

Mapping great ape conservation projects with a livelihood component in DRC: a preliminary study

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PCLG RESEARCH REPORT



Poverty and Conservation Learning Group

DRC PCLG
The DRC Poverty and Conservation Learning Group

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All omissions and inaccuracies in this report are the responsibility of the authors, whose opinions are their own and not necessarily those of the institutions involved.

Information needed for future assessments:

During the stakeholders survey, a questionnaire (Annex 1) was developed to determine who does what, how, where and with whom in the context of great ape conservation and livelihoods' improvement in DRC. The questionnaire was subsequently sent by email to members of the DRC PCLG network to collate the information. Members were also asked to provide data from previous studies on the same issue. However, since members' contribution during this phase was low, we are aware that there are initiatives which should be mapped that are missing from this report. Readers are therefore encouraged to provide more details about their activities: location of projects in DRC, types of projects, etc. These will be included in the next phase of this work. For any information, please contact the authors at: paulsonkasereka2010@gmail.com.

About the authors

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About the project partners

About DRC PCLG: The DRC Poverty and Conservation Learning Group (DRC PCLG) is a learning network that brings together DRC conservationists and development practitioners to share their experiences and to work together to better inform development and conservation policy and practice. DRC PCLG is coordinated by FONDAMU, with support from the International Institute for Environment and Development (IIED). For more information visit: <http://povertyandconservation.info/en/pages/drc-pclg>

About OSFAC: Based in Kinshasa, DRC, OSFAC (Observatoire Satellital des Forêts d'Afrique Centrale) is a regional NGO and centre of excellence in natural resources management and sustainable development, monitoring of forest cover in the Central Africa, dissemination of satellite data and their products, capacity building in geographical information systems and remote sensing. It also provides technical support to its partners (www.osfac.net).



Photo credits

Front cover: Ian Redmond took this photo of Mukono, a sub-adult male Grauer's Gorilla in Chimanuka's Group in Kahuzi-Biega National Park (PNKB), who lost his left hand in a poacher's snare. He copes well as an amputee and thanks to the hard work of PNKB rangers supported by several NGOs (including the Gorilla Organization), there should be fewer snares set for bushmeat to threaten the next generation of ape infants in PNKB.

Back cover: Bonobos photographed by Paulson Kasereka at the Bonobo sanctuary Lola ya Bonobo in Kinshasa.

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This study maps great ape conservation projects with a livelihood component that are being carried out in DRC, and examines whether or not they are improving the well-being of local people living in and around the conservation areas. It aims to provide a baseline for future assessments of the impact of great ape conservation projects on poverty alleviation in DRC, and draw out lessons that will inform policy and practice.

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Acronyms

ABC	Les Amis de Bonobo du Congo
ACOPRIK	Community Action for the Primates of Kasai
APES	Ape Populations Environments Surveys
AWF	African Wildlife Foundation
BCI	Bonobo Conservation Initiative
BNS	Basic Necessities Survey
CEDAP	Centre de Développement Agro-Pastoral de Djolu
CI	Conservation International
CoCoCongo	Coordination pour la Conservation au Congo
CoCoSi	Comité de Coordination des Sites
DEP	Direction des Études et Planification
DRC	Democratic Republic of Congo
ERAIFT	Ecole Régionale Post-Universitaire de Gestion des forêts et territoires Tropicaux
FACET	Forêts d'Afrique Centrale Évaluées par Télédétection
FFI	Fauna & Flora International
FONDAMU	Fondation Mugangu
GIS	Geographic Information System
GLC	Green League Congo
ICCN	Institut Congolais pour la Conservation de la Nature
IGCP	International Gorilla Conservation Programme
IIED	International Institute for Environment and Development
IUCN	International Union for Conservation of Nature
JGI	Jane Goodall Institute
LWRP	Lukuru Wildlife Research Project
MMT	Mbo-Mon-Tour
NGO	Non-governmental organisation
OSFAC	Observatoire Satellital des Forêts d'Afrique Centrale
PACO	West and Central Africa Programme
PCLG	Poverty and Conservation Learning Group
RDC	République Démocratique du Congo
RGC	Référentiel Géographique Commun de la RDC
RNDH	National Report on Human Progress
SR	Strong Roots
TL2	Tshuapa-Lomami-Lualaba
UNIKIN	Université de Kinshasa
UTM	Universal Transversal Mercator

WCS Wildlife Conservation Society
WWF World Wildlife Fund

Executive summary

Local people in and around great ape conservation sites in the Democratic Republic of the Congo (DRC) are still living in poverty. And despite the fact that many of these sites have received funding from bilateral or multilateral organisations and conservation NGOs, many local people continue to have negative attitudes towards conservation initiatives.

One of the reasons for this is that the funds provided do not have a significant impact on poverty reduction or on improving the well-being of local people. Other reasons may be that the funds are not sufficient to cover the needs of local people; or that some conservation organisations claim to improve the living conditions of local people without having either the mandate or the means to do so.

This study aims to determine whether conservation projects are contributing positively or negatively to poverty alleviation and to improving the well-being of local people. Its goal is to define a baseline for assessing the progress and impact of future conservation projects. From the results of this review, it can be seen that efforts invested in conservation projects with a livelihood component are still small.

Lessons learned from the experience of the Poverty Conservation and Learning Group in DRC (DRC PCLG) will inform and guide policy and practice, and where possible, redirect activities and attract partners from both the public and private sectors.

1. Introduction

1.1 Context

The Democratic Republic of the Congo (DRC) is endowed with a wide range of natural resources and rich biodiversity, including numerous endemic species, such as apes, which are threatened with extinction. DRC plays a major role in the conservation of primates, as it is home to three of the four species of great apes: gorilla, chimpanzee and bonobo. However, habitat destruction and hunting for bushmeat are threatening biodiversity and the survival of great apes (Mugangu *et al.* 2002).

The poverty of local people is the main factor that exacerbates the pressures on natural resources in conservation sites, particularly in protected areas (IUCN/PACO 2010). The conservation sites have received significant financing through bilateral and multilateral organisations, or conservation NGOs; however, the negative attitude that most of the local population have towards the site has not changed much (Toham *et al.* 2009).

One likely reason is that these funds do not have a significant impact on poverty reduction or improving the well-being of local people. This failure may also be due to other reasons including: a) the fact that these funds are not sufficient to meet the needs of local people; and b) that some conservation organisations claim to improve living conditions without having either the mandate or the means to do so (this responsibility lays with government authorities). This raises the problem of how to reconcile these two aspects: on the one hand the conservation of natural resources; and on the other, the need to address poverty and improve livelihoods in and around great ape conservation sites.

The Poverty and Conservation Learning Group in DRC (DRC PCLG) aims to improve the links between great ape conservation and poverty alleviation, both in policy and in practice; integrate development objectives in the project portfolios of conservation organisations; and improve the capacity of these organisations to engage and influence development actors from public and private sectors to participate in the conservation of great apes.

To achieve these objectives, one of the strategies adopted by DRC PCLG consists in conducting research in and around great ape conservation sites to better understand to what extent poverty and conservation objectives are currently aligned on the ground. This study is part of this strategy.

1.2 Objectives

- Map the range of great apes in DRC
- Map great ape conservation projects in DRC with a livelihood component, and
- Draw lessons and formulate recommendations for future research, communication and advocacy priorities for DRC PCLG.

1.3 Methods

The methodological approach for this study consisted of: a survey of conservation stakeholders; mapping exercise; a literature review; and synthesis of the results. The duration of the study was six months (from July to December 2015), and covered all geographical areas of DRC where great apes are found. During the stakeholder survey, a questionnaire (see Annex 1) was developed to determine who does what, how, where, and with whom in the context of great ape conservation and improved livelihoods. The questionnaire was sent by email to members of the DRC PCLG network to collect the information. Members were also asked to provide data from previous studies on the same issues.

However, the contribution from members during this phase was low in terms of answering the survey. This situation can be explained by the fact that the questionnaire was probably too lengthy and required a lot of effort to respond satisfactorily. This gap was partly filled by an *ex-situ* mapping analysis, which included: a literature review of available information related to great apes; a comparative analysis of GIS data; and finally, the production of maps. In this report, each map is followed by an explanation which shows: the sources of data; how it was produced; who produced it; and where it was done (see Boxes 1 to 7).

The desk review was an important part of the research. All available information relevant to great apes in DRC (websites, reports, etc.) was collected and summarised. At least four dozen different documents were reviewed systematically. This approach was particularly useful to gather information relevant to evaluating the impact of conservation projects on poverty reduction.

2. Great ape conservation policies

In 2002, DRC adopted a great ape conservation policy with a strategy and action plan (Mugangu *et al.* 2002). IUCN and ICCN (2012a) have also developed a framework for protecting great apes in DRC through two strategic documents:

1. **Action plan for the conservation of bonobo (2012 to 2022).** This has five key strategies: i) institutional capacity building; ii) consultation and collaboration with local stakeholders; iii) awareness-raising and lobbying; iv) research and monitoring; v) sustainable financing. The action plan states that poverty and lack of alternative livelihoods are among the main drivers of habitat destruction and the hunting of bonobo, and that poverty and lack of economic alternatives are forcing communities to unsustainably exploit natural resources for their livelihoods. One strategic goal is that by 2022, targeted alternative activities for sustainable livelihoods are implemented and result in local support, while reducing the pressure on bonobo.
2. **Action plan for the conservation of eastern lowland gorilla and chimpanzee (2012 to 2022).** This also contains five key strategies: i) evaluation of priority populations of great apes in the landscape; ii) awareness-raising and involvement of local people in conservation initiatives; iii) improvement of land management approaches; iv) strengthening protected areas, community forests and sanctuaries; v) law enforcement in the landscapes. The action plan aims that, by 2015, at least one livelihood-specific project is implemented in each great apes priority site. This would lead to the implementation of integrated community development at local level in some areas.

These two action plans involve local people, as reflected in the activities of most conservation projects. However, to what extent are livelihoods truly integrated into these conservation policies? Can we conclude that improvement in well-being and poverty alleviation at the grassroots is among the priorities of these plans? What results have conservation and development practitioners achieved since 2012 by combining great ape conservation efforts with livelihood concerns, in particular income-generating activities (IUCN/PACO 2015)? These questions are being debated in the literature (Roe *et al.* 2011, Leisher *et al.* 2010).

3. Results

3.1 Great ape ranges and conservation sites

Several conservation sites in DRC are home to one of three great apes species. Mountain gorillas are found in the Virunga National Park; while eastern lowland gorillas are observed around Maïko-Tayna-Walikale complex and Kahuzi-Biega Mountains, Itombwe and Tshiabirimu. Western lowland gorillas are found in Tshela in the province of Congo Central (former Lower Congo). Common chimpanzees are found on the right bank of the Congo River, from Ubangui to the west of the Albertine rift, to the eastern basin of Lake Tanganyika. Bonobo is found only on the left bank of the Congo River.

3.1.1 Mountain gorilla

In the 1990s, the population of mountain gorilla (*Gorilla gorilla beringei*) was estimated at nearly 480, found on the slopes of the Virunga volcanoes in the Virunga National Park and on the border between DRC, Rwanda and Uganda (Gautier-Hion *et al.* 1999; Bodson *et al.* 2008). Today there is a population of no more than 200 in DRC (WWF/Dalberg 2013) – see Figure 1.

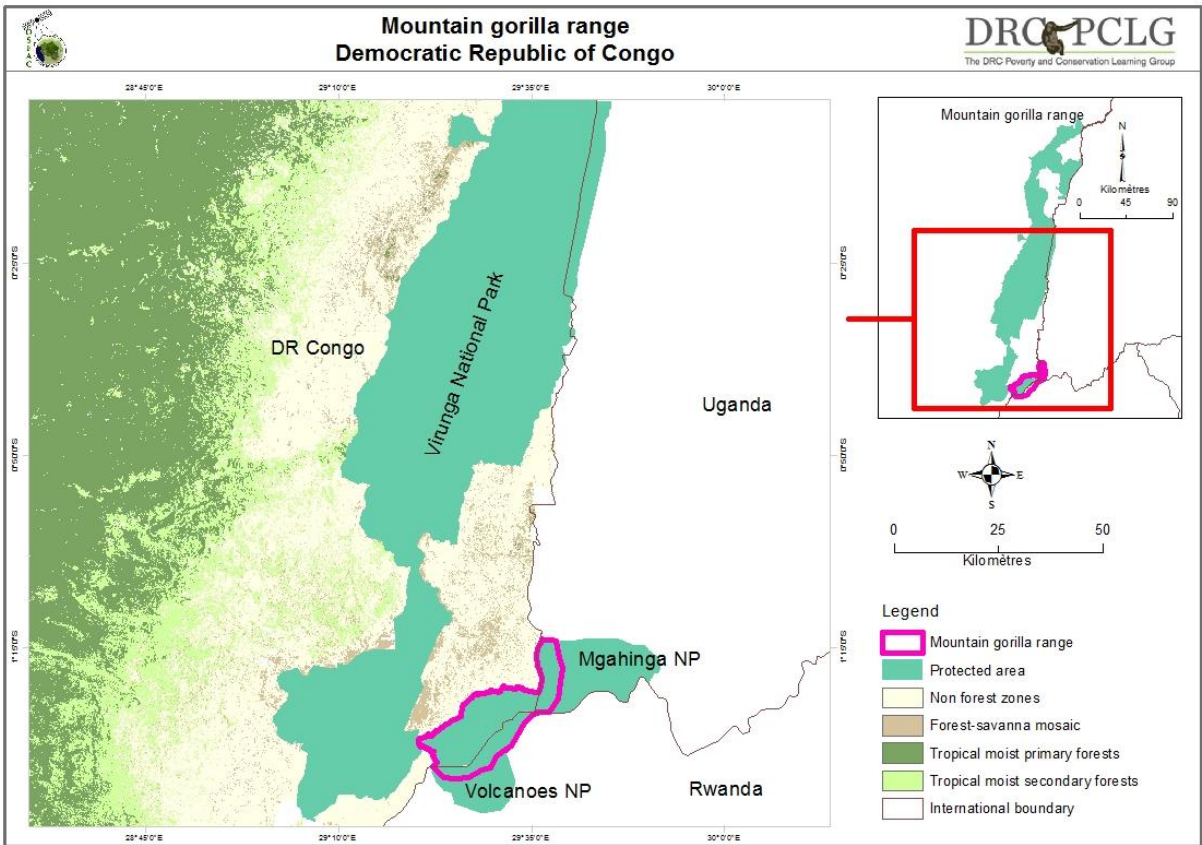


Figure 1: Range of mountain gorilla

The lesson to draw from Figure 1 above is that the mountain gorilla population is found in a very small area. However, a recent press release¹ from the International Gorilla Conservation Programme (IGCP) indicates that the number of mountain gorilla has steadily risen in the Virunga Massif in the past two decades thanks to the dedicated work of eco-guards, conservation practitioners, members of local communities and collaborative efforts by all three states in the region.

¹ <http://igcp.org/blog/new-census-critical-for-future-of-mountain-gorillas-in-transboundary-virunga-massif/>

Box 1: Comments on Figure 1*Sources of data:*

- Référentiel Géographique Commun, RGC (www.rgc.cd), 15 December 2015;
- Observatoire Satellital des Forêts d'Afrique Centrale, OSFAC (www.osfac.net), 2015;
- Forêts d'Afrique Centrale Évaluées par Télédétection (FACET) / (Forest cover extent and loss in Democratic Republic of the Congo 2000 to 2010), known as FACET;
- Rainer *et al.* 2015;
- Gray and Rutagarama (2011); Blomley *et al.* (2010).

Mapping:

- Collection of shape files from RGC and OSFAC databases;
- Digitalisation of volcanoes and Mgahinga National Park using the map published by Gray and Rutagarama (2011);
- Treatment and analysis of data in a GIS station with ArcGIS10;
- Designing the map.

GIS analyst:

This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

Range:

The range, including all boundaries, shown on this map is approximate. This configuration is the one available and accessible during the drafting of this report. It is therefore possible that in some cases a range is either underestimated or overestimated. In addition, the administrative boundaries, including the spatial configuration of protected areas, do not in any way constitute a position on the part of the authors. This applies to all figures (maps) in this report. Any errors or additional information can be sent by email to the following address: paulsonkasereka2010@gmail.com.

3.1.2 Eastern lowland gorilla

The spatial distribution of eastern lowland gorilla (*Gorilla gorilla graueri*) is in the Maiko-Tayna-Kahuzi-Biega, in the east of DRC (Gautier-Hion *et al.* 1999). The historic range covers an area of about 52,000 km², stretching from the western escarpment of the Albertine rift to the west in Punia, and Lindi River in the north to the Itombwe massif in South-Kivu. There are four major population centres: Maiko, Tayna-Walikale (Tayna Community Reserve, Kisimba Ikobo Nature Reserve and the Usala forest), Kahuzi-Kasese (including the plains of the Kahuzi-Biega National Park), the adjacent Kasese forest, and the Itombwe massif (including the Itombwe Nature Reserve). Other isolated populations occur in the Masisi region, in the highland sector of Kahuzi-Biega National Park and Mount Tshiabirumu in the Virunga National Park (IUCN and ICCN 2012b) - see Figure 2.

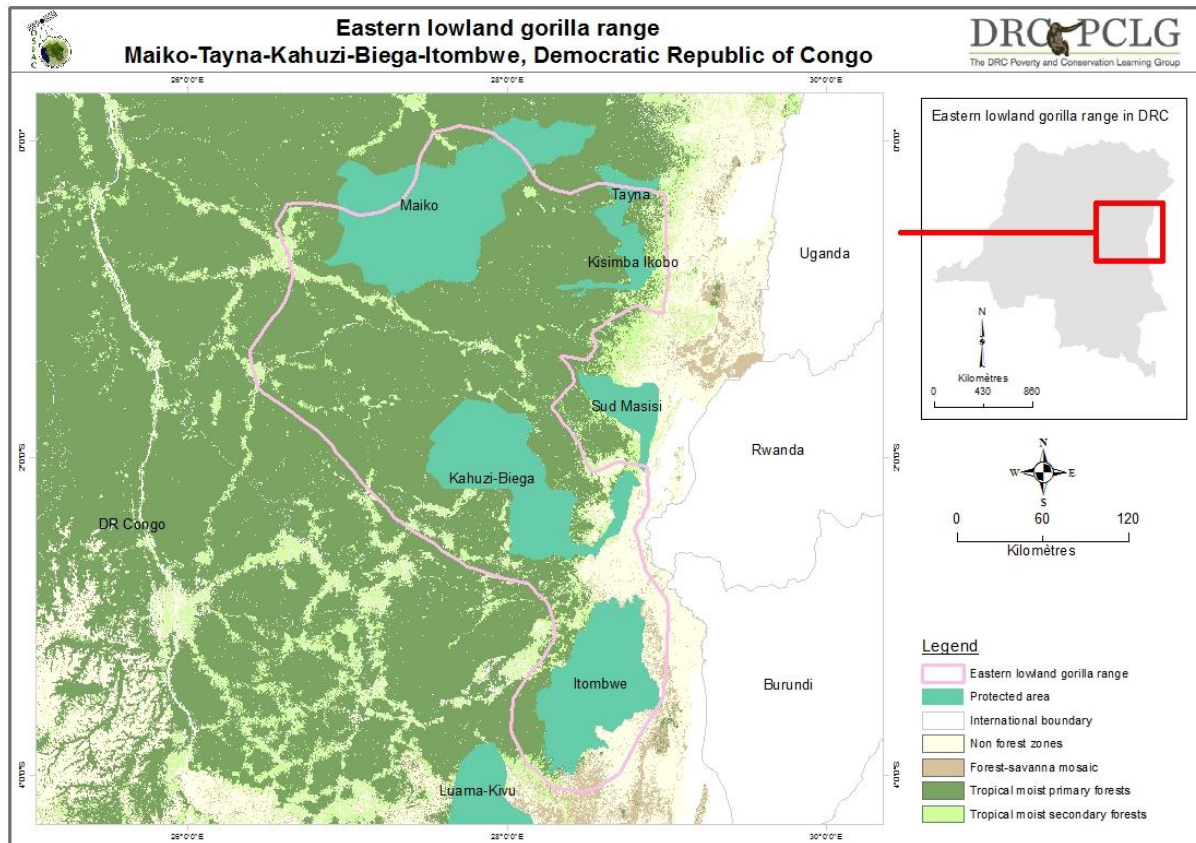


Figure 2: Range of eastern lowland gorilla

Population estimates for eastern lowland gorilla are estimated to be between 2,000 and 10,000 (Rainer *et al.* 2015). In DRC, the Grauer gorilla and chimpanzee are found together in the landscapes of Kahuzi-Biega, Maiko, Tayna and Itombwe.

Box 2: Comments on Figure 2

Sources of data:

- Référentiel Géographique Commun, www.rgc.cd, 15 December 2015;
- Observatoire Satellital des Forêts d’Afrique Centrale (www.osfac.net), 2015;
- Forêts d’Afrique Centrale Évaluées par Télédétection, FACET 2000-2010;
- IUCN and ICCN 2012b;
- Rainer *et al.* 2015.

Mapping :

- Collection of shape files from RGC and OSFAC databases;
- Digitalisation of Grauer’s range using the map published by IUCN and ICCN (2012a);
- Treatment and analysis of data in a GIS station with ArcGIS10;
- Designing the map.

GIS analyst :

This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

3.1.3 Western lowland gorilla

In DRC, western lowland gorillas range in the far west to Cabinda (Nellemann *et al.* 2010). The range covers the zone across Madyakoko (sector Maduda, territory Tshela), not far from the Atlantic Ocean.

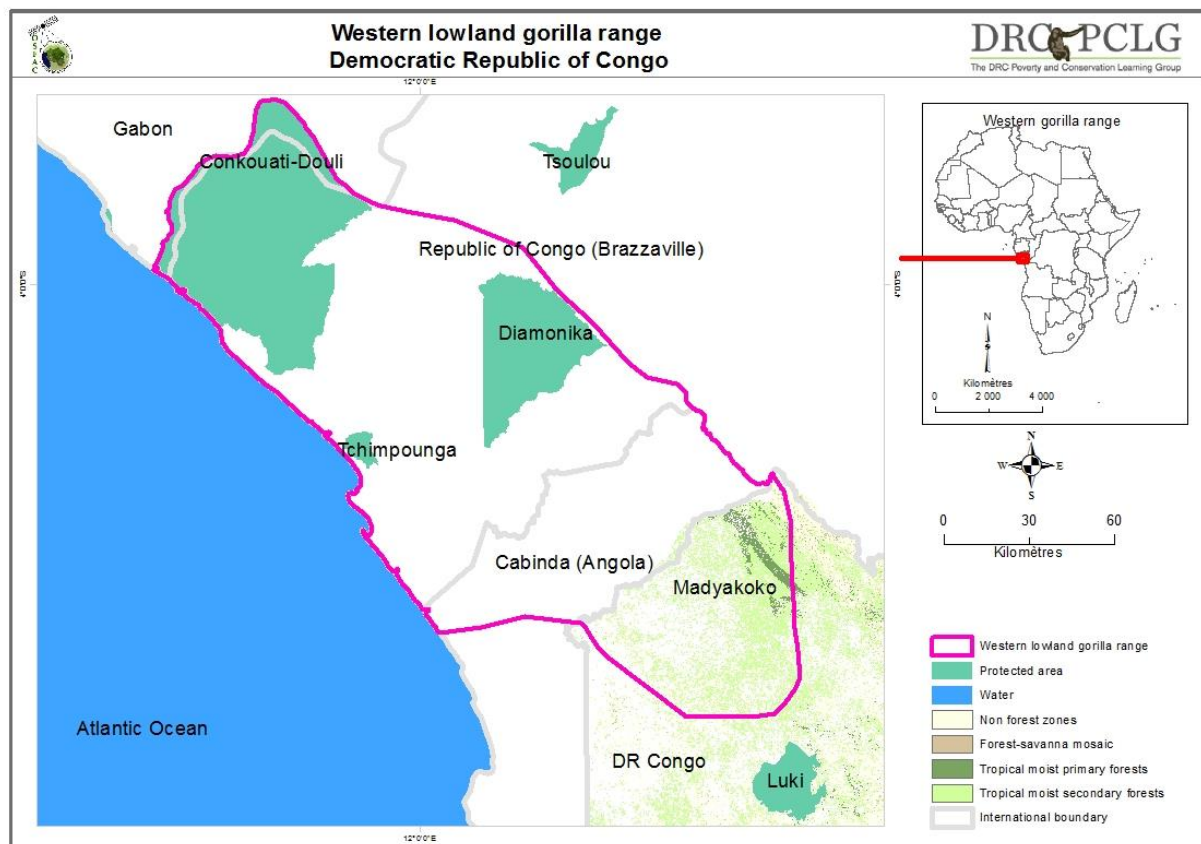


Figure 3: Range of western lowland gorilla

Western lowland gorilla is distributed throughout the western equatorial Africa (Gulf of Guinea) and has two subspecies: *Gorilla gorilla gorilla*, or western lowland gorilla, and *Gorilla gorilla diehli*, or Cross River gorilla in Nigeria.

The western lowland gorilla is distributed throughout Cabinda in Angola, and Conkouati–Douli in Congo-Brazzaville, including the bordering area of Gabon, Nigeria, Cameroon, Equatorial Guinea and to the southwest of the Central African Republic (Gautier-Hion *et al.* 1999; Interview with Mugangu T. on January 2016 and with Samu E. on September 2015) - see Figure 3 above.

Box 3: Comments on Figure 3

Sources of data:

- Référentiel Géographique Commun, www.rgc.cd, 15 December 2015;
- Observatoire Satellital des Forêts d'Afrique Centrale (www.osfac.net), 2015;
- Forêts d'Afrique Centrale Évaluées par Télédétection, FACET 2005-2010;
- IUCN and ICCN 2012: Action plan for the conservation of Grauer's gorilla and common chimpanzee 2012 - 2022;
- Rainer *et al.* 2015.

Mapping:

- Collection of shape files from RGC and OSFAC databases;

- Digitalisation of Grauer’s range using the map published by IUCN and ICCN (2012);
 - Treatment and analysis of data in a GIS station with ArcGIS10;
 - Designing the map.
- GIS analyst:*
- This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

3.1.4 Common chimpanzee and bonobo

Figure 4 presents the range of Common chimpanzee and bonobo in DRC.

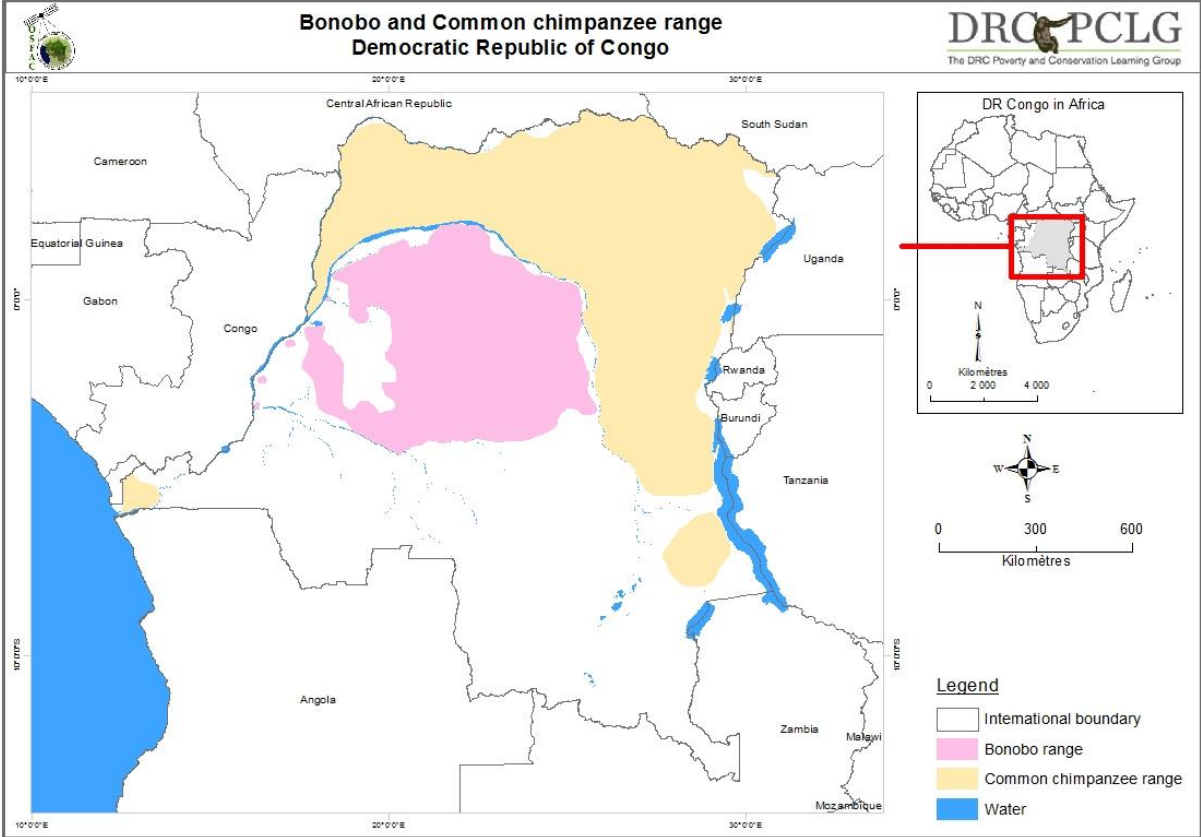


Figure 4: Range of common chimpanzee and bonobo

Common chimpanzee

Chimpanzees (*Pan troglodytes*) are distributed across equatorial Africa, with discontinuous populations from southern Senegal to western Uganda and Tanzania. In DRC, the eastern subspecies (*P. t. schweinfurthi*), is found in northern areas of Lualaba River, from the Ubangui River to the central rift, where it joins the eastern basin of Tanganyika - see Figure 4 above which shows the range of chimpanzees in DRC.

Box 4: Comments on Figure 4

Sources of data:

- Référentiel Géographique Commun, www.rgc.cd, 15 December 2015;

- Observatoire Satellital des Forêts d’Afrique Centrale (www.osfac.net), 2015;
- Forêts d’Afrique Centrale Évaluées par Télédétection, FACET 2000-2010;
- IUCN and ICCN 2012: Action plan for the conservation of bonobo 2012 - 2022;
- Rainer *et al.* 2015.

Mapping:

- Collection of shape files from RGC and OSFAC databases;
- Treatment and analysis of data in a GIS station with ArcGIS10;
- Designing the map.

GIS analyst:

This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

Bonobo

Bonobo is only found in DRC, biogeographically separated from chimpanzees and gorillas by the River Congo – see Figure 4 above. The population size is unknown, as only 30 per cent of its historic range has been surveyed; however, estimates place the population somewhere between 29,500 and 50,000 individuals, with numbers decreasing (Rainer *et al.* 2015).

The spatial distribution of the known population covers the following areas: Maringa-Lopori-Wamba, Tshuapa-Lomami-Lualaba, Salonga-Lukenie-Sankuru and Lake Télé-Lake Tumba, including the territory of Bolobo and Maïndombe (IUCN and ICCN 2012a). Out of its natural habitat, bonobo is also found in an orphanage sanctuary, named Lola ya bonobo of Kinshasa.

Lola ya bonobo (which can be translated by ‘the paradise of bonobo’, in Lingala – one of the languages spoken in DRC) is a bonobo sanctuary located in the urban-rural area of the city of Kinshasa, near the Kimwenza train station, at least 25 km from the city centre. It is comprised of three large wooded enclosures each with night stands where juvenile and adult bonobo groups develop (Kikummu 2012).

This sanctuary promotes eco-tourism. Lola ya bonobo is run by a local NGO called ABC - Les Amis des Bonobos du Congo (Friends of Bonobos of Congo). ABC was founded in 2002 by Claudine André in Kinshasa. More information on ABC and Lola ya bonobo is available on their website: www.lolayabonobo.org.

3.2 Human populations, living conditions and poverty

Data on population density and income provide information on the human context and give an idea of the potential sources of pressure on natural resources and biodiversity. Figure 5 below presents population density by administrative province. Figure 6 shows annual income per capita.

Poverty affects the majority of the population of DRC. This situation will not be resolved just by the actions implemented in the framework of conservation projects; it requires a comprehensive solution by the Congolese government and established authorities, who have the responsibility and the mandate to improve the social well-being of Congolese citizens. However, poverty reduction and the well-being of local people should always be integrated into future biodiversity conservation projects.

Figure 5 shows that some great ape sites are located in areas where population density is high; whereas others occur in areas of low population. Such disparity is also found in annual incomes by inhabitant. Given that data on population density and income are still hard to obtain, particularly in small areas, project managers should document these aspects so as to have a good understanding of the living conditions of the beneficiaries of their activities.

Since the monthly incomes of the local population are often insufficient to cover all family expenses and meet the varied household needs, people are more likely to be tempted to increase bushmeat off-take.

Together with the threats from external commercial hunters, this means that the survival of great apes is at high risk. It is therefore important that conservation and livelihood project managers take population density and local people's income into consideration.

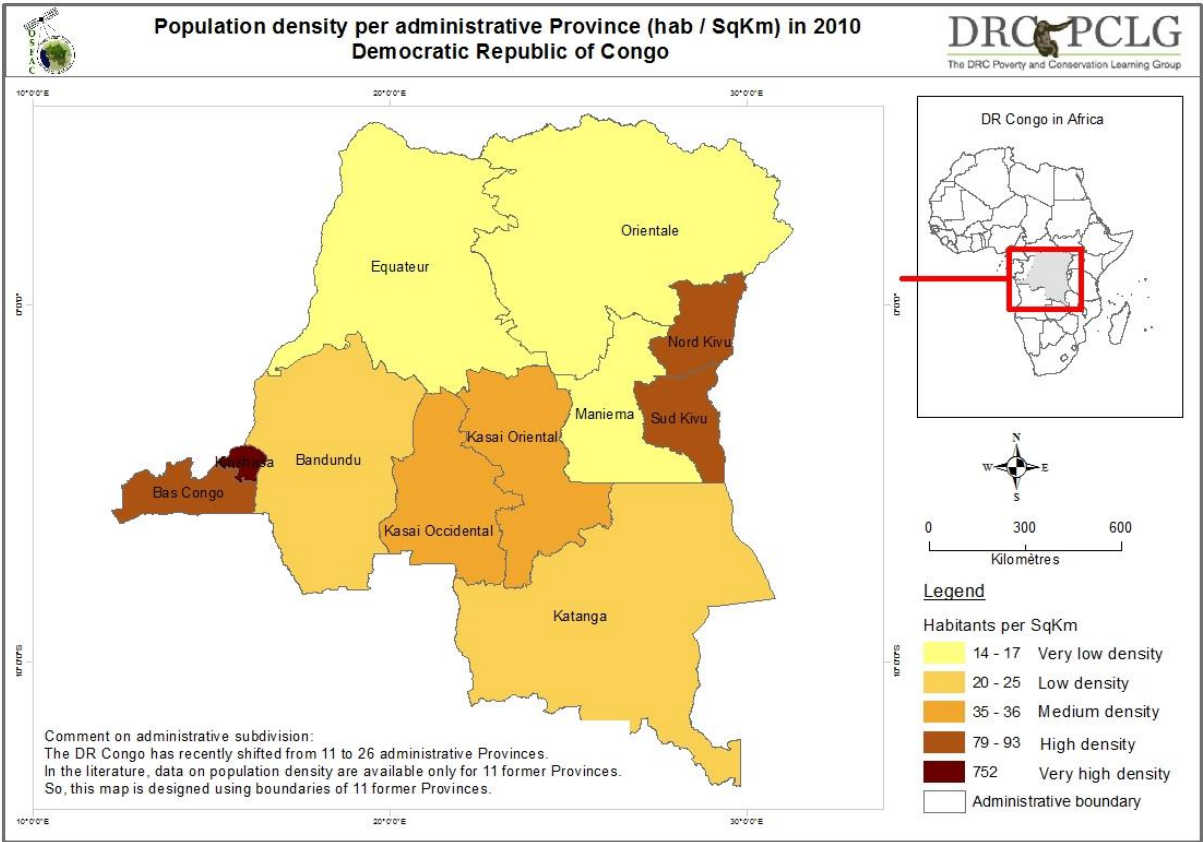


Figure 5: Density of population in DRC

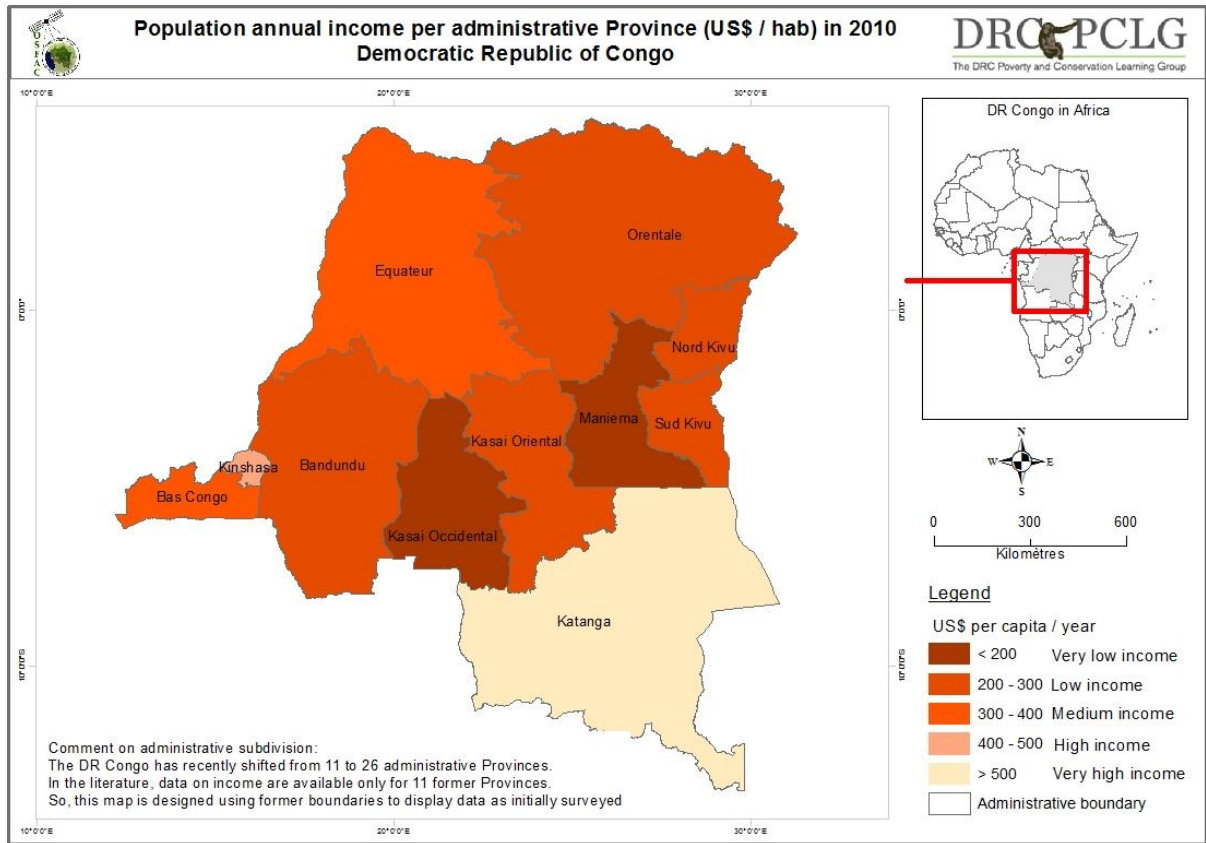


Figure 6: Annual income (in US\$) per habitant in the DRC

Box 5: Comments on Figure 5 and 6

Sources of data:

- Référentiel Géographique Commun, www.rgc.cd, 15 December 2015;
- Observatoire Satellital des Forêts d’Afrique Centrale (www.osfac.net), 2015;
- Herderschee *et al.* (2012) and RNDH (2014).

Mapping:

- Collection of shape files from RGC and OSFAC databases;
- Treatment and analysis of data in a GIS station with ArcGIS10;
- Designing the map.

GIS analyst:

This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

3.3 Great ape conservation and people

Conservation practitioners spend considerable efforts to conserve primates, including great apes. These efforts comprise implementing conservation policies and action plans (as noted in Section 3) and projects with livelihoods components. This section maps where DRC PCLG members operate, describes their conservation and livelihoods initiatives and looks at their impact on poverty.

3.3.1 Location of DRC PCLG members

The map below shows where DRC PCLG members operate.

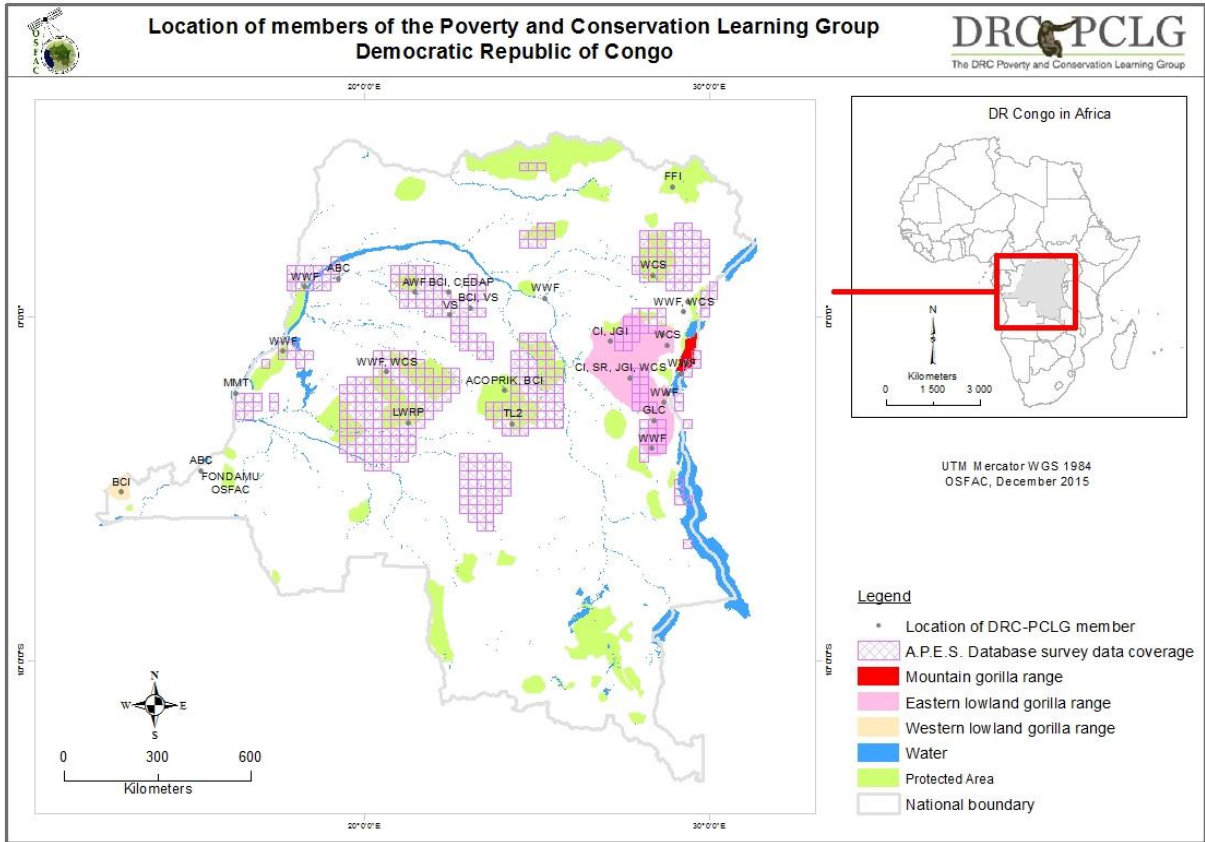


Figure7: Location of DRC PCLG members

Figure 7 above confirms as expected that a number of DRC PCLG members operate in or around great ape conservation sites. Currently, DRC PCLG members are from over 40 organisations and institutions. However, given the short time available to carry out this research, not all of them could be mapped. They are, however, being encouraged to provide more details on their activities: the location of their projects in DRC, and the types of on-ground initiatives (conservation projects, projects with a livelihood component, details on livelihoods, etc.). The next phase of this study will fill these gaps with more detailed information.

Box 6: Comments on Figure 7

Sources of data:

- Référentiel Géographique Commun, www.rgc.cd, 15 December 2015;
- Discussion with some DRC PCLG members;
- <http://povertyandconservation.info/en/pages/drc-pclg>; 15 December 2015;
- Direction d’Études et Planification (DEP), Programme National Environnement, Forêts, Eaux et Biodiversité (PNEFEB-2), 23 July 2011;
- Samu, E. (undated);
- IUCN (protected areas) Management Effectiveness Tracking Tool, DRC;
- Seyler, Thomas, Mwanza and Mpoyi (2010); IUCN/PACO (2010); Wicander and Coad (2015);
- Rainer *et al.* 2015.

Mapping:

- Research on data on great apes surveys (shape files of great apes range/habitat);
- Development of an excel database file which lists the current members of DRC PCLG;
- Collection of data on each member: name of the organisation, type of organisation (conservation / development), location (office and field initiatives in DRC), contacts, and type of initiatives (conservation project with a livelihood component, other type of projects) – see Annex 2;
- Where possible, get in touch with contact person to confirm information;
- Complete with additional information available in the literature (internet, reports, maps), including data on income in the area;
- After analysis with GIS tools, produce a map which overlays the different thematic shapefiles: great apes range, APES database data survey coverage, location of DRC PCLG members, protected areas, and boundaries;
- Designing the map.

GIS analyst:

This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

3.3.2 Conservation efforts and promotion of livelihoods

Considerable efforts have been made towards great ape conservation and the promotion of alternative livelihoods. The map below shows the information collected directly from stakeholders, in particular members of DRC PCLG, or indirectly through reports and the internet.

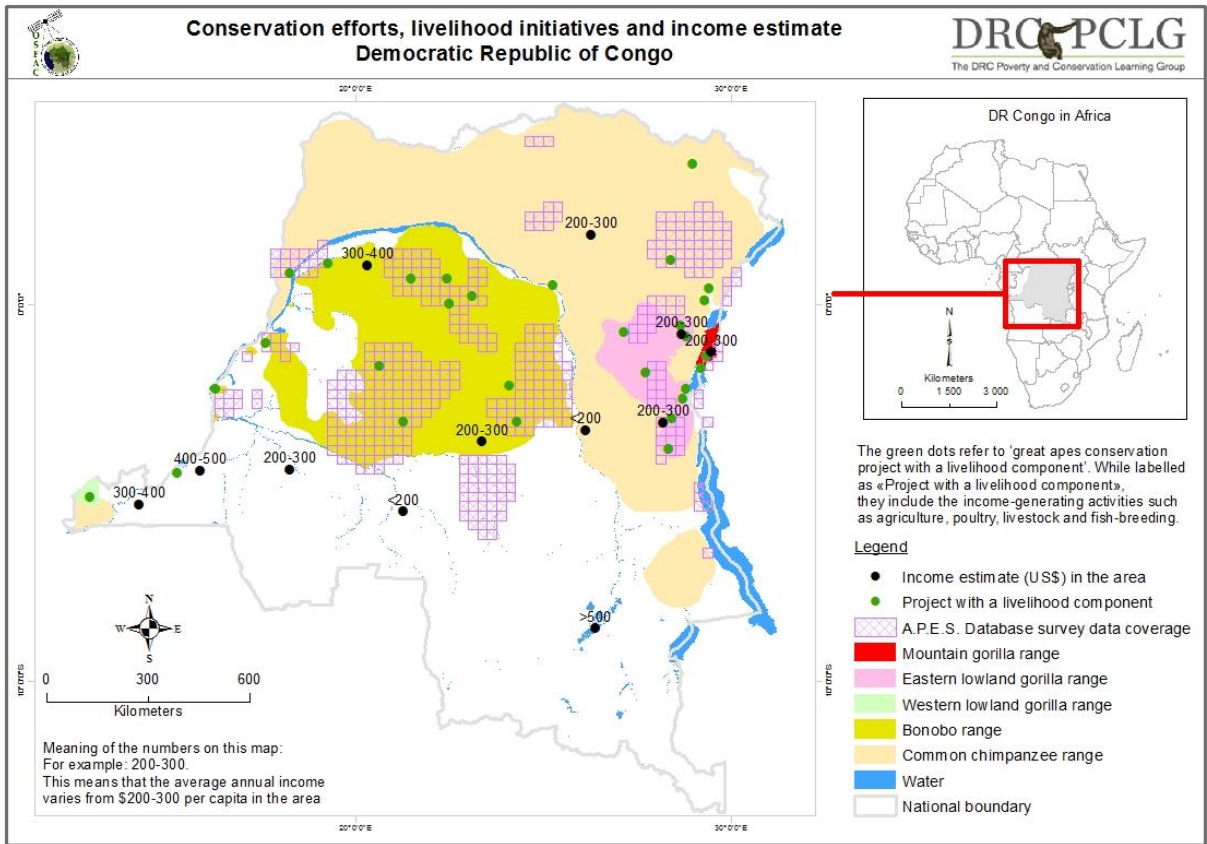


Figure 8: Conservation efforts, livelihood initiatives and income estimates

Figure 8 shows that several conservation projects carried out by DRC PCLG members include a livelihood component. However, when going through the literature and the project reports, it is clear that only a few project managers are quantifying the impact of their activities on poverty alleviation in beneficiary households. When reporting on project progress, most conservation and development practitioners only provide a number of direct or indirect beneficiaries.

In the case where a number of persons have benefited from project activities, the question is how this has impacted on their well-being, and this is not often measured by project managers. This is rarely monitored over time with the same beneficiaries (households, farmers, villagers, etc.). One question is for how long are goods and services that the community receives at the start of the project still relevant when the project ends? Only a few project managers could give satisfactory answers to this question.

Most socio-economic baseline studies present different sources of household income for a project area, without measuring income per household or per capita. Income should be defined by the local people themselves, so that activities can be analysed and monitored, taking into account local perceptions and needs.

To conclude, although there are several projects with a livelihood component being implemented in great ape conservation sites, their impacts are rarely measured and assessed.

So, we urge conservation and development practitioners to continue to take the well-being of local people into consideration by collecting the relevant data. This should be a priority for conservationists and the way of tackling it must be improved for three reasons:

1. By providing appropriate market and non-market based incentives for families to engage in conservation practices and be stewards of the wildlife they live with and the natural resources they depend upon, conservation objectives are more likely to be achieved.
2. More secure livelihoods are a desired outcomes of natural resource conservation – and are the foundation of the economies and cultural identities of families and communities. Greater livelihood security allows families to take a long term view on natural resources, where the future is no longer discounted and resources no longer exploited unsustainably.
3. Conservationists share with health practitioners an obligation to ‘first, do no harm’ and ensure that local people do not unjustly bear the costs of conservation of public goods. So, given that secure livelihoods and conservation stewardship are deeply connected and that conservation should, at worst, do no harm to people’s livelihoods, the conservation community needs a way to track and assess the effect of conservation actions on the well-being of people who live within the landscapes and seascapes where conservationists work.

Finally, given that securing livelihoods are a means to ensure conservation, conservation and livelihoods initiatives all need to be monitored together. Monitoring tools such as the Basic Necessities Survey (BNS) Guide (see Section 3.3.3) has received support from local organisations. Surveys should be carried out at regular intervals with the same villages, and if possible, the same households.

Box 7: Comments on Figure 8

Sources of data: same data as in Box 6 above.

Mapping: same process as in Box 6 above.

GIS analyst:

This map was produced by Paulson Kasereka at the GIS and remote sensing unit of the OSFAC (www.osfac.net), under the supervision of Professor Raymond Lumbuenamo (ERAIFT and UNIKIN).

3.3.3 Evaluation of the impact of great ape conservation projects on poverty

As part of this study, we reviewed the results of a socio-economic assessment carried out with local people around the Virunga National Park in three different areas. On a large scale, the overall results of these surveys show that conservation initiatives have not yet resulted in a positive impact on impoverished households living in those areas (Plumptre *et al.* 2004; Kayungura *et al.* 2008;

Kujirakwinja *et al.* 2008; Kujirakwinja *et al.* 2006). On a small scale, the same results report some positive impacts (WWF/Dalberg 2013).

One case of a project resulting in a positive impact on local people has been reported by WWF - the recent hydroelectric dam project at Mutwanga, with funding from the European Union. The positive impacts of this project are: tax revenues, reduction of pressure on forests to extract charcoal, employment opportunities and business investment. The Mutwanga hydroelectric dam project, which uses water from the Virunga National Park, provides about 9.4 megawatts of electricity and serves nearly 10,000 residents. The report states that about 4,700 jobs may be created with an average monthly salary of US\$ 90, so employment opportunities may generate US\$ 5,000,000 every year.

Although this case is encouraging, the well-being of local people is presented from the perception of 'experts'. If the impact assessment were carried out by local people to show how conservation and livelihoods projects are bringing change to their well-being, would they report that their basic needs had been fulfilled?

This section of the report aims to push forward the debate on the approaches commonly used to measure the impact of conservation projects on poverty reduction. As underlined by Wilkie *et al.* (2015), during the last decade, the conservation community has made significant progress developing robust methods for monitoring the status of conservation species, habitat targets and threats (these include: camera trapping, line transects, remote sensing image analysis, ranger patrol/law enforcement monitoring, and community monitors). However, we have not made similar progress in developing tools for regularly and credibly monitoring and reporting progress on governance systems that ensure sustainable resource use, nor on how best to assess the impacts (positive and negative) of conservation investments on the livelihoods and well-being of people who are targeted by conservation initiatives.

Plumptre *et al.* (2004) pointed out that, although several projects implemented in the Albertine rift region have a livelihood component, and aim to reduce poverty, this goal is rarely measured and efforts towards it are rarely assessed. At this point, the question that arises is how to determine the contribution (positive or negative) of conservation projects on poverty reduction and the improved well-being of local people?

One participatory livelihoods monitoring tool, proposed by Wilkie *et al.* (2015): 'The Guide to the Modified Basic Necessities Survey: Why and how to conduct BNS in conservation landscapes'² is a technical manual for *in-situ* assessment of the impact of conservation projects on poverty reduction. This was developed to provide conservation practitioners with a simple, practical, low-cost, quantitative approach to measuring and tracking trends in people's well-being, and to link these measures where possible to the use and conservation of natural resources. The approach used is not based on the assumption that people are doing well if they make more than US\$1-2 per day, or are in poverty if they make less. Rather, it is based on the understanding that people themselves are best able to decide what constitutes well-being. It uses the United Nations definition of poverty as 'a lack of basic necessities', and asks communities to define for themselves which goods and services are necessary for a family to meet its basic needs.

Livelihood approaches are tools to help achieve conservation objectives (Roche 2007). Despite a limited evidence base it is clear from IIED *et al.* (2010) reviews that a) the poor depend disproportionately on biodiversity for their subsistence needs—both in terms of income and insurance against risk, and b) biodiversity conservation can be a route out of poverty under some circumstances.

So, providing economic incentives to families to engage in conservation practices are appropriate strategies. When these practices are associated with higher incomes and greater secured livelihoods, people can think beyond their immediate survival and consider natural resource management issues in the long term (Wilkie *et al.* 2015).

Given that secure livelihoods and conservation stewardship are deeply connected and that conservation should, at worst, do no harm to people's livelihoods, the conservation community needs to experiment with, and be trained in, new methodological approaches, such as the BNS guide, to monitor

² Produced by WCS, this is a practical guide for using the BNS, originally developed by Rick Davies, and recently amended and tested on the ground by a WCS team (available at <http://mande.co.uk/special-issues/the-basic-necessities-survey/>).

and evaluate the effects and impacts of conservation actions on the well-being of those living in and around great ape sites.

4. Conclusion

The review found that, in DRC, great ape sites are among the most impoverished areas. The poverty of local people contributes to existing pressures on natural resources (IUCN/PACO 2010; COMIFAC 2008; FED-EU 2012). The low level of involvement of local people in conservation efforts may be due to poverty, lack of livelihood alternatives, and ignorance of the long-term consequences of the failure of conservation. These findings align with those found previously through households surveys (WWF/Dalberg, 2013; WWF-Be, 2013; IUCN/PACO, 2015; Kayungura *et al.* 2008; Paluku 2012; Kayungura *et al.* 2008; Kujirakwinja *et al.* 2008; Kujirakwinja *et al.* 2006; IUCN and ICCN 2012; Christophe *et al.* 2006; Berendt 2014; Bisidi *et al.* 2008; Plumptre *et al.* 2004; Paluku 2011; Seyler *et al.* 2010).

In addition, more recently documented information shows that the vast majority of local people continue to think that conservation sites promote the plundering of their natural resources and cultural riches by tourists and other conservation stakeholders. With this in mind, it is important to change such attitudes by seeking the support of local people in great ape conservation and sustainable development.

This is a challenging task. As conservation has the potential to contribute to improving the well-being of local people, Kayungura *et al.* (2008) suggest that sustainable fundraising strategies should be implemented to support integrated conservation and development projects in and around conservation sites. Also baseline studies on household spending are essential to clarify the use of revenues and the contribution of household members; but also to develop any strategy involving local people through trust, collaboration, respect of partnership and benefit sharing. The involvement of local people through specific and visible actions with equitable benefit sharing is one of major factors that can contribute to reducing the pressure on great apes.

5. Lessons learnt

These are some of the lessons learnt during the implementation of this research project:

1. Although several projects with a livelihood component are being implemented by DRC PCLG members, it is still difficult to clearly identify their contribution to well-being and poverty reduction at grassroots level. For example, most project managers have virtually no figures on annual income per household or per capita in their project area. Conservation and development practitioners still need to pay more attention to household well-being during and after the implementation of their projects.
2. Most managers of local NGOs (including DRC PCLG members) continue to measure the impact of their projects in terms of direct and indirect beneficiaries (eg number of jobs created, number of persons targeted by the activities, number of persons benefiting from services), without providing a local measure of the change experienced by each person or household. In short, they still do not fully understand how local people themselves are best able to decide what constitutes their well-being and how local people should be involved in measuring and assessing over a period of time the success of conservation and livelihoods activities on household well-being.

6. Recommendations

This preliminary research points to five key interventions that need to be implemented by DRC PCLG as a matter of priority:

1. Carry out a field study in five pilot sites to document the initiatives of DRC PCLG members that link conservation to livelihoods in order to define a more meaningful baseline for future projects assessments.

2. Build the capacity of local organisations, in particular DRC PCLG members, in monitoring and evaluation, results chains, and theories of change. Some activities should be focused on training members on how to measure the impact of a livelihood initiative on poverty reduction, using appropriate tools with SMART indicators (such as the BNS guide), to monitor and assess changes and impacts over time.
3. Carry out advocacy activities to involve all stakeholders in field studies and raise awareness of local people about great ape conservation so that they are involved at all levels and play a key role in conservation and livelihood projects.
4. Use the lessons learned to inform policy, and where necessary, redirect activities and attract funding and support from public and private sector partners, particularly through the following conservation policies:
 - National Strategy for the Conservation of Biodiversity in Protected Areas and the Policy & Research Action Plan for the Congolese Institute for the Conservation of Nature (ICCN – the DRC wildlife authority)
 - National Programme of Environment, Forests, Water and Biodiversity (PNEFEB - 2)
 - Conservation policies: (i) Action Plan for the conservation of bonobo 2012 to 2022 and (ii) Action Plan for the Conservation of the eastern lowland gorilla (*Gorilla grauer*) and chimpanzee 2012 to 2022, and
 - Internal strategies of DRC PCLG members.
5. Advocate on the basis of the actions planned in the conservation policies listed above on how some activities can be redirected to more effectively contribute to the improvement of local people's well-being. Advocacy actions can be carried out through publications, meetings with stakeholders and policy makers, including: the Coordination for Conservation in the DRC (Coco Congo), the Sites Coordinating Committee (CoCoSi), seminars of conservation and development organisations, other national forums, etc.

References

- Berendt, S (2014) A Cohesive Strategy to Conserve the Congo Basin. African Landscape, Issue 1. African Wildlife Foundation's African Landscape.
- Bisidi, Y, Languy, M, Baleke, E, Lusuna, M, Muhigwa, B, Bisusa, G, Basabose, AK (2008) *L'utilisation et la conservation des ressources forestières à Itombwe: Perception de la population*, WWF-EARPO, 54p + x.
- Blomley, T, Namara, A, McNeilage, A, Franks, P, Rainer, H, Donaldson, A, Malpas, R, Olupot, W, Baker, J, Sandbrook, C, Bitariho, R and Infield, M (2010) Development and gorillas? Assessing fifteen years of integrated conservation and development in south-western Uganda, *Natural Resource Issues No. 23*. IIED, London.
- Bodson, T, Buhendwa, R, Languy, M, and de Marcken, P (2008) 'Virunga', *Etat des forêts du bassin du Congo*, p.375. USAID.
- Christophe, B, Gordon, A, Kambala Luadia B et Samafu-Samene, A (2006) Etude des activités de pêche sur les rivières bordant le Parc National de la Salonga, République Démocratique du Congo et Recommandations sur la mise en place d'une gestion collaborative du Parc par les communautés riveraines et l'ICC : 2006/ une collaboration entre le WorldFish Center et WWF-RDC.
- COMIFAC, IUCN, BAD (2008) *Résumé de l'étude environnementale stratégique du programme de préservation des écosystèmes du bassin du Congo*.
- FED-UE (2012) *Evaluation Environnementale Stratégique de l'exploration/exploitation pétrolière dans le nord du Rift Albertin Nord-Kivu et Orientale*. Rapport de cadrage – version finale (Version 2 – Juillet 2012).
- Gautier-Hion, A, Colyn, M and Gautier, J-P (1999) *Histoire naturelle des primates d'Afrique Centrale. Conservation et utilisation rationnelle des ressources en Afrique centrale* (ECOFAF).
- Gray, M and Rutagarama, E (2011) (eds.) *20 years of IGCP: Lessons learned in Mountain Gorilla Conservation. Kigali, Rwanda*. International Gorilla Conservation Programme. 137 pp.
- Herderschee J, Mukoko D, Tshimenga M (2012) RDC: *Résilience d'un géant africain. Volume-i, synthèse, contexte historique et macroéconomique*. BAD.
- IUCN and ICCN (2012a) Bonobo (*Pan paniscus*): Stratégie de Conservation 2012–2022. Gland, Suisse: Groupe de spécialistes des primates de la CSE/IUCN & Institut Congolais pour la Conservation de la Nature. 68 pp.
- IUCN and ICCN (2012b) Gorilles de Grauer et Chimpanzés de l'Est de la République Démocratique du Congo (Paysage de Kahuzi-Biega, Maiko, Tayna et Itombwe). Plan d'action pour la conservation 2012-2022. Gland, Suisse: Groupe de spécialistes des primates de la CSE/IUCN & Institut Congolais pour la Conservation de la Nature. 67pp.
- IUCN/PACO (2010) Parcs et réserves de la République Démocratique du Congo: évaluation de l'efficacité de gestion des aires protégées. Ouagadougou, BF: IUCN/PACO.
- IUCN/PACO (2015) Gouvernance efficace des ressources naturelles et lutte contre la pauvreté: Rapport annuel 2014. Ouagadougou, Burkina Faso: IUCN. 44pp.
- Kayungura, G, Kujirakwinja, D, and Lusenge, T (2008) *Etude socio-économique des populations autour du PNVi axe Kasindi-Lubiliya et Mutwanga*. WWF, WCS, AWF, CARPE. Feuillet technique n° 3.
- Kikumu, M (2012) *Apport du SIG dans la gestion des aires protégées: Cas du sanctuaire Lola ya Bonobo de Kinshasa en RD.Congo*. Travail de Fin d'Etudes. OSFAC.
- Kujirakwinja, D, Bashonga, G and Plumpre, A (2008) *Etude socio-économique de la zone nord-ouest du Parc National des Virunga, Région de Lubero-Butembo-Beni*. WWF, Feuillet technique n° 2.

- Kujirakwinja, D, Bashonga, G, and Plumptre, A (2006) *Etude socio-économique des populations environnant le secteur nord du parc national des Virunga*. ICCN, WWF, WCS, UE.
- Leisher, C, Sanjayan, M, Blockhus, J, Kontoleon, Neil Larsen, AS (2010) 'Does conserving biodiversity work to reduce poverty? A state of knowledge review'. *The Nature Conservancy*, University of Cambridge, IIED, PCLG.
- Mugangu, T (2002) *Stratégie et Plan d'Action pour la Survie des Grands Singes en République Démocratique du Congo*. Ministère des Affaires Foncières, Environnement, Conservation de la Nature et Tourisme.
- Nellemann, C, Redmond, I and Refisch, J (ed.) (2010) *Le dernier carré des gorilles. Criminalité environnementale et conflits dans le bassin du Congo*. Rapport d'évaluation rapide. Programme des Nations Unies pour l'environnement, GRID-Arendal, www.grida.no
- Paluku, IB (2011) *Les efforts de l'OAN dans la gestion durable des Ressources Naturelles en région des grands lacs: cas de la gestion des forêts des chefs coutumiers dans le Rift Albertine/Mwenda partie du versant occidental du Mont Ruwenzori*.
- Paluku, IB (2012) *L'Exploitation illicite des espèces *Prinus africana* et *Endandro phragma utile* une menace pour la forêt des chefs coutumiers de Mwenda en collectivité secteur de Ruwenzori, territoire de Beni, province du Nord-Kivu en RD Congo*.
- Plumptre, AJ, Kayitare, A, Rainer, H, Gray, M, Munanura, I, Barakabuye, N, Asuma, S, Sivha, M and Namara, A (2004) The Socio-economic Status of People Living Near Protected Areas in the Central Albertine Rift. *Albertine Rift Technical Report 4*. 127pp.
- Rainer, H, Lanjouw, A, and White, A (2015) *State of the Apes 2015*. Extractive Industries and Ape Conservation. Arcus Foundation.
- RNDH (2014) *Cohésion nationale pour l'émergence de la RDC*. Rapport National sur le Développement Humain, UNDP.
- Roche, R (2007) *Livelihoods Approaches as a Conservation Tool*. IGERT Program. University of Rhode Island.
- Roe, D, Thomas, D, Smith, J, Walpole, M and Elliott, J (2011) *Biodiversity and Poverty: Ten Frequently Asked Questions – Ten Policy Implications*. IIED.
- Samu, E (undated) *Actions menées par Bonobo Conservation Initiative dans le cadre de la protection du *Pan paniscus* (bonobo)*. Bonobo peace forest project: succès et défis. Coalition des communautés pour la Conservation des Bonobos (CCCB) Présentation pour COMIFAC;
- Seyler, JR, Thomas, D, Mwanza, N and Mpoyi, A (2010) *Democratic Republic of Congo: biodiversity and tropical forestry assessment* (118/119). USAID Prosperity, Livelihoods and Conserving Ecosystems Indefinite Quantity Contract (PLACE IQC). Final Report.
- Sivha, M and Namara, A (2004) The Socio-economic Status of People Living Near Protected Areas in the Central Albertine Rift. *Albertine Rift Technical Reports*, 4. 127pp.
- Toham, A, Shapiro, A, Thieme, M, Blom, A, Carroll, R, de Marcken, P, Lumbuenamo, R, Quist, N, Sindorf, N, Springer, J, and Vande Weghe, J (2009) *Democratic Republic of Congo: Strategic Biodiversity Assessment for Conservation*. MECNEF, ICCN, WWF, OSFAC. Kinshasa, RDC.
- Wicander, S and Coad, L (2015) *Enseignements à tirer d'une étude des projets visant à promouvoir de nouveaux moyens de subsistance en Afrique centrale*. Oxford, UK: ECI, University of Oxford and Gland, Switzerland: IUCN.
- Wilkie, D, Wieland, M and Detoef, D (2015) *A guide to the modified Basic Necessities Survey: Why and how to conduct BNS in conservation landscapes*. WCS, New York, USA.
- WWF/Dalberg (2013) *Valeur économique du Parc national des Virunga*. WWF International, Gland, Switzerland.
- WWF-Belgique (2013) Rapport Annuel 2013.

Annex 1: Survey questionnaire

0. Identification of DRC PCLG member			
Name of data provider:			
Contact data provider / Telephone:			
E-mail:			
Institution of data provider:			
1. Location of the site			
Full address (including grouping entity, collectivity, territory, and province)			
Protection status (Forest, Protected Area...)			
Names of species identified in the site (Gorilla, Chimpanzee, Bonobo)			
Who are the local populations (tribes)			
Conservation and development actors involved on the site			
Estimation (number) of great ape population			
Date of survey			
Lead organisation for survey			
Associated (institution / individual) to survey process			
Survey methodology			
Survey coverage area			
Do you have maps of this area?			
Do you have shapefiles of this area?			
Do you have relevant documents (reports, papers...) baseline studies?			
Summary in one (1) paragraph of the achievements of your field activities			
2. Type of habitat (No detail)	Yes	No	% (estimate)
Lowland forests (0 to 1.200 m)			
Mountain forests (> 1.200 m)			
Grassland forests			
Swamp forests			
Primary forests			
Secondary forests			
Mangroves			
3. Land use	Yes	No	% (estimation)
Arable land			
Breeding			
Non-arable land			
Inland fishing area			
Protected area			

Sacred site			
4. Income Generating Activities of households	Yes	No	% (estimation)
Agriculture			
Hunting			
Picking			
Breeding			
Non-Timber Forest Product			
Fuel wood			
Artisanal forest logging			
Fishing			
Artisanal mining			
Handicraft			
Commerce			
Others			
5. Participation of women in % in main activities	Yes	No	% (estimation)
Agriculture			
Hunting			
Breeding			
Non-Timber Forest Product			
Artisanal forest logging			
Fishing			
Commerce			
Others			
6. Population & well-being			
Estimation of total population (total habitants)			
Access to drink water			
Sanitation of households and latrines			
Appreciate external condition of houses			
Health care centers			
School centers			
Roads			
7. Indigenous People (Pygmies)	Yes	No	
Are there any aborigines in the area?			
If yes, provide estimate of the population (number of villages or persons)			
Names of village			
Involvement of indigenous people in project activities			

Annex 2: Database of DRC PCLG members and their projects

Institution / Organisation	Type of organisation	Headquarters	Contacts (key person: name, phone, mail)	Conservation project with a livelihood component	Location (site) of the project in the DRC
ACOPRIK (Community Action for the Primates of Kasai)	Conservation organisation	03, Av. de la Révolution, Cité de Lodja, District Sankuru // Kasai-oriental	Name: André TUSUMBA Telephone: +243 816251638 Email: andretusumba1@yahoo.fr	Conservation: community management and monitoring of bonobos	Reserve Naturelle du Sankuru
African Wildlife Foundation (AWF)	Conservation organisation	Nairobi, Kenya	Joanna Elliott Email: jelliott@awf.org	Conservation and livelihoods	Réserve de Faune de Lomako Yokokala (MLW)
Bonobo Conservation Initiative (BCI)	Conservation organisation	2701 Connecticut Ave., NW #702, Washington, DC 20008, USA	Phone: +1 202-332-1014, Fax: +1 202-234-3066 Email: bci@bonobo.org	Conservation and livelihoods	Réserve Naturelle de Sankuru, and Kokolopori
Center for International Forestry Research (CIFOR)	Environment-Development	Indonesia	Terry Sunderland Email: t.sunderland@cgiar.org		See website: www.cifor.cgiar.org
Centre de Développement Agro – Pastoral de Djolu (CEDAP)	Development organisation	20B, Avenue Bobozo, quartier Industriel, Limete/Kinshasa, DRC	Name: Jean Louis SANDJA Telephone: +243990284211 Email: jlsandja@yahoo.fr		Territoire de Djolu / Province Orientale
Centre de Recherche en Sciences Naturelles	Conservation organisation	Lwiro, Sud-Kivu, DRC	Augustin BASABOSE ak_basabose@yahoo.com		
Centre des Technologies Innovatrices et le Développement Durable (CTIDD)	Development organisation	DRC (local)	Tresor BONDJEMBO Email: tbondjembo@yahoo.fr		See website: www.ctidd.org

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COGEDEF	Development organisation	DRC (local)	Lolatu NGONGO COGEDEF Email: lolatuiapy@yahoo.fr		
Comité Des Droits De L'Homme et Developpement (CODHOD)	Development organisation	DRC (local)	Henry Christin LONGENDJA Email: hchristinl@gmail.com		http://codhod.blogspot.co.uk/
Congolese Center on Sustainable Development (CODED)	Development organisation	DRC (local)	Erick KASSONGO Email: erkassk@hotmail.fr		
Conservation International (CI)	Conservation organisation	2011 Crystal Drive, Suite 500, Arlington, VA 22202, USA	Kristen Walker Panemeilla k.walker@conservation.org +1 (703) 341 2400	Conservation et livelihoods	Maiko-Tayna-Kahuzi-Biega Forest with Consortium members DFGFI, WWF, JGI
CREDDHO (Centre de recherche sur l'Environnement, la Démocratie et les Droits de l'Homme)	Development organisation	DRC (local)	Jeredy KAMBASU MALONGA Email: jekamal2@gmail.com		www.creddho-rdc.org/index.php/en/le-creddho
DRC National REDD+ Coordination (CN-REDD+)	Government	DRC	Hassan ASSANI ONGALA Email: assani_hassan@yahoo.fr		
Earth Logic, LLC	Private/Educational	Small consulting firm located in USA	Joel Masselink Email: jmasselink@gmail.com		www.earth-logic.com
Fauna & Flora International (FFI)	Conservation organisation	United Kingdom	Sivha MBAKE and Thalia LIOKATIS Tel: +243 998087920 /+4412235790484 sivha.mbake@fauna-flora.org	Conservation and livelihoods	www.fauna-flora.org/ Garamba

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Gorilla Doctors	Conservation organisation	Africa	Jacques IYANYA; Email: bwamijack@gmail.com		http://www.gorilladoctors.org/
Green League Congo	Indigenous Populations/Local Community Org	DRC, collectivity Iwindi/kiomvu,mwenga Bukavu/south-kivu,DRC via cyangugu-rwanda	Jean-Pierre KALUME WAKENGE +243811567043 Email: greenleaguecongo@gmail.com		Collectivité Lwindi / Kiomvu, Mwenga – Bukavu / Sud-Kivu, DRC
Institut Congolais pour la Conservation de la Nature (ICCN)	Government	DRC	Benoit KISUKI / Email: benoitkisuki@gmail.com		RDC
International Conservation and Education Fund (INCEF)	Conservation organisation	Brazzaville, DRC	Cynthia MOSES Email: cyn@incef.org		
International Gorilla Conservation Programme (IGCP)	Conservation organisation	Uganda	Stephen Asuma/+256-0486-422365 Email: sasuma@igcp.org; stevoasumani@yahoo.com	Conservation and livelihoods	Rumangabo (PNVi)
Lukuru Foundation	Conservation organisation	DRC	John Hart Email: johnhartdrc@gmail.com	Conservation and scientific research on Bonobo	Dekeke, West Kasai
Max Planck Institute	Environment-Development	Germany	Gottfried Hohmann Email: hohmann@eva.mpg.de	Research on Bonobo feeding behaviour and nutritional ecology, population genetics and socio-ecology and behavioural physiology.	Salonga

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Mbou Mon Tour	Development organisation	DRC	Jean Christophe BOKIKA Email: ongmboumontour@yahoo.fr	Monitoring of bonobo, Agriculture, poultry, etc.	Ferme Mbou-Mon-Tour (2 km from Nkala village), Chieftaincy of Bateke-Nord, Territoire de Bolobo, District des Plateaux, Province de Bandundu
Min. de l'Environnement / Direction du Développement Durable	Government	DRC	Mike IPANGA Email: mikeipanga@yahoo.fr		DRC
New Course	Development organisation	USA	Karl Morrison Email: kmorrison@anewcourse.org		http://anewcourse.org
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Solidaires et Organisés pour Sauver la Nature (SOS Nature)	Conservation organisation	6ème Avenue de musiciens n°3, Commune Makiso Kisangani/DRC	Robert ABANI +243998823727 Email: abany12@gmail.com	Conservation	Province Orientale: Kisangani, Ubundu, Buta, Mambasa et Ituri)
Strong Roots	Conservation organisation	31 Avenue Kasaï, Bukavu, DRC (NGO local du PNKB)	Dominique BIKABA, +243 997 731 1370 Email: bikaba@gmail.com, bikaba@strongrootscongo.org	Conservation and livelihoods	PNKB
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Mapping great ape conservation projects with a livelihood component in DRC: a preliminary study

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Vie Sauvage	Conservation / Development	DRC	Alden LMQUIST Email: aalm@loc.gov	Monitoring, micro-credit, health, sust. Ag., preliminary survey and local agreements	Kokolopori Bonobo Reserve and Lonua (MLW)
Village Enterprise Fund (VEF)	Development organisation	USA	Astrid Haas Email: astridh@villageef.org		www.villageef.org
Virunga Fund, Inc.	Conservation organisation	Virunga Fund, Inc. 378 Clinton Street	Jean Kim Chaix 9173788670 Email: kim@virunga.org	Conservation and livelihoods	http://virunga.org
Wildlife Conservation Society (WCS)	Conservation organisation	USA	Michael Painter Email: mpainter@wcs.org	Conservation and livelihoods	Salonga, Virunga, Kahuzi Biega, Mont Hoyo, Itombwe, Epulu
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WWF International	Conservation organisation	Switzerland	Liza Higgins-Zogib Email: lhiggins-zogib@wwfint.org	Conservation and livelihoods	Salonga, Virunga, Kahuzi Biega, Ngiri, Lac Tumba, Itombwe
Les Amis de Bonobos du Congo (ABC) / Lola ya Bonobo	Conservation	DRC	Fanny MINESI Email: fannyminesi@yahoo.fr	Conservation and livelihoods	Kimwenza gare et Territoire de Basankusu,

					Secteur de Gombalo, Groupement, Ilonga Pôo
OSFAC	Development	DRC	Landing MANÉ Email: lmane@osfac.net	Monitoring of forest cover, NRG, capacity building	Afrique centrale

Source: <http://povertyandconservation.info/en/pages/drc-pclg>; website visited on 4 December 2015; Direction d'Etudes et Planification, Programme National Environnement, Forêts, Eaux et Biodiversité (PNEFEB-2), version 23 July 2011; Samu (undated); Seyler *et al.* (2010)

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