

The Activities of Informal Land Development Practices in Tudun Yan-Lihidda Settlement, Katsina State, Nigeria

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Abstract: Failed policies, poor governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial systems and a fundamental lack of political interest and the limited capacity of the governance to provide adequate serviced land and housing for the majority of the ever-increasing urban population have attributed to the rapid development of informal settlements in many of our cities for the proper and effective management of our environment. It is noticed that the practice of informal land development in Katsina Metropolis largely dominated formal system of government. Problems such as irregular layout, inadequate accessibility, substandard plots size, congestion and lack of basic facilities and amenities etc. are attributed to the practice of informal land developments. This research involved physical and social survey which was performed in examining the location and group discussion and interview with residence and informal land developers to accessed some of the physical characteristics (i.e. house plot sizes, house development ratio area and road, drainage and setback) and other facilities such as health, out-post, cemetery, refuge site through oral interview with the informal land developers of the area. Secondary data adopted was the published and unpublished sources (i.e. books, journals, thesis/projects, maps etc.) This research aimed at accessing the activities of informal land development of Tudun Yan-Lihidda in Katsina Metropolis. The objective is to evaluate some of the physical characteristics of the area and identified the problems. Possible recommendations on the identified problems were made for good living environment. Problems such as irregular layout, substandard plots size, congestion and lack of basic facilities are attributed to the problems of the practice of informal land developments. There is need for the immediate attention of the urban planning board to address such problems where necessary in the area.

Keywords: Urban population, Informal settlement, Urban regulation, Physical characteristics

INTRODUCTION

The world is now increasingly becoming Urban day by day. Currently, more than 50% of the global population lives in Urban areas and it is projected that, by 2050, the proportion will rise to about 70% (Sclar et al., 2013; Olajide & Lawanson, 2017). This trend of urban influx has been continuous and as many as three million people are added to cities population in the developing countries each week because of some reasons (UN-Habitat, 2008). Developing countries, particularly sub-Saharan African countries, exhibit the futures of informal Urbanism, a situation where the majority of the population make a living informally (Hove et al., 2013). It is projected that informality dominates the economic and settlement landscapes (United Nation, 2014).

The incidence of informal settlements in many developing countries have attributed to various factors including failed policies, bad governance, corruption, inappropriate regulation, dysfunctional land markets, unresponsive financial systems and a fundamental lack of political interest and limited capacity of the governance to provide adequate serviced land and housing UN-Habitat (2004) for the majority of the ever-increasing urban population. It has been observed

that the majority of the urban population in developing countries are excluded from legal and formal process of access to land and housing (Olajide & Lawanson, 2017). Therefore, they have adopted different ways, mostly outside the formal regulations, to accessing land for housing and other urban land needs (Durand-Lasserve, 2006). The activities of informal land developers continue to develop and dominate the formal market because of the poor system denied access in Katsina Metropolis. It is the fact that informal land developers are the largest single channel of land supply in Katsina Metropolis. More informal settlement is formed such as Tudun Yan-Lihidda, Kwado, Rahamawa, Janbango and many others. The implication is that those unable to meet their land and housing for less privileges through formal land markets are forced in to informal solutions (Olajide & Lawanson, 2017).

Many studies have shown how active the practice of physical planning development is in the urban cities as compared to the unplanned areas (Mabogunje, 2005; Mabogunje, 2008; Abel, 2007). Planned and unplanned areas have similarities in some elements of physical environment (Kawu, 2012). House plot size either (high density not <225m²; medium not <450m² and low not <900m², Plot development ratio for (high density =60%; medium =50% and low =40%, Access roads not <7.5m; Drainage not <1.2m and setback not <2m from the edge of the drainage (Building Regulation, 2011) are approved regulation in Katsina Metropolis. To promote orderly development and management of urban environment, physical planning ensures that urban activity is properly guided (Kawu, 2012) and call for the immediate attention (Mabogunje, 1999; Kawu, 2005; Afon, 2008; Kawu & Shaibu, 2008; Siemens, 2011).

The research aim is accessed the activities of informal land development of Tudun Yan-Lihidda in Katsina Metropolis. The objective is to evaluate some of the physical characteristics such as plot size, Area development ratio and setback of the area and identified the problems. And other facilities such as health, out-post, cemetery, refuge site also accessed. Problems such as irregular layout, substandard plots size, congestion and lack of basic facilities and amenities etc. are attributed to the problems of the practice of informal land developments. There is need for the immediate attention of the urban planning board to address such problems where necessary in the area.

THE STUDY AREA DESCRIPTION

Tudun Yan-Lihidda is a recent developed area when compared with the old city and located outside the old city gate of Katsina, which is largely dominated by less privileged people as a result of relatively cheap land and low rent. The residents are mainly traders, farmers and some civil servants who are laborers and messengers (Isah, 2014). The majority of the residents are Hausa by tribe and are people from rural areas and the neighboring nation Niger Republic (Katsina State Urban & Regional Planning Board, 2010). Tudun Yan-Lihidda is located North-west of Katsina town bounded by new Yarkutungu Market. It has a total landmass of 571,191,163² m (see figure 1).

The climate pattern of the area is characterized with alternating wet and dry seasons. Two principal wind systems influence the climate of the area and the orientation of buildings for seasons were distinguished within a year. There is the dry season and the wet season. The temperature in the region is constantly high with increased evaporated conditions. The annual maximum temperature occurs between March-May and ranges between 27-43⁰c. and the coldest temperature occurs during the winter periods in December-January ranges between 23-24⁰c. An existing land mark of the large natural drainage crossing the region which accommodate large amount of waste and rain water mostly coming from high land region in the town.

METHODOLOGY

The research used both primary and secondary data. The primary data involved was physical and social survey, group discussion and interview. Based on simple random selection of two informal land developer whose are permanent residence from each ward of Tudun-Yan Lihiddah Settlement (i.e. Bakin-Mahauta, Lambobi, Bayan-Massalaci and Malali) respectively. From each ward, 5 residential houses were selected and accessed. A total of 25 residential buildings from the 4 wards of the settlement were accessed. The questions asked were based on socio-economic

and the physical characteristics of the settlement (i.e. house plot sizes, house area development ratio, roads size, drainage, setbacks and alleyways). Facilities such as health, out-post, cemetery, refuge site were also accessed. The secondary data adopted was the published and unpublished sources (i.e. books, journals, thesis/projects, maps etc.) The data is analyzed using tables in comparing existing physical characteristics and approved planning requirements and presented using maps, tables and pictures.

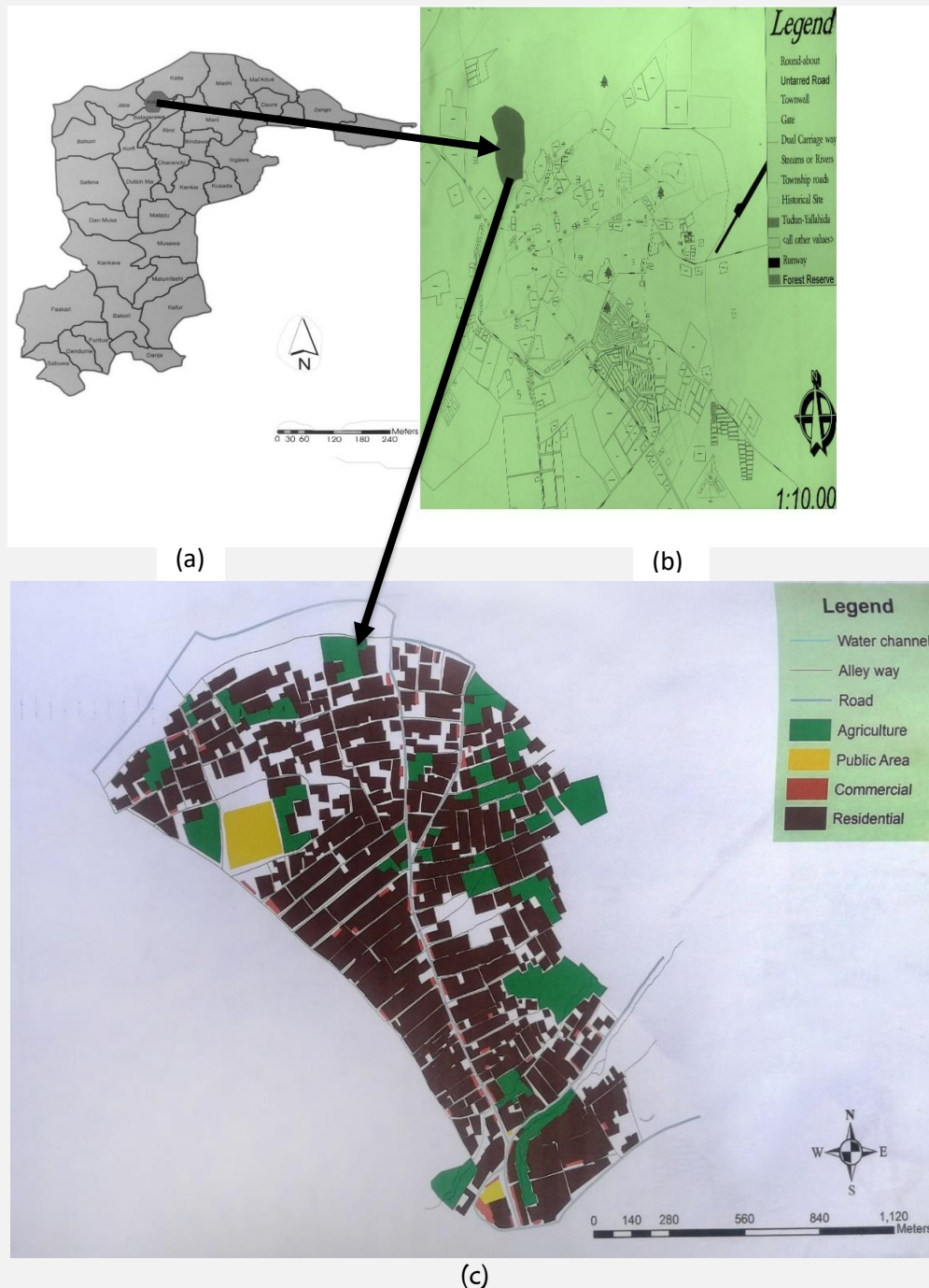


Figure 1. The Map of Study Area (a) Map of Katsina State Showing Katsina Metropolis, Source: URPB,2021; (b) Map of Katsina Metropolis Showing Tudun Yan_Lihiddah Settlement, Source: URPB,2021; (c) Map of Tudun Yan-Lihidda showing Land use, Source: Author, 2021

RESULTS AND DISCUSSION

To identify the problems of informal land development practices, the study evaluated some of the physical characteristics with the approved planning standards. See [table 1](#), [table 2](#), [table 3](#), and [table 4](#) as presented below.

Table 1. House Plot Type and Size

S/No.	Plot Type (Density)	Planning Requirement (m ²)	Tudun Yan-Lihidda Area (average)	Variation (+)	Remark
1	High	Not <225	<81	-144	Below
2	Medium	Not <450	Nil	Nil	Nil
3	Low	Not <900	Nil	Nil	Nil

Source: Author, 2021

The average existing house plot sizes is about 64% smaller than the minimum standards of the Urban Planning Regulation. From the interviewers, 90% variation on the house plot sizes agreed. The most striking difference from the existing plot sizes is about 33% smaller than the minimum requirement of the Urban Planning Board. The lack of effective plan design is what enhanced the development of Tudun Yan-Lihidda. Plan is the ingredient of development control activities. It provides the guidelines and procedures for the implementation and enforcement of the planning requirement. Lack of plan in Tudun Yan-Lihidda is seen as a major challenge in the area and causes all the sub-standard requirements of plot size. Development control activities are lacking bases for necessary implementation. Traditionally, it is the use of single alignment/building line to take control where necessary. Precisely, it is very difficult in Tudun Yan-Lihidda to execute development control activities. This as the survey reveals, is due to the high price of plots in the core areas of the town and also the low level of income of the community.

Table 2. House Area Development Ratio

S/No.	Plot Type (Density)	Planning Requirement (%)	Tudun Yan-Lihidda Area (average %)	Variation (+)	Remark
1	High	Not <60	>85	25	Above
2	Medium	Not <50	Nil	Nil	Nil
3	Low	Not <40	Nil	Nil	Nil

Source: Author, 2021

The average existing house area development ratio is above the minimum requirement with 25%. Almost 100% agreed. The required ratio is that 60% remains develop area and 40% remains open space for natural ventilation. House development ratio is above the minimum requirement with 25%. This associated with the number of family household size and the number of rooms. The area is said to be high density area with the average household size of 10. Minimum of two room and above leading to congestion in the house. The houses lack enough ventilation for proper hygiene and become a threat to their health condition. Limited accessibility, inadequate ventilation and consumption of sunlight as a result of congestion and sub-standard plot density and development. This may result to the outbreak of diseases such as meningitis and cholera diseases.

Table 3. Road Characteristics

S/No.	Residential Road (Street)	Planning Requirements Width (m)	Tudun Yan-Lihidda Area (average (m))	Variation (+)	Remark
1	Access Road	Not <7.5	<4.5	-3	Below
2	Drainages	Not <1.2	<0.7	-0.5	Below
3	Setbacks	Not <2	<1	-1	Below

Source: Author, 2021

The average roads are 40% below minimum requirement of the Urban Planning Regulation. Road Characteristics, the road is 60% below minimum requirement of the Urban Planning Board. It is non-pavement and in state of erosion with limited access especially in the raining season. This causes accident to the vehicular and they find it difficult to drive.

The average drainages are 50% below minimum standards of the Urban Planning Regulation. Drainages become the breeding area for mosquitoes and also contributed to the problems of illness. Land degradation all over the street causes flooding most at times of raining season, lack of accessibility in time and causes accidents. The draining water in the drainages flows all over the streets and lack proper channels to drain.

The average setbacks are 42% below minimum standards of the Urban Planning Regulation. The setbacks are considered less important. And inadequate setbacks in Tudun Yan-Lihidda is another challenge for proper and effective provision of services such as electricity poles and water pipelines. Some alleyways lack the provision of the setback and where provided are narrow for the installation of such services. Some are even installed inside road drainages and fencing walls.

Table 4. Other Facilities

S/No.	Facilities	No. of Facility	Dimension (m ²)
1	Health	1	54
2	School	0	0
3	Security Office	0	0
4	Refuge Site	0	0
5	Cemetery	1	1478

Source: Author, 2021

Problems of Informal Land Development Practices in Tudun-Yan Lihiddah Settlement

The practices of informal land development in Tudun-Yan lihiddah have indeed brought enormous problems to physical development of the area. This section examines the problems of the informal land development practices in the area.

Irregular Layout/Settlement

Informal land developers found it free to peruse the work of planners and surveys in order to provide settlements (Kawu, 2012). The development of Tudun-Yan lihiddah can be seen as irregular with no uniformity in dimensions especially the roads and the streets with limited access. From the map shown, no any road or street that is uniformly dimension from the beginning to the end. The width varies with the different dimensions. However, narrow alleyways are provided with no access to motorist. The drainages are not effectively design, mostly channeling is non-directed and centered within the alleyways. The drainages are mostly the disposal point of waste indiscriminately and also breeding area for mosquitoes as well. They are in a poor condition and prevent direct access.

Lack of Open Space

Another area of concern is on the provision of open spaces. Open spaces are meant for relaxation, outdoor sporting activities, gardening (Kawu, 2012). According to the survey, no any open space is provided in the area for such activities.

Sub-standard Plots

Another problem of informal land practice is the provision of sub-standards plots and it is because of the cheap coast of land associated with large drainage passing through the settlement, unplanned abattoir and other hazardous nature in the area. Traditionally, it is the use of single alignment/building line to take control where necessary. Precisely, it is very difficult in Tudun Yan-Lihidda to execute development control activities. undeveloped lands became the dispersal point of domestic waste from the houses because of lack of sanitation facilities. See [figure 2](#) Below.



Figure 2. Undeveloped Plot (6m * 9m) used for Indiscriminate Disposal in Tudun Yan-Lihidda, 2022

Lack of Setbacks

Setback is the minimum distance which a building or other structure must be set back from a street or road which is deemed to need protection (Kawu, 2012). Neighborhood setbacks are provided to ensure uniform appearance, installation of facilities and services such electricity, water pipeline supply and prevent houses from crowding adjacent structures or street (Kawu, 2012). The building of shops within the area is a competitive phenomenon to the people of the area. Conner shops are built along the roads with no setbacks for facilities. Although spontaneous, encroachment of the setbacks generates non-conformity in the area. Such is the situation here as shown by figure 3.



Figure 3. An Existing Major Road showing the domination of Conner Shops in Tudun Yan-Lihiddah Settlement, 2022

Building Congestion

Popular new attractions or dozens of new building means more travel in the neighborhood. To cope, typically require large street, or road capacity for many residences (Mabogunje, 2008). The roads and streets are narrow below the required standards and causes congestion across the neighborhood (see figure 4).



Figure 4. An Existing Major Road showing narrow access in Tudun Yan-Lihiddah Settlement, 2022

However, this associated with the average household size and the number of rooms. The area is said to be high density area with the average household size of 10 (National Population Commission, 2020). Minimum of two room and above leading to congestion in the house. Limited accessibility, inadequate ventilation and consumption of sunlight as a result of congestion and sub-standard plot density and development become a threat to their health condition.

Poor Infrastructure

The roads and drainage infrastructure are also a problem of informal land practices in the area. The road is un-tarred and affected by erosion which leads to land degradation. Drainages are not uniformly constructed and aligned alongside the roads (see figure 5). Poor access roads and land degradation become the breeding area for mosquitoes and also contributed to the problems of illness.

Inadequate Facilities

Local facilities in residential neighborhood play an important role towards the social and economic sustainability of the local residents. These facilities are basic components within a particular settlement that include recreational, health, educational, cemetery and other communal facilities (Mardiah, 2013). The only existing facility is electricity, cemetery of 1478m² as accessed and water tank which supply water to the settlement. The water tank is not function over a year due to lack of fund by the community. Large percentage of the resident's source water from private vendors as seen in figure 6.

Lack of public spaces for facilities such as health, security offices, school, and refuge site became a threat to the residence of Tudun Yan-Lihidda. As the population is rapidly growing in the settlement, no any single provision for such infrastructures were made. This implies that the

settlement is largely demarcated as residential. Therefore, the need to address such problems is very vital. The only existing clinic supported by the government is a house rented by some members of the community to serve the settlement at large. And also, the security outpost in the area is a corner shop given free by a community occupant as the survey reveals.



Figure 5. An Existing Drainage Alongside the Major Road showing the condition of the drainage in Tudun Yan-Lihidda Settlement, 2022



Figure 6. An Existing Private Water Vendors in Tudun Yan-Lihiddah Settlement, 2022

CONCLUSION

Tudun Yan-Lihidda land development in Katsina metropolis, which is the main focus of this research, is the practice of informal land developers. This has given it a different identity and outlook different or below the specific recommendations of the planning requirement. Lack of layout plan and the weakness of the urban Planning Board give a chance for the informal land developers to provide plots below the minimum requirement which enacted problems such as inadequate accessibility, congestion, irregular layout, poor drainage condition, poor sanitation and lack of facilities that need serious attention for the planning Board. This has become necessary as the problems are passive in the area. The provision of housing to all native citizen is the responsibilities of the central government. This is to say that, the statutory allocation from the state government is ensured to be adequate for the effective and efficient management of urban land.

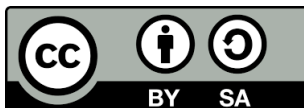
RECOMMENDATIONS

1. The Urban Planning Board is to enforce and mitigate further activities of such informal practices in the Urban areas in the case of Tudun Yan-Lihidda and the Urban area as well.
2. The Urban Planning Board is also to sensitize and enlighten the public on the impacts of informal land practices through Media and all means of communication in the Urban area of Katsina State.
3. The lack or inadequate existing facilities such as school, health center, out-post, sanitation, in the area needs the attention of the Urban Planning Board to provide spaces for such facilities for better quality of life of the people.
4. Poor conditions of the drainages and roads need the call for the executive government to rehabilitate and construct where necessary.

REFERENCES

- Abel, A. (2007). An analysis of solid waste generation in a traditional African city: the example of Ogbomoso, Nigeria. *Environment and urbanization*, 19(2), 527-537. <https://doi.org/10.1177/0956247807082834>
- Afon, A. O. (2008). Intra-urban variations in solid waste storage practice in Nigerian traditional city: the case of ogbomoso. *Journal of the Nigerian Institute of Town Planners (NITP)*, 21(1): 104-129.
- Durand-Lasserve, A. (2006). Informal settlements and the Millennium Development Goals: global policy debates on property ownership and security of tenure. *Global Urban Development*, 2(1), 1-15.
- Hove, M., Ngwerume, E.T., and Muchemwa, C. (2013). The Urban Crisis in Sub-Saharan Africa: A Threat to Human Security and Sustainable Development, Stability. *International Journal of Security and Development*. 2(1), p.Art. 7. <http://doi.org/10.5334/sta.ap>
- Isah, M. A. (2014). Assessment of Water Distribution and Supply in Katsina Metropolis. (Unpublished Bsc. (URP) thesis, Ahmadu Bello University, Zaria).
- Katsina State Urban & Regional Planning Board, (2010). Katsina State Master Plan. (Draft Final Report. Multy Systems Consultants).
- Katsina State Urban & Regional Planning Board, (2011). Building Regulation. Section 78 of the Katsina State Urban and Regional Planning Board Law.
- Kawu, A. M. (2005). *Development Control in Traditional Settlements: A Case Study of Zaria City*. (Unpublished MSc (URP) thesis, Ahmadu Bello University, Zaria).

- Kawu, A. M., et. al., (2012). Learning from Tradition: Elements and Practice of Urban Development Control in Zaria City, Nigeria. *American International Journal of Contemporary Research*, 2(7), 205-213.
- Kawu, A. M., & Shaibu, S. I. (2008). Traditional Housing Potentials in Addressing Climatic Hazards in Nigeria: A Case of Bida, Niger State, Nigeria. In *Book of Proceeding of the 3rd Biannual Conference of Department of Urban & Regional Planning* (pp. 124-135).
- Mabogunje, A. L. (1999). Cities for All: The challenges for Nigeria. Public Lecture organized by the Federal Ministry of Works and Housing, Urban and Regional Planning Development Division, to mark United Nations 'World Habitats Day'. Abuja: Ladi Kwali Centre, 4th October.
- Mabogunje, A. L. (2005). Global urban poverty research agenda: The African case. *Global Urban Poverty: Setting the Research Agenda*, 28.
- Mabogunje, A. L. (2008). The inclusive city: popular empowerment of local government in a rapidly urbanizing Africa. *Journal of the Nigerian Institute of Town Planners*, 21(1), 1-17.
- Mardiah, N. W. (2013). Understanding the Usage Pattern of Local Facilities in Urban Neighborhood Towards Creating a Liable City. *Proceeding of International Workshop on Liable City* (pp. 01-02). University of Technology Malaysia.
- National Population Commission, (2014). National Population Census 2006. Katsina State.
- Olajide, O., and Lawanson, T., (2017). Informal Urbanization: Contemporary Concepts in Physical Planning (Volume III). Department of Urban & Regional Planning, University of Ibadan, Nigeria.
- Scar, E. D., Volavka-Close, N., & Brown, P. (2013). *The urban transformation*. Taylor & Francis.
- Siemens, (2011). *African Green City Index: Assessing the Environmental Performance of Africa's Major Cities*. Munich: Siemens AG Corporate Communications and Government Affairs. Accessed 27 December, 2011 (<http://www.siemens.com/entry/cc/en/greencityindex>).
- UN-Habitat. (2004). The challenge of slums: global report on human settlements 2003. *Management of Environmental Quality: An International Journal*, 15(3), 337-338. <https://doi.org/10.1108/meq.2004.15.3.337.3>
- UN-Habitat, (2008). Quick Guide Policy Makers: Housing the poor in Asian Cities. Bangkok and Nairobi.
- United Nations, (2014). World Urbanization Prospects: The 2014 Revision. New York: Department of Economic and Social Affairs, United Nations.



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