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Natural Resource-Based Global Conflicts and Post Conflict Peace Building

Siakilo Emmanuel[1,] Mulongo S. Leonard[2], Chebon Richard[3,] Biwott Gladys[4,]
University of Eldoret, Kenya

Abstract: *Extensive literature has explored the link between natural resources and conflicts. Nevertheless, scholars have rarely reached a univocal agreement and a common theoretical understanding on this inter-relation. In this thematic paper, I reconsider the connections between natural resources and global conflict. Aimed at producing a state of the art review of the research on the connections between natural resources and conflict, the paper outlines and discusses the mainstream theories and policy initiatives that have been created to address this issue. The paper underlines in line with Rosser (2006) and Wennmann (2007) that whilst there is, as the general consensus of scholarship suggests, considerable evidence that natural abundance is associated with various negative development outcomes, this evidence is by no means conclusive. Whilst recognizing the value of existing ideas and practices, in highlighting the lack of consensus, gaps and weaknesses of current theoretical and practical approaches, the paper suggests that other complementary approaches need be developed. It is argued that this demands an extension beyond what have almost exclusively been macroeconomic and national governance studies and initiatives, to approaches that qualitatively acknowledge the role of historic grievances and conflicting resource sovereignties. In stressing the social nature of economy and state, and the often inconclusive and ideological nature of existing theories and policy, the paper proposes the need for recognition of a new socio-economics of resource governance. This socio-economics picks up on the current scholarly drift towards reinstating grievance alongside greed as a factor defining natural resource conflict, and suggests the further study of contrasting resource epistemologies as another layer in such friction. Such an approach moreover moves the focus away from only looking at civil wars, to one in which sub-level and regional conflict are recognized and studied. The inclusion of a larger spectrum of conflict reveals the importance of civil society, and with it of bargaining and confrontation to secure public agreements on natural resource management and the distribution of rents. The paper discusses a chronological development of natural resource utilization in the traditional, colonial and current situation, types and sources of conflicts and the management strategies being undertaken to militate global resource conflicts*.

I. Introduction

Conflicts over natural resources, particularly renewable resources are essentially political issues concerning: who should have access to and control over resources; whose views should count in identifying and prioritizing issues and problems; and, desirable management goals and rates of use. These key political questions can become sources of tension and division, based on the competing interests of different individuals, groups or countries. Such conflicts can occur at the local, national and trans-boundary levels as well as involve multiple stakeholders including communities, private sector actors, civil society organizations, local authorities and national governments (World Bank, 2011).

The relationship between renewable resources and violent conflict is a complex one. Increasing scarcity of natural resources, poor resource governance, or trans-boundary dynamics and pressures are rarely, if ever, the

sole cause of violent conflict. The causes of the violence vary greatly by country, with many countries experiencing a combination of security, socio-economic, and political tensions. These stresses may be internal (high inequality between groups, ethnic polarization, or political exclusion) or they may be external (including global economic shocks, impacts of climate change, international drug trafficking, or the infiltration of foreign forces) (Millenium Ecosystem Assessment, 2009).

Evans (2010) observes that managing conflicts that are related to natural resources is now more critical than ever before. As economic and population growth increase levels of global consumption, many countries face growing shortages of vital renewable resources such as freshwater, cropland, rangeland, forests, fisheries and other wildlife. Depletion of renewable natural resources, combined with environmental degradation and climate change, pose fundamental threats to human security. Separately or in combination with other factors, they can destabilize livelihoods, negatively affect ecosystems and undermine peace and development (Pimbert, 2009). Governments in developing countries, fragile states and emerging economies, are under increasing pressure to sustainably manage natural resources and resolve conflicts around their ownership, management, allocation and control. Smith (2013) consents that conflict itself is not a negative phenomenon and that if well-managed conflict can be an essential component of social change, democracy and development.

However, where local and national institutions lack the capacity to resolve disputes over the degradation or depletion of natural resources, violent conflicts can and do emerge. It is therefore crucial that governments and development practitioners understand the key drivers of conflict over natural resources and what specific role institutional policies, programmes and projects can play in the identification of conflict risks as well as entry points to prevent and manage conflicts that are grounded on natural resources.

1.1 Resource Utilization in the Traditional, Colonial and Current Period

The recent period in human history contrasts with all the earlier ones in its strikingly high rate of resource utilization. Ever expanding and intensifying industrial and agricultural production has generated increasing demands on the world's total stock and flow of resources. These demands are mostly generated from the industrially advanced countries of the North and the industrial enclaves in the underdeveloped countries of the South (Homer-Dixon, 2011). Paradoxically, the increasing dependence of the industrialized societies on natural resources, through the rapid spread of energy and resource-intensive production technologies, has been accompanied by the spread of the myth that increased dependence on modern technologies implies a decreased dependence on nature and natural resources This myth is supported by the introduction of a long and indirect chain of resource utilization which leaves invisible the real material resource demands of the industrial processes (Shultz, 2010).

Giordano (2010) observes that through this combination of resource intensity at the material level and resource indifference at the conceptual and political levels, conflicts over natural resources generated by the new pattern of resource utilization are generally shrouded and overlooked. Giordano (ibid.) further notes that these conflicts become visible when resource and energy-intensive industrial technologies are challenged by communities whose survival depends on the conservation of resources threatened by destruction and overexploitation, or when the devastatingly destructive potential of some industrial technologies is demonstrated, as in the Bhopal disaster.

For centuries, vital natural resources like land, water and forests had been controlled and used collectively by village communities thus ensuring a sustainable use of these renewable resources (Fadul, 2007). The first radical change in resource control and the emergence of major conflicts over natural resources induced by non-local factors was associated with colonial domination of this part of the world. Colonial domination systematically transformed the common vital resources into commodities for generating profits and growth of revenues (Regan, 2008).

The first industrial revolution was to a large extent supported by this transformation of commons into commodities which permitted European industries access to the resources of South Asia. With the collapse of the international colonial structure and the establishment of sovereign countries in the region, this international conflict over natural resources was expected to be reduced and replaced by resource policies guided by comprehensive national interests (Shiva, 2002). However, resource use policies continued along the colonial pattern and, in the recent past, a second drastic change in resource use has been initiated to meet the international requirements and the demands of the elites in the Third World, leading to yet another acute conflict among the diverse interests. The most seriously threatened interest, in this conflict, appears to be that of the politically weak and socially disorganized group whose resource requirements are minimal and whose survival is primarily dependent directly on the products of nature outside the market system (Hanson, et al., 2009). Recent changes in resource utilization have almost wholly by-passed the survival needs of these groups. These changes are primarily guided by the requirements of the countries of the North and of the elites of the South.

The contemporary period is characterized by the emergence of ecology movements in all parts of the world which are attempting to redesign the pattern and extent of natural resource utilization to ensure social

equality and ecological sustainability. Ecology movements emerging from conflicts over natural resources and the people's right to survival are spreading in regions like the Indian sub-continent where most natural resources are already being utilized to fulfill the basic survival needs of a large majority of people (Giordano, 2010).

The introduction of resource and energy-intensive production technologies under such conditions leads to economic growth for a small minority while, at the same time, undermines the material basis for the survival of the large majority. In this way, ecology movements have questioned the validity of the dominant concepts and indicators of economic development (Giordano, 2010). The ideology of economic development, which remained almost monolithic in the post World War II period, is thus faced with a major foundational challenge (Evans, 2010).

II. Drivers of Conflicts over Natural Resources

Conflicts over natural resources are essentially political issues concerning: who should have access to and control over resources; whose views should count in identifying and prioritizing issues and problems; and, desirable management goals and rates of use. These key political questions can become sources of tension and division, based on the competing interests of different individuals, groups or countries. Such conflicts can occur at the local, national and trans-boundary levels as well as involve multiple stakeholders including communities, private sector actors, civil society organizations, local authorities and national governments.

Mayers & Vermeulen (2012) argue that conflict becomes problematic when mechanisms for managing and resolving them break down and give way to violence. Weak institutions, fragile political systems and divisive social relations can be drawn into cycles of conflict and violence. Preventing this negative spiral and ensuring the peaceful resolution of disputes is in the core interest of nations, societies and the international community.

The goal of conflict transformation efforts is to pursue non-violent social change-in other words, to transform destructive conflicts into constructive ones (Smith, 2013). Evans (2010) notes that in conflict transformation work over natural resources, preventing violence, not conflict, is the overarching aim. Fragile states, defined by their failure to deliver security and basic services to their citizens, suffer from a complex array of weaknesses-in economic management, political legitimacy, regulatory quality, social inclusion, and institutional effectiveness that guide natural resource utilization and management.

These weaknesses can lead to violent conflict, but the precise mechanisms are frequently underexplored. Fragile states are a major focus for conflict prevention and transformation efforts (UNEP, 2011). While this background is useful to understand the nature of natural resource conflict, Thenkabail (2011) has identified three main drivers of conflict over natural resources. Although conflicts over natural resources can occur at many different levels, this paper focuses on conflicts over natural resources at the local, sub-national, national and trans-boundary levels that may inter-act with the larger political, economic or security stress factors and vulnerabilities.

III. Competition over increasingly Scarce Renewable Resources

The concept of "resource scarcity" describes a situation where the supply of renewable resources-such as water, forests, rangelands and croplands-is not sufficient to meet the local demand. Increasing scarcity of renewable natural resources needed to sustain livelihoods can increase competition between user groups or between economic sectors. Social responses to rising competition can include migration, technological innovation, cooperation and violent conflict. Thenkabail (ibid.) identifies three main causes for increasing resource scarcity working separately or in combination.

1.3.1.1 Demand-Induced Scarcity

This arises when demand for a specific renewable resource increases and cannot be met by the existing supply. While a resource such as water or cropland may initially meet all local needs, population growth, increases in consumption rates, and/or the use of new technologies can reduce the per capita availability of the resource over time. This dynamic was first described in the 1800's by Thomas Malthus who observed that, throughout history, societies have experienced epidemics, famines, or wars that often reflect the fundamental problem of populations overstretching their resource limitations.

1.3.1.2 Supply-Induced Scarcity

This occurs when environmental degradation, natural variation or a breakdown in delivery infrastructure constrains or reduces the total supply of a specific resource. As the supply of natural resources is reduced, options for pursuing productive livelihood strategies are undermined, creating competition between livelihood groups that are difficult to resolve. Degradation of renewable resources can be caused by a number of factors, including pollution from industrial practices, agricultural run-off, and inadequate waste management. Violent conflicts themselves also cause environmental degradation, either from direct bomb damage and

destruction, the legacy of landmines and unexploded ordinance, or indirectly from coping mechanisms and survival strategies used by local people. The strategies adopted when livelihoods are threatened in times of conflict can lead to large-scale liquidation of natural resources, including forest products, fisheries, pastures, and wildlife. Sudden onset disasters such as hurricanes, earthquakes, floods and fires can also cause extensive environmental degradation.

Regardless of the cause of environmental degradation, per capita availability of critical resources declines as the overall supply decreases, which can result in increased competition between users as well as increased tensions. This is particularly the case when one user group causes degradation to the detriment of another. Changes in the supply of renewable resources, in particular water, can also be caused by natural variation. Similarly, reduced supplies can also be caused by poorly maintained infrastructure, or a lack of infrastructure investment.

1.3.1.3 Structural Factors

This occurs when different groups in a society face unequal resource access. While structural scarcity can be caused by poor natural resource management, it can also exist even in a well-functioning governance structure, as the result of different land use decisions and tradeoffs. At the same time, it can also be caused by cultural practices as well as social and economic barriers. For example, in many regions of the world, women face restrictions in purchasing land, drilling water wells or harvesting resources. Similarly, poverty itself can act as a significant barrier to purchasing the equipment needed to access and exploit a natural resource. Five key conditions influence the likelihood that increasingly scarce renewable resources will contribute to conflict.

- The degree of absolute physical resource scarcity;
- The extent to which the scarce supply is shared by two or more groups/sectors/states;
- The relative power of those groups/sectors/states;
- The ease of access to alternative resources; and,
- The capacity to deploy coping mechanisms together with their expected duration.

In situations where two or more groups/sectors/ states with unequal power face increasing resource scarcity, and have no access to alternatives, or to coping mechanisms, potential conflict hotspots can be identified. When the supply of natural resources cannot meet local demand, a number of outcomes are possible. In many cases, the resource will simply be depleted and/or degraded by competing user groups, as each group struggles to maintain its livelihood. Aquifer exhaustion, deforestation, land degradation, and overfishing are common examples of this phenomenon. Degradation of the resource base further compounds resource scarcity, creating a negative downward spiral. Different livelihood groups may also begin a process of "resource capture" whereby each attempts to secure access to and/or control over key natural resources to the exclusion of other users. The possible consequences of increased scarcity of renewable resources include growing insecurity as livelihoods become less resilient and poverty becomes more entrenched on the hand, and migration, economic decline and civil unrest as a result on the other Where these tensions interact with other stress factors, they can contribute to violence. There are a number of violent conflicts where increasing scarcity of renewable natural resources and competition between livelihood and/or ethnic groups has been identified as important underlying drivers. For example, UNEP's post-conflict environmental assessment (2007) in Sudan found that regional climate variability, water scarcity and the steady loss of fertile land were important underlying factors for the conflict in Darfur. Other UNEP assessments have also identified rising scarcity of renewable resources as a major development concern and source of rising tension in Rwanda (rising land and water scarcity), in the Gaza Strip (rising water scarcity) and among pastoral communities in Kenya (water and pasture scarcity).

1.3.2 Poor Governance of Renewable Natural Resources and the Environment

Thenkabail (ibid.) defines governance of renewable natural resources and the environment refers to the institutions, policies and processes that are established to regulate their management, ownership, allocation, use and protection. Resource rights and related laws determine who can use what resources, for how long, and under what conditions. Understanding the natural resource management framework in a country can provide critical insights into why conflicts over renewable resources occur, and how specific grievances may be addressed. In general terms, there are four types of grievances generated by poor resource and environmental governance.

1.3.2.1 Unclear, Overlapping or Poor Enforcement of Resource Rights and Laws

In many countries, land and renewable natural resources are regulated under a combination of statutory, customary, informal and religious forms of tenure. Disagreements regarding these 'rules' as well as uncertainty over resource rights are often at the heart of conflict. The 'rules' of resource governance vary from country to country, and even within countries. In many countries in the global South, it is common to find renewable natural resources, including land, regulated under statutory, customary, informal and religious forms of tenure.

In many cases, conflicts occur either because specific groups have no rights to the resources on which they depend for their livelihood, or no feasible way to exercise the rights they do have.

Similarly, conflict can occur when institutional jurisdictions, mandates or resource management laws are unclear, overlapping or contradictory. A lack of state capacity to extend its presence and authority into rural areas in order to enforce laws and resolve disputes is often a key cause of poor natural resource management. Likewise, a lack of understanding and insufficient consideration of customary law by the state can exacerbate tensions.

1.3.2.2 Discriminatory Policies, Rights and Laws that Marginalize Specific Groups

When one group controls access to renewable resources to the detriment of others, natural resource-dependent communities are often marginalized. Violence can occur as individuals and groups seek greater or more fair and equitable access to key resources. The struggle for increased equity can become linked to the recognition of identity, status and political rights, making conflict resolution even more difficult. As discussed above, this can be a key factor causing structural scarcity. While restricted or unequal access to renewable natural resources by different livelihood groups is a driver of resource scarcity, it can also be a source of conflict when linked to grievances around equity, fairness and justice. In other words, it isn't only increasing scarcity and competition between groups that can drive conflict, it can also be the sense of injustice, inequity and marginalization when access to resources is unequal or restricted.

When the control of key renewable resources is concentrated in the hands of a single group to the detriment of others, resource-dependent individuals and communities can become marginalized. Violence can occur as marginalized groups seek greater or more equitable access to resources. The struggle for resource access can also become linked to identity, status and political rights, making conflict resolution an even greater challenge. Discriminatory policies are often more important conflict drivers than resource scarcity itself, just as the way that people deal with limited resources may be the cause of confrontation, and not the scarcity per se.

1.3.2.3 Unequal Distribution of Benefits and Burdens from Development Projects

Extractive industries, industrial sites or major infrastructure projects can provide multiple benefits to local communities as well as seriously degrade, exhaust or pollute renewable natural resources and become a major source of grievance. The environmental impacts of development projects can create tensions if communities are not compensated for the damage and do not receive a share of the development benefits, financial or otherwise. In other words, grievances are caused when the burdens of development exceed the benefits. Major grievances can also occur if specific renewable resources that have important cultural, spiritual or religious meaning are damaged.

Such grievances can become highly emotive because they impact upon a people's way of life, or their perception of entitlement or lifestyle. They are also often represented as "David" vs. "Goliath" contests whereby communities are exploited and taken advantage of by larger private or public sector interests.

1.3.2.3 Lack of Public Participation and Transparency in Decision-Making

Natural resource policies and interventions are often made by the state, in conjunction with private sector actors, without the active participation of affected communities or sufficient transparency and consultation with stakeholders. Where communities and stakeholders are poorly engaged or excluded from the decision making process over renewable natural resources, they are likely to oppose any related decisions and outcomes. Lost access to key resources, eviction without compensation or sudden price increases for renewable resources such as water, can lead to significant tensions between the affected communities, the government and the private sector.

There are numerous examples whereby poor governance of natural resources and the environment have triggered grievances that have contributed to the outbreak of violence and to wider political conflicts. For example, overlapping resource rights and discriminatory policies are a major source of inter-ethnic conflict in the central highlands

of Afghanistan. A UNEP assessment (2009) found that increasing violence between the settled Hazara and the nomadic Kuchi is partially linked to overlapping legal rights held by the Kuchi and historical rights held by the Hazara. Both sides are restricting the access of the other through the use of force, each claiming to be the legitimate rights' holders. Extensive damage to renewable natural resources combined with inequitable wealth-sharing has been an important driver-alongside other factors-in a number of conflicts that have resulted in violence. For instance, environmental degradation coupled with a lack of benefit-sharing contributed to violent conflict in Bougainville, Papua New Guinea. Besides, extensive oil contamination and environmental degradation combined with a lack of benefit-sharing has caused longstanding tensions and conflicts between local communities, the government and oil operators in Ogoniland, Nigeria. Finally, lack of public participation

in decision-making over the allocation or pricing of renewable resources such as water has also been an important factor in social unrest.

For instance, water privatization and changes in pricing without community consultation in Cochabamba, Bolivia led to public protests and violence (see case studies in the appendices section).

1.3.3 Trans-Boundary Natural Resource Dynamics and Pressures

The challenges of managing renewable natural resources often extend beyond national borders. This is particularly the case for water, wildlife, fisheries and air quality. Similarly, risks to renewable resources from waste management, pollution, climate change and disasters are often trans-boundary in nature. While states have-in accordance with the UN Charter and the principles of international law-the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, they also have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states. Furthermore, Principle 2 of the Rio Declaration refers to the issues of sharing in the use and management of resources that move across international borders. Yet, trans-boundary dynamics are often beyond the capacity of a single sovereign state to manage unilaterally, requiring cooperation and co-management with neighboring countries. There are four main types of trans-boundary dynamics and pressures that can cause conflicts over renewable natural resources.

First, when trans-boundary natural resources such as water or fisheries are shared between countries, conflicts can arise when one country consumes the resource at higher rates than another, violates agreed allocations or demonstrates inflexibility when faced with natural variation. This is often linked to existing power and political economy dynamics, as well as with the bargaining power associated with their geographic location (upstream/downstream). Alternatively, a lack of sound data on resource consumption rates, quantity and quality can cause inaccurate perceptions leading to unfounded accusations.

Second, when the quality or quantity of trans-boundary natural resources, such as water, fisheries, wildlife and air, is negatively impacted in one country by infrastructure, industrial development or changes in land use in another country.

In particular, pollution generated in one country can easily cross national borders, creating health risks in another. Similarly, changes in land use in one country, including high levels of deforestation and soil erosion, can heighten vulnerabilities to natural hazards in another.

Third, while national borders define the sovereign boundary of states, these are often not respected by pastoral livelihood groups that migrate on a seasonal basis along traditional routes, based on the availability of natural resources such as water and grazing land. Similarly, wildlife populations commonly migrate across national boundaries, shifting economic opportunities from one country to another. Both situations can be important sources of conflict as user groups are faced with increasing competition or lost livelihoods. In addition, this may result in the loss of indigenous communities and their cultural and spiritual heritage.

Finally**,** one of the emerging threats to the natural resource base of countries comes from illicit activities and criminal groups operating on a global and trans-boundary basis. Illicit extraction and trade of natural resources deprives local communities of resource benefits and can lead to conflict. At the same time, pressures such as violent conflict, disasters or environmental degradation can be powerful incentives for people to migrate across borders, establishing new resource-dependent livelihoods in neighboring countries that fall outside of government regulation and control. While the international community has adopted various conventions, declarations and legal statements concerning the management of trans-boundary natural resources, significant institutional gaps remain. In particular, effective joint management and monitoring structures, coordinated laws and policies, and mechanisms for enforcement and dispute resolution are lacking.

From a conflict risk perspective, trans-boundary water resources are especially important in this regard. At present, there are 263 rivers that either cross, or demarcate, international boundaries. To date, shared water resources have more often been the stimulus for co-operation than for conflict. Giordano and Wolf (2002) as cited in Thenkabail (2010) observe that "cooperative interactions between riparian states over the past fifty years have outnumbered conflictive interactions by more than two-to-one. Since 1948, the historical record documents only 37 incidents of acute conflicts (those involving violence) over water (30 of these events were between Israel and one or another of its neighbors, the last of which occurred in 1970), while during that same period, approximately 295 international water agreements were negotiated and signed. However, there are important qualifiers to this finding.

They go on to observe that 158 of the world's 263 international basins lack any type of cooperative management framework", and that "of the 106 basins with water institutions, approximately two-thirds have three or more riparian states, yet less than 20 percent of the accompanying agreements are multilateral" (pg.123). Even where trans-boundary management frameworks do exist, cooperation may still take place on an unequal basis, reflecting existing power and political economy dynamics.

In addition, there is also the future effect of climate change to consider, which, as already noted, is likely to have particularly significant near-term impacts on water availability and predictability. While rarely leading to violence, disputes over trans-boundary resources can sever relationships and undermine cooperative and coordinated resource management between governments and between border communities. Furthermore, with increasing scarcity of vital resources such as fertile land and water, capturing and securing access to renewable resources is likely to provide an increasing motivation for violent conflict between states. Since 2005, UNEP has been working to help countries resolve trans-boundary environmental disputes by providing a range of environmental diplomacy services. This includes: conducting objective and scientific assessments of trans-boundary natural resources; facilitating state to state discussions and providing a neutral platform for dialogue; institutions; and, providing implementation support for resulting agreements.

For example, environmental diplomacy support has been provided to: Iran and Iraq to resolve tensions over the development and conservation of the trans-boundary Mesopotamian marshlands; to Iran and Afghanistan to address the degradation and co-management of the Sistan basin; to North and South Sudan to facilitate coordinated management; and, to the Palestinian Authority and Israel to address water and waste management issues. (See case studies 8, 9 and 10).

IV. Global Resources' Conflict Prevention Strategies

As described in the preceding sections of this paper, multiple factors interact to produce tensions and conflict around natural resources. These include resource scarcity, poor governance of natural resources and the environment, and trans-boundary dynamics and pressures. Conflict prevention refers to the set of approaches, methods and mechanisms used to avoid, minimize, resolve and contain conflict in order to prevent a further escalation to violence. Where natural resources are a direct source of conflict, or a contributing factor in a larger conflict context, prevention strategies must take into account the complex inter-relationships between causes, potential impacts and possible interventions (Kristin, 2010).

The way that conflicts over natural resources become politicized within the broader conflict and political context is also essential to consider. In all cases, conflicts over renewable resources interact with existing political, socio-economic and security tensions and stress factors, requiring a response on multiple levels, including technical, political and institutional responses (Fadul, 2007). In other words, there is no "quick fix" to the problem. The "technical side" of natural resource management cannot be addressed in isolation from the institutional and governance aspects, which together are the main determinants of how users relate to each other, and how competing interests are resolved (Regan, 2008). Shiva (2012) observes that appropriate interventions depend on the mix of conflict drivers, underlying vulnerabilities, livelihood responses, political processes, existing governance capacities and the level of conflict intensity. While every country will have specific needs, any conflict prevention programme must consider four main objectives and supporting interventions over natural resource conflict prevention (Giordano, 2010):

1.4.1 Reduce Competition between Livelihood Groups over Scarce Resources

When resource scarcity is causing increasing competition between livelihood groups, two linked conflict prevention strategies need to be pursued: support sustainable livelihoods and reduce vulnerability to resource scarcity; and, increase the availability of scarce renewable resources and stop degradation.

In practical terms, when early-warning programmes or environmental risk assessments detect declining trends in the availability of specific renewable resources such as water or land, a rapid livelihood analysis should be conducted in the area of concern. In particular, the following questions should be answered:

- Which groups are the most at risk from declining resource access?
- How many different groups are competing for the scarce resource?
- What livelihood alternatives do they have?
- What forms of power does each group hold?
- How will each group likely assert this power?
- What social assets, institutions and dispute resolution mechanisms are available?

This analysis should help practitioners gain a deeper understanding of the potential forces that can drive conflict and violence over natural resources at the livelihood level in order to develop more strategic, focused, and effective interventions. Providing support to help stabilize livelihoods and reduce vulnerabilities can help people move away from conflict and/or prevent spillover into wider political struggles.

1.4.2 Improve Resource Governance, Accountability and Dispute Resolution Capacity

Governance is the means by which societies define goals and priorities, and advance cooperation towards their achievement. Environment and natural resource laws, institutions, policies and processes are the principal ways in which societies attempt to balance the need to maintain healthy ecosystems and renewable natural resources with the demands to exploit the goods and services offered by these systems and natural assets.

In parallel with measures aimed at securing livelihoods and increasing resource availability, governance, accountability and dispute resolution capacity must also be addressed. Two interventions are required: establish a framework and capacity for good resource governance; and, strengthen capacity of civil society to engage in governance processes. It may also be essential to increase the availability of scarce renewable resources and stop degradation.

These measures help to prevent conflict by reducing scarcity and competition. The aim is to focus on addressing the quality, quantity and availability of renewable natural resources in order to better balance supply and demand pressures. If more resources are made available, there is less incentive to compete and less opportunity for violence.

Good governance-the key aspects of which are accountability, the rule of law, transparency, equity and participation-is an important, if not crucial, aspect of sustainable development and natural resource management. Furthermore, issues of good governance and the political processes and institutions through which people cooperate to solve common environmental and economic problems are critical aspects of conflict prevention. Robust laws, institutions, policies and processes can help reduce the vulnerability of populations to renewable resource scarcity, resolve disputes between competing interests and prevent conflicts over resource access, ownership, control and management.

1.4.3 Improve Trans-Boundary Management Institutions and Cooperation

While states have, in accordance with the Charter of the United Nations and the principles of international law, the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, they also have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states. Since trans-boundary dynamics and pressures are often beyond the capacity of a single sovereign state to manage unilaterally, cooperation and co-management with neighboring countries is required.

Since many renewable natural resources do not respect national borders, it is also essential to improve trans-boundary management institutions and cooperation. This requires one main type of intervention: establish or strengthen trans-boundary information, resource-sharing agreements, joint institutions, and dispute resolution processes.

1.4.4 Implement Crosscutting Measures across all Programmes

Two crosscutting activities must also be conducted as part of natural resource conflict prevention strategies: integrating conflict sensitivity for natural resources across all programming; and, conducting early warning, risk assessments and scenario analysis for conflict hotspots.

V. Conclusion

This paper has analyzed the inter-relation between conflict and natural resources. It has been found that the former can have a strong link with the latter only when natural resources have particular natural and geographical characteristics and when a country experiences peculiar political, societal and economic situations. Furthermore, the paper has shown how this inter-relation is various and diverse, to the point that even scholars who studied it have sometimes disagreed on some outcomes of their research. When conflict resolution and post-conflict peace building policies try to restore peace in countries devastated by conflicts fostered by natural resources, they have to deal with this complicated framework. Conflict resolution and post-conflict peace building policies should be aimed at addressing those political, societal, and economic situations that, inter-related with the mere presence of natural resources in a country or between countries, can cause or lengthen violent conflict.

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