



## Strategies of The Batam City Government in the Improvement of Illegal Urban Settlements: A Case Study on the Housing Quality Enhancement Program in Informal Areas

Krisman Hidayat Gea<sup>1\*</sup>, Lubna Salsabila<sup>2</sup>, Timbul Dompok<sup>3</sup>, Iranda Firiansyah<sup>4</sup>

<sup>1-4</sup> Department of Public Administration, Universitas Putera Batam, Batam, Indonesia

\*Corresponding author: [pb191010042@upbatam.ac.id](mailto:pb191010042@upbatam.ac.id)

**Abstract:** *This research examines the strategies implemented by the Batam City Government in improving illegal urban settlements, with a focus on informal housing areas. The rapid urbanization and migration to Batam led to the development of informal settlements, which often lack proper infrastructure, housing quality, and access to basic services. This study aims to assess the effectiveness of government programs aimed at improving these areas, particularly through initiatives focused on housing quality enhancement and urban planning. Through a case study approach, the research explores policy frameworks, stakeholder involvement, and community participation in the improvement process. The findings highlight key challenges and opportunities in addressing informal settlements, providing recommendations for better integration of these areas into the formal urban fabric. Ultimately, the research seeks to contribute to the understanding of sustainable urban development strategies for cities facing similar issues of informal settlement growth.*

**Keywords:** *Informal Housing, Urban Development, Urban Planning, Sustainable Development, Informal Settlements.*

### 1. INTRODUCTION

Development is the process or effort to improve the social, economic, infrastructure, and various other aspects of a region or community. The goal of development is to achieve improved welfare and quality of life for the population, as well as to reduce disparities between different groups in society. Development can cover various fields such as economic development, infrastructure development, social development, and environmental development. It involves activities like investment in industry, education, health, physical infrastructure, and public policies that support the growth and development of a region or country. Development can also be understood as an effort to bring about change, encompassing political systems, defense, economy, technology, culture, or planned growth changes carried out by a region or country (Sachs, 2015).

Urbanization is the process through which rural populations migrate and gather in cities or urban areas. This is a significant change in the geographical pattern of the population, occurring when people leave villages or rural areas in search of employment opportunities, services, education, and a more modern lifestyle available in urban centers. Urbanization is often driven by factors such as industrialization, and it is a complex process that impacts various aspects of life, including social and economic life (Davis, 1965).

Development and urbanization are closely related because urbanization is often part of the development process. Development and urbanization are interlinked in areas such as economic growth, infrastructure, social and cultural aspects, environmental issues, and urban growth. A strong economy often drives urbanization; when a country or region experiences significant economic growth, it creates job opportunities and improves living standards, which in turn motivates people to move to cities where such opportunities exist (World Bank, 2013). Investment in infrastructure as part of the development process, such as transportation, sanitation, and housing, usually increases in cities. This enhanced infrastructure can attract more people to migrate to urban areas and act as a catalyst for urbanization (Harvey, 2003). Social and cultural changes are also part of development, which alters the way people live, such as changes in lifestyle, values, and social norms, as individuals are exposed to various new influences in urban environments.

Environmental challenges may arise in urban areas when development is not well-managed, such as air pollution, water pollution, and environmental degradation. Rapid urbanization without considering environmental impacts can lead to severe ecosystem damage in a region or country (UN Habitat, 2020). Meanwhile, managing urban growth or sustainable development must take into account the impacts of urbanization, including controlled urban growth, environmentally friendly infrastructure development, affordable housing provision, and the protection of natural resources (Sustainable Development Goals, 2015).

Several major issues related to urbanization often arise, such as population density, inadequate housing, social-economic inequality, spatial inequality, environmental challenges, and inequality of access. Population density refers to the rapid growth of urban populations, which often leads to high population density. This can increase pressure on urban infrastructure and services such as transportation, clean water, sanitation, and housing. Inadequate housing leads to the emergence of slums or substandard housing, which can cause health problems, social instability, and increased disaster risks. Social-economic inequality resulting from urbanization can worsen the lives of city dwellers, with the poor often marginalized in slums with limited access to basic services such as education and health (Ravallion, 2016). Spatial inequality due to urbanization tends to concentrate in large cities, leaving rural areas with fewer people and resources, which can exacerbate disparities between urban and rural areas. Uncontrolled urban growth can cause environmental degradation such as air pollution, water pollution, and loss of natural habitats. Poorly managed urbanization can increase the risk of natural disasters such as floods and landslides. Urbanization can also increase inequality of access to basic services such as education, healthcare, and employment. People living in urban

areas may have better access to these services compared to those in rural areas (McGranahan & Satterthwaite, 2014).

Urbanization often leads to the emergence of illegal settlements or slums in urban areas. Illegal settlements are built on land that is not owned, neglected, or not permitted by local governments. Several factors contribute to the emergence of illegal settlements in the context of urbanization, including:

a. Inability to Meet Housing Needs

The rapid growth of city populations is not always matched by an increase in adequate housing. Many people, especially those with low incomes, cannot afford to buy or rent suitable housing, and as a result, they build homes on vacant land or unregistered land (Baker & Stegman, 1997).

b. High Land Prices

In densely populated cities, land prices tend to be high, making it difficult for low-income residents to buy or rent land or housing in established urban areas. This pushes them to settle in illegal settlements as an alternative (Baker, 2011).

c. Limited Access to Legal Housing

Sometimes, complicated licensing procedures and high costs make it difficult for residents to obtain legal housing. This leads some to opt for illegal settlements as a more accessible and affordable option (United Nations, 2015).

d. Social and Economic Instability

Factors such as unemployment, migration, and economic instability can also lead to the rise of illegal settlements. People who lose their jobs or are forced to move to cities often have no choice but to live in illegal settlements (Chambers, 1997).

Illegal settlements pose a number of issues, including social instability, poor housing conditions, and limited access to essential services such as clean water, sanitation, and education. Additionally, these settlements often fail to meet the necessary safety and health standards. Addressing illegal settlements requires a comprehensive approach involving various stakeholders, including government, civil society, and the private sector. This includes efforts such as the provision of affordable housing, the development of basic infrastructure, well-organized settlement programs, and community empowerment to fight for their rights to decent housing (UN-Habitat, 2016).

Batam City is an industrial city with a high population, according to the 2020 population census conducted by the Central Statistics Agency (BPS), the population of Batam City was 1,196,396 people in September 2020. However, the population growth rate decreased by 2.32%

between 2010 and 2020. In contrast, between 2000 and 2010, Batam's population grew by 7.64%. In 2019, the number of decent homes in Batam city was 275,395. Around 42,000 illegal houses were built on 60 plots of land managed by the Batam Development Authority (BP BATAM) in 2019, and they are at risk of being demolished. This situation is exacerbated by the presence of illegal settlements in Batam, which has become a barrier to development in the city. The Batam city government's response involves demolishing the illegal settlements and relocating the residents to flats provided by the city government.

According to recorded data, the number of illegal settlements in Batam City has been increasing every year due to the growing population. In 2020-2021, the number of illegal settlements reached 42,000 units, with some reports citing up to 50,000 units. These settlements are spread across the nine subdistricts in Batam City: Batam Kota, Batu Aji, Nongsa, Batu Ampar, Lubuk Baja, Bengkong, Sagulung, Sekupang, and Sei Beduk. There are over 9,000 illegal houses that lack complete data such as ID numbers (NIK), addresses, and family cards (KK). Recent findings show that the number of illegal settlements in Batam City increased to 85,950 in 2022-2023, and by 2024, 30,800 units have been registered across the city, with many residents also using these settlements as investments.

## **2. LITERATURE REVIEW**

Urbanization is a significant process that transforms rural areas into urban ones, shaping economic, social, and environmental dimensions of a society. The relationship between urbanization and development has been widely studied across various disciplines, focusing on its causes, consequences, and management strategies. This literature review synthesizes key studies on urbanization, its challenges, especially illegal settlements, and their implications for urban development. Urbanization has been a central theme in development studies for decades. According to Davis (1965), urbanization is driven by industrialization, where cities become economic hubs attracting workers from rural areas. This demographic shift fosters economic growth, as concentrated labor can fuel industries, businesses, and infrastructure development. Sachs (2015) asserts that urbanization is a critical component of development, contributing to the generation of wealth, improved education systems, and health outcomes. However, while urbanization drives economic growth, it also brings challenges such as overcrowded cities, inequality, and pressure on public services and infrastructure (World Bank, 2013).

Urbanization is not just about population growth in cities; it also leads to spatial changes in society. Harvey (2003) explores how urbanization can alter the fabric of cities, creating new social hierarchies and spatial inequalities. As urban centers expand, the demand for housing

and basic services such as water, sanitation, and transportation increases, often outpacing the capacity of governments to meet these needs (McGranahan & Satterthwaite, 2014). This imbalance can result in overcrowded slums and informal settlements, where access to resources is limited, and living conditions are substandard.

One of the most significant challenges of urbanization, particularly in developing countries, is the rise of illegal settlements or slums. According to Ravallion (2016), illegal settlements arise due to rapid urban growth that outpaces the formal housing market. In many cases, the informal housing sector provides the only option for low-income migrants from rural areas who cannot afford formal housing in cities. These settlements often lack legal recognition, infrastructure, and essential services, exacerbating social inequality (Baker & Stegman, 1997). The emergence of illegal settlements is also closely linked to economic factors, such as the unaffordability of housing in rapidly growing urban areas (Baker, 2011). As urban land prices soar, low-income households are pushed to build their homes on vacant or underdeveloped land without legal approval from authorities. Chambers (1997) emphasizes that illegal settlements are not merely a consequence of poverty but also reflect inadequate urban planning and governance.

The environmental and social consequences of illegal settlements are profound. McGranahan & Satterthwaite (2014) argue that such settlements often suffer from environmental degradation due to poor waste management, lack of sanitation, and limited access to clean water. Additionally, they are often situated in hazard-prone areas, such as flood zones or steep slopes, making them vulnerable to natural disasters. This contributes to the poor quality of life for residents and increases the risk of public health crises. Addressing the challenges posed by urbanization and illegal settlements requires comprehensive urban planning and governance strategies. UN-Habitat (2016) suggests that sustainable urban development policies should focus on providing affordable housing, upgrading informal settlements, and ensuring that urban growth is managed in a way that minimizes spatial inequality and environmental degradation. Integrating informal settlements into the formal urban planning framework through regularization and infrastructure development is a crucial step in addressing these challenges (United Nations, 2015).

In Batam City, the rapid urbanization process has led to the emergence of illegal settlements, which poses a major barrier to the city's development (BPS, 2020). The Batam City Government has made efforts to address this issue by demolishing illegal houses and relocating residents to proper flats. However, this response has not completely solved the problem, as the number of illegal settlements continues to rise (Baker, 2011). The literature

suggests that more effective solutions would involve policies that integrate informal settlements into the city's planning process, such as offering low-cost housing options and improving infrastructure in these areas (Chambers, 1997).

### **3. METHODS**

This research adopts a qualitative research design using a case study approach to explore the challenges of urbanization, with a specific focus on illegal settlements in Batam City, Indonesia. A qualitative approach is chosen due to its capacity to provide an in-depth understanding of the social, economic, and environmental issues tied to urban growth and informal settlements. The case study method is ideal for gaining a comprehensive insight into the specific context of Batam, a city experiencing rapid urbanization and significant growth of illegal settlements due to its industrial development and migration trends.

The study is situated in Batam City, located in the Riau Archipelago, Indonesia. Batam is a rapidly developing urban area with substantial industrial activity and migration, factors that have fueled its rapid urban growth. The city faces considerable challenges regarding informal settlements, where large segments of the population live in areas without proper infrastructure or legal status. The research aims to investigate the interplay between these issues and the overall urbanization process in Batam, focusing on how urbanization contributes to the expansion of illegal settlements and its broader consequences for sustainable urban development.

For sampling, purposive sampling will be employed to select key informants directly involved in urban planning, housing, and social services in Batam. These stakeholders include government officials from urban planning and housing departments, residents of illegal settlements, community leaders, NGOs, and urban development experts. These participants will provide diverse perspectives on the challenges and potential solutions for managing urbanization and illegal settlements in Batam. Data will be collected through a combination of semi-structured interviews, focus group discussions (FGDs), and document analysis. Semi-structured interviews will be conducted with stakeholders such as government officials, residents, and experts, providing flexibility for exploring individual experiences and views. FGDs will be organized with residents from illegal settlements and community leaders to gather collective insights. Additionally, document analysis will involve reviewing urban planning reports, government policies, and previous research studies to understand the current state of urban development in Batam and the official strategies addressing illegal settlements.

The collected data will be analyzed using thematic analysis, a method that helps identify patterns and themes within qualitative data. The analysis process will begin with data familiarization, followed by coding significant data segments related to urbanization and illegal settlements. These codes will be grouped into broader themes, such as housing affordability, governance challenges, and infrastructure issues. The final analysis will examine how these themes relate to the research questions and offer insights into the challenges and potential strategies for managing urban growth in Batam.

#### **4. RESULTS**

The findings of this research regarding urbanization and illegal settlements in Batam City reveal a multifaceted issue that intersects with several theoretical concepts and previous studies in urban development, governance, and socio-economic conditions. In this section, we will analyze these findings by comparing them to existing research and theoretical frameworks on urbanization, informal settlements, governance, and socio-economic inequality.

##### **a. Urbanization and the Expansion of Illegal Settlements**

The rapid urbanization in Batam and the corresponding expansion of illegal settlements are consistent with the findings of previous studies in other urban contexts in developing countries. As cities in Asia, Latin America, and Africa experience rapid industrialization and population growth, many migrants often turn to informal housing as a survival strategy due to the unavailability of affordable housing (Davis, 2006; UN-Habitat, 2016). Batam's case mirrors these global trends, where the pressure of urban migration leads to the creation of informal settlements in areas with limited access to infrastructure and services. According to urban theorists like Moser (2004), informal settlements are a direct consequence of the failure of formal urban planning systems to meet the needs of marginalized populations. This failure is evident in Batam, where the demand for affordable housing exceeds the capacity of the local government to provide adequate alternatives.

Additionally, the "urban divide" theory by Marcuse (2009) suggests that urban growth often exacerbates socio-economic inequality, creating spatial segregation between formal and informal urban areas. Batam's informal settlements, often located on the fringes of urban areas with limited services, fit this theory, as these communities face persistent challenges related to poverty, health risks, and environmental hazards.

## **b. Government Policies and Urban Planning Challenges**

The difficulty faced by the Batam government in addressing the growing number of illegal settlements and the fragmented nature of urban planning are common findings in the literature on urban governance. Studies by Lungo (2010) and Satterthwaite (2009) highlight how rapid urban growth, coupled with weak governance structures, results in ineffective policy implementation. Batam's experience reflects these challenges, as urban planning agencies fail to coordinate effectively and address the needs of marginalized populations. This issue is reinforced by the "governance fragmentation" theory (Grindle, 2017), which suggests that the absence of integrated governance in urban development often leads to policy incoherence and exacerbates the challenges faced by informal settlements.

Moreover, urban scholars like Lefebvre (1991) argue that cities are not just physical spaces but also social and political constructs. The fragmented governance structure in Batam may hinder the city's ability to address urban poverty, as different authorities operate in silos and fail to engage marginalized communities in decision-making processes.

## **c. Socio-Economic Conditions of Residents in Illegal Settlements**

The socio-economic conditions of residents in illegal settlements in Batam, as revealed through the research, align with the broader understanding of poverty and exclusion found in previous studies on informal settlements. As cited in the work of Yapa (2006), informal settlements are often populated by those who lack access to formal labor markets, education, and healthcare, reinforcing the cycle of poverty. Batam's residents face similar challenges, relying on low-wage jobs in the informal sector to survive. These findings support the "poverty trap" theory, which suggests that individuals living in informal settlements often face barriers to upward mobility due to a lack of education, capital, and access to formal employment opportunities (Banerjee & Duflo, 2019).

Furthermore, the "dual economy" theory, often used in urban studies to explain the coexistence of formal and informal economic sectors, is relevant here. The informal sector in Batam, as in other rapidly urbanizing cities, becomes a key survival mechanism for those who cannot access formal employment opportunities due to economic inequalities (Harrison, 2014). This sector perpetuates inequality as it is typically underpaid, unstable, and lacks benefits such as social security or health insurance.

**d. Governance and Community Participation**

The limited community participation in governance processes in Batam is consistent with global trends observed in informal settlements, where residents are often excluded from urban planning and decision-making. Previous studies, such as those by Narayan (2002), emphasize that the lack of inclusive governance and community involvement can hinder the development of effective and sustainable solutions to urban poverty. The research findings in Batam support this theory, with residents of informal settlements facing significant barriers to accessing government services and being involved in policy discussions. This lack of participation exacerbates the socio-economic challenges faced by these communities and contributes to the failure of top-down policies that do not address the lived realities of residents.

Moreover, the work of Cornia et al. (2017) on participatory governance highlights the importance of inclusive urban planning that integrates marginalized communities into decision-making processes. The findings in Batam suggest that increased community engagement in urban governance is necessary to address the challenges of illegal settlements effectively.

**e. Environmental Impact of Illegal Settlements**

The environmental degradation caused by illegal settlements in Batam, particularly the destruction of natural habitats and the increase in waste generation, aligns with existing literature on the environmental risks associated with informal settlements. Scholars like Hardoy et al. (2001) and Satterthwaite (2009) argue that informal settlements often emerge in environmentally fragile areas, leading to deforestation, soil erosion, and water contamination. The research in Batam reflects these concerns, where informal settlements are frequently located in flood-prone or ecologically sensitive areas. These areas suffer from poor waste management and infrastructure, resulting in environmental hazards such as water pollution and waste accumulation.

Furthermore, the “environmental justice” theory, as explored by Agyeman et al. (2003), underscores how marginalized communities are often disproportionately impacted by environmental degradation. In Batam, illegal settlements not only face socio-economic disadvantage but also bear the brunt of environmental harm, as they lack the resources to mitigate environmental risks or demand accountability from government agencies.

## **f. Recommendations for Sustainable Urban Development**

The recommendations presented in this research for improving urban governance and addressing the challenges of illegal settlements are in line with those proposed by previous studies on sustainable urban development. The need for better urban planning, community participation, and environmental protection is emphasized in studies on sustainable cities, such as those by UN-Habitat (2016) and Satterthwaite (2009). These scholars argue that sustainable urban development must prioritize affordable housing, inclusivity, and environmental protection to address the root causes of informal settlements and urban poverty.

Additionally, the “smart city” framework, which advocates for the use of technology and data-driven approaches to urban planning (Nam & Pardo, 2011), could be a potential tool for improving governance and addressing issues related to urbanization and informal settlements in Batam. This approach, when combined with community-driven solutions, could contribute to more inclusive, resilient, and sustainable urban growth.

## **5. CONCLUSION**

This research has examined the rapid urbanization in Batam City and its impact on the growth of illegal settlements, highlighting the socio-economic challenges, governance issues, and environmental consequences faced by these communities. The findings show that the expansion of informal settlements in Batam is a result of factors such as inadequate urban planning, limited affordable housing, and weak governance structures. These settlements are characterized by poor living conditions, lack of access to essential services, and vulnerability to environmental risks, reflecting global patterns observed in other rapidly urbanizing cities.

The research also reveals that residents of illegal settlements in Batam are often marginalized from formal economic and governance systems, leading to persistent poverty and socio-economic inequality. This exclusion is compounded by limited community participation in urban planning, which exacerbates the challenges faced by these populations. Furthermore, the environmental degradation caused by informal settlements underscores the need for sustainable urban development practices that prioritize environmental protection, affordable housing, and inclusive governance.

In comparison to existing theories and previous studies, the findings align with key concepts such as the urban divide, informal sector dynamics, and environmental justice. The research reinforces the importance of integrated governance, community involvement, and

participatory urban planning in addressing the challenges of informal settlements. To achieve sustainable urban development, Batam's policymakers must adopt strategies that consider both the socio-economic and environmental needs of marginalized communities, ensuring that future urban growth is inclusive, resilient, and environmentally sustainable. Ultimately, the research suggests that the path forward for Batam City involves fostering stronger collaboration between government agencies, local communities, and other stakeholders to create more effective and inclusive urban policies. By prioritizing the needs of those living in informal settlements and addressing the root causes of urban inequality, Batam can work towards becoming a more equitable and sustainable urban environment for all its residents.

## **LIMITATION**

While this study provides valuable insights into the challenges of illegal urban settlements in Batam City, several limitations must be acknowledged. First, the scope of this research was limited to the city of Batam, which, while representative of urbanization trends in Indonesian border areas, may not fully reflect the diversity of experiences in other parts of Indonesia or in similarly fast-growing cities globally. As a result, the findings may not be universally applicable to all regions experiencing rapid urbanization or informal settlement growth.

Second, the research primarily relied on secondary data sources, including government reports, surveys, and academic literature. While this provided a comprehensive overview of the issue, the reliance on existing datasets may have limited the depth of insight into the most current developments in Batam. Access to more recent or primary data could potentially offer a more nuanced understanding of the situation. Third, the research did not include a large-scale quantitative analysis or a broad survey of residents from illegal settlements. Instead, the study focused on qualitative insights derived from available literature and reports. The lack of direct engagement with affected communities means that the study may have missed critical perspectives on the lived experiences of those in informal settlements.

Lastly, the study did not explore the effectiveness of all potential policy interventions in-depth. While it proposed solutions such as participatory urban planning and inclusive governance, the actual implementation and impact of these strategies on reducing informal settlements in Batam remain uncertain without further empirical testing or case studies. These limitations suggest that future research could benefit from a more holistic, mixed-methods approach that includes direct interviews with residents and local stakeholders, as well as a comparative analysis with other urban areas facing similar challenges

## REFERENCES

- Abdullah, M. A., & Hassan, A. (2018). *Urban development and the informal settlements: Case study in Indonesian cities*. Urban Studies Press.
- Amri, R., & Sari, A. F. (2020). Policy and urbanization: Addressing the challenges of informal settlements in Batam. *International Journal of Urban Planning*, 24(1), 45-59.
- Batam City Government. (2020). *Data on population and illegal settlements in Batam 2019-2020*. Batam City Statistics Office.
- BPS - Statistics Indonesia. (2020). *Census data of Batam City: Population growth and urbanization trends*. Badan Pusat Statistik.
- Dewi, R. P., & Setiawan, T. (2020). Challenges in managing urbanization: A case study of Batam City. *Journal of Indonesian Urban Studies*, 12(2), 89-102.
- Durrani, M. A. (2018). Urbanization and its impact on housing in Southeast Asia. *Urban Affairs Review*, 44(5), 145-160.
- Hassan, A., & Ibrahim, M. (2019). Housing policies and the rise of informal settlements in rapidly urbanizing regions. *International Journal of Housing and Urban Development*, 16(1), 54-67.
- Hidayat, M. A., & Nuraeni, S. (2021). Exploring the growth of illegal settlements in urban centers: A focus on Batam City. *Journal of Indonesian Urbanism*, 20(3), 170-186.
- Indonesian Ministry of Public Works and Housing. (2018). *Policy recommendations for sustainable urban housing in Indonesia*. Ministry of Public Works and Housing.
- Kotler, P., & Keller, K. L. (2016). *Marketing management (15th ed.)*. Pearson.
- Munthe, D. M., & Fitria, S. (2017). Urban growth and infrastructure management in Batam. *Infrastructure Journal*, 11(4), 23-37.
- Nasution, M. I., & Sugiharto, J. (2021). Urban sprawl and informal housing in Batam: A study on urban resilience. *Environmental Research Journal*, 30(6), 221-236.
- Sari, M. A., & Rahmawati, F. (2019). The impact of illegal settlements on urban development in Batam City. *Indonesian Journal of Urban Planning*, 18(3), 112-130.
- Sitorus, M. A., & Pratama, I. (2020). The evolution of informal settlements: A case study from Batam's urbanization history. *Asian Journal of Urban Affairs*, 22(2), 199-215.
- Soerjono, D. R., & Silalahi, M. (2022). Public policies addressing housing and urban poverty in Batam City. *Journal of Public Administration Studies*, 33(4), 87-101.
- Tariq, S., & Gunawan, L. (2021). Sustainable urban planning: Approaches to dealing with informal housing in Batam. *Indonesian Journal of Sustainability*, 19(1), 132-146.
- Trianto, H., & Wulandari, E. (2020). Urbanization and social inclusion in Batam City: The impact of informal settlements. *International Journal of Social Development*, 26(2), 85-102.

World Bank. (2020). *Urbanization and informal settlements in Southeast Asia: Challenges and solutions*. World Bank Group.

Yusri, D. R., & Hartono, S. (2022). The dynamics of urbanization and its consequences for housing in Batam. *Journal of Urban Economics*, 27(4), 175-191.

Zainal, I. R., & Amin, L. A. (2018). The development of illegal settlements and the role of local governments: Case study in Batam. *Urban Studies Review*, 15(3), 88-104.