



## The impacts of unauthorised subdivisions of residential plots in Gadon Kaya, Kano City, Nigeria

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### Abstract

Illegal subdivisions of settlement plots (layouts) in developing countries are a common phenomenon. This practice normally resulted in lowering of the quality of life of the people living in such settlements. The aim of this paper is to identify and discuss the impact of such illegal subdivisions in a government approved Gadon Kaya settlement area in Kano city, Nigeria on the quality of life of its residents. A population sample of 110 residents was randomly picked and questionnaires administered to furnish the primary data. Other sources of data included field observations and interviews of selected stake holders. The analysis of the study shows that subdivision has indeed affected the quality of life in the area through reduced access, inadequate supply of water and electricity, poor sanitation, and inadequate ventilation. The findings imply that illegal subdivisions of settlement plots in Kano city would need to be discontinued and several recommendations are offered on possible measures to arrest further occurrence.

**Keywords:** land allocation, layouts, overcrowding, plot subdivision, quality of life, settlement

### Introduction

Land is a precious commodity in most major cities in Nigeria due mainly to the cities' various functions as the administrative capital. Lagos and Kano are two important cities in the country. Both cities are administrative centres while also functioning as commercial, industrial, cultural, educational and religious centre. These have resulted in high population densities in these cities. In Kano city land is highly sought after. In an effort to enable people to have access to land in the area, the Nigerian government awards rights for titles in different areas of the city. State land inside and outside the city has been alienated for the city dwellers to build permanent structures, mainly living quarters. Subsequently, several residential layouts have been planned and gazetted in selected areas of the city.

Structurally, Kano city may be divided into two parts: the inner part consisting of areas surrounded by a city wall and the outside part, other areas of the city located outside the city wall. Within the city wall, there are three residential layouts namely Sani Mai Nagge, Gwammaja and Gadon Kaya. Recently, informal subdivision activities have been carried out in all of these three layouts and the most active has been reported in Gadon Kaya.

Residential layouts are designed to provide plots for building houses and other complimentary uses and services that go along with residential developments. The plot size of a particular layout determines its low density, medium, high or very high density. All land belongs to the state and the governor is responsible for allocating it unless such powers are delegated to the Commissioner Ministry of Land and Physical Planning. Kano State Urban Planning and Development Authority (KNUPDA) are vested with the responsibility of designing all layouts for Kano State Government through the State Ministry of Land and Physical Planning. This agency has sets of standard for various densities in the residential layout mainly to ensure that residents get certain level of satisfaction and well being. The low density layout plan is made up of plots of

30m x 30m in size, the medium 22.5m x 15m, the high 15m x 15m and the very high 15m x 7.5m (Ibrahim, 2008). However, many beneficiaries of government plot allocation tend to subdivide the plots allocated to them for some reasons. They do so regardless of the planned density thereby distorting the original plan. This subdivision is not without some physical planning problems such as dilapidated houses and overcrowding, poor hygiene and sanitation and poor infrastructural services like roads, potable water and electricity (Achunine, 1993). In some instances, land allocated for certain usage, like schools, park, central sewage, mosque, roads etc, is redirected for residential use. These problems adversely affect the environment both socially and economically which in turn affects the general quality of life of the residents.

Quality of Life (QOL) can be defined in many ways. The United Nations' data glossary (<http://data.un.org/Glossary.aspx>) defines it as "the notion of human welfare (well-being) measured by social indicators rather than by 'quantitative' measures of income and production". On the other hand, World Health Organization (WHO) defines Quality of Life as a person's perception of life "in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns" (WHO, 1997). This can be translated to a state of being healthy, feeling that one is comfortable and therefore happy. Hafaza (2007) described it as "state of social well-being of individuals or groups either as they perceive it or as it is identified by observable indicators", while Costanza *et al* (2008) defines it as the "extent to which objective human needs are fulfilled in relation to personal or group perceptions of subjective well-being". For the purpose of this research QOL will be seen as the perception of the people as it concerns satisfaction and well being. Where people raise concern it means they gain negative or little satisfaction.

The present article therefore intends to examine the extent of residential plots subdividing activities in Gadon Kaya and its implication on the quality of life of the residents. To achieve this aim, observations, field measurements, interviews with officials of state planning authorities and survey questionnaire were employed. A total of 110 head of households (25% of the 440 residential plot owners) in Gadon Kaya were randomly picked for the questionnaire administration.

### **Background to the study: Land alienation and subdivision in Kano**

Informal settlements have long been the dominant features of urbanization process in many developing countries in Latin America, Asia and Africa. During the last four decades, the city in Asia such as Jakarta, Kuala Lumpur, Bangkok, Manila, Calcutta, Bombay, Madras, Dacca, Tehran, Karachi and Seoul were characterized by the presence of informal squatter settlements (McGee, 1971). Recent UN reports on housing showed that squatters and other forms of informal settlements were no longer prominent and confined to those Asian cities. Instead, there is an increasing trend of semi-formal settlement at a global level (United Nations, 2007) with large African cities like Tripoli, Lagos, Khartoum and Kano being the most likely sites for most of this growth (UN-Habitat, 2007). In the Middle East for instance, political tension and turmoil, particularly in Iraq and Palestine have resulted in the emergence of many semi-formal settlements formed by the influx of internally displaced people (Campbell & Rosen, 2010). A new trend of urbanization and urban expansion characterized by the growth of semi-formal settlement tends to emerge in those cities.

Similar trend of urbanization and urban growth occur in many parts of Africa. Traditional African settlements have suffered from the process of urbanization and consistent growth due to the influx of population from rural areas. This has resulted in higher densities of unplanned growth of such settlements (Ibrahim, 1998). Such haphazard growths are due to the lack of development control by the planning authorities and are capable of affecting the quality of life of the people which could manifest in the form of inadequate infrastructures, improper distribution of land uses, etc (Tahir, 1989).

With the advent of colonialism, authorities started providing low density settlement for the colonial administrators. These layouts were called European Residential Areas (ERA) before they were renamed Government Residential Area (GRA) after attaining independence in 1960 (Shehu,

2004). This trend continues and has even been used as a tool for controlling physical planning development. Land is acquired by the government from farm land owners and compensation for economic trees, crops and other developments (like wells, ridges, farm houses etc) are duly paid as provided by the Land Use Act 1978 (FMHUD, 2006). This acquired land is then demarcated, designed and sub-divided into layout plots. Provisions are made within such layouts for infrastructures and services so that the residents could enjoy quality living. The plots are then allocated to members of the general public who have indicated their interest to reside therein.

The idea of a layout is that buildings are spatially arranged in functional but artistic fashion, such as the regular grid and/or curvilinear layout patterns. Yet the idea is not to distinguish one area from another based on how buildings are arranged in space. Rather, it is to standardize building plots and to effect some form of control over the settlement density (Shehu, 2004) with respect to, for instance, how many people should reside in a unit area and how many buildings could be built on a given size or area of a land.

The objective of most new residential layouts is to improve their quality of life through the provision of residential stability for the populace especially the low income earners who have previously been suffering from insecure and inadequate accommodation. The irony of this objective is that many regard access to the plot to be equivalent to winning a lottery ticket in that they receive a plot of land which worth is considerably higher in the open market than the initial amount they were required to pay for.

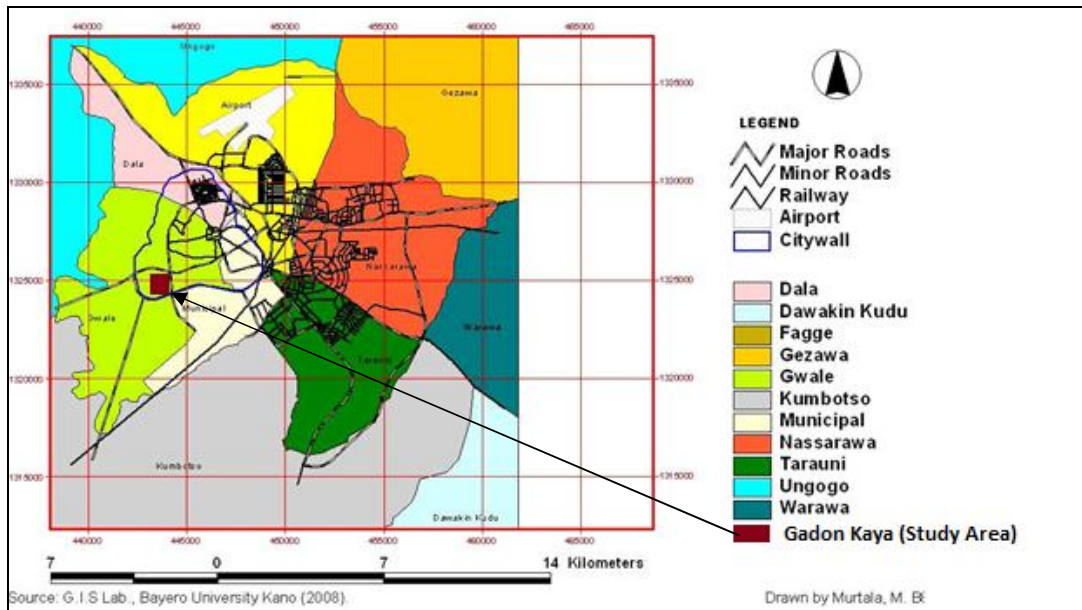
In Nigeria informal land acquisition system has become a popular practice among the people living in urban fringe areas. Oloyede et al. (2007) found that a considerable number of households in the city of Lagos acquired residential land through informal modes of transactions whereby customary plots of land were or purchased by real estate companies and individuals to be subdivided for later sales.

Similar trend is taking place in the city of Kano. In recent years, purchases of land through open market transactions were limited to relatively affluent members of the public while the low income members were forced to resort to alternative, non-open market methods of acquisition. Most common of these alternative, rather non-formal methods involve negotiated flexible schemes of payment. Another trend in Kano is rampant fragmentation and subdivisions of residential land through inheritance. Residential plots such as in Gadon Kaya have gone through series of subdivision such that they have reached a size where further subdivision or sharing is virtually impossible.

## **Study area**

Gadon Kaya layout is one of the only three residential layouts found inside the Kano city wall. The layout, situated in Gwale local government area of Kano Metropolis (Figure 1), was designed and put into effect in 1981. It provides for 683 full plots 671 of which are high density plots of 12m x 15m dimensions. There are 12 medium density plots of 23m x 15m. Although the initial design was for 683 plots, as at November 2010 when the research was conducted there were 907 households in the layout. The entire area is residential; the only public facility in the area is a primary school. Fields meant for that school have been encroached upon by neighbouring houses and partly used as a refuse dump. Most houses are semidetached duplex with very few bungalows. Generally, the architecture is modern and all units were built of cement.

Physically, Gadon Kaya layout is similar to that of Kano city. The land in most parts is flat and undulating in the high plain. The average altitude is 481m above mean sea level. Average temperature is in the region of 35<sup>0</sup>C and rain falls for about four months annually with an annual average of 873 millimeters. Natural vegetation has been completely removed and less than 10% of the houses' compounds have any stand of plants within them, thus depicting almost a dry open land environment throughout the area.



**Figure 1.** Kano Metropolis with the study area of Gadon Kaya

### Informal or unauthorised subdivision of residential plots

In 2010 Gadon Kaya layout has a total of 683 plots, out of which 214 high density plots were subdivided into 438 households. The subdivision of plots was done informally without consent from the planning authority. Such activities are being widely practiced in African cities signaling the inability of city authorities, including those in Kano to halt it.

Table 1 shows that 204 of the affected plots were subdivided into two pieces each, making a total of 408 households, while only 10 plots were subdivided into three pieces each making a total of 30 households. There are 469 plots out of the 683 provided in the layout that are not affected by the subdivision. Although the majority of the plots remain unaffected, the increasing trend of informal subdivision activities, if not properly addressed, could result in the growth of informal and dilapidated neighborhoods in a city that is already facing serious housing and urban poverty problems.

**Table 1. Informal subdivision of high density plots in Gadon Kaya layout**

Variation	Number of subdivided plots	Number of households on the subdivided plots
Plot Subdivided into 2	204	408
Plot Subdivided into 3	10	30
Total	214	438

Table 1 above shows that 31.3% of all the high density plots have been informally subdivided; 95% of that number has been divided into two plots while the remaining 5% have been subdivided into three plots. Thus, the initial 214 plots have presently 438 housing units on it.

### The roles of State Ministry of Land and Kano Planning Authority

Subdivision of any layout plot is illegal unless it is approved by the planning authority. However, both the planning authority and the supervisory ministry of land and physical planning are handicapped to control the trend of unauthorised land subdivision. Findings from interviews with

the officials of the State Ministry of Land and Physical Planning and the Kano State Urban Planning and Development Authority (KNUPDA) revealed the following constraints:

1. Shortage of qualified personnel in the government agencies.
2. Obsolete equipments and instruments for monitoring developments from the office.
3. Rigid rules of enforcement. Development control has to abide by the Land Use Act of 1979 which vests all major decisions on the State Governor. Thus, development control officials can only issue warnings to an errant developer. Special permission must be secured from the Executive Governor before a structure can be demolished irrespective of the danger such a structure may pose to people or environment.
4. Lack of enforcement power. The staffs of the Kano Ministry of Land and Physical Planning are not empowered to stop any allottee from subdividing his plot, even though he is required to apply formally to the ministry before undertaking such action.
5. Corruption of officers by developers.

Subdivision of plots in Kano is very common especially in peripheral settlements that still have farmlands. It has become a norm for such farmlands to be divided into plots and be sold to people in order to develop into houses. More often than not, the agencies responsible for planning are not informed of such developments. Ibrahim (2008) found that 32% of all governments' layouts are illegally subdivided and 7.5% merged while the figure of non-government layout is in the region of 90%. This, Ibrahim further discovered, is as a result of ignorance whereby 54.5% of land owners were not aware of the requirement for subdivisions to be formalized. It is little wonder then that unauthorised subdivision has become a sticky issue in Kano.

### Factors that encourage unauthorised subdivision

Informal or unauthorised land subdivisions in Gadon Kaya were carried out for various reasons. The present study found that there are two major reasons for the subdivision, namely, inheritance and economics (Table 2).

**Table 2. Reasons for informal subdivision of high density plots in Gadon Kaya**

Reasons for the subdivision	Frequency	%
Inheritance reasons	70	63.6
Economic reasons	33	30.0
Other reasons	7	6.4
Total	110	100

Findings indicate that 63.6% respondents identify inheritance as the reason for subdividing their land. As a Muslim dominated society, family law in Kano is 100% in accordance with the Islamic Sharia system. Thus, when an individual dies, his property is shared among relatives as stipulated in Sharia. In the process, certain properties like plots and houses are physically divided. A total of 30% of the respondents subdivided their plots for economic reasons. They subdivided and sold portions of the land because they did not have the financial means to fully develop the entire plots. By selling the portions they obtained the money to build their own personal residence on the remaining portions of the plot. In some cases, they even make more profits from such activities.

### Implications of residential plot subdivisions

Nigeria's built environment is said to be fast decaying (World Bank, 2005). This, according to Osueide and Dimuna (2005), is due to urbanization, migration to cities, declining economic growth, inadequate infrastructures and poor management among other things. The repercussions, as reported by Ahianba *et al* (2008), are many and diverse. They include the following:

- a. Inadequate public infrastructures and utilities: where clean water, electricity and roads are lacking, the people are prone to water borne diseases like typhoid and cholera. Lack of electricity supply drives people to use generators which results in not only noise and air pollution but also adds risk of fire out breaks in congested environments. Lack of roads hampers accessibility.
- b. Overcrowding: as more people than originally planned are confined in one area, there are greater chances for air borne diseases like tuberculosis and flu to spread. When accompanied with poor ventilation overcrowding may lead to physical fatigue, affect productivity and even curtail lifespan.
- c. Poor sanitation: residents will be exposed to further environmental risks when public spaces such as school playgrounds are practically turned into refuse dumps.
- d. Non-compliance to building regulations: planning authorities have provided for 'setbacks' and 'zoning' in all layouts. Setbacks ensure no one encroaches the roads while zoning specifies land use types in any layout area. The abuse of these regulations certainly tempers with the plans and subsequently affects the environment.

The study found that all of the repercussions listed above had impacted negatively on the quality of life of the people living in the study area as well as the integrity of the planning authorities which draw up all the infrastructural facilities to be supplied in the area. The latter includes the relative loss of control and authority, disruptions of master plans, improper land use distribution, urban sprawl, and the onset of other land uses that could cause deterioration of the environment. In short, as Ibrahim (2008) pointed out, haphazard urban development could have much social and medical impact.

#### *Overcrowding*

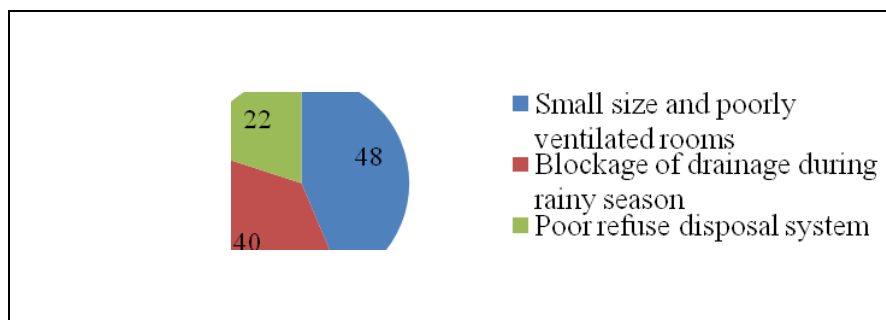
The unauthorized subdivision of residential layouts in Gadon Kaya has had adverse impact on the quality of life of the people living there. As shown in Table 3, large numbers of people reside in the sampled houses thus indicating congestion.

**Table 3. Number of persons per household occupying the subdivided plots in Gadon Kaya**

No. of Person Per Household	No. of Household	%	Average No. of Person Per Household	Actual No. of population in the houses
7-9	20	18.3	1.4	160
10-12	19	17.2	1.9	209
13-15	24	21.8	3.1	336
16-18	36	32.7	5.6	612
Above 18	11	10.0	1.9	209
Total	110	100	13.9	1,531

Table 3 shows that 36 households are being occupied by between 16 to 18 persons and this represents the highest occurrence with 32.7%. There are 11 households that are occupied by above 18 persons per household, while 20 households were occupied by the least number of between 7 - 9 persons. However, there is general overcrowding in the subdivided households as the average number of persons per household was 13.9 persons against Nigeria's projected average household size of 7.3 to 8.1 for 1995-2025 (Oruwari, 1994). The Gadon Kaya figure was also much higher than the Kano state 2006 household average of 5.4 (NBS 2009). This has an alarming bearing as it means diminution of the housing plots from the original 180m<sup>2</sup> to 60m<sup>2</sup> if subdivided into 3 pieces and to 90m<sup>2</sup> if subdivided into 2.

Congestion, furthermore, has direct implications on the quality of living in the area. Figure 2 shows that 43.6% or 48 households experienced the problems of constricted size and poorly

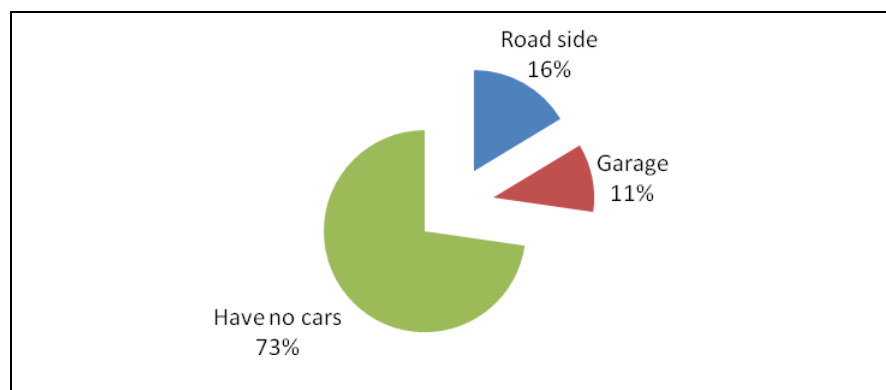


**Figure 2.** Some implications of congestion in Gadon Kaya residential layout

ventilated rooms due to extreme subdivision of the layout. Another 22 or 20% households of the respondents reported problems with the refuse disposal system in the area, as refuse generation and disposal points were not clearly positioned. This had created unhygienic and unpleasant surroundings. Apart from that, 36.4% of the respondents were experiencing drainage problems especially during the rainy season because of the blockage of drains by poor refuse disposal practices.

#### *Unavailability of parking space*

Another consequence of congestion and poor planning is the absence of parking space. According to the original layout plan, all houses are supposed to have enough space to accommodate preferably covered parking of vehicles. Figure 3 illustrates the responses of the occupants concerning where they parked their vehicles.



**Figure 3.** Sites of car parking in Gadon Kaya Residential layout

Among the 30 respondents who owned cars, 12 of them parked in their personal garages, while 18 of them used road sides of the access road within the layout as their car park. This also represents a congestion problem for other people using these access roads. In another instance, 30 respondents or 27% owned a car out of which 40% had personal covered parking while the remaining 60% parked by the roadside. Just like indiscriminate parking of cars on the road, not owning a car in a city can also be an indication of a low living standard.

#### *Water and electricity supply*

The availability of piped clean water and electricity is some of the indicators of residential quality of life in Nigeria. Findings of the study indicate that all respondents (100%) were not getting adequate water and electricity supply signifying a vacuum whereby the demand has outstretched the supply. There is persistent power outage even when there is supply from the Power Holding Company (PHCN). The capacity of the available transformers could not cater for the demand of the settlement despite efforts by certain individuals to provide more transformers in addition to

those provided by the government. The situation was the same for water. The over stretching of the water and power supply had to be supplemented with alternative sources. Resources were expanded in acquiring and maintaining personal generators as alternative power sources. Funds were also required for the provision of alternative source of water supply in the form of bore holes and underground wells. Quality of life of such a settlement, where residents were not satisfied with essential like water and power, according to Dandago (2002), can be classified as low.

Illegal subdivision of plots, therefore, is a problem that could directly impact on the wellbeing of the people living in the affected areas. Its impact may be in the form of congestion, which has a variety of manifestations like improved chances of cerebral spinal meningitis (a common disease in Kano during hot periods); indiscriminate dumping of refuse which breeds mosquitoes and block drainages which in turn causes flooding; overstretching of resources planned for the area, thereby creating artificial scarcity and hardship. Generally, these have caused living in Gadon Kaya to be very expensive due to the needs to make personal arrangements for all those things that are lacking like water, electricity, play ground, standard mosque, and police station .

### **Measures and mitigations**

From the foregoing discussion, it can be seen that illegal residential plot subdivisions have adversely impacted the residents' way of life. The following may be suggested as measures to remedy the situation and prevent occurrence in other areas:

1. A concerted effort by both the government and the people to eradicate the practice of abusing set plans like the layouts through effective awareness raising campaigns.
2. Reviews of the Land Use Act (1979) to decentralize decision making and empower the planning authorities so they can enforce rules.
3. Flexibilities in implementing rules of the layouts so that agencies responsible for setting design standards of the residential plots could accommodate the needs of those who cannot afford to develop the bigger size plots.
4. Improved accessibility of the layouts so allottees would be motivated to develop them.
5. Simplification of existing processes and procedures involved in the formal or authorised subdivisions of the layouts to prevent corruption.
6. Establishment of housing site services schemes to promote order to everyday living in the layouts.
7. Practice of the principle of 'inclusive city' in all new layouts as outlined by the UNHCR.
8. Proliferation of well organised layouts.

### **Conclusion**

Illegal subdivisions of plots are a common practice in Kano city, Nigeria, with about 32% recorded in the study area. Two main reasons are responsible for this phenomenon, namely, economy and inheritance (77%). With the subdivisions, the intended quality of life of the resident is compromised as more people than earlier planned find themselves residing in the area. Thus problems of water shortage, random power cuts and poor sanitation emerge thereby resulting in the residents becoming dissatisfied with the living conditions.

It may be concluded that the situation in the Gadon kaya layout was the outcome of pressures exerted by individuals wanting to build houses and reside there but challenged by low purchasing power. The situation prompted the residents of Gadon Kaya to subdivide their residential plots informally into smaller portions, selling out some portions and using the money obtained to build other portions of their plots. These had created unwanted conditions in the layout, in particular overcrowding in most of the subdivided house plots, thus over stretching infrastructures and services. There were also dilapidated houses and poorly maintained and unhygienic environs. All these conditions brought negative implications on the people of Gadon Kaya and their environment both socially in terms of the unavailability of social services and economically in



terms of the resources spent in securing alternative and additional supplies of the required services.

### Acknowledgement

We wish to acknowledge Sani Shehu Ibrahim and Mrs Halima Salihi Ahmad for their support during the field work and compilation of literature.

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