoting socio-economic development. Thus, this section provides the

literature on international, regional and African experiences of public works programmes.

3.1 International, regional, and African experiences of public works programmes

Public works programmes are a multifaceted policy instrument not limited to under-developing countries, as they are also employed in developed nations to address specific needs and economic challenges. In developed countries, these programmes often focus on infrastructure development, environmental initiatives, and response to economic downturns (Moyo, 2022). For instance, the United States implemented public works projects like the New Deal in the 1930s, which aimed to stimulate the economy during the Great Depression by creating jobs and enhancing infrastructure, exemplified by projects like the construction of the Hoover Dam. Similarly, Degirmenci et al. (2024a,b) demonstrate how environmental taxes and R&D expenditures in EU countries can drive renewable energy adoption, showing the potential for fiscal instruments to support sustainable infrastructure projects. In the context of environmental conservation, developed countries like Canada have established public works initiatives focused on enhancing natural resource management, such as reforestation programmes and wildlife habitat restoration projects (Ncube, 2021). These endeavors underscore the adaptability and effectiveness of public works programmes in addressing both economic and environmental objectives in developed countries.

These programmes often operate within a specific wage structure or minimum wage requirements set by the government. As a result, programme participants receive wages that are equal to or higher than the mandated minimum wage. This offers an immediate income boost, particularly for those who might have otherwise engaged in low-paying informal or precarious employment in the private sector (World Bank, 2019). This aligns with findings by Aydin et al. (2025) in China, where command-and-control environmental regulations combined with green energy investments were shown to create sustainable employment opportunities while addressing ecological concerns. Additionally, public works programmes typically provide participants with formal employment opportunities, which come with benefits like job security and social protections that are often lacking in informal or temporary work.

Furthermore, these programmes are frequently associated with skill development and training components. Participants may acquire new skills or improve existing ones, making them more competitive in the labor market. This skill enhancement can translate into better job prospects and increased bargaining power, enabling participants to secure higher wages in the long term (Tom and Swana, 2022). Degirmenci and Yavuz (2024) emphasize that such skills development should be carefully aligned with emerging green technologies and renewable energy sectors to ensure long-term relevance in the job market. In some cases, public works programmes may lead to job placements or connections to employers, further enhancing the participants' employment opportunities and income potential. The association of higher

wages with public works programmes underscores the multifaceted benefits they offer, extending beyond immediate income generation to improved employment prospects and income potential. These programmes can play a pivotal role in raising the overall income levels of participants and contributing to poverty reduction. However, one of the primary issues relates to the short-term nature of the employment opportunities provided by these programmes. While public works initiatives like EPWPs aim to create temporary jobs, the sustainability question arises from the fact that they may not effectively transition participants to more stable, long-term employment. Consequently, once the temporary employment period ends, participants may find themselves back in a state of joblessness, contributing to cycles of poverty within informal settlements (Cronin and Mearns, 2019). It is upon this basis that this article highlights diverse studies from both developed and developing countries to provide a comprehensive empirical review to inform the analysis of this study.

This is why Ghanashyam (2020), insists that public works programmes are a common policy tool in both developed and many developing countries, such as those in Latin America, Asia and Africa. In Sri Lanka, a public works programme was implemented as part of the Emergency Northern Recovery Project following a lengthy civil conflict, aiming to provide short-term employment to affected households and rebuild local infrastructure, farms, and housing (Midgley et al., 2020). This initiative sought to achieve multiple interconnected objectives, the outcomes of which extended beyond immediate economic impact. The programme aimed to provide short-term employment to households affected by the conflict. By creating job opportunities, it injected money into the local economy, improving the financial wellbeing of the population (Midgley et al., 2020). This economic stimulation was vital for rebuilding the region's economic foundation, which had been shattered during the conflict.

According to Fransman and Yu (2019) Argentina's Head of Household Programme supported vulnerable households with unemployed family members during the severe financial crisis in 2002. Over time, it shifted its focus toward training to enhance human capital and long-term employment opportunities (Botha, 2019). Public works programmes gained popularity globally after the 2007–2009 world economic crisis as a means to combat rising unemployment, poverty, and food insecurity (Jiusto and Kenney, 2016; Nel and Rogerson, 2018). The World Bank funded programmes in numerous countries, and many developing countries introduced or expanded their initiatives (Datt and Ravallion, 2014; Makhubu and Motlhabane, 2023). The World Bank has funded programmes in numerous countries, often focusing on initiatives to alleviate poverty and stimulate economic development. Some of the countries that have received funding and implemented programmes with notable contributions to income generation, skills development, job creation, or business development include Peru and India.

The World Bank-funded “Juntos” programme in Peru targeted poverty reduction. While not a traditional public works programme, it included conditional cash transfers to poor households, helping them improve their income and access to essential services. This initiative indirectly contributed to income generation and poverty reduction

by providing financial resources to vulnerable households (Datt and Ravallion, 2014).

In Africa, public works programmes play a critical role in addressing the continent's high levels of unemployment and poverty. India has been a recipient of World Bank funding for various programmes. One of the noteworthy initiatives is the National Rural Employment Guarantee Act (NREGA), which guarantees 100 days of wage employment to rural households. Other scholars present it as India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which provides rural households with guaranteed workdays (Godfrey-Wood and Flower, 2018). This resonates with Degirmenci et al. (2025) findings on energy security, where political globalization and targeted R&D investments were shown to enhance both employment outcomes and environmental sustainability in energy projects. NREGA has contributed significantly to income generation by providing employment opportunities to millions of rural households, particularly during agricultural lean seasons. It has enhanced the financial wellbeing of rural communities (Datt and Ravallion, 2014; Tom and Swana, 2022). The World Bank has supported various programmes in Bangladesh, including the Rural Maintenance Programme (RMP) and the Chittagong Hill Tracts Rural Development Project.

These initiatives aimed to improve rural infrastructure, including roads and bridges, which not only enhanced skills development but also generated jobs within these communities. Improved infrastructure facilitated access to markets and promoted local businesses, indirectly contributing to business development (Cronin and Mearns, 2019). A comparative study was done on India's MGNREGA and Brazil's Bolsa Familia which offers conditional cash transfers to beneficiaries (Godfrey-Wood and Flower, 2018; Neves et al., 2022). Both initiatives have demonstrated notable successes in improving livelihoods while facing their implementation challenges. The MGNREGA's approach to integrating long-term skill-building with guaranteed work could inform strategies for EPWP training programs to better prepare participants for formal employment, and the Bolsa Familia's conditional cash transfers, tied to health and education outcomes, highlight the importance of aligning social support with broader development goals. Such incorporation of similar conditionalities within EPWPs could enhance long-term community benefits. Vilakazi and Seete (2014a) on the same note, examined the socioeconomic impact of EPWP initiatives in the South African Police Service, emphasizing the programme's role in job creation and skills development.

EPWPs often share common goals, including mitigating the negative effects of aggregate shocks (Ghanashyam, 2020). While some programmes are small and temporary, others demonstrate scalability and adaptability in response to specific shocks (Glen and Mearns, 2021). For instance, Moyo (2022) posits that Zimbabwe implemented public works programmes in response to economic challenges. Initiatives like the Food-for-Work programme have aimed to address food security issues and provide employment opportunities for local communities. Ncube (2021), highlighted that the National Employment Policy for Namibia includes a community-based rural public works programme, demonstrating the commitment to alleviate unemployment and enhance the

livelihoods of rural populations. These examples illustrate the global significance of public works programmes, as they are deployed in various contexts to address distinct challenges, from poverty reduction and rural development to responding to economic crises and conflict recovery. In Kenya, the World Bank supported initiatives like the Youth Employment and Opportunities Project (Kazi Kwa Vijana). This project focused on creating employment opportunities for young people by funding labor-intensive public works programmes. It directly contributed to job creation and income generation among Kenyan youth, improving their economic prospects and livelihoods.

Public works programmes also address recurring shocks, such as droughts and food crises. Ethiopia's Productive Safety Net Programme, implemented since 2005, identifies vulnerable households through geographic targeting and community involvement (Ramírez-Agudelo et al., 2020). Covering a significant portion of the population, this programme aims to alleviate chronic food insecurity while reducing long-term poverty. Such initiatives play a crucial role in employment creation and poverty alleviation.

Rwanda's Vision 2020 Umurenge Programme, introduced in 2008, primarily focuses on poverty reduction (Oulton, 2023). It aimed to eradicate extreme poverty by 2020 by combining public works employment with initiatives promoting entrepreneurship and long-term employment (Ghanashyam, 2020). While some programmes emphasize providing training opportunities to improve beneficiaries' access to secure, well-paid jobs in the future, such initiatives are less common in many developing countries (Botha, 2019). The commitment to enhancing local development through public works projects, such as infrastructure development, often remains a secondary consideration (Dyanty, 2019).

Liberia witnessed transfer benefits as high as 93%, possibly due to limited alternative employment opportunities (McCord, 2017). Stabilization benefits for programme participants can be valuable, even when programmes are not implemented perfectly (McClean, 2020). However, the impact of high-wage programmes on market wages and private-sector job availability remains understudied (Fransman and Yu, 2019).

South Africa adopts four different categories of EPWPs: infrastructure sector, social sector, environmental sector, and non-state sector programme. The infrastructure sector generates employment possibilities within the construction industry (roads, bridges, water supply systems and public buildings) to alleviate unemployment and poverty challenges (Neneh, 2022). The environmental sector's focus on "green jobs" particularly aligns with global trends identified by Degirmenci et al. (2024a,b), where environmental sustainability is increasingly recognized as integral to meaningful employment creation. The social sector focuses on providing employment opportunities in areas related to social services (healthcare, education, and social development) to serve as community health workers or assisting in schools (Dyanty, 2019). The social sector aims to not only create employment but also improve the quality and accessibility of essential social services. The environmental sector of the EPWP is dedicated to environmental conservation and sustainability efforts to support initiatives related to land rehabilitation, reforestation, waste management, and the preservation of natural resources (Lotz-Sisitka, 2020b). Participants are engaged in projects

aimed at enhancing the environment and biodiversity while simultaneously offering employment opportunities "green jobs" (McClean, 2020). Ultimately, the non-state sector programme focuses on providing income-generating opportunities through partnerships with non-governmental organizations (NGOs) and community-based organizations (CBOs). It often involves various community development projects, including skills training, agricultural initiatives, and microenterprise development. This sector aims to empower marginalized communities and encourage self-sufficiency, leveraging the capacity of non-state actors to create sustainable livelihoods (Tom and Swana, 2022). These four categories reflect the diverse range of activities encompassed by the EPWP, catering to different sectors of the economy and various community needs while also striving to address the broader challenges of unemployment and poverty in South Africa.

In line with global trends, in South Africa, the EPWP address poverty, unemployment, and inequalities as mentioned earlier (Midgley et al., 2020). While many countries primarily focus their public works programmes on infrastructure projects, South Africa stands out for extending its public works initiatives to include social services, as highlighted by Glen and Mearns (2021). This unique approach encompasses early childhood development (ECD) and home- and community-based care (HCBC) services, acknowledging the value of this work as paid employment (Cameron, 2018). HCBC and ECD roles involve caring for the sick and terminally ill, childcare, and creating clean and nurturing environments crucial for children's physical and psychological development. This entails engaging various professionals, including childcare workers, nutritionists, administrative staff, cooks, gardeners, community health workers, and health officers, among others (Mudau, 2020). Also, EPWPs in South Africa prioritize targets for the employment of youth, women, and people with disabilities, emphasizing community involvement in worker selection, work experience, and training (Fourie, 2016; Oulton, 2023). These programmes extend beyond mere income transfers, enhancing the dignity and self-esteem of participants while contributing to the community and national development (McClean, 2020).

Ghanashyam (2020) points to the community-based waste management system in Cape Town, responsible for refuse collection and area clearing in informal settlements. This labor-intensive system not only provides skills development but also promotes social cohesion and generates employment opportunities for vulnerable groups (Ramírez-Agudelo et al., 2020). Oulton (2023) similarly argues that the Working for Water programme, an environmental conservation initiative focused on clearing invasive alien plants, has ecological and social development benefits. Its training component emphasizes skill development in work-related activities. A study by Mthembu and Ledwaba (2022) found that the EPWP has had a positive impact on gender equality in South Africa, by increasing the participation of women in the economy and by empowering women through skills training and leadership development. The study also found that the EPWP has helped to reduce gender-based violence in communities.

Cronin and Mearns (2019) mention the Ukuvuka campaign in Cape Town, which was established as an independent agency through a public-private partnership. It aimed to manage wildfires

(technical aspect), clear invasive alien plants (technical aspect), and provide poverty relief (developmental aspect), all while pursuing environmental and social objectives and ambitions related to training and empowerment (Glen et al., 2019). Notably, the campaign favored labor-intensive methods over cheaper biological and mechanical alternatives for clearing invasive plants (Ghanashyam, 2020). However, the project faced challenges related to management, administrative support, task-based methods, and the quality of training provided. High negotiated wages further undermined its viability (Fransman and Yu, 2019). Consequently, a significant portion of service providers registered with the city and relevant government bodies ceased operations after the campaign ended (Cameron, 2018). This experience underscores the importance of well-considered programme design and implementation in achieving the noble goals of public works initiatives, as multiple objectives may risk diluting their intended impact and potentially lead to failure.

Despite the significant attention EPWPs have received, especially regarding their impact on poverty alleviation and employment creation, limited research has focused on their effectiveness in informal settlements (Hlatshwayo, 2017; Rita and Wahyudi, 2019). Recent studies like Aydin et al. (2025) suggest that incorporating environmental sustainability metrics could provide new ways to evaluate programme effectiveness beyond traditional employment measures. Makhubu and Motlhabane (2023)'s study found that the EPWP has had a positive impact on social cohesion in South Africa, by promoting social interaction and cooperation among participants from different backgrounds. The study also found that the EPWP has helped to reduce conflict and tension in communities.

While concerns about corruption within such programmes are not unique to South Africa, studies have raised questions about their sustainability, especially concerning employment generation in informal settlements (Cameron, 2018). Studies examining the sustainability of public works programmes, specifically in the context of employment generation within South African informal settlements, have raised several critical concerns. The sustainability concern also pertains to the broader structural issues underpinning employment generation and is often aligned with corruption. Mismanagement or corruption can divert resources away from the intended beneficiaries, reducing the impact of these programmes and casting doubt on their long-term viability. Therefore, the sustainability of employment generation in informal settlements through public works programmes is contingent on addressing these issues, ensuring effective transitions to sustained income opportunities, and maintaining transparency and accountability in programme implementation (Cameron, 2018).

Well-conceived EPWPs, as per Fransman and Yu (2019), can simultaneously deliver various objectives, such as providing public services, increasing incomes temporarily, enhancing dignity, reducing alienation, and offering valuable workplace experience. The integration of green technology training and renewable energy projects, as demonstrated in Degirmenci et al. (2024a,b) OECD country analysis, could further enhance these multidimensional benefits in the South African context. Furthermore, EPWPs in South Africa prioritize targets for the employment of youth, women, and people with disabilities, emphasizing community

involvement in worker selection, work experience, and training (Fourie, 2016; Oulton, 2023). These programmes extend beyond mere income transfers, enhancing the dignity and self-esteem of participants while contributing to the community and national development (McClean, 2020).

Mtshali and Ndlela (2021), conducted a study on EPWP and youth employment in Duncan Village and their study found that the EPWP has played a significant role in youth employment in Duncan Village, with over 50% of EPWP participants being young people. The study also found that the EPWP has helped to reduce youth unemployment in the community by 15%. On the same note, Tom and Swana (2022), conducted a study and found that the EPWP has had a positive impact on local economic development in Duncan Village, through the creation of jobs, the provision of training, and the procurement of goods and services from local businesses. The study also found that the EPWP has helped to improve the quality of life in the community, through the construction of infrastructure and the provision of social services. The policy design and delivery of EPWPs in South Africa fall under the purview of the Department of Social Development (DSD) and the Department of Public Works (DPW; Fransman and Yu, 2019). While the DSD focuses on overarching social protection policy, the DPW is responsible for driving the delivery, coordination, and monitoring of EPWPs. Additionally, all government spheres, including national, provincial, and municipal levels, bear the responsibility of allocating a portion of their budgets to support EPWPs. This leads to several challenges which are discussed in the next section. Thus, despite their potential benefits, public works programmes face several challenges in achieving sustainable income generation outcomes. Duncan (2012) discusses the economics of public expenditure on infrastructure, highlighting the importance of cost-effectiveness and efficiency in programme implementation. Ghanashyam (2020) examines urban infrastructure challenges in South Africa, underscoring the need for targeted interventions to address systemic barriers to socioeconomic development. For, instance, Bennett and Fieuw (2018) analyze the socioeconomic impact of EPWP initiatives in KwaZulu-Natal, South Africa, identifying limitations such as access to financing and inadequate infrastructure. McClean (2020) critically evaluates urban and rural infrastructure development in South Africa, emphasizing the importance of holistic approaches to address infrastructure deficits and promote inclusive growth.

The divergence in many developing countries' focus on training opportunities and their commitment to local development through public works projects can be attributed to a combination of factors. Resource constraints play a pivotal role, with these nations often grappling with limited financial and human resources (Botha, 2019). In response, they tend to prioritize short-term employment generation through public works programmes due to its cost-effectiveness and expediency. Additionally, political priorities hold significant sway, as governments may favor quick-win projects to demonstrate their commitment to addressing immediate challenges. The lack of institutional and technical capacity to establish comprehensive training programmes is another critical factor. Many developing countries simply lack the expertise, infrastructure, and systems required for such initiatives. Socioeconomic pressures are also influential, with the urgency of

addressing unemployment and poverty often compelling a focus on immediate income generation (Makhubu and Motlhabane, 2023).

Furthermore, funding and donor priorities can significantly shape programme design, with donors sometimes preferring specific project types (Moyo, 2022). The perceived benefits of immediate income generation, which is seen as more directly beneficial to beneficiaries, can overshadow the longer-term advantages of training programmes. The complexity of matching trained individuals to secure, well-paid jobs further complicate the matter, as job opportunities may not be readily available or may demand specific qualifications (Ncube, 2021). Despite the value of training opportunities in the long run, these factors collectively contribute to the prevalence of short-term employment generation as a primary focus in many developing countries. Striking a balance between immediate income generation and skill development is crucial to ensure a sustainable and inclusive approach to poverty reduction and economic development.

Whether in developed or developing nations, these programmes play a crucial role in achieving social and economic objectives while enhancing the wellbeing of the population. These public works programmes significantly contribute to income generation through access to jobs, skills development, and business development. These initiatives have played crucial roles in the respective countries, contributing to income generation, skills development, job creation, and business development. They have aimed to address poverty, enhance livelihoods, and stimulate economic growth in various ways, illustrating the impact of World Bank funding on diverse aspects of development in these countries.

4 Research methodology

4.1 Geographical location of the study

The area of study is Duncan Village, which is a township in BCMM in the Eastern Cape province of South Africa. The township is located about 5 km away from the East London central business district and is divided into six wards, as highlighted in Figure 1.

Duncan Village is a low-income residential area which is home to 90,000 people, and according to the Socio-Economic Rights Institute of South Africa (2022), infrastructural facilities are minimal, and densities are extremely high, being more than 2,500 people per hectare in some areas. Such areas can only be uplifted by the introduction of EPWPs to alleviate the poverty associated with such high-density populations. This settlement epitomizes the challenges prevalent in many informal settlements across the country, including poverty, unemployment, and limited access to basic services (Denzin and Lincoln, 2018). The selection of Duncan Village as the study area was deliberate, aiming to gain a holistic understanding of the intricate dynamics associated with the EPWP's impact within informal settlements (Bell et al., 2022). By delving into the experiences of both programme participants and relevant officials, the study sought to contribute significantly to the comprehension of strategies aimed at poverty alleviation within such contexts. Duncan Village's circumstances, characterized by deficiencies in housing, lack of fundamental services, and social as well as economic marginalization, provided an opportune environment for assessing the potential efficacy of

the EPWP in addressing these multidimensional predicaments. The amalgamation of these challenges within the specific backdrop of Duncan Village rendered it a pertinent platform for investigating the extent to which the EPWP could tangibly influence income generation and long-term sustainable livelihoods (Fouché and Geyer, 2021).

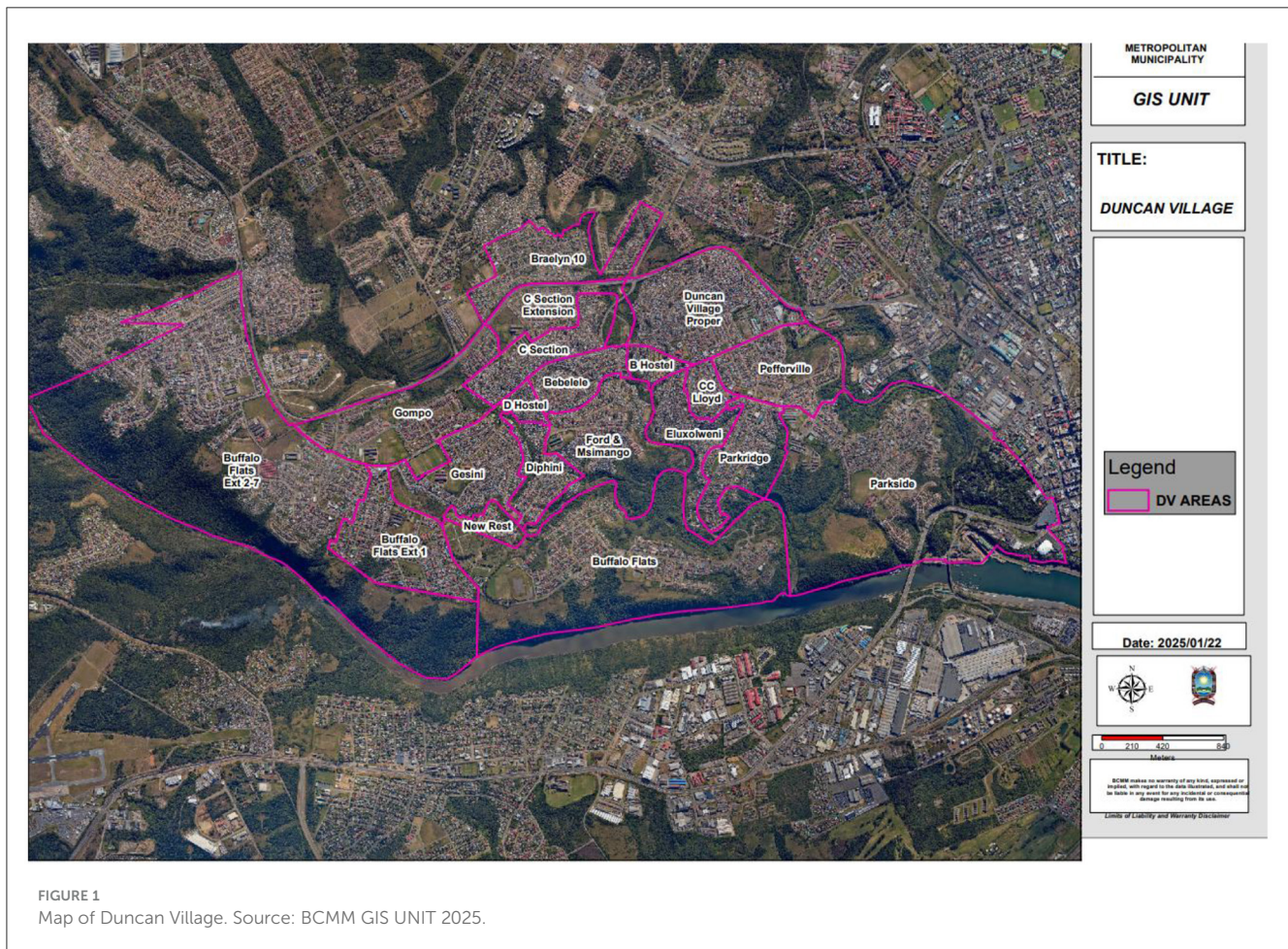
4.2 Research approach and design

This study adopted a qualitative approach building insights from an interpretivist paradigm to thoroughly investigate the research objective. The qualitative approach emphasizes understanding the social phenomena through the subjective interpretations of individuals involved (Creswell and Creswell, 2017). This approach enabled a detailed exploration of the research phenomena, providing in-depth insights from the complex dynamics of EPWPs in fostering community development and income generation in South Africa. The selection of data sources was carefully considered to ensure comprehensive coverage of stakeholder perspectives. Primary data was collected directly from EPWP participants and implementing officials, while secondary data included government policy documents and academic literature. Alternative data sources such as national EPWP databases were considered but excluded as they lacked the localized, contextual insights needed for this community-focused study.

As such, qualitative research instruments such as a case study design, in-depth face-to-face interviews and focus group discussions blended with structured and unstructured questions were utilized to capture the essence of the study. A set of open-ended questions was used combined with other scholarly materials from journal articles, government legislations, policy documents and books. The data collection methods were vital to gain insights from in-depth face-to-face interviews with the key stakeholders from the Department of Public Works (DPWs) and Buffalo City Metropolitan Municipality (BCMM); focus group discussions with EPWPs beneficiaries in Duncan Village informal settlement and a comprehensive literature review to gain a holistic understanding of the research topic (Creswell and Poth, 2018). These interviews were semi-structured to allow for flexibility in exploring participants' insights while maintaining focus on the study objectives.

Four focus group discussions (FGDs) were conducted with recipients of EPWP programmes. Each focus group included 10 participants which facilitated manageable and engaging discussions while capturing diverse perspectives. Discussions were guided by pre-designed thematic prompts aligned with the research objectives. Group composition was carefully considered to ensure representation across gender, age, and programme roles, thus enriching the data's depth and breadth in each of the four FGDs. A trained facilitator moderated these sessions to maintain neutrality and foster open dialogue.

The qualitative nature of the interviews and focus groups allowed for the exploration of nuanced perspectives and experiences, contributing to a deeper understanding of the intricacies of EPWP implementation (Patton, 2015). To enhance the validity of findings, methodological strategies such as member checking and reflexive journaling were employed. Participants



were given opportunities to review and validate their responses to ensure accuracy and authenticity. Reflexive journaling was used throughout the data collection process to mitigate researcher bias by documenting subjective impressions and maintaining a focus on participants' perspectives (Teddle and Tashakkori, 2019).

Additionally, a thorough review of existing literature on EPWPs and community development in South Africa was conducted. This literature review served multiple purposes, including providing theoretical frameworks, contextualizing the study within existing research, and identifying gaps in the literature. By synthesizing findings from previous studies, the literature review enriched the analysis and interpretation of the primary data collected through interviews (Booth et al., 2016).

The combination of qualitative interviews, focus group discussions, and a comprehensive literature review facilitated a multifaceted examination of the role of EPWPs in community development and income generation. The qualitative data obtained from interviews and focus groups offered real-world insights into the practical challenges and opportunities encountered in EPWP implementation, while the literature review provided theoretical perspectives and empirical evidence to support and contextualize the findings (Creswell and Creswell, 2017).

To ensure a transparent and robust methodological process, data triangulation was employed. Findings from interviews, focus group discussions, and the literature review were

cross-referenced to identify convergent themes and discrepancies. This triangulation enhanced the credibility and reliability of the study by corroborating evidence from multiple sources (Teddle and Tashakkori, 2019).

Through this methodological approach, the study uncovered key themes and patterns related to EPWPs, including the effectiveness of programme implementation, the challenges faced by stakeholders, and the potential for enhancing income generation and community development outcomes. To visually represent the research process and enhance clarity for readers, a schematic representation outlining the stages of data collection and analysis has been included.

By triangulating data from qualitative interviews, focus group discussions, and existing literature, the study aimed to provide a robust basis for its findings and recommendations (Teddle and Tashakkori, 2019). Also, the use of diverse qualitative methods (triangulation) enhanced a holistic sharing of detailed perspectives on their experiences, challenges, and successes with EPWP implementation.

4.3 Targeted population

The target population for this study was Duncan Village which is located in the corridor of Mdantsane East London

Development (MELD) in Buffalo City Metropolitan Municipality with about 30,000 households (100,000 people) and about 18,400 informal structures within this development (Housing Development Agency, 2016, p. 2). The sample population used in this study was made up of three primary groups, individuals who have actively participated in the Expanded Public Works Programme (EPWP) within Duncan Village, officials affiliated with the Buffalo City Metro Municipality and Department of Public Works located in East London. Duncan Village was strategically chosen as the focal point of the research due to its representative nature within the broader context of South African informal settlements. The study population consisted of families and individual members from both genders who possessed knowledge of or had participated in the EPWP activities within Duncan Village. This diverse representation ensured that the research captured a comprehensive range of perspectives and experiences related to the programme's implementation and impact within the informal settlement setting and influenced the choice of sampling strategy that is discussed next in the following section. This diversity was essential to capturing a wide range of perspectives on the effectiveness of EPWPs on enhancing sustainable income generation in informal settlements.

4.4 Sampling method

The sampling methodology was carefully designed to ensure representative perspectives. A total of 45 participants were selected through purposive sampling, consisting of individuals from Duncan Village and officials from the Buffalo City Metro Municipality and Department of Public Works in East London were selected for this study. The rationale for using 45 participants was deemed relevant due to different categories of EPWPs: infrastructure sector, social sector, environmental sector, and non-state sector programme. In addition, the rationale for using a sample size of 45 participants was limited resources and time constraints inherent in conducting interviews within a large area like Duncan Village. More so, going beyond the 45 people was not viable for research that was based on interviews as it would take a lot of time (Myers, 2019). Thus, the maximum sample size was 45 (40 EPWP participants, divided into four focus groups of 10 participants each) and (5 officials; 2 from DPW, 3 from BCMM). The choice of 40 EPWP participants for focus group discussions derived from practical considerations and the qualitative nature of the study. This sample size was determined based on data saturation principles and practical constraints, with the composition ensuring representation across gender, age groups, and programme roles. The homogeneous sampling method ensured participants shared similar EPWP experiences, while expert sampling targeted officials with implementation knowledge.

Focus group discussions allow for interactive dialogues, generating in-depth insights and shared experiences (Denzin and Lincoln, 2018). Given the constraints of time, logistics, and the desire to ensure comprehensive coverage of EPWP participants' perspectives, four focus groups of 10 participants each provided a balanced representation of experiences, challenges, and opportunities (Skinner et al., 2020). Thus, the maximum sample size is defined to ensure that the discussions remain focused,

participatory, and conducive to meaningful data collection (Bell et al., 2022). Of the 45 participants, five were key informant interviews comprising officials from Public Works and the Buffalo City Metro Municipality.

The choice of five officials aimed to provide a diverse perspective on the EPWP's implementation and outcomes, ensuring representation from various decision-making levels within the respective departments (Myers, 2019). This selection strategy allowed for a breadth of insights into the programme's design, execution, and challenges from an organizational and administrative standpoint. These key informants are integral to understanding the programme's design, execution, and challenges from an organizational and administrative standpoint. However, for this study, the minimum sample size was 45 participants of which 30 participants would represent focus groups upon saturation. Three focus groups would contain 10 participants each. Key informant interviews would be from five participants: two participants representing the Department of Public Works and three participants from the Buffalo City Metro Municipality. Hence, it is critical to justify the sample size utilized in an empirical study when it's being designed. The rationale is crucial because it addresses whether the sample size selected to gather data is expected to support the study's conclusions based on the researcher's inferential aims.

Participants were selected using non-probability purposive sampling from Duncan Village informal settlement and key informant stakeholder. A purposive sampling strategy was employed to select the participants from Duncan Village, aligning with the qualitative nature of the study and allowing for the handpicking of individuals based on their direct involvement in the EPWP and their roles as officials (Denzin and Lincoln, 2018). This sampling approach offered the advantage of selecting participants with specific attributes crucial to the study's objectives, ensuring rich and relevant data collection (Skinner et al., 2020). In this case, the researcher's judgment played a vital role in selecting individuals who provided meaningful insights into the study's focus. Two forms of purposive sampling methods, namely homogeneous sampling and expert sampling were selected to gather relevant insights on EPWPs from the participants with the know-how of the programme. In homogeneous sampling, a particular sub-group is described in depth whereby units (participants) share specific or similar traits for instance income, culture, jobs, and life experiences (Nikolopoulou, 2023). The homogeneous sampling method fits perfectly well as a criterion for selecting focus group participants.

To add, expert sampling was used to select individuals for interviews specifically those who were involved in the monitoring and implementation of the EPWP that is the Department of Public Works and Buffalo City Metropolitan Municipality, respectively. In this respect, relevant participants (experts) who were involved in EPWP from the Department of Public Works and Buffalo City Metropolitan Municipality were chosen based on referrals from the Department of Public Works Head of Department (HOD) and the municipal manager. Expert sampling was very useful in contacting the officials for interviews (Nikolopoulou, 2023). The simplicity and cost effectiveness of this sampling approach, as well as the researcher's ability to meet the research objectives by selecting informative individuals using judgment, are all advantages of adopting this sampling technique (Trafimow, 2018).

4.5 Data analysis methods

Qualitative data from semi-structured interviews and Focus Group Discussions were analyzed using thematic analysis by identifying, analyzing, and reporting patterns (themes) within data. Firstly, after conducting the interviews, the data was summarized and transcribed verbatim into word-processed text. This transcription phase was meticulous and time-consuming, lasting ~17 h. The transcripts were then carefully reviewed, and dominant themes were identified through repeated readings. Data cleaning techniques were employed to ensure transcription accuracy. In line with the research objectives and questions, the data analysis followed a logical sequence by first identifying key categories.

Afterwards, the data was organized into analytical codes aligned with the study topic. Categories were developed through a combination of deductive and inductive approaches, distinguishing between data-driven and concept-driven categories. This process allowed the researcher to begin with predefined concepts, such as “sustainable income generation” and “community impact,” while also allowing new themes to emerge from the data itself. The initial coding phase was guided by the study’s objectives, ensuring alignment with the research questions. For example, when analyzing responses related to the EPWP, initial codes like “skills acquisition” or “temporary employment” were expected, while others, like “community identity” or “lack of post-project support,” emerged during the analysis.

The data then underwent a thorough process of categorization and reorganization to identify links, patterns, and overarching themes. As an example, the category of “skills development” yielded sub-themes such as “effective training” and “missed opportunities for mentorship,” which were tied back to the research questions that sought to evaluate the long-term benefits of the EPWP. Similarly, the theme of “income generation” was broken down into specific issues like “short-term financial relief” vs. “ongoing employment challenges,” reflecting the nuances found within the collected data.

In refining these categories, adjustments were made to ensure they adequately covered the breadth and diversity of the data. Some themes were expanded upon, while others were merged where overlaps were observed. This iterative process helped address concerns related to generality or width, ensuring that the final categories were both representative and specific enough to guide a meaningful analysis. By aligning the themes directly with the research objectives, this structured approach provided a leeway to logically trace findings back to the study’s overarching questions, providing a coherent framework for analysis and the eventual formulation of grounded recommendations.

Following the identification of themes and patterns, alternative explanations and negative corollaries were explored to ensure the robustness of the findings. This process, as outlined by Smith (2020), involved examining hypotheses that emerged from the data and investigating any inconsistencies or outliers. Only after considering these alternative hypotheses were the findings synthesized, and well-founded suggestions were formulated and presented.

Overall, the data analysis phase was a rigorous and systematic process, ensuring that the findings were grounded in the data and capable of addressing the research objectives effectively.

Ethical considerations and inclusivity were prioritized, with in-depth face-to-face data collection ensuring the validity of the study. However, the study could have benefited from observations as they would have added value as a data collection tool, nevertheless, the time constraints required in carrying out quality observations led the researcher not to adopt this approach.

5 Study findings and discussion

The study’s findings underscore the significant role of EPWPs in providing temporary employment, skills development, and income opportunities for vulnerable populations. Participants and key informants highlighted the Department of Public Works’ efforts to support informal settlement dwellers through various initiatives aimed at enhancing income generation opportunities and promoting sustainable livelihoods. This aligns with previous research highlighting the positive impacts of such programmes (Botha, 2019). Firstly, data is presented in Table 1, showing the participants’ information sheet for focus group discussions, and Table 2, showing the Key Informants in BCMM and DPWs and their positions at the workplace, whereas Table 3 presents the demographic profile of all participants in the study. This was followed by the thematic analysis, which revealed several key insights into the implementation and impact of EPWPs in South Africa. Firstly, the role of the Department of Public Works (DPW) emerged as central to the success of EPWP initiatives, followed by other significant themes. The use of visual tools such as tables and figures assisted in providing comprehensive data thereby improving the interpretability of the data, accessibility, and analysis.

5.1 Information sheets for focus group discussions and key informant stakeholders

The following Tables 1, 2 present the information sheets for focus group discussions and key informant stakeholders in the Duncan Village informal settlement. Also, it presents the duration of EPWP participation across all focus group discussion participants.

As presented in Table 1, with regard to the duration of EPWP participation, eight participants (20%) have benefited for 3 years, three participants (7.5%) for 4 years, four participants (10%) for 1 year, 13 participants (32.5%) for 9 months, and 12 participants (30%) for 2 years across all focus group discussions (FG1P1–FG4P10). These years imply that several participants have participated for a few years as compared to a few participants who participated for more years. This underscores that EPWPs are short-term and continuously return beneficiaries to the job market. Table 2 shows the positions held by the key informants.

Key informants hold different positions across the BCMM and the DPWs. Table 2 also shows the years that the key informants were employed within their departments.

Key informants 1, 2, and 3 from BCMM were employed within a range of 6–10, 1–5, and 1–5 years, respectively. Additionally, key

TABLE 1 Duration of EPWP participation.

Participant ID	Gender	Age group	Employment status	Duration of EPWP participation
FG1P1	Male	28–37	Temporary employment	3 years
FG1P2	Female	38–47	Temporary employment	4 years
FG1P3	Female	38–47	Temporary employment	3 years
FG1P4	Female	28–37	Temporary employment	1 year
FG1P5	Male	38–47	Temporary employment	3 years
FG1 P6	Female	18–27	Temporary employment	9 months
FG1P7	Female	28–37	Temporary employment	4 years
FG1P8	Female	18–27	Temporary employment	9 months
FG1P9	Female	28–37	Temporary employment	3 years
FG1P10	Female	28–37	Temporary employment	3 years
FG2P1	Female	28–37	Contract	9 months
FG2P2	Male	18–27	Temporary employment	9 months
FG2P3	Female	18–27	Employed	9 months
FG2P4	Female	28–37	Temporary employment	9 months
FG2P5	Female	18–27	Temporary employment	9 months
FG2P6	Female	38–47	Temporary employment	9 months
FG2P7	Male	18–27	Temporary employment	9 months
FG2P8	Female	28–37	Temporary employment	9 months
FG2P9	Female	28–37	Temporary employment	9 months
FG2P10	Female	38–47	Temporary employment	2 years
FG3P1	Male	28–37	Temporary employment	2 years
FG3P2	Female	28–37	Temporary employment	2 years
FG3P3	Female	48–57	Unemployed	2 years
FG3P4	Male	38–47	Temporary employment	2 years
FG3P5	Female	38–47	Temporary employment	2 years
FG3P6	Female	28–37	Temporary employment	2 years
FG3P7	Female	58–67	Unemployed	2 years
FG3P8	Female	38–47	Temporary employment	2 years
FG3P9	Female	48–57	Temporary employment	2 years
FG3P10	Male	48–57	Temporary employment	3 years
FG4P1	Male	38–47	Temporary employment	1 year
FG4P2	Female	18–27	Temporary employment	9 months
FG4P3	Female	28–37	Unemployed	1 year
FG4P4	Female	28–37	Temporary employment	2 years
FG4P5	Male	28–37	Unemployed	1 year
FG4P6	Female	18–27	Temporary employment	2 years
FG4P7	Male	38–47	Temporary employment	4 years
FG4P8	Female	48–57	Temporary employment	3 years
FG4P9	Male	28–37	Temporary employment	9 months
FG4P10	Female	48–57	Temporary employment	3 years

TABLE 2 Positions held by key informants.

Participant	Position held	Gender	Age group	Years employed at the department
Key informant 1	BCMM, Assistant director EPWP	Male	38–47	6–10 years
Key informant 2	BCMM, EPWP coordinator	Female	38–47	1–5 years
Key informant 3	BCMM, EPWP administrator	Female	28–37	1–5 years
Key informant 4	Department of public works, EPWP project coordinator	Male	38–47	6–10 years
Key informant 5	Department of public works, innovation, and empowerment administrator	Male	48–57	11–15 years

informants 4 and 5 from the DPWs were employed within a range of 6–10 and 11–15 years, respectively. These years show that a large number of participants were involved in EPWPs for a long period as compared to the other two participants. This implies that key informant participants were largely involved in these programmes hence providing significant insights on the effectiveness of EPWPs in providing sustainable income for the beneficiaries.

5.2 Demographic profile

The demographics profile in Table 3 summarizes the participants' biographical information encompassing factors like gender, age group, income levels, education, employment status and the duration of EPWP participation. Of the 45 participants, 31 were female whereas 14 were male. The gender of participants was proportionally distributed as 29 female participants from the informal settlement of Duncan Village and two female participants from BCMM whereas 11 were male participants from the informal settlement of Duncan Village, two male participants from the DPWs and one male participant from the BCMM. Hence, the overall number of female participants amounted to 69% whilst male participants were 31%. Regarding age, participants were distributed evenly from 18 to 47 years.

In terms of age group, 18–27 years were represented by 10 participants (22.2%); 28–37 years were represented by 14 participants (31.1%); 38–47 years were represented by another 14 participants (31.1%); 48–57 years were represented by five participants (11.1%); 58–67 years with two participants (4.4%). The remaining age groups were not represented by any participant. These findings imply that 18–47-year-olds represent a large group because this group is regarded as economically active. Income levels for Duncan Village residents ranged from R0–R1,500 with five participants (13%); R1,501–R3,500 with eight participants (20%); R2, 501–R3,500 with 17 participants (43%); R3,501–R4,500 with six participants (15%); and R4,501+ with four participants (9%). Income levels for key informant stakeholders were not recorded. Most EPWP participants were employed temporarily, while others were unemployed. Those who were employed temporarily were identified as part-time workers, whereas key informant participants were from the public sector. In Table 3, a specified number of participants were identified to be employed through contracts. All participants were residents of the Duncan Village informal settlement. The following sections present and discuss the key themes that emerged from the study.

5.3 Role of the department of public works in EPWP implementation

Key informants and focus group discussion (FGD) participants highlighted the department's coordination efforts and oversight role in ensuring the effective execution of EPWP projects. Key informant 4 emphasized the Department of Public Works (DPW) collaboration with local municipalities and other stakeholders to ensure efficient project execution and alignment with programme objectives. This collaborative approach reflects the EPWP's multi-stakeholder model, which encourages coordination between government departments, municipalities, and community organizations (Vilakazi and Seete, 2014b). Upon analyzing the data, Participant 7 from focus group discussion 1 (FGD 1) underscored the DPW's responsibility for overseeing project implementation and monitoring progress to ensure meaningful socio-economic development in communities. This emphasis on accountability and results-based management aligns with broader efforts within the South African government to enhance the efficiency and impact of public expenditure (Duncan, 2012; Ghanashyam, 2020).

While EPWPs offer numerous advantages, including increased self-worth, savings, and opportunities for small business development, challenges exist in effectively targeting beneficiaries and creating lasting impacts on unemployment and poverty. The short-term nature of EPWP work and limited compensation may hinder wealth accumulation and socio-economic impact (Bennett and Fieuw, 2018).

Additionally, concerns were raised about access to microfinance facilities and limited local markets, which can hinder the creation of microenterprises within EPWP projects (McClean, 2020). Participant 5 from FGD 2 emphasized the importance of regular, flexible, and long-term employment opportunities within EPWPs to address these challenges effectively.

Moreover, the views of beneficiaries provide valuable insights into the effectiveness of EPWPs in income generation. Participant 3 from FGD 1 stated, "EPWPs have helped us to generate income by providing short-term employment opportunities, but we need more support in accessing microfinance and markets to start our own businesses." This sentiment reflects the beneficiaries' recognition of EPWPs' role in income generation but also highlights the need for additional support to overcome barriers to entrepreneurship.

These findings resonate with broader international contexts, such as India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA), which provides rural households

TABLE 3 Demographic profile.

Category	Frequency	Percentage
Gender	<i>N</i> = 45	
Male (Duncan Village + DPWs + BCMM)	11 + 2 + 1 = 14	31
Female (Duncan Village + BCMM)	29 + 2 = 31	69
Prefer not to say	–	
Total	45	100
Age group	<i>N</i> = 45	
18–27	10	22.2
28–37	14	31.1
38–47	14	31.1
48–57	5	11.1
58–67	2	4.4
68–77	–	–
80+	–	–
Total	45	100
Income levels (Duncan Village residents)	<i>N</i> = 40	
R0–R1,500	5	13
R1,501–R2,500	8	20
R2,501–R3,500	17	43
R3,501–R4,500	6	15
R4,501+	4	9
Income levels (key informants)	<i>N</i> = 5	
–	–	–
–	–	–
Total	45	100
Education	<i>N</i> = 45	
Primary	5	11
Secondary	12	27
Matric	6	13
Diploma	14	31
Degree	5	11
Masters	3	7
PhD	–	–
Total	45	100
Employment/type of employment	<i>N</i> = 40	
Employed	1	2.5
Contract	1	2.5
Unemployed	4	10.0
Part-time workers (temporary)	34	85.0
Total	40	100
	<i>N</i> = 5	
Public sector	5	100
Overall total	45	100
Place of stay	<i>N</i> = 45	
Duncan Village	45	100
Total	45	100

with guaranteed employment while integrating skill development and financial inclusion, and Brazil's Bolsa Família, which ties conditional cash transfers to education and healthcare outcomes. Both programmes emphasize the importance of combining income generation with structural support, such as access to markets and skills, to achieve sustainable socio-economic development.

In summary, while EPWPs play a crucial role in income generation and poverty alleviation, challenges such as limited compensation, access to finance, and market opportunities persist. Integrating the perspectives of beneficiaries into programme design and implementation can enhance the relevance and effectiveness of EPWPs in addressing socio-economic inequalities and promoting sustainable livelihoods. By drawing lessons from successful international models, EPWPs can be further strengthened to create more enduring and transformative impacts.

5.4 Training and skills development programmes

Training and skills development programmes within the EPWP are pivotal for enhancing participants' employability and fostering potential entrepreneurship endeavors, as highlighted by key informant 3. They emphasized the importance of initiatives like artisan development and government buildings maintenance in equipping participants with practical skills. This sentiment aligns with broader discussions in the literature regarding the role of skill-building initiatives in addressing unemployment and socioeconomic disparities (Glen and Mearns, 2021).

However, a nuanced reality exists beneath the surface of these programmes. Participant 5 from FGD 4 noted that while EPWPs aim to bolster participants' current roles, there's a notable gap in preparing them for future employment trajectories (Fransman and Yu, 2019). This suggests that while immediate job prospects may improve, the long-term sustainability of these opportunities remains uncertain. Genuine exit strategies are essential for participants to transcend structural poverty and leverage their acquired skills for enduring career pathways.

Moreover, Key Informant 2 highlighted that the current training paradigm within EPWPs often operates within a top-down framework, potentially overlooking the nuanced needs of participants and the contextual realities of the communities they serve (Lotz-Sisitka, 2020a). There's a risk of misalignment between the skills imparted through these programmes and the demands of the local labor market, limiting participants' adaptability and employability beyond EPWP initiatives.

Furthermore, Key Informant 4 emphasized that the predominant focus on accredited programmes may constrain the flexibility and relevance of training offerings (Botha, 2019). There's a need for a more agile approach to training design and delivery within EPWPs, one that integrates local insights and participant feedback to ensure maximum relevance and impact.

The unanimous response from participants underscored the critical importance of specific skill sets in enhancing income and livelihood prospects. Acquiring driver's licenses, computer skills, and trades proficiency were identified as essential components for improving income and livelihood prospects. These skill sets align

with contemporary market demands, opening up opportunities for employment in various sectors such as transportation, logistics, and construction (Cameron, 2018).

However, coordination between EPWP initiatives and broader efforts supporting career transition and entrepreneurship is crucial (Fransman and Yu, 2019). Participant 6 from FGD 2 mentioned that failure to synchronize these efforts can result in missed opportunities for participants to transition into sustainable employment or entrepreneurship ventures. Enhanced collaboration and coherence across various socioeconomic intervention programmes are imperative to maximize their collective impact (Ghanashyam, 2020).

In essence, while EPWP training and skills development programmes offer promise for marginalized communities, their efficacy hinges on addressing inherent challenges. Embracing a more participatory, context-sensitive approach to training design and fostering greater synergy with complementary initiatives can transform EPWPs into catalysts for lasting socioeconomic transformation.

5.5 Challenges in partnership, coordination, and resource sharing

Partnerships and resource sharing play crucial roles in the successful implementation of EPWP initiatives, as highlighted by participants in both interview sessions. Key informant 2 emphasized the department's collaborations with various entities, including municipalities and other government departments, to support EPWP projects. This sentiment was echoed by Key informant 4, who emphasized the department's efforts to collaborate with other stakeholders to support income generation schemes. Such collaborations allow for the pooling of resources, including funds, staff, and equipment, to enhance the effectiveness of EPWP projects.

For example, Key informant 1 mentioned how the department shares its staff, particularly data capturers, to assist other departments in capturing EPWP data for reporting purposes. This cooperative approach ensures that each stakeholder contributes its strengths to the initiative, thereby enhancing efficiency and impact. However, challenges in resource allocation and coordination were also acknowledged by participants, particularly regarding administrative staff shortages and inconsistent reporting of projects.

To address these challenges, participants from focus group 2 and 3, emphasized the need for targeted interventions and capacity-building efforts. Key informant 5 mentioned how the department sometimes sends its administrative staff to partnering departments to assist in capturing project data for reporting purposes. This proactive approach demonstrates a commitment to overcoming obstacles through collaborative problem-solving and resource mobilization.

Furthermore, participants in FGD 1 and 4, identified opportunities for improvement in partnership and coordination efforts. Suggestions included enhancing reporting systems, increasing administrative staff capacity, and broadening the scope of training provided. By investing in these areas,

stakeholders can streamline communication channels, strengthen accountability mechanisms, and optimize resource utilization for EPWP initiatives.

In alignment with these perspectives, (Mudau, 2020) emphasizes the importance of effective collaboration and resource sharing among stakeholders to maximize the impact of poverty alleviation programmes. However, Ramírez-Agudelo et al. (2020) caution that challenges such as resource allocation disparities and coordination inefficiencies may impede the success of collaborative efforts. Therefore, while partnerships offer significant benefits, they require careful planning, coordination, and ongoing evaluation to ensure their effectiveness in achieving EPWP objectives.

5.6 Opportunities for improvement

Participants in the study provided valuable insights into opportunities for improvement within EPWP initiatives. One participant, identified as Key Informant 3, highlighted the opportunity to “improve the reporting system to be more user-friendly, as to speed up the process and avoid delays.” This emphasizes the importance of streamlining administrative processes to facilitate timely data collection and reporting, ultimately enhancing transparency and accountability within EPWP initiatives.

Another participant, identified as Key Informant 5, emphasized the need to “improve training centers” to enhance the skill development opportunities available to beneficiaries. By investing in the infrastructure and resources of training centers, stakeholders can create conducive learning environments that facilitate the acquisition of relevant skills and knowledge. This aligns with Lotz-Sisitka's (2020a) assertion that the quality of training facilities plays a crucial role in shaping the effectiveness of skills development programmes, highlighting the need for ongoing investment in this area.

Furthermore, participants in FGD 3, including Key Informant 2, identified the opportunity to “broaden the skills provided by the department” to better meet the diverse needs of beneficiaries. This suggests a recognition of the importance of aligning skills development initiatives with the demands of the local labor market and the evolving economic landscape.

However, while participants highlighted these opportunities for improvement, it's essential to recognize the challenges associated with implementing such initiatives effectively. Participant 4, a key informant, mentioned that expanding the range of skills provided by the department may require significant investment in curriculum development, training resources, and instructor capacity. Moreover, enhancing training centers may entail logistical challenges such as infrastructure upgrades and resource allocation.

Despite these challenges, addressing the identified opportunities for improvement is crucial for enhancing the overall impact and sustainability of EPWP initiatives, as emphasized by Participant 2 FGD 3. By investing in user-friendly reporting systems, improving training centers, and broadening the range of skills provided, stakeholders can create more inclusive and effective programmes that empower beneficiaries to achieve economic self-sufficiency.

In support of these perspectives, Botha (2019) emphasizes the importance of aligning skills development initiatives with the needs of the labor market to ensure relevance and effectiveness. Additionally, Fransman and Yu (2019) underscore the role of accessible and high-quality training facilities in facilitating skills acquisition and enhancing employment outcomes for programme participants.

In essence, the insights provided by participants underscore the importance of addressing challenges and seizing opportunities to enhance the effectiveness of EPWP initiatives in empowering beneficiaries and fostering economic self-sufficiency.

5.7 Communication and reporting mechanisms

Participants highlighted the significance of effective communication and reporting mechanisms in ensuring the success of EPWP initiatives. Key Informant 4 noted that, *“There are systems in place, the EPWP reporting system,”* indicating the existence of structured frameworks for monitoring and evaluating programme activities.

This sentiment underscores the importance of standardized reporting protocols in facilitating communication and progress tracking among stakeholders. Furthermore, participants emphasized the role of integrated reporting mechanisms in enhancing transparency and accountability within EPWP initiatives. By consolidating data from various sources and stakeholders, integrated reporting systems enable comprehensive analysis of programme outcomes and facilitate informed decision-making.

As Key Informant 2 mentioned, *“There are reporting structures such as the Regional Staring Committee and the Provincial Starring Committee,”* highlighting the multi-level governance frameworks in place to oversee programme implementation and monitor progress.

The emphasis on structured reporting mechanisms aligns with international best practices in programme management and evaluation. According to Bennett and Fieuw (2018), effective reporting systems are essential for ensuring accountability and transparency within public works programmes, enabling stakeholders to track progress, identify challenges, and make informed decisions. Similarly, Ramirez-Agudelo et al. (2020) argue that integrated reporting mechanisms are crucial for promoting collaboration and coordination among government agencies and other stakeholders involved in poverty alleviation initiatives.

However, while participants acknowledged the existence of reporting systems, they also highlighted challenges associated with their implementation. For example, Key Informant 3 mentioned, *“Administration staff shortage, especially the Data Capturing,”* indicating human resource constraints that may hinder timely and accurate data collection and reporting. This observation underscores the importance of investing in capacity building and resource allocation to strengthen administrative support functions within EPWP initiatives.

Moreover, participants in FGD 3, noted difficulties in ensuring consistent reporting of project activities across all stakeholders. Inconsistencies in reporting can compromise the accuracy and

reliability of programme data, making it challenging to assess programme effectiveness and identify areas for improvement. Addressing these challenges requires ongoing efforts to standardize reporting protocols, provide training and support to stakeholders, and enhance coordination among implementing agencies.

In other words, effective communication and reporting mechanisms are essential for ensuring transparency, accountability, and collaboration within EPWP initiatives. While structured reporting systems facilitate progress tracking and data analysis, addressing challenges such as staff shortages and inconsistent reporting practices is crucial for enhancing the overall effectiveness of programme monitoring and evaluation efforts.

5.8 Support for informal settlement dwellers

Participants underscored the Department of Public Works' efforts to support informal settlement dwellers through a variety of initiatives aimed at enhancing income generation opportunities and promoting sustainable livelihoods. Key informant 2 highlighted, *“The beneficiaries are taken to Olisfontain to do the trade test, then they become fully fledged artisans, and they are allocated to projects outside the department.”* This statement elucidates the department's commitment to providing participants with practical skills and certifications that are essential for accessing employment opportunities both within and outside the public works sector.

Moreover, participants emphasized the importance of mentorship programmes in facilitating the transition of beneficiaries to sustainable livelihoods. As another Key Informant 4 noted, *“Some of them come back and are contracted for 2 years to be assistant mentors to mentor the new EPWP beneficiaries.”* This highlights the department's recognition of the value of experiential learning and peer support in fostering skill development and entrepreneurship among programme participants. The provision of placement opportunities in various projects was also highlighted as a key strategy for empowering informal settlement dwellers. By engaging participants in real-world projects, the department enables them to apply their newly acquired skills and gain practical experience in their chosen trades. This hands-on approach not only enhances participants' employability but also fosters a sense of ownership and pride in their work.

During focus group 1 discussion, participant 10 expressed, *“The training I received through EPWP gave me confidence and practical skills that I never had before. Now, I feel equipped to pursue opportunities outside of the programme.”* Another participant 9 shared, *“Being part of EPWP not only provided me with employment but also connected me with mentors who guided me on how to manage my finances and plan for the future.”*

These findings resonate with existing literature on poverty alleviation and skills development initiatives. Mclean (2020) argues that access to skills training and certification programmes is crucial for equipping marginalized communities with the tools they need to break the cycle of poverty and achieve economic self-sufficiency. Similarly, Lotz-Sisitka (2020a) emphasizes the importance of mentorship and experiential learning in promoting sustainable livelihoods among vulnerable populations.

However, while participants in focus group 4 highlighted the department's support for informal settlement dwellers, challenges remain in ensuring the effectiveness and sustainability of these initiatives. For instance, limited access to financing and markets may hinder participants' ability to establish and grow their businesses. Additionally, the short-term nature of many EPWP projects may limit participants' opportunities for long-term employment and income generation.

In short, the Department of Public Works plays a crucial role in supporting informal settlement dwellers through various training, mentorship, and placement programmes. While these initiatives hold promise for enhancing income generation opportunities and promoting sustainable livelihoods, addressing underlying challenges such as access to financing and market opportunities is essential for ensuring their long-term impact and success.

5.9 Enhancing EPWP implementation for income generation

Participants underscored the importance of enhancing EPWP implementation for income generation through strategies such as maximizing training centers, incorporating additional skills like farming, and ensuring alignment with local needs and resources. Key informant 5 noted, *"We need to maximize the potential of our training centers and broaden the skills provided by the department to address the diverse needs of our beneficiaries."* This highlights the department's recognition of the need to expand the scope of training programmes to encompass a wider range of skills that are relevant to local employment opportunities and market demands.

Moreover, participants stressed the importance of incorporating additional skills such as farming into EPWP initiatives to diversify income-generating opportunities for beneficiaries. As Key Informant 3 mentioned, *"We could incorporate farming skills into our programmes to leverage the available resources in the province, such as land, and address the needs of our communities."* This suggests a shift toward a more holistic approach to poverty alleviation and community development, recognizing the importance of agriculture as a source of livelihood for many rural communities.

Additionally, participants highlighted the importance of ensuring that EPWP initiatives are aligned with local needs and resources to optimize their impact. By tailoring programmes to address specific challenges and opportunities within each community, the department can maximize the effectiveness of its interventions and promote sustainable development. As another Key informant 1 stated, *"We need to ensure that our programmes are aligned with local needs and resources to ensure that they are relevant and impactful."*

During a focus group 3 discussion, participant 7 emphasized, *"Expanding the skills offered through EPWP to include farming would be a game-changer for many of us. It's not just about jobs; it's about creating opportunities that resonate with our communities' needs."*

Another participant 8, from FGD 4 shared, *"The department needs to listen to us more and understand what we really need."*

Tailoring programmes to our local context will make them more effective and meaningful for us."

These findings resonate with existing literature on public works programmes, which emphasizes the importance of integrating income generation, skills development, and community development objectives. EPWPs have the potential to deliver multiple benefits, including providing public services, increasing incomes, enhancing dignity, reducing alienation, and offering valuable workplace experience. By maximizing training opportunities, incorporating additional skills like farming, and aligning programmes with local needs and resources, EPWP initiatives can contribute significantly to poverty alleviation and sustainable development.

However, challenges remain in ensuring the effectiveness and sustainability of EPWP initiatives, including limited access to financing, inadequate infrastructure, and insufficient coordination between government departments and other stakeholders. Addressing these challenges will require a concerted effort from all stakeholders, including government agencies, civil society organizations, and local communities, to ensure that EPWP initiatives fulfill their potential as engines of economic growth and poverty reduction.

Also, challenges such as administrative constraints and inconsistent reporting practices emerged as notable hindrances to the effectiveness of EPWPs (Nel and Rogerson, 2018). These findings resonate with existing literature, which emphasizes the importance of efficient programme administration and reporting mechanisms for the successful implementation of PWP (Nel and Rogerson, 2018). Moreover, partnerships and resource-sharing were identified as pivotal elements in enhancing the impact of EPWP initiatives (Botha, 2019). Participants from focus group 3 emphasized the importance of collaboration between various government departments and stakeholders in pooling resources and expertise to support income generation schemes in informal settlements.

However, challenges in partnership and coordination were also acknowledged, including administrative staff shortages and inconsistent reporting practices. Addressing these challenges will require targeted interventions and capacity-building efforts. Furthermore, participants highlighted opportunities for improvement within EPWP initiatives, such as enhancing training centers, incorporating additional skills like farming, and ensuring alignment with local needs and resources. By investing in these areas, stakeholders can enhance the effectiveness and sustainability of EPWP initiatives (Botha, 2019).

The opportunities presented by the EPWP through the Department of Public Works and Buffalo City Metropolitan Municipality benefit the residents in Duncan Village though there are notable challenges that are faced in such programmes. The EPWPs in South Africa, particularly in the Eastern Cape Province, have not effectively addressed the issue of sustainable income generation for residents. Despite the intentions of the EPWPs to create jobs and alleviate poverty, former participants often resort to informal settlements due to the lack of sustained income and high costs associated with formal housing. Additionally, challenges such as limited funding for training and a disjuncture between programme objectives and municipal implementation further

exacerbate unemployment and hinder progress toward sustainable human settlements. The problem is that the EPWPs in the Eastern Cape province of South Africa fail to provide sustained income generation opportunities for residents, leading to a reliance on informal settlements and perpetuating unemployment. It is within these challenges that there is a need to rethink the EPWPs for sustainable income generation to the unemployed and poverty-stricken societies.

6 Implications to practice, policy, and theory

The implications of these findings for government planning are profound, without addressing these gaps, South Africa risks exacerbating existing socioeconomic disparities while failing to meet the employment and sustainable income needs of its growing population. The practical implications of these findings hold significant promise for the beneficiaries of EPWPs. By enhancing training opportunities, strengthening collaboration, and tailoring interventions to local contexts, EPWPs can bring about tangible improvements in the lives of participants, empowering them with valuable skills, resources, and opportunities for socio-economic advancement. This not only fosters individual empowerment but also contributes to broader community development efforts, fostering resilience and prosperity among vulnerable populations.

The policy implications of these findings extend beyond immediate programme improvements, offering valuable insights for evidence-based policy formulation at both local and national levels. By informing policy decisions with robust monitoring and evaluation data, policymakers can ensure that EPWPs are strategically aligned with broader socioeconomic objectives, maximizing their impact on sustainable income generation, poverty reduction and community development.

The findings of this study have several theoretical implications that contribute to the understanding of public works programmes and poverty alleviation initiatives. Firstly, the emphasis on maximizing training opportunities and incorporating additional skills aligns with human capital theory. Human capital theory posits that investing in education, training, and skill development can lead to increased productivity, higher incomes, and improved economic outcomes for individuals and communities. By broadening the scope of skills provided within EPWP initiatives, the study reinforces the importance of human capital accumulation in driving sustainable development and poverty reduction (Rita and Wahyudi, 2019).

Secondly, the focus on aligning EPWP programmes with local needs and resources resonates with community development theory. Community development theory emphasizes the importance of participatory decision-making, local empowerment, and asset-based approaches to development. By tailoring programmes to address specific challenges and opportunities within each community, EPWP initiatives can enhance community ownership, promote social cohesion, and foster sustainable development outcomes (Oulton, 2023). This highlights the significance of context-sensitive interventions in achieving meaningful and lasting impacts on poverty and inequality.

Furthermore, Rungani and Potgieter (2018) argue that the recognition of mentorship programmes and hands-on experience in fostering skill development and entrepreneurship among programme participants reflects elements of social learning theory. Social learning theory posits that individuals learn through observation, imitation, and interaction with others in their social environment. By providing opportunities for mentorship and peer support, EPWP initiatives can facilitate knowledge transfer, skills acquisition, and the adoption of entrepreneurial behaviors among beneficiaries. This underscores the importance of social networks and collaborative learning environments in enhancing the effectiveness of poverty alleviation interventions.

Overall, the findings of this study contribute to the theoretical understanding of public works programmes by highlighting the importance of human capital accumulation, community empowerment, and social learning processes in driving sustainable development outcomes. By integrating these theoretical insights into programme design and implementation, policymakers, and practitioners can enhance the effectiveness and impact of EPWP initiatives in addressing unemployment, poverty, and inequality in South Africa and beyond (Ramírez-Agudelo et al., 2020).

7 Conclusion and recommendations

7.1 Conclusion

The findings of this study underscore the critical intersection of EPWPs and the need for sustainable income generation in Duncan Village an informal settlement in South Africa, revealing significant gaps that hinder effective implementation in marginalized communities. The dual challenges of unemployment and poverty in South Africa show a lack of accredited training and limited pathways for transitioning to formal employment which remain significant barriers to the long-term sustainability of EPWP benefits. These findings have direct policy implications, particularly for the Department of Public Works' implementation frameworks, suggesting the need for stronger integration between temporary employment programmes and long-term skills development initiatives. Also, critical challenges such as inconsistent reporting practices, inadequate coordination among stakeholders, and administrative inefficiencies have been identified as major impediments to the programme's success. These operational limitations highlight the need for municipal capacity-building as part of broader policy reforms in public works programmes.

Based on the findings, while EPWPs play a valuable role in enhancing participants' employability, they may not always provide sufficient support for sustained income generation posts. This fallout has become a major setback for EPWPs, although they have demonstrated the potential to enhance participants' self-esteem, foster social inclusion, and improve local infrastructure. Thus, this study highlights the importance of robust monitoring and evaluation frameworks to track the progress of participants and measure the programme's impact effectively. Such frameworks should incorporate feedback mechanisms that allow for continuous improvement based on participants' experiences and challenges. Ultimately, the potential of EPWPs to drive poverty alleviation and community development can only be fully realized

through strategic investments in their design and implementation. Policymakers must prioritize efforts to address the identified gaps and leverage the strengths of EPWPs to foster socioeconomic empowerment and sustainable growth. By doing so, EPWPs can evolve into transformative instruments that not only mitigate the immediate challenges of unemployment and poverty but also contribute to the broader goals of inclusive development and social cohesion in South Africa.

7.2 Recommendations

Develop Targeted Financial Assistance Programmes for Training and Skills Development: To address the specific needs of EPWP participants, it is crucial to develop targeted financial assistance programmes for skills development. These programmes will hopefully be designed to provide participants with access to essential skills and certifications that align with local labor market demands. By offering financial support for training courses, certification programmes, and skills development initiatives, stakeholders can empower EPWP participants to enhance their employability and income-generating potential. Additionally, these programmes may prioritize the inclusion of skills that are in high demand within the local economy, such as technical trades, computer literacy, and entrepreneurial skills. By tailoring financial assistance programmes to meet the unique needs of EPWP participants, stakeholders can ensure that individuals have the necessary resources and support to succeed in the workforce.

Strengthening Organizational Capacity within Municipalities: To improve coordination and resource allocation for EPWP implementation, it is essential to strengthen organizational capacity within municipalities. This can be achieved through targeted capacity-building initiatives aimed at enhancing the skills and capabilities of municipal staff involved in EPWP administration. Training programmes should focus on areas such as project management, financial planning, and reporting mechanisms to ensure that municipalities have the necessary expertise to effectively manage EPWP initiatives. Additionally, investing in technology and infrastructure upgrades can streamline administrative processes and improve the efficiency of resource allocation. By strengthening organizational capacity within municipalities, stakeholders can enhance coordination, streamline operations, and improve the overall effectiveness of EPWP implementation.

Enhance Communication and Reporting Mechanisms: To ensure transparency and accountability among stakeholders involved in EPWP initiatives, it is imperative to enhance communication and reporting mechanisms. This includes implementing standardized reporting protocols, establishing clear channels of communication, and leveraging technology to facilitate information sharing. By improving communication and reporting mechanisms, stakeholders can enhance transparency, streamline decision-making processes, and improve the overall effectiveness of EPWP implementation. Additionally, regular communication and reporting can help identify challenges and opportunities for improvement, allowing stakeholders to make informed decisions and adjust strategies as needed.

Foster Greater Collaboration and Partnership: To enhance revenue creation initiatives for informal settlement residents, it

is crucial to promote increased collaboration and partnership among pertinent government agencies, municipalities, and other stakeholders. This can be accomplished by forming multi-stakeholder alliances and collaborative activities focused on meeting the specific needs of informal settlement residents. Through resource pooling, expertise sharing, and coordinated efforts, stakeholders can formulate comprehensive strategies to enhance income production and economic empowerment in informal settlements. Moreover, enhancing collaboration and partnerships can optimize resource utilization, amplify impact, and advance sustainable development results.

Conduct Regular Evaluations and Assessments: To continuously improve the effectiveness of EPWP programmes, it is essential to conduct regular evaluations and assessments. This includes monitoring programme outcomes, evaluating impact, and identifying areas for improvement through ongoing feedback and data analysis. By conducting regular evaluations and assessments, stakeholders can identify successes and challenges, learn from best practices, and make data-driven decisions to enhance programme effectiveness. Additionally, regular evaluations can help inform policy decisions and resource allocation, ensuring that EPWP programmes remain responsive to the evolving needs of participants and communities.

In summary, these measures that would enhance EPWP implementation can be presented as follows:

1. Programme design improvements:
 - Develop targeted financial assistance programmes for training and skills development
 - Incorporate renewable energy and green technology skills into EPWP curricula to align with global sustainability trends
 - Establish formal partnerships with technical colleges for accredited certification
2. Administrative strengthening:
 - Implement digital reporting systems to streamline data collection and monitoring
 - Conduct regular capacity-building workshops for municipal EPWP coordinators
 - Develop standardized operating procedures for interdepartmental collaboration
3. Participant support systems:
 - Create post-programme mentorship networks for ongoing career guidance
 - Establish microfinance linkages for participants transitioning to entrepreneurship
 - Implement tracking systems to monitor long-term outcomes of programme alumni
4. Policy integration:
 - Align EPWP objectives with national green economy strategies

- Develop clear pathways from EPWP participation to formal sector employment
- Integrate environmental sustainability metrics into programme evaluation frameworks

By implementing these recommendations, the Public Works Department, Department of Human Settlements, local municipalities, and other stakeholders can improve the effectiveness of EPWP implementation and empower residents to generate sustainable income after participating in the programme. Thus, the recommendations for advancing EPWPs transcend diverse sectors fortifying monitoring and evaluation frameworks to track progress effectively, fostering deeper collaboration among government departments and stakeholders to streamline efforts, and implementing context-specific interventions tailored to local needs. By strengthening these aspects, EPWPs can enhance their sustainability and scalability, ensuring they remain responsive to evolving socioeconomic challenges and continue to make meaningful contributions to poverty alleviation and community development in South Africa.

7.3 Study limitations that should be considered include

- The focus on a single informal settlement may limit generalizability to other contexts
- Time constraints prevented longitudinal tracking of participants' post-programme outcomes
- The qualitative design, while rich in depth, cannot establish causal relationships
- Potential selection bias in participant recruitment despite purposive sampling approaches

7.4 Future research should focus on

- Longitudinal studies tracking participants' economic trajectories post-EPWP
- Comparative analyses of EPWP outcomes across different municipalities
- Quantitative assessments of programme impacts on household poverty levels
- Evaluation of green skills integration in public works programmes
- International comparative studies with similar programmes in the Global South

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors without undue reservation.

Ethics statement

The studies involving humans were approved by Nelson Mandela University Ethics Committee. The studies were conducted in accordance with the local legislation and institutional requirements. The participants provided their written informed consent to participate in this study.

Author contributions

BM: Conceptualization, Methodology, Writing – original draft, Writing – review & editing. PH: Conceptualization, Supervision, Writing – review & editing. SM: Conceptualization, Supervision, Project administration, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary Material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fsrma.2025.1468908/full#supplementary-material>

References

- Aydin, M., Degirmenci, T., Bozatlı, O., Radulescu, M., and Balsalobre-Lorente, D. (2025). Do green energy, command and control-based environmental regulations, and green growth catalysts for sustainable development? New evidence from China. *J. Environ. Manage.* 373:123620. doi: 10.1016/j.jenvman.2024.123620
- Bell, J., Fouché, C., Geyer, H., Roestenburg, W., and Schurink, W. (2022). *Qualitative Research Methods for the Social Sciences*. Oxford: Oxford University Press. doi: 10.1093/hebz/9780198869443.003.0036
- Bennett, R., and Fieuw, J. (2018). The potential socio-economic impact of the expanded public works programme (EPWP) in KwaZulu-Natal, South Africa. *J. Econ. Behav. Stud.* 10, 206–220. doi: 10.22610/jebss.v10i4.2428
- Booth, A., Sutton, A., and Papaioannou, D. (2016). *Systematic Approaches to a Successful Literature Review, 2nd Edn.* London: SAGE Publications.
- Botha, C. (2019). The expanded public works programme (EPWP) as a policy instrument for local economic development in South Africa: a reflection. *J. Public Adminis.* 54, 533–546. Available online at: <https://hdl.handle.net/10520/EJC-181alb3a04>
- Cameron, K. J. (2018). *A Bio-indicator Assessment towards the Rehabilitation of the Stiebeul River, Franschhoek*. Cape Town: University of Cape Town.
- Creswell, J. W., and Creswell, J. D. (2017). *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. London: Sage Publications.
- Creswell, J. W., and Poth, C. N. (2018). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches, 4th Edn.* Thousand Oaks, CA: SAGE Publications.
- Cronin, A., and Mearns, K. (2019). Interventions in income generation: a comprehensive analysis. *J. Socio-Econ. Intervent.* 32, 567–589.
- Datt, G., and Ravallion, M. (2014). Transfer benefits from public-works employment: evidence from rural India. *Econ. J.* 104, 1346–1369.
- Degirmenci, T., Acikgoz, F., Guney, E., and Aydin, M. (2024a). Decoupling sustainable development from environmental degradation: insights from environmental policy stringency, renewable energy, economic growth, and load capacity factor in high-income countries. *Clean Technol. Environ. Policy* 1–17. doi: 10.1007/s10098-024-03037-0
- Degirmenci, T., Aydin, M., Cakmak, B. Y., and Yigit, B. (2024b). A path to cleaner energy: the nexus of technological regulations, green technological innovation, economic globalisation, and human capital. *Energy* 311:133316. doi: 10.1016/j.energy.2024.133316
- Degirmenci, T., Bozatlı, O., Aydin, M., and Balsalobre-Lorente, D. (2025). Is energy security the missing piece of the environmental puzzle? Fresh evidence from load capacity factor and ecological footprint indicators. *Gondwana Res.* 139, 221–229. doi: 10.1016/j.gr.2024.11.015
- Degirmenci, T., and Yavuz, H. (2024). Environmental taxes, R&D expenditures and renewable energy consumption in EU countries: are fiscal instruments effective in the expansion of clean energy? *Energy* 299:131466. doi: 10.1016/j.energy.2024.131466
- Denzin, N. K., and Lincoln, Y. S. (2018). "Introduction: the discipline and practice of qualitative research," in *The Sage Handbook of Qualitative Research*, eds. N. K. Denzin and Y. S. Lincoln (London: Sage), 1–32.
- Duncan, A. (2012). *The Economics of Public Expenditure on Infrastructure*. Basingstoke: Palgrave Macmillan.
- Dyanty, M. (2019). *Impact of the Expanded Public Works Programme (EPWP) on Employment Creation and Skills Development in a South African Metropole Municipality* (Master's thesis). Vol. 9, Cape Town: Cape Peninsula University of Technology, 168–177.
- Fouché, C. B., and Geyer, H. (2021). "Qualitative data analysis: themes, categories, and matrices," in *The Oxford Handbook of Multimethod and Mixed Methods Research Inquiry*, eds. S. Hesse-Biber and R. B. Johnson (Oxford: Oxford University Press), 493–510.
- Fourie, K. (2016). *A Critical Review of the Response of the Environmental Literacy Skills Programme to Learner Capabilities, and to the Demands of the Working for Water Training Setting in an Emerging Green Economy*. Grahamstown: Rhodes University.
- Fransman, M., and Yu, D. (2019). Expanding decent work through community-based public employment programmes in South Africa: lessons from the community works programmes. *Econ. Labour Relat. Rev.* 30, 206–225.
- Ghanashyam, B. (2020). Urban infrastructure in South Africa: challenges and opportunities. *J. Infrastructure Policy Dev.* 4, 87–96.
- Glen, H., and Mearns, J. (2021). The role of public works programmes in income generation and community development: an analysis of influencing factors. *J. Soc. Policy Dev.* 15, 341–359.
- Glen, N., Fourie, K., and Moche, N. (2019). Rural tourism development: exit opportunities for expanded public works participants. *J. Appl. Manage. Sci.* 7, 84–93. doi: 10.18178/joams.7.3.84-93
- Godfrey-Wood, R., and Flower, B. C. (2018). Does guaranteed employment promote resilience to climate change? The case of India's Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA). *Dev. Policy Rev.* 36, 0586–0604. doi: 10.1111/dpr.12309
- Hlatshwayo, M. S. (2017). The expanded public works programme: perspectives of direct beneficiaries. *J. Transdiscipl. Res. Southern Afr.* 13, 1–8. doi: 10.4102/td.v13i1.439
- Housing Development Agency (2016). *Catalytic Projects Summary Fact Sheet*. Duncan Village Redevelopment Initiative. Available online at: http://www.thehda.co.za/pdf/uploads/multimedia/ec_duncan_village_rev_gov.pdf (Accessed September 9, 2023).
- Human Sciences Research Council (2019). *South African Social Attitudes Survey (SASAS)*. Pretoria: HSRC.
- Justo, S., and Kenney, M. (2016). Hard rain gonna fall: strategies for sustainable urban drainage in informal settlements. *Urban Water J. Taylor Francis* 13, 253–269. doi: 10.1080/1573062X.2014.991329
- Lotz-Sisitka, H. (2020a). An exploration of the factors affecting skills development for sustainable livelihoods in South Africa: an overview of public works programmes. *J. Int. Dev.* 32, 448–465. doi: 10.1002/jid.3467
- Lotz-Sisitka, H. (2020b). "Probing the potential of social ecosystemic skills approaches for green skills planning," in *Green Skills Research in South Africa Models, Cases and Methods*, eds. E. Rosenberg, P. Ramsarup, and H. Lotz-Sisitka (New York, NY: Routledge). doi: 10.4324/9780429279362-8
- Makhubu, N., and Motlhabane, T. (2023). The EPWP and social cohesion in South Africa: a case study of four provinces. *J. Soc. Dev. Afr.* 38, 1–15.
- McCord, A. (2017). Informal employment in South Africa: a review of the literature. *South Afr. Labour Market Policy Brief* 9, 1–29.
- McLean, N. (2020). Urban and rural infrastructure development in South Africa: a critical analysis. *J. Public Affairs* 20:e2151. doi: 10.1002/pa.2151
- Midgley, S. J. E., Turnbull, C. G. M., Pitman, W. B., and Rebelo, L. M. (2020). Typologies of collaborative governance for scaling nature-based solutions in two strategic South African river systems. *Inpress*, 1–77.
- Moeti, T. (2013). The politics of the public works programme: a comparative analysis of the South African and Indian cases. *Dev. Southern Afr.* 30, 633–646. doi: 10.1080/0376835X.2013.853610
- Moyo, P. (2022). The impact of public works programmes on rural development in Zimbabwe: a study of the district development fund. *Afr. J. Rural Dev.* 17, 1–15.
- Mthembu, S., and Ledwaba, M. (2022). The impact of the EPWP on gender equality in South Africa. *Gender Dev.* 30, 315–330. doi: 10.1080/13552074.2022.2097192
- Mtshali, N., and Ndlela, M. (2021). The EPWP and youth employment in Duncan Village. *Dev. Southern Afr.* 38, 100–115. doi: 10.1080/0376835X.2020.1819776
- Mudau, L. S. (2020). The impact of Expanded Public Works Programme (EPWP) on the reduction of poverty in rural areas: a case study of Makhado Local Municipality. *J. Governance Regul.* 9, 168–177. doi: 10.22495/jgrv9i4art14
- Myers, M. D. (2019). *Qualitative Research in Business and Management, 3rd Edn.* New Zealand: Sage Publications.
- Ncube, M. (2021). Public works programmes and employment creation in Zimbabwe: an assessment of the presidential inputs scheme. *Int. J. Dev. Sustain.* 20, 456–478.
- Nel, E., and Rogerson, C. M. (2018). *Local Economic Development in the Developing World: The Experience of Southern Africa*. New Brunswick: Transaction Publishers.
- Neneh, B. N. (2022). Structural unemployment in South Africa: causes, consequences and solutions. *J. Econ. Business* 105, 45–61. doi: 10.1016/j.jeconbus.2022.106093
- Neves, J. A., Vasconcelos, F. D. A. G. D., Machado, M. L., Recine, E., Garcia, G. S., and Medeiros, M. A. T. D. (2022). The Brazilian cash transfer program (Bolsa Família): a tool for reducing inequalities and achieving social rights in Brazil. *Global Public Health* 17, 26–42. doi: 10.1080/17441692.2020.1850828
- Nikolopoulou, K. (2023). *What is Purposive Sampling? Definition & Examples*. Available online at: <https://www.scribbr.com/methodology/purposive-sampling/> (Accessed September 9, 2023).
- Oulton, F. (2023). *The lived experiences of women waste recyclers who use bricolage as a mechanism to create value* (Dissertation). University of Pretoria, South Africa. Available online at: <http://hdl.handle.net/2263/92227> (Accessed May 14, 2024).
- Patton, M. Q. (2015). *Qualitative Research & Evaluation Methods: Integrating Theory and Practice, 4th Edn.* Thousand Oaks, CA: SAGE Publications.
- Ramírez-Agudelo, C. A., Laverde-Rojas, A. J., and Yepes-Echeverri, D. (2020). Analyzing the performance of the public employment programmes in Colombia: an analysis for different periods of time. *Socio-Econ. Plann. Sci.* 72:100790. doi: 10.1016/j.seps.2020.100790
- Ravallion, M. (1990). Labour-intensive public works: a review of the experiences. *World Bank Res. Observer* 5, 19–32.

- Rita, M. R., and Wahyudi, S. (2019). Entrepreneurial finance: financing antecedents and SMRs performance. *J. Econ. Business Account. Ventura* 21, 303–313. doi: 10.14414/jebav.v21i3.1497
- Rungani, E. C., and Potgieter, M. (2018). The impact of a financial literacy programme on the financial knowledge of high school learners. *Int. J. Consum. Stud.* 42, 101–110. doi: 10.1111/ijcs.12397
- Skinner, J., Edwards, A., and Smith, A.C.T. (2020). *Qualitative Research in Sport Management, 2nd Edn.* London: Routledge. doi: 10.4324/9780367854249
- Smith, J. A. (2020). *Interpretative Phenomenological Analysis: Theory, Method and Research.* London: Sage Publications.
- Socio-Economic Rights Institute of South Africa (2022). *The State of the South African Economy report 2022.*
- Statistics South Africa (2021). *Quarterly Labour Force Survey.* Pretoria: Stats SA.
- Teddle, C., and Tashakkori, A. (2019). *Foundations of Mixed Methods Research: Integrating Quantitative and Qualitative Approaches in the Social and Behavioral Sciences, 2nd Edn.* Thousand Oaks, CA: SAGE Publications.
- Tom, S., and Swana, S. (2022). The EPWP in Duncan Village: A case study of its impact on local economic development. *S. Afr. J. Dev. Stud.* 38, 500–515.
- Trafimow, D. (2018). The accuracy of sample size in social science research. *J. Soc. Res. Methods* 12, 89–104.
- Vilakazi, T., and Seete, L. (2014a). Socio-economic impact of the expanded public works programme: the case of the South African Police Service. *Afr. Secur. Rev.* 23, 64–82.
- Vilakazi, T., and Seete, M. (2014b). The multi-stakeholder model and its impact on the EPWP's success. *J. Soc. Dev.* 10, 45–58.
- Von Fintel, M. (2017). Income dynamics, assets and poverty traps in South Africa. *J. Hum. Dev. Capab.* 18, 442–463.
- Webb, D. (1992). Employment and public works programmes for poverty alleviation. *World Dev.* 20, 1143–1158.
- World Bank (2019). *World Development Report 2019: The Changing Nature of Work.* World Bank. Available online at: <https://openknowledge.worldbank.org/entities/publication/4402527f-e267-5a7c-baea-773390dabb8f> (Accessed November 6, 2023).