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Evolution of people's livelihoods in the DRC: What can we know and how can we do better?

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Introduction

How have people's livelihoods evolved recently in the DRC? Many observers are not too shy to come up with an answer to this question. Sources close to the Government of the DRC are invariably optimistic, referring to the (indeed quite high) growth rates in per capita GDP since the millennium turn. Others would be more prudent. Referring to a recent World Bank report, Englebert for instance pointed out that "Congo's sizzling rate of economic growth has so far not had much of an impact on the welfare of its citizens, particularly the poorest ones" (Englebert 2014, p. 7). The report refers in turn to a number of recent reforms and surveys carried out in the DRC and concludes that recent economic progress has not translated into a structural transformation of the state, which would remain predatory and fail to ensure to service delivery for the most vulnerable.

This paper reviews the available data from national surveys, what caveats exist when analysing them, and what livelihoods profiles have emerged in the literature so far. Given this focus on livelihoods, our paper will primarily look at micro- and meso-level data where most livelihoods occur. Indeed, these types of data obtained at the household or territorial level contain the more direct pieces of information regarding the spatial variation and evolution of people's circumstances, compared to macro-level aggregates like GDP per capita. Moreover, these survey data also allow for a better profiling of poverty and well-being, in order to identify for example who has won and lost from the recent economic upsurge. And finally, survey data are also a good starting point to analyse government action, by tracing the evolution in well-being of different groups of people back to particular types of policies.

This being said, the academic literature that builds on the available survey data for the DRC is quite limited. Most of it is written for an audience of policy makers or for a wider public, most of it also rather refers to secondary references citing the primary sources, rather than to the primary sources themselves –which are, most of the time, not publicly available.

The paper is structured as follows. In a first section, an overview of most relevant nation-wide surveys is provided. It is important to signal that interpreting survey data carries its own challenges. First of all, surveys don't emerge in a political void, they are organized with a particular purpose and financed by particular actors. The way in which they came about also determines their accessibility and validation by independent researchers. Second, the correct interpretation of survey data ultimately depends on the quality and accessibility of related

background material (like manuals, questionnaires, sampling designs, price data, etc.), often referred to as *metadata*. Given their crucial and transversal importance, a subsequent section will dwell extensively on the problematic nature of sampling and the poor account of price data in the DRC.

The third section discusses the evidence we (still) have on the evolution of poverty, well-being and inequality experienced at the household level during the past decade of macro-economic growth. It is important to distinguish, at this point, between three broad categories of indicators: (1) income/consumption-based, (2) asset-based and (3) outcome-based. While claims about the evolution of poverty or well-being in the DRC may vary quite importantly depending on the type of indicator used, the complex relationships between these categories are not yet well understood.

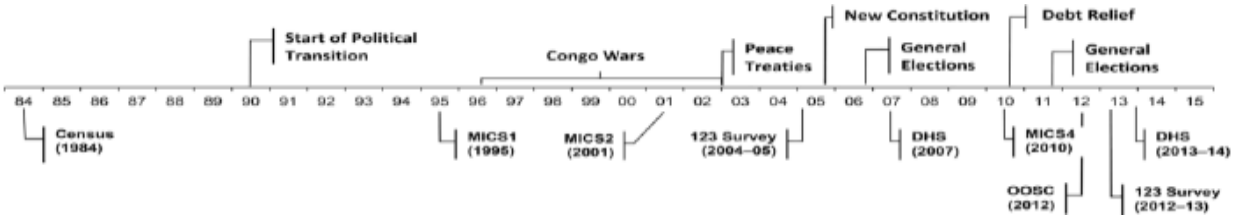
The fourth section then looks at the information we have about livelihood profiles, i.e. variables that correlate with particular measures of well-being. Geography is one of the important (potential) correlates to look at. In a country the size of Western Europe, it is an evident and indispensable way to study the reality behind the average trends in well-being. We also consider gender, the rural/urban divide and the level of education before looking at the data on how socio-professional activities are related to levels of well-being.

The last and fifth section concludes by drawing some lessons from this review in the form of a research agenda for future work in this area.

Section 1: Data access and availability

Research on well-being and livelihoods in the DRC almost always points to poor data availability and to questionable datasets. DRC is a large country covering almost the size of Western Europe with an estimated 75 million population of which 62% live below the poverty line (World Bank, 2015). The collection of data throughout the country is obviously impaired by factors such as the inadequate functioning of public infrastructure, resource unavailability, low levels in human development and recurrent episodes of conflicts. The timeline below highlights that data gathering has not been a frequent exercise in the DRC. It also presents the evolution of data collection in the country in light of a historical overview of major political events in the DRC.

Figure 1. Overview of major political events and national surveys in the Democratic Republic of the Congo (1984–2015).



Source: an update of Marivoet 2012.

The first and so far only census conducted in the DRC dates from 1984. Prior to this event, we note a couple of initiatives towards population numbering with the first being the 1923 attempt for population registery and control during colonial times, and the second being an administrative census of 1970 from which a great deal of demographic data vanished amidst post independence turmoils, making the implementation of the first nationwide census in 1984 all the more necessary (Marivoet 2012). The pace of data gathering in the Congo reflects the political history of the country as the end of the cold war (1989) coincided with the beginning of a transition period marred with political instability and unrest with two waves of civil wars lenghtening into 2003.

The signing of peace treaties in the early 2000s ushered a period of relative stability, thus enabling the execution of several nationwide household surveys in the new millenium. In total, there have been at least seven representative national household surveys since 2000 which all

captured socio-economic and demographic data of over half a million citizens. Among these surveys, we find two Multiple Indicators Cluster Surveys (MICS2 2001 and MICS4 2010), two standard budget surveys called 123 Survey (2004–05 and 2012–13), two Demographic Health Surveys (DHS 2007 and DHS 2013–14), and a nationwide survey on the number of Out-Of-School Children (OOSC) executed in 2012.[3] The political events covering the period under which these surveys were respectively carried out are meaningful. More precisely, they pertain to the signing of the peace treaties, the adoption of a new constitution in 2005, the first general and democratic elections held in 2006, the debt relief agreement in 2010, the second general election in 2011. The signing of debt relief in 2010 highlights a turning point with the World Bank requiring the inclusion of traceable pro-poor budget expenditures as a mandatory component of the highly indebted poor country (HIPC) initiative as a way to reduce Congo's debt overhang by targeting macro-economic indicators alongside measurable social outcomes. This propelled the execution of MICS4, the OOSC, the second wave of the 123-survey, and the implementation of the 2013-2014 national DHS. The table below informs on these main surveys undertaken in the country along with key implementing stakeholders, their relative budgets and the main output for which they were designed.

[3] The Comprehensive Food Security and Vulnerability Analysis (CFSVA) of the World Food Program for example is a robust survey conducted in the DRC, albeit not representative at the country's urban sector.

Table 1: Summary of national household surveys, key stakeholders and use

CARACTERISTICS		OUTPUT
SURVEY	**MAIN ACTORS** - Government agency - Donors - Executing agency	**ACADEMIC AND POLITICAL USE**
National Census (1984): Size: 30 729 443 individuals Budget: Unavailable	- Zaire government -UNFPA - INS	Wide internal use, used particularly as a sampling reference
MICS1 (1995): Size: 4,574 households Budget: 0,12 millions USD	- Secretary General of Planning - UNICEF, UNDP, WHO - INS	Little used for political and academic purposes
MICS2 (2001): Size: 8 600 households Budget: ap. 1,3 millions USD	- Ministry of Planning - UNICEF/USAID - INS	Low use for political purposes Little used for academic purposes
Survey 1-2-3 (2004/5): Size: 13 688 households Budget: 2 260 547 USD	- UPPE-SRP - WB, UNDP, Belgian & French Cooperation and others - INS, DIAL, AFRISTAT	Low use for political and academic purposes
CFSVA (2007/8): Size: 3,236 households Budget: Unavailable	- Ministry of planning - PAM, Citigroup Foundation, ECHO and Belgian Kingdom - INS	Very little used for political and academic purposes
DHS (2007): Size: 8,886 households Budget: Publicly Unavailable	- Ministries of Planning and of Health - USAID, DFID, UNICEF and others - INS, Macro International	Low use for political purposes Little used for academic purposes
MICS4 (2010): Size: 11,490 households Budget: 2,115, 000 USD	- Ministry of Planning - UNICEF, UNFPA, PAM, USAID - INS	Low use for political purposes Little used for academic purposes

Info from OOSC 2012, NHS 123, DHS 2013 to be added to this table.

Survey implementation and data gathering in the DRC remains a domain largely driven and financed by external donors. One can make the case that, without external financing and pressures mounting from the donors' community seeking measurable tools to best inform and improve their own internal poverty reduction strategy, these surveys would certainly not have been conducted. In the case of the DRC, the ultimate consequence of these data partnerships linking the country with donors makes country data available but also brings a twofold challenge:

The first being that the structures of the National Institute of Statistics (INS), being the state entity charged with administering most of the above-mentioned surveys, acquire a market-oriented approach in which it becomes logical to 'sell' their survey services and/or the results of these surveys. This functioning logic stands in tension with the public character of surveying and survey results: not only are the efforts of data collection not sufficiently exploited for socio-economic analysis, the possibility of public scrutiny at all stages of the research is a crucial check on the quality of the information. This absence of public scrutiny seriously impairs the quality of the data exercise.

The second challenge is related to the fact that surveys are evidently envisioned by policy makers and financed by donors with specific objectives in mind. More particularly, donors rely on survey results to check on the state's performance in order to make judgments on future aid policies and loan strategies. This turns surveys into important political instruments, while they are partly under control by the state administration itself. This is another source of secrecy around survey results in the DRC, it decreases public access to and use of the data and it decreases the possibility of public scrutiny.

By way of example, despite championing commitment for open data policy and irrespective of contractual agreements citing the 123-survey data as public, even five years after having carried out the latest round, the 123-survey dataset is not publicly available, nor is the wave of the 123-survey carried out in 2004-2005. This situation is exacerbated as different partial versions of the dataset instead have started to circulate since, further adding to the confusion rather than allowing for a transparent debate about data source and what happened with regard to how it was handled.

In the meantime, the government, and more in particular the Primature, has itself setup an alternative structure, called CAID or 'Cellule d'Analyse des Indicateurs de Développement', which is an internet and mobile phone based data collection unit at the country's territorial level. The unit receives occasional technical support from the International Food Policy Research

Institute (IFPRI), and collects data across 145 initial rural territories with the goal to improve on policy decisions in a newly decentralized country.

Contrary to previously cited surveys which were heavily donor dependent, this unit is by far the only data collection initiative fully initiated and financed by the government of the DRC. However, it is yet again probable that the functioning of CAID could soon emulate a more market driven logic of data collection, given that initial government funding only covered the first 18 months of operation. Recent ongoing political changes in the country's leadership have created a vacuum in funding and requires for CAID to consistently renegotiate its *raison d'être* with each new wave of political appointees. For the purpose of the ODI research line on territorializing well-being in the DRC, this dataset currently available adds value as an additional instrument to triangulate household surveys and complement existing data libraries with meso-level contextual Information.

Section 2: The importance of reliable metadata in interpreting survey data

As previously noted, surveys are not stand-alone documents and must be interpreted with the background and contexts under which they stand. Here, we illustrate a few challenges with sampling and with survey price data compiled in the country by the national institute of statistics (INS).

Sampling problems

Researchers are not interested in survey results as such, of course, they want to make claims about the population as a whole. This supposes that the sampling procedure guarantees representativity, given that without representativity, no reliable claims can be made. However, while comparing the characteristics of the samples used by the different national-level surveys, the study identifies the following four interrelated problems.

A first problem with demographic estimates in surveys undertaken from 1984 to 2014 concerns the reported population growth rate, where individual surveys refer to having applied the World Bank recommended annual growth rate of 3% to the base year of 1984, which is the latest (and only) year for which census data are available. In reality, however, none of the surveys

conformed to the 3% rate, thus producing inconsistent population estimates compared to what could have transpired had this rate been applied. The reasons for these variations are not cited in any of the survey reports. Given the magnitude of the differences, it is also difficult to imagine how such variations might be justified.

Table 2: Demographic estimations from 1984-2014

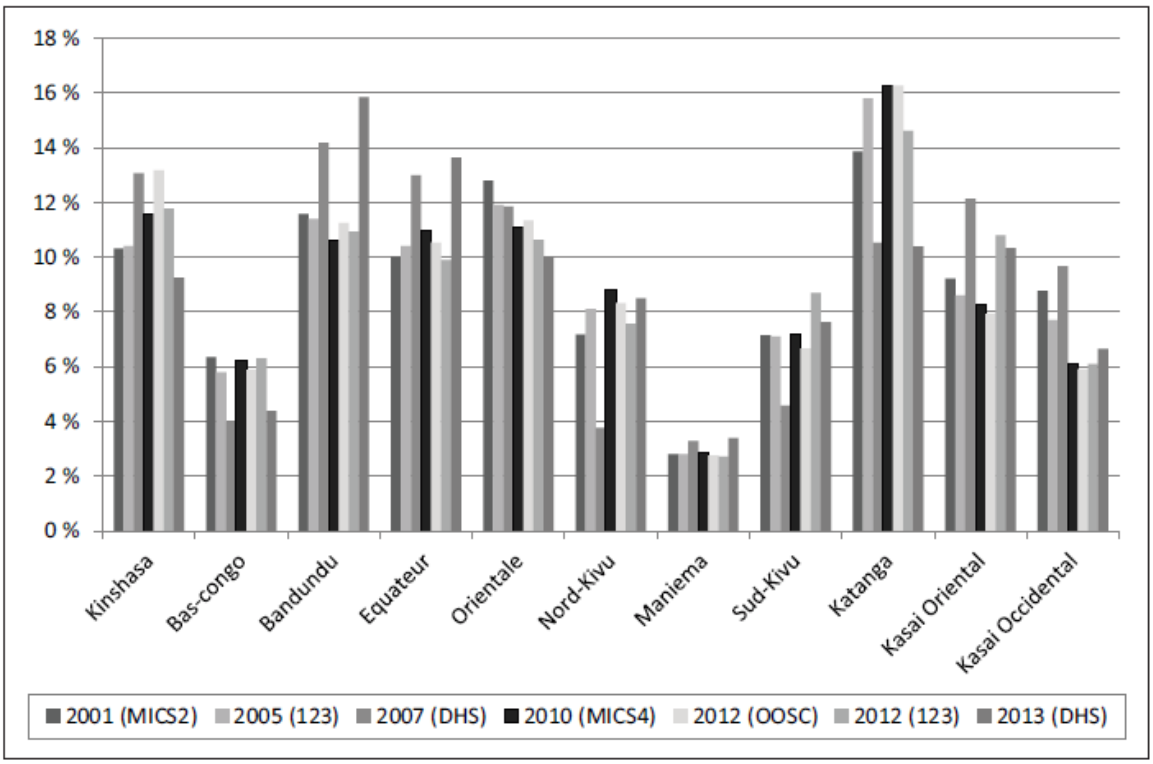
Population (in millions)	**CENSUS 1984**	**MICS2 2001**	**123-SURVEY 2005**	**DHS 2007**	**MICS4 2010**	**OSCS 2012**	**123-SURVEY 2012**	**DHS 2013**	**UNICEF 2014**
Kinshasa	2.7	5.4	5.8	8.6	8	9.2	9.4	6.5	8.3
Bas-Congo	2	3.3	3.2	2.6	4.3	4.1	5	3.1	3.6
Bandundu	3.8	6	6.3	9.3	7.3	7.9	8.7	11.1	8.6
Equateur	3.6	5.2	5.8	8.5	7.6	7.4	7.9	9.5	10.5
Orientale	4.3	6.7	6.6	7.8	7.7	8	8.5	7	10.8
Nord-Kivu	5.4	3.7	4.5	2.5	6.1	5.8	6	5.9	7.5
Maniema		1.5	1.5	2.2	2	1.9	2.2	2.4	2.3
Sud-Kivu		3.7	3.9	3	5	4.7	6.9	5.3	6.2
Katanga	4	7.2	8.7	6.9	11.2	11.4	11.7	7.3	12.9
Kasai Oriental	2.6	4.8	4.8	8	5.7	5.6	8.6	7.2	9.8
Kasai Occidental	2.4	4.6	4.3	6.4	4.2	4.1	4.9	4.7	8.5
Total	30.7	52.1	55.3	65.8	69.1	70.3	79.8	69.9	89
Demographic estimation and growth rate									
3% Starting from 1984	30.7	50.8	57.2	60.6	66.3	70.3	70.3	72.4	74.6
3% After 2014	36.7	60.6	68.2	72.4	79.1	83.9	83.9	86.9	89
Growth 1984-2014	30.7				3.61%				89

Source: De Herdt et al. (2015)

As illustrated by table 2, taken at face value reported population for Kinshasa would have evolved from 8.6 million (DHS 2007) to 8 million (MICS4 2010), then decreased to 6.5 million (DHS 2013) and finally again increased to 8.3 million (UNICEF 2014). Similarly, population estimates in the formerly known province of Bas Congo were reportedly 3.2 million (NHS 2005), decreased to 2.6 million two years later (DHS 2007), increased to 5 million (123 survey2012), and decreased to 3.1 million a year later (DHS 2013). These demographic variations are too erratic to be taken as approximations of any real trend. They also contradict what one would expect these trends to be. In the case of Kinshasa for example, one would have expected for rural to urban migration

movements to have increased the size of the population as opposed to taking away from it. Similarly, for Bas Congo, where a population drop in millions of individuals in a province not directly impacted by civil war and without any reported natural disaster or health calamity raises questions.

Table 3: Provincial demographic weight fluctuation (2001-2013)



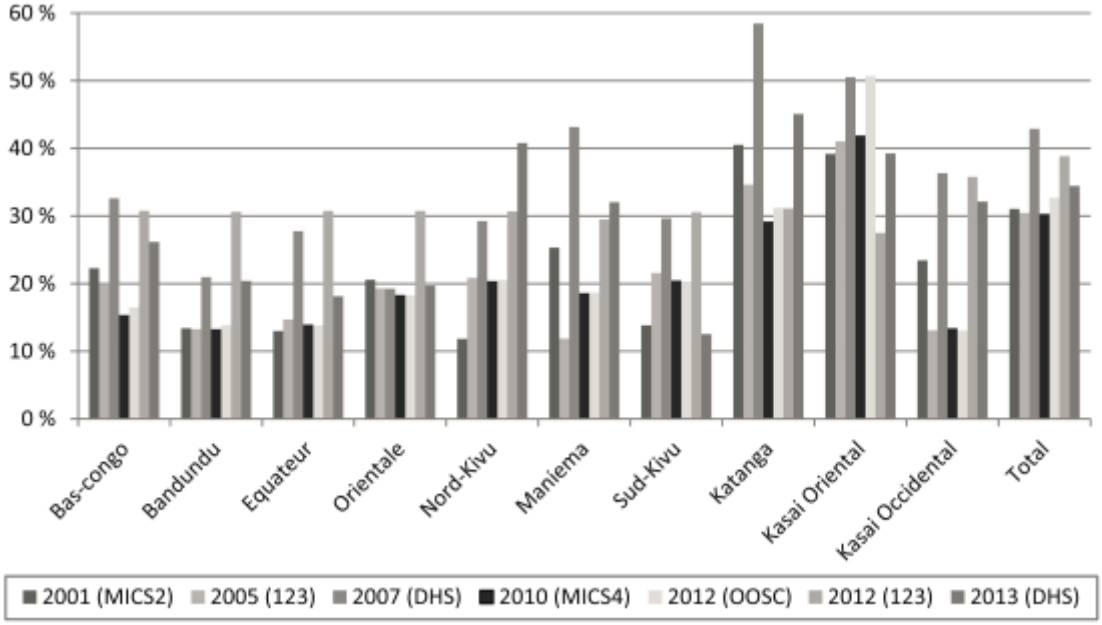
Sources: République Démocratique du Congo (2002, 2008a, 2008b, 2011, 2013a, 2014a, 2014c).

A second problem relates to the unexplained drastic variations in the demographic weight of each province resulting from the many changes in population estimates, causing demographic weight to drastically fluctuate from one survey to the other. As noted on table 3 below, Maniema maintained a relatively stable population share of 3% while provinces such as Nord Kivu, Katanga and Bandundu respectively reached a weight that varied between 4% and 13 %, showing drastic population decline without sensible explanations (Marivoet et al. 2017).

A third problem relates to the varying weight of the rural/urban regions showing urbanization rate within each province. Once more, irregularities in the variations of

urbanization rates are alarming as these variations reached 13% in Bandundu, Equateur, both Kasai and reached around 30% in the Katanga, Maniema and Nord Kivu provinces (Marivoet et al. (2017). It is not possible to know with greater level of accuracy how many Congolese in fact live in the country and a rural/urban distribution reflecting the actual country situation.

Table 4: Urbanization rate (2001–2013), initial sampling frame.



Sources: République Démocratique du Congo (2002, 2008a, 2008b, 2011, 2013a, 2014a, 2014c).

A fourth problem is that the survey estimates do not align with recent demographic information. In principle, the 1984 census provides for the "reality check", but the actualized results of this census don't match for example with population estimates based on UNICEF's vaccination data or based on the government's own data on school enrolment. The last remark also provides for one possible way forward: which is the ability to recalculate the survey estimates by making use of population weights which reflect some of these alternative sources of information on the size and distribution of the Congolese population. This type of solution was proposed by Marivoet & De Herdt (2017), on which we intend to rely to reduce the overall effect of DRC's erratic sampling designs, especially if no background information can be provided to explain these fluctuations. Alternatively, when the INS has arguments to support the implicitly

reported demographic estimates, it might be interesting to conduct qualitative research on the precise methodology adopted as well as on the origin and reliability of the imputed information.

Deflator problems

Household budget data are initially expressed in nominal terms. To become a meaningful source to measure welfare and poverty, these data should therefore be complemented with other pieces of information. Indeed, whether a certain amount of *Francs Congolais* allows the household to escape from poverty, ultimately depends on the socio-economic context where this money is spent. In this respect, two sorts of contextual information should be added to the analysis: first, price data to correctly convert nominal budget levels into their purchasing power equivalents; and second, information on the specific needs within any particular setting, to know which commodities are required to avoid poverty. Whereas the second type of information is often not readily available as it necessitates a deliberative social process to identify local needs and corresponding commodities, price data are directly collected by budget surveys and their application does not require any social judgement. Conversely, these price data are typically expressed in local selling units (like *ekolo*, *sakombi*, etc.), which required for the 123-survey data (2004/5) an additional and (non-publicly available) dataset to allow the conversion into metric prices.

Unfortunately, analysts in the DRC devote little attention to control for price differences let alone to context in general. This can be illustrated by the poverty analysis conducted in both Poverty Reduction and Strategy Papers (DSCRP). By relying on the monetary value of only two, urban and rural, poverty bundles, the analysts behind the first-generation DSCRP[4] (2006) not only implicitly assumed that the list of commodities needed to escape from poverty in Congolese cities (villages) are the same, but also that urban (rural) prices to obtain these commodities are equal across the country. By pricing a separate poverty bundle for Kinshasa, the latest DSCRP[5] (2011) at least accounted for the exceptionally high prices observed in the capital compared to other cities in the country.

That the latter approaches are plainly insufficient to embark on a meaningful study of DRC's income distribution, stems from different sources of price data – each pointing to prices being highly variable across either time or space. Firstly, based on the 123 Survey (2004-5), Marivoet (2016) concluded that food prices in Kinshasa on average are two times higher than

[4] Document Stratégique de Croissance et de Réduction de la pauvreté, Ministère du Plan, 2006, RDC
[5] Document Stratégique de Croissance et de Réduction de la Pauvreté, Ministère du Plan, 2011

those observed in Bas-Congo, South-Kivu and both Kasai; and at least three times higher compared to the rest of the country[6]. There is, besides, quite some variation in prices for individual food items at lower geographical units too. To get a sense of these variations, the CAID bulletins on the m-kengela project, which monitors (in collaboration with the WFP) monthly food prices at the territorial level since Mai 2016, are extremely illustrative. For example, the bulletin of March 2017 highlights the spatial variation in prices for multicolored beans, an important source of proteins, which seems to range from 669 FC in the territories of Kungu, Faradje and Kibombo to not less than 3000 FC per kg in Mitwaba, Manono and Luiza. In addition to spatial price differences, the price variation is further complicated by different inflation rates for each food item. Whereas the price of the same multicolored beans has increased by 78% in some territories compared to the previous month, other territories recorded a decrease of 64% (CAID 2017)[7].

Diversity in needs across time and space is another factor impeding any direct and genuine welfare analysis. This issue can be simply captured by the question "what list of commodities should make up the poverty bundle in any particular setting"? These commodities might respond to a need imposed by nature (like a mosquito net to cope with an environment affected by malaria) or by culture (like a cellphone to be able to participate in an urban society). Although this approach might seem to jeopardize any consistent comparison of welfare and poverty levels across time and space, theory has already provided some time ago the appropriate concepts to deal with this issue. More specifically, the theoretical blueprint departures from a fixed poverty bundle defined in terms of people's capabilities (as defined by Sen 1999), which should then be contextually translated to a set of corresponding commodities before being converted into their monetary equivalent using local prices. As such, consistency and specificity (being two core principles of poverty analysis) will be reunited: consistency is assured through a reliance on a minimal fixed capability bundle; and specificity stems from the bundle's local translation into its money-metric equivalent.

Of course, while pursuing this theoretical ideal, practical short-cuts and second-best accommodations are often inevitable to overcome a variety of problems. One such approach has been formally worked out in Marivoet and De Herdt (2015), which departs from an improved version of the Food Energy Intake method to compute a series of 56 regional poverty lines. The

[6] As demonstrated by the substantial variation of the EKS Fisher food index observed between 56 price zones. This implies that Congo's domestic food markets are very inefficient.
[7] Results from analyzing CAID food price data on basic commodities in 2017.

pairwise combinations of these poverty lines are then used as deflators to spatially correct the nominal budget levels of the 123-survey data (2004/5). A similar methodology has been used to correct for contextual variation between 1975 and 2004 in Kinshasa (De Herdt and Marivoet 2017) and across *both* time and space for eight Congolese cities over the same period (Marivoet 2015). Given the illustrations on the substantial variation in food prices, it goes without saying that any poverty analysis and profile will be seriously determined by the analyst's willingness and degree to adopt a context-sensitive lens. For this research on livelihoods, we intend to replicate and apply an updated version of the above methodology to both waves of the 123-survey data (2004/5 and 2012/13).

Systematic reference to metadata

The two issues discussed above clearly illustrate the importance for stakeholders to be aware of these problems and for analysts to be equipped with the analytical tools to deal with them. Problems pertaining to the weakness of data capacity and dataset inaccuracy is a generalized challenge that extends beyond the DRC of course (Jerven 2013). As a solution, we propose that all essential metadata related to the execution of household surveys should be made publicly available, so that survey data could be of real use to inform public policy.

Section 3. What do we know about livelihoods in the DRC?

In answering the question how livelihoods evolved in the DRC, micro-level surveys can fill in the gap left by aggregate indicators by contextualizing livelihoods information and estimates on the DRC. On a methodological level, however, it is important to distinguish between different well-being approaches to the measurement of well-being. More particularly, it is useful to distinguish between income-based, outcome-based and asset-based approaches well-being. We start with a macro perspective on national income, before we zoom in into the micro-level distribution of household incomes by discussing the interrelated concepts of growth, poverty and inequality. We then briefly discuss outcome-based and asset-based approaches to livelihoods and, especially, the scarcity of such a literature on the DRC.

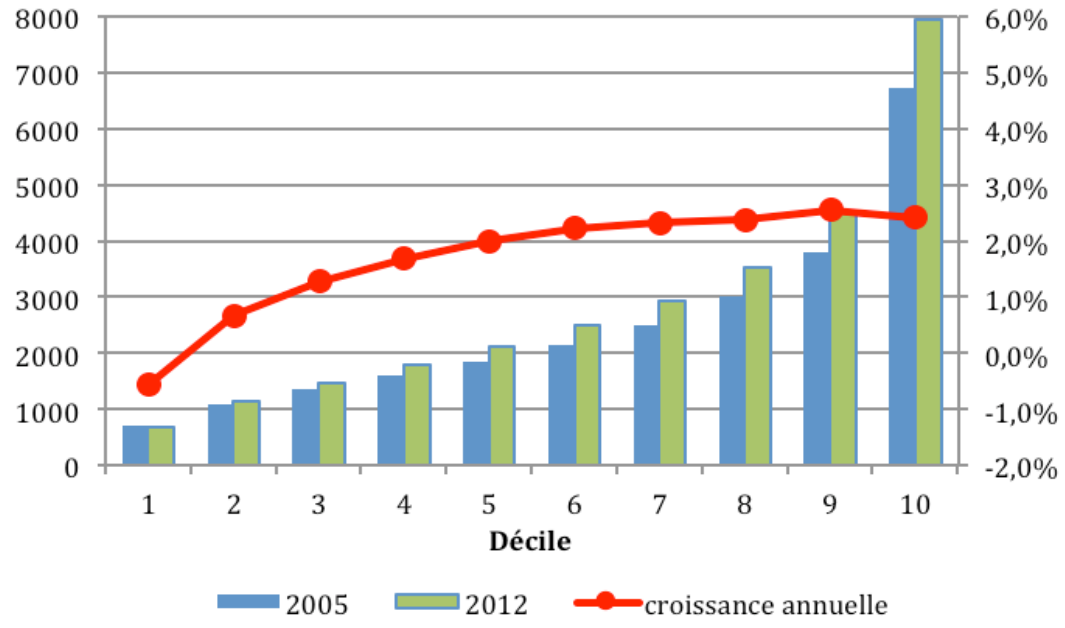
3.1. From GDP and national income to household income

For a long time, the income approach to measure well-being and compare welfare levels of countries remained largely unchallenged. Under this framework, we know that the DRC experienced a tremendous per capita growth rate of 7.7%, standing above the average growth rate for Sub-Saharan Africa during the period 2010-2015 (UN Africa Renewal, 2016). While the income approach to welfare measurement is best suited to inform on the health of the economy as a whole, it is not suitable when it comes to informing on the livelihoods and well-being of citizens. Indeed, we cannot simply assume that such spectacular per capita GDP growth has fully trickled down and translated into an equally strong reduction of poverty at the household level. In this respect, the per capita growth rate of 7,7% needs to be contrasted with a real measured annual per capita growth rate in household incomes of 2,1%, between the two household surveys (see below). A potential answer in understanding why low GDP has not produced growth at the household income level can be due to the fact that such growth has mostly been driven by the extractive industry which is largely capital intensive, while generating income and (limited) employment for specific niche of highly technical groups.

3.2. A focus on inequality and poverty

Further, to enquire into poverty, both growth and distribution have to be taken into account: "Poverty reduction in a given country and at a given point of time is fully determined by the rate of growth of the mean income of the population and the change in the distribution of income" (Bourguignon, 2004, p2).

Figure 2: Evolution of daily consumption per equivalent adult from 2005 to 2012 (in Congolese Francs)



Source: De Herdt et al. (2015)

Figure 2 illustrates an income and consumption approach towards well-being and poverty in the DRC. While making use of 123-survey of 2004-5 and 2012-3, budget data were expressed in purchasing power for Kinshasa in 2012 by using the same list of 56 regional price indices as obtained through the 2004-5 wave and by applying the inflation barometer of DRC's central bank to get to 2004-5 price deflators. Further, sampling plans were corrected following assumption of demographic distribution of the 2013 survey and by applying the Worldbank recommended demographic projections rate of 3%.

Between 2005-2012, the average growth in household income during the past decade was shared by almost all deciles; only the poorest decile experienced a decrease in its income. However, the figure also highlights evidence of increasing inequality. Such evidence of inequality amidst a growth period instigate that after all, economic growth of the DRC may have likely benefited the wealthier class of the society while further impoverishing the poorest.

As a consequences, notwithstanding an average annual growth in household income of 2,1%, the incidence of poverty ranged between 65% to 70% (De Herdt et al. 2015). The consumption analysis and assumptions above provided information on the evolution of household revenues for each decile, thus shining light on what the experiences of different sub groups must have been during this period of economic growth.

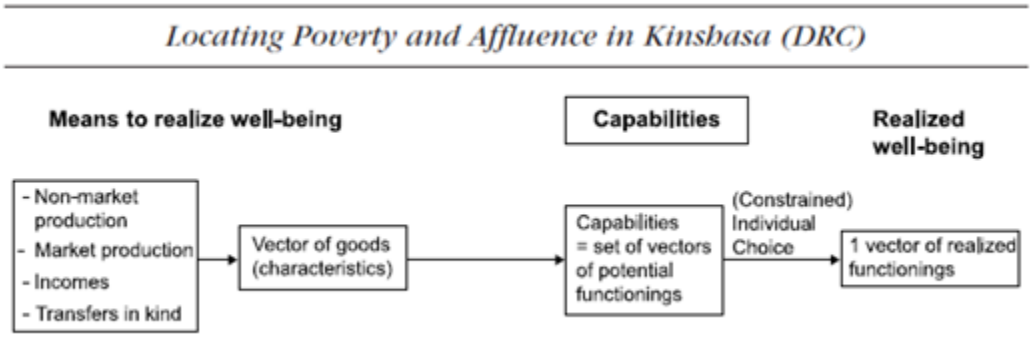
The main take away from this graph is that while 90% of the population was able to experience increased consumption, people in the lowest decile had in fact experienced a negative growth of 0.5% per year. These results confirm that it is possible and important to gain clarity on the economic experience and livelihoods of groups in the DRC, information which cannot be captured through macro level analyses. We do not however know enough to present solid evidence on whose economic performance has worsened during this period of economic growth, where they live and what the factors are behind the different livelihood outcomes of those who benefited and those who suffered. It is precisely in the interest to reach conclusive clarity on this issue that we have been seeking access to the background data of the 123-survey in order to first redo the above exercise by using the 2012-2013 price data instead of the 2004-2005 price data. This will allow us to examine the consistency of these trends and to explore the extent to which further disaggregation could lead to diverging results.

3.3. From incomes to outcomes

The income and expenditure approach to welfare measurement is criticized for not being useful enough in locating poverty in a specific time and place and for lacking the ability to guide policy interventions in non-monetary dimensions of well-being. For example comparisons of households' income under the expenditure framework are made broadly across urban, rural and other sub-national groupings without clear knowledge on the local dynamics that can influence outcomes of households' well-being (Wietzke 2015). Put in the context of the DRC, the ultimate

question is that we do not know what the 2,1% annual household income growth means in terms of changing the life conditions of Congolese citizens.

Figure 3. Connecting means, freedoms and achievements



Source: Adapted from Robeyns (2005,p.98).

Figure 3, adapted from Robeyns, (2005, p.98), further connects means, freedoms and achievements under Sen's capabilities approach where well-being is located between 'disposable means' and 'effectively realized' functionings. Sen's approach focuses on what one is *capable* to do and be. Given this focus, a potential income increase enabled by GDP growth in the DRC does only translate into increased well-being depending on the many factors affecting this translation, be it of personal, environmental, social, relational or family nature. Thus, there is a relatively complex dynamic between a) one's ability to realize well-being (access to non-market production, market production, incomes, in kind transfers), to b) having the capabilities for potential functioning, c) the individual choices that one makes, and d) the ability to actually achieve well-being (Robeyns, 2005). Factors such as life expectancy, the quality of life of households, undernourishment, morbidity, education, the health of a community are all sources of information on well-being beyond income.

The new millennium has championed a focus on non-monetary dimensions of well-being, as exemplified by the expansion of literature emphasizing human development and by the corresponding creation of new tools and indicators like the Human Development Index (HDI). Well-being here measures how well households are doing on development indicators by focusing on the conditions, opportunities and choices available to them (Sen 1999). Contrary to the income based approach, placing emphasis on the richness of the economy in which people live, the human development approach is people centered and seeks to expand the richness and

quality of life of those living in a particular economy (UNDP 2016). Under this approach, we know that the DRC ranked 176th of the 197th countries considered, gaining 11 ranks in the 2015 HDI ranking compared to the previous year. This slow yet gradual change in life expectancy, education and health has translated into higher HDI, thus improving the country's ranking.

These results cannot be taken at face value however, they warrant further scrutiny. For one thing, the rise in the HDI is probably strongly driven by the significant increase in per capita GDP, which is not necessarily telling much about the increase in household income. Further, life expectancy and literacy data are ultimately derived from one of the national-level survey exercises enlisted in table 1., and therefore remains to be critiqued on the basis of the underlying sampling assumptions (section 2).

3.4. A focus on Assets

The asset based approach is increasingly gaining ground as an additional dimension of welfare analysis, as it allows to focus not just on what people are actually able to do and be, but also how vulnerable or sustainable this situation is. The asset approach to welfare measurement offers the simplicity to visualize assets accumulation of individuals over a time period, thus enabling the tracking of wealth accumulation as well as the transmission or reversal of intergenerational poverty for specific groups over time. In this respect, several studies on poverty measurement rely on assets, as a complement to the income-based approach, to distinguish 'structural' from 'stochastic' poverty. In the former case, poverty is structural as both consumption and assets fall below the so-called Micawber threshold[8]; in the latter, consumption falls below the asset poverty line yet assets remain above the critical threshold.

In the DRC, not much work has been done in this area as data are sparce. The upcoming paper on 'Depleting Households Assets- an Urban Response to the Congolese Economic Collapse (1975-2010)' by Marivoet et. al makes use of an asset based approach to analyze the level of depleting household assets in the DRC from 1975 to 2010. The paper constructs a dataset of 21,390 urban families using five cross sectional household surveys. On a general level, the assumption is that the depletion of the country's industrial base under Mobutu would have resulted in a widespread depletion of household assets. Results emanating from this study

[8] Micwaber threshold: A level of assets that is above the asset poverty line, but not high enough to cope with economic shocks.

however failed to sustain this assumption. Indeed, apart from minor depletion experienced by specific households in cities in Equateur, South Kivu, Kasai Occidental and the Province Orientale, no generalized decrease of asset ownership had occurred. To the contrary, asset *growth* was observed, and even segments of the society which appeared to have been impacted during the economic crisis seemed to have recovered swiftly. Further, the analysis identified the social importance of asset ownership and the instrumentalisation of consumer durables as powerful dimensions of assets. This dynamic is at the core tradeoff between low nutritional outcomes and asset accumulation in the DRC as it relates to the acquisition of television sets, bicycles and most recently in the ownership of cell phones for families.

However, these results are limited by the dataset: The dataset was limited to *urban families only*, leaving out a larger section of rural based households whose change in asset ownership during the economic crisis is simply not captured. Also the survey data were not really focusing on assets, which resulted, in the end, in quite a limited set of assets for which the data were available between 1975-2005.

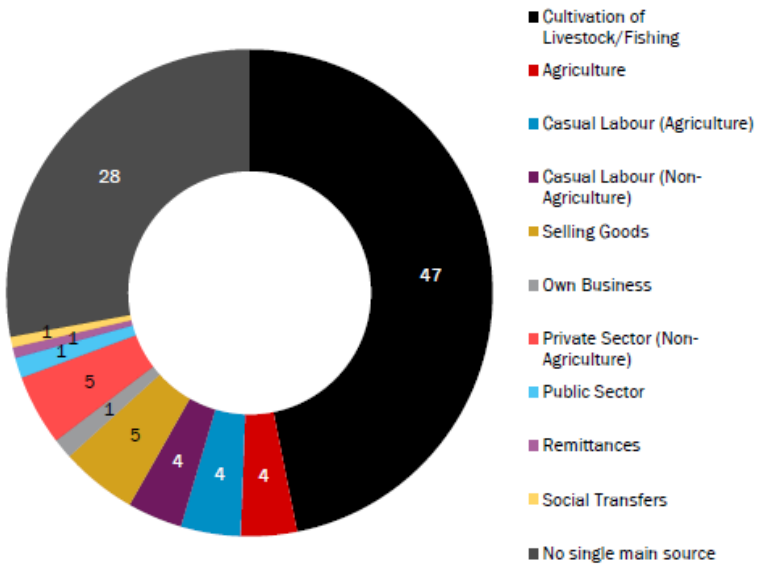
As far as livelihoods are concerned, the asset based approach is an additional venue to investigate the extent to which people's lives have been impacted by tracking the accumulation of wealth and security for the future. However in the case of the DRC, this exercise would require better and improved asset data, accounting both for the rural and urban areas, broader sets of coping strategies, as well as a more diverse dimensions of asset components beyond television sets and radios ownership as dealt with in the research.

Also, there can be tensions between the asset and outcome approach precisely in a way that social and economic inequalities may not always yield the expected outcome. For example, the 2014 WFP profile of nutritional vulnerability in the DRC showed that poorer households demonstrated higher food security status than wealthier ones. This in itself cautions our tendency to assume that increased economic empowerment can result in positive livelihoods indicators.

Section 4. Livelihood profiles

Since we know that there are multiple ways to measure poverty and well-being and what it requires for any analysis on the DRC in terms of data and metadata, the question that remains is to know what the *determinants* of livelihoods are for Congolese citizens. We have chosen three sources informing this question from differing methodologies.

Figure 3: Primary source of household income (% of households)



Source: Milliano et al. (2015)

The first one is a working paper by Milliano et al. (2015) which traces the trajectories of livelihoods and access to services of citizens located within the conflict affected context of eastern Congo. Under an asset-based approach, poverty here takes into account the multiple attributes that makes one poor in a general sense by generating data on three key dimensions: livelihood activities, household wealth, and levels of food insecurity. This survey covered 8,484 households living in conflict affected zones of South Kivu and it is representative at the village level. 53% of surveyed households reported having had experienced conflict in the previous three years. In this context, survey results indicated that the maintenance of a single sustainable livelihood activity was not possible for the majority of surveyed households whose income and survival relied heavily on multiple streams of activities as shown in the chart below.

The paper highlights the understanding of differing variations which may exist between sub-populations of a single sample. In this case, female headed households, displaced households, less educated and conflict affected households fared worse on indicators of asset ownership and food security than other marginalized households in the same sample. The experience of conflict and displacement was consistently associated with worse outcomes in terms of asset ownership and food security for households. In the same vein, education was a strong correlate of livelihoods in high conflict settings given that households with higher education endowments were economically wealthier and displayed increased levels of asset ownership than less educated households. Gender was also a strong correlate of livelihoods as female headed households were more likely to fare worse in asset ownership than other groups, signaling that households headed by women, coupled with the types of livelihoods activities practiced, were likely to indicate lower levels of well-being. It is prudent however not to draw causal inferences from these findings as in this case education. It is possible that the introduction of additional variables not previously taken into account could show further statistical significance.

Further, this work is limited to the specific conflict affected areas of South Kivu and the survey on which these results are based remains limited within this context. It is also work at the stage of a working paper. Nonetheless, it adds value by informing us on what potentially may support the livelihoods of citizens located in conflict settings of the DRC, yet cannot be interpreted as a solid account on what the actual determinants of livelihoods in the Kivu province and in the country as a whole could be.

The second source informing on the livelihoods of Congolese citizens comes from the 2014 World Food Program report (WFP) on the situation of food security and the vulnerability of Congolese households in the DRC[9]. This report focuses on the rural sector and further informs on well-being by identifying the social, physical and natural capital sustaining the livelihoods of households as well as risks factors associated with households' profiles. Findings from this report, which is based on a survey conducted at the national level, stand in contrast with previous findings of the SLRC report on the following points. For example, while the SLRC report in South Kivu did not find the existence of a main source of livelihood stating that Congoleses relied on a variety of diverse activities to sustain their livelihoods, the WFP report which surveyed

[9] http://documents.wfp.org/stellent/groups/public/documents/ena/wfp266329.pdf

households across 10 provinces[10] throughout the country found that households indeed had a single main activity which sustained 80% of their survival. Secondly, while the SLRC report found that female headed households were likely to have fared worse on food security and asset ownership, the nationwide WFP report did not indicate the gender of household heads as a significant contributor to lower food security, contrasting this macro level survey to the micro level finding.

Another key contribution of this report is the caution towards equating income and wealth as precursors for food security by challenging the general assumption that an economically poor household status can likely translate to lower food security status. Under this national survey, 47% of poor households across the country were food secure compared to 55% of the richest households who highly scored on the wealth index, yet were food insecure. Both the SLRC and WFP survey agree on asset ownership in land as an indicator for wealth and increased well-being of households. However, the WFP survey brings precisions beyond land ownership alone by stating that variables such as the utilization of the said land, levels of inputs, labor and technologies applied, as well access to markets are by far greater determinants of livelihoods in addition to the possession of land only. Both surveys also agree on the value of education as a significant contributor to household well-being indicating strong correlations of education with food security and nutritional outcomes.

The last source informing on determinants of livelihoods and well-being in the DRC draws on the study investigating the evolution of living standards in 8 Congolese cities covering the period after the zairianisation policy to the millennium (1975 to 2005). Each of the surveyed 8 cities maintained historical particularities while urban areas were impacted by common traits of informalization, which had largely become an effective source for households' reliance and resilience (De Herdt and Marivoet 2007). During the said period, asset ownership for citizens was shaped by physical access to resources, urban living conditions became resilient to crisis, with some urban cities actually making progress during the crisis period. Analysis of the study showed that poverty incidence on a general level barely changed over three decades, while an important increase occurred in the provinces. In the city of Bukavu for example, poverty increased from 62% in 1975 to 86% in 2005, marking an annual poverty growth rate of 1.2%.

On the other hand, the urbanized province of Kinshasa holding a poverty headcount of 73% was more affected by poverty than the rural province of Equateur for example (Marivoet

[10] 10 provinces given that rural Kinshasa was excluded

2009; Marivoet and Keje 2011). The take of this study highlights the increased dependence of urban households on the informal sector as economic geography continued to structure assets ownership, with individual cities maintaining their own particularities. The ability to clearly label determinants of well-being in this context requires an approach tailored to each city specifically.

5. The way forward

We started this review by pointing out that, notwithstanding common use of data and figures derived from one of the many national-level data surveys carried out over the last two decades, these data should be treated with due methodological care. The challenges of survey research are huge in the DRC context and the country has no tradition in to carry out or work with surveys. Yet, as such these surveys provide for a rich source of knowledge and reflection on diverging dynamics of development in the country.

The methodological overview we made in this paper may first of all be useful for international actors planning to engage in new data surveys in the DRC. The warning signs we flagged might be taken into account, for stakeholders to be made aware of these problems in order to avoid that they occur, and for analysts to be equipped with the tools to adequately deal with them at the moment of setting up a new data gathering exercise.

Second, it may also be important to continue working, at the qualitative level, on the political economy of data surveys. We pointed to a number of aspects in the paper that require further scrutiny: what is the origin, for example, of the diversity in sampling methods that has informed the different national-level surveys, most of them having been carried moreover by the same institution? How to improve on the public accessibility, use of and debate around survey data? Donors have been heavily implicated in these exercises, but apparently they are not well-equipped to tackle the last-mile problems in generating survey data.

Third, we need to reflect on these challenges also at the moment of engaging in a quantitative analysis of the data themselves. More precisely by making use of correction methods in price and sample suggested for the 123 national level surveys. This is what we plan to do in the near future. To begin with, access to the complete dataset covering the 123-survey of 2012 will enable us to **cross check general trends** within the data and particularly with indicators of food consumption and assets. Cross checking these indicators will allow for this research to bring more precision to how results can confirm or contrast previous findings on livelihoods in the DRC. The following step would be to **conduct a pseudo-panel study** to analyse the determinants of well-being by comparing the evolution in consumption of geo and socio-economic groups over time. We plan to accomplish this by tracing back differences in income growth to a typology of different territories, and second by grouping various categories of surveyed citizens under specific socio-professional groups. Regarding the first part, the work done by CAID at the territorial level may

serve as a useful source of evidence. As concerns the second part, we can take inspiration either from the typology of socio-professional groups used in previous surveys (e.g. Houyoux 1973, 1976, 1986) or from recent approaches to categorize people in terms of the vulnerability of their income-generating capacity (e.g. Golthorpe 2013).

Additionally, we plan to address key analytical challenges encountered around data analysis in the DRC by organizing a seminar in Kinshasa during which stakeholders will engage in discussions on the topic, further stimulating the need for data critique in the academic community as a tool to improve data quality in the country.

References

Bourguignon, F. (2004) "The Poverty-Growth-Inequality Triangle" (Conference Paper), India, The Indian Council for Research on International Economic Relations.

De Herdt, Tom and Marivoet, Wim(2009) 'Capabilities in Place: Locating Poverty and Affluence in Kinshasa (Democratic Republic of the Congo)', Journal of Human Development and Capabilities, 12: 2, 235 — 256

De Herdt, T. Marivoet, W. & Muhigirwa, F. Analyse de la situation des enfants et des femmes en RDC : Vers la réalisation du droit à une éducation de qualité pour tous. UNICEF, 2015.

De Herdt, T., Marivoet, W. and Marysse, S. (2008) "Political Transition in DRC: How Did Kinshasa Households Fare?", *African Development Review*, 20 (3): 400-425.

De Herdt, T. Marivoet, W. (2007) "Informalization, poverty and inequality in Kinshasa" (Conference Paper), South Africa, The Living on the Margins Conference.

National Institute of Statistics (2004, 2012) Enquête 1-2-3, Kinshasa, INS

Englebert, P. (2014) Democratic *Republic of Congo: Growth for all? Challenges and opportunities for a new economic future* Johannesburg: Brenthurst Foundation.

Goldthorpe, J. (2012) "Back to Class and Status: Or Why a Sociological View of Social Inequality Should Be Reasserted" Reis 137, enero-marzo 2012, pp. 201-216

Herderschee, J. Mukoko Samba, D. Tshibangu, M.T. (2012) "Résilience d'un géant africain: Accélérer la croissance et promouvoir l'emploi en République Démocratique du Congo". (Kinshasa: Banque Mondiale).

Houyoux, J. (1973) Budgets ménagers, nutrition et mode de vie à Kinshasa. Kinshasa, Presses universitaires du Zaire.

Houyoux, J. & N. Kinavwuidi & O. Okito. 1986. Budgets des ménages; Kinshasa 1986 Kinshasa/Bruxelles:Beau/Ichec.

Jerven, M. (2013)"Poor Numbers, How We Are Misled by African Development Statistics and What to Do about It". Ithaca, NY: Cornell University Press.

Marivoet, W. (2012) " Économie Politique de l'Information en RDC. Quelques Expériences liées à des enquêtes Nationales (1984-2011) ", Institute of Development Policy and Management, Antwerp.

Marivoet, W. and H. Keje, "Approfondir le profilage géographique de la pauvreté en RDC," IDPM Discussion Paper 2011.01, Institute of Development Policy and Management, Antwerp, 2011.

Marivoet, W. (2014) "Evolution of living standards in eight Congolese cities between 1975 and 2005", Institute of Development Policy and Management, Antwerp.

Marivoet, W. (2016) "Food Markets and Nutrition in the Democratic Republic of the Congo (2004-2005)", International Food Policy Research Institute, Discussion Paper 01566.

Marivoet W and De Herdt T (2014) "Reliable, challenging or misleading? A qualitative account of the most recent national surveys and country statistics in the DRC". Canadian Journal of Development Studies 35(1): 97–119

Marivoet, W., and T. De Herdt. 2015. "Poverty Lines as Context Deflators, a Method to Account for Regional Diversity with Application to the Democratic Republic of Congo." *Review of Income and Wealth* 61 (2): 329–352.

Marivoet, W. De Herdt, T; (2017a) “Tracing Down Real Socio-Economic Trends From Household Data With Erratic Sampling Frames: The Case of the Democratic Republic of the Congo” (sampling paper)

Marivoet, W. De Herdt, T. (2017b) “Is informalization equalizing? Evidence from Kinshasa”, (forthcoming).

Marivoet, W. De Herdt, T. (2017) “Depleting Households Assets- an Urban Response to the Congolese Economic Collapse (1975-2010)”, (forthcoming).

Milliano, C, and Ferf, A. (2015),”Surveying livelihoods, service delivery and governance: baseline evidence from the Democratic Republic of Congo”, Working paper 30, Netherlands.

United Nations (2016) “DRC economy giant awakens: Africa Renewal” Online: *www.un.org/africarenewal/magazine/august-2016/drc-economy-giant-awakens*

United Nations Development Program, 2016. http://hdr.undp.org/en/countries/profiles/COD

Robeyns, I. (2005), “The Capability Approach: a theoretical survey”, Journal of human development 6 (1): 93-117

Sen, A. (1999) *Development as Freedom*, New York, Alfred A. Knopf.

Wietzke, B. (2015), “Who is poorest?: An Asset-based Analysis of Multidimensional Wellbeing” Development Policy Review, 2015, 33 (1): 33-59.

World Food Program/International Food Policy Research Institute Security (WFP/IFPRI/INS).2014. “Democratic Republic of Congo, Comprehensive food security and vulnerability analysis. (CFSVA). WFP. Accessed June 12th. [1] http://documents.wfp.org/stellent/groups/public/documents/ena/wfp266329.pdf