Democratic Republic of Congo Talks Climate

The public understanding of climate change

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PHOTOGRAPHY
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CONTENTS
About Africa Talks Climate
Executive summary
Recommendations
Acronyms used in this report
Appendices
Appendix 1 Opinion leaders interviewed
Appendix 2 DR Congo advisory group
Appendix 3 Methodology overview

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About Africa Talks Climate

Climate change is one of the most important issues on the global political and economic agenda, yet it has taken at least 20 years to become an international priority. In many ways, this is because climate change was originally communicated as a scientific problem, complex, confusing, and at times contested scientific information resulted in a slow public and political response to the climate crisis. The climate change debate has also taken place in industrialised nations, among a public largely far from its worst effects. For many, climate change is an abstract concept. In Africa, climate change is far from abstract - it is already determining the course of people’s lives. Extreme weather events and greater unpredictability in weather patterns are having serious consequences for people who rely on land, lakes and seas to feed themselves and to earn a living. As a result, Africa’s engagement with the issue is evolving rapidly, presenting an opportunity to leapfrog the slow evolution of western public opinion and political action.

Many people believe the weather changes that they are experiencing are caused by human activity. They believe that they have a responsibility to protect it. In many cases, people also allude to the health benefits of trees. That loss of trees leads to problems such as erosion and flooding; they also allude to the health benefits of trees.

• Many people place great value on the country’s forests and recognise their importance to both the economy and the people who depend on them directly for their livelihoods. Many believe that loss of trees leads to problems such as erosion and flooding; they also allude to the health benefits of trees.

• A few in the capital are aware of the existence of a political debate around funding for forests, and understand that there is potential monetary value to DR Congo in preserving the country’s forests. However, only governmental and NGO opinion leaders recognise the global value of DR Congo’s forests in relation to their ability to act as “carbon sinks”, sequestering large quantities of carbon dioxide that would otherwise enter the atmosphere and strengthen the greenhouse effect.

• NGO and local opinion leaders also recognise that forests are invaluable to rural people, and to indigenous and local communities who depend on them for gathering food and traditional medicines.

• Most people mention practical measures they have taken to tackle climate change: for example, they have most or all of their homes insulated, and have switched to the use of local and renewable energy.

RECOMMENDATIONS

The information and communication needs of Congolese citizens need to be at the heart of any national response to climate change. The ability of Congolese people to respond to climate change effectively will be determined by the quality of the information they have and how they use it. In keeping with this, it is important that citizens understand climate change will enable citizens and communities to discuss the issue, adapt to the effects of climate change and make informed long-term choices about the future. Community, government, religious and media representatives at the local level have unrivalled access to communities, NGOs and to a lesser extent the government. Most people, however, also feel they have too few resources to effectively address environmental problems, and need more government support.

Opinion leaders also need access to information on climate change. Community, government, religious and media representatives at the local level have unrivalled access to communities, and are in a position to communicate and inspire citizens to respond to climate change and implement local adaptation strategies. There is evidence to suggest that a faith-based approach could be particularly effective, and religious representatives recognise the value of religious leadership in promoting environmental stewardship. Yet local leaders tend to be some of the least informed about the global climate change debate and need support from national government and specialist organisations as they begin to address them.

Public debate will also be key to increasing understanding of climate change. It will provide a forum for sharing experiences, inform people about local applications of climate change for their own lives, and enable people to exert political pressure, both internationally and on their own governments. Media representatives recognise that more needs to be done to develop climate change awareness in the media sector. They clearly have a critical role to play in responding to climate change, and in supporting others to communicate about climate change: including governments, national and international
NGOs, scientists, religious leaders and community leaders. Three specific recommendations for all those charged with communicating on climate change follow:

**Provide information**
- Raise awareness of global climate change and the ways in which it relates to people’s lives and livelihoods in DR Congo.
- Confirm people’s observations that weather patterns are changing and that extreme weather events are likely to occur more often.
- Provide people with access to correct information about the causes of climate change.
- Build simple, correct mental models of how climate change works. In doing so, be mindful of people’s existing knowledge (e.g in relation to trees, God, and ozone depletion) which can function as a barrier or as a facilitator to effective climate change communication.
- Invest in efforts to develop and test appropriate climate change terminology in local and national languages.
- Harness widespread concern about deforestation and invest in efforts to develop and test appropriate climate change communication.
- Draw on a range of Congolese voices and experiences in discussions and debates: engage citizens, local interest groups, NGOs, religious leaders and policymakers from all levels of government.

**Facilitate policy and public debate**
- Build the capacity of news and non-news media to support more effective public debate on climate change in DR Congo.
- Provide “public spaces”, for example through TV talk shows, radio call-ins and other interactive media platforms, to exchange ideas and information, foster understanding and plan for action.
- Such spaces could also facilitate better cross-sector communication between government, NGOs, the private sector, the media, and local leaders, as well as with international actors.
- Build a sense of immediacy and encourage the sharing of current examples of adaptation to climate change. Harness Congolese understanding and experience of their changing weather and environment, to create a relevant discourse that promotes citizen engagement in DR Congo’s response to climate change.

**Encourage accountability**
- Develop mechanisms which enable Congolese citizens and their representatives to move climate change on the political agenda, and to exert pressure on their own governments with respect to climate change policies, adaptation funding, technology transfer, emissions reduction, the REDD process, and other response strategies. Such mechanisms will also help Congolese citizens and their representatives to communicate their own perspectives and demands to the rest of the world.

**Background**

Climate change in Africa

As climate change threatens Africans’ health and homes, and the natural resources which many depend to survive, Africa’s population faces an urgent crisis.1 It is predicted that Africa will be one of the regions worst affected by climate change.2 For people struggling with the challenges posed by climate variability, environmental degradation and poverty, climate change represents a tipping point.

Rainfall patterns across Africa have already changed markedly, and yields from rain-fed agriculture could halve in the next decade.3 A dearth of yields is predicted to lead to a greater risk of malnutrition for people who rely on the land to eat, and increased food insecurity for those who rely on buying food in the marketplace.4 Indeed, there have been recent food crises in Kenya, Uganda, Somalia and Ethiopia.5 Imports may also be affected, and food aid is threatened by climate change in the midwest of the United States.

Climate change is likely to alter the transmission patterns of diseases such as malaria.6 Increased incidences of cholera and meningitis are also thought to be linked to variations in climate. Health threats such as dengue, arbovirus and stroke affect more people when temperatures rise.7

The stark impacts of changing rainfall patterns on Africa are manifest. A powerful hydrological cycle will bring other challenges, including flooding. The Intergovernmental Panel on Climate Change (IPCC) says that “by the 2080s, millions more people than today are projected to experience floods every year due to sea-level rise, [largely] in the densely populated and low-lying mega-deltas of Asia and Africa... small islands are especially vulnerable.”8

The links between environmental degradation, political tension and conflict have been highlighted for many years.9 Environmental degradation is linked to widespread poverty and ongoing environmental degradation.

Covering a land area the size of western Europe, the Democratic Republic of Congo straddles the equator and receives copious amounts of rainfall. The predominantly tropical climate nurtures the second largest rainforest in the world, and has given rise to the Congo River basin, a network derived from the Congo River and its numerous tributaries that cover the entire country. The central plain is bordered by grasslands and mountain ranges to the north and west, savannahs along the south, and glacial peaks in the eastern highlands. DR Congo has two peak rainy seasons in a wet period that can last up to seven months.10 Regions lying to the south of the equatorial experience frequent heavy rains between October and May, while the wet season for areas to the north extends between April and November. These rainy seasons dictate the rhythm of the traditional agricultural calendar.

Perceptions and coverage of climate change: what do we already know?

To communicate effectively about climate change, it is critical to know how people understand it. While this review is not exhaustive, it is clear that there is a dearth of research on perceptions of climate change in Africa, and it will be essential to address this problem if communication is to improve. Opinion polls to date have largely focused on Nigeria, Kenya and South Africa. They reveal that many people are unfamiliar with “climate change”, “global warming”, “greenhouse gas emissions”, and “carbon emissions”.11 This makes it difficult to interpret further opinion-poll results about climate change in Africa. Most polls suggest that Africans view climate change less seriously than do non-Africans,12 which may point to a lack of information concerning the relevance and implications for Africa, but could also reflect a lack of understanding of the questions asked.

Some small-scale perception studies hint at the impact climate change is having on African lives.13,14 Lack of information regarding climate change is seen by some as a critical barrier in dealing with its effects.15 Indeed, research in the United States has shown that a limited understanding of climate change can restrict people’s ability to distinguish between effective and ineffective response strategies.16

A lack of public understanding of climate change is not exclusive to Africa. A review of research on the perceptions of climate change in the UK reveals public understanding as “patchy, but generally poor.”17 Similarly, research in the United States has shown that people often have basic misconceptions about climate change.18,19 Although high levels of media coverage of climate change in the United States and the United Kingdom has not always translated into high levels of concern among the public, some research suggests this is because climate change is seen as a remote and non-urgent issue.20,21 This is less likely to be the case in Africa, where most people are already experiencing the effects in their daily lives.

Although the media are seen to have a critical role to play in raising awareness and information provision on climate change, and disaster preparedness,22 little research exists on the media coverage of climate change in African countries. However, a recent publication suggests that journalists covering climate change in many developing countries lack training, support from editors and access to information or people to interview.23 It concludes that while news coverage of climate change in non-industrialised countries is increasing, the quantity and quality of reporting does not match the scale of the problem. It goes on to point out that there is a reliance on reports from Western news agencies, rather than locally relevant news, as well as sparse coverage of adaptation measures, means that audiences, particularly the world’s poor, are being underserved. Finally, it hints at the potentially important role that non-news media (such as talk shows, dramas and public service announcements) can play in providing information to audiences on climate change.

Acronyms used in this report

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<thead>
<tr>
<th>Acronym</th>
<th>Full name</th>
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<tbody>
<tr>
<td>BBCWST</td>
<td>BBC World Service Trust</td>
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<tr>
<td>CDM</td>
<td>Clean Development Mechanism</td>
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<tr>
<td>CEPECO</td>
<td>Centre pour la Promotion et l’Education des Communautés de base</td>
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<tr>
<td>CFC</td>
<td>Chlorofluorocarbons</td>
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<tr>
<td>COP15</td>
<td>Conference of the Parties</td>
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<td>CSO</td>
<td>Civil Society Organisations</td>
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<td>IDRC</td>
<td>International Development Research Centre</td>
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<td>IPCC</td>
<td>Intergovernmental Panel on Climate Change</td>
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<td>KHRT</td>
<td>Kasa Horizon Radio Télévision</td>
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<td>NGO</td>
<td>Non-government organisation</td>
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1. In the absence of extensive research on the public understanding of climate change in Africa, Afica Talks Climate also draws on existing research from outside Africa, whilst acknowledging that in many cases this research was conducted in a Western context, and therefore must be applied carefully to the African context.
The Congolese economy depends heavily on rain-fed agriculture, which is the mainstay of livelihoods for almost 90% of the population and is still based on the shifting cultivation system. The relationship between climate change and other factors is complex and still evolving, but rising temperatures are predicted to cause a surge in crop diseases such as cassava mosaic virus, and droughts will cause major disruption to the agricultural calendar, resulting in failure of both food and cash crops, and intensifying food insecurity and poverty.

Climate simulations for the region indicate that rainfall will become more intense and more destructive over the coming years, bringing floods, landslides and soil erosion, especially in the region of the central Congo Basin. Torrential rains are already causing loss of lives and damage to infrastructure in peripheral urban areas. By contrast, the rainy seasons will become shorter in the south, which is largely made up of the dry savannah belt and accounts for 80% of the rural population. These effects are already being felt, and it has been predicted that the Katanga region will see its rainy season shorten by at least two months by 2020. Coastal erosion, rising sea levels, seasonal droughts and the encroaching desert are also set to disturb the day-to-day existence of many rural populations. Coastal erosion and rising sea levels are already a threat in some coastal areas of the country, where the effects of climate change have been exacerbated by human activities such as deforestation and overfishing.


The bulk of efforts deployed by civil society organisations (CSOs) in DR Congo are directed towards alleviating the difficulties stemming from the brutal conflict that has plagued the country for over a decade. However, CSOs have been involved in REDD (Reducing Emissions from Deforestation and Forest Degradation in Developing Countries) projects, and national and international NGOs were developing adaptation and mitigation programmes at the time of the research.
3 Citizen focus group discussion findings

There are different ways to know about climate change. One is to understand the science: that human activities, such as the burning of fossil fuels for energy, are increasing the amount of heat-trapping gases in the atmosphere, which warms the earth and affects its climate system. Another is to experience it first hand: to witness over a lifetime changes in rainfall patterns that affect the harvest; to suffer from increased droughts, floods and other climatic disasters that can wipe out homes and crops; or to be at the receiving end of the spread of vector-borne diseases, such as malaria.

The findings from this research suggest that although most Congolese people do not know about climate change in the scientific sense, they have certainly experienced it. Observable changes in the weather and the seasons constitute most Congolese citizens’ knowledge of climate change; they live with the impacts of the changing climate in their day-to-day lives.

The research also shows that changes in climate are not noticed by Congolese in isolation from broader environmental changes. People in DR Congo are keenly aware of environmental degradation and natural resource depletion. They mention, for example, deforestation, pollution and diminished crop yields. Many people in DR Congo are directly dependent on their natural environment as a source of food and water and for their livelihoods. The fields and forests on which they depend have been maintained by a reliable rainy season that people say is changing.

Given that climate change is viewed in the wider context of environmental changes, it is important to understand how people in DR Congo perceive these changes. This report, while focusing on climate change, recognises the complexity of the relationship between climate change and environmental degradation. It begins with an overview of the environmental changes that Congolese citizens have experienced, and then focuses on the four key problems of erosion, flooding, deforestation and crop failure, which people say directly impact their lives. It moves on to examine people’s understanding of climate terminology and concepts, and presents five key themes that shape people’s understanding of the science of climate change. In subsequent sections, it explores what opinion leaders in DR Congo know and think about climate change, and concludes with recommendations.

What changes have Congolese citizens experienced in their climate and environment over time?

People in DR Congo say that the weather is changing and is making life much harder. The traditional agricultural calendar is determined by the dates and duration of the dry and rainy seasons, which people say are far less reliable than they used to be. People say that there is less rain, that when rainfall does come it is more intense, and that the weather is hotter than before. An older man from Kinshasa explains: “My parents live in a village in Bas Congo province. They have barely managed a harvest due to the lack of rain... They sowed a bagful of beans and they have harvested less than a bowlful.”

Many are concerned that changes in the environment and weather threaten a way of life that relies on natural resources. An older man from Kinshasa explains that such changes caused family members to leave their rural home and come to the capital: “I have family who have come here from Equateur province. There are significant changes happening there. Despite the presence of the trees, it is hotter than it used to be. And due to deforestation and the rise in temperature, the animals are moving further away.”

Changes have occurred not just in the rural areas, but in the towns and cities. Many people in the districts in and around Kinshasa and Mbuji Mayi are very concerned about flooding and erosion. A young man from Kimbaseke, just outside Kinshasa, says: “There never used to be erosion, but there is today... it never used to be as hot as it is now.”

An older woman from Mbuji Mayi recounts: “When I was living in another area, we had a really good plot with fruit trees and then there was a ravine that opened up just next to the plot. It happened overnight and when we wake up the next morning we found this ravine, so we had to move. It was serious, it rained every day and whenever it rained the ravine came closer. These are the consequences of changes in nature.”

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How do Congolese citizens explain and respond to changes they are experiencing?

Many of the changes that Congolese people observe are potentially linked to climate change, and can be exacerbated by climate change in the future. To understand whether people connect local problems to climate change, and to find out how they are currently coping and may cope if these problems become more severe or frequent, they were invited to discuss issues that prominently affected them. A set of 15 images, representing a range of issues that can be linked to climate change, was used to help facilitate the discussion.

Participants, as a group, chose images which had the greatest effect on their lives. Efforts were made to understand how people were interpreting the images – for example, different images prompted discussion of flooding – and subsequent discussions sought to understand attitudes towards these issues and the perceived causes, effects and responses.

Across the locations, four issues were identified:

1. Erosion
2. Flooding
3. Deforestation
4. Crop failure

Erosion

People in urban areas are particularly concerned about erosion. Most people blame it on a lack of urban planning, which translates into a conviction that the problem could be addressed by improving environmental management.

Erosion is largely an urban problem. The residents of Kinshasa, Mbuji Mayi, Matadi and their surrounding areas are understandably concerned about a problem that they have known to destroy houses and cause loss of life.

One participant ascribes erosion to black magic, but most people agree that erosion is a natural phenomenon that has been made worse by construction and poor environmental management. A concern voiced by many is that tree-levelling leaves the soil unprotected and more vulnerable to erosion. Urban residents point to a lack of adequate drainage to channel rainwater, and poor management of flood waters. Many say that a lack of planning leads to “anarchic” construction, with people building on land that is prone to erosion, or in close proximity to mining sites. There is a view that people are responsible for causing erosion and that only collective responsibility will fix the problems. Some believe it is not possible to fix the problem and that people will have to move if the problem deteriorates, that seems that many more areas will be abandoned if solutions to erosion are not found.

Although most people say that they lack the means to tackle erosion, many suggest practical responses which they have already begun to implement in their local area, such as planting bamboo and grass or laying sandbags. A young man from Mbuji Mayi says that his community has “floughbt body and soul” to use such techniques to alleviate erosion. In Kinshasa, a few people say that NGOs such as the Belgian Technical Co-operation and FOLECO (the federation of non-religious NGOs for economic development in Congo) are working on the problem.

A few participants say that the state authorities are already taking action, one mentions the state authority for roads and drainage, while another says that the government sends sand supplies to his area. In Mbuji Mayi, the local community, government authorities and a mining company are working together to tackle erosion.

Some suggest that the necessary knowledge and resources cannot be found in DR Congo. An older man from Kinshasa proposes that: “We should appeal to our opinion leaders or international organisations that support the fight against phenomena [such as erosion].” A young man from Mbuji Mayi says: “We must appeal to the government, and in turn must call on foreign specialists in this area.”

Suggestions for future government intervention include a ban on construction in certain areas, the construction of drainage systems and street clean-up, and a call for the government to pay for everything. A few participants point out that the government hinders efforts to address the problem. Several say that Congolese laws concerning land rights can prevent people trying to provide solutions to erosion. Another says that unauthorised construction is already an offence that carries a fine, but that the government tends to respond to the offence only once construction is complete. One person says that members of the state authorities take bribes in exchange for permission to build in inappropriate areas.

Flooding

Flooding is a concern for both urban and rural citizens. In rural areas, most people say that individuals can take action to limit the worst impacts of flooding. In urban areas, homeowners blame for causing flooding through construction and poor waste disposal practices.

In DR Congo, two different terms for “climate change” were explored in some of the focus groups. All groups were asked about the French term climat change. In addition, Lingala-speaking groups were asked about the term mbongwe ya tinga, a Lingala translation of “climate change” suggested by the Congolese advisory group. No different terms for “global warming” were explored as there were no Lingala translations considered suitable. Instead, the French term réchauffement climatique was used in all of the groups.

When it rains, you can be coming back along the road you took earlier, and find it divided by a ravine.

Older Woman from Mbuji Mayi

Words for “climate change” and “global warming”

Flooding occurs in both rural and urban areas in DR Congo, but is more likely to be linked to poor waste disposal and perceived as a threat in Kinshasa and Kinshaseke, whereas in Baluwa Nsumpi people understand floods to be part of the rhythm of the seasons.

Whereas in rural Baluwa Nsumpi they say that God causes the rivers to overflow, in urban areas most people believe that the cause of flooding is poor environmental management and unplanned construction. An older man from Kinshasa says: “[Before,] the authorities would come with trucks and throw the rubbish in the river, because they did not have any other way of disposing of it, such as burning or recycling the rubbish.” The residents of Kinshasa and Kinshaseke say that flooding is caused by a lack of drainage, the inefficiency of hygiene services, and poor planning for waste disposal at local and national levels. This is perceived as a problem that has worsened over time.

In Kinshasa, one man fears the “malaria and typhoid brought” by the combination of waste and flooding, and in Kinshaseke a woman explains that the “permanent stench is caused by the current washing through the flood waters, while others are worried that floods could kill people there. Some residents say flooding has rendered parts of the capital “uninhabitable”. Yet in rural Baluwa Nsumpi flooding is understood to be part of the rhythm of the seasons: “the river overflows, and that’s what causes this.”

In urban and rural areas alike, communities say that individuals can take action to limit the worst impacts of flooding. In Kinshasa, some feel that individuals bear responsibility for failing to keep their property clean, and that local people can work to resolve the problem. In Mbuji Mayi, a man says that the government should take action at a local level to clear their area of waste. In Baluwa Nsumpi, people say that they avoid building in areas prone to flooding, and that when it rains, people dig channels to direct the rain water to the river basin.

If the problem deteriorates, it seems that many more areas will be abandoned if solutions to erosion are not found. Although most people say that they lack the means to tackle erosion, many suggest practical responses which they have already begun to implement in their local area, such as planting bamboo and grass or laying sandbags. A young man from Mbuji Mayi says that his community has “floughbt body and soul” to use such techniques to alleviate erosion. In Kinshasa, a few people say that NGOs such as the Belgian Technical Co-operation and FOLECO (the federation of non-religious NGOs for economic development in Congo) are working on the problem. A few participants say that the state authorities are already taking action, one mentions the state authority for roads and drainage, while another says that the government sends sand supplies to his area. In Mbuji Mayi, the local community, government authorities and a mining company are working together to tackle erosion. Some suggest that the necessary knowledge and resources cannot be found in DR Congo. An older man from Kinshasa proposes that: “We should appeal to our opinion leaders or international organisations that support the fight against phenomena [such as erosion].” A young man from Mbuji Mayi says: “We must appeal to the government, and in turn must call on foreign specialists in this area.”

Suggestions for future government intervention include a ban on construction in certain areas, the construction of drainage systems and street clean-up, and a call for the government to pay for everything. A few participants point out that the government hinders efforts to address the problem. Several say that Congolese laws concerning land rights can prevent people trying to provide solutions to erosion. Another says that unauthorised construction is already an offence that carries a fine, but that the government tends to respond to the offence only once construction is complete. One person says that members of the state authorities take bribes in exchange for permission to build in inappropriate areas.

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**As you can see, our life here has become one of deforestation, to make charcoal and sell wood. That is why the soil is drying out and the crops simply do not grow well any more.**

**WOMAN FROM KINZAVUETE**

**Whoever wants to take the wood just gives [the authorities] a little something so as not to be arrested.**

**WOMAN FROM KINZAVUETE**

act on the problem. People in Bakwa Nsumpi and in Kinzavuete say that if flooding were to get worse, they would have to leave the area. They say that the authorities should do something to help. People see it as their responsibility to alert the local authorities to the problem, so that they can in turn call on the state authorities or parastatals to see to it that the governor of Kinshasa could do something to help, while another says that an NGO might be able to assist.

The main focus of people’s concerns in the capital is the state authorities’ failure to act on the problem of deforestation. The state should act on its responsibilities, and by reforesting areas that have been deforested, people say that the state authorities need to act on the problem of deforestation. The perception that state authorities currently do little to address the problem is widespread, and one man says, “People know how to manage the earth that they have been granted.”

People are worried about the effects of deforestation on people’s health and livelihoods. Older women from peri-urban Mbuji Mayi say that the loss of trees means that there is less oxygen and more “carbon gas”, and link this change to health problems. Some say that people are more likely to get ill in the absence of trees. However, they do not link “carbon gas” to atmospheric pollution and global climate change.

Many say that the loss of trees leads to an increase in heat. Often people say that the trees prevent the full heat of the sun reaching the earth, so that their loss results in higher temperatures. A man from Matadi says that the increase in heat is because smoke and carbon released by deforestation into the atmosphere protect us against heat.”suggesting that he thinks the smoke damages the health of the soil when burned. As you can see, our life here has become one of deforestation, to make charcoal and sell wood. That is why the soil is drying out and the crops simply do not grow well any more.

People report that crops do not grow as they once did, and that yields have decreased. They say that traditional staple crops such as bananas and plantains have been affected. “Mangoes don’t grow properly any more,” says a woman from Kinzavuete. “It produces little flour and there is not enough to make [the traditional dish] chiko-wango… It’s hard.”

Most people agree that the primary cause of crop failure and reduced yields is that soil fertility has diminished and so became less fertile. Because of a lack of employment and little income, people are forced to cultivate small areas of land and cannot afford to let the soil recover, as they say, “If we do not make a living from this land, then I cannot farm any more.” One of their main concerns is that they have forgotten the soil.

Many connect deforestation to a reduction in soil fertility and so to the failure of their crops. They argue that until the state does something to create more jobs, many people are left without options other than tree-felling. As more trees are felled, they say, the quality of the soil decreases, and crops fail as a result. In this way, people suggest that the problems affecting rural areas exist in a vicious cycle and that to break it, they need assistance from the state. In Kinzavuete, people are frustrated that “the state pretends not to know of our problems,” as one man says. Another is angry that “there are no trees around from which we can build our houses.” One woman says: “We have a ministry of agriculture and environment,” he says, “What do they know of our problems here? A third complains: “They have forgotten the farmers – they focus on the urban areas instead.” One of their main concerns is that they want them to construct buildings but if they could think of us as well, that would be good.”

People with few resources feel that they can do very little to improve their crop yields without assistance from the government. Those with more resources, in the peri-urban area of Mbuji Mayi, say that if the problem gets worse, they will “leave and go somewhere else” and cultivate the same crops there. However, there is no other option. “We struggle to survive,” says one. “We can’t do anything about it,” adds another, “so we will just keep going.”

Many connect deforestation to a reduction in soil fertility and so to the failure of their crops. They argue that until the state does something to create more jobs, many people are left without options other than tree-felling. As more trees are felled, they say, the quality of the soil decreases, and crops fail as a result.

**Deforestation**

Deforestation is of great concern to Congolese people, particularly in rural areas. Many connect it to crop failure and increased temperatures. Yet people see tree-felling as a means of survival.

Deforestation is a particular concern for people in rural Bakwa Nsumpi and Kinzavuete, although people in Matadi and Mbuji Mayi are also worried about the loss of trees.

In rural areas deforestation is described as occurring in two ways: first, through the deliberate burning and felling of forested land to clear plots for farming. A woman from rural Kinshasa explains: “Now that we have cut down the trees, we will be able to create fields so that we can survive. Sometimes it is good to cut down the trees – otherwise if you have no trees, sometimes there is a risk that they might not grow.” The second way deforestation occurs is through trees being cut down for charcoal and firewood. “People fell the trees,” says a man from Matadi, “so that they can make bricks and charcoal.”

What pushes people in DR Congo to fell trees? Almost everyone depends tree-felling, and yet in conversations on the subject, all agree that unemployment leads people to the fields or the forests to
How do Congolese citizens think their country and communities are responding?

Practical measures to tackle environmental problems are widely understood and implemented by individuals and communities, with assistance from NGOs and government, but people often see too few resources to take action without further support.

People are concerned about the way their local environments have changed. Practical measures to tackle these problems are widely understood, and methods such as planting bamboo or laying sandbags to control the spread of erosion, or clearing rubbish, are widely practised by individuals and community organisations, with some support from the government and NGOs.

However, it is frequently pointed out that individuals and communities often fail to act when the crises described above: “If the water had been properly channelled from the start,” a young man from Mbuj-Mayi, “then we wouldn’t have ended up in this situation.” The solutions that people say they use to tackle environmental problems are reactive, short-term and small in scale.

Despite individual engagement with environmental problems, many say they lack the resources to respond to environmental challenges effectively, and that the state authorities appear unable or unwilling to provide the assistance that communities require. Many people express frustration that the authorities do not respond when the situation requires their intervention, for example in the case of unlawful construction, which is said to link to erosion and flooding. People’s comments suggest they would like the state authorities to “act on their responsibilities” by punishing unlawful construction and unauthorised trees.

Despite saying that the state should punish those responsible for environmental offences, people frequently say that they themselves act in a way that damages the environment. While this appears paradoxical, people emphasise that they care about the environment, and only harm the environment through “tree-felling or over-farming, for example” because they have no other choice. They say that they need to be provided with alternatives to a way of life that damages the environment, and that this requires action and planning on the part of the government.

The state authorities, people suggest, should create employment as an alternative to tree-felling, and give clear explanations to others, so that they can buy more land and allow the soil to rest. People say that state authorities need to lead responses to environmental challenges, at the local and national level. The governor and local mayors of Kinshasa are mentioned as people people recognise their responsibilities “by punishing unlawful construction and deforestation are most strongly felt, in the case of all of the environmental problems are reactive, short-term and small in scale.

In this context, Democratic Republic of Congo Talks Climate explores how people make sense of climate change terminology and react to information about climate change. It emerges that five key themes are shaping people’s understanding of climate change, and affecting the way in which they explain its effects.

Terminology

Unlike in some of the countries in which research was conducted, the term “climate” is familiar to Congolese, and they use it frequently to describe abnormal shifts in the seasons, extremes of weather and changes in rainfall. “I can even see a change in the seasons,” says a farmer from Kinzavu. “The climate is changing. You will be waiting for the rains to come in the tenth month but you find that it rains two or three months later, or it doesn’t rain at all.” Even in the capital, where fewer people rely on the agricultural calendar for the purposes of cultivation, these changes have been noticed. A man from Kinshasa says: “Things are really bad. Before, we had six months of rain, and now we have three in the whole year.”

“Most participants in DR Congo say that they recognise the term “global warming”, with the exception of women in the rural communities of Balwa Numpi and Kinzavu. A young woman from Balwa Numpi says that it referes to global warming “as a period of a lot of heat.” In urban Matadi, where people say they have heard the term in the media, people say that global warming references “when it is very hot.” Neither of these descriptions refers to the role of pollution in causing global warming, nor do they mention the increase in average global temperatures over time. However, an older man from Killinsa and Kimbassengue, where people also say they have heard the term in the media, people link global warming to climate change, and some say, “it is because there is warming that there is climate change.” An urban Congolese man describes local warming comes from an older man in Kinshasa who explains that: “Natural heat exists from the sun, and humans add to it through their behaviour. That behaviour has been changing in the industrialisation and urbanisation. Although he correctly refers to the impact of human behaviour on climate, he does not describe how industrialisation causes the climate to change. Almost all participants in DR Congo say they are familiar with the term “climate change” and some say it comes from people in Balwa Numpi, where none of the women have heard the term, and only a few men. When prompted, a young woman from Balwa Numpi suggests that “climate change” refers to “the changing weather and the seasons.” A young woman from Matadi thinks the term refers to “when we move from one season to another.”

Recommendations for communicators

Many people use climate change terminology, but few understand it. Give clear explanations of the terms people use more often, and explain the terminology that people do not understand the terminology, despite exposure to it.

Reaction to the concepts

Low spontaneous awareness of climate-related terms was to some extent expected, based on previous research. Discussions, therefore, also explored awareness and understanding of the concepts “climate change” and global warming, using the following statements:

1. Scientists are saying that human beings are causing weather patterns to change around the world.

2. Scientists are saying that human beings are causing the temperature of the earth to increase.

Many participants agree with the idea that human beings are causing long-term weather patterns to change around the world. An older man from Kinshasa is typical in saying: “I think that human beings are causing the temperature of the air to increase.”
scientific research and technological advances lead humans to interfere with “the sky” or the ozone layer, which they think causes a change in weather. People’s perceptions of what the ozone layer is and the causes and consequences of it being damaged are vague and generally inaccurate. A few people in rural areas say that God is behind the changing weather. There is little recognition by anyone, however, that the problems they face are likely to have human causes that extend beyond their own continent.

Likewise, people agree that the temperature of the earth is increasing. Most people think that human activity is responsible for the change in temperature, and attribute it to deforestation, burning both rubbish and wood for stoves, and pollution from factories. Others do not give explicit reasons for their belief that human destruction of the natural environment is causing the temperature to increase. Some people think that overcrowding can cause the temperature to increase through the presence of larger numbers of people. Others say that an increase in heat is due to the will of God. A few think that excessive heat is a form of divine punishment. Women in rural Bakwa Nsumpi are adamant that God is the sole cause of changes in temperature. People are more likely to associate divine will with an increase in temperature than other weather patterns or changes.

Frames of reference
In the absence of a solid scientific understanding of climate change, people reach for explanations that build on their existing knowledge. Discussions of the terms and concepts of climate change and global warming revealed five important themes that influence participants’ understanding:

1. Emphasis on trees
2. The will of God
3. Localised heat and pollution
4. Ozone confusion
5. Science and technology

Such pre-existing concepts are often referred to as “frames of reference.” These are critical, because they shape people’s understanding of, and reactions to, new information. When exposed to new information, people often use existing beliefs, knowledge, and values to help them process it. The likelihood that people accept or reject new information depends heavily on what they already know and believe.

Crucially, people are more likely to reject new facts and information than they are to dismiss their own existing frames of reference. If new information contradicts a person’s beliefs, it is likely to be rejected. However, if that information is delivered in a way that complements people’s knowledge and values, people are more likely to accept it.

In this way, the five themes – or frames of reference – can function as barriers or facilitators to creating a comprehensive understanding of climate change. Understanding them can help communicators in DR Congo make their content relevant to their audiences. It is essential, therefore, to understand how existing knowledge and concepts are triggered when communicating about climate change.

Emphasis on trees
In a country as heavily forested as DR Congo, it is little surprise that trees play an important role in the way people understand their changing climate. Many people link deforestation to effects on rainfall and temperature, and as a result, to crop failure and a decrease in the quality of the soil. People value plants and trees for their benefits for weather patterns or changes.

Humans caused industrialisation. Factories pollute the environment by producing gases...

When God created the earth everything was perfect, but humans are at the root of these weather changes – we cut down the trees, for example, and that disrupts the rains

Humans caused industrialisation. Factories pollute the environment by producing gases...

Comprehensive understanding
Deforestation prevents trees from storing carbon, and releases the carbon they have stored back into the atmosphere. The result is a higher concentration of greenhouse gases in the atmosphere, which in turn has a heat-trapping effect (the greenhouse effect). This leads to warming and other climate changes, including less rainfall in certain parts of the world.

Recommends for communicators
Build on people’s existing knowledge of the importance of trees to help create a wider understanding of deforestation as one of the drivers of global climate change. Broaden Congolese citizens’ awareness of the international debate concerning funding for forests, and explain how this is relevant to their lives. Expose people to adaptation and mitigation strategies that take account of the importance of forests in DR Congo and acknowledge the role of other factors in global climate change.

The will of God
The majority of people describe their natural environment in relation to God’s creation. Nature is first and foremost everything God created”, says an older man from Kinshasa. When asked if there is anything that is not part of the natural environment, a typical response comes from a younger man from Mbuji Mayi, who explains, “God did not create this, he created man alone, and man decided to create trees, houses – that’s artificial”. It is little surprise, then, that some Congolese believe God controls the weather, whether or not they believe that humans also play a part.

Sometimes, people’s belief in God as creator of the natural world is connected to a belief that God controls the weather. A man from rural Bakwa Nsumpi says: “I think that God is the creator of everything on Earth, and therefore God is at the root of all these changes.” A woman from Kinshasa says: “We should have repented for our sins,” suggesting that she understands changes in the weather as a form of divine punishment.

Some participants believe that God controls the weather and the temperature. In rural areas, this is predominantly the case in rural areas. However, there is not consensus on the question. For example, a man from rural Bakwa Nsumpi disagrees with several others when he says: "I disagree [that God is at the cause of these changes]. When God created the world it was perfect, but humans are the cause of this, when we cut down trees for example, we upset the rains.”

A belief that God created the natural environment certainly does not preclude the understanding that humans can affect the weather. A man from Katashi says: “God placed man in an environment that was natural, but man didn’t know how to manage the environment.” Many believe that the natural environment is God’s creation. Widespread misunderstanding of the extent to which people associate trees with well-being:

The air...
A woman from Kinshasa is typical of urban residents when she says: “I will give a simple example. Our parents knew that at the end of May the rains would stop and that at the beginning of June we were used to the rain to stop or start is no longer respected… so we can say that there is a change in the climate, something has changed.”

The danger in confusing climate change with ozone depletion is that people seeking to address climate change may select the wrong activities to address. Reducing CFCs was effective in dealing with ozone depletion, but less effective in combating global warming, which is primarily caused by carbon dioxide emissions. Furthermore, ozone depletion was largely addressed by regulation in the late 1980s, while the human activities that cause climate change are ongoing.

Recommends for communicators

Make use of people’s awareness of atmospheric ozone depletion to explain climate change, correcting misconceptions at the same time. Emphasize which human activities produce the greenhouse gases that cause climate change. Explain the science of climate change in a visual way that resonates with people, as ozone holes do.

Science and technology

There is concern from some people about the part played by science and technology in changing the weather. Much of this is expressed in relation to scientific research and its impact on the ozone layer. A few mention the effect of weapons on temperature and climate.

A number of people are anxious about space research. A young woman from Matadi makes a direct connection between scientific research and the change in seasons and temperature. “Scientists send missiles up into the universe to do research and that has repercussions on the earth and the rainy season started six months and we knew that on the nineteenth the rainy season would begin but now you can go beyond the fifteenth and the climate is the same. And it is getting hotter and hotter.” Another makes an interesting connection: “Two or three years ago,” she says, “the scientists themselves declared that there had been too many deaths of old people in Europe due to a [heat wave]. They said that the heat was caused by rockets that they were launching, which broke a layer in the atmosphere and took the temperature. Others like me, who are not familiar with these things cannot accept this.”

Astronauts do their research, they go off to discover other planets,” says a man from Kinshasa, “but they shouldn’t be going there… they destroy the ozone layer and that’s what causes all these changes.”

A few people mention “weapons” and “nuclear weapons” to explain why they are concerned about changes in the weather or the temperature. A woman from Kinshasa mentions the Hiroshima bomb.” It appears that people mention these in connection to the heat they understand they generate, and the negative effect on the environment. Yet they are not always explicit in making these connections.

Some people can picture changes occurring in the atmosphere because of rockets or nuclear activity, while others can imagine that the heat and energy from weapons could have repercussions on the temperature of the Earth. These mental models are highly tangible and appeal to the imagination, suggesting that communicators would find similar metaphors useful to their explanations of climate change.

Recommendations for communicators

Support people’s understanding that human activity causes changes in the weather by providing tangible descriptions of or metaphors for the way in which atmospheric pollution causes global climate change.

These five themes can function as barriers or as facilitators to effective climate change communication, but it is essential for communicators to understand how they impact others and to make use of people’s awareness of atmospheric ozone depletion to explain climate change, correcting misconceptions at the same time. Emphasize which human activities produce the greenhouse gases that cause climate change. Explain the science of climate change in a visual way that resonates with people, as ozone holes do.

Recommendations for communicators

Make use of people’s awareness of atmospheric ozone depletion to explain climate change, correcting misconceptions at the same time. Emphasize which human activities produce the greenhouse gases that cause climate change. Explain the science of climate change in a visual way that resonates with people, as ozone holes do.

4 Interviews with opinion leaders

This research draws on 17 interviews with opinion leaders across six sectors:

- Government
- NGO, religious, associations
- Private sector
- Media
- What do Congolese opinion leaders know and understand about climate change and what are their views on DR Congo’s response to climate change?

Awareness of climate change

All opinion leaders recognize climate change terminology, although some are not working on the problem having limited knowledge, and are less confident about what they know.

Although this research relies on relatively few interviews with opinion leaders, all of them recognize the term “climate change.” Indeed one private sector representative says that “everybody is talking about it,” and another explains: “They talk about climate change every day on television, and they’re talking about it more and more.” People relate the term to “global warming” and “greenhouse gases” and often use it interchangeably with the terms “the changing climate” and “climatic disruption” to describe changes in the seasons and weather both in DR Congo and elsewhere. Although opinion leaders frequently refer to “global warming” and “greenhouse gases”, there is evidence to suggest that these terms are not always understood outside of government and NGOs.

While most opinion leaders know that countries around the world are experiencing changes in climate and extreme weather events, not all of them know that these changes are linked to greenhouse gas emissions and the greenhouse effect. It is often difficult to ascertain how much opinion leaders know about global climate change. Some opinion leaders who do not seem to understand the science of global climate change are nonetheless aware that there is a political debate surrounding industrialised nations’ responsibility for pollution. Some of those with a more detailed understanding of global climate change understandably focus discussion on the climate change impacts that will have the greatest consequences for their work, and are less likely to mention industrial emissions of greenhouse gases.

Some opinion leaders inaccurately link global warming to the “destruction of the ozone layer”, rather than correctly connecting it to the greenhouse effect. One incorrectly links climate change to localised pollution from weapons: “Chemical reactions from powder and weapons have been disturbed the atmosphere” so that from that I would say that the east of the country is worst affected.” The most unusual mistake comes from one opinion leader who suggests that climate change may affect “the speed of the Earth’s rotation.”

Opinion leaders are not directly working on climate change programmes in national government or NGOs tend to know less about it, or are less confident about their knowledge, with some saying that climate change is a specialist topic. When asked what they think about climate change, a typical response from opinion leaders outside these sectors is: “I am not a scientist, so I am not well placed to say.”

Understanding climate change

Opinion leaders describe seasonal and weather changes in relation to climate change. Outside government and NGOs most inaccurately describe the causes of climate change, however.

Unlike in other countries involved in Africa Talks Climate, there is a word for climate in DR Congo. This is significant because often opinion leaders give lengthy detailed descriptions of shifts in the timing and duration of the dry and rainy seasons, and increases in temperature, and link this to climate-related terminology, which may not be easily understood. A typical explanation of climate change comes from an opinion leader who describes the experiences of his parents:

“I will give a simple example. Our parents knew that at the end of May the rains would stop and that at the beginning of June we would start the dry season and it would be really cold in the month of July… and now we can tell that the date for the rain to stop or start is no longer respected… so we can say that there is a change in the climate, something has changed.”

Mr. Yves Koko, rector, Notre Dame cathedral, Kinshasa.
Another gives an example from his own life:
“I live next to the river and we have seen how [the changing climate] has affected the fish. There are species that are disappearing. People used to use lines or spears but now they have to use spears with nets and they take tiny fish, even though they really should leave these fish to grow.”

Mr. Freddy Mansaya Tribouk, newspaper director at .... De霧報.

However, not all opinion leaders have a clear understanding of the processes of global warming. Generally, these explanations tend to come from government and NGO representatives working on the issue, who are aware that humans are responsible for producing the greenhouse gases that trap heat in the atmosphere and cause global warming.

“Climate change is a dangerous concentration of greenhouse gases, that is to say a series of six gases, carbon dioxide, sulfur hexafluoride, methane, HFCs and CFCs. When they are concentrated in the atmosphere at a dangerous level they create global warming, and that is connected to effects such as the melting of glacial ice, sea level rise, droughts and flooding.” Mr. Tosi Mpuu Mpuu, director, National Authority for the Clean Development Mechanism.

Opinion leaders outside national government and NGOs tend to be less confident about their knowledge, whether or not they have an accurate understanding of climate change. Generally they make less detailed connections between pollution and climate change.

“Apart from the reading I have done on the subject, I understand [the term “climate change”] that greenhouse gases warm or disturb the climate…”

Mr. Oscar Kabambwa Kasongo, director, TV news, RTNC.

Often these opinion leaders acknowledge that they are uncertain, and their explanations of climate change can include inaccurate descriptions of its causes, such as assigning it to general pollution rather than atmospheric pollution from greenhouse gases, for example.

Another common misconception among some opinion leaders and many participants from the focus groups is that climate change is linked to damage to the ozone layer. One opinion leader is typical in saying that “global warming has been affecting the ozone layer for a while”, and others make similarly inaccurate connections between climate change terminology and ozone depletion.

Perceived impacts of climate change

Opinion leaders are concerned that climate change will cause flooding and water and food insecurity in DR Congo. Some say that the impacts of climate change are already being felt elsewhere, and consider that DR Congo’s relatively plentiful resources could become a source of conflict in the region.

Whatever their understanding of climate change, most opinion leaders know that the weather is changing around the world, and many associate such changes with deaths in France due to “heat waves”, and extreme weather events such as cyclones and tsunamis in Asia. They also recognise that a changing climate is affecting DR Congo and its citizens.

Opinion leaders are concerned that increases in temperature, changes in rainfall, drought and flooding will affect DR Congo. In particular, they mention Bas Congo, Kasai, North and South Kivu and Province Orientale as regions that they consider to be at particular risk. Some are especially concerned at the prospect of drought in the plateau in the south and west of the country.

Urban centres are understood to already be affected by the physical impacts of a changing climate. Several opinion leaders echo the descriptions given by members of the public in their accounts of heavy rain causing flooding and erosion, ruined houses and destroying roads.

Concern is focused on the damage a changing climate could cause to rain-fed agriculture and water resources: the impact on supplies of drinking water is seen by many as an urgent concern:

“Just as we talk about oil shortages, we should pay attention to supplies of fresh water…”

Mr. Alain Sonja, managing director, Sibobai.

One opinion leader is concerned about the secondary effects of a lack of clean water:

“If there is less rain than before then that will certainly affect [our people] because they will have to go further to look for water, and they might venture into other local communities who are not going to welcome the people who have come a long way to take their water. So the problem is multidimensional. It could create problems of survival, problems of coexistence between populations…”

Mr. Tosi Mpuu Mpuu, director, National Authority for the Clean Development Mechanism.

Most are worried about the impact that higher temperatures, food insecurity and a dwindling water supply could have on people’s health. Many point out that a lack of clean drinking water will bring disease. The spread of malaria due to rising temperatures is frequently mentioned. One opinion leader emphasises that there is a greater awareness of the rural poor that they do not have adequate health structures to cope with the problems created by climatic disruption.

Others perceive that a changing climate is already disturbing village economies:

“I was coming along the Ruazi valley and I saw flooded fields. You realise then that an entire village’s economy has disappeared. has fallen apart.”

Mr. Clément Kambala, director, Action pour le développement de la communauté paysanne.

Regardless of individual knowledge of global climate change, many opinion leaders are concerned about the effect of a changing climate on rural populations that rely on the land and the forests both to feed themselves, and to produce food for the urban areas. They say the changing climate has caused animals to move from their usual habitats, with consequences for hunters. One association representative is particularly concerned about the impacts of climate change on Pygmy communities who depend on hunting and gathering in the country’s forests for their survival.

Despite considerable concern for rural populations, some opinion leaders believe that the urban areas will eventually suffer more heavily than the rural areas, in part because they are largely reliant on rural districts for their food production:

“Our towns are sites of consumption, not sites of production. But our villages are places of production first, and consumption second. Because of the climate change [in the country] such as severe drought, heat waves, floods – all of these foodstuffs come from the villages. When the villages are affected, the town suffers worse, because villages that should sell half [of their produce] are now selling perhaps a quarter. This is because in the villages you even if you have nothing to sell, at least you can find something to eat.”

Mr. Jacques Bakulu, pastor, CEPECO.

Some think this will be compounded by the fact that rural–urban migration will increase as the impacts of climate change hit rural areas in the DR Congo, while the consequences for urban populations could be severe:

“The rural exodus is taking on proportions that are becoming worrying. You have a town like Kinshasa, built to house 500,000 or perhaps a million inhabitants, at most. Now, the statistics… are talking about eight million inhabitants in the town of Kinshasa, and it is the same for the other large urban centres, where there is the same kind of rural exodus. Obviously one cause is the insecurity in the interior of the country, but it also because the only source of food is agriculture and the gathering of forest products. When these are no longer accessible, people tend to head towards the towns to find something to eat.”

Mr. René Ngongo, head of policy, Greenpeace DR Congo.

Although many opinion leaders are deeply concerned about the ways in which climate change is already affecting DR Congo, some do not think the impacts the country has experienced are yet as serious as those in other countries:

“Personally I think that the average Congolese citizen is not directly affected by climate change, compared to other geographical areas – for example in southern or Sahelian Africa, where the effects of climate change are more palpable. There are no catastrophic aspects [in DR Congo] such as drought or flooding. In that sense I would say that climate change doesn’t really affect the Congolese population for the moment.”

Mr. Tosi Mpuu Mpuu, director, National Authority for the Clean Development Mechanism.

Those opinion leaders with at least some knowledge of global climate change connect climate change to the diminishing water levels of Lake Chad and receding snow cover on Mount Kilimanjaro. They are also worried that other countries such as Burundi, Rwanda and Sudan will face increasing food insecurity, if climate change causes drought to get worse there.

In light of people’s concerns about climate change impacts across Africa, some are worried that DR Congo’s relatively plentiful land and water resources could become a source of conflict in the region:

“If the Sahel keeps advancing… that could create a problem. We could be invaded if the bordering countries have nothing to eat as a result of these changes [in the weather].”

Ms Agnès Kasongo, manager, Plantations et Huileries du Congo.

Where does responsibility lie?

Opinion leaders say that industrialised nations should be held to their responsibilities to compensate DR Congo for the impacts of their actions. Not all link the question of compensation to atmospheric pollution and the greenhouse effect, however. Many link changes in climate to deforestation, which they attribute to multinational logging companies, and to Congolese citizens.

Those who understand global climate change and link it to greenhouse gas emissions emphasise that responsibility for climate change does not lie with non-industrialised countries such as DR Congo:

“It is ironic and cruel that Africa is the continent that contributes the least to greenhouse gas emissions and yet Africa is the continent that is worst the affected.”

Mr. Tosi Mpuu Mpuu, director, National Authority for the Clean Development Mechanism.

They say that China and the USA hold the most responsibility for producing the pollution that causes climate change:

Many are aware that there is a political debate connected to climate change that relates to funding for developing countries. A few understand that the debate concerns the need for industrialised countries to compensate developing countries according to the principle of “common but differentiated responsibilities” for global greenhouse gas emissions. Not all opinion leaders explicitly connect the question of compensation to greenhouse gas emissions. All, however, insist that these countries must be held to their responsibility to pay:

“The most developed countries, such as the USA, Japan and France… that is to say, the countries that pollute the environment the most… are the countries that cause the impacts that we are suffering here. We have raised the...
Some opinion leaders suggest that many Congolese people have concerns that appear more urgent:

“Ordinary citizens in our country have other immediate problems... they are of course going to suffer climate change but for the moment... their concern is wondering whether they are going to wake up tomorrow, whether they are going to eat tomorrow, whether their children are going to go to school.”

Ms. Agnès Kasongo, manager, Plantations et Huileries du Congo

Opinion leaders working in the area of climate change recognize that this is in fact a paradox, when the urgent concerns of food and security are so closely related to the impacts of climate change. For this reason, they emphasise that the challenges of addressing the population’s basic needs and tackling climate change must be addressed together:

“When you speak to most people, they say, we do not have access to food, we have to worry about our survival first.”

Mr. René Ngongo, head of policy, Greenpeace DR Congo

Opinion leaders point out that people cannot respond effectively to climate change unless they receive information that emphasises the urgency of the problem. A few are eager to raise awareness of climate change because they face the same challenges as AIDS awareness campaigns:

“These are phenomena that take time, so you have to be informed about them. You saw what happened in the many problems we had to spread the message about AIDS. It’s the same thing – if AIDS killed the same day, I think people would understand straight away. But when there’s time, I think people start to understand the problem.”

Mr. Nzungu Luntadi, cabinet director, Bas Congo regional ministry for agriculture, livestock, virology and rural development

Opinion leaders think that while many have heard climate change terminology, it is not currently connected to most citizens’ understanding of their changing weather. They say that the terms need to be translated into local languages and local contexts:

Opinion leaders say that the general public needs more information on climate change.

Some report that the term “climate change” is used regularly in the media, and therefore that many people will recognise it, even if they do not know what it means. All agree that people would be more concerned about climate change if they understood that the term pertained to the changing weather as experienced in DR Congo:

“I prefer a term that... brings together the international term and the local term... because when we change it, we reduce its scope and disconnect ourselves from others. I would like us to use the same term ‘climate change’, but start with the consequences and negative aspects, so perhaps ‘Climate change and its consequences’.”

Mr. Jacques Bakulu, pastor, CEPECO

In general, opinion leaders are committed to retaining the term “climate change”. A few express the view that the term is central to the global debate, and that the public therefore need to understand and use it if they are to be included:

“Not a day passes when you don’t hear them discussing the problem of climate change on the radio. It has been a global concern, so why create something new? I think we have to play the game and drum ‘climate change’ into people’s heads.”

Mr. José Endundo Bongo, minister for environment, natural conservation and tourism

Yet there are several barriers to people understanding the term, according to opinion leaders. Some say that translations need to be found in the four national languages of DR Congo and in local languages. Others say that the word “climate” is a scientific concept that is difficult to translate into local languages in which a comparable word does not exist. Our research finds, however, that people who speak French as well as local languages say that they recognise the French term. Some say creative solutions can be found in other languages:

“In Swahili, ‘climate change’ is an expression that seems to capture the meaning [of ‘climate change’]. The term is ‘mabadikalo ya majira’, because ‘majira’... captures many of the elements that would normally be part of the meteorological system... It’s a term we use a lot more now in awareness-raising, and people understand it. When we ask what ‘you do understand by ‘majira’?, people reply with meteorological aspects that explain climate change.”

Mr. Clément Kimbamba, director, Action pour le développement de la communauté paysanne

Opinion leaders think that people know the climate has changed, but that few understand “climate change” as a phenomenon. They say that even though food security and climate change are seen as more urgent problems than climate change, when they are in fact connected.

Opinion leaders say that although those worst affected by climate change can give detailed descriptions of how crop yields and forests have been affected by the changing weather, they do not understand these changes in relation to global climate change. According to them, this is because “climate change” is a scientific term that is not understood by the general population, while others say that there is little knowledge of the term due to limited access to media among poorer communities. One opinion leader gives an example of the way in which people can understand the problem, without realising that they are experiencing the same problem in their daily lives:

“I think there is a possibility that people don’t understand. Even the problem of food shortages – someone who is in a village living on subsistence farming does not see his own difficulties... I think you have to have a certain level [of information] to understand that you are experiencing that.”

Mr. Nzungu Luntadi, cabinet director, Bas Congo regional ministry for agriculture, livestock, virology and rural development

Opinion leaders say that many have heard climate change terminology, it is not currently connected to most citizens’ understanding of their changing weather. They say that the terms need to be translated into local languages and local contexts.

Opinion leaders say that while many have heard climate change terminology, it is not currently connected to most citizens’ understanding of their changing weather. They say that the terms need to be translated into local languages and local contexts.

Opinion leaders suggest that in order for people to engage with a discussion of climate change, the concept needs to be translated into their local context, rather than into another language:

“I would talk about desertification and drought, about the agricultural calendar that has been turned upside-down, things the population will recognise. I would not talk about tsunamis, I wouldn’t talk about what is happening in Asia – I want to talk about what is happening in Bas Congo.”

Mr. Jacques Bakulu, pastor, CEPECO

What response is required?

Opinion leaders suggest that a wide range of activities are required if DR Congo is to adapt to the impacts of climate change. This includes acting to address food and water insecurity, to curb deforestation, and to improve provision of information to ordinary citizens.

Opinion leaders recognise that a changing climate could create problems in the future that need to be planned for now. For some, national security is:

“...an important question, because currently we have 60% of the continent’s water resources, and when there is no water left elsewhere... that could create security problems and so these are things we need to be considering now.”

Mr. Tosso Mpanu Mpanu, director, National Authority for Civil Development Mechanism

Opinion leaders agree that food security is an urgent question that could fast become even more important:

“We have a population of around 60 million inhabitants, which is quickly going to grow to 100 million. We are going to need to feed the population, and that is a huge problem.”

Mr. Toshi Mpanu Mpanu, director, National Authority for Civil Development Mechanism

Opinion leaders connect food security to the question of how water resources will be affected:

“In terms of water resources... if there are times when it doesn’t rain... if there is no a retention system to allow us to conserve water... then certainly there are going to be problems... we already have problems with that... it could be that we will have to change the way we do things... the food we plant... the food we once ate needs a lot of water, if we haven’t a lot of water then we will have to change our eating habits.”

Mr. Agnès Kasongo, manager, Plantations et Huileries du Congo

Some stress that problems of development need to be addressed “in parallel” with the challenges posed by climate change:

“I think there are already problems in Africa concerning food supply... we should try to harness the capacity of the industrial countries, that’s already quite a task, and then the second step could work in parallel, tackling the climate aspect, but the country like the Congo we need to resolve.”

Mr. Alain Somia, managing director, Socobis

Some opinion leaders stress the need for information that will help Congolese citizens adapt to the impacts of climate change:

“The population is currently experiencing the impacts, and we should have prepared them so that they knew how to react... there is not enough information... there are not enough awareness-raising campaigns.”

Mr. Freddy Manaya Tekulu, publication director, Le Potentiel newspaper
Some feel that too few resources are devoted to the needs of the worst affected citizens: “The population is left to its own fate. We, civil society, are shouting at the national and local government. We often work without any resources, unable to bring together a village, or organise conferences, or raise awareness among the population.”

Mr. Jacques Bakulu, pastor, CEPECO

Government response for the challenge of climate change was closely focused on mitigation.

At the national level, the Ministry for Environment was dedicating “half of its time” to working on climate change, working on forest management, training negotiators for Copenhagen, and building capacity within the ministry. Civil society groups are said to have had a role in developing capacity before the Copenhagen talks: “We have gone up to 8,000 employees, we have 500 academics… we have eight correspondents at every level. We have the commitment of around 30 countries who are closely linked to the ministry through their embassies and ministries, we have the commitment of the forest, to work closely with the government to take its natural riches, and manage them in the interests of the population both in Congo and the rest of the world.”

Mr. José Endundo Bononge, minister for environment, natural conservation and tourism

Although the ministry had not yet implemented any national programmes, it was felt that the appropriate structures were being put in place to design a policy. The work of the communications department in the Ministry of Environment was highlighted as being useful in informing people about environmental challenges. Yet interestingly, comments from media representatives suggest that they are the group who know least about the government’s environmental policy and climate change response.

However, the focus of government policy seems to be to ensure international funding mechanisms are put in place for adaptation and mitigation: “The [Copenhagen] agreement should prepare finance mechanisms adequate for adaptation, to see how to help countries adapt to climate change, how to construct sea walls to avoid flooding, how to create programmes so that we are able to channel water to places that are becoming increasingly arid... and for financing mitigation programmes such as the Clean Development Mechanism (CDM) and the Reduction of Emissions from Deforestation and Forest Degradation (REDD).”

Mr. Tou Mpyaro Mpyaro, director, National Authority for the Clean Development Mechanism

Yet at the level of national government, there is very little reference to forest management. Indeed, the few references to government-led forestry reforms begun in 2002 come from civil society representatives.

One government representative that says the Ministry of Environment supports local communities insist “insufficient as it can”: There is some cooperation between civil society groups and the government, on programmes such as a national strategy aimed at supporting indigenous communities, which was being developed in partnership with Digoaiguma (an umbrella organisation working for the rights of indigenous communities), the World Bank and the Congolese government at the time the research was carried out.

The willingness of national government to support local initiatives, and the fact that it has worked with civil society to develop capacity and design strategies, suggests that there is a precedent of co-ordination that could be built upon, as the government continues to develop a national response to climate change.

NGO response

There is a large network of NGOs in DR Congo, with good connections to local communities, and opinion leaders from this sector say citizen adaptation to the effects of climate change is beginning. Their work on climate change will need to overcome several key challenges, however.

Opinion leaders from NGOs say that there are a number of challenges to be faced in their response to climate change.

Much of the climate change work of NGOs is centred on deforestation, which they address through awareness-raising campaigns, research, and local solutions. There is a large network of national NGOs working on the problems of climate change and forest management, and DR Congo is involved in at least one international initiative, being a signatory to the convention of the Greenpeace “Forest and Climate” programme. Greenpeace DR Congo is involved in the Reduction of Emissions from Deforestation and Forest Degradation (REDD) process, and all the NGO representatives are aware of the problems that DR Congo have become a question of international concern.

The presence of powerful multinational forestry companies in DR Congo, who one NGO representative says put in place “yellow tape”, is a particular concern. Greenpeace hope to address this by continuing to work on raising awareness among international consumers, as they have done already through the Forest Stewardship Council.

The second challenge concerns people’s perceptions of the causes of climate change, which opinion leaders from the NGO sector say take time to change. One NGO representative stresses that women with little education need to be a particular focus of awareness-raising work. He also illustrates the challenges faced in areas where the church has significant influence and people believe that changes in the weather herald the end of the world. His organisation has begun to work together with religious leaders who are offering an ecological interpretation of Biblical teachings, to challenge this belief and promote the idea of environmental stewardship.

The third challenge, according to NGO representatives, is the relationship between poverty and climate change. They explain that if the poorest people, whose livelihoods are often most at risk from climate change, do not understand the problem, then they cannot respond to it effectively. One NGO hopes to go some way to addressing this problem through a micro-insurance programme that will protect farmers against extreme weather events such as flooding and so “raise themselves up from poverty”.

NGO representatives report that they have achieved some success in addressing these challenges. They say they have increased awareness of the dangers of climate change among rural people, students from primary school to university, government officers, and the media.

“You cannot open a newspaper in DRC nowadays without [seeing] a mention of the dangers of climate change, which was not the case a few years ago.” Mr. René Ngongo, head of policy, Greenpeace DR Congo

Another NGO is using Congolese citizens’ experiences to illustrate the future threats of climate change in the country: “There is a programme that we call sura ya mazingira or images of the environment. We ask farmers who are aged over 30 for their accounts of how the climate was 30 years ago when [they] were still young and farming. We use these accounts to motivate the young people to convince people that we are really experiencing changes... and that humans are responsible.”

Mr. Clément Kbitamba, director, Action pour le développement de la communauté paysanne

According to NGO representatives, some people in DR Congo have recognised the implications of a changing climate for their lives and have already begun to respond. It seems that this response is largely centred on the need to reduce tree-felling. Reforestation activities are mentioned. One religious leader refers to a programme led by his organisation, CEPECO, in which some villages have created laws to protect the forest in their region: “When a business wants to enter their forest to cut down the trees, it has to sign a contract with the village representatives to plant double the number of trees they have felled. If they don’t sign it, they don’t enter the forest. It’s the same for farmers making their fields – if they cut down a couple of trees, they have to plant one to two.”

Mr. Jacques Bakulu, pastor, CEPECO

Programmes have taught people about the benefits of using fuel-efficient stoves and triquettes to reduce the amount of wood people need to heat them, and increasing numbers of people from DR Congo’s poorest communities are said to be using them:

“Many people have understood the importance of using these stoves now, and they tell other people about it. Sometimes when we cannot go somewhere through ourselves, we have to go to Burundi to import them.”

Mr. Clément Kbitamba, director, Action pour le développement de la communauté paysanne

NGO representatives are in agreement that there is work to be done, however. Greenpeace are working on a study to understand what drives deforestation and they anticipate changes to the law in respect of the sustainable forest management policy. They hope that, in time, every investment or development will only be able to be implemented upon completion of an environmental impact study.

Despite the strong focus on forest preservation, at the time of the research there were also plans for programmes to help people adapt to the impacts of climate change. One NGO was seeking funding for a programme to teach people about adapting to the impacts of climate change, which would involve reducing greenhouse gas emissions from rice cultivation and livestock rearing.

There is a large network of NGOs working together with civil society groups and local and indigenous communities. Media and
Local government representatives mention the work of environmental NGOs in the province in which they live, and some NGOs have played a role in the Copenhagen negotiations. These varied connections to other sectors of Congolese society suggest that NGOs will continue to play an important role in the country’s response to climate change.

Private sector response

Private sector representatives are concerned about the effects of climate change on their industries, both directly and in relation to legislation. However, few are currently involved in shaping the response to climate change.

The private sector representatives for this research come from a palm oil company, the forestry sector, and the mining sector. Although one does not know how climate change could affect their business, the others are concerned about two ways in which they perceive climate change could affect them. The first is the direct physical impact of climate change:

“When we plant the trees, if it doesn’t rain, or if there is a drought, then we will price the produce. Because if this happens, the trees will not produce as they should.”

Mr. Agnès Kasongo, manager, Plantations et Huileries du Congo

The second is indirect. Some associate new forestry legislation with consequences, particularly in terms of the financial situation:

“The new regulations are going to have… important consequences, particularly in terms of the financial situation.”

Mr. Alain Somi, managing director, Scobois

Despite this, the private sector representatives all say that they do not see how climate change could limit economic growth, and one private sector representative for this research comes from a palm oil company, the forestry sector, and the mining sector.

Despite the involvement of one organisation in developing national emissions reduction strategy, few climate change programmes have been implemented at the local level. However, most local leaders - particularly religious representatives - see that they have a role to play in the response to climate change.

At the local level, there is little action on climate change, according to the comments of association representatives and religious leaders. One opinion leader explains that provincial governments have only been in place for two years, so few environmental programmes have been implemented. Nevertheless, the local association representative says that the provincial ministry is working to raise environmental awareness.

The exception is Dgimité Pygême, which at the time of the research was collaborating with government actors to develop a national emissions reduction strategy, as well as preparing to attend the Copenhagen summit. The organisation also worked to refute the claims of a paper on deforestation that suggested that destruction of the forest by local people was more harmful than larger-scale logging by forestry companies.

Both religious leaders are aware of the impacts of the changing climate on the country’s population, and agree that religious texts can teach the importance of caring for the earth and managing its resources. One says that humans must care for the earth in a “sustainable” way, because it is a gift from God.

Yet the reality of the extent to which the earth’s resources are being protected is highlighted by the comments of one opinion leader, who initially explains that his department carries out campaigns to “raise awareness among the population so that they do not destroy the forest, and they respect the protected reserves.” Yet when asked about the ministry’s plans for future projects, the irony is apparent:

“Seeing as we have a lack of resources… We have a large area of tropical forest in our province, in the district of Sankuru, and the forest is intact. There are tree species that are highly sought after by international business that could bring us a lot of money. We have begun a project of interest, and the loggers are coming to our province and are beginning to exploit our wood, because some mines are drying up, others already have dried up… We are looking for people with chainsaws and logging tractors.”

Mr. Anaclet Mbuyi Tshieblo, regional minister for agriculture, rural development, environment, fishing, communication, livestock, water and forests, Kaful Oriental

The focus of another local government minister is on agriculture and food supply and he emphasises that the role of the provincial ministries is to encourage farmers to become more “professional”, so that agriculture respects the environment. The most urgent priority, he says, is developing self-sufficiency in food production, but not at the cost of the environment. He is particularly concerned to ensure that farming does not become a cause of desertification, which, he says, will cause climate change to become “catastrophic.” He adds that bush fire prevention will help limit the impact of farming on climate change.

Media response

Opinion leaders recognise the importance of the media’s role in the response to climate change, and media representatives express commitment to the problem. Yet they say that there is a need to develop climate change knowledge in the sector.

Many opinion leaders, from across different sectors, say that climate change is covered in the media. As is the case among the focus group participants, the media appears to be the key source of information about climate change for opinion leaders who do not work directly on the problem. Opinion leaders emphasise that the media play an important role in developing people’s understanding of climate change. Comments made by media representatives suggest that climate change, to the extent that it is understood by journalists, is perceived as an environmental subject by the Congolese media.

There is currently relatively little coverage of climate change in the organisations represented in the research. The media representatives interviewed agree that climate change coverage is “insufficient” and “sporadic”, with the number of pieces ranging between a few per month to several in a year. Some coverage is based on “World Tree Day” and similar events, suggesting that climate change is bracketed with other environmental topics rather than being treated as a story in its own right. Other pieces were said to be focused on the Copenhagen and Kyoto summits.

Clearly media communication on climate change is in its early stages, and media representatives suggest that there are a number of obstacles to good climate coverage. Climate change is considered a difficult topic that requires specialist knowledge to cover effectively. Some comments suggest that journalists’ interest in climate change is limited, perhaps because climate change is largely understood by journalists as an environmental topic, rather than a multi-faceted problem. All agree, however, that if the media is to increase and improve its coverage of climate change, there is an urgent need for training on the subject.

Despite these limitations there is considerable commitment to the topic of climate change among media representatives. At an individual level, one has been reading about the topic online and listening to radio programmes, due to personal interest in the issue. At an organisational level, Le Potentiel newspaper has developed contacts with Greenpeace and a number of other NGOs to develop the way they communicate on climate change and the environment. One media representative thinks that once training in the sector has given journalists a sufficient grasp of the topic, the Congolese media should use television and radio programmes to inform people about climate change, and suggests that the media build links with schools to help spread the message.

One media representative emphasises that journalists need an understanding of climate change that allows them to produce content that everyone can understand:

“It is important that the media understand the subject, and use words that are simple enough for the message to get through.”

Mr Freddy Manusa Tebuko, publication director, Le Potentiel newspaper

He proposes that media organisations work with organisations with a climate change specialist to deepen media understanding of the topic. The comments of some opinion leaders who know less about climate change suggest that improving the media’s capacity to dispel common misconceptions about climate change should be a priority. One private sector representative says:

“They talk about the ozone layer, about a whole range of things, but it would be interesting for somebody to carry out an analysis of the problem in an intellectual way so that we can understand exactly what the causes are.”

Mr. Agnès Kasongo, manager, Plantations et Huileries du Congo

It will be important for the media to develop its understanding of climate change given that people cite media as a primary source of information on climate change.
5 Conclusion
This research has shown that although the majority of Congolese people recognize climate change terminology, it is poorly understood. Currently, many people draw on existing knowledge and beliefs, both to explain the changes they have witnessed and to process new information on climate change. Most Congolese people perceive a link between human activity and changes in climate, but this connection is either explained in relation to local activities such as deforestation or agriculture linked to the depletion of the ozone layer. An understanding of the role of rising levels of greenhouse gases in the earth’s atmosphere is only alluded to by a very few people from the capital.

Opinion leaders recognize that climate change presents urgent problems for the people of DR Congo. Some of them say that climate change needs to be “contextualised” so that people understand the term is relevant to them and describes the changes in the weather and seasons that they have experienced. However, at the time of the research, the national topic was climate change which was only in its early stages, and the efforts of national government and civil society were concentrated on the upcoming international COP15 negotiations. Much discussion among members of the public and opinion leaders centres on the value of trees and the need to limit deforestation. Some opinion leaders recognise that DR Congo’s forests possess a potential monetary value to the country in the context of the international climate debate, and national government and NGO representatives stress the importance of agreeing and implementing funding mechanisms for adaptation and mitigation programs.

It is clear that communication and information provision is going to be central to DR Congo’s response to climate change. Many opinion leaders spontaneously mention the need for better communication on climate change and, in general, that the general public needs more information in order to make informed decisions. Although the media and schools are the main source of information on climate change for the general public, there is evidence to suggest that journalists lack sufficient knowledge to effectively inform audiences about the subject and facilitate public discussion.

This research set out to present the perceptions of the Congolese public on climate change, rather than a detailed climate change communication strategy. However, various communications implications can be drawn from it:

1. Facilitate policy and public debate
Secondly, the media needs to facilitate accessible public debate. DR Congo is being affected by climate change. Internally driven, relevant and practical issue on the agenda is health. The news and non-news media will shape and mediate that debate to a very substantial extent. For that reason, building the capacity of the media and providing support for “public spaces” which enables discussion on climate change that draws upon Congolese voices and experiences, engaging citizens, local interest groups, civic society actors, religious leaders and policymakers from all levels of government, will be crucial. These spaces can be created through talk shows, call-ins and other interactive platforms, can be forums to exchange information, create understanding and plans for action. They can also serve to facilitate better cross-sector communication between government, NGOs, the private sector, the media, and local and community leaders.

2. Encourage accountability
Thirdly, debate can increase accountability, enabling citizens to exert pressure on their own governments with respect to climate change policies, including adaptation funding, technology transfer, emissions reduction and other response strategies. Only when Congolese citizens are fully informed about and able to debate climate change will they begin to influence the national and international climate change policies and processes that affect their lives.

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## Appendix 1  Opinion leaders interviewed

<table>
<thead>
<tr>
<th>Name and title</th>
<th>Organisation</th>
<th>Sector</th>
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<tr>
<td>Mr Jean-Pierre Beyoko Loku</td>
<td>Energy Commission</td>
<td>National government</td>
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<td>Permanent secretary</td>
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<td>Mr José Endundo Bononge Minister</td>
<td>Ministry for Environment, Natural Conservation and Tourism</td>
<td>National government</td>
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<td>Mr Tosi Mpanu Mpanu Director</td>
<td>National Authority for the Clean Development Mechanism</td>
<td>National government</td>
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<td>Mr Anaclet Mbou Thiselewa Regional minister</td>
<td>Kasai Oriental regional ministry for agriculture, rural development, environment, fishing, communication, livestock, water and forests</td>
<td>Local government</td>
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<td>Mr Nsingu Lontadi Cabinet director</td>
<td>Bas Congo regional ministry for agriculture, fishing, livestock and rural development</td>
<td>Local government</td>
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<td>Mr Freddy Mansaya Tebuko Publication director</td>
<td>Le Potentiel newspaper</td>
<td>Media</td>
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<td>Mr Oscar Kabamba Kasongo Director, TV news</td>
<td>Radio Télévision National Congolaise (RTNC)</td>
<td>Media</td>
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<tr>
<td>Mr Raphael Kazadi Luba Editor-in-chief</td>
<td>Kasai Horizon Radio Télévision (KHRT)</td>
<td>Media</td>
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<tr>
<td>Ms Agnès Kasongo Manager</td>
<td>Plantations et Huileries du Congo</td>
<td>Private sector</td>
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<td>Mr Alain Somja Managing director</td>
<td>Sicoibis</td>
<td>Private sector</td>
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<td>Mr Mac Mbioba Makpolo Chief representative</td>
<td>Anglo American</td>
<td>Private sector</td>
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<tr>
<td>Mr Jacques Bakulu Pastor</td>
<td>CEPECO, a local community education organisation</td>
<td>Religious institution</td>
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<tr>
<td>Mr Yves Koko Rector</td>
<td>Notre Dame Cathedral, Kinshasa</td>
<td>Religious institution</td>
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<tr>
<td>Mr Jean-Marie Kabuya Mulamba Head</td>
<td>Kasai Diamond Mining Association</td>
<td>Association</td>
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<tr>
<td>Mr Adrien Sinafasa Campaigner</td>
<td>Dignité Pygmées, a Pygmy rights organisation</td>
<td>NGO</td>
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<tr>
<td>Mr Clement Kitambala Director</td>
<td>Action pour le développement de la communauté paysanne, a rural community development organisation</td>
<td>NGO</td>
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<tr>
<td>Mr René Ngongo Head of policy</td>
<td>Greenpeace DR Congo</td>
<td>NGO</td>
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## Appendix 2  DR Congo advisory group

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<td>Mr Cyrille Adebu</td>
<td>OCEAN</td>
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<td>Mr André Aquino</td>
<td>World Bank Carbon Finance Unit</td>
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<tr>
<td>Ms Susanne Breitkopf</td>
<td>Greenpeace International</td>
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<td>Mr Simon Counsell</td>
<td>Rainforest Foundation UK</td>
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<td>Ms Michelle Medeiros</td>
<td>Greenpeace International</td>
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<td>Mr Roger Muchucha</td>
<td>RRN (Natural Resources Network)</td>
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The second set of images shown to participants represented a range of issues that can be linked to climate change. There were 15 such images, showing issues such as drought, crop failure, erosion and flooding. Participants were asked if they had seen any of these images before and if they could recall where they had seen them. The discussion then moved on to a more detailed exploration of the concepts of climate change and global warming, with participants being asked to describe what they thought these terms meant. The discussion guide was designed to be flexible, allowing for the introduction of new ideas as the conversation progressed.

In-depth interviews
The research team conducted 17 in-depth interviews with opinion leaders to elicit the views of policymakers and opinion formers on the issue of climate change. These opinion formers were individuals with a particular interest in climate change, or an informed opinion from a certain field, region or subject area within the country. Interviewees were identified through a combination of media research, consultation with the local advisory group and local researchers. Opinion leaders were selected from different sectors, according to a quota. The sectors were: government, the media, the private sector, religious institutions, local and national associations (such as farming associations) and NGOs and academic institutions. In DR Congo, the quota was achieved for each sector.

Structure of the discussions
Moderators used a structured discussion guide to lead the focus groups. This was refined after the Africa Talks Climate pilot study in Nigeria during which several improvements were made.

To begin with, participants were shown eight images of nature, including trees, water and the sun, and asked if they had any words to describe the images all together. In this way the discussion guide sought to elicit words used to describe “nature”. The participants were then asked if they had noticed any changes in nature over the course of their lifetimes, and invited to share stories about these changes.

For security reasons it was not possible to conduct research in Eastern DR Congo at the time of fieldwork. It is acknowledged that perceptions from significant segments of the Congolese population are regrettably omitted from this study.

The focus group transcripts and interview transcripts were systematically coded by a team of researchers, using a common list of codes. This list was generated through a detailed consultation process that began with open coding. Inter-coder reliability ultimately averaged 0.92. Coding enabled the researchers to group the data according to emerging themes. Each code was then analysed to pull out the insights and findings.

Appendix 3 Methodology overview
Democratic Republic of Congo Talks Climate employs a qualitative research design. Qualitative approaches – which generate non-numerical data – are particularly useful for exploratory research on topics for which there is little previous research. Through focus groups and in-depth interviews, Democratic Republic of Congo Talks Climate investigates the meaning that people attach to climate change, and explores how they experience climate-related issues and impacts.

A total of 12 focus groups with citizens and 17 in-depth interviews with opinion leaders were carried out across six locations in DR Congo between September and November 2009.

The six fieldwork locations were selected on the basis of desk research and consultation calls with the DR Congo advisory group. The feasibility of conducting fieldwork was also a consideration, in light of security concerns in some parts of the country. The environmental challenges represented in the areas selected have already been linked to climate change, to some extent, or could be further exacerbated by climate change in the future. Selection also sought to ensure suitable geographic, ethnic, linguistic and urban/rural diversity. The locations selected for research were as follows: Kinshasa and Kinshasa, Matadi and Kinshasa, and Bié and Bakwa Nsumpi.

Focus group discussions
Focus groups were held with farmers and miners, business people, women and men, rich and poor, rural and urban. Given the implications of climate change for certain livelihoods in DR Congo, individuals working in farming, mining and market trading were also purposefully targeted.

Two focus group discussions were held in each location. The focus groups were single-sex with approximately eight participants in each group. The discussion guide was pilot-tested and validated in Kinshasa, Kinshasa and Kinshasa, Matadi and Kinshaza, and Bié and Bakwa Nsumpi.

The focus groups started with an introduction to the research and consultation calls with the DR Congo advisory group. The facilitators then introduced a range of issues that can be linked to climate change. These included climate-related impacts such as drought, crop failure, deforestation and flooding. The participants were asked to describe whether and how they had observed these changes in their own lives, and to describe any forecasts of future trends. The discussions then moved on to explore the potential economic, social, cultural and ecological consequences of these changes.

The second section of the discussion guide introduced the concepts of climate change and global warming, without actually introducing the terms. Two statements were read out to the participants.

Statement 1 Scientists are saying that human beings are causing weather patterns over time to change around the world.

Statement 2 Scientists are saying that human beings are causing the temperature of the earth to increase.

Participants’ reactions to these statements were discussed. Finally, the terms “climate change” and “global warming” were explored. These terms were intentionally introduced relatively late in the discussion guide based on experience from the pilot study in Nigeria, which suggested that most participants would not be familiar with the terms.

The subsequent sections of the guide explored responses to climate change, barriers and facilitators to environmental stewardship, rural-urban migration and the potential role of media.

With the exception of Nigeria, the discussion guide was the same for all Africa Talks Climate countries. It was translated into local languages by moderators who spoke those languages.

In-depth interviews
The research team conducted 17 in-depth interviews with opinion leaders to elicit the views of policymakers and opinion formers on the issue of climate change. These opinion formers were individuals with a particular interest in climate change, or an informed opinion from a certain field, region or subject area within the country. Interviewees were selected based on desk research, and consultation with the local advisory group and local researchers. Opinion leaders were selected from six different sectors, according to a quota. The sectors were: government, the media, the private sector, religious institutions, local and national associations (such as farming associations) and NGOs and academic institutions. In DR Congo, the quota was achieved for each sector.

Protocol Compliance Authority were consulted.

In the media sector, representatives were sought from radio, television and print media. Both private and public media were represented, and both national and local media. In the private sector, a forestry company, a mining company and a palm oil company were represented.

At the local government level, representatives from Bas Congo and Kasai Oriental were interviewed. The two religious leaders consulted were a rector from Kinshasa and a pastor from Bas Congo.

The local association represented was an association of diamond miners and the national association is an umbrella organisation that brings together associations working for the rights of Pygmies communities. Finally, representatives from two NGOs with a climate change focus were interviewed.

All the opinion leaders interviewed gave permission for their reflections and opinions to be used in Africa Talks Climate reports.

Analysis and reporting
All focus group discussions and interviews were recorded and transcribed. Transcripts were produced in both the original language of discussion, and translated in French, if necessary, by the focus group moderators. For focus groups held in central Kinshasa this meant that French transcripts were produced, while for the other areas, Lingala and French transcripts were produced. The French transcripts were checked in London.

A similar process was used to produce transcripts for in-depth interviews.

In DR Congo, as in all Africa Talks Climate countries, every effort was made to speak to the climate change focal point at the national government level. The remaining ministries were selected according to the ways in which climate change played out in the country. In DR Congo, representatives from the Energy Commission, the Ministry for Environment, Conservation and Tourism and the Kyoto
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