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SUMMARY PAPERS

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These papers summarise the presentations and debates at the study days organised by the French Cooperation "Land Tenure & Development" Technical Committee.

Looking at land degradation neutrality in the Sahel in terms of land issues

A critical review of several LDN approaches and instruments

This paper summarises the discussions and conclusions of a workshop on the land issues raised by land degradation neutrality (LDN) initiatives in the Sahelo-Sudanian region. The event, which was organised by the Land Tenure & Development Technical Committee (CTFD), the Pôle foncier de Montpellier and the French Scientific Committee on Desertification (CSFD), was held at Agropolis International in Montpellier on 11th September 2023. It was part of a series of publications, studies and reflection days organised by specialists from the three networks, and was held in conjunction with a meeting of members of the international panel of experts from the Science-Policy Interface (SPI) of the United Nations Convention to Combat Desertification (UNCCD). The aim of the workshop was to question the significance and scope of various LDN approaches and instruments with regard to land issues in light of international concerns and controversy around efforts to achieve land degradation neutrality.

The workshop brought together French and international researchers and experts from various fields – research and scientific cooperation, development, civil society and the private sector. Mélanie Requier Desjardins (Ciheam-Iamm, Pôle foncier/CSFD, UMR SENS) and Charline Rangé (Gret, CTFD/CSFD, UMR PRODIG) started the day with a presentation on LDN mechanisms, the scales at which the international LDN agenda is being implemented, and the land issues this raises in Sudano-Sahelian contexts. Their introductory contribution was followed by 3 main thematic sessions.

The first session was structured around presentations by Philippe Lavigne Delville (IRD, CTFD, Pôle foncier, UMR SENS) and Aurélie Brès (FAO), and moderated by Hélène Julien (AFD, CTFD Chair). These presentations provided an overview of local processes to secure land tenure in different countries, the paradigms that underpin land policies, and international guidelines on taking land tenure into account in efforts to combat desertification and achieve land degradation neutrality. After exchanges with the audience, three keynote speakers, Youssef Brahimi (DNI, La Rose), Patrice Burger (Cari) and Bernard Hubert (INRAE-EHESS) discussed local perceptions of the environment, key land issues to be considered in neutrality projects promoted by international organisations such as IFAD, the difficulties of incorporating LDN into coherent national policies, and the problems associated with funding these strategies.

The second session, which was led by Amel Benkahla (GRET, CTFD secretariat), looked at territorial approaches to decentralised natural resource management in Sudano-Sahelian areas. Koffi Alinon (CIRAD) gave a presentation on the links between land tenure, decentralisation and the fight against desertification, with case studies from Niger and Burkina Faso. Bernard Bonnet (IRAM, CTFD/CSFD) then took the floor with a presentation on the benefits and limitations of local agreements in decentralised approaches to managing shared natural resources, as seen in Mauritania. After a discussion with the audience, Camilla Toulmin (IIED, CTFD) shared her thoughts on the practical difficulties of applying mechanisms to secure land tenure and facilitate local planning and environmental protection, particularly in the current context of increasing insecurity.

The third and final session was led by Aurore Mansion (GRET, CTFD secretariat). This session focused on the links between LDN and carbon neutrality, with particular emphasis on the financing tools for such initiatives (impact investment funds and carbon credits) and the land issues they raise. A presentation by Alain Karsenty (CIRAD) on carbon credits and the concept of offsetting was followed by a report from Gautier Queru (Mirova) on feedback from projects financed by the Land Degradation Neutrality fund, which was initiated by the Global Mechanism as part of the United Nations Convention to Combat Desertification.

> LAND DEGRADATION NEUTRALITY (LDN): FRAMES OF REFERENCE AND AMBIGUITIES

Putting LDN on the international agenda

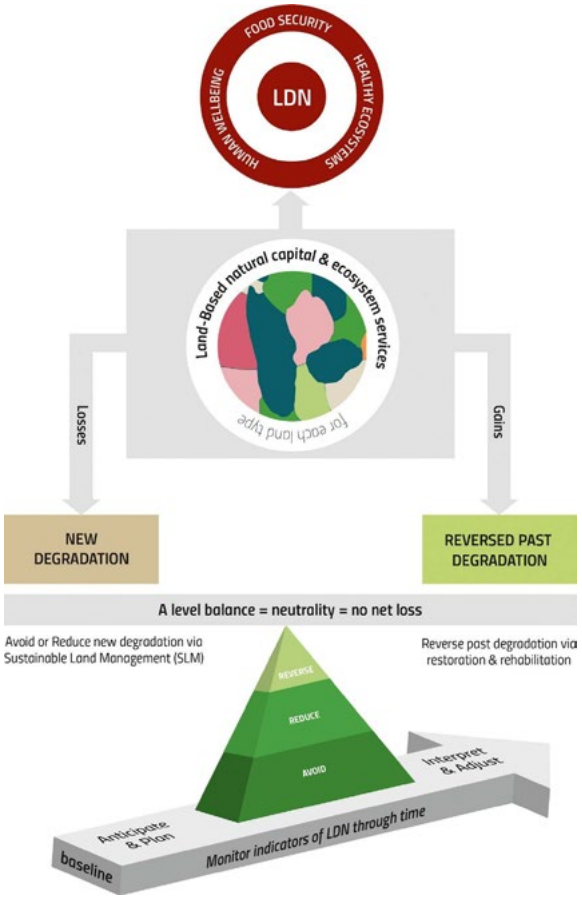
The concept of land degradation neutrality (LDN) emerged in 2010-2011, in the runup to the Rio+20 conference and discussions about achieving global land degradation neutrality by 2030. Those with an interest in carbon and carbon sequestration were already familiar with the concept of neutrality, but this was the first time it had been applied to land. The United Nations Convention to Combat Desertification (UNCCD)[1] assumed the task of defining and operationalising the concept (which was still vague and lacking solid scientific content) with support from the Science-Policy Interface (SPI) group. Doing this gave the UNCCD, which had hitherto identified African countries (and thus Sahelian-Sudanese zones) as priority areas for action, a much more universal significance.

The conceptual framework that emerged from this process defines LDN as a state in which the quantity and quality of land resources needed to support ecosystem functions and services and enhance food security remain stable or increase within specified spatial and temporal scales and ecosystems.

At country level, the concept of LDN implies that any land that is degraded or converted to other uses should be offset by the restoration of equal or larger amounts of land of equal or greater ecological interest. The emphasis is thus on **the need to protect land in its function as a source of nourishment, seek synergies with efforts to preserve biodiversity and combat climate change,** and also **the idea of achieving a net gain,** not just equivalence or offsetting. This is done through a three-pronged process to **'avoid'**, **'reduce'** (when degradation is considered unavoidable) and **'restore'** through **different land uses and land tenure tools** (land use planning, government set-asides, negotiating rules to promote certain sustainable land management practices, formalising rights to land restoration schemes, etc.).

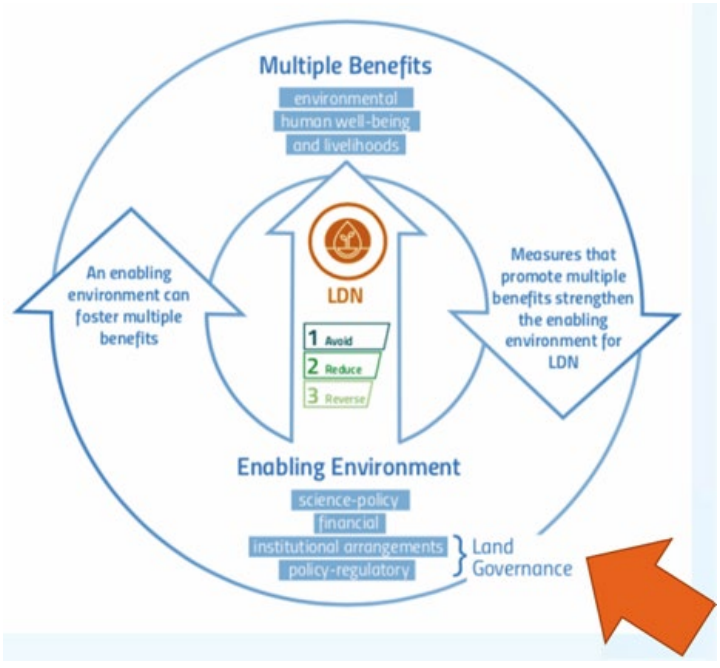
1. The United Nations Convention to Combat Desertification was adopted in Paris in 1994, and ratified ten years later by 190 countries. It defines the process of desertification as "the degradation of land in arid, semi-arid and dry sub-humid areas as a result of various factors, including climatic variations and human activities", and identifies priority countries in the fight against desertification.

Scientific conceptual framework for land degradation neutrality



Source: A.L. Cowie *et al.*, "Land in balance: The scientific conceptual framework for Land Degradation Neutrality"; Environmental Science and Policy 79 (2018) 25–35.

Conceptual framework showing the links between land degradation neutrality (LDN), creating an enabling environment and generating multiple benefits



Source: P.H. Verburg *et al.*, 2019. *Creating an Enabling Environment for Land Degradation Neutrality and its Potential Contribution to Enhancing Well-being, Livelihoods and the Environment. A Report of the Science-Policy Interface*. United Nations Convention to Combat Desertification (UNCCD), Bonn, Germany.

Civil society organisations felt that public funding agencies were too focused on land restoration because it generates greater financial returns, and that they should pay more attention to avoiding degradation, which is more interesting in terms of development because it involves a wider range of stakeholders on larger amounts of land and requires fewer resources and less investment.

Using the concept of LDN to produce a limited set of indicators to measure progress in combatting land degradation strengthened the legitimacy of the UNCCD, which had previously struggled to generate political support in the absence of quantified targets.

The aim was to assess:

- variations in the quality of land cover;
- variations in soil productivity for each land use;
- variations in soil organic carbon stocks for each type of land over a given period.

Neutrality is thus essentially considered in biophysical terms.

By 2020, 124 countries had volunteered to implement this LDN strategy on their territory and identify pilot implementation areas. The UNCCD Global Mechanism is **currently attempting to identify target territories** in order to quantify the amount of land involved, but it is very hard to assess how these international commitments have been translated into concrete action at the local level, or even into sectoral policy documents (for agriculture, water, forests).

The two main difficulties are identifying relevant initiatives and projects (across various intervention methods and project types), and the practical aspects of monitoring neutrality at decentralised levels. One of the main obstacles to implementation of the strategy is the absence of large-scale dedicated funding for LDN equivalent to the Green Climate Fund to tackle climate change. The only financing tool developed thus far is the fund to combat land degradation, which is dedicated to private investment (see below).

Ambiguities in the concept of land degradation neutrality

The SPI's work sets out several key principles for achieving land degradation neutrality. These include 'good governance', **participation, taking account of local land uses, and conducting multiple preliminary assessments at the local level**.

In practice, however, this desire to take account of local realities ignores two fundamental issues: the **spatial and temporal variability of local 'resources'**, and **local perceptions of the environment**.

The idea of a stable environment that can be separated from its uses, and which is something to be preserved is far from universally shared. Resources evolve according to changing technologies, forms of social organisation, and the kind of structural climatic hazards that are responsible for the great spatial and temporal variability of resources in the Sahel. The regreening of the region has more to do with the rising levels of rainfall observed since the 1990s than with changes in land use practices.

Demographics, human and pastoral mobility, changing agrarian structures (the rise of medium-sized farms, large local producers, urban entrepreneurs and speculators) and socio-political and security crises are changing the ways that territories are settled, developed and governed, how their economies function, and even what constitutes a resource. The violent conflicts currently sweeping the Sahel are politicising resources and making efforts to negotiate local agreements on resource management increasingly complex or even obsolete. **Land degradation is never a 'neutral' issue.**

Rapid, multi-dimensional changes in environmental, demographic, economic, social and political contexts raise questions about **the accounting and compensatory mechanics of LDN, and its timescales** for both implementation and monitoring and evaluation. External agencies must recognise the complexity of socio-ecosystems and **their interconnected ecological, socio-political and political-institutional dimensions**. We cannot claim to be working for the environment if we forget about socio-political matters, nor should we focus solely on socio-political issues and neglect ecological concerns. We have to recognise **the dilemmas that are involved in prioritising issues** and making trade-offs – which is where participatory approaches come into their own.

Finally, the concept of neutrality seems to have little in common with the concept of development because it is predicated on order, specialisation and permanence, while development is intrinsically about spatial and temporal change. Furthermore, **the scale at which the concept of neutrality can be effective remains an open question**. Should it be restricted to the national level for accounting purposes? Can it be territorialised? And can it be effective at the sub-national level, so that urban-rural relations can be integrated into territorial policies?

International framework provisions for responsible land governance as a pathway to LDN

There are two distinct sets of principles, guidelines, frames of reference and even experts for responsible land governance and LDN, and two major texts

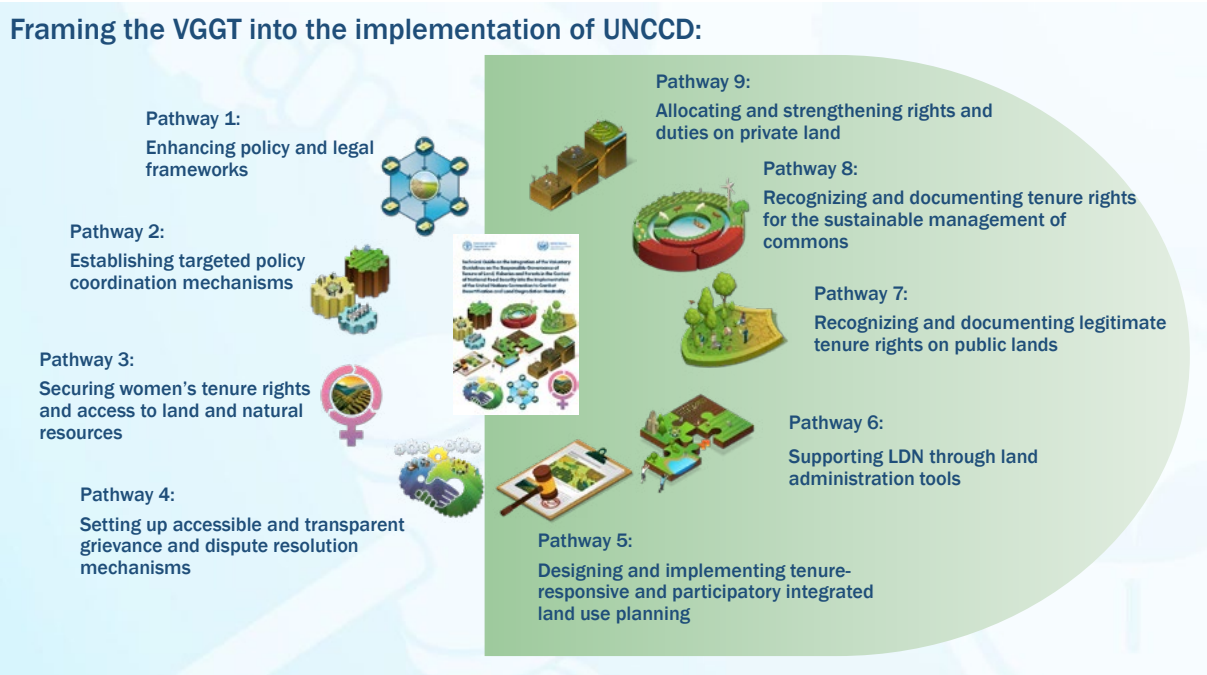
which provide international frames of reference for these issues, namely:

- **the Voluntary Guidelines on the Responsible Governance of Land Tenure** (VGGT), which were negotiated by States, civil society, the private sector and research bodies under the aegis of the Committee on World Food Security (CFS), and adopted by the United Nations in 2012. Governments seeking to reform their land sector should follow 10 implementation principles based on human rights, justice and good governance, which have become the main reference point for international land investments. The Voluntary Guidelines are based on the concept of **'legitimate land rights'**, which encompasses both what is legal and what is socially accepted, and calls for multi-stakeholder dialogue to identify, recognise and protect these rights. Implementation of this non-binding legal instrument is facilitated by the FAO, through technical guides and online courses that are designed to take account of the diversity of local realities and issues in different countries;
- **decision 14 of the Convention to Combat Desertification on an enabling environment to support LDN,** which was adopted in 2019 thanks to the work done by the SPI with considerable support and input from civil society. This decision recognises the importance of land governance as a means of ensuring that neutrality targets do not compromise local land tenure regimes, and encourages countries to incorporate the Voluntary Guidelines into their national strategic frameworks. It gives little guidance on how land tenure can be taken into account, but does emphasise the importance of securing practices and uses that reverse land degradation and enhance resource conservation. The decision raises the issue of **mapping land that is being degraded**, and makes **land use planning** – integrated planning that tries to use relevant ecological scales and levels of administrative governance – the main tool for compensatory mitigation. Land use planning is a key tool in efforts to territorialise the concept of neutrality.

The lack of integration between these two reference texts prompted the FAO to produce **a technical guide that would link the two conceptual frameworks and provide an accessible document** that takes account of the diversity of contexts, builds on current experiences, and which can be appropriated by decision-makers involved in public policy implementation.

Framework and principles for integrating voluntary guidelines on land governance and land degradation neutrality

Source: FAO and CNULCD. 2023. *Technical guide on integrating the Voluntary guidelines on responsible governance of tenure of land, fisheries and forestry in the context of national food security into implementation of the United Nations Convention to Combat Desertification and Land Degradation Neutrality.* FAO, Rome and UNCCD, Bonn.



The consultation process for this guide led to the formalisation of nine principles structured around several key considerations (legitimacy of local rights, popular participation, establishing accessible and transparent mechanisms for settling grievances and disputes, taking account of gender issues) that would provide the basis for integrated approaches.

Efforts to implement these principles face a number of challenges, which include:

- **compartmentalised government departments.** The departments that deal with land issues (which may be housed in the Ministry of Finance) and land and natural resource management (agriculture, livestock, forestry, environment, etc.) may have inconsistent legal frameworks, **different visions of certain concepts**, and limited data interoperability capabilities (allowing land data to be shared, with certain precautions, and maps charting land degradation). Furthermore, sectoral strategies relating to agriculture or the environment often make no mention of neutrality, even if they are based on efforts to combat desertification;
- **the varying scale and timeframe of different LDN initiatives**, which range from large-scale government funded and supported projects to much more local initiatives run by civil society organisations. This poses two major challenges: **how to coordinate and monitor the quantified indicators** required for UNCCD monitoring mechanisms, and how to take account of local realities and land tenure – a task further complicated by the considerable variations in project duration (some last only a few months) and limited funding allocated to these aspects of LDN initiatives. Also, LDN initiatives are not immune to the **limitations and pitfalls of public projects** (limited spatial coverage, short timescales that undermine confidence in the schemes, funding bubbles). Projects can be justified from an experimental perspective, but they are no substitute for national policies;
- specific problems related to **the production, mapping and integration of data on land degradation and land tenure. Satellite imagery is not the most reliable way of assessing land degradation**, as assessments can vary by tens of points depending on the database used, and positive changes in regreening land observed at micro-local scales are difficult to capture in national-level analyses. There are also **well-known problems with mapping land data** due to the plural, negotiated and overlapping nature of land rights, and their embeddedness in socio-political relationships. The most appropriate level and type of data for integrating information on land degradation and land tenure has yet to be determined;
- **managing the knowledge generated.** There are case studies of actions to combat land degradation and approaches to securing land tenure, but the information is very diffuse and still compartmentalised between LDN and land tenure actors. The Convention's WOCAT database, which compiles studies on LDN implementation, does not list any work that has been done to take account of land tenure in LDN initiatives;
- **managing the inherent risks of land exclusion in the tools promoted** for LDN initiatives. Land use planning can lead to certain uses being eliminated and land rights swept away because they are hard to map, and to the promotion of certain land tools that may reinforce land inequalities, such as 'land banks'. Putting warning systems and dispute resolution mechanisms in place when people are dispossessed of their rights is a necessary step, but it does not address unequal access to this type of mechanism (due to lack of resources, or because it may be used by actors who lack local legitimacy);
- **compensation, and the associated issue of funding for initiatives** that promote practices to restore and preserve land and resources while guaranteeing a minimum income for users. In the absence of a specific funding mechanism for LDN efforts – such the current mechanism for climate change initiatives – this can be an issue in certain contexts.

Niger © Philippe Lavigne Delville

> UNDERSTANDING AND SECURING MODES OF ACCESS TO AND USE OF LAND AND NATURAL RESOURCES IN ORDER TO INFORM LDN ACTIONS AND MANAGE THE RISKS OF EXCLUSION

The SPI's work presents LDN as an opportunity to strengthen local governance in accordance with the principles of the FAO's Voluntary Guidelines on Land Tenure (with a particular emphasis on protecting legitimate land rights and participation). But the reality is that many reforestation and land restoration projects have resulted in certain areas being fenced off and access to them prohibited. This has led to the exclusion of local users and rights holders, upset the fragile balance between people and resources, and affected socio-economic activities in the areas concerned.

Findings from research on land tenure and feedback from numerous efforts to combat land degradation and decentralise land and natural resource management can be used to clarify the land issues encountered in the territories concerned.

In practical terms, accessing and controlling land and natural resources involves multiple forms of governance and socio-political issues

Resource use (agricultural, silvopastoral, fishing, hunting, etc.) is governed by **a set of norms that regulate how resources are accessed and used, and define who can exploit which resources, where, when and under what conditions**.

Modes of access depend on the spaces, ecosystems and resources concerned, and the actors and social groups involved. For example, wild harvesting and fruit-picking may be open to all social groups or reserved for certain families, depending on the species and type of fruit (fallen or still on the tree). Similarly, the rules regulating access to fodder may vary according to the ecosystem and type of fodder in question (aerial/crop residues/pasture). Depending on the case, an actor may be able to access a given resource through a *claim* right (i.e., institutionally recognised right) or simply because they are free to do so. For example, pastoralists can take their herds to graze in the bush, but no-one is prohibited from clearing these areas.

Access is therefore governed by **a set of rules whose strictness and precision depend on the resources and issues concerned, and whose effectiveness depends upon (more or less committed) authorities that are recognised as having the political power to enforce them. Local power relations** also play a role in access to land and natural resources. It is therefore important to look at **'practical norms'** – what people in the territories concerned regard as 'normal', however much this differs from State (positive law) or local (customary and religious law) norms.

There are several aspects to consider with regard to LDN:

- agricultural land and the resources it supports are not covered by the kind of discrete governance arrangements found in national legislation;
- land governance is the result of historical processes – human settlement, local powers, and **agreements between founding groups and those that came after them** regarding access to resources and means of subsistence, and aimed at ensuring incomers' social integration;
- constant efforts to **balance individual prerogatives with collective regulations**;
- a **hierarchy of rights** indexed to socio-political affiliations, which may be **accepted or contested**, and which **contradicts national rules** that regard all citizens as having equal access to resources;
- land and natural resource **governance** can play a **key environmental role in fragile ecosystems, but this role may be secondary in settings where resources are abundant** (or used to be) or more dependent on the climate than on extraction levels. Whatever the case, the primary goal of governance is to regulate relations between different social groups.

Land governance deals with issues such as territorial control, differentiated access by various social groups, and regulating competition between farmers, herders, hunters, gatherers, etc. It is therefore **an eminently political issue that affects social, economic and political balances**.

In Sudano-Sahelian settings, and post-colonial situations more generally, land governance involves **highly heterogeneous norms and authorities** that may emanate from the State or from custom, religion or even projects (which create ad hoc norms). **This structural plurality is not a problem in itself, but it becomes an issue when it is exploited** by actors that are fighting to access resources, gain power or capture rents (for example, when forestry officials charge people to access resources that are supposed to be off-limits).

And it can become a source of tension or conflict **when the arbitration mechanisms between these different registers of norms are not secure, or are contested**.

LDN interventions are not neutral for resource users, power relations or social cohesion

External interventions that are intended to affect land and natural resources will **reconfigure local governance arrangements** to varying degrees, and will therefore affect social balances in the areas concerned:

- in some cases, they **redefine the land status of certain spaces** by making them temporarily or permanently off-limits, or by preventing certain user groups from accessing them;
- they set up new, more or less participatory bodies (management committees, commissions, etc.) that can **create confusion within existing arbitration mechanisms and be used to consolidate or reverse power relations**;
- finally, by reshuffling the distribution of rights between and within groups, they can **weaken cohesion between groups, which is already being seriously affected by the current socio-political and security crises** in the Sahel.

Interventions also have **mixed effects on resource conservation** because they operate on the basis of rules that resource users regard as more or less legitimate, and do not always take account of users' interests and constraints. As a result, **LDN interventions often fail to give resource users the incentives** they need to improve resource conservation, even though they are key actors in such efforts. The question of how to share the costs and benefits of conservation initiatives is thus of paramount importance. Rather than assuming that there is a pre-existing common interest in sustainable resource management, the focus should be on **reconciling divergent interests.**

Securing users' rights to resources is a matter of governance rather than tools

Users have little reason to get involved in environmental conservation if they are at risk of suddenly losing their rights of access. Securing their rights to land and natural resources is therefore a necessary condition for land conservation and restoration efforts – although this does not have to be done through private property rights.

The current regreening of the Sahel and (re)development of woodlands in the region show that private ownership is not a prerequisite for stakeholder involvement.

BOX 1

The paradoxes and exclusionary effects of incentives to protect resources in Niger[2]

Since the 1980s, Niger has had an ambitious policy to protect and regenerate forest resources and spaces that is reflected in various policy documents and regulations. Ordinance No. 93-015 of 2nd March 1993 sets out the guiding principles of the Rural Code, and regulates access to land and natural resources through land commissions (COFOs) that operate at different territorial levels (village, commune, department, etc.). It was supplemented by the law of 8th June 2004 on the forestry regime in Niger.

COFOs were the linchpins of a project that IFAD funded in the Aguié department in southern Niger, supporting farmers in assisted natural regeneration operations from which they could earn income. A project evaluation conducted by the International Centre for Research in Agroforestry showed that it was not so much the forestry regulations that encouraged villagers to protect trees on the list of 15 protected species, but rather their socio-economic uses. *"These are the most useful trees on our land. We don't understand why forestry officials come onto our fields and tell us off when we try to use them."* And it turned out that the forestry regulations could be counter-productive, as some farmers stopped these trees from growing in order to avoid problems with the authorities.

The project's efforts to better integrate tree protection and regeneration measures into local economic systems (in this case, sales of wood, foraged goods and aerial fodder) increased farmer incomes and helped them through the lean season, while facilitating the maintenance and reproduction of protected species. COFOs also played a key role in this dynamic, by enabling farmers to secure their rights to their fields and trees. But not everyone benefited from this process: transhumant herders who were previously able to access aerial fodder in return for their animals fertilising the soil now have to buy it; while hunters and groups that collect tree bark for traditional medicines no longer have the same access to trees as before, and their practices and integration into the village community have been undermined.

2. Based on the contribution from Koffi Alinon.

There are two main ways of securing land tenure:

- **Formalising people's rights** by putting them in writing and legalising therm. This type of formalisation can lead to exclusion, particularly when the aim is to formalise property rights rather than use rights. Furthermore, in contexts where land plays a key role in socio-political and economic relations between and within groups (especially between indigenous and migrant groups; or as holdings that ensure the family group's continued existence), land rights are usually interlocking, and it can be hard to identify the level at which they should be formalised. Formalisation also leads to a focus on land rather than the many ways in which it is used (particularly pastoralism), or at the very least to more rigid arrangements between actors in agro-sylvo-pastoral systems that need to be fluid and dynamic in order to cope with climatic hazards. If anything needs to be formalised, it should be transfers of rights.
- **Through governance,** which focuses on the complex relationships between different resource users and on rules, their legitimacy and the ability to enforce them. It raises questions about the principles that underpin coexisting uses of the same space, coordination between different authorities, and the stability of arbitration systems. The means and tools used to foster relationships between authorities and users and define shared, legitimate rules are documentation and legalisation. While this type of formalisation is better able to integrate different uses of space and their dynamics, especially pastoral mobility, the challenge here is to avoid bringing yet another layer of actors and standards into the mix and thereby exacerbating opportunistic behaviours and power struggles.

These two types of formalisation are not necessarily mutually exclusive, and need to be considered according to how resources are used and what issues are at stake. The priority is to reduce counter-productive legislative measures that enable opportunists and power grabbers, and to try to neutralise land grabbing strategies. This requires political will. There are no magic solutions, apart from the basic principle of **shaping institutions** (to paraphrase Ostrom) by acknowledging that plural norms and authorities exist, and that it will take more than the will of the State or government policies and projects to make them disappear.

Every intervention on land and natural resource management has a political and institutional dimension that determines which techniques and tools will be deployed (land use plans, local charters, etc.). This raises the question of how intentional management mechanisms, such as LDN approaches that aim to achieve objectives defined by the international environmentalist agenda, are anchored in local perceptions of the relationships between humans and the environment, coexisting uses and pre-existing power dynamics.

The few studies that have been conducted thus far show that the term LDN has no resonance in the field because it is part of a global approach to compensation for land degradation and improvement (see above) that is not easily understood at the local level, especially by communities whose primary concern is often surviving from one day to the next.

The decentralisation of land and natural resource management

In 1989, the CILSS organised the Praïa conference on decentralised land management as a precondition for tackling land degradation. Since then, many Sahelian countries have introduced land reforms which facilitate legal recognition of local institutions that secure access to land and oversee sustainable natural resource management.

Decentralised governance that is close to the realities on the ground is essential, but it does raise questions about appropriate scales of governance because land uses involve ecosystems that are both highly localised and spread over large areas. This is particularly true of pastoralism. **Communes are a possible option, but certainly not the only one**, as their territorial boundaries are not necessarily relevant to the issues associated with resource use and conservation. They also often have limited technical and administrative capacities, and operate at a more centralised level than villages.

Furthermore, **political interests may jeopardise communal support for past agreements on resource use**, especially in contexts where State mechanisms have not been institutionalised and decisions are made at the individual rather than institutional level.

Feedback from initiatives to decentralise land and natural resource management shows that a number of other issues need to be considered, apart from the role played by communes (see Box 2 below):

- the type of **monitoring system** needed to prevent a drift towards the kind of repressive management regimes imposed by governments over the decades, which continue to shape people's perceptions of decentralised land and natural resource management;

BOX 2

The benefits and limitations of local agreements in decentralised management of shared natural resources in Mauritania[3]

Guidimakha and Hodh El Gharbi are two contrasting regions of Mauritania characterised by farming systems in the south and more sylvo-pastoral systems in the north. Although rainfall has increased since the 1990s, land and vegetative cover in both regions became degraded due to various factors such as the sedentarisation of certain groups of herders around fragile resources, dual land tenure systems, the weakening of traditional structures, privatisation of resources, and unsustainable resource extraction with no provision for regeneration, etc.

This was the situation in 2001, when GIZ and its partners launched a series of local natural resource management initiatives that used the opportunities provided by the Pastoral Code to develop local arrangements that would be recognised by the administration. Over more than a decade, they helped strengthen the decentralisation process by harmonising the Forestry and Pastoral Codes, and setting up numerous joint local natural resource management associations (AGLCs) that currently operate in over 60% of Guidimakha region. Under the Forestry Code, the AGLC system enables several village communities to establish themselves as associations and draw up local joint natural resource management agreements. Once they have been validated by the commune and the administration, these agreements enable communes to delegate their devolved mandate for natural resource management to the AGLCs, which can develop local agreements by adding temporary clauses or revising existing ones. This arrangement relies on acceptance of both collective management and its ecological efficiency, and therefore requires significant investment in zoning, ecological monitoring, and surveillance mechanisms.

The many benefits of this approach can be attributed to the considerable support the initiatives have received over the years. Stakeholders participate in ecological monitoring of local natural resources, which shows that the vegetation cover index has increased in areas covered by AGLCs (with interesting trajectories that are worth studying on a case-by-case basis). Also, introducing equity as a criterion in users' contributions to shared resource management led to the development of alternatives to open access and privatisation. Nevertheless, the approach had to contend with a number of limitations and major challenges, such as the need to ensure that local management is consistent with the scale of pastoral mobility, securing funding to enable LCGAs to carry out their activities, the forestry service adapting to decentralisation, and scaling up the approach.

3. Based on the contribution from Bernard Bonnet.

- **sustainable funding for management systems.** Many systems rely on voluntary contributions and risk running out of steam. Specific tax systems that take account of resources, how they are used, different forms of social organisation, and power relationships are needed;
- **support from the local administration**, which may be unhappy about the transfer of its prerogatives as this reduces its territorial and social jurisdiction, and challenges government agents' image of themselves as the only actors capable of rational resource use. The decentralisation of natural resource management should go hand in hand with institutional reforms and training programmes for decentralised administrations, particularly forestry services. Rigorous monitoring of the evolution of resources under decentralised management is also important, in order to convince central government of the wisdom of transferring its prerogatives, and of its continued sovereignty.

> LAND NEUTRALITY AND CARBON NEUTRALITY: THE MECHANICS AND LAND ASPECTS OF PRIVATE LDN FINANCING TOOLS

Mobilizing financialised environmental tools in the fight against land degradation

When it became clear that there would be insufficient public funding to achieve the 2030 sustainable development goals, the United Nations appealed to the private sector for more resources to tackle land degradation and set up a **subsidised impact investment fund to combat Land Degradation (the LDN Fund)** (see Box 3 below). This fund is based on environmental and international standards, including the Voluntary Guidelines for Responsible Governance of Land Tenure (VGGT), and is intended to finance restoration or conservation projects based on financially profitable

BOX 3

Mirova, the LDN fund and setting up nature-based carbon credits[4]

Mirova, which is a subsidiary of Natixis, is a certified asset management company that offers investment solutions which combine financial performance with social and environmental impacts. Since the United Nations appointed it to set up and manage the Land Degradation Fund (LDN Fund), Mirova has involved public-private partnerships in efforts to meet sustainable development goals, and succeeded in raising $200 million.

The LDN Fund, which is based on environmental and international standards, including the VGGT, finances various types of project that are not only economically and financially profitable, but which also generate significant environmental and social co-benefits (restoration or conservation projects based on value chains with high economic, nutritional, environmental and social impacts, such as cocoa, coffee, wood, fruit, etc.).

The fund faces a number of challenges in relation to achieving MDG 15.3 – scaling up viable pilot projects; managing risks, including land and the sometimes violent conflicts it can generate; and ensuring that carbon sequestration measurements are reliable. Although the fund did not initially include carbon credits, they quickly became an easily monetisable source of additional income that is very useful for financing learning phases, particularly in contexts where funding is scarce.

Carbon farming, which is currently booming in both developed and developing countries, is regarded as an opportunity to better remunerate farmers for their contribution to soil carbon sequestration.

Although these markets do have potential, it is important to encourage multi-stakeholder dialogues between public institutions, private actors and civil society to take a critical look at them and control the risks of possible drift.

4. Based on the contribution from Gautier Queru.

and economically viable value chains that generate significant environmental and social co-benefits (cocoa, coffee, timber, fruit, etc.).

The LDN fund did not initially include **carbon credits**. But because two of the indicators used to measure LDN are quality of land cover and soil carbon sequestration, they soon came to be regarded as **interesting complementary financing tools in a booming restoration economy** (the 4 per 1000 Initiative, which is dedicated to soil carbon sequestration and mainly implemented in northern countries, development of 'blue carbon', etc.). Despite the questions and controversies surrounding carbon credits, the financing model has proved fairly financially resilient as there is little correlation between the markets for carbon and for agricultural products. Carbon credit schemes also offer projects technical expertise and are a less expensive source of funding than banks, which usually charge high rates of interest for this type of project and actor, particularly in contexts such as the Sahel where it is very hard to get funding. **To date, none of the LDN Fund projects in the Sahel have been financed through carbon credits**, which are better suited to forested countries. Projects are being considered in Senegal, but the likelihood of them proceeding is limited by the region's political instability.

Companies that want a 'good development story' to sell to their customers and shareholders are increasingly looking for certification mechanisms that combine carbon credits with biodiversity (which has attracted considerable interest following the adoption of CoP15 in 2022), and generate both economic and social benefits. Combatting land degradation does not seem to be a sufficiently attractive selling point; apparently climate and biodiversity also need to be in the mix.

Carbon credits are part of a global approach that is based on the idea that when emissions have a global impact, it no longer matters where they occurred or where compensation is made, and that it is possible to lower the social cost of reducing emissions by using carbon credits in countries where technologies are less advanced. Although **this global logic can be understood in the case of carbon emissions, it is harder to justify in the case of biodiversity or land degradation**, whose effects are primarily localised.

Financialised environmental tools are based on assessing and monitoring the state of resources, and therefore favour **standardised approaches and international expertise** that tend to overlook local environmental practices and knowledge[5].

5. Le Meur Pierre-Yves and Estienne Rodary, 2022, "Foncier et dispositifs environnementalistes", *in* Colin Jean-Philippe, Lavigne Delville Philippe and Eric Léonard (eds.), *Le foncier rural dans les pays du Sud. Enjeux et clés d'analyses*, IRD-QUAE : 863-939.

Limitations of the voluntary carbon market and living carbon in terms of neutrality and the need to move towards dedicated contribution instruments

There are two carbon market mechanisms. One – the so-called compliance market – is regulated by public authorities (governments, sub-national jurisdictions, the European Commission, the United Nations) and based on a rationing logic (with a fixed cap based on the 1990 reference year and quotas for purchases/resales). The other – the voluntary market – is regulated by private actors and tools and is based on issuing credits from projects that help avoid or reduce CO_2 emissions. In the compliance market, living carbon was set aside from the outset due to its uncertain impact on the environment (see below).

In the voluntary market, on the other hand, carbon linked to land use (agriculture, forests, soils) accounts for half of the credits issued and over two-thirds of their total value (Climate chance, 2022), with **the vast majority coming from avoided deforestation projects** (which have accounted for up to 45% of carbon credits in some years). Avoided deforestation can rapidly cover large areas in situations where land availability limits the possible scope of plantation projects.

The voluntary market is problematic from an environmental point of view. Operating on a project-by-project basis means that a baseline and scenario for assessing the emissions reduction achieved by the project have to be established. There are two possible options for this: extending the curve and assuming that the past is a predictor of the future, which makes no sense; or establishing a scenario, in which case **project developers have every interest in favouring the worst-case scenario**. This is particularly true of avoided deforestation projects.

Then there is the question of **additionality** – the idea that the project would not have been undertaken if carbon credits were not involved. Additionality is difficult to prove, and many projects would in fact not be additional.

Finally, there is the question of **leakage**: for example, if we protect a forest in one place but the project does not deal with the drivers of deforestation, we will simply shift the problem elsewhere. **Avoided deforestation projects** are particularly susceptible to these three problems. **And their environmental effects are even more uncertain when it comes to living carbon, as there is no guarantee that it will be permanently sequestered**: for example, if a forest is planted and burns down a few years later or the trees die, the carbon goes back into the atmosphere.

Sénégal © Kamikazz

Various certification systems have been put in place to control these discrepancies (the best-known for living carbon are VCS Vero, CBB Standard, Gold standard, and plan Vivo), but they have not been able to prevent the **proliferation of projects that are implemented for marketing reasons** (regardless of whether companies are actually trying to 'avoid, reduce, offset' or simply conducting 'business as usual'), or stem increasing **criticism about their environmental effects**.

Projects that are non-additional, liable to leakage, built on a worst-case scenario, and which have highly variable rates of carbon sequestration can in fact turn carbon credits into 'rights to pollute'. This has caused the value of carbon credits to plummet or even collapse, and led to a loss of confidence in the voluntary market mechanism, particularly where avoided deforestation is concerned. The same problems are likely to occur with the **biodiversity offset** mechanism, but on a greater scale.

Under these conditions, the very idea of offsetting or neutrality seems wrong. **Instead, we should be talking in terms of contributions and moving in line with other instruments that would enable us to make better use of co-benefits** (food security, biodiversity, water quality, economic spin-offs for communities, etc.), as with payments for ecosystem services. Sensing that the tide is turning, the certification system is in the process of preparing a 'nature' credit that will be a positive contribution to nature rather than compensation for negative impacts on it.

This diversion into carbon neutrality is a reminder that **current scientific knowledge has a limited ability to translate the complex functions of socio-ecosystems into measurement indicators**, as LDN aims to do. The problem is not defining measurement indicators, but thinking that these indicators enable us to follow a logic of offsetting or neutrality.

BOX 4

From the Kyoto Protocol to the Paris Agreement: major developments in carbon credits. Towards a new global green grab?[6]

The principles of carbon offsetting were defined in 1997 by the Kyoto Protocol, the first international initiative where countries, particularly industrialised ones, made commitments to control and reduce their greenhouse gas emissions in order to mitigate climate change and its effects. Two distinct mechanisms emerged from this protocol:

- **Cap-and-trade**, where a regulator (which may vary according to scale) sets a cap on emissions in relation to a reference year (1990) and distributes or auctions emission allowances or permits on a market. This enables countries to ration their own emissions and those of the actors present on their territory by setting quotas that cannot be exceeded.
- **The Clean Development Mechanism (CDM), which generates carbon credits** from projects that reduce emissions through technological changes or other means, or which facilitate CO_2 absorption through tree planting or enhanced conservation. Project leaders generate credits that can be added to their allowances, which enables them to exceed the ceilings set by the Cap-and-Trade mechanism. Companies can also use credits to offset emissions that exceed their regulatory obligations, and institutions can sell carbon credits and use them as a financing vehicle to fund biodiversity projects.

When the Kyoto Protocol ended in 2020, the 2015 Paris Agreement generated three successors to the CDM:

- **The cooperative approach** (Article 6.2.), which corresponds to an inter-State market system. All countries have quantified targets (not just industrialised nations), and only emission reductions that exceed a country's commitments can be transferred to another country. **The growing number of countries which have announced that they are using this mechanism to invest in projects that generate carbon credits has raised fears of a new round of large-scale land grabs for environmental purposes** (green grabbing) (for example, the United Arab Emirates announced an agreement that covers 10% of Liberia's territory, and similar operations covering a total of nearly 25 million hectares have been announced with Papua New Guinea, Zimbabwe, Tanzania and Zambia).
- **A project-based mechanism** (Article 6.4.) which is still very open (agriculture, forests, soils, etc.), with possible use of private certifications provided they are in line with the requirements of the Paris Agreement.
- **Non-market approaches based on cooperation between countries** (Article 6.8.): technology transfers, capacity building, sharing experiences, etc., which have attracted little interest to date.

6. Based on the contribution from Alain Karsenty.

Taking land tenure into account acknowledges the multiplicity of user groups and land rights

Projects financed by carbon credits affect land tenure in different ways, depending on the land use models and beneficiaries concerned, and whether they are private actors, the State or 'communities'. **Avoided deforestation projects generally lead to protected areas being taken back into the hands of authorities** that are then able to control users and punish them **with evictions that may cause conflict**. These projects are often accompanied by conventional sustainable land management and ecological intensification projects that are supposed to compensate for loss of access to protected areas. There are also a smaller number of large-scale plantation projects that benefit private-sector actors and lead to other forms of user exclusion. Some projects financed by carbon credits use **payments for environmental services** (allowing practices that have a positive impact on the environment to be remunerated), **which assumes that a specific area is covered by an effective right of exclusion. This poses a number of problems in land tenure systems where different stakeholders control and use the same land and natural resources.**

Most independent certification outside protected areas adopts or adapts the social and biodiversity safeguards of major international institutions, especially the VGGT. This is what the LDN fund does, providing information on the land situation upstream of the project and estimating its potential land impacts in accordance with VGGT standards and due diligence.

Investors consider land issues in terms of the risk they pose for the implementation and sustainability of a project, the conflicts and disputes it may generate, and benefit sharing with communities and/or the State. This twofold perspective regards 'communities' as a single entity and ignores their inherent inequalities and power relations. Sharing the financial benefits from the sale of carbon credits between the State, private actors and the local communities concerned can raise equity issues, not only between these three sets of actors, but also within local communities themselves, which are not composed of homogeneous groups. People who have secondary land rights because of their family status (wives, young people) or position in

Examples of degraded land management in Burkina Faso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local socio-political agreements that shape access to land and natural resources (e.g. transhumant herders) are also overlooked in consultations and compensation schemes, and risk seeing their rights or access undermined. **This erroneous view of the community obscures a number of exclusionary mechanisms and reinforces inequalities that are often both invisible and poorly documented.** The land guarantees that investors sometimes require can also lead to inappropriate legal formalisation processes based on a **proprietary paradigm that does not reflect local realities, either because it is based on individualistic concepts, or because it leads to the reification of customary ownership and ossification of 'community' boundaries.**

Projects that adopt a financial investment approach **consider land matters in terms of transaction costs** that investors need to minimise while providing sufficient safeguards for market credibility. This leaves little room to take account of the complexity of land issues.

> CONCLUSION
Identifying the ambiguous aspects of neutrality and refocusing on the complexity of local socio-ecosystems

In updating its objectives to reflect global issues, the concept of land degradation neutrality undoubtedly breathed new life into the United Nations Convention to Combat Desertification, which has always attracted far less international political interest than its two sister Rio Conventions on climate change and biodiversity. **Nevertheless, international commitments on LDN have yet to be translated into specific funding** – with the exception of the LDN Fund, which is dedicated to private investments that generate social and environmental co-benefits.

Putting the concept of neutrality into practice entails **quantifying and mapping the phenomena associated with land degradation**. But there is currently **considerable uncertainty about national-level assessments based on satellite imagery**, which is not good at capturing phenomena observed at the local level. This quantitative and cartographic approach also makes it difficult to take account of land issues, as **the plural and negotiated nature of land rights makes them hard to map**. There is therefore a risk that certain uses and rights will be swept away, and that land tenure systems which need to be dynamic in order to fulfil their social inclusion and protection functions will become rigid.

Efforts to quantify LDN require **cumbersome national and global data production and management systems, and there is a risk that standardised, top-down models will be favoured over local initiatives.** This would mark a step backwards from the 1990s, when it was recognised that efforts to tackle land degradation were closely connected with decentralised decisions and powers over land use and natural resource management.

There is also a risk that focusing on the production and management of quantitative data will be **detrimental to long-term assistance in 'shaping' land and economic institutions from the bottom up, and weaken political support for the political and institutional reforms that sectors affected by desertification** (land, forests, water, agriculture, livestock, etc.) need to enable users to drive efforts to combat land degradation within the framework of national policies, rather than leaving this to multiple projects whose shortcomings are well known.

While the FAO's support in integrating the Voluntary Guidelines into LDN initiatives is a significant step in this direction, what is meant by 'legitimate land rights' and participation remains ambiguous. There is a risk that participation will be confined to the stage of identifying areas to be protected or restored, when **it is also needed to resolve or reconcile the dilemmas that arise when local socio-political issues intersect with global environmental concerns**. The presentations at this event show that the local multi-stakeholder dialogue that has emerged since natural resource management was decentralised mainly revolves around concepts of local governance and land management; scant attention is paid to neutrality and offsetting, which make little sense on a local scale. This seems particularly problematic when crosscutting analyses of the land situation in the Sahelo-Sudanian region have **questioned scientists' ability to resolve uncertainties about the dynamics of carbon sequestration in the region's soils, and the need to include (and measure) the immediate social and economic co-benefits** for local communities, which are a key driver of acceptability for LDN interventions.

The creation of an impact investment fund was justified by the need to achieve quantitative land-neutrality targets within a given timeframe. The fund is now increasingly using carbon credits as a complementary source of financing, and will probably do the same with biodiversity credits in the years to come. This will make it even harder to take account of land issues, given investors' need to limit transaction costs to ensure that investments are financially profitable. Experience has shown that i**nitiatives based on financial tools only consider land issues in terms of the risk they pose to a project's sustainability**, diverting attention away from silent land exclusion processes. The other limitation of private financing is that **project intervention zones are identified according to financial criteria that marginalise large territories – particularly**

the Sahel, which investors regard as doubly handicapped by climatic hazards and political instability.

The concept of neutrality has now been incorporated the into the objectives of three Rio Conventions on climate change, biodiversity and desertification. The logic of this concept is relatively easy to understand with regard to climate change due to its global impacts, but is less obviously applicable to the degradation of land and biodiversity, whose effects are localised. There have been questions and concerns about the UNCCD reappropriating the initially vague concept of neutrality and applying it to land degradation, particularly among those who see the Convention as an instrument for development in Sahelian countries. **The concept of neutrality, with its accounting approach, assumes that changes in distinct ecosystems can be offset – something that is not possible for the governance aspects of these different ecosystems and potential changes in governance.**

Questions also remain about whether there is an appropriate scale at which the concept of neutrality can be integrated into development policies (to better manage the dynamics of peri-urbanisation, for example). Finally, reservations about its application to land degradation echo **broader criticism of the concepts of neutrality and offsetting, and of carbon and biodiversity credit instruments**. The donor community currently regards them as relevant instruments in the quest for land degradation neutrality, but they are widely criticised on several counts, especially by civil society organisations. This is due to the difficulty of measuring and assessing the state of ecosystems and the real environmental impacts of projects, and the risks of standardising land use patterns, obscuring local knowledge, unfairly distributing the benefits from selling credits, marginalising local land use rights, and even green grabbing. ●

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