

Analysis of Congruence Reports: Action-Results of Communication Strategies of Environmental Advocates in the Sustainability of Responsible Forest Ecosystem Management Practices in the DRC

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Abstract: In the Democratic Republic of Congo (DRC), numerous actors (NGOs, governmental organizations, civil society) are intensifying awareness campaigns to mobilize stakeholders for the responsible management of forest resources. While these actions have successfully placed ecological issues on the media agenda and raised awareness, tangible results regarding long-term behavioral change remains difficult to evaluate on the ground. This study Analyzes the congruence between the communication strategies used and the observed results. It highlights that the socio-economic precariousness of local communities, whose survival depends on forest exploitation, constitute a major barrier to the adoption of new practices. The article examines the effectiveness of engaging communication and reception theory, while highlighting the Payment for Environmental Services (PES) system as a lever for reconciling ecological conservation and social well-being.

Keywords: Sustainable Forest Management, Payment for Environmental Services, Community Participation, Sustainability of Practices.

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I. INTRODUCTION

The protection of forest ecosystems now mobilizes a wide range of actors who consider the preservation of natural resources a matter of public interest. In the DRC, communication is the central pillar of projects aimed at reducing emissions from deforestation and forest degradation (REDD+). The preservation of forest ecosystems is an important pillar of the strategy to combat climate change, given the geothermal functions that forests perform: carbon storage, sequestration of greenhouse gases in the atmosphere, atmospheric purification, etc.

Communication strategies are thus used to facilitate both the adoption and the sustainability of the recommendations of environmental advisors in REDD + projects. Changing habits in the use of natural resources remains the main objective pursued by the communication efforts of environmental advisors' campaigns.

However, changing individual behaviors remains a complex undertaking. Most communication theories used fail to produce the desired results, creating a gap between awareness and action. The central question of this research is to understand why current communication strategies do not promote real and lasting change among local communities (LCs) and Indigenous populations (IPs).

As part of the commitment to protecting forest ecosystems, a wide range of stakeholders are mobilizing. These stakeholders are involved in various fields and have made the preservation of natural resources a matter of public interest. Consequently, climate concerns are now benefiting from strong stakeholder engagement.

Among the strategies deployed to combat environmental degradation, communication plays a leading role. Driven by the desire to contribute to resolving the environmental crisis, communication specialists are tirelessly working to find mechanisms that can promote

behavioral change among individuals. However, according to environmental stakeholders, changing behavior remains a complex undertaking and a difficult objective to achieve. From a communication standpoint, most of the theories used to stimulate this change struggle to produce the desired results.

In the Democratic Republic of Congo (DRC), the majority of projects aimed at preserving forests are structured around the Reducing Emissions from Deforestation and Forest Degradation (REDD+) process. It is precisely for this reason that our reflection focuses on the awareness-raising actions carried out by REDD+ project promoters. Several organizations, such as WWF (World Wide Fund for Nature), Novacel, ERA, DIAF, OSFAC, USAID, CN-REDD, EFI, the CREF/FODI Network, AFODEK, ICCN-PNVI, the ANACO Group, COME, CODELT, ERA-WWC, SODEFOR, SOGENAC, CARPE (USAID) and CBFF, illustrate this dynamism [1].

In the DRC, the Ministry of Environment, Sustainable Development, and the New Climate Economy lists hundreds of NGOs whose primary mission is to contribute to the establishment of sustainable natural resource management mechanisms. In carrying out their mission, these NGOs are increasingly relying on communication strategies. Indeed, promoting sustainable management requires cooperation and close dialogue among the various stakeholders in order to achieve a collaborative management system. This approach is essential in the face of current environmental challenges; because, in essence, changing our modes of production, lifestyles, or global governance necessarily implies transforming our habits and mindsets.

Environmental actors organize interactive awareness-raising meetings, particularly in the form of focus groups, for Local Communities (LCs) and Indigenous Peoples (IPs). They prioritize interpersonal communication, direct marketing, and participatory exchanges to encourage recipients to internalize the message and consciously embrace the ideas promoted by REDD+ project proponents. Generally, the fundamental strategy used by these actors is "dialogue" [2]. This involves obtaining Free, Prior, and Informed Consent (FPIC) from community members, guaranteeing their voluntary commitment to the project's vision. Dialogue is therefore paramount: it constitutes the essential first step in any fieldwork.

These non-governmental organizations are increasingly using communication strategies in carrying out their mission. Promoting the sustainable management of natural resources requires close cooperation and ongoing dialogue among the various stakeholders involved, in order to achieve a management system resulting from collective consultation. This approach is essential in the face of the challenges posed by environmental issues, because changing modes of production, lifestyles, or global governance necessarily implies a transformation of habits and mindsets.

From this perspective, environmental advocates organize interactive awareness sessions, particularly in the

form of focus groups, for local communities (LCs) and Indigenous Peoples (IPs). They prioritize interpersonal communication, direct marketing, and participatory exchanges to encourage recipients to internalize the messages and voluntarily embrace the ideas promoted by REDD+ projects. Generally, the fundamental strategy employed by these actors is based on dialogue. This dialogue aims to obtain the Free, Prior, and Informed Consent (FPIC) of community members, thereby ensuring their voluntary commitment to the project's vision. Dialogue is therefore a priority step, preceding any action undertaken on the ground, to promote collaborative management involving all community stakeholders.

Several communication techniques exist within the repertoire of environmental advocates. These advocates notably have a set of so-called fourth-generation actions at their disposal. In this regard, Sylvie Ollitrault and Denis Chartier distinguish six main categories of action:

- Grassroots activism;
- The "shock tactic," typically associated with Greenpeace, aims to capture public attention and exert pressure on decision-makers;
- Lobbying, whether direct or indirect;
- Expertise;
- Legal action, in particular recourse to judicial litigation, can slow down or overturn an administrative decision;
- Information.

In a different approach, Éric Dacheux proposes another typology of actions undertaken by environmental actors. He distinguishes:

- Non-cooperative actions aimed at rejecting a decision (boycott, civil disobedience, sabotage);
- Public legitimization actions aimed at gaining recognition for the association (petitions, demonstrations, national marches, recourse to experts and legal proceedings);
- Defensive direct actions (occupation of sites, sit-ins, interposition);
- Offensive direct actions, which aim to exert pressure and demonstrate that social change is possible;
- Awareness-raising actions, designed to generate an awareness essential for any participation, such as convivial actions (dances, cultural events) or information actions (symposiums, conferences).

Furthermore, environmental communication has undergone significant evolution with the rise of the internet, which offers faster and more spontaneous access to information, real-time dissemination, and increased public participation. Today, both businesses and organizations can build their image and reputation in the virtual space through the internet and social media. These new communication channels constitute strategic spaces, both because of their media and technological characteristics and because of their potential for public stances. However, it is not always necessary to systematically resort to the media, which can prove ineffective in certain contexts. It is therefore

necessary to "re-legitimize the non-media public sphere" by accessing it through alternative channels, which implies an approach that places greater emphasis on participation.

Promoting pro-environmental behaviors raises many questions. It is important to emphasize that information alone is not enough to induce behavioral change. An individual can modify their attitudes, opinions, or beliefs without this necessarily leading to a transformation of their practices. Therefore, there is not always a convergence of meaning in the way environmental messages are interpreted between those who promote them and those who receive them.

While awareness campaigns in the environmental sector have undeniably raised awareness, they have not resolved the fundamental problem. The main concerns remain the persistent inaction of stakeholders in the face of behavioral change, as well as the failure of the target audiences to sustain new practices for the sustainable management of forest ecosystems.

To better understand the complexity of the realities that characterize exchanges between environmental advocates and various stakeholders, this research aimed to analyze the congruence between the advocates' communication strategies and the results observed in the field. Recipient-centered approaches have the advantage of illuminating the entire communication process, since, in communication, the main challenge lies not only in the transmission of the message, but above all in the understanding that results from the recipients' construction of meaning. We summarize our research question to better present and clarify it:

Why do the communication offers proposed by environmental advocates not promote a real change in behavior, nor an effective perpetuation of sustainable forest resource management practices among the recipients, namely local communities (LC) and indigenous peoples (AP)?

To approach this research, whose main objective is to improve the quality of exchanges within the framework of dialogue with local communities, we use a complementary combination of two theoretical frameworks: the theory of engaging communication and that of reception sociology.

The first approach employed, reception sociology theory, facilitates the analysis of perceptions and uses that environmental target groups (CL and PA) make of messages disseminated by environmental advocates. This line of inquiry offers the possibility of identifying elements to consider in order to improve the intervention mechanisms of environmental actors. Reception theory allows us to examine the processes by which recipients construct meaning from messages. Reception studies thus contribute to highlighting the interpretations, reactions, and meanings that audiences attribute to environmental messages.

Perceptions and interpretations—in other words, the reactions that the public forms based on the messages of

advocates—largely determine their behaviors and attitudes. From this analysis will flow proposals grounded in observations of real-world situations, designed to improve the actions of advocates in order to optimize effective and lasting change in the behavior of the target audience.

Reception theory draws particularly on the work of Brigitte Le Grignou, Éric Maigret, and Julie Sedel. According to Éric Maigret, it is societies, not nature, that determine the meaning of a signifier. A message is always interpreted locally, according to the *doxa*, common sense, and knowledge specific to a given community of receivers. This author thus emphasizes the importance of considering local definitions of communication and asserts that communication is inseparable from culture.

The second theoretical approach used in this research is that of persuasive communication. This approach helps us understand that simply imposing norms is not enough to achieve behavioral change, just as changing ideas is not enough to transform practices. Behavioral change requires preparation beforehand for decisions and actions expected later, through the implementation of preparatory acts. It is therefore crucial to never miss an opportunity to empower individuals whose commitment and participation are being sought. Within the framework of this research, we analyze the effectiveness of persuasive communication theory as applied to the management of forest ecosystems.

Early research in this field shows that the effectiveness of a message depends on several variables, including the characteristics of the source, such as credibility, likeability, similarity, and perceived appeal. Studies on persuasion have also highlighted the crucial role of information processing, in interaction with these variables, in shaping or changing attitudes. The fundamental principle of persuasive communication is precisely to precede the dissemination of a persuasive message with a preparatory action likely to strengthen individuals' subsequent commitment.

In situations of engaging communication, participants are considered full-fledged actors, insofar as they perform preparatory acts, and not simply passive recipients, as can be the case in some strictly persuasive communication situations. We formulate the general hypothesis that performing a preparatory act, consistent with a subsequent persuasive message, facilitates both a change in attitude and a change in behavior in line with the argument developed in that message.

Methodologically, this research addresses the problem using content analysis. According to René L'Écuyer, content analysis is a method of classifying or coding the elements of a corpus into different categories, allowing the essential characteristics of the analyzed documents to be identified in order to understand their meaning precisely and rigorously.

The second part of this research is devoted to presenting the results of the analysis of the congruence ratio between the actions and the results of the strategies implemented by environmental advocates in the fight

against forest degradation in the Democratic Republic of Congo.

At this stage, it is essential to verify the alignment between the communication strategies offered by environmental advocates and the meanings constructed by the recipients. This involves evaluating the entire communication process to identify the factors contributing to resistance to behavioral change. To this end, we present, in turn, the results of surveys conducted with the recipients, as well as interpretations derived from the analysis of their understanding of the messages received.

The survey specifically targeted local communities involved in REDD + pilot projects . Two different sites were selected: the Bateke Plateau with the South Kwaumouth project (1), and the Luki Biosphere Reserve project in Kongo Central province (2). In these sites, the NGO WWF organized awareness campaigns to promote sustainable forest management. Our field visit aimed to assess the impact of the actions undertaken in relation to the initial communication objectives.

➤ *The Questions that Structured this Survey Focused on the Following Themes:*

- *The Theoretical Status of the Speaking Subject (Environmental Advocates)*

The aim here is to verify whether the recommendations made by the environmental sector are "ratified," that is, recognized and accepted by the stakeholders. To this end, several prerequisites were examined, including:

- ✓ The credibility of the recommenders with the recipients;
- ✓ The image of the advocates as perceived by the respondents;
- ✓ The degree of trust placed in the recommenders by the recipients;
- ✓ The existence of a shared vision or common ideal between the advocates and the recipients, the targets of their communication actions.

- *The Environmental Crisis as Perceived by the Recipients*

Secondly, we assessed the level of information, understanding, and appropriation of the content from the awareness campaigns conducted by environmental advocates among the target audiences. In this regard, the analysis focused in particular on the following elements:

- *What Recipients Retain from Messages Related to the Environmental Crisis;*

The following are the areas of analysis chosen for this study:

- ✓ Memorization of the REDD+ pilot projects presented by environmental mediators;
- ✓ The perception of messages relating to the irrational exploitation of forest resources;
- ✓ The level of public knowledge regarding sustainable management techniques and low-impact exploitation of forest resources;

- ✓ The assessment of the degree of adoption of reduced-impact carbonization methods;
- ✓ Understanding and acceptance of Payment for Environmental Services (PES) by communities.

- *Obstacles to Message Reception*

- ✓ The impact of daily information consumption on message retention;
- ✓ The relevance of the form of the messages chosen by the mediators;
- ✓ The efficiency of the transmission channels used;
- ✓ Taking into account the socio-economic interests of the target audiences;
- ✓ The convergence of visions of reality between mediators and communities;
- ✓ The influence of local context on the perception of messages.

- *Filters that Promote Behavior Change*

- ✓ Identifying filters that ensure optimal reception of environmental messages;
- ✓ The credibility and legitimacy (ratification) of environmental mediators;
- ✓ Promoting a shared vision and a common ideal between stakeholders and communication targets.

- *The Driving Forces of Deforestation*

- ✓ *An Inventory of the Practices that Lead to the Irrational Exploitation of Forests.*

In the following sections, we elaborate on the various themes announced. This analysis provides a descriptive summary of the responses obtained during discussions with the target audiences. We hope that the data from these surveys will serve as a catalyst for sustainably improving the quality of dialogue and exchanges in this sector.

The basic idea is to exploit the reactions expressed by the recipients of awareness campaigns to redirect actions carried out on the ground.

➤ *Thematic Analysis of Quantitative and Qualitative Data*

To support our comments, we use a presentation of the results in the form of statistical tables and summary graphs.

- What do the recipients retain from the REDD + pilot projects presented by environmental advocates?
- What do recipients retain from the messages received regarding the irrational use of forest resources?
- What do the recipients know about sustainable and/or reduced-impact forest resource use techniques?
- Verification of the degree of adoption of carbonization methods with reduced impact on the forest among the recipients;
- The appropriation of payment for environmental services by the recipients.

- *Difficulties in Better Reception of Messages by Receivers*

- ✓ This results from the daily consumption of messages by the recipients;
- ✓ Form of messages used by advocates;
- ✓ Means of transmitting messages used by advocates;
- ✓ Taking into account the interests of the recipients;
- ✓ Sharing the same vision of reality between advocate and recipients;
- ✓ Contextual influence and message perception.

- *The Filters that Ensure Real Behavioral Change*

- ✓ The filters that ensure the proper reception of environmental messages by the communication targets;
- ✓ The ratification of environmental recommendations;
- ✓ Promoting communion around a shared vision or common ideal between advocates and communication targets.

We have developed the various themes mentioned above to better understand the reactions of the recipients. We dare to believe that the information resulting from these surveys will serve as levers that can help improve the quality of exchange in this sector.

➤ *Thematic Analysis: Quantitative and Qualitative Data from the Survey*

We use a presentation of the results in statistical tables and summary graphs to summarize the comments.

- *The Theoretical Status of the Speaking Subject: Environmental Advocates*

An environmental advocate is an environmental activist who conveys messages promoting responsible environmental management. Credibility, trustworthiness, reputation, and a positive image are key elements that grant an advocate, or group of advocates, the status of a recognized advocate. A non-recognized advocate represents an obstacle, a factor hindering the dissemination of an effective message capable of leading to real behavioral change. The speaker in a behavior change awareness campaign must possess the aforementioned qualities in light of the audience's perceptions. Environmental advocates often lack the trust and credibility of their audience. For local communities, the message conveyed fails to reconcile forest preservation with the fight against poverty.

- *Interests of the Recipients and Shared Ideals Among the Protagonists*

Several factors may underlie the inaction of communication targets in changing behaviors. In these investigations, we paid particular attention to considering the interests of the recipients. Community leaders and public opinion leaders are only willing to change their behaviors if the messages disseminated by environmental advocates align with their interests. If there is no shared ideal between the two parties (advocates and communication targets), it would be difficult to speak of a genuine commitment from the recipients to change their behaviors.

Local communities rely on forestry activities for their livelihoods. The forest remains the primary source of income for local and community groups. Preserving the forest while living in precarious circumstances is unacceptable.

Most environmentalists tend to treat ecology like a religion, where environmental preservation is akin to a sacrifice or even gospel truth. Consequently, this religion is seen as beyond contradiction or questioning. This attitude is said to be at the root of the discontent among local communities and local authorities. Instead, we should promote a human-centered ecology that reconciles both "forest preservation" and "improving the living conditions of the population."

Environmental advocates must base their action strategy on a principle of balance. This involves finding a middle ground between environmental preservation and concrete improvements in people's lives. The challenge lies in improving living conditions: access to electricity, drinking water, healthcare, children's education, basic necessities, and so on. Without an appropriate response to these needs of local communities, there will be no shared vision among stakeholders.

- *The Environmental Crisis as Perceived by the Public*

Assess the public's level of information, understanding, and engagement with the topic. Environmental advocates communicate on the prerequisites related to climate change. To do this, exchanges are organized with local communities and Indigenous populations (the target audiences for environmental messages).

Several factors influence the interpretation of messages. The sender does not have a monopoly on meaning. At times, they are even unaware of the interpretations arising from their message. Factors related to the shared vision recognized in CL and PA are key elements that determine the direction in which meaning is constructed from received messages.

A thoughtful effort is needed to better understand the realities of climate change. This is why effective teaching methods or a knack for communication are essential.

According to the respondents, the forest is a defining element in the lives of CL and PA. The forest accompanies us at every step of our lives. It is difficult to imagine life without the support of a forest of trees.

Several interpretations arise from the process by which environmental communication targets construct meaning from messages. From all of the above, we can conclude that the interpretive activity of messages opens a window onto an infinite universe of constructing reality. Most interpretations made by receivers stem from the representation obtained after assembling the received messages. Forests must be better preserved in order to combat climate change. However, these same forests constitute genuine sources of income for local communities

and local authorities. From this perspective, a balance must be found between the idea of preserving the environment and that of improving the living conditions of local communities and local authorities.

- *Influence of Environmental Advocates' Messages on the Behavior of Recipients*

The various awareness campaigns conducted by environmental advocates partially influence the perceptions of the target audiences. This is evident from the responses to the surveys. As a result, environmental advocates are more successful in conveying messages related to reforestation, but inaction persists regarding actual behavioral change. Whether at the Luki Biosphere Farm or on the Bateke Plateau, the reforestation messages appear to be well understood by the public.

On the ground, there has been definite progress in initiatives aimed at reforestation or forest regeneration. The communication strategies used by environmental advocates facilitate better dissemination of messages. However, the challenge remains regarding cases of flagrant illegal logging. Local authorities and protected areas are increasingly using various tactics to illegally harvest timber. The forest continues to be under intense human pressure. The very same actors who claim to be committed to preserving the forest are resorting to methods that facilitate illegal logging.

In this research, we also criticized the harmful practice of transposing communication strategies from countries geographically distant from the realities of the Congolese environment. This practice is believed to be the root cause of the recipients' inaction. These theories are transposed for use in the African context without prior adaptation to local conditions, in order to better suit the domestic context of African audiences.

This is what emerges from the observed incompatibility with the theory of persuasive communication. This communication theory proposes to precede the dissemination of a persuasive message with the performance of a preparatory act, in the hope that the commitment to perform small acts will lead to the performance of more costly acts.

The context of communication targets in the DRC does not appear to be conducive to the use of persuasive communication theory. This challenge is addressed in the discussion section. We open a range of debates, which will be accompanied by clarification of the procedural steps to be applied in the context of exchanges between communication targets and environmental advocates, within the DRC context.

- *The Appropriation of Payment for Environmental Services by the Recipients (PES).*

The PES (Payments for Ecosystem Services) is an initiative of the NGO CAFE (Central African Forest Initiative). Its mission is to protect the Congo Basin forest from deforestation, bushfires, and poaching to mitigate

climate change. CAFE implements forest conservation strategies through financing for the well-being of the local population. These payments encourage local communities and logging companies to reduce deforestation by offering them economic alternatives such as direct payments and support for agriculture.

CAFE is utilizing mechanisms to promote this new mechanism, which is characterized by a solitary focus in relation to the concerns of CLs and PAs. A dual objective is therefore pursued, namely:

Promoting responsible and economical forest management means offering local communities economic compensation for their efforts in sustainable forest management. Payments for ecosystem services (PES) are financial incentives or markets offered to landowners or land users to manage their land in a way that ensures it continues to provide environmental services, such as carbon sequestration, watershed protection, biodiversity conservation, and landscape preservation.

The information gathered from our respondents reveals a clear shift in the dynamics of the relationship between environmental advocates and local and local communities (the primary users of forest resources). Forest preservation should no longer be treated as a rigid principle where local and local communities were obligated to promote responsible forest management at the expense of their own vital interests. The PES (Payments for Ecosystem Services) program is a welcome initiative that redefines the nature of this relationship and places local and local communities at the heart of forest management policy. The proposed economic incentives align with the genuine aspirations of the target audience.

It is also necessary to use a good communication mechanism to help CLs and PAs to take ownership of the process in order to sustain responsible and sustainable practices in the use of forest ecosystems.

The congruence report analysis reveals a mismatch between the communication efforts undertaken and the tangible results observed on the ground. This finding leads us to characterize most of these exchanges as missed opportunities.

II. CONCLUSION

The analysis of congruence reports reveals a situation characterized by a mismatch between communication efforts and observable realities on the ground. While the communication activities carried out in the field have certainly facilitated the achievement of some objectives, and exchanges with recipients during surveys show definite progress, the contrast remains. It should be emphasized that the strategies used by environmental advocates, who are leading REDD⁺ projects, have led to a clear improvement in the population's understanding of environmental issues. The organized campaigns have facilitated a better grasp of environmental problems by the population. However, there

is a low level of public engagement in adopting the recommended behaviors regarding the sustainable use of forest resources.

The greatest difficulty lies in reconciling forest preservation with improving the social well-being of local communities and local authorities. An adequate response to this concern would facilitate the establishment of a human-centered ecology. It seems absurd that a population not directly responsible for large-scale pollution should be subjected to drastic measures for the sustainable use of forest resources, which, moreover, constitute their primary source of income for their own survival. Economic incentives for efforts made in the responsible management of forest resources are essential. This is why the Payment for Ecosystem Services (PES) proposed by the NGO CAFI remains a commendable and unique initiative. These incentives allow local communities and local authorities to directly obtain financial benefits from their efforts in responsible forest management.

The introduction of the PES (Payments for Ecosystem Services) represents a decisive turning point in the realization of a more humane ecology that reconciles environmental preservation with the improvement of living conditions for the population. The challenge, however, remains the establishment of a framework mechanism to facilitate its adoption and sustainability; this requires ongoing support through communication strategies adapted to the domestic context of the recipients.

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