



Research Article

Transitioning from Ashes and Devastations Towards Community Resilience: The Post-genocide Rwanda's Experience

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Abstract

The 1994 Genocide against the Tutsi marked the worst cruelty that humankind had ever experienced until the 20th century. Latent seeds of cultural violence openly exploded in most vulnerable areas when multiparty politics kicked off in late 1980s in Rwanda. The politicization and manipulation of identity widely won the ground and further resulted in clear dichotomization around two identity groups - that is, Hutu and Tutsi. In Murambi, for instance, district-level leaders most involved in political networks played an instrumental role to rally existing immigrants of Hutu origin in favor of government-led effort to exterminate the Tutsi. In the timeframe of 100 days, Rwanda was turned into ashes and profound devastations. Loss of hope was spread everywhere until resilience, in practice, remained a difficult-to imagine concept afterwards. This paper is a reflection on the direction that community resilience has been taking since the post-genocide period, with strong emphasis on the magnitude of cruelty individual areas (or selected case studies) have gone through. It answers a key question on whether the depth of this magnitude correlates, or not, to the pace with which the recovery process from ashes and devastations has been so far taking place. To do so, the paper investigated some case studies most severely affected to gauge their respective adaptive capabilities to adjust to post-genocide policies predominantly implemented to give a push to the above-stated process. Out of the Maslow's Hierarchy of Needs, the four-pillar model for adaptive capacities helped the entire research process to analyze existing potentials likely to support sustained community resilience. While some external observers seemingly thought that the more severely affected the case studies were, the less adaptative capabilities would be effective and, finally, the more community resilience would be a slow process. An intensive examination of physiological needs and safety and security needs targeted Murambi, Kiramuruzi, and Kiziguro, out of which self-reporting testimonies and existing statistics strongly support remarkable levels of community resilience. Thus, the above-stated case studies have steadily grown resilient in the post-genocide period despite of diverse challenges that continue to metamorphose. Furthermore, they perfectly align with the national level of recovery, following an integrated, equitable and inclusive planning. As the paper concludes, it connects this overall finding to visionary and proactive leadership, as opposed to earlier cycles of inefficient leadership that marked post-independent styles of governance.

Keywords

Community Resilience, Cultural Violence, In/efficient Leadership, Genocidal Violence Recovery

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1. Introduction

The 1994 Genocide against the Tutsi has left no single Rwandan corner immune. However, its magnitude comparatively varied across Rwanda. The former Murambi commune¹ (now part of Gatsibo district) serves as an illustration. Over the post-independent period, this area constantly faced high-level magnitude of genocidal violence. Specific fields such as 1) Cultural violence, 2) Political networks and migration, 3) An immigrant-driven economy, and 4) Multiparty politics are selected to document this background.

2. Culture of Violence

Since the independent era, leaders in Murambi successfully mobilized citizens for ethnic violence. Gatete² exemplifies as fueling the most brutal violence of the 21st Century. Portrayed as typical extremist leader, he championed an ethnic discrimination which further supported quick implementation of the 1994 Genocide against Tutsi. Both the central authorities and ordinary people trusted him as an educated and knowledgeable leader. He also had strong networks with the central government and, as a result, top-down instructions met no obstacle on his jurisdiction. His instructions went straightforward and unquestioned. There were no informal structures to challenge his views and decisions. Community elders were weak enough, were not valued, and did not have a say at all.

As a native of Murambi reported, those in leadership positions had successfully indoctrinated the youth with strong discriminatory ideologies: “The youth could beat the elders. Authorities could encourage young people to beat their parents whenever the latter went out to have a drink with their Tutsi friends. They were promised that the accusations would not be taken into consideration. They accepted because the people in authority positions had told them.” The implications of this behavior became many for the ascendancy of community elders over the youth, as emerged in a focus group discussion held in Karagari Cell: “...family elders from Murambi went through circumstances under which they lost their moral authority over the youth. Hence, they were denied a say on what the [formal] elite did. A local force to counterbalance the formal elite went missing.” Therefore, family elders in Murambi never functioned as vibrant informal structure likely to liaise between communities and formal administration and influence decision-making processes. There was total disruption of the practices of the kingdom time where both family elders and formal elite were inextricably intertwined and could lend

force to each other.

Subsequently, a historian reported, close proximity developed while formal and informal structures perfectly merged within the kingdom structure: “Leadership hierarchy was descending and reaching the activity levels (that is, chiefs in charge of animal breeding, chiefs in charge of land, and chiefs in charge of army) and families. It was a mixture of powers: there were the king, the high-ranking chiefs, the chief of military staff, other chiefs in charge of land and animal breeding, the heads of clans and of families. The heads of clans and of families did not have a political influence but they had a brotherly influence. They influenced the politics to enter the social and horizontal structure.” The kingdom style of leadership depicted a horizontal system of leadership where the network of family relations provided the checks and balances of the exercise of power. In the exercise of power, leaders were not likely to harm their subordinates on unfair basis.

The Republic system of governance not only abolished the kingdom system, but also drastically devalued the above-mentioned historic gains. Afterwards, a vertical structure of leadership replaced the existing horizontal system of leadership. As an implication, an official at the Ombudsman’s office reported, a decentralized system emerged until it skewed from building political legitimacy on the grassroots: “...it only reaches the level of ‘*Umudugudu*’ (settlement); it does not reach the family. As a shortcoming, a leader... [is] appointed to a position because of a given interest and not because of shared family relations. Whenever that interest is no longer there, his or her relation is not there either.” Therefore, the decentralization system “failed to build political legitimacy on the grassroots thinking embedded in the deep structure of the family [3]”. This paradigm shift laid a solid ground for a series of violence that gradually culminated into the 1994 genocide against the Tutsi.

3. Political Networks and Immigration-driven Economy

In the pre-genocide Rwanda, strong political networks paved the way for blind obedience to central authorities. Lower-level leaders strongly engaged in such networks successfully interpose between central governments and citizens to mobilize popular support and keep ascendancy over local-

¹ Murambi counts as notorious pre-genocide commune for high level implementation of the 1994 Genocide against the Tutsi. The magnitude of cruelty is key criterion for which it was chosen for an intensive investigation. The 2006 local government reform merged Murambi with neighboring communes, which collapsed into Gatsibo district.

² Gatete Jean Baptiste served as Mayor from 1982 to June 1993 when he was appointed Director in the Ministry of Women and Family Affairs. After his new appointment, Jean de Dieu Mwange took over. Also, Gatete was an active member of the National Congress of the National Revolutionary Movement for Development

(abbreviated to MRND in French language), the leading political party from 1975 to 1994. On April 11th, 1994, he is reported to have been present at Kiziguro Parish in Murambi commune and instructed members of the Rwandan Armed Forces (FAR), the Interahamwe militia and civilian militia to exterminate hundreds of Tutsi who had sought refuge within the parish compound. The following day (that is, April 12nd, 1994) he was equally present at the time a thousand of assailants attacked and killed thousands at Mukarange parish. He is reported to have distributed weapons to the assailants whom he directed to attack refugees [5].

level leaders. In Murambi, for instance, Gatete met this requirement and initially was native of Murambi of which he later became a leader. He was viewed as educated and knowledgeable leader who successfully kept his presence among the citizenry. Citizens still felt it in a meaningful manner, even after he was appointed Director in the Ministry of Women and Family Affairs, and member of the National Congress of the leading political party. He made good use of this background to support the 1994 Genocide against the Tutsi. As earlier mentioned, he successfully instructed and directed attacks against Tutsi refugees, supervised and distributed weapons to exterminate refugees in Kiziguro and Mukarange parishes [5]. Thus, he corroborated an inefficient leadership that kept alive an already existing culture of violence in Murambi over decades.

The juxtaposition of immigrants with native residents is yet another explanatory factor of this culture. Until the 1960s, there was still balance between arable land and population growth in Rwanda: the first *Rwanda Population and Housing Census* (RPHC) held in 1970 established the resident population to be 3,572,550. Irrespective of this balance, however, land shortages dominantly characterized former Gisenyi, Ruhengeri, Kibuye and Gikongoro prefectures in the 1960s. There was an urgent need for survival, and the administration of the day saw the immigration as a way out of the problem. A researcher was interviewed and claimed as follows: “the administration obliged a part of the population to be transferred [not only] to the Buganza region [to which Murambi belonged], but also to Bugesera, Gihunya (now Rukumberi) and to Rukaryi which is presently Bicumbi.” Equally, the administration operated the displacement of Tutsi from former Gikongoro prefecture mainly to Bugesera. It was not straightforward to identify a politically-motivated and hidden agenda out of this administrative move. Only time led people to read discriminatory ideologies and political calculations from this transfer.

Existing narratives viewed the transfer of the Tutsi to Bugesera and Rukumberi as a continuation of their abuse and physical extermination. Displaced Tutsi were thought to succumb to harder life conditions of these regions that included *Tsé-Tsé* fly in Bugesera. Seemingly, this transfer was not a coincidence; it followed the 1959 Hutu-led Revolution that resulted in the loss of lives and forced many into exile. Conversely, the ‘pure’ Hutu transferred to the Eastern Rwanda with a view of blocking the passage to Tutsi refugees in case they invaded the Eastern Rwanda [2]. The northern immigrants known as the Bakiga particularly flowed into Murambi region in big numbers and considered themselves as ‘pure’ Hutu because mixed ethnic intermarriages did not noticeably exist in their regions of origin. They had preserved an endogamic style of marriage until blood sharing through intermarriages did nearly not exist.

The immigrants landed with prior discriminatory perceptions on people of the Buganza region, as a Community Mediator in Murambi disclosed: “...those people [from Buganza]

were all considered as Tutsi. The immigrants said no Hutu hailed from Buganza. Then, bit-by-bit, people came from different regions and they brought their families until they outnumbered those who were born here.” They first settled in specific places such as Bidudu, Kiramuruzi, and Rugarama. Existing opportunities steadily attracted many more immigrants, and various corners of Murambi were afterwards turned into homes to specific immigrants. Within the timeframe of 1982-1985 alone, Matunguru and parts of Rugarama and Rwimbogo hosted people who moved from Musasa, Ruri, Nyabikenke and many more places while those from Cyangugu headed straight to Ntete. In big numbers, many more immigrants came from Muhazi lakeside areas and rural Kigali. More immigrants came from Bugesera, after they felt higher pressures of famines, and from former Gikongoro prefecture to seek for work.

The immigrants found free and fertile land that was appropriate for both cattle breeding and agriculture on a large scale. They firstly bought and rented land from native residents and settled. Afterwards, they actively engaged in cattle breeding and extensive banana and sorghum planting on a large scale. A few years after, good harvests consistently followed and immigrants successfully drove the economy in Murambi. A focus group discussion held in Karagari cell strongly supports this fortunate change as follows: “a lot of immigrants...could own larger spaces for farming activities from which they became very prosperous.” The immigrants improved their economic situation while the native residents were largely lagging behind. It was a sudden socio-economic transformation that the region had never recorded before. A former village leader in Giti, and native to Murambi, reported as follows: “The immigrants had much beer because they could grow sorghum and banana. They got rich. Other Hutu and Tutsi would go drinking beer over there, working for them and so on. The immigrants became more powerful and started doing business. The native citizenry started serving the immigrants who further ruled over them.”

This socio-economic improvement brought with it an unexpected side effect. On economic grounds, a clear cut was boldly established between immigrants and native residents and degenerated further into an ‘us’ and ‘them’ dichotomy widely documented as powerful driver of violence: “Differentiating ‘them’ from ‘us’ and devaluing them is central to violence against ‘them,’ while a positive view of the other is central to helping ‘them’ [15].” The immigrants’ ‘positive view’ from the native residents remained an absent component in Murambi region. Such an absence largely opened wider ground for ethnic-led dichotomization. Existing community bonding deeply deteriorated on high speed and, as a result, the population was highly dichotomized across times.

To illustrate, an interview held with a former leader in Nyagahinga cell established that: “The immigrants failed to build brotherhood-based relationships together with the native residents (.). When they arrived in Murambi, the burgomaster was not wise enough to advise them on valuable social ties.

One could realize that various meetings he was convening were divisive. He missed the role that a leader was expected to play. A leader is just like a parent. He does not patronize some of his subordinates and just underestimate some others. The immigrants had connived with the burgomaster to mistreat the local residents to the extent that they later on killed them like unknown aliens.” Until the 1980s, this political environment informed the direction of emerging multiparty politics.

4. Multiparty Politics

In the 1980s, the start of multiparty politics became an additional factor that largely aided the genocidal ideology to grow bigger until deadly violence further erupted in Rwanda. This factor found the support of the 1990s ‘*Conférence Souveraine*’ held in former Zaïre (now DRC), the start of the 1990 RPF-led liberation war, and the 1993 political crisis in Burundi, to mention a few. Ethnicity feelings highly rose from this background and closely informed a controversial political environment. The same applied to Murambi as well. At the start of multiparty politics in Murambi, the immigrants were largely eligible for political party membership. Their eligibility was not an accidental happening. Initially, the immigrants had increasingly grown wealthier and most influential actors, at least to refer to a focus group discussion held in Karenghe cell: “... the [immigrant] elites in Murambi increasingly entered political parties. Their recruitment later on served a favorable ground for leaders to mobilize the immigrants into genocide.” Meanwhile, the native residents of Murambi remained comparatively passive to multiparty politics. Similarly, ethnic conscience intensified and the immigrants kept fueling discriminatory perceptions about native residents. An environment for heinous mobilization was firmly set.

At early stage, this conscience unearthed some political calculations hidden behind immigration movements. Beyond an anticipated solution to land shortages and economic hardships, the immigration additionally translated an instrument for political ends. The acquisition of new lands was definitely politicized, instrumentalized; the immigrants joining political parties and further participating in genocidal violence was an indication of recognition and loyalty to the administration, to refer to a focus group discussion held in Agakomeye cell:

The immigrants remarkably contributed to the bad happenings when the political parties started. Local leaders cooperated with high institutions and, afterwards, they sensitized all the people in Murambi and everything suddenly changed. When the political parties started, the same leaders got support from those hailing from the northern part of the country and elsewhere. Then, when the divisions broke, they were pushed by the fact that Tutsi were taken as Inkotanyi’s accomplices.

In view of this background, political variables gave a push into the 1960s immigration that further gave shape to multiparty politics in Murambi. Political networks and the 1990 RPF-led launch of the liberation war registered as additional

drivers while the social environment had already reached the worst level. In this context, the central authorities strongly counted on local leaders to fail the Inkotanyi in invading Rwanda from Murambi. Success in rallying wealthier immigrants into political parties and Interahamwe militia was made key strategy in this regard.

This statement marks a conclusion of the historical background that supports this paper. Among other things, genocidal violence recovery remains an area of interest that needs a series of scientific inquiries. In this regard, the following questions are given due attention: (1) How solid is the foundation laid for adaptive capacities to rise in the aftermath of genocide? (2) How do the variations in magnitude of genocidal violence correlate with the recovery process? The next theoretical models offer tentative explanations and methodological strategies for analysis.

5. Theoretical Models: The Four-pillar Model for Adaptive Capacities

Quickly after the 1994 Genocide against the Tutsi, Rwanda embarked on peacebuilding efforts. At early stages, however, neither the paths to go through were clear enough nor was it possible to predict their pace. Minimalist perspectives would only have argued for proportional pace to the length and breadth of genocidal violence across specific regions. Paradoxically, however, efforts made in the post-genocide Rwanda nearly followed balanced patterns and variations in the progress made are little, if any. In line with existing literature, citizens are acquiring necessary adaptive capacities aimed to support community resilience and easy adjustment after disturbance or adversity [13], referred to as genocidal violence perpetrated against the Tutsi in the context of this study. As community resilience goes, three decades after genocide are good start for the “time required for the system to return to equilibrium once displaced [13]”. Conceptually, that is all about resilience! Hence, community resilience defines a process through which adaptive capabilities are acquired.

It is not accidental that the term resilience is compounded with community. To Pfefferbaum et al. (2005) and Rose (2004), view community resilience as far beyond a collection of resilient individuals. As they argue, the “whole is more than the sum of its parts [13]”. Therefore, to support Brown and Kulig (1996), “People in communities are resilient together [13]”. Like any disaster or adversity of same scale as the 1994 Genocide that befell the Tutsi in Rwanda, it has emerged that the victims ‘collectively experienced’ strong hardships. Thus, the post-genocide Rwanda has ever called for collective resilience. Different models are used to analyze the acquisition of adaptive capacities regarded as strong base for such resilience. This paper chose to use the Norris et al. (2008)’s four-pillar model to reflect on the specific case of Rwanda. As this model goes, the (1) Economic Development, (2) Social Capital, (3)

Information and Communication, and (4) Community Competence form the strategy base for community equilibrium.

This paper does not systematically analyze all the four pillars of this model. For methodological convenience, it sought the support of a few strategic variables selected from the *Maslow's Hierarchy of Needs* [8] for this purpose: (1) Food security, (2) Employment opportunity, (3) Quality shelter, and (4) Clean water supply. The intent was to lean from these variables and draw tentative conclusions on the acquisition level of adaptive capacities in the post-genocide Rwanda. Irrespective of possible limitations, available data on these variables aided this analysis to grow. Strong recognition goes to the lack of specific data at the lowest community levels. Thus, it is difficult to establish useful baselines for the units established for analysis; little is known, if at all, about their pre-genocide situation. This is key methodological deadlock!

Alternatively, this paper analyses the progress made at sector level and draws conclusions vis-à-vis national, province, and district levels. Across Gatsibo district, Kiramuruzi, Kiziguro, and Murambi sectors are selected from former Murambi commune for an intensive examination of their recovery progress from genocide wounds. The population share of these sectors amounts up to 26% of the total district population (551,164). Respectively, they represent 73.2%, 85.6%, and 100% and predominantly rate as rural areas [10].

In as far as the above-selected case studies are concerned, discussions about community resilience in post-genocide era inevitably reflects the legacies of deadly devastations that only turned Rwanda into ashes in 1994. Wider gaps in human needs emerged and, as a result, relevant partners intervened to boost community resilience. The *Maslow's hierarchy of needs* serves as an analytical tool used to grasp the outcomes of subsequent interventions. It is a five-tier model of human needs that collapse into three categories - that is 'basic needs,' 'psychological needs' and 'self-fulfillment needs.' Lower categories serve as necessary prerequisites for the next levels to exist. Thus, this model is fit to benchmark the levels of community resilience in the administrative sectors selected as case studies. A strategic emphasis is put on the category of 'basic needs' with an intent to draw conclusions on the potentials it carries to support 'physiological needs' and 'safety and security.'

5.1. Physiological Needs

Existing terminologies view physiological needs as biological requirements - such as air, food, drinking, shelter, clothing, sex, and sleep - for human survival. Total or partial deprivation puts life in danger. For methodological convenience, this paper does not discuss all these components. Strong emphasis is rather put on a few components, out of the list, most likely to shed light on the case studies.

5.1.1. Food Security

Worldwide, food security is key to the survival of all human beings. Its scarcity or total absence, drastically affects the

quality of human lives. It takes different natures and its satisfaction remains 'relative' in practice. Obviously, it depends much on residence arrangements. For instance, Rwanda has been predominantly rural country where agrarian activities and livestock husbandry largely feed citizens most. The first RPHC 1978 revealed that 94.4% (6,763,612) of total population (7,162,565) resided in rural areas and derived livelihood from those sources [11]. Until the 5th RPHC 2022, this trend persisted and sustained some decreases in percentages of rural population: 72.1% (9,545,149) were rural population while 27.9% (3,701,245) resided in urban areas. Such decreases find explanation in the growth of urbanization formerly estimated at 5.6%, as the 2nd RPHC 1991 established. Urbanization pulled many out of agriculture who subsequently derived livelihood from non-farming activities. However, food insecurity remained present because of scarce and poorly fertilized land. Gaps between population growth and arable land consistently widened over time. Thus, embracing new technologies became not an option, but an obligation, to cope with this trend. Small-scale professional activities came into existence and non-farming activities subsequently contributed to citizens' livelihood. The technologies performed through an array of value chains and demonstrated higher capacities to rise food quantity and quality. Eventually, this move has marked a smooth transition from subsistence to commercial agriculture.

During the 19th National Umushyikirano Council held in January 2024, the green revolution won a lot of credits and was depicted as foundational basis for emerging technologies. Notably, the latter included terraces (1,147,434 hectares), irrigation (48,000 hectares in year 2017 and 71,000 hectares in year 2023), and fertilization (32 Kg per hectare in year 2017 against 70.3 Kg per hectare in year 2023). Satisfactorily, they freed wider arable land and supported the growth of one-crop system on larger scale. Similarly, livestock husbandry quickly modernized and the productivity increased from 700,000 liters of milk in year 2017 up to 1,000,000 liters in 2023. A smooth transition from the search for subsistence to small-scale industrialization is in good process and likely to provide rural dwellers with cash [14]. Land productivity benefits the support of infrastructure network that ensures delivery system at a reasonable cost and serves a multitude of potential consumers [1]. Efforts so far made have greater leverage in this direction and guide the reflection into the case studies.

The Eastern Province, in general, and Gatsibo district, in particular, are consecutively home to the case studies and significantly show the propensity to serve numerous potential consumers. At this district, for instance, 78.5% (106,895) of private households daily engage in agriculture activities. It counts 72.0% (98,023) of the households in crop farming while 53.7% (73,199) invest in livestock husbandry. Although Gatsibo district predominantly lives on agriculture activities, there are important variations across sectors under study. Comparatively, Murambi (88%) highly ranks in terms of agricultural households than Kiramuruzi (76.8%) and Kiziguro

(76.5%). Similarly, Murambi (83.3%) highly competes Kiziguro (70.4%) and Kiramuruzi (70.2%) in as far as crop farming is concerned. Maize, rice, sorghum, wheat, beans, soybeans, cassava, sweet potatoes, Irish potatoes, and yams and taro satisfactorily support food security in this geographical boundary. In priority order, the majority of the total private households (10,194) grows maize (5,586), beans (5,575) and fruits (5,014) in Kiramuruzi sector. The same order applies to Kiziguro sector (with 9,993 total private households) where maize (5,129) comes first, beans (5,042) second, and fruits (4,056) third with remarkable difference. Conversely, in Murambi sector (with 9,225 total private households), beans (5,969) rank first, fruits (5,794), and maize (4,600) lastly follows also with remarkable difference.

Agriculture activities run hand in hand with livestock husbandry which has become another avenue for food security. Cows (925,808 HHs), goats (643,420 HHs), chicken (396,161 HHs) and pigs (494,305 HHs) are nationwide examples of the types of livestock most privileged in private households. The Eastern Province has important shares distributed as follows: goats (241,558 HHs), cows (166,551 HHs), pigs (78,815 HHs), and chickens (119,812 HHs). The historical context of Rwanda clearly explains these competitive shares across provinces. This region became the home of many Rwandan refugees previously repatriated from Uganda in 1994. Upon arrival, the land was predominantly free and fit for grazing pastures. As a coincidence, most returnees repatriated together with their cattle and subsequently perpetuated an existing culture of cattle breeding in this region.

Particularly, Gatsibo district was widely known as land of cattle. Until the 5th RPHC 2022, this perception prevailed and could explain huge amounts of livestock available. Private households predominantly engaged in raising cows (40,210 HHs), goats (39,830 HHs), pigs (12,099 HHs) and chickens (18,131 HHs). The sectors under study have remarkable shares in these figures. In Murambi, for instance, private households comparatively took the lead across sectors: cows (3,528 HHs), goats (3,412 HHs), pigs (1,084 HHs), and chickens (1,146 HHs). On chickens, however, Murambi sector (1,146 HHs) rates low as compared to Kiramuruzi sector (1,418 HHs). Also, private households in Kiramuruzi turned second in the raising of cows (2,069 HHs) and goats (3,116 HHs) while pigs (848 HHs) comparatively rated low across sectors. Finally, private households in Kiziguro took the third ranking with cows (2,493 HHs), goats (2,208 HHs), pigs (904 HHs), and chickens (1,012 HHs). Across sectors, the private households involved in livestock husbandry own an average close to 20% of existing types of livestock in Gatsibo district. In same district, the distributions of such types ranked as follows: cows (21.1%), goats (21.9%), pigs (23.4%), and chickens (19.7%). At the level of the case studies, Murambi (63.6%) still competes Kiramuruzi (51.2%) and Kiziguro (47.8%) vis-à-vis livestock husbandry.

On average, the case studies statistically ranked higher than the host district against all the variables measured. This fact is an indication of fair ranking in the sources from which citizens derive livelihood. Put another way, these case studies are particularly gifted with enough and diversified food required for food security. The ranking gives a feel of citizens' satisfaction for food security though there is no baseline available to serve as reference for the progress made in the post-genocide Rwanda. The trend in data equally informs high-level equity in service delivery to citizens and, hence, equal chance to access food security.

5.1.2. Quality Shelter

Shelter is equally vital need to human beings and another key component of physiological needs. The 1990 hostilities not only culminated into the loss of human lives, but also targeted strategic infrastructures. Demolishment nearly turned Rwanda into ashes. An already poorly designed housing extremely suffered heavy devastations that irrefutably marked an extreme level of human barbarity. The majority of houses were washed away and many others left in poor conditions. All the benefits of the year 1977³ were completely made in-existent.

Sooner after the 1994 Genocide against the Tutsi, the need for shelter was made a prerequisite for life to go on. Emerging technologies gave strong impetus to infrastructure development and, as a result, housing design grew improving. They improved some houses that still bore grass roofs and mud walls. Equally, the government of Rwanda spearheaded nationwide awareness campaigns and, in turn, increasingly led citizens to aim at decent houses constructed in solid materials. Currently, the majority of houses with iron sheets on the roofs and mud walls have flourished and, gradually, some residence houses are being built into solid construction materials.

The 5th RPHC 2022 has established a remarkable progress made over the last three decades: 98.9% of the total population (13,246,394) own individual private households after widespread demolishing of houses. Extra efforts need only to focus on quality improvement among low-income social categories. This recovery process finds remote roots in heavy historical background of Rwanda. Until the post-genocide time, to start, housing regulations did nearly not apply to daily practices. Dispersed or isolated habitat was predominantly the norm. This new era came up with master plans and, as a result, each single Rwanda piece of land is assigned a particular use. Efficient use of land has keenly considered the prescribed style of habitat.

Like most parts of Rwanda, the 5th RPHC 2022 predominantly associates the Eastern Province with 'planned rural settlement' also known as Umudugudu settlement (86.5%). 'Dispersed or isolated habitat' is low-level represented (7.4%). A

³ As part of the state of the nation address, previous governments of Rwanda used to assign a special focus to the next year. Thus, the year 1977 was assigned to be

'*Umwaka wo gutura heza kandi neza.*' Literary, it aimed at descent and safe housing across the country.

similar trend widely prevails at both Gatsibo district and sector levels. Gatsibo district registered the predominance of Umudugudu settlement (80.5%) while only 13.8% of total population belong to 'dispersed or isolated housing.' To some extent, the sectors under study roughly reflect the district-level estimates. In view of 'planned rural settlement' and 'dispersed or isolated habitat', exceptions are made to Kiziguro (87.5% and 9.7% respectively) and Kiramuruzi (84.1% and 11.3% respectively) followed by Murambi (80.4% and 15% respectively) whose records nearly equal to the district-level estimates. In the end, the ownership level of private household is satisfactory.

Moreover, the 5th RPHC 2022 established non-negligible numbers of tenants though it remained silent on whether these numbers apply to natives or to immigrant civil servants. Importantly, it does not indicate if they signify people owning extra private houses they release for rental returns. Whichever case may be, findings highlight that citizens own 79.1% of housing units across Gatsibo district while 15.2% exercise a tenant status. At sector level, Murambi (86.6%) competes Kiziguro (74.6%) and Kiramuruzi (73.8%), and all together surpass the Eastern Province average (72.1%) of individuals owning house units. They are also slightly close to the district-level average (79.1%). The quality of housing units can only be an indication of value addition to the above-stated averages.

In most case study sectors, housing units are predominantly covered by iron sheets (99.9%). The average (99.9%) is far higher than that of national level (74.1%) and is almost equal to that of the Eastern Province (98.9%) and of Gatsibo district (98.8%). Across these administrative hierarchies, moreover, 'sundried bricks with cement' are the materials least used on walls: 36.3% nationwide, 36.4% in the Eastern Province and 30.1% in Gasabo district. The same as sector level - that is Kiziguro (28.9%), Kiramuruzi (27.2%), and Murambi (12.6%) - the proportions are still below the mean. Against the use of 'wood with mud and cement' on walls, the same trend applies to Kiziguro (15.1%), Kiramuruzi (14.1%) and Murambi (12.2%). Citizens still use most the 'wood with mud and cement' and 'wood with mud without cement.' Across case study sectors, Kiziguro (15.1%) and Murambi (47.5%) respectively rate higher.

In view of this background, impressive progresses are registered though poor sanitary conditions (e.g., Jiggers) still fuel high risks. This statement finds legitimacy in the fact that the materials for the floor remain rudimentary in most housing units. Lower averages at national (60.4%), Eastern Province (60.9%), and Gatsibo district (67%) hierarchies are supportive facts. In addition, the earth is most frequently used material on the floor of the housing units. In Gatsibo district alone, very few housing units use cement (22.7%) and dung hardened (9.3%) relatively at small scale. Across the case study sectors, notably Murambi (18.9%), Kiziguro (18.4%) and Kiramuruzi (15.9%), the use of dung hardened is evenly recorded with minor average differences. Also, low-level consumption of elec-

trical energy lags behind scarce numbers of modernized housing units. Existing power infrastructures did not support the modernization of housing units to expected levels. In view of connection of private households to the national grid, the records registered in the case studies perfectly follow the trends reported nationwide (52.5%), at Eastern Province (47.2%) and Gatsibo district (35.6%) levels.

For instance, 'grid connected households' rank least in Murambi (28%) after Kiramuruzi (49.5%) and Kiziguro (50.1%). These sectors are largely well positioned: their respective records are slightly higher than those registered in upper layers of administration. Nevertheless, energy consumption remains set for restricted uses. At district level, 48.8% of the population of Gatsibo use electricity as source for lighting. The cost of boiling water, and of smoky traditional fuels such as wood, crop residues, and charcoal for cooking remains high. It reflects the failure in "reducing indoor air pollution and the incidence of respiratory illnesses [while] access to electricity...helps to improve hygiene and health [1]". This challenge remains shared among most low-income countries in general and the sub-Saharan Africa in particular. Until 2010, less than one in five Africans had access to electricity [1]. Similarly, Gatsibo district-level connection to the national grid (35.6%) is still low, with Kiziguro (59.2%), Kiramuruzi (57.1%), and Murambi (54.1%) sectors having important shares and diverse uses of electricity.

Beside lighting, electricity supports the growing ownership and use of electronics devices in the Eastern region. In Gatsibo district, for instance, examples highlight the possession of radio (76.5%), mobile phones (71.4%), smartphones (12.9%), TV (6.3%), and computers (1.3%) in private households. Comparatively, radios and mobile phones emerged the most popular devices. At sector level, private households possess radios as follows: Kiramuruzi (79.2%) takes the lead while Kiziguro (77.3%) and Murambi (71.6%) respectively follow. Against the possession of mobile phones, Kiramuruzi (75.4%) similarly competes both Kiziguro (73.4%) and Murambi (65.8%). These devices have created the need for maintenance service and, hence, an opportunity for small scale employment.

Among other benefits, the electricity connectivity is useful for internet access that supports service delivery nationwide. Therefore, this internet access is regarded as key government priority. The 5th RPHC 2022 established that 22.2% of private households nationwide count at least one member with access to internet. The Eastern Province alone has the share of 18.1% while Gatsibo district is 15.5% connected to internet. At sector level, Kiramuruzi (21.5%) is a leading consumer while Kiziguro (18.1%) and Murambi (9.2%) consecutively follow. Irrespective of minor differences involved, these sectors have fair positioning with regard to internet access in Gatsibo district. There might have been remarkable increases in these figures after the government provided local health volunteers, and others, with smartphones to ease the reporting on their assignments.

To sum up, electricity connectivity has long served as key

pillar for quality life in many fields. Though the coverage level still looks small, the benefits have fairly emerged satisfactory in view of detailed statistics earlier presented. However, access to electricity is not yet affordable to many citizens to satisfy their needs. It nearly doesn't support cooking activities. The 5th RPHC 2022 states that firewood is the predominant source of energy for cooking: 76.1% in Rwanda, 83.8% in Eastern Province, and 89.7% in Gatsibo district. Across sectors, Murambi (94.1%), Kiziguro (88.7%), and Kiramuruzi (86.3%) reflect the same trend. As implications, firewood searching opens the ground for environment degradation through excessive deforestation. This context offers an explanation to numerous disasters Rwanda previously faced. Since children mostly engage in firewood searching, school drop-outs might follow. Finally, this situation keeps women busy with domestic assignments and is likely to hold them far away from public spheres.

5.1.3. Clean Water Supply

Like food, and shelter, water is fundamental and vital necessity for human beings and wild and domestic animals to survive. The existing literature goes far to ascertain that "Access to clean water and sanitation helps to improve health and thereby productivity [1]". Thus, scarce or total absence of water terribly puts life of all the living at high risk. This statement strongly supports the campaigning slogan from Rwanda according to which 'clean water is a source of life' where it has remained one of key driving forces for citizens wellbeing. Existing water sources and the minimum requirement of standards serve a basis for conclusions on the validity such a slogan carries.

The 'improved drinking water sources' are identified as the most water sources used in Rwanda. They include mineral water, internal pipe born water, pipe born water in compound, pipe water from the neighbor, and public tap out of the compound. Nationwide, the 5th RPHC 2022 established 82.3% representation of these sources. Only 17.7% of private households used 'unimproved drinking water source.' This average appears comparatively low but remains qualitatively far bigger and is likely to drive communicative diseases. Only wider coverage may prevent this likelihood. Irrespective of the above-stated gap, lower levels of administrative hierarchies slightly deviate from the national average with marginal differences.

For instance, the Eastern Province (81.1%) and Gatsibo district (78.4%) provide significant facts to portray high-level equity in the distribution of improved drinking water sources. The same goes at sector level: Murambi (88.7%) and Kiziguro (80.5%) are close to the national average (82.3%). Only Kiramuruzi (51.2%) visibly skewed from this trend. Almost half of its private households (48.8%) use 'unimproved drinking water sources.' There would be high risk for communicative diseases to erupt if any catalyst emerged. Comparatively, urban areas (92%) use 'improved drinking water sources' than rural areas (76.8%) do. As earlier said, rural areas (23.2%) run

higher risks for diseases eruption than in urban areas (8%). Policy-making efforts need to keep vigilant eyes with a view to bridge existing gaps.

Against geographical settings, however, the cases under study challenge the patterns earlier identified. They variably rate high as rural sectors and, as a paradox, they highly use 'improved drinking water sources.' Depicted as 100% rural sector, Murambi (88.7%) is leading in the use of 'improved drinking water sources.' Kiziguro (80.5%) follows though it is viewed as 85.6% rural sector. Kiramuruzi is comparatively less rural sector (73.2%) and, according to earlier patterns, was expected to score higher. To the contrary, it rated 51.2% in the use of 'improved drinking water sources.' This is 37.5% away from Murambi initially depicted to be 100% rural sector. A separate discussion would need to carefully go deeper into the historical background and socio-political governance of former Murambi commune to understand this pattern.

5.2. Safety and Security Needs

Earlier discussions fully documented some indicators of on-going recovery process from Rwanda's dark past. A foundation is strongly laid and supports sustained transition towards *safety and security needs*. The next discussions analyze the potentials available to ensure the likelihood for Rwanda to control its destiny.

5.2.1. Employment Opportunities

To catalyze "significant effects on local land values and employment [4]", some theoretical models strongly support government-funded infrastructure investments as key factor. It emerges that '*public investment*' also known as '*public works*' remarkably results in well-focused decentralization of employment. Across advanced, emerging, and low-income developing economies, previous attempts correlated public investment in the infrastructure with direct employment development. In most cases, electricity, roads, schools and hospitals, and water and sanitation served as entry points for their analytical stands. For instance, the International Labor Organization [6] observed as follows: "one percentage point of global GDP in additional spending on public investment can create more than seven million jobs worldwide through its direct employment effects alone... [12]". Equally, the International Monetary Fund [7] goes far to estimate the creation of 20-33 million jobs as total impact of one percent of GDP. Upon spending US\$1 million on public infrastructure, the number of jobs created also varies from advanced economies (3-6.6), emerging market economies (10.4-17.2) to low-income developing countries (16-30.2) [12].

This theorizing applied to Rwanda in many respects; a standalone reflection would gather macro-level data to support this statement. Strategically, this paper deliberately chose to stick on the micro-level growth of employment. In Rwanda, agricultural activities and livestock husbandry have counted as major professions. The 2nd RPHC 1991 established that

94.5% (6,766,357) lived in rural areas while 5.5% (391,194) lived in urban cities. Only an estimate of 49.9% (3,569,436) of the total population (7,157,551) was economically active. Importantly, 90.9% (6,506,214) of economically active population engaged in agriculture, livestock husbandry, fishing and or hunting. Out of this proportion, 66% (4,294,101) were self-employed and independent agriculturalists where 25.5% (1,094,996) rendered family support free of charge. Among Kigali City dwellers, 20% (1,301,243) of active population derived the living from agriculture. Also, 7.6% of active population earned a monthly salary while only 0.1% of the same population were employers. Due to almost inexistent informal sector and weak formal sector, citizens hardly had their destiny under control. In similar cases, earlier studies argued for green investments and city development as options aimed to boost the employment opportunities [12]. Accordingly, previous discussions have depicted the benefits of green revolution as strong basis for emerging technologies in Rwanda.

Otherwise, the 5th RPHC 2022 established remarkable changes in the ratio of Rwandan urban-rural residence arrangements and in the nature of employment. For instance, 72.1% of the population live in rural settings against 27.9% living in urban areas. An increase from 5.5% (see the 2nd RPHC 1991) to 27.9% leads the Ministry of Economic Planning and Finance to view Rwandan population as “rapidly transforming from predominantly rural to a large urban population [9]” and carrying important implications. The urban area has truly qualified as physical, social and economic environment: “Urban area is in most of the cases characterized by high concentration of population, diversified economic activities, many and better infrastructures [9]”. As the population rapidly embraces urban style of life, economic activities transform from farming to non-farming activities and support financial security among citizens. With regard to earlier paragraphs, the growth of power and water sanitation infrastructures equally pointed in this direction as they leverage opportunities for non-farming job creation.

5.2.2. Current Status of Employment in the Case Studies

Job creation has become key benchmark for financial security in growing societies. In fragile societies, it protects non-employed working age groups (i.e., the youth) from falling prey for manipulations. In Rwanda, the employment to working age population ratio translates “...the capacity of the economy to provide employment to a growing population. A decline in the employment to population ratio is often regarded as an indicator of economic slowdown and a decline in total employment as an indicator of a more severe economic downturn [10]”. How does this theoretical assumption translate into practice? How do the cases studies align with the national-level employment? This is only a sample of questions whose

answers can shed light on the progress made towards financial security.

To start, the nationwide employment to population ratio amounts to 45.9% and, according to the 5th RPHC 2022, is lagging behind the acceptable mean, with varying levels in urban (53.5%) and rural (42%) areas. These variations relatively portray the spatial distribution of Rwandans predominantly viewed as rural (72.1%), which similarly applies at province level. The employment to population ratio is slightly higher (47.9%) in the Eastern Province than the national-level ratio. There are only minor differences between urban (53.1%) and rural (46.5%) settings. The employment to population ratio in Gatsibo district slightly surpasses the earlier-established national-level ratio. Largely known as predominantly rural areas (90%) and less urban areas (10%), this district recorded 48.8% of the employment to population ratio. Geographically, urban areas (57.5%) still compete rural areas (47.9%) though the differences are comparatively low.

Even if the differences are quantitatively small, they still bear a qualitative argument of major importance. These differences point in a ‘positive’ direction of the employment to population ratio. Luckily, both the Eastern Province (47.9%) and Gatsibo district (48.8%) perfectly align with the national-level record (45.9%). Positive improvements in the national-level of employment to population ratio would reflect visible impact on lower administrative hierarchies: the minor differences simply portray early stages of Rwandan economy to fully provide employment to a growing population. There is a need for steady efforts aimed to sustain an existing trend. ‘How do the cases under study fall in this trend?’ is another legitimate question of interest at this level.

In the first place, these case studies are dichotomized around urban and rural settings. Kiramuruzi (73.2%), Kiziguro (85.6%) and Murambi (100%) are highly rural sectors and proportionally associate with low-level employment to population ratio. Fortunately, there are potentials available for further employability opportunities at all the hierarchies of administration. In addition to the above-mentioned low-level ratio, available data are not sufficiently detailed and fit enough to establish the sector level of employment to population ratio across these cases. Available data for Gatsibo district, where the same case studies belong, can only be disaggregated and used to draw relevant conclusions. As it emerges, an increase in ratio was established from age group 16-19 to 35-44 across males and females, while it decreased from age group 45-49 to 85 years and above because of retirement.

Males (70.6%) found in the age group 30-34 recorded the highest employment to population ratio while females (53.4%) from age group 40-44 followed. It is difficult to disaggregate these district-level age groups and their 202 corresponding employment to population ratios into sector-level shares.⁴ Only the 5th RPHC 2022 came up with rough estimates. It indicates 40.3% and 42% as the employment to population ratio

⁴ Available data on the distribution of resident population of Gatsibo district mostly highlight the marital status through the lens of age group. It is difficult, if

not impossible, to distinguish males from females and to distribute them across sectors.

among the age group of the youth (16-30), respectively at national and province levels. Out of 42%, Gatsibo district alone owns the share of 42.3%. Unlike Murambi sector (40.2%), Kiramuruzi (43.4%) and Kiziguro (41.5%) sectors slightly scored higher than the country's mean (that is, 40.3%). Above all, the employment to population for Kiramuruzi sector (43.4%) is slightly higher than that of host district (i.e. Gatsibo). In many regards, the employment to population ratios in the case studies are evenly distributed. Therefore, the employment to population ratio in the case studies relatively aligns with the pace found at national, province and district levels. The youth demonstrated remarkable engagement in the search for employment opportunities and job creation.

Among youth aged 16-30, for instance, 56.4% are currently employees, with 33.9% self-employed in Gatsibo district. While self-employment was made a key pillar for poverty reduction policy in Rwanda, 33.9% is good start of relief for the government, widely understood as major employer. Across case studies, Murambi (43.6%) counts the biggest share of self-employed youth while Kiramuruzi (33.8%) and Kiziguro (31.8%) respectively follow. Similarly, there are little differences in shares of self-employment between Gatsibo district (33.9%), the Eastern Province (29.8%), and the national level (25.5%). Against these statistical figures, the case studies have marked visible progress in financial security after the 1994 ashes and deep devastations. Therefore, a good start towards community resilience is given a chance to rise out of well-thought support to local initiatives.

6. Conclusions

In view of ashes and devastations that Rwanda experienced, the idea of resilience remained a dream to many in the aftermath of the 1994 Genocide against the Tutsi. In most affected areas, Rwandans were profoundly desperate. Three decades after horrible cruelties, this paper used existing statistics to portray ongoing resilience progress understood as live phenomenon centered around a visionary and proactive leadership. A focus on the 'basic needs' categorization in the *Maslow's Hierarchy of Needs* was put at good use to determine citizens' level of satisfaction and the potentials it offers throughout this theoretical model. Irrespective of variations in the magnitude of genocidal violence across Rwanda, statistical records emerged satisfactory and indicated that adaptive capabilities are forming and, as a result, the system is increasingly normalizing and getting much better. The case studies visibly align with this overall finding and show no room for inefficiencies after they succumbed on extreme cruelty, as a result of inefficient leadership.

Abbreviations

DRC	Democratic Republic of Rwanda
FAR	Rwandan Armed Forces

GDP	Gross Domestic Product
HH	Household
MRND	National Revolutionary Movement for Development
RPHC	Rwanda Population and Housing Census
RPF	Rwanda Patriotic Front
TV	Television

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Theogene Bangwanubusa: Conceptualization, Investigation, Methodology, Writing – original draft

Conflicts of Interest

The author declares no conflict of interest.

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