

The Construction of Household Waste Territories in Yaounde: A Centre-Periphery Analysis

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Abstract

This contribution engages an analysis of the complementarity relationships in local waste management to the requirement of a coherent urban governance that is informed by the theoretical approach of the centre-periphery relationship. It is interested in the essence of the construction of the central and peripheral territories of household waste as a result of the processes and logics of central and peripheral actor figures. The choice of the study area was made in response to the objectives of analyzing the logics of spatialized actors and observing the practices of household waste circulation in these different spaces. We analyze two scales of entry: the Yaounde urban community and the district councils [of Yaounde 6 and 3] that make up the community, which are more marked by a strong pre-collection and collection of household waste by the private sector on the one hand, as well as Hysacam. Data collection was based on a variety of institutional and scientific documentary sources and on non-structured interviews with officials and non-officials. The Yaounde Urban Council (YUC), pre-collection operators, NGOs and waste collection companies—PAN and Hysacam constitute sites of investigation.

Keywords

Central Actor, Peripheral Actor, Waste Management, Construction of Territories and Yaounde

1. Introduction

Yaounde (Yde), just like other urban areas elsewhere in Cameroon, had a composite population of about 2.4 million inhabitants in 2011. The most relevant estimates, including that made by the Central Bureau of Census and Population

Studies in Cameroon (BUCREP), give levels of inhabitants reached in the years 2017, 2022 and 2035 at 3.0 million, 3.6 million and 5.6 million respectively (Bucrep, 2011). The informal settlements represent 33% of the total population. Peri-urban neighborhoods account for more than 33% of the population. Demographic progress has led to spatial extension and to the development of new districts such that the city now counts a total of 150 districts¹ nowadays. According to a study carried out in the year 2000 by AGRO-PME, the populations of informal districts and peri-urban areas, correlatively, of the order of 518,630 and 311,000, produce, 0.63 and 0.89 kg/inhabitant/day of waste, corresponding to a total production of 311.2 tons/day and 276.8 tons/day. The waste disposal sector is still confronted with the problem of rough and unpaved terrain. Several of these districts are, on the whole, inaccessible to the waste collection operator and weaken their equipment. Despite the subsidies allocated by the State for the public waste service in cities with more than 100,000 inhabitants—98 billion FCFA between 2008 and 2012—these resources remain insufficient².

One category of research on waste management, is fundamentally interested in innovative and alternative forms of waste management (Dumain & Rocher, 2017), in the development of recovery activities (Benelli et al., 2017) and in the standardization of the behaviors of various actors in terms of selective waste collection and sustainable development (Rumpala, 1999). These studies are also interested in material and energy flows at the level of a territory (Durand, Bahers, & Beraud, 2016), while considering the logics of interdependence between waste-producing and waste-receiving territories and in the modes of privatization of the said sector (Jaglin et al., 2018) in the face of the state's dominant role in decision-making (Barthe, 2006). This reveals, in addition, that the issues of urban waste governance are not alien to public and environmental health concerns (Le Dorlot, 2002). Another category of studies that questions the logics of power at the center of waste management (Merino, 2010), deals with the spaces of elite political legitimization (Bouju, 2004) and the dynamics of conflict (Goddard & Donzel, 2014) that run through them and which pit public authorities and civil society against each other around multiple issues (Bobbio, Melé, & Ugalde, 2016). These two categories of studies have the advantage of highlighting the logics of action and actors that structure local management of household waste. However, one aspect of this management is under explored. It is a matter of paying attention to the positionality criteria of the center and periphery actors related to specific territorial dynamics.

Researches in political science focused on the center-periphery theoretical framework in the analysis of territorial dynamics (Badie, 1994, 2014) are mainly oriented around the logics of the stateization of society and the “territorialization of politics”. They have paid attention to the development of the political

¹In 1956, 1968, 1981, 1992 and 2000, the area of the city of Yaounde is, progressively, about 1740 ha, 2920 ha, 5300 ha, 13,500 ha and 18,000 ha.

²The Yaounde Urban Council (YUC) has become since February 2020 and from the law on the general code of decentralization of December 2019, the council of the city of Yaounde which brings together in its council the mayors of the district councils of Yaounde, 7 of them.

center, revealing the extent to which it aspires to a monopoly of public policy in order to respond to a need to integrate the periphery, particularly society and the colonies, into a single territorial entity. Research in political science, within that center-periphery theoretical framework, is also concerned by the processes of bureaucratization of the political system, whose ambition is to deal with the demands that emerge from the social periphery. Some studies are more committed to examining the constant productive dynamics of political modernization whose aim is to ensure the perpetuation of the political center and its domination over society. Beyond these interesting aspects informed by center-periphery theoretical framework, this paper examines these territorial dynamics as structured, simultaneously, throughout collective—interaction/interdependence between public and private actors—and differential—each public and private actors—appropriation by the central and peripheral actors, whether these actors are individual, scientific, economic or political.

The central and peripheral actors are considered in dynamic processes with several interactions including the relations of autonomization and interdependence (Beavon, 1977) which are useful to locate the transactional frameworks and bipolar relationships that govern territorial waste management. Concerning the relations of autonomization, it evokes the existence of a relatively watertight boundary of action that separates the territory of action of the categories of actors into two geographical sectors—center and periphery. As for the relations of interdependence that are more observable in the actors' transactions, they are characteristic of a territorialized "relational co-production". These transactions are permeated by power dynamics that are apprehended through "[...] by the acts through which the government" (Laborier & Lascoumes, 2004: p. 39) operationalises the lives of local populations, which corresponds to a territoriality, i.e., a conscious and desired spatial strategy whose ambition is "to affect, influence or control resources and people, by controlling area" (Sack, 1983: p. 1).

We formulate the conjecture of a construction of household waste territories that are both differential and interpenetrated due to the functional interdependencies between central and peripheral actors. This, on one hand, corresponds to the territorial management of waste, from the center, which is not limited to the analysis of the territorial targeting of State interventions (Estèbe, 2004) via the Yaounde Urban Council (YUC), the sectorization of public interventions and the territorial framing of public responses (Taiclet, 2011). Referring, thus, to processes both conditioned by the development of private technical resources—experts and private entities—peripheral by the YUC and the mobilization of strategic and operational resources specific to the latter [YUC] and, on the other hand, refers to the peripheral dynamics of appropriation of waste territories by the mobilization of a structuring private expertise and enhanced by knowledge and technicalities structured in learning and professional spaces.

The choice of the study area was made in response to the objectives of analyzing the logics of spatialized actors and observing the practices of household waste circulation in these different spaces. The choice of the Yaounde city peri-

meter does not take into account an urban/peri-urban dichotomy based on geomorphological and geo-structural properties. We analyzed two scales of entry: the Yaounde urban community and the district councils [of Yaounde 6 and 3] that make up the community, which are more marked by a strong pre-collection and collection of household waste by the private sector on the one hand, as well as Hysacam. The Biyem-Assi, Mendong and Simbock neighborhoods—Yaounde 6—and Damas—Yaounde 3—were used as observation sites. In fact, because of the contextualization of the situations in the field, we chose organizations/institutions and individuals/organizational actors as the unit of investigation and data collection. We surveyed our four fields through direct observation and semi-structured interviews (about ten interviews). The analysis of the institutional corpus (official reports) of the YUC and the council of Yaounde 6 and the scientific corpus allowed us to complete the field information.

Data collection was based on a variety of institutional and scientific documentary sources and on non-structured interviews with officials and non-officials. The YUC, pre-collection operators, NGOs and waste collection companies—PAN and Hysacam—were the sites of investigation. These actors are divided into two categories of individuals interviewed. On one hand, officials from the local public authority of the city of Yaounde, including two officials from the YUC hygiene department; and, on the other hand, private actors, including the founder of PAN, an official from the NGO Era-Cameroon, an official from Hysacam, and a scrap metal waste collector. The interviews were carried out for four days; thus, on February 15, 2020, an interview was conducted with the head of the PAN SME and with an official from Hysacam; on March 12, 2020, we interviewed a scrap metal collector; on March 14, 2020, we administered an interview guide with one of the officials from Era-Cameroun; and on February 18 and 19, 2020, the interviews were conducted gradually with the head of the Hygiene Department of the YUC and his assistant. The interviews were partially transcribed. Some interviewees wished to remain anonymous, which led us to use hypothetical names at their convenience.

The analysis was based on the daily life of the individuals in the field—given that we live in new neighborhoods in Yaounde. The fields provided the possibility for 15 interviews to be conducted, but some individual responses could not be considered because they did not meet our direct expectations. Exhaustiveness was not sought because it was not an objective of this work. We have designed an analysis grid of the dynamics of territorial construction of household waste based on three variables: legitimization, territorial networking and valorization.

Table 1 presents the process that leads from an interview grid to an analysis grid. The elements drawn from the interviews and secondary data were analyzed. The legitimization variable aimed to determine and situate the quality/competence of the two types of actor figures in terms of waste management; this quality is not given; it is conferred by law or constructed through identity production

Table 1. Construction of a grid of analysis based on three variables.

Legitimization Actors variable	
Interview Grid	Analysis Grid
- Framework for action	- Institutions functions and/or organizations
- Position	- Public authority, contractors, experts, etc.
- Reputation	- Legal empowerment, projects, partnerships (public/private)
- Power point	- Political, economic, scientific, etc.
- Level of territorial action	- City level, peri-urban, urban, informal neighborhood
- Type of leadership	- Legal-rational, associative, economic
- Foundations of action	- Legality of the action, legal and social sources
Networking variable	
Interview grid	Analysis grid
- Spatial marking	- Territorial planning, socio-technical spatial occupation
- Expertise required	- Social, technical, scientific, entrepreneurial, public, etc.
- Space control instrument	- Law, regulation and partnership contract, etc.
Waste valorization variable	
Interview grid	Analysis grid
- Waste management	- Recycling system approaches

Source: Author's construction.

processes; reinforcing the function and the leading role of the central actor—YUC—in terms of local waste management and the affirmation of an identity of peripheral actor later accepted by the center (1). The construction of household waste territories refers to an inclusive planning and equipping of waste territories by YUC and it concerns the participatory development of waste territories by NGOs (2). Territorial valorization refers more to the idea of integrated solid waste management which infers the carrying out of a strategy, action plans and use of waste management methods and tools which tend to give some value to waste resources³ (3).

2. Actors and Differential of Legitimacy Trajectories

The local management of household waste is regulated. The intervention of public/center actor—local State—and the private/peripheral actors—NGOs, individual, association and enterprise—in this domain is based on legitimacy that confers upon them, the capacity and competence in the domain. If this legitimacy is conferred upon those actors at the center by the legal-rational authority represented by the YUC (2.1), it is, however, structured at the periphery by technical expertise consecrated in concrete systems of action and conditioned by the law (2.2).

2.1. YUC and Legal-Rational Legitimacy

Article 38 of the 2019 law on the general code of decentralized local authorities

³The economy of household waste refers to the economic utility of waste production and the forms of use/exploitation made of it by private and public operators.

DLA confers rights on Decentralized Local Authorities (DLA) to create local public establishments to provide local public services; by mobilizing skills in a country where the unemployment rate of young people aged 16 to 24 is 6.4% (according to the March 2017 estimates of the CIA World Facebook), with an underemployment rate of around 5% among young people. If this principle is previously reaffirmed in Article 5 of Law No. 2004/017 of 22 July 2004, the delegation of the public waste service to legal entities—Hysacam and Urban [a new Portuguese business group that went operational in 2020]—as provided for in the same provisions, is likely to be questioned.

One could, no doubt, invoke the shortcomings of the financing of the local public waste management service, since 60% of the city's waste is collected by the YUC via Hysacam. But this hypothesis seems unlikely given the existence of multiple financing instruments for special public services, particularly waste. In fact, Article 57 (1) of Law 2009/019 of December 5, 2009 on local taxation provides for a local development tax levied against basic services and basic assistance rendered to the public. This law greatly improves the fiscal rights of the YUC compared to law n°74/23 of December 5, 1974 on the organization of communes and the application decrees n°80/17 of January 15, 1980 and n°77/220 of July 1, 1977 fixing the maximum rates of direct communal taxes. “The levy rates have been multiplied by three to increase the tax base in the area of services rendered. The local development tax is collected at the same time as the personal income tax, the tax in full discharge and the business tax. It is also provided for in the 2019 law, Article 38, the mobilization of public power as specified in Decree No. 2012/2809/PM of 26/09/2012, which reaffirms that any collection and storage of household waste is provided by the DLA—in conjunction with the relevant departments of the State—which ensure public supervision. The latter is seen as the set of limited powers granted by the law or notified by it to a higher authority with the aim of ensuring the respect and safeguarding of the general interest (Peiser, 1998: p. 100) against the excesses of taxpayers.

The public trusteeship confers on the DLA the capacity to concede the public service of household waste to private companies through the mechanism of trusteeship contracts which are locally binding on specific issues as mentioned in article 47 of the law of 24 December 2019. The trusteeship contract confers obligations on the concessionaire, and the rights of control and supervision of the concessioning authority over the activities of the concessionaire. Article 49 of the said law stipulates that the companies operating public services [of waste] are subject to all measures of control by the conceding authorities—in this case the YUC—and to the production and submission of all justifications to the said authority. Article 51 provides for the termination and revision of the contract in the event of malfunction of a local public service, carried by the concessionaire, as observed by the conceding authority; this can entail the malfunction due to economic or technical circumstances that impedes the proper functioning of the said service. This explains why the local management of public waste services

was conferred to the Portuguese business group (Urban) in 2018 and Hysacam some years later.

Hysacam signed, in 1998, with the YUC a three (03) year mutual agreement contract—renewed three times—for the linear management of solid household waste. The duration of the contracts were extended to 5 years renewable following outstanding performance. The first 5-year contract (2007-2011) started in 2008 and was renewed in 2012. The contract covered some new elements such as the collection of green waste, the washing of specific streets and squares, the installation of garbage cans on main roads and the continuity of service for 24 hours a day. Being aware of the difficulties involved in accessing informal and enclave settlements, the YUC, through its waste management strategy intends to involve pre-collection operators by signing pre-collection concessions, in 2020, because, according to Kayap Sandra, of the YUC's hygiene department, this is an opportunity for local authority of the city of Yaounde to regain control of its city.

What about peripheral or private actors? In a setting of action dominated by the state, through the figure of the YUC, private actors mobilise technical expertise as a source of legitimacy for their constructed identity as peripheral actors.

2.2. Private Actors Identity and Expert-Technical Legitimacy

The standardized environment of local waste management maintains the pre-eminence of the YUC and reinforces its power. The norm acquires a coercive force that reinforces the social distance between the YUC and private actors, creating a state of frustration (Festinger, 1957) that becomes stronger over time. This is the case of Jean, a promoter of a private company that recycles specialized waste: “I saw how the YUC manages waste through Hysacam, by burying it, so I said to myself that the waste of one can be a raw material for the other. I approached the YUC to propose a waste management plan that would involve Hysacam. I saw people at the YUC who told me that it is part of their prerogative. You can't imagine that they asked me to give them my waste management plan; which I refused. So, in 2013, I was dissatisfied and created my own company” (Interview with Henri, February 15, 2020). In a completely different register, Adama, a scrap metal dealer or iron collector in the unauthorized public dumps, gives an account of his experience with a completely different tone: “I came out of Garoua to look for work here, I fled from prison there. Every time I passed by, I saw the people of Hysacam collecting garbage; I approached a person to ask for the job, he instructed me to see the team leader. The team leader told me that there was no work for me, making fun of my way of speaking, and he told me that, at least, you need to have the primary school certificate (CEP). I insulted him and went home angry. One day, I saw a cousin of mine who collects iron from the garbage cans; he told me that it gives money. And I started the work [...]” (March 12, 2020 interview with Adama). For Abraham (not his real name), who is in charge of a pre-collection joint initiative group (GIC) in

Yaounde 6, his experience is one of unemployment: “I applied to be a driver at Hysacam, but they didn’t call me; I used my connections at the YUC, since I know that Hysacam’s activity in Yaounde depends on the YUC, yet, they didn’t still call me; I was sad, so I attended an Era-Cameroon seminar on waste management and opportunities to enter neighborhoods where Hysacam does not operate, to collect my waste; I went to the Regional Delegation of Agriculture and Sustainable Development of the Center (DRADER-Center) to create my GIC; a way to get back at Hysacam” (interview, March 14, 2020). These experiences, which are resolutely inscribed in individuation subjectivation (Amougou, 2016), ultimately generate a system of peripheral actions that are considered deviationist in relation to the established institutional order of normative hegemony of the YUC in the field of waste management. Their acceptance of the institutional order proves, in the long run, to be a factor of conflict, as revealed in the expressions “So, unhappy” and “I came home angry”. Private entrepreneurs are objectively conditioned, certainly, by the “local, social and political environment” (Amougou, 2015: p. 25), and are marginalised in the sector entirely dominated by the Yaounde city council.

The internalization of a peripheral local power, by the peripheral actors is established by the modes of representation of the inequalities in the field of the waste management. It is about feelings of exploitation, precariousness or social impotence or etc. The mechanisms of control of the “moral conscience” (Grandjean, 2003) of these actors contribute to reducing these feelings in order to make the idea of a potential peripheral local power triumph. Thus, Jean’s experience is very interesting: “I used environmentalists who work in NGOs. I was coached and I did internships and training in environmental management, having a degree in chemistry; it is after this that I created my business in 2013” (Interview of February 14, 2020 with Henri); for Adama, the coaching is done by his cousin: “I started the work at my cousin’s house; he showed me what we collect, where we sell and a lot of things” (Interview of March 12, 2020 with Adama). In the case of Abraham, the coaching was done by Era-Cameroon: “I benefited from an Era-Cameroon seminar that accompanied me afterwards” (Interview of March 14, 2020). The idea of coaching is the preferred mechanism for erasing the feeling of frustration, a situation perceived as a phenomenon of marginalization that is experienced differently depending on the individuals concerned (Schwartz, 1990).

The legitimization of a peripheral identity derives from the emphasis on power relations in the institutional order of waste management. Faced with this institutional order which explains the occurrence of the conflict between the YUC and the private actors and which is posited as a structuring principle of the cognitive postures—discourses, opinions, representations—that transcend through all the private actors, the discussions relating to the normalization of center-periphery relations in the narratives of these actors persists. Each peripheral actor produces a form of internalization of peripheral local power according to

the values he/she defends. These include; the value of expertise, curricula, and skills for important positions in the institutional chessboard of local waste management.

Cognitive transfers, which are the fruits of persuasive communication and groomed in professional coaching spaces, create a state of forced complacency (forced self-satisfaction). Actors adapt in spite of everything. The cognitive consistency of a peripheral local power is established with professional and educational socialization. The words of Jean-Georges enlighten us in this regard: “I had to do a master’s degree in environmental management and project management. That’s when I opened my business” (Interview with Henri, February 14, 2020). These experiences of secondary socialization participate in a legitimization of individual or group entries into the waste management universe. This legitimization is a delegitimization of the instituted order—that of the hegemony of the YUC.

Between the legitimization of peripheral local power and the delegitimization of central local power, the idea of peripheral domination, which is regarded as a social relationship, that is, a “behavior of several individuals, where by its significant specificities, the behavior of some is regulated by that of others and is oriented accordingly” (Weber, 1995: p. 58), due to the “collaborative learning” of the actors in their place of professional socialization, where they discover the undeniable advantages of future insertion in the local waste management sector (Faerber, 2004). Hence, rational beliefs will be construed on the means, the possibilities of self-employment and empowerment of the coach which operate in the legitimating discourse of a peripheral local power. Peripheral local power is thus imposed by the construction of practices and modes of rationalization of waste: this is the case, in particular, of the constitution of a waste management plan, the elaboration of a business plan, the purchase of work equipment, etc., which prepares the private actors to enter resolutely into rational peripheral logics of action that complement those of the YUC and its partner, Hysacam. These actors operate in the framework of a waste management sector, namely: pre-collection.

The legitimacy—rational-legal and/or technical expertise—conferring to actors to both actors, respectively, public and private competencies to intervene in land-use planning as is the case for local authority in collaboration with some private actors due to their respective competence. For private actors, their intervention based on their significant competencies or technical expertise’s intervenes on the aspect pre-collecting in partnership with local state.

3. Territorial Networks: Territorial Management and Territorialisation of Technical Expertise

The construction of household waste territories is the result of an appropriation/arrangement of public landfill sites. It refers to the planning and equipping of waste territories by YUC (3.1), on one hand. On the other hand, it concerns

the participatory development of waste territories (3.2).

3.1. YUC and Inclusive Territorial Planning of Waste

The implementation of the local waste management strategy is intended to implement the recommendations that have been formulated. Among these recommendations, the development of a pre-collection system is one of the structuring elements of the local and circular waste management policy because, according to Kayap Sandra, one of the people in charge of the YUC's Hygiene Department and an expert in environmental planning, it is an opportunity for sorting and therefore for the economic recovery of waste, which involves the participation of the population and associations in the local territorial planning policy. If the main reason for the realization of the said strategy remains local development, the failure of the SDAU of 1982 and the PDU of 2010—horizon 2020—will no longer be repeated. Thus, as part of the second information, education and communication (IEC) campaign held between March and May 2017 that focused on waste management, the YUC, with its partners—the French Development Agency (AFD), the African Development Fund (ADF), Era-Cameroon, etc. is a run-up to the implementation of the local pre-collection system, which is the source of a workshop on exchanges and capitalization for the implementation of pre-collection on January 31, 2020 at the YUC. PADY-2 is, in this regard, the continuation of PADY-1 which developed a pre-collection program whose purpose is the construction of composting sites with a HIMO (High Intensity Labor) approach in Yaounde.

The establishment of these platforms, as a process, is fraught with difficulties, as indicated by an official of Era-Cameroon. At the beginning of the initial phase of the IEC campaign, the head of the NGO in charge of prospecting—Era-Cameroon—mentioned the lack of space for the establishment of sites that should host the platforms; in addition, there are difficulties to have access to the sites detected; The lack of involvement of certain authorities and community representatives in the process of making sites available; and the precarious land status of certain sites, coupled with the fear of local residents being subjected to nuisances related to poorly managed garbage bins (irregularity of bin removal). These difficulties were overcome through awareness raising. Thirty-eight (38) sites to host the pre-collection platforms (**Table 2**), according to Kayap Sandrine, have been identified and selected in all seven councils of the YUC with the support of the population, neighborhood leaders and relays in a fully participatory approach.

According to the head of Era-Cameroon, the field approach consisted of the direct construction of 14 of the 38 platforms, i.e., 36.84%, on the sites originally identified. 24 sites (63.15%) experienced problems due to the refusal of the population or the owners of the plots during the execution of the work. These disputes were generally reported after the installation of the site sign announcing the start of the work or when the site clean-up and demolition work began. In

Table 2. Number of sites by municipality.

Municipalities	Number of sites Requested	Number of sites proposed	Number of sites validated by engineers	Number of certificates signed	Total number of platforms to be built
Yaounde 1	3	2	2	2	3
Yaounde 2	9	7	6	3	3
Yaounde 3	9	11	9	5	5
Yaounde 4	13	15	15	10	6
Yaounde 5	9	10	9	6	4
Yaounde 6	16	25	20	14	11
Yaounde 7	7	13	11	7	6
Total	66	83	72	47	38

Source: Final Report on the Solid Waste Management Strategy of the City of Yaounde.

the case where solutions were not found, new sites were sought. When the solution considered was the modification of a site, according to the geographical character of the area, the social team—of Era-Cameroon—goes back down in the zone of pre-collection concerned in order to proceed to find a new site (public ground, garbage bins, accessible wild heaps). In the event that the area found was public land, a visit was organized with the traditional authority and the technical team of the group for the validation of the site. 18 new platforms, or 47.37%, were thus implemented. However, some of the new sites found were not approved by all stakeholders. The non-validation of newly identified sites re-launches the process. This is the case for 6 of the 38 platforms built, i.e. 15.7%; 11 of the 38 sites are, with regard to **Table 3**, equipped with refuse bins (28%); 03 of them have 02 16 m³ bins; 02 have a 6 m³ bin and 06 have a 16 m³ bin; and 19 other sites are not equipped with garbage bins.

According to the local waste management strategy, Yaounde has a total of 249 neighborhoods, 43% of which are informal and 33% are peri-urban, i.e. 107 and 83 neighborhoods in the seven communes where access to the collection operator Hysacam is still not easy and leads to the development of an informal practice of collecting household waste from distant platforms or from particular economic operators. This is the pre-collection activity which remains informal and is practiced by eight (08) associations mentioned above. It currently concerns 33 neighborhoods of the 150 new informal and peri-urban settlements in the councils of “Yaounde 2, 3, 5 and 6 for a daily volume of garbage transported to the bins of about 12.8 tons” (Kayap, interview of February 2020). Eight sites of the platforms are equipped with 770-liter plots and are set in 08 neighborhoods as shown in **Table 4**. In order to improve waste management, the YUC has embarked on a public-private partnership by delegating local waste management to concessionaires. This historical practice is a mode of spatial control and capture of local skills.

Table 3. The 11 sites of the platforms equipped with garbage bins by district and neighborhood.

Municipalities of the district of Yaounde (CAY)	Names of the area	Location of the platforms	Size of the bins
CAY 1	Mballa	3E	1.16 m ³
CAY 2	Tsinga	Camp SIC	1.6 m ³
	Briqueterie	Face station MRS/Ecole Police	1.16 m ³
CAY 3	Obili 3	Opposite Residence the Karl Yvana	1.16 m ³
	Ngoa-Ekelé 3	Cité des nations	1.16 m ³
CAY 4	Nkomo 1	Infront of Brigade Nkomo	1.16 m ³
CAY 5	Nkolmesseng 3	Stade banquier	1.6 m ³
CAY 6	Mewoulou Biyem	Carrefour Man no run	1.16 m ³
	Assi	Montée jouvence	2.16 m ³
	Mendong	Brigarde Mendong	2.16 m ³
CAY 7	Melen 8C	GP Melen	2.16 m ³

Source: Elements synthesized from data in the ERA-Cameroon training workshop report.

Table 4. The 08 sites of the platforms equipped with 770-liter plots.

Municipalities of the district Of Yaounde (CAY)	Neighborhood names	Location of the platforms	Number of 770 liter plastic bins
CAY 2	Cite Verte	North zone	03 plastic bins of 770 liters/Planned 1.6 m ³
CAY 3	Ahala	In front of the CMA	02 plastic bins of 770 liters/Planned 1.16 m ³
CAY 5	Ngouso	Tradex Eleveur	04 plastic bins of 770 liters/Planned 1.6 m ³
CAY 6	Elig Effa	Entrée Camp Yeyap	02 plastic bins of 770 liters/Planned 1.16 m ³
	Eba'a		02 plastic bins of 770 liters/Planned 1.16 m ³
CAY 7	Ndamvout	Garbage can	02 plastic bins of 770 liters/Planned 1.6 m ³
	Minkoameyos		01 plastic bins of 770 liters/Planned 1.16 m ³
	Nkolbisson	Before Carrefour Tsimi	02 plastic bins of 770 liters/Planned 1.6 m ³

Source: Elements synthesized from data in the ERA-Cameroon training workshop report.

3.2. NGOs and the Territorialization of the Practice of Pre-Collection of Household Waste

The territorialization or development of pre-collection practices throughout the local territory is historically situated. Pre-collection⁴ emerges in a historical context strongly determined by the “garbage dumping” of the city of Yaounde between 1991 and 2005, of public impotence (Cornut-Gentille, 2016) and of the search for performance. It is based on stabilizing analogies (Douglas, 1986: p. 83)

⁴As an activity in its own right, pre-collection thus participates in the constitution of waste territories. In this sense, it relies on the following chains of deposits and waste disposal facilities: individual garbage cans, pre-collection platforms, rickshaws used to transport waste, door-to-door waste collection routes and the sorting of individual pre-collection actors from homes to pre-collection platforms. These are based on “soft networks characterized essentially by a surface service, which allows the organization of the service into segments, each corresponding to a junction between the different nodes (...) which are linked together by mobile connections (the collection routes between the production and processing locations) and which can be taken over by different actors and on an evacuation principle” (Cirelli, Maccaglia, & Melé, 2017: p. 62).

that command to focus on municipalities and to establish boundaries. The different pre-collection experiences are evolutionarily based on scientific knowledge systems and technicization processes; this is scientific technical expertise. In this sense, the artisanal composting, first experience of valorization developed by the operators of pre-collection is initiated in 1992 from a pilot site realized within the campus of the national polytechnic school—in Yde—where scientific tests are led. These tests helped control the technical and scientific parameters that were essential for its development (Ndumbe et al., 2020; Ngnikam et al., 2002). Another pre-collection experience based on scientific technical expertise, established in 2001, relates to pre-collection associations coordinated by ERA Cameroon—which provides scientific expertise in training members of said associations—and the technical expertise of POLDEN INSAVALOR for field implementation.

The profile of Era-Cameroon's members highlights scientific bodies that cover several fields—environmentalists [engineers], sociologists, urban planners, etc.—and is based on the results of the study. Its mission is to conduct a study of the capacity and willingness to pay for the pre-collection service by households in the targeted neighborhoods; to train the associations that will carry out the pre-collection and to set up a collaboration platform between the city's solid waste collection operator (Hysacam), Yaounde VI urban district and the beneficiary populations under the coordination of the project team. These two experiences benefit from institutional support: the French cooperation and the United Nation Development Program (UNDP) for the first one; and the French Ministry of Foreign Affairs via the supervision of the Water Solidarity Program (WSP) in Paris for the liquid waste component and the Partnership for local Development (PLD).

Feasibility studies, rigorously carried out, in the framework of the composting experiment lead to the setting up of 15 composting sites. With regards to the pre-collection experiment coordinated by Era-Cameroon, the project has supported the establishment of two organizations, GIC JEVOLEC and Tam-Tam Mobile, for pre-collection in the neighborhoods of Melen III and IV and Mendong. However, these projects are weakened by the fact that the end of institutional support does not favor the reproducibility of the project and especially the free waste collection service offered by the State. This is the case for the pre-collection experiment, the Emergency Social Program (PSU) in which waste is collected without financial compensation from households; and is also the case for the second experiment. The number of households subscribing to the services has decreased, following the resumption of Hysacam's services and the free collection that this company carries out in the associations' intervention areas. The building of the pre-collection system is also based on social technical expertise.

Beyond technical/scientific expertise, pre-collection relies on social technical expertise. This is, on one hand, the case of the PSU [placed under the supervision of the first ministry] set up by the “State in Cameroon”, with the support of the World Bank, to solve the problem of waste management in Yaounde. It relies

technically on the expertise of the ICGs, NGOs or neighborhood associations, to supervise idle youth in street cleaning and garbage collection, which are organized into cleaning and garbage removal teams located on the main roads. On the other hand, it is the case of the experience of pre-collection of the association Sarkan Zoumoutsi essentially of young Muslims of the Briqueterie district in Yaounde. It was created in 1995 and received funding from the French Cooperation and the Yaounde Urban Community as part of the urban sanitation program. Its main objective is to clean up the Briqueterie district and its surroundings through an inclusive approach of the populations. The two experiences have generated several jobs for youths, i.e. 2700 temporary jobs within the framework of the PSU. However, they are weakened by the lack of professionalism of social promoters and poor planning. For a funding of close to 2 billion CFA francs per year within the framework of PSU, only 120 tons of household waste were collected each day, i.e., about 15% of the daily production in Yaounde. In the case of the Sarkan Zoumoutsi association, the initiators did not carry out any feasibility study and the lack of awareness among the population led to increased insanitary conditions. This building of an associative expertise of territorial waste management in the periphery will be completed by that of the SMEs. In addition to these networking approaches, there is also a differentiated approach to waste recovery.

The construction of household waste territories, also, refers to the value given to household waste, aside of the one given to territorial development, where local State and private actors are, as well, involved. This considering, simultaneously, the specificity of action and the mutual interactions of both categories of actors—we mean local State and private actors.

4. YUC, Private Actors and Disparity of Integrated Household Waste Management

Integrated solid waste management refers to the carrying out of a strategy, action plans and use of waste management methods and tools which tend to give some value to waste resources. It implies two realities, depending on nature of actors involved. These are the circular management of household waste policy in which we have the local authority (4.1) and the industrial/economic exploitation of waste comprising private entrepreneur (4.2).

4.1. YUC and Circular Waste Management

From 1982 to 2012, the concern of the Yaounde Urban Council was linear waste management, of which “the budget for linear waste management has improved greatly. It went from 1.5 billion in the 1990s to 6 billion FCFA” in the early 2000s. The 1982 master plan for urban development (SDAU), which envisages the implementation of a real policy for the protection and enhancement of the environment to improve the living conditions of the population, has not kept its promises. The environmental problems are growing, since then, to become a recurrent component of public discourse without being implemented. Thus, in terms of urban safety linked to the environmental matters, we note the difficulty of managing

special waste (industrial, hospital, and household); the lack of sanitation systems and the inadequacy of collection, transport, storage and recycling systems for household waste. The main obstacle is the illegibility of competences and the confusion of roles between the competent ministries—Ministry of Urban Development and Housing; Ministry of Environment and Nature Protection; Ministry of Territorial Administration and Decentralization—and the YUC specifically.

The limitations of the SDAU of 1982 were remedied by the Urban Development Plan (PDU) of 2020 carried out in 2008, which, in relation to the improvement of the living environment, should induce the multiplication and development of waste treatment centres in the city. However, this ambition has not been followed by the facts because the only waste treatment centre in the city, as old as the SDAU of 1982, is that of Nkolfoulou, created in 1988 and managed by delegation by the Hysacam operating service. It achieves a waste collection coverage rate estimated at 65% - 70% and receives an average of 1000 tons of household waste and occupies an area of about 55 hectares: only 10% of this space is exploited. In addition, the operating contract for this centre provides for a landfill site, which is an environmental risk. However, the PDU envisages in its specific master plan the development of the household waste cycle. The vision of circular management, or the overcoming of linear waste management or landfill, is at the heart of the local management strategy for solid household and non-household waste, one of the first objectives of which is the creation of a second landfill site in the city of Ydé and the implementation of an integrated and sustainable waste management system in the city of Yaounde. This new landfill will be located in the locality of Binguela 1, a village located in the Mefou and Akono Division, whose coordinates are: 3°43'59 N 11°25'00 E.

The institutional need to go beyond the linear management of waste by the YUC is based on the will of the local authorities to give an added value to waste and to go beyond the policy of burial which has shown its ecological limits, because, according to Kayap Sandrine of the Yaounde Urban Council, the burial channel is much more polluting than the recycling channel of solid household waste. This is the reason for the first pilot phase of the solid waste management strategy of the city of Yaounde⁵. In addition, the YUC has decided to involve NGOs in a pilot phase of the strategy. Thus, a pre-collection activity for residual household waste has been structured through 8 associations operating in four districts of Yaounde (**Table 5**).

The pre-collection activity has, however, a low level of performance since only about 12.8 tons/day of waste are pre-collected; in addition to the collection activity of Hysacam which has signed a contract with the YUC -for cleaning, collection, transport and landfill of waste—for 05 years—which ends at the end of 2012—on the site of Nkolfoulou which has a cumulated tonnage of about 4 million tons for a maximum capacity of 10 million tons. It was also decided, within the

⁵Meetings were held at the beginning of 2011—the elaboration of the said strategy lasted 15 months—as a prelude to the preparation of the said strategy, the participants—the State, the YUC, the district municipalities and the civil society—agreed to clarify their different roles in the local waste management.

Table 5. Operational pre-collection associations and their area of intervention in Yaounde in 2012.

Associations	Ydé 2	Ydé 3	Ydé 5	Ydé 6
GIC Le Vert		•		•
GIC JOVELEC				•
GIC Le Vert			•	
APROSA		•		
ACDM	•			
CAD Melen 8 OM				•
Tam Tam Mobile				•
Arkan Zoumounti	•			

Source: Final Report on the Solid Waste Management Strategy of the City of Yaounde.

framework of the consultations between the different actors, to strengthen the financing to ensure the complementary activities of pre-collection, which is an opportunity to sort waste upstream and is governed by the “specific tax for service rendered” instituted by Law No. 74/25 and replaced in 2009 by Law No. 2009/019 on local taxation, which sets the rate of local development including (collection of household waste, electricity, access to water, ambulance) between 3000 CFA francs and 90,000 CFA francs per year. At the end of this first pilot phase, it was accepted by the experts—international and national⁶—the idea of ensuring the ecological treatment of all solid waste with the aim of optimizing the valorisation of waste thanks to labour-intensive technologies and the involvement of all citizens. A second phase is subsequently launched.

During the second phase which started on March 27, 2012 and which brought together international experts in waste management/controlled landfills and in collection/transfer master plans, the issues of securing the selected treatment site and the management of new types of waste—tires, rubble and spoil, etc.—are at the centre of concerns⁷. At the end of the meeting, it was decided to create

⁶International experts: a waste management and landfill expert; a collection/transfer master plan expert; a collection/transfer and institutional expert. National experts: an environmentalist; an urban planner; a socio-economist and an expert in social engineering and communication, all members of civil society and mostly from the NGO Era Cameroon. They come from the following structures: Delegation of Youth and Civic Education, NGO Naturala, ARTELIA Ville et Transport, Cellule C2D-PPTE/YUC, Chef SEH/YUC, YUC-voirie, Hysacam-RPU, Hysacam rep. Treatment, Hysacam-director, ECTA-BTP/Expert, MINDHU/DDU, Stade/C2D, NGO Sarkam Zoumouki, Consultative Group/leader, DST/YUC.

⁷The kick-off meeting is organized with the YUC on March 27, 2012. Another meeting for the presentation of the end of mission report was held on July 05, 2012 in the premises of the Yaounde Urban Community; in the presence of the monitoring and revenue commission. During the said meeting, the YUC represented by the commission of follow-up and receipts having examined the report of the meeting of before, proposed a date of presentation of the said report during which observations noted are ratified by the ARTEWA-ECTA grouping. The report of mission 2 is approved by the committee of follow-up and valid technical receipt. Five representatives of the YUC, four representatives of ECTA, three representatives of Hysacam, three NGOs, ARTELIA ville et transformation, the Ministry of Urban Development and Housing (MINDHU), Ministry of Youth and Civic Education (MINJEC), STADE C2D and the representative of the Order of Urban Planners participated. On July 12, 2012, a final validation meeting of the final document was held.

treatment and transfer sites, to recover waste, to set up a pre-collection system to serve the 150 unreachable neighbourhoods and to involve the population in sorting and building a second landfill by 2022. Several objectives have been set: to achieve a collection rate in the city of around 77%; to ensure quality of service and maintain a collection rate of around 100% in the high and medium standard neighbourhoods; and in the peri-urban and informal settlements, to obtain a collection rate of 35% to 90% for solid household waste. In addition, the modernization of waste collection and dumping equipment is a vital issue that will make it possible to achieve the objectives set. This will be done within the framework of the Yaounde sanitation program (PADY 2). The construction of a central waste territoriality refers specifically to the public planning of household waste territories, for which the spatial framing or control of the territory of the city of Yaounde by the competent public authority, YUC, constitutes a fundamental issue. In concrete terms, it corresponds to the development of a local policy for recycling garbage from household waste areas; to the equipping of household waste areas with landfill platforms and to the development of a public management service for household waste areas.

However, it remains insufficient, to say the least, because the peri-urban and informal districts are not affected. Thus, the action of private actors is required to ensure the peripheral management of household waste. It is the construction of a peripheral territoriality of household waste management that proceeds from the deployment of a double expertise of associations and entrepreneurs—precisely, small medium enterprises—, that is, from the construction of human resources—knowledge and technicality—capable of ensuring the management of household waste territories through pre-collection, according to singular modalities for particular objectives.

4.2. Entrepreneurship and Economic Use of Household Waste

Peripheral management of waste areas is also based on entrepreneurial expertise that mobilizes pre-collection as a means of accessing waste areas and the resources of these areas in order to benefit from them economically. It is carried out by private companies based on the circular model of waste management (Ddiba et al., 2020). The latter [circular model] advocates not only the “optimized use of each resource, but also its reuse” (Doré, 2020) which requires, simultaneously, the mobilization of technical expertise and efficient business management. The SMEs working in the waste para-collection sector are basically founded by private actors who are both experts and managers. In these structures, there is an inextricable relationship between the manager, who bases his legitimacy on the “hierarchical responsibilities of management”, and the expert or professional, whose power lies in the power of the equipment mobilized, anchors his legitimacy on specialized skills.

The analysis of the profile reflects the roles of waste management SMEs. This is the case of Jean-Georges, promoter of the PAN SME: “I have a master’s degree

in biochemistry and a master's degree in waste management from the University of N'Gaoundere—which is in the region of Adamawa in Cameroon. I saw how Hysacam manages waste; it dumps everything, it's bad. I have observed shortcomings and these shortcomings start at home; because if the waste is not sorted at home, it is not Hysacam that will do it. They collect everything without sorting. So I said to myself that the waste of one could be a raw material for the other. It was in 2013 that I created PAN; but I went to do a master's degree in analysis and evaluation of projects to expand my project and internationalize it. I also have a master's degree in entrepreneurship". Extract from interview conducted on February 14, 2020). There is interchangeability between the figure of the expert (independent and salaried) [which is based on a curricular path and rationality in value] and the figure of the manager [which is, for its part, worked by an economic rationality]. The opposability of managerial mobility to expert mobility does not arise. There is transversality between these two realities. This transversality confers a certain identity hybridity which is that of the expert-manager.

The expert-manager is a category with transformative power in a given sector. Thus, it is advisable to read expertise-management beyond the role to situate it in a power dynamic in the Foucauldian sense (*supra*) through the strategies of transformation of the social existing and through the possibility for the private actor to generate peripheral territorialities. This strategy relies, initially, by the constitution of local networks of collaboration. Jean-Georges is quite expressive in this sense in his following remarks: "In Yaounde, I work with the National Refinery Company of Cameroon (SONARA), I transport Hallons—a dangerous greenhouse gas substance. I work with ECNO Cameroon and Cimencam Danguite. I have partnerships with Hysacam for the exploitation of the Nkolfoulou dump. I don't sort the refuse/waste I operate like a company, I target large companies that have a level; I put in place a waste management plan – imposed by law—and they start sorting and put them aside. I can also pay an NGO and instruct them to sort the type of waste I want. These entail NGOs that work with the precollectors" (Interview excerpt from February 14, 2020). These discussions with our interviewee reflect the fact that the circular model of waste management reinforces the "economy of proximity" which is "a mode of organization of the economy around the direct relationship" that is operationalized by the grouping on a territory of economic actors who coordinate their activities.

The local collaborative networks constitute short circuits⁸ that are "direct circuits of exchange or distribution of resources contributing to an integrated territorial development" (Laudier & Serizier, 2013) that rely on the valorisation of waste through rationalization processes; which follow the constitution of local collaborative networks and remain one of the essential aspects of the strategy of appropriation of peripheral local power. These rationalization processes, i.e.,

⁸These short circuits are developed by PAN through the establishment in several districts, collection networks through which it manages to capture resources/waste that will recycle and at the same time, contribute to the development of the economy.

knowledge and technicality, allow the expert-manager to be faced with the exigences of short circuits that “enables him/her to take into account the complexity” (Laudier & Serizier, 2015) of the waste issue. Jean-Georges’ analysis is based on this logic, Jean-Georges agrees: “There are three types of waste—hazardous waste, non-hazardous waste and electronic waste; and the management of these three types of waste is different; they are sources of income, but you have to know how to do it. To manage these three types of waste there must be an environmental permit in waste management—framed by Order No. 001-MINEPDED of October 15, 2012, which sets the conditions for obtaining it—and PAN deals in all three types of waste. It collects, selects and recovers. Waste management is: sorting, pre-collection, collection, transport, processing and disposal; it has the three permits obtained by the Ministry of Nature Protection and Sustainable Development (MINEPDED). You need a methodology for that; you have to adapt, but people don’t want to learn.” (Interview extract from February 14, 2020). The rationalization processes that involve the mobilization of the means—knowledge and technicality—of action and rational action logics are, according to the analysis of the PAN Manager, guided by a morality of action that makes the expert-manager a moral actor.

Expertise-management is shaped by moral values. In this vein, taken as a technique of power, it aspires to forge a moral and ethical space based both on enlightened management and on a professionalization carried by a technicalization of local waste management that is acceptable to all. Our interviewee states that: “As a sorting activity, PAN provides companies with bins—by type of waste; we have the cars to transport them; then we take them to our processing base for the different types of waste; for example, plastic waste transformed into granules that are used to make the sheaths for electrical currents; what we cannot valorise, we send outside for incineration. We are working to create a standard for recycling companies” (Interview extract, February 14, 2020). The constitution of a moral space of good practice of local and sustainable waste management is a “theory of moral development” (Maillard, 2013) that defends a dual social conception of morality: a minimalist conception and a maximalist conception (Ogien, 2007a, 2007b, 2011). The former defends the improvement and moralization of all private and public actors operating in waste management and the latter defends the culture of excellence and promotes values for oneself in the practice of waste management. However, the creation of a peripheral moral space is the expression of a conquest of central power, of the development of a local power that is no longer only peripheral, but central, as we can decipher the discursive framework of our interviewee: “I am a company like Hysacam that aspires to be better than it. Moreover, on the national level, among waste management companies, I am fifth” (Interview extract, February 14, 2020).

5. Research Findings

Our research has shown that urban waste governance in the city of Yaoundé is

marked by the exclusivity of urban waste management action devolved to the state, which excludes private actors on principle. However, this governance, which is inscribed in a central-peripheral perspective, is a public-private partnership process that involves the State and private actors. This interactional and relational configuration is therefore a structuring factor in the co-production of public action, which remains central to the urban governance of waste in Yaoundé, where each category of actor captures from the other the resources that it does not have (Figure 1). This configuration does not question the idea of a satellite or subordinate relationship—between YUC and others private actors—in waste management (Figure 2) which recalls this political configuration where the State or local State representative—YUC—and private actors are, respectively, at the center and on the periphery of the said governance.

However, the analysis of this reconfiguration leads to see how the interactional structure of action in a governance process remains satellite-based. The satellisation of urban waste management is as much the moment of an appreciation of the specificities of action of the two categories of actors—public and private—(Figure 3) as it is the moment of a reality worked by a functional division of urban waste management work between, on the one hand, the strategic and financial support functions fulfilled by the state—YUC—and, on the other hand, the operational and technical functions fulfilled by the private actors. This

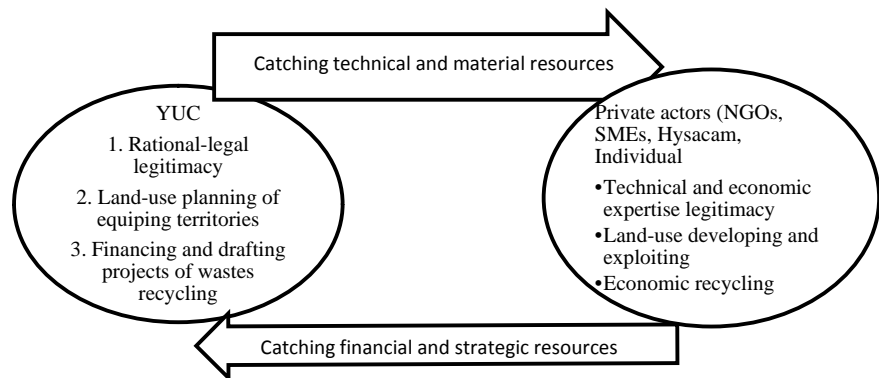


Figure 1. Interdependence relationship between YUC and private actors. Source: construction of the author.

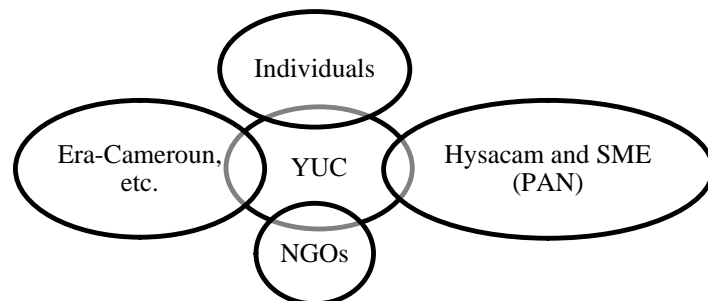


Figure 2. Satellite relationship between YUC and others private actors. Source: construction of the author.

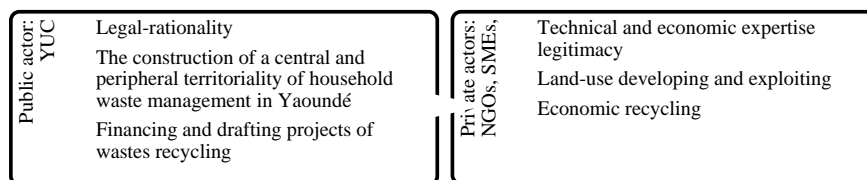


Figure 3. The functional division of labour between YUC and private actors. Source: the construction of the author.

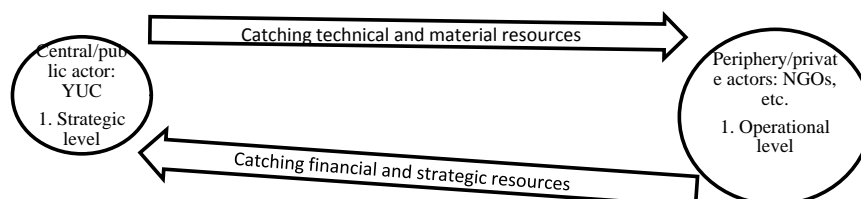


Figure 4. Level of action of both categories of actors – public and private actors. Source: construction of the author.

means that urban waste governance in Yaoundé takes place at both strategic and operational levels (Figure 4).

6. Conclusion

Ultimately, this contribution shows how the YUC, a representative figure of the central actors, ensures, through local government technologies of waste management, the stabilization of its hegemonic position over the private actors. Thus, beyond the construction of a central and peripheral territoriality, governing the remnants reveals the crisis in local waste management in Yaounde. This crisis is reflected in the limits of the YUC in fully ensuring its mission, thus generating the emergence of a local governance of waste.

This contribution, whose main interest is to understand territoriality from the centre/periphery model, reveals a dynamic of action at the margin/periphery that tends to emancipate itself from the pre-eminence of the central actor in the sector. Moreover, it shows how the logics of interdependence penetrate the autonomist references that are at the essence of the original existence of the relationship between the central and the periphery. The frontier that separated these two types of areas is based on the fact that the mobility of actors in one direction or another is made porous. The marginality of the peripheral actors lives as an opportunity. The periphery is no longer the only one annexed by the centre; the centre is now annexed by the periphery; although through certain dynamics of mutually beneficial dependence that defines relational configurations centred on the dissemination and exploitation of specific skills. This makes it possible to read governance not only as a process of interaction but more as inextricable interdependencies between actors.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Amougou, G. (2015). Processus d'émergence d'une nouvelle figure entrepreneuriale et esquisse de construction d'une société alternative au Cameroun: Une approche perspective et interdisciplinaire. *Revue des mutations en Afrique, 1*, 23-41.
- Amougou, G. (2016). Le sujet individuel comme un nouvel objet de la discipline sociologique? Dossier thématique: Les nouveaux objets de la sociologie. *Cahiers de Recherche Sociologique, No. 59-60*, 47-60.
- Badie, B. (1994). *Le développement politique*. Paris: Economica.
- Badie, B. (2014). *L'État importé: L'occidentalisation de l'ordre politique*. Paris: Fayard.
- Barthe, Y. (2006). *Le pouvoir d'indécision. La mise en politique des déchets nucléaires*. Paris: Economica.
- Beavon, K. S. O. (1977). *Central Place Theory; A Reinterpretation*. Longman Publishing Group.
- Benelli, N., Corteel, D., Debary, O., Florin, B., Le Lay, S., & Rétif, S. (2017). *Que faire des restes? Le réemploi dans les sociétés d'accumulation*. Paris: Presse de Science PO.
- Bobbio, L., Mele, P., & Ugalde, V. (Dir.). (2016). *Entre conflit et concertation. gérer les déchets en France, en Italie et au Mexique*. Paris: ENS Edition.
- Bouju, J. (2004). *Les Incivilités de la société civile. Espace public urbain, société civile et gouvernance communale à Bobo-Dioulasso et Bamako (Communes 1 et 2)* (Rapport du Programme Recherche Urbaine et Développement). Paris: Institut d'Études Africaines.
- Bucrep (2011). *Rapport National sur l'Etat de la Population*. Yaoundé: Bucrep.
- Cirelli, C., Maccaglia, F., & Melé, P. (2017). "L'incinérateur est trop près, la poubelle trop loin": Gérer les déchets en régime de proximité. *Flux, 3-4*, 61-72.
- Cornut-Gentile, F. (2016). Comment sortir de l'impuissance publique? *Le Débat, 2*, 56-66.
- Ddiba, D., Andersson, K., Koop, S. H., Ekener, E., Finnveden, G., & Dickin, S. (2020). Governing the Circular Economy: Assessing the Capacity to Implement Resource-Oriented Sanitation and Waste Management Systems in Low- and Middle-Income Countries. *Earth System Governance, 4*, Article ID: 100063.
- Doré, G. (2020). I. Économie de proximité, économie circulaire et écologie industrielle et territoriale. In *Prospective et co-construction des territoires au XXIe siècle* (pp. 153-162). Hermann.
- Douglas, M. (1986). *Comment pensent les institutions*. Paris: La découverte.
- Dumain, A., & Rocher, L. (2017). Des pratiques citoyennes en régime industriel: Les courts-circuits du compost. *Flux, No. 2*, 22-35.
- Durand, M., Bahers, J. B., & Beraud, H. (2016). Vers une économie circulaire... de proximité? Une spatialité à géométrie variable. *Déchets, Sciences et Techniques, No. 71*, 49-63.
- Estèbe, P. (2004). *L'usage des quartiers. Action publique et géographie dans la politique de la ville (1982 1999)*. Paris: L'Harmattan.
- Faerber, R. (2004). Caractérisation des situations d'apprentissage en groupe. *Sciences et Technologies de l'Information et de la Communication pour l'Éducation et la Formation: Ontologies pour les EIAH, 11*, 297-331.
- Festinger, L. (1957). *A Theory of Cognitive Dissonance (Vol. 2)*. Stanford, CA: Stanford University Press.

- Godard, P., & Donzel, A. (2014). *Éboueurs de Marseille. Entre luttes syndicales et pratiques municipales*. Paris: Syllepse, coll. "Le Présent avenir".
- Grandjean, A. (2003). Conscience-morale et certitude de soi dans les principes de la philosophie du droit de Hegel. *Revue de métaphysique et de morale*, 4, 513-528.
- Jaglin, S., Salenson, I., & Debout, L. (Dir.). (2018). *Du rebut à la ressource. Valorisation des déchets dans les villes du Sud*. Paris: Agence Française de Développement (AFD).
- Laborier, P., & Lascoumes, P. (2004). L'action publique comprise comme gouvernementalisation de l'État. In D. S. Meyet (Dir.), *Travailler avec Foucault: Retours sur le politique* (pp. 37-60). Paris: L'Harmattan.
- Laudier, I., & Serizier, P. (2013). *Politiques de développement territorial intégré: Les circuits courts* (Rapport final de l'Institut CDC pour la recherche et OCDE). Organisation for Economic Co-operation and Development (OCDE)
- Laudier, I., & Serizier, P. (2015). *Les circuits courts, un outil au service du développement territorial intégré*. Métropolitiques.
- Le Dorlot, E. (2002). La question des déchets: Nuisances et vertus: Annales des Ponts et Chaussées. *Nature Sciences Sociétés*, 10, 98-100.
- Maillard, N. (2013). La théorie du développement moral défendue par Elliot Turiel et Larry P. Nucci peut-elle apporter un fondement empirique à l'éthique minimale? *Les ateliers de l'éthique/The Ethics Forum*, 8, 4-27.
- Merino, M. (2010). *Déchets et pouvoirs dans les villes africaines: L'action publique de gestion des déchets à Nairobi de 1964 à 2002*. Aquitaine: Maison des Sciences de l'Homme d'Aquitaine.
- Ndumbe, P. et al. (2020, 16 juillet). Le compostage des ordures ménagères: L'expérience du Cameroun après la dévaluation du FCFA. *Bulletin Africain, Bioressources, Energie, Développement et Environnement*, No. 5, 4-10.
- Ngnikam, E. et al. (2002). *Mise en place des structures de précollecte et de traitement des déchets solides ménagères urbains dans une capitale tropicale: Cas de Yaounde*. Paris: L'Harmattan.
- Ogien, R. (2007a). *L'éthique aujourd'hui. Maximalistes et minimalistes*. Folio Essais. Paris: Gallimard.
- Ogien, R. (2007b). Que fait la police morale? *Terrain*, 1, 31-48.
- Ogien, R. (2011). *L'influence de l'odeur des croissants chauds sur la bonté humaine*. Paris: Grasset.
- Peiser, G. (1998). *Droit administratif*. Paris: Dalloz.
- Rumpala, Y. (1999). Le réajustement du rôle des populations dans la gestion des déchets ménagers. *Revue française des sciences politiques*, 49, 601-630.
- Sack, R. D. (1983). Human Territoriality. *Annals of the Association of American Geographers*, 73, 55-74.
- Schwartz, O. (1990). *Le monde privé des ouvriers*. Paris: PUF.
- Taiclet, A. F. (2011). La territorialisation de l'action publique: Un mode de gestion politique du déclin économique. *Droit et gestion des collectivités territoriales: L'enjeu de la dépense locale*, 31, 701-713.
- Weber, M. (1995). *Économie et société*. Paris: Plon.