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Forest Policy and Community-Based Conservation in Democratic Republic of the Congo

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1. Introduction.

The rainforest cover of the Democratic Republic of the Congo (DRC) remains as one of the last vestiges of predominantly untouched forest cover in the world, second in size only to the Brazilian Amazon rainforest. The DRC is home to half of Africa's, and an eighth of the globe's, remaining dense forest cover.[i] As such a large fraction of the earth's remaining forest cover, DRC deforestation will have a global environmental impact. Trees – particularly those of the size and density of the DRC's forests – absorb greenhouse gases, and cutting them down will not only prevent this absorption, but cause carbon releases into the atmosphere through the process of carbon sequestration.[ii] So far, logging titles have been granted covering over 20 million hectares out of the 60 million hectares of forest land[iii] and, if logging goes ahead as planned, an estimated 34.4 billion tons of CO2 will be emitted by the year 2050.[iv] Furthermore, forest canopy cover helps retain soil moisture, necessary for forest health and for the area's water cycle. Logging of the DRC's rainforests would therefore have global environmental consequences, and preservation of this vital resource is necessary to maintain the forest's current role in the earth's environmental cycle.

Political instability in the DRC has prevented intensive logging from taking place thus far, with traditional forest still covering more than a quarter of the country.[v] The high

level of concessions is in part due the DRC's political limbo between 1996 and 2000. For these four years the country was under the control of an interim government. Power had been taken from General Mobutu, though the new democratic state had not yet been established. The interim government therefore had little interest in valuing the country's natural resources at their full worth, as they saw no interest in the long-term conservation of resources they knew they would soon lose. Moves were therefore made to acquire short-term profits. During this period, concealed by the distractions of violence and political strife, logging concessions for large patches of land were sold at highly undervalued prices, mostly to foreign companies. Until 2003 a 200,000-hectare logging title could be purchased for just US$286, spurring an onslaught of concessionaires eager to take advantage of an opportunity they correctly perceived as having a limited timeline. Some companies then lacking the funds or infrastructure to log the land themselves still purchased titles with the intention of subleasing once political stability was regained.[vi] Furthermore, extensive logging titles were awarded during times of war and political strife in the DRC, of which there were many. In the period between General Mobutu's loss of power in 1996 and the 2006 democratic parliamentary elections the DRC was characterized as a "battleground in a fight for control of natural resources".[vii]

The DRC necessitates urgent attention as much of the forest has been earmarked for rapid exploitation, though due to political strife and World Bank intervention, this level of exploitation has not yet taken place. However, this does not mean that deforestation has not begun. Data from the 1999 to 2000 period indicates a gross rate of deforestation of 0.25 percent.[viii] This data focuses on "hot spots" centered on aforementioned areas of high population density and, consequently, higher resource use. Invalidating the granted concessions is problematic as many were accorded legally, and though Greenpeace has

undertaken an in depth investigation into the illegal concessions, the resource extraction industry "remains little more than a smokescreen for business as usual".[ix] Better forestry policies and practices are therefore essential in preserving what is ultimately a global natural resource.

The population of the DRC is unevenly distributed, with large numbers living in a few densely populated areas dotted across the nation.[x] This means that resource needs are abnormally high in a few select areas, which are already relatively degraded from past use and are being put under greater pressure as the population grows. The population of the DRC is growing at a rate of 3 percent of the current population per year, though this number fluctuates greatly in the East of the country, where conflict within neighboring countries brings sporadic insurgences of refugees.[xi] This influences the economy in the East, which is centered on cross-border commerce and is therefore "perturbed by the systematic racketeering of different armed groups" and "massive movements of populations fleeing the abuses".[xii] According to the Ministry of Environment, Conservation of Nature and Tourism, this sporadic disruption prevents development of the agricultural sector and agricultural surplus creation, which the Ministry deems necessary for reduction of deforestation.[xiii] The Ministry also cites poverty and technological factors as indirect causes of deforestation, as much of the population not located in the East practice subsistence agriculture, with poverty preventing them from investing in agricultural technology that would make their methods more productive using less land.

2. History, Background and Causes

History of the DRC and the Effects on Deforestation

The current status of forestry policy and governance in the DRC is inextricably rooted in the nation's political past. The DRC's history is one of frequent violence and conflict, escalated by similar conflicts in neighboring Rwanda. This has also impacted demographic growth and subsequent land rights issues through influxes of wartime refugees. Despite the country's newly democratic leadership, policy structures hold shadows of General Mobutu's rule. Mobutu seized power in 1965, killing former Prime Minister Patrice Lumumba and renaming himself 'Sese Seko' and the country 'Zaire'. The country was rife with conflict during the entirety of his reign, due in part to his oppressive leadership. Rwandan militia invaded the country in 1997 in an attempt to flush out extremist Hutu militias. Rebels rallied against Mobutu and violently installed Laurent Kabila as President, sparking conflict between Kabila and other factions, with Zimbabwe, Angola and Namibia backing Kabila against Rwanda and Uganda. This turned the newly named DRC into a "vast battleground" that continued in the form of sporadic coups and militia advancement until Rwandan troops were brought in by the DRC government to aid in quelling the Rwandan Hutu rebel militia.[xiv]

Mobutu's 1973 General Property Law nationalized all land in the country in an effort to marginalize traditional authority, though while he spurred on a few farms that he touted as show-pieces for propaganda, the agricultural and forestry sectors as a whole received little attention.[xv] His policies between 1992 and 1996 heavily impacted notions of national citizenship, using citizenship issues as a "weapon of choice for destabilizing the democracy movement".[xvi] In order to weaken democratization processes Mobutu drew divisions between what he termed "native" and "non-native" groups.[xvii] This fostered anti-sentiment against descendants of post-colonial Rwandan refugees, many of whom were fairing well economically.[xviii] Mahmood Mamdani coined the term "the crisis of post-colonial citizenship" to characterize the era's citizenship confusion.[xix] Terms such as native and indigenous are used flippantly when discussing citizenship issues in the DRC, usually because it is impossible to distinguish which groups preceded another, and whether this should even be grounds for citizenship. The Banyarwandans – the general term used for refugees from Rwanda, including Hutus and Tutsis – were often stigmatized during this period, despite many groups having descended from families that had immigrated many generations ago.

The 1960 elections necessitated a more concrete elucidation of who did and did not possess citizenship. Eligibility to vote was formally granted to anyone who had lived in the Congo for over ten years, but formal citizenship remained uncertain.[xx] Being a descendent of an ethnic group with land claims predating the 1885 territorial boundaries became a factor in obtaining citizenship, despite a 1972 Presidential decree having granted citizenship to all living and continuing to live in the DRC since January 1950.[xxi] These different determinants created confusion regarding citizenship eligibility and allowed for exclusion of some groups by blurring the lines of citizenship. For instance, Georges Nzongola-Ntalaja notes a "total

denial of the very right of citizenship" to people of Rwandan origin, even if they were direct descendants of groups living within territorial boundaries.[xxii] Similarly, people of the Kasaiian groups living within the Katanga region are regarded as non-citizens because they are from a different province of origin, despite otherwise fulfilling citizenship requirements.[xxiii] These citizenship issues caused great tension between groups living in proximity to one and other, sometimes escalating to violence. For instance, a 1993 land rights dispute between Kivu agriculturalists and Banyarwandans escalated to violence, leaving thousands dead and 140,000 displaced.[xxiv] Citizenship was based on vague tribal distinctions that led to unclear and problematic land rights designations. Conflict between groups emerged, and lack of clarity of group distinctions exacerbated these tensions.

The Political Interim Period

This interim period was characterized by corruption and political nepotism. At its founding, it involved an initially promising cooperation between leaders of groups previously opposed to one and other in the second Congolese war. This 'Sun City Agreement' established a "power-sharing arrangement" to be implemented concurrently with the leadership of President Joseph Kabila.[xxv] The agreement granted each signatory a proportionate number of seats in the National Assembly and Senate, shares of government ministries, and top- tier positions in the army and police sectors. The signatories – the president and his four vice-presidents – were solely in charge of appointing members to these positions, with no further or external oversight. The structure of the agreement effectively did away with all of the checks and balances upon which sound governance is based. Opportunities for corruption emerged and office-holders could be sure of immunity

so long as they retained friendly relationships with their respective leaders, rendering political patronage effectively more influential than actual merit.[xxvi]

With such an acute awareness of the temporary nature of the agreement, politician's motivations were inevitably sullied and political priorities centered on power plays and economic gains in order to finance participation in the upcoming elections. These motivations, coupled with complete lack of oversight, led to a corruption free-for-all, and recent IMF analyses of the period noted "large fiscal slippages" including wage increases and spending in favor of political institutions totaling almost 2.5 percent of the country's annual GDP.[xxvii] The IMF report cites corruption as the primary obstacle to successful financial management and confirms that internal and external oversight mechanisms at the time were at best weak and at worst entirely dysfunctional.[xxviii] The hiring of civil servants during the period has been characterized as complete anarchy, with positions being granted nepotistically and with little attention to professional merit.[xxix] "Phantom" employees were added to payrolls to garner extra funding, which managers would pocket.[xxx] This new civil servant force was poorly trained and poorly equipped, and paid a menial and irregularly paid salary ranging from US$6 to US$26, rendering them the lowest paid civil servants globally.[xxxi] In a country where the average living costs for a family of seven was estimated at US$380, such pittances inevitably bred corruption, and the civil servant salaries became widely known as 'Salaire Insuffisant Difficilement Acquise' – insufficient salary which is painfully earned.[xxxii]

This context of political chaos is vital for understanding how so many logging concessions were granted at such a low price in so short a period of time. For these "warlords turned politicians", the Sun City Agreement and the subsequent structure of interim political rule did little to warrant attention to the ongoing illicit exploitation of the country's resources.[xxxiii] In *The Rotten Institution: Corruption in Natural Resource Management*, Paul

Robbins poses a neo-classical interpretation of the undervaluing of resources in a corrupt setting, stating that in a closed, extra-legal market setting, such as the DRC's interim period, valuations are not based in accordance with a general open market, but instead are based in non-economic relationships between the exchangers. The seller in a corrupt market setting has no permanent or real right to the good, and is therefore likely to undervalue it. In this case the interim government was acutely aware of the fleeting nature of its hold of the country's resources, and therefore had no incentive to preserve the resource, either for later economic use or for resource conservation in and of itself. Concessions were therefore granted often and at strikingly low prices. During the period, logging titles covering 200,000-hectare logging titles could be bought for just $286. Companies quickly seized land plots in an attempt to gain concession at low prices they correctly perceived as having a limited timeline.[xxxiv] Indeed, many companies then lacking the infrastructure or economic ability to log the land at the time still took advantage of this period of low sale costs and purchased titles with intent to sublease once political stability was regained.[xxxv] The temporary nature of governance and the political chaos that manifested itself during those few years provided both a stimulus and a cover for 'looting' of the DRC's forest resources.

On average, 60 percent of the nation's annual budget comes from donor aid,[xxxvi] much of which is contributed by the World Bank, having given $4 billion in "loans, credits and grants" by 2006.[xxxvii] In 2002 the World Bank dramatically decreased its funding because conditionalities were not met, and urged the DRC government to impose a moratorium on logging concessions during the interim period, banning "allocation, renewal and extension of validity" of logging permits.[xxxviii] A Ministerial Decree established the moratorium in May 2002, and an Inter-Ministerial Commission (IMC) was established as overseer of moratorium enforcement.[xxxix] Yet a 2005 World Bank review noted "serious irregularities" in the rule's

enforcement, and called on the IMC to undertake a sweeping analysis of titles granted since the moratorium. In November 2008, the IMC rejected 91 of the 156 logging titles granted during the period.[xl] However, allowing 65 of the titles accorded in breach of the moratorium has brought harsh criticism to the IMC, particularly from vocal environmental groups such as Greenpeace. These 65 upheld concessions are said to cover 9.7 million hectares of land, though GIS mapping indicates the actual figure to be closer to 12.6 million hectares.[xli] Allowing these permits to be converted into long-term concession contracts[xlii] despite having been granted in breach of the moratorium flies in the face of the World Bank's attempts to control logging. An SAIIA report concluded many of these concessions were merely forestry "swaps", in which companies exchanged older forest areas for newer, more productive ones.[xliii] Furthermore, some companies, such as Trans-M, seized rights over the areas freed from the concessions cancelled for being in breach of the moratorium, making it tantamount to transferring land from one company to another.[xliv]

Logging Company Realignment

The moratorium period also brought a drastic reduction in the number of companies permitted to log in the DRC. Only 18 of the 76 companies holding concessions before 2002 were allowed to keep their titles, many being cancelled through the IMC review or merely phased out through concession realignment during the moratorium.[xlv] This put the entirety of the country's logging into the hands of only a few companies, the majority of which are owned by the Lichtenstein Listed Nord-Sud Timber (NST) group.[xlvi] The largest of the NST four is SODEFOR, a French company that inherited the concessions of FORESCOM when

it was privatized in 2004. SODEFOR went from owning 10 percent of all concessions to owning 25 percent, and the NST group as a whole went from owning 24 percent to 57 percent.[xlvii] SIFORCO, the second largest company, had all nine of its large-scale concessions converted into 25-year titles.[xlviii] Through this "forest title conversion process"[xlix] the future of the DRC's rainforest went from being spread across a mix of 72 variously sized companies to being almost monopolized by five large companies. This is dangerous for a number of reasons; the NST group's near monopoly gives company leaders strong leverage in ignoring government requests. The South African Institute of International Affairs (SAIIA), however, foresees this concentration as helping the DRC government to have both a firmer hold and clearer understanding of companies' conduct.

This involves the new democratic government's adherence to its much-lauded intentions of balancing policy between extraction, conservation and community development. The SAIIA itself admits that government policy focus is often "skewed in favor of industrial logging… viewing the forest primarily through the fiscal lens of revenue needs".[l] Though some revenue accrual through exploitation of the forest is useful for community development and for quelling resurgences of war, policy bias towards unsustainable industrial logging will inevitably lead to logging far beyond expected levels. GIS mapping indicates that the land covered by current concessions is actually 2.9million greater than what concessionaires claim it to be. This suggests that policy should overcompensate in terms of community protection and development focus in order to offset natural bias towards industrial logging.

The SAIIA has particularly high hopes for improvement of "Cahiers de Charges", contracts between concessionaires and local communities that both establish good working practices on the part of loggers, and organize terms of compensation for the logging of

community land. In the past the Cahiers de Changes – nicknamed "Contracts of Shame" – involved vast plots of land being traded for miniscule compensation, often due to indigenous communities having little comprehension of the land's economic value. For instance, SODEFOR compensated one community with coffee, sugar and cans of soup valued at US$100 for complete rights to log their land.[li] The SAIIA hopes that the reduction in the number of companies holding concessions will result in stricter adherence to the intended purpose of the Cahiers, that being establishment of an equitable compensation and working relationship between title holders and communities indigenous to areas to be logged. Yet the new democratic DRC government still has not formalized the Cahiers, and A.J.M ter Heegde notes that DRC companies are often unable to discuss contracts directly with community leaders, conversing instead with officials who are "former armed militia" in negotiations that are "often interrupted by petty corruption practices that are a common occurrence in DRC".[lii]

Causes of Deforestation in the DRC

Causes of deforestation in the DRC may be typified as direct and indirect. Direct causes include family farming and firewood collection in urban zones, commercial logging and road infrastructures in dense forest areas, and informal logging in easily accessible forest areas.[liii] Across the DRC, the extent to which these factors affect deforestation varies greatly in accordance with geographic and demographic deviations. For instance, areas such as Kananga, Kisangani, Kinshasa and Lubumbashi have far higher population densities than their surrounding areas, and are therefore more prone to issues of intense family farming and

firewood collection than issues of commercial logging.[liv] As firewood and charcoal provide 80 percent of the DRC's energy needs, harvesting of trees for these uses becomes increasingly problematic as population density rises, as is happening in these areas.[lv]

This informal logging also exhibits indirect impacts. A report by the Forest Monitor estimates that 8,000 small-scale logging companies, known as "pitsawyers", are currently operating in the DRC. These are regarded as "informal" because they have no formal government contracts.[lvi] These companies range from a small handful of local individuals meeting to log for two to three months of the year, to longstanding companies with an average of twelve permanent employees.[lvii] A 2010 report by the DRC Ministry of Environment, Conservation of Nature and Tourism (MECNT) states that informal logging is the principal source of the DRC's national timber market.[lviii] This mainly consists of carpentry in urban areas, but also supplies many cross-border markets with Angola, Rwanda, Burundi, Zambia, and Sudan.[lix] The extent of this informal harvesting is not as worrisome as its commercial counterpart in terms of scale, but the areas in which informal logging takes place are mostly located in forest areas that are protected or have specific agricultural potential.[lx] Furthermore, as these practices are informal and therefore not established by government agreement, it is difficult for the government to record logging levels and activities. A 2003 estimation suggests that levels are five to eight times the production levels of the informal sector, in terms of wood extracted.[lxi]

Further problems lie in the manner in which logging will take place, and how its benefits are distributed. The forests of the DRC are home to many communities of indigenous peoples, who have lived in the areas for innumerable generations. Yet these customary rights do not translate into formal rights, and the voices of these groups bear little weight in decisions regarding granting of concessions. Within the DRC's indigenous

population of 68,692,600 there are 200 ethnic groups, which may be divided into four large tribes – the Mongo, Luba, Kongi, and the Mangbetu-Azande.[lxii] The first three tribes are Bantu, and the Mangbetu-Azande is Hamitic. The three Bantu tribes comprise the majority of the indigenous population, and these four groups in total constitute 45 percent of the DRC's overall population.[lxiii] The remainder of the population is comprised of migrants and war refugees from neighboring countries.

Many of these indigenous communities practice swidden agriculture. This process necessitates cutting and burning small patches of forestland for agriculture to be used for a season and then left to grow fallow, in a cyclical pattern. For generations this form of subsistence has been practiced and has placed little burden on the land, yet is often scapegoated as a major cause of deforestation. Ironically gaining some truth now that normal areas of circulation have been set aside for commercial logging or as protected areas. The banning of indigenous groups from these areas reduces the breadth of the cyclical pattern, thus forcing them to move in tighter patterns and leave the soil fallow for shorter periods. This prevents the soil from fully regenerating, causing soil depletion and, thus, deforestation.

These areas also serve as hunting grounds for bushmeat, the main source of protein for the vast majority of these communities. Policing forests in remote areas is also often problematic, for "in remote protected areas, the effectiveness of a centralized management authority… is compromised".[lxiv] Policing protected areas of such magnitude is nearly impossible, stressing the need for an approach that does not rely on alienating forest communities from protected land and that provides incentives for healthy human-forest relationships. Restricting indigenous groups that have had open access to areas for innumerable generations also holds normative issues. There are moral and ethical

implications in illegalizing modes of subsistence on which these people depend. Furthermore, criminalization of these types of behaviors often fosters corruption and lawlessness, as they are necessary for survival. The groups have no choice but to continue accessing the areas the rely upon for subsistence. Preventing indigenous communities from continuing their traditional practices may therefore result in continuation of the practices, merely in a way that is environmentally harmful and more detrimental to their wellbeing.

The logging concessions that ban these communities from their customary lands often take profits overseas, distributing little to the DRC government or to the land's indigenous communities. This is the case with Sodefor, a French based company and one of the largest operating in the DRC. A 2002 World Bank initiative required distribution of a certain percent of income to indigenous groups, but since the intended 2002 implementation, none has been distributed. This lack of recognition of indigenous rights has led to social protests that breed further violence; sit-ins against SODEFOR's practices in the Bandudu Province led to the physical beating and confinement of 27 villagers. Reliance on underpaid, local men to police forest areas exacerbates these issues, and must be addressed. Ignoring customary rights and human rights of these groups necessitates immediate attention.

3. Toolkit of Policy Approaches

REDD

Current discussion of REDD as a solution to deforestation recognizes the environmental and human benefits of standing forests.[lxv] The REDD initiative has been

adopted as the UNFCCC's primary means of fighting climate change through reduced deforestation. REDD involves development of schemes for payments to be made as monetary incentives for developing countries to reduce deforestation rates, with payment rates set in relevance to reduction rates in comparison to previous deforestation levels.[lxvi] This Payment for Environmental Services (PES) scheme is three-tiered. At the international level, service buyers make payments to service providers; international donors make payments to national governments for deforestation reduction, or for actions that will result in deforestation reduction, such as policy reforms and enforcement.[lxvii] The national government then pays subnational governments to implement deforestation-reducing policies and actions at the ground level. REDD is a concept, rather than a ubiquitous set of actions, and the specific way in which it is implemented may therefore be tailored to fit the needs of each country.

The incentive-based scheme rewards countries monetarily for voluntarily decreasing their deforestation rates below a "baseline" level that is calculated against previous deforestation rates. Yet the calculation of a baseline amount is a contentious issue, particularly for the DRC, whose government officials have expressed concern that hitherto low rates of deforestation compared to other tropical forest nations, such as Brazil, will cause them to "lose out" in terms of compensation rates.[lxviii] Linked to this is the concept of additionality, as payments should not be equal for protecting 'low-risk' areas that were unlikely to be deforested anyway.[lxix] A report on the present UNFCCC implementation scheme notes that the current policy mechanism

> "sets a perverse incentive for countries to continue deforestation at only a slightly reduced rate [due to] the necessity to match implementation costs with the flow of positive incentives from REDD".[lxx]

As the REDD scheme is set to credit emissions reductions, countries have incentives to set the deforestation rate just below the previous rate, in order to extend the length of time for which they may reduce rates and receive payments. Therefore, overall payments are limited by a country's past or initial emissions level, and countries may opt to receive payments immediately, or over time.[lxxi]

Problems arise in the long-term feasibility of this scheme, as it creates incentives to utilize the cheapest and easiest methods of rate reduction first. In trying to reduce deforestation rates, countries will immediately make use of the methods that are cheapest, easiest, and have the least opportunity costs. This means that as time passes, it will become more difficult and expensive for countries to curb deforestation, and larger sacrifices will have to be made in order to do so. The success of REDD will therefore decrease over time, and it could eventually become more economically beneficial for some countries to do away with REDD and begin deforestation practices once again.

Further problems of REDD 'leakage' have also been cited. REDD can be implemented through two different approaches, the "national mechanism" and the "project-based mechanism". The project-based mechanism, which implements the scheme in specific focal areas, can lead to leakage.[lxxii] Leakage involves deforestation being successfully slowed or stopped in an REDD focal area, only to have it taken up in another. Leakage, then, involves a "shift in human pressures from the project areas to other areas",[lxxiii] which ultimately prevents changes in overall deforestation rates despite apparent REDD success. The national approach, which implements a top-down structure with a national central authority overseeing the countries REDD implementation as a whole, is therefore touted as preferable. However, it too has issues of deforestation "displacement" involving similar deforestation location shifts, this time to neighboring countries.[lxxiv] The UNFCCC has

therefore suggested designing rules to encourage wide participation and foster a common liability of global scale.[lxxv] This initiative would likely take the form of a global baseline for deforestation rates, or a threshold rule that would calculate thresholds based on total emissions and the number of participating countries.[lxxvi] Initiating a national REDD scheme in the DRC would therefore ensure readiness for this type of global initiative.

REDD in the DRC

If the DRC implements REDD as the primary mode of tackling deforestation, it will be paid monetarily to maintain deforestation rates below a baseline level calculated against previous annual levels. This seems to be a primary policy option; in March 2010 the DRC's Ministry of Environment, Conservation of Nature and Tourism released *A Readiness Plan for REDD*, which set guidelines to prepare the DRC for REDD implementation. The proposal aims to ready the DRC by January 2013, with "ready" meaning fulfillment of a three-pronged set of requirements. First, the DRC must have a complete and specific national strategy for 2013 to 2030, including a detailed national budget with provisions for the scheme, as well as a "directly operational" plan of action.[lxxvii] This plan of action must also include a business plan for the years 2013 to 2020, though the overall plan will carry through until 2030. The second requirement contains national and local level stipulations. At the national level, the Ministry demands, "legal, regulatory, institutional, organizational and financial framework must be adapted, established and complete".[lxxviii] At the local level, "coordination and guiding structures" are required, and a local-level trial program is suggested, to serve as an indicator of potential national success.[lxxix] Finally, areas will be chosen according to their financial and resource feasibility for a "blazing launch" of the

REDD program, with a results-based approach.[lxxx] The plan estimates US$22million will be needed for national level implementation, of which it intends to receive US$3.4million from the Forest Carbon Partnership Facility and US$5.5million from the United Nations' REDD program.[lxxxi] A somewhat detailed outline provided in the proposal is as follows:

THE DRC REDD READINESS PLAN 2010-2012

Global cost of the readiness plan: $22,652

- Total available finance $1,827
- of which UN-REDD/FCPF in progress $1,227
- of which ITTO / REDDES $600

Global costs to be covered: $20,825

Financial support requested from UN-REDD and FCPF $8,900

- request to World Bank / FCPF $3 400
- Request to UN-REDD $5 500
- of which UNDP $2 185
- of which FAO $2 343
- of which UNEP $972

Co-financing* $11 925

* Actions are under way in order to receive the financial support from CBFF and other bilateral donors.

A November 2009 decree established structures to oversee coordination and implementation of the plan, namely a national committee, interministerial committee and national coordination. Though each of these structures operates at the national level, the decree calls for province representatives to be selected by 2012. The proposal makes lofty promises regarding a system designed to monitor social and environmental impacts, which it deems "an essential guarantee to eliminate or reduce prejudice, duly compensate for the inevitable negative consequences on people and the environment, and to improve the

positive impacts and quality of expected results."[lxxxii] However, the report lacks specific clarification as to exactly how this monitoring system will be structured or implemented, and such high goals regarding such a notoriously difficult area of management are therefore dubious without specific plans for execution. Though the 2006 Constitution delineated 26 distinct provinces, the proposal will begin by implementing Provincial Institutional Structures according to the former division of 11 provinces, establishing "focal points" in each province, each with a head representative and a working team of ten government and non-government individuals.[lxxxiii] The plan intends for three focal points to be established in 2010, three in 2011 and the final five in 2012.[lxxxiv]

However, many indigenous rights groups still harbor concerns regarding involvement of indigenous groups in REDD conversations, which have thus far been carried out a higher governmental levels with little information being provided to or gleaned from local levels. Shirika la Bambuti, an NGO working to voice the opinions and rights of underrepresented indigenous groups, notes possible problems with the proposed scheme in terms of distribution of monetary benefits to indigenous communities, as well as recognition of their rights in forming policies. The group points to a distinct lack of information available to these communities "despite the fact that REDD discussions are moving rapidly ahead", and fears that current REDD schemes are structured in such a way that they will lead to the exclusion of groups from forest areas.[lxxxv] The proposed schemes include "integral protection zones" that will strictly protects certain forest areas, yet banning indigenous groups from areas in this way will lead to the milieu of problems already seen in the instance of many national parks. The group also draws attention specifically to the absence of legal provisions guaranteeing protection of indigenous rights, as well as lack of any reference to the UN Declaration on the Rights of Indigenous Peoples, exclusions which they believe will

allow the REDD scheme to be carried out without proper treatment of indigenous groups.[lxxxvi] This therefore may not be the best means of moving forward, and balancing this choice with other methods of curbing deforestation might be wise. One of the social criticisms of the REDD scheme, for example, is that it ignores the wellbeing of forest dwelling communities, and balancing top-down schemes such as REDD with more community-inclusive mechanisms is necessary.

National Parks

An alternative policy option is protection of forest resources through establishment of national forest parks and reserves. This method usually involves designation of protected areas that restrict human access. The DRC has 18 established parks and reserves, nine of which are national parks.[lxxxvii] The main purpose of the majority of the parks is the preservation of the bonobo chimpanzee, which is found wild only in the DRC. Another goal is the preservation of endemic plant and animal species, many of which are also found only in the forests of the DRC. However, little literature pertains to the human groups residing in the protected areas, and how issues of accessibility are addressed once the forest areas become protected. A study published by the Food and Agriculture Organization of the United Nations (FAO) notes,

> In the Democratic Republic of Congo, protected areas have been created and administered without the participation of the population. This situation generated an atmosphere of mistrust on the part of the communities towards protected areas which they consider to be the business of the State. This position led to sabotage, poaching and degradation of these areas due to agricultural activities.[lxxxviii]

Such great attention to preservation of plant and animal species, and forest resources as a whole, is both necessary and commendable. However there are normative issues in seeking such ends at the expense of human populations residing in areas designated for protection. CIFOR highlighted this problem in a recent report, noting two prevalent and increasingly observed problems being rural poverty in these forest areas, and the continuing degradation of unique forest ecosystems.[lxxxix] To respond to these issues, CIFOR declares the need for

> a workable mix of conservation and development at large spatial scales… to enhance the production systems and expand the diversity of livelihood options available to poor people in forest landscapes while maintaining environmental functions and conserving biodiversity.[xc]

These two ends have often existed at odds with one and other, but an equilibrium between forest conservation and human development in the DRC may be achieved if a balance between conservation policy and attention to human rights is found.

In *National Parks and Poverty Risks: Is Population Resettlement the Solution?* Michael Cernea and Kai Schmidt-Soltau assess implementation of national parks as a method of environmental conservation across Central Africa. The study examines how development of restricted areas affects the communities residing there. In all twenty cases studied, the groups living in the areas were expelled, and in the vast majority of cases no compensation was given.[xci] The study examines the expulsion through the lens of the Impoverished Risks and Reconstruction Model, which was initially used by the World Bank to analyze the effects of involuntary displacement.[xcii] Cernea and Schmidt-Soltau note that not one of the protected areas they examined created an official strategy to integrate local inhabitants into park management initiatives.[xciii] This provides insight into why national park implementation can be so problematic. By failing to incorporate local inhabitants, policymakers not only are

more likely to cause social and economic harm through poorly-facilitated resettlement, but lose out on the invaluable information that these communities have regarding the areas.

History of National Park Implementation in DRC – The Twa

The establishment of national parks and reserves is a viable policy option in the DRC if these issues of displacement and community rights are properly addressed. Forest-dwelling communities inhabit much of the protected areas created in the DRC, and two of the national parks located in the Eastern DRC forests – the Kahuzi-Biega and the Virunga National Parks – are home to the Twa group.[xciv] The Twa are often referred to as a "pygmy" tribe, and rely on hunting and gathering from forest resources as their main mode of subsistence.[xcv] In *Heading Towards Extinction: The Case of the Twa*, Albert Kwokwo Barume details the effects of National Park designation on the livelihood of the Twa. During the mid-1960s the DRC Government began an effort to expel the Twa from the Kahuzi-Biega National Park, and more than 6,000 Twa members were forced to leave forest areas they had inhabited "since time immemorial".[xcvi] They were provided no provisions for finding new territory on which to live. This is troubling, in part, because of the removal of individuals from land to which they had historic attachment. Many of the Twa's religious practices relied directly on resources found in their traditional land, and on areas of the land itself.[xcvii] This is especially true for male Twa members, for whom the passage into adulthood involves rituals involving specific areas of land, which is sacred to the Twa.[xcviii] Barume notes that the Twa "consider themselves to be part of the forest, perceiving it to be plentiful and

benevolent, a source of security and of life itself".[xcix] Though he may be being overly sentimental, Barume touches upon an important point. It is ethically problematic for policy to expel groups from lands on which they depend, with no provisions for relocation, for the sake of environmental conservation. Recognition of customary rights is at issue here, as there should be some acknowledgment of the Twa's rights to the land.

There are also issues of economic and livelihood impacts. The Twa had more than a sentimental attachment to their traditional land; they relied upon resources specific to that area, both for trade and survival. In having to leave the Kahuzi-Biega Park area the Twa lost access to meat, honey, and wild tubers that they had exchanged with other non-Twa hunter-gatherer groups in surrounding areas.[c] The Twa traditionally relied on these relationships of exchange for salt, iron and metal goods, and numerous agricultural products. Removing the group from their traditional lands therefore cut off these trade ties both by preventing physical meeting with non-Twa groups, and by cutting off Twa access to the goods they had traditionally traded. This is a huge impediment to subsistence and survival, as is the removal of access to sacred religious areas.

The establishment of National Parks is a traditional conservation method, especially in issues of forest and forest resource conservation. Workers of the Congolese for Nature and Conservation Institute carried out the expulsion of the Twa, aided by soldiers.[ci] The Institute for Nature Conservation also installed "officiers de police judiciare" to oversee the protected areas, and gave them the power to "arrest and detain" anyone seeming to breach conservation laws.[cii] These laws prohibit all non-government officials from entering the parks, whether for hunting, habitation, or any other reason. Placing implementation of the policy in the hands of the Institute for Nature Conservation indicates that one motive of park policy is environmental conservation. By establishing protected areas, the government

hopes to prevent deforestation and resource depletion of these areas. In this sense, the policy and its motives are well founded. However, failing to recognize the customary rights of groups indigenous to these areas is as problematic as resource depletion itself.

In terms of national park implementation, complete displacement of traditional inhabitants from newly protected areas should not be an option. Though these groups impact the land and its resources, they have done so for generations, and the notion that it is forest-dwelling communities causing deforestation is misleading and often used as a distracting scapegoat from real causes of deforestation. Furthermore, mere monetary compensation (which is rarely offered) does not suffice, and is extremely difficult to implement realistically. Cernea and Schmidt-Soltau cite the example of compensation of the BaAka pygmies in the Dzanga-Ndoki National Park, which attempted to compensate them "for their income losses (losses in hunting and gathering for subsistence and loss of land), through alternative income generating activities, such as farming, livestock breeding, [and] eco-tourism", yet the plan was "well outlined in theory… but not translated in practice".[ciii] A preferable alternative to displacing communities and attempting to compensate then, then, may be to involve them in conservation in the first place.

National Parks and Communities

The establishment of national parks is a popular and often successful conservation method. Problems arise in failing to address right of local communities, and cooperating with local communities when establishing protected areas may help solve these issues. This method of community-integrated conservation has been attempted in the Tanya Nature

Reserve, located in the DRC's Lubero Territory of North Kivu.[civ] Within the area, local communities agreed to allot 850 square kilometers of land to the reserve.[cv] This allotment was negotiated between local customary chiefs, and "local leaders and the intelligentsia".[cvi] A main aim of the park's establishment was protection of animal species, as is the case with many DRC protected areas, yet terms were drawn up by which the local communities could continue traditional subsistence practices. For example, "small mammals" are excluded from hunting restrictions, and hunting for food is allowed within regulations set by customary law.[cvii] A list of protected species ineligible for hunting was drawn up, and "integral zones", where animals reproduced and inhabited in very high populations, were designated as no-trespass areas.[cviii] Each of these allocations and conditions were created through dialogue between community representatives and governmental authorities, ensuring that both sides of the debate were heard. Banning all hunting on the protected lands would have been detrimental to local communities and could have harmed environmental resources by causing anger-fuelled overexploitation, as previously noted by the World Bank.

The Tanya Nature Reserve therefore established a balance between nature conservation and local community needs. This balance is partly attributable to the emphasis placed on community-governmental discussion. Dialogue committees comprised of local representatives were established in order to accurately represent popular opinion, and to create and prioritize lists of local needs.[cix] These committees also taught "mesology" – a study of ecology and the relationships of organisms and their effects on environments - to help encourage locals to "remain friends of nature".[cx] But the Tanya Reserve experiment aimed to go beyond mere discussion, and attempted to promote economic development by striving to hire individuals from local communities. More than 90 percent of the forest

trackers hired by the park were local sons of chief landowners.[cxi] The study noted that hiring individuals familiar with the area was advantageous in two ways; the employees help to conserve the forest with which they are well acquainted and are able to monitor poachers with familiar ease, and the practice fosters an understanding of the benefits of conservation to the local community.[cxii]

The project developed local primary and secondary schools, health centers, orphanages, and provided technical and material support to local development initiatives. Furthermore, funding from Diane Fossey Gorilla Fun International and Conservation International provided scholarships to help local youth attend the University for the Conservation of Nature in Kasugho.[cxiii] The FAO study noted that, ten years after its initial creation, the Tanya Nature Reserve was operating successfully. It attributes this long-term success to "sustained dialogue between stakeholders (populations and TNR managers) and the transparent management of the benefits of the project".[cxiv] The Union of Associations for Gorilla Conservation and Community Development in Eastern DRC noted that an "awareness of the danger of losing the whole forest was born in the region".[cxv] This awareness prompted consultations between landowners and families, "with the aim of participating in the conservation of their own ecosystems to ward off the danger of extinction of faunal and floral species in their forests."[cxvi]

Beyond National Parks – Community Based Conservation

Community based conservation is sociologically beneficial in that it prevents community displacement and allows indigenous groups to continue traditional methods of

subsistence without sacrificing conservation. Conservation attempts are aided as the intimate familiarity indigenous communities have with the land and its specific ecosystems may be utilized. This familiarity may also breed innovative conservation ideas. Moreover, involving local communities in the preservation of their traditional homelands increases their incentive to conserve. In *Coping with the Tragedies of the Commons,* Elinor Ostrom outlines the benefits of placing resource control in the hands of local communities, rather than an outside central authority.[cxvii] Local knowledge has been developed over time, and local people may therefore be more attune both to the operation of the biophysical system and its fluctuations over time. They are therefore more able to develop rules and regulations appropriate for the land's individual population and resources. Furthermore, placing the costs and consequences of enforcement in the hands of the people creates strong incentives to develop rules that decrease the chances of non-compliance, and increases cooperation and reciprocity. Attempts by central governments to police park boundaries by hiring outsiders to physically protect borders is a common strategy, yet often fails because of the costs and impracticalities of patrolling such a large area. The social complications of outsiders entering and exerting violent and forceful control over existent local communities can be equally pernicious. Policing protected areas by this method is both infeasible and ethically problematic,[cxviii] and enforcement in the hands of the local communities may therefore be a vital step in successful conservation of protected areas. A method of forest protection that includes and involves forest dependent peoples is therefore preferable, and the differentiation between an approach of this nature and the traditional approach of pure protectionism is characterized by Allard Blom as "conservation for the people" versus "conservation by the people".[cxix]

But while the latter places power in the hands of local communities, the decrease in opportunity for the DRC government to exploit forest resources in order to garner revenue that may be used for development cannot be overlooked. Additionally, Blom says that believing completely community-run conservation will prevent overexploitation is "naïve".[cxx] Humans inherently desire improvements in their standard of living, and "an increase in the standard of living clearly means an increase in the use of natural resources, which leads to over-exploitation".[cxxi] Ostrom also posits potential issues in entirely locally led conservation. Forest-dwelling communities are often unable to adapt quickly enough to the complexity of policies necessary in such widespread conservation efforts. Additionally, she foresees issues of cooperation between rural communities and central governments, including discrimination, tyrannical subjugation by an undemocratic elite, and conflict among appropriators.[cxxii] Small communities dwelling in isolated rural areas will likely be unaware of political activities outside of their immediate region, and lack access scientific information that could be extremely beneficial in conservation and exploitation productivity.

A medium between the two extremes may therefore be most appropriate, which may take the form of Integrated Conservation Development Projects (ICDPs). Rather than being conservation by or for the people, it is conservation *with* the people.[cxxiii] Finding balance between local responsibility and higher-authority influence may provide the best solution to the issues of successful forest protection. For instance, the knowledge of local peoples of the intricacies and fluctuation of the environment is as necessary for successful conservation as the access of greater outside authorities to scientific information and countrywide issues.

The implementation of the ICDP approach in the Sangha-River region, a forest-covered area between the Cameroon, Congo Brazzaville, and the Central African Republic, may provide a useful comparison to the prospective success of ICDPs in the DRC in that they share somewhat similar resource attributes. Though the tri-national Sangha project spans three countries, the resources of the area in question here are comparable to those in the DRC, and the economic and political strength and stability between the tri-national area and the DRC are similar enough to warrant comparative analysis. Cameroon, for example, has also recently developed political stability and so the DRC may be in a similar position to implement the ICDP policy approach in a similar way. The WWF-backed Dzanga-Sangha ICDP, for instance, helps protect both the 3159 km Dzanga-Sangha Dense Forest Special Reserve and the Dzanga-Ndoki National Park, consisting of the 495 km Dzanga and 726 km Ndoki regions.[cxxiv] The goal of the project is to prevent over-logging of forestlands, while establishing "multiple-use areas" that provide "long-term hunting and gathering opportunities for local inhabitants".[cxxv]

The program allows for traditional exploitation practices such as hunting, agricultural production, and limited commercial logging in "buffer zones", which retaining some opportunities for government seizure of logging rents and revenues.[cxxvi] At the same time, local communities are involved through "programs for wildlife protection, tourism development, research, education, and rural development".[cxxvii] Establishment of the Dzanga-Sangha parks allows for 90 percent of the tourism entrance fees to be disbursed across local communities, 40 percent of which goes towards funding "a community association for rural development activities".[cxxviii] Though Richard Carroll lists continued poaching and local attitudes as major obstacles to the success of the scheme, Blom claims it to have been "fairly successful" in creating positive local attitudes to the approach.[cxxix] Long-

term success of the project, coupled with continued dispersion of revenues to local communities, may eventually help to resolve these issues.

As a newly democratic country still abundant in lush forest land with rich biodiversity and rare species, the DRC has ample opportunity for ecotourism development that can be practiced in a sustainable way and involve local communities. Carroll notes the political instability of the Dzanga-Sangha region as one of the impediments to implementation of the project, but the DRC has increasing political stability. This approach would have the added benefit of promoting an image of positive ecological conservation, increasing the incentives for NGOs and outside countries to invest in development of the DRC.

It is vital to ensure proper inclusion of local community opinion in forming the projects' structures. A version of the ICDP approach known as a Community-based Conservation Project (CBC) attempts to do just this. The CBC approach offers not only "economic incentives to conserve living resources", but includes an "education component" that would aid local understanding of conservation practices while increasing suitability for employment in the conservation arena.[cxxx] This may create opportunities for future involvement in political decision-making regarding the area, helping local voices be heard at a more centralized level. Furthermore, knowledge may be considered a resource in itself, one that often "naturally dovetails into the strategies of providing education and making contributions to basic understanding".[cxxxi] This is specifically important in the DRC, as higher population levels may change how the ICDP project takes effect in comparison to its relative success in the Dzanga-Sangha project. Ecotourism and local employment are an important part of the conservation effort, and community education is therefore a vital step in ensuring local opinion is heard at the policy formation level.

Non-Timber Forest Products

The marketing of non-timber forest products (NTFPs), the goods garnered from forests that are not timber and do not necessitate felling of trees, has experienced a recent spike in interest. Historically, NTFPs have served more as a 'buffer' means of subsistence upon which poor communities rely in times of hardship, with small amounts of products being distributed or sold in local markets.[cxxxii] An estimated 90 percent of forest remains during extraction of NTFPs, as compared to a 50 percent forest reduction from both ranching and logging.[cxxxiii] NTFP extraction and sale also has the socioeconomic benefits of tending to employ local, often poor individuals, helping provide economic uplift to communities that often do not reap the economic rewards of commercial logging. Furthermore, NTFP extraction rights and access to lands for extraction can be mediated so that maintenance of an intact forest is a requirement for continued access, as outlined in Roderick P. Neumann's *Commercialization of Non-Timber Forest Products: Review and Analysis of Research.*[cxxxiv]

The recent surge of interest in NTFPs, as well as the possibility of dependence upon NTFP extraction as a viable forestry alternative, exists hand-in-hand with the recent "Green Movement". Environmental awareness has entered the global marketplace, with numerous products and brands touting ecological sustainability as a marketing tool. However, there are only a handful of cases in which a NTFP has been extracted to a level sufficient for mass-market distribution. One such case is Guayaki Yerba Mate Tea, which is grown and harvested by local communities in the forests of South America. The product's success

serves as an instance of blending of marketing, socioeconomic advancement, and forestry preservation. Part of the company's foundation is a dedication to environmental sustainability; the tea product is grown in native forests, and the company works in partnership with farmers to provide technical education and strongly encourage (one could say require) farmers to begin repopulating any felled local forest with native hardwood trees.[cxxxv] Through what they call "market driven restoration", the company's founders build a direct relationship between the product's market success and forest restoration. The company claims to "sustainably harvest organic yerba mate from rainforest grown cultivations and reforestation projects, generating a renewable income stream which enables these communities to improve their lives and restore their lands," that are primarily based in Argentina, Paraguay and Southern Brazil.[cxxxvi]

Such ends are, of course, highly lauded in the product's marketing and, all skepticism aside, this may have real positive benefits. Requiring farming "partners" to repopulate areas and to grow and harvest in sustainable ways creates a direct correlation between product sold and forest protected. Publicizing this within the product's marketed image draws on a recently heightened consumer awareness of environmental sustainability, increasing the product's allure and, thus, increasing acreage of South American forest protected and reforested – not to mention the local individuals aided with steady income from the company. Furthermore, heightened awareness of the forest areas and their communities may provide increased protection in a more generalized way. Ascher notes that "affection" may be considered a resource in itself, in that charismatic species and individuals may be used to "mobilize public sentiment".[cxxxvii] The romanticized way in which the product is marketed may help to spark public outrage should any later attempt to log "Guayaki" protected territory in the future.

However, a potential pitfall neglected by the product's romanticized marketing is that the forests' resources are essentially being utilized and marketed by an outside actor. Though the Guayaki company-to-farmer relationship is a "partnership" and income to local communities is being increased, the product's international success is reminiscent of the parable of the little man and the big stone, which is applied to the environmental conservation context in Michael Dove's *A Revisionist View of Tropical Deforestation and Development.* The parable is based in the idiomatic expression of forest dwellers in Borneo, that "Whoever finds a big stone, he will eventually suffer".[cxxxviii] The expression refers to a "little man" finding a large and precious stone that will eventually be sought out by "big men" because, Dove asserts, the little men lack the economic channels and market structures necessary for dealing with such valuable goods. The stone becomes a source of dissonance within the local structure and eventually attracts attention of "big men" who carry out product extraction and offer the local a "nominal honorarium" befitting a "poor tribesman in a poor corner of the country".[cxxxix] The local problems are that they are politically weak, and harbor a resource "coveted by groups that are more powerful than they are".[cxl] Though the Guayaki products are certified Fair Trade and base much of their product placement in providing adequate wages to their farming partners, no literature can be found on the precise economic relationship, and it would be important to note whether the shares received by local farmers are congruent with the product's widespread and highly profitable success.

This issue dovetails into problems inherent in reliance on NTFPs as an economic stimulus and for forest conservation. Terborgh, Dugelby and Salafsky assess the reality of relying on NTFP extraction as the main means of forest preservation. The analysis looks to ecological dispersal and the temporal nature of forest products as sources of instability; economic reliance of small, local communities on such temporal resources as an income

basis would be hazardous. This, of course, signifies issue in attempting to base a larger economy in NTFP extraction, as one would assume would be necessary if is to be a replacement of traditional commercial logging. Furthermore, the authors suggest that forest product extraction may not be as sustainable as it is often made out to be; extraction of many products affects reproductive patterns, meaning that while many means of nut, seed and animal extraction are sustainable on a small scale, an increase to the magnitude necessary for wider economic dependence would likely prove unsustainable.[cxli] This issue is exacerbated by the fact that unclear property rights existent in areas in which marketable forest products tend to be found create perverse incentives to overharvest products, creating patterns of harvesting that are unsustainable in the long run.[cxlii] However, Terborgh, Dugelby and Salafsky note that, in areas where traditional societies establish localized rules of property rights and governance, "a managed system of common property can potentially provide incentives for conservation".[cxliii] Therefore, a top-down structure where "big men" attempt to harvest the resources unmarketable by the "little men" would create incentives for overexploitation, resulting in an unsustainable system; however, if product extraction and the garnered benefits were placed more in local hands, conservation incentives would take precedent.

Successful marketing of NTFPs also necessitates well-established social and physical infrastructure, such as roads, transportation methods, "middle men", and traders, in order to get the products from harvest to market.[cxliv] The most notable impediment, however, is stable and widespread demand; Terborgh, Dugelby and Salafsky note that the existent of synthetic substitutes for many traditional NTFPs, and only products with low elasticity – a "unit free measurement of change in demand in relation to change in price" – will have a steady market, whereas products with high elasticity will suffer potentially devastating

fluctuations in demand.[cxlv] Extremely relevant to the discussion is the differentiation between demand rooted in "ephemeral fads" versus those based in real, long-term needs;[cxlvi] it is possible that the Guayaki model is an example of the former, and that, despite the tea's success, the product – and the farming partners that rely on its sale – could fall victim to an eventual loss of consumer interest.

The overarching problem with NTFPs as a method of forestry conservation is that it is extremely difficult, if not wholly unrealistic, to harvest and sell products at the rate needed to offset the economic revenue that would be made from commercial logging. Not only would areas with adequate NTFP resource abundance be few and far between, the temporal nature of the resource would create an unstable income, and product sale is overly reliant on consumer preferences. Moreover, the heightened rate of extraction that would be necessary may actually be unsustainable; though there is a current romantic notion of local farmers harvesting naturally existent products in a way that does not damage forest mass and is in harmony with the environment, it is not in keeping with the rate of extraction that would be necessary for dependence on NTFP extraction as a primary conservation method. This does not, however, discount the benefits of looking to NTFPs as an alternative means of forest use and economic gain. Indeed, Terborgh, Dugelby and Salafsky conclude that NTFP extraction can be useful conservation method, though as one component in a broader spectrum of conservation policy.

Forest Product Certification Systems

Utilization of forestry certification as a conservation method is two-tiered; adherence to production standards allows certain producers to obtain the certification mark, which

then attracts consumers aiming to purchase a sustainably created product. Each tier presents its own difficulties. Inherent problems exist in certification standards, both in their stringency and in their policing. This market-based conservation approach also rests on the need for consumers to be environmentally minded in their purchase decisions. Levels of adherence to production rules may waiver, as may the stringency of the rules themselves. The success of the entire method depends entirely on an environmentally conscious consumer base. The most widely recognized certification system is managed by the Forest Stewardship Council (FSC), and it is the only certification system with wide geographic distribution.[cxlvii] Currently, there are more than 500 FSC forestry operations in almost 80 countries, covering approximately 100 million hectares of forest, which is equivalent to seven percent of global forest cover.[cxlviii]

The FSC received support from an array of NGO groups, and attempts to produce high levels of transparency by, for example, publishing summaries of all audits of FSC-accredited companies.[cxlix] The FSCs method is "performance based", requiring producers to meet a minimum standard of production conduct before they can receive an FSC certification.[cl] The success and stringency of the FSC provides a comparative framework for the successful implementation of product certification as a means of forestry conservation. The most basic requirements for an FSC certification include:

- Completion of an Environmental Impact Assessment (EIA)
- Management and maintenance of habitats of rare, threatened or endangered species
- The use of genetically modified organisms is prohibited
- "Careful Control" of exotic species
- The "conversion of natural forests" is prohibited.[cli]

One of the most fundamental aspects of the FSC is the dedication to oversight of company proceedings. The FSC undertake regular "audits" of their certified producers to ensure standards are met.[cli] Furthermore, by partnering with numerous NGOs and political groups, ranging from the WWF and Greenpeace to the World Bank, the FSC creates an image of legitimacy by ensuring consumers that there is oversight from multiple actors.[cliii] The dedication to transparency and oversight are two of the fundamental characteristics making the FSC a successful certification mark. This is important in principle as it helps ensure adherence to stated certification regulations, yet it extends to form the basis of the certification's success, as consumer preference is more likely to be obtained if the system appears transparent and trustworthy. The FSC may, then, be used as a framework for successful certification creation, and provide insight into moving forward with certifications for use in the DRC.

A particular instance of FSC success is the "chain-of-custody" procedure, in which each exchange of timber product throughout the lines of production must be tracked in order to keep the FSC stamp.[cliv] Doing so allows companies and consumers to see where the product came from and how it was produced, if they so please. This also prevents the problem of products receiving the stamp at one point in the production line – say, at the harvesting stage, or at the finals byproduct creation stage – yet having traveled through a line of unsustainable practices along the way.

The FSC stringency and overall reliability serve as a springboard from which to assess other certification systems. The International Organization for Standardization (ISO) is another well-known certification system that began by standardizing nuts and bolts and has evolved to be recognized as a standardization mark for a variety of environmental products, including timber production. ISO standards are widely recognized and hold a lot

of influence; the EU only allows ISO certified products to be imported into EU territories, and the General Agreement for Tariffs and Trade, now part of the World Trade Organization, has largely embraced ISO standards.[clv] This endows the ISO with a great amount of leverage. However, the ISO lacks the focus on audits and compliance which are so fundamental to the FSC's success, and ISO certification standards focus on "whether management initiatives are consistent with progress, rather than whether performance improvements have actually occurred."[clvi] Therefore, ISO certification is based on "firms' willingness to gear up for environmentally acceptable performance rather than the more ambitious requirement of demonstrating acceptable performance."[clvii] This focus, characterized as "input evaluation" rather than "output evaluation",[clviii] is easier to comply with than FSC standards, as it requires only an *intention* to operate in sustainable ways, rather than actual follow through. The International NGO Network on ISO criticized this issue with specific reference to forestry, claiming that companies may opt to be certified under the ISO 14001 certification stipulations "in lieu of the more rigorous – and credible from an NGO perspective – Forest Stewardship Council certification."[clix]

This issue is a two-sided coin. Some companies may indeed opt out of the FSC's more stringent requirements in favor of the input-orientated ISO certification, leading to less sustainably produced forest products as companies formally intend to follow sustainable practices, but may not actually do so. On the other hand, the ISO may provide a second best level of sustainability certification for companies that are currently unable to abide by FSC standards. Though the FSC is widely recognized as the most credible certification system, it has "been unable to obtain the large-scale participation of small-scale private forest owners" and has limited progress in developing countries, attributed to its "stringency in a context of less stringent competitors."[clx] In this sense, the ISO serves as a catch-net for

companies unwilling or unable to comply with FSC standards, many of which tend to be smaller companies in developing countries, and is thus a very relevant notion for introducing greater forestry certification in the DRC.

There remains, however, an overarching problem in terms of the failure of forestry certification systems to be accessible to small logging companies in developing countries. The foundations of forestry certification assumed that initial compliance would be simpler in smaller companies, helping to provide create markets for burgeoning community forestry efforts.[clxi] This belief was based in the assumption that low-impact, locally based companies would find certification compliance easier than larger companies with greater outputs and consequently greater environmental impacts.[clxii] In reality, forestry certifications have been awarded to more large companies than small, and most of the certified companies are in the global north.[clxiii] Only 23 companies deemed "community forestry enterprises" are FSC certified,[clxiv] and the small-scale, community-based companies that have received certification have garnered "little benefit in the market" and face increasing pressure from globalization and a "consolidating forest industry".[clxv] This bears influences on forestry options for the DRC, particularly if a realignment of current concession distribution is to be considered. If a move to shift concessions from the hands of larger companies to community-based enterprises is intended, the ability to comply with FSC (or even ISO) standards, and what this means for competitiveness in the global marketplace, must be taken into account.

Van Kooten, Nelson and Vertinsky analyze the economic and social factors that compel companies within countries to certify, aiming to clarify the disparity between numbers of certified companies in developed and developing countries. Forest certification systems are an instance of market-based conservation in that companies must be persuaded by market-based incentives to become certified, rather than being required to by

governmental control. In order for a company to be compelled to certify the foreseeable premiums or the rewards of market access must be substantial enough to offset the costs of adhering to certification standards.[clxvi] Therefore, companies must anticipate economic advantage to certification, whether from lowered production costs, wider market access (as seen in ISO certification being a requisite for EU imports), or greater marketability. Sustainable practices are sometimes economically beneficial in and of themselves because they reduce wasteage. This range of factors must therefore be met for forestry certification to be successfully implemented in the DRC, and it would therefore be pertinent to understand why some countries, such as the DRC, have far fewer certified forestry companies than others. The authors look to economic factors to explain the low rates of certified companies in developing countries as compared to those in developed. Low gross domestic product (GDP) is associated with a low willingness to pay to protect the environment.[clxvii] The environment therefore has a higher opportunity costs in developed countries than it does in developing; in developing countries, forests are often converted to alternative uses, such as cattle-ranching or agricultural production, or are simply logged quickly and unsustainably, because these uses have higher economic returns than forest preservation.[clxviii]

But the authors extend their analysis beyond economic factors, looking to social institutions and their informal constraints as creators of rules of conduct. Formal institutions, such as constitutions, laws and property rights, are differentiated from informal institutions, such as taboos, cultural customs, and norms of conduct.[clxix] They suggest that the stronger the social institutions, with their respective taboos and codes of conduct, the stronger the pressure to adhere to normative rules and, thus, to certify.[clxx] In developed countries, social norms are generally more strongly held in regard to environmental

conservation, and there is, therefore, more pressure for companies to certify as sustainable. Of course, this is directly related to the aforementioned economic stimulant; in countries with higher GDPs greater emphasis is placed on conservation, therefore bringing an increase in social pressure for sustainable production. Strong societal norms are also linked to good governance,[clxxi] with relevance to the DRC; as the country's democratic institutions are quite new and generations have suffered long periods of political unrest, there is likely less of a widespread notion of social pressure for companies to behave sustainably, or to become certified.

Strong social and legal institutions have similar bearing on levels of certification, as mature institutions are needed to support adherence claims of companies, while concurrently reassuring buyers of the validity of certified products and providing a means of recourse, through legal institutions, should the certification stipulations be breached.[clxxii] This emphasizes the importance of the latter stages of the certification system; certification labels become meaningless if consumers do not believe that standards are being adhered to, or if they do not have opportunity to take action if noncompliance occurs. Similarly, strong social capital coaxes firms to certify by calling for environmental responsibility. Therefore, while economic incentives are necessary to drive initial certification, social capital and strong institutions are needed to maintain certification standards and provide assurance to consumers throughout the process.

4. Projections for Policy Implementation in the DRC

Policy Options: Moving Forward

The DRC's history of political strife and the developing nature of its economy necessitate some revenue from resource exploitation. Yet conservation of forest resources is necessary for the wellbeing of the global environment, and the predominance of forest-dependent communities means that forest extraction as it is set to happen would displace or greatly hinder a large portion of the population. Potential policies must therefore be evaluated with this balance in mind. Though the conservation options of the DRC have thus far been laid out individually with seemingly definite distinctions between them, a hybridized policy structure that includes attributes of each of the options may prove the best means of moving forward. Previous analysis of community-based conservation and its potentials in the DRC suggest that this would serve well as the main crux of the future of forestry policy.

Ideally, the DRC government would cede land to local communities, who would take initial charge of conserving forest areas, with assistance and compliance with local governance. Sustainable levels of resource exploitation would be calculated depending on the particularities of each area, and emphasis on NTFPs, ecotourism, or sustainable logging would be made specific to each area's communities, resources, and levels of previous degradation. Artisanal logging should be brought under control and formalized, and existing commercial concessions reevaluated (and, ideally, mostly annulled). Improvement of logging mechanisms and formalization of artisanal logging would help prevent wasteage and increase timber prices, thus accruing higher revenue for less land logged. Development of certification systems within the DRC would help develop access to international markets for exports of NTFPs and sustainably-harvested timber, which may be taxed, within reason, to accrue government revenues. Payment for environmental services schemes through REDD

initiatives would allow some communities, particularly those in areas with previous degradation or areas of high conservation prospective, to emphasize conservation rather than exploitation.[clxxiii] These areas may therefore be especially prime for ecotourism.

A study by the Forest Monitor of the United Kingdom notes that two beneficial attributes of the DRC are that its population is heavily forest-dependent, and its forests are very large with varied resources.[clxxiv] The size and variety allow different policy emphases to be implemented in different areas. For example, one area may emphasize NTFPs, another ecotourism, and another artisanal logging. Furthermore, the dependence of such a large population on DRC forests may be capitalized upon to strengthen the manpower behind, and favor towards, community-based conservation.[clxxv] As so much of the current forest exploitation comes from local use – from artisanal logging, to charcoal production, to swidden agriculture – providing clear incentives to conserve would therefore bring about substantial change. However, such an amalgamated policy vision must be broken down and each compartment assessed for the prospective realities of implementation within the DRC.

Community Based Conservation in the DRC

The lynchpin of such a forestry policy is the ceding of land to local communities, in a direct move toward community-based conservation. In *Self-Governance and Natural Resources*, Elinor Ostrom outlines the different necessities for successful community-based conservation of forest resources. She characterizes forests as common-pool resources, and their respective assets, such as watershed protection, carbon sequestration, and biodiversity, as externalities or public goods.[clxxvi] Ostrom separates the factors behind successful community-based resource management into attributes of the resource and attributes of the

users. The attributes of the resource are the feasibility of improvement, indicators and information regarding the condition of the resource, resource predictability, and the size or spatial extent of the area at question. The DRC is a prime candidate within Ostrom's attribute of feasibility of improvement, for she notes that forest users are more able and more likely to conserve in instances where a forest is beginning to deteriorate, but has not been decimated entirely.[clxxvii] This is almost an exact description of the current state of the DRC's forests, and is furthered by existent but thus far unfulfilled logging concessions, which may fuel the urge to conserve by illustrating the possibility of entire decimation.

The attribute of "indicators" or information regarding the resources is similarly existent, as the political shifts and the past concession granting in the DRC has brought much attention to the forest resources, spurring analyses by political scientists and research by international organizations such as CIFOR. Indicators are also available at the local level, where communities subsist on forest resources and therefore have an intimate awareness of local areas. The final two attributes necessitate that the availability of the resource be predictable and the spatial extent of the area be sufficiently small. These assets would be best fulfilled by the careful disbursement of forest areas among communities. The DRC forests are large and contain diverse biodiversity and a range of community groups, and ceding of land to specific community overseers must be done in such a manner as to ensure that areas to be overseen are not too large. Communities that have lived in specific areas of the forest for many generations, and therefore have an intimate knowledge of the area, can help fulfill the predictability asset, as resource fluctuations will seem more "predictable" to them than it would to outsiders. Ceding of areas should therefore be centered on legitimizing existent customary rights, rather than creating new boundaries. This links to

Ostrom's observation that most problems arise when rules of self-regulation that have been designed by local communities are overlooked and therefore trumped by policymakers.[clxxviii]

The attributes of users are the level to which users depend on the resource (salience), a common understanding of the resource, the users' discount rate in terms of the resource's future benefits, trust, autonomy in extraction decisions, and prior organizational experience.[clxxix] The majority of these attributes necessitate prudent organization of political structures surrounding the community structures. Ostrom points out that community-led conservation tends to be more successful when there is a balance between local leadership and higher oversight, and attributes, such as the autonomy in decision-making, depend upon the way in which power is decentralized. Prior organizational experience in most areas will likely be high in terms of customary rules with in the community, but low in terms of interaction with more centralized political powers. A smooth transition will therefore be dependent on apt structuring of community-authority relationships. The salience of DRC communities is very high, as the majority of communities in question are historically forest-dependent, and the discount rate for future benefits is accordingly low as long-term dependence on forest areas has fostered a high value on resource retention. The strength of both these attributes provide great incentive for DRC communities to conserve; Ostrom notes that expected benefits must outweigh the high costs of organizing and maintaining a self-governed system,[clxxx] and the DRC's fulfillment of these attributes is therefore very important.

Ostrom's analysis provides eight design principles that she believes are fundamental to proper implementation of a community-based system. Firstly, the boundaries of the common pool resource and elucidation of who has access rights must be clearly defined.[clxxxi] Within the DRC, this means a detailed delineation of rights to certain areas, which will likely

be complicated by aforementioned "native" citizenship issues founded by the long-term habitation of many communities and exacerbated by influxes of refugees and by the reassignment of citizenship laws under Mobutu. Establishing who has rights to where will therefore necessitate dialogue between local communities and political leaders, to be carried out in ways that allow representatives from all communities to voice opinions without intimidation. An example of this is found in the Bikoro Territory initiative, where the Committees for Dialogue and Vigilance (CDVs) established at the provincial level communicated needs through dialogue with local government, who in turn relayed information to higher government. The group-structure of the CDVs avoided issues of single community representatives seeking individual profit and failing to properly address the needs of the community at large, which is sometimes the case when local governments address only village "chiefs".[clxxxii] Ostrom's principles of congruence in the appropriation of benefits and of collective-choice arrangements require a structuring that ensures participants receive benefits proportionate to the costs of complying with provisions, and that those affected by the rules of provisions have the chance to help shape them.[clxxxiii] If individuals believe system costs to be greater than perceived benefits they will begin to "cheat", and others, seeing them, will begin to cheat as well.[clxxxiv] These principles are fundamental to successful community-based conservation, and should underlie the shaping of the decentralized leadership structure.

The latter of Ostrom's principles regard monitoring of compliance and behavior, and a graduated increase in sanctions levied against offenders with local, low-cost resolution mechanisms.[clxxxv] These may all be fulfilled through placing the responsibility of monitoring into local hands. In *Transforming Rural Hunters into Conservationists,* Gibson and Marks analyze the effects of using economic incentives to encourage local conservation. The analysis

focuses on game hunting in Zambia, but the overarching concepts remain the same. In the case study, the scouts have the decision to enforce or not enforce law, and rural individuals have the choice to hunt small, medium or large game.[clxxxvi] The Administrative Management Design for Game Management Areas intitiative provided monetary and job-retention incentives to scouts for patrolling effectively, and schooling and healthcare access as incentives to local peoples.[clxxxvii] Yet the project did not have the desired conservation effect; schooling and healthcare was non-exclusatory and therefore a public good, and hunters utilized these resources while continuing to hunt. Furthermore, the project overestimated the importance of monetary incentives and underestimated the importance of continued access to wildlife and hunting for the local peoples. The framework assumed that valuation of monetary incentives of those inside the community would be the same as those outside, ignoring the importance of hunting to the local community, particularly in terms of developing social roles as men and as hunters. Gibson and Marks note that even in cases where hunting of larger mammals was successful restricted, these projects were not financially self-supporting and required continuing high levels of support from outside donors.[clxxxviii]

More effective means of conservation would, then, come from creating accountability within the community. Monitoring groups and protected areas from a central authority is notoriously problematic, as countries such as the DRC often lack the monetary resources and manpower to effectively patrol areas. The hiring of local individuals with no personal interest in conserving the area opens the floodgates for bribery, hampering supervision and setting a precedent of illegal exploitation. The analysis of Gibson and Marks illustrate the inherent problems in using economic incentives to induce proper monitoring, and development projects, which are essentially public goods, to invoke compliance. For

proper compliance, then, the incentive must lay in conservation itself. It is therefore preferable that those monitoring are accountable to the users, or are actually the users themselves.[clxxxix] Hiring individuals who are from the community and therefore have a vested interest in conservation increases incentives for efficient monitoring and decreases incentives to accept bribes, while providing community employment. Ostrom also notes that investing in monitoring in this way creates a public good.[cxc]

Community Based Conservation – A DRC Case Study

An SAIIA Report of forestry policy in the DRC notes that while the state of conversion titles and the work of NGOs are widely publicized, little is known of happenings on the ground, or, rather, in the forest.[cxci] The SAIIA focus on a specific case of community conservation implemented in the Bikoro territory of the Equateur Province, which lies on the shores of Lake Tumba and, due to its geographical location, "plays a key role in regulating the climate of Central Africa".[cxcii] It is home to approximately 128,000, and is therefore quite sparsely populated at 24 people per $km^{2.}$ This population is comprised of a small Batwa pygmy population, and three Bantu ethnic groups; the Ngele Antando/Mongo, Ntomba, and Ekonda.[cxciii] More than half of the population in the Bikoro territory is under 20 years of age, and it is therefore a young population that subsists primarily on farming, fishing, and foraging for non-timber forest products. A mere 15 percent of the adult population of the area is permanently employed, and those that are work mainly in education or local administration.[cxciv] A report by the South African Institute of International Affairs (SAIIA) "These jobs are poorly paid and it is common practice for such people to supplement their incomes by living off the forest and lake…Anecdotal evidence is that

mosquito nets have been used for fishing. This practice tends to catch juvenile fish in an unsustainable manner."[cxcv] Equater is the poorest province the DRC, with 90 percent of the population living in absolute poverty, compared to a national average of 70 percent.[cxcvi] Community structure is centered on the Church. For instance, many administrative representatives are priests and religious figures, and the local Catholic mission supports the school and hospital.[cxcvii]

The Bikoro territory specifically was selected as a case study as there have been relatively low levels of commercial logging in the area thus far, though there is a multi-stakeholder forestry governance project in the area and logging concessions owned by three different companies.[cxcviii] The territory's forest is primarily older, secondary forests, regenerated from logging that began in the colonial period and finished no later than 1975.[cxcix] In 2007, a European Union-funded IUCN project was started in the area that served to assess the problems and successes of community-based forestry conservation in the DRC, as well as to provide "an opportunity to study relations among these actors participating in the project through observing the interaction of logging company staff, local community representatives, local administrators, NGOs and the church (representing civil society)."[cc] The project focused on incorporating local voices into the administrative structure of the area, placing conservation more in the hands of the people. The project is therefore aptly named "Strengthening Voices for Better Choices" (SVBC), and the EU funded project as a whole aims to "translate contemporary thinking on forest governance into practice".[cci] The SVBC has a "bottom-up tripartite structure" that includes village-level Committees for Dialogue and Vigilance (CDVs). Bikoro has 32 CDVs across the territory, with each CDV having between 12 and 15 members.[ccii] Of these 32 CDVs, 27 are "general", and five are "niche" CDVs, focusing on: artisanal logging, charcoal production, poaching,

NTFPs, and corporate social responsibility contracts.[cciii] Niche CDVs are set up when village members think topics are specifically relevant to their local area, in order to address the most locally pertinent issues.

At the territorial level, the SVBC created and supports the Consultative Council on forest Governance that oversees forest policy for the entire territory, serving as an intermediary between logging companies, local government, higher government and CDVs. The Consultative Council contains the "College Executive", which is comprised of a representative from each of the stakeholder groups; an administration member, the private sector (currently represented by an ITB forest engineer) and civil society (currently represented by a local priest).[cciv] At the provincial level, SVBC interacts with the Equateur Province's Network for Good Forest Governance in order to "engage the different stakeholders in constructive dialogue".[ccv] At the national level, SVBC hosts a "national thematic forum for good forest governance", aimed at combating illegal and unsustainable exploitation of forest resources, while furthering intra-level communication.[ccvi]

The study outlines the problems and detriments associated with the project in the short time since its foundation. SVBC has facilitated greater dialogue between the multiple levels of forest stakeholders, and has improved the ability of local inhabitants and their representatives to access information. Dialogue helped increase local input and break down negative stereotypes on both ends.[ccvii] The structure has allowed representatives from local communities to have greater say in how forest management is carried out. However, the SAIIA references local sentiment that higher levels in the SVBC favor the interests of logging companies, especially as SODEFOR was considering commissioning the IUCN to negotiate logging concessions.[ccviii] Neutrality within the structure is, the SAIIA admits, imperative to proper functioning of the system, and these feelings of preferential treatment

may therefore be problematic for long-term cooperation. Furthermore, logging company ITB is quoted as lauding benefits of the system, stating, "Thankfully we have the IUCN to talk to the people… before the forest owner (usually the customary chief) demanded whatever he wanted: a car, for example. Now the communities understand that cahiers de charges are restricted to things like tools, schools and hospitals."[ccix] It is indeed an improvement that logging companies and local communities may now converse and negotiate more easily. SODEFOR, for instance, commissioned the IUCN to create focus groups that included youth, women and pygmies to negotiate the *cahiers de charges*, claiming they "hope this collaboration with the IUCN will improve our relations with the local communities".[ccx] However, ITB's statement suggests that doing so may, thus far, be to the benefit of the logging companies. This is problematic, and suggests that the SVBC structure may indeed be biased towards logging companies and higher-tier actors. The same ITB representative explained that

> the ITB is in partnership with the IUCN so that if there is a misunderstanding with local communities. Joël [Kiyulu] explains to them that we are not a substitute for the state…When our boat gets to the lake people want to load their goods onto it first. We don't have the authority to stop them, since we are not the state. The IUCN can explain to the people that if they load first and there is no space left for the company's logs, the ITB will go out of business and the boat will no longer help them with transport.[ccxi]

Again, bias in favor of the logging companies needs and rights is apparent. The IUCN structure is not intended to act solely as a translator for companies, but is meant to facilitate a dialogue between levels. Weighting of support toward companies and higher-tier structures defeats the overall purpose of SVBC and community-inclusive conservation.

Additionally, the SVBC and similar structures can only serve to increase local voices if structures are properly implemented to ensure all community voices are heard. In Bikoro, much community interaction is conducted in association with the Church, as is the case in most of the DRC.[ccxii] Involvement of the Church is therefore necessary in order to ensure sustained involvement of the community, yet does not necessarily represent the needs of all local peoples. The SAIIA states, "While local-level tripartite structures could go some way in strengthening the voice of communities, as mentioned, in Bikoro very few organized local civil society organizations exist outside of the church. This was a specific challenge identified in the territory."[ccxiii] The SODEFOR-commissioned working groups that included women, youth and pygmies are a potential means of overcoming this problem, and creation of these types of groups as an SVBC standard is therefore desirable.

ICDP: A Large Scale Reality?

The necessity for small, organized groups and a tripartite-local structure stems from the lack of ground-level political structure in Bikoro. As cited, the bulk of civil society organization is rooted in the church and in religious structures. While this functions on the small, ground level scale for the Bikoro territory trial program, it is questionable whether a similar scheme would work on a national scale, and whether this would be realistic or sufficient in curbing wider deforestation issues. In the new political structure of the DRC, the implementation of a presidential democratic republic has taken the form of a bicameral legislature, divided between the National Assembly and the Senate. The latter drafted the 2006 constitution.[ccxiv] President Kimbala heads a 37 member Cabinet of Ministers and was inaugurated December 6th 2006 to serve a five-year term. Jean-Pierre Bemba serves as Vice

President.[ccxv] Following the 2006 implementation of the new Constitution, the Prime Minister, appointed from within the Party holding the most seats within the National Assembly, is responsible for Parliament.[ccxvi] However, the allocation of Party seats in the new legislature is problematic. Following the 2006 distribution, 68 parties and 63 independents won seats in the new legislature.[ccxvii] Kabila's PPRD party won 111 of 500 seats, 22.2 percent, the largest allotment of seats by any one party.[ccxviii] Bemba's MLC came in second with 64 seats, only 12.8 percent.[ccxix] No other party won over 10 percent of seats; 54 parties won less than one percent representation, and 29 parties won just one seat.[ccxx] This is problematic as it necessitates a reliance on party coalition and alliance for successful governance in areas such as forestry policy.

In *Can a Fledgling Democracy Take Place in the Democratic Republic of the Congo?,* Mark Anstey suggests that, as the country is still in the process of forming new political structure, political actors will move away from behaviors detrimental to other parties and instead focus efforts toward what is best for the fledgling democracy, in an instance of "pacting".[ccxxi] This provides hope for the effectiveness of intra-party cooperation toward a common goal, at least in the short term. However, Anstey sees long term and more fundamental issues with the new governmental structure that, as it would foster weak government as a whole, would be problematic for implementation of sound forestry policy. He views the structure of the DRC's political system as "an effort to respond to its ethnic diversity (through an increased number of provinces) and mute secessionism (through retention of provincial revenues)", and highlights the absence of a unified national identity, and the problems inherent within it.[ccxxii] The lack of a strong national identity is an obstacle to sound national governance, particularly in a country with an extremely diverse population that has a history of conflict.[ccxxiii] This is of particular relevance to the feasibility of actualizing an ICDP-type

community based conservation system, as implementation of such schemes across the nation would require a balance between overarching control and specific, on-the-ground creation of localized plans. The existence of extremely specialized SVBC groups in the Bikoro territory exemplifies this. The groups were created for attention to specific problems, such as illegal charcoal production, which is cited as the most prevalent and harmful problem in the Bikoro territory.[ccxxiv] This reinforces the value of involving of local communities, who best know the area's specifics issues and attributes, and the concurrent issue of establishing such a nuanced and niched structure on a wider scale. Though the Bikoro territory case successfully created specified SVBC groups that represented problems specific to the local area, the case had the advantage of specialized attention and oversight due to its experimental nature. This level of attention may not be feasible on a countrywide level.

Anstey speaks further on the problems of an absence of national identity for effective governance, noting that a lack unified identity "inhibits a broad-based consensus for state-building purposes and, coupled with poor infra-structure, limits the capacity of a central government to acquire revenues, offer services, and broadcast control effectively".[ccxxv] "State weakness and lack of accountability"[ccxxvi] are cited as the prevalent obstacles facing implementation of the Bikoro problem, which are also issues for the DRC government in general.

Community Based Conservation – Government Relationships

The question, then, is how much government control should be levied over the community groups, and how this relationship should be organized? Government

intervention can be beneficial within community-based conservation, when levied in the right areas and not too heavy-handedly. Though monitoring is best placed in local hands, dispute resolution may prove contentious if left to communities, and government refereeing in dispute management and in the upholding of area boundaries is necessary.[ccxxvii] Government intervention will be more necessary during early stages of community control, when organizational structures and hierarchal roles and relationships are still being established. Though communities will have existent organizational structures, there will likely be shifts and requirements for new responsibilities, such as group coalitions and elections of representatives to interact with higher governments. These will not be preexistent and government oversight during the transition period would therefore be beneficial.

The same may be said for government financing, as cost-benefit analyses of new ventures, such as greater NTFPs extraction and marketing, or ecotourism, may indicate foreseeable financial revenue only after a period of losses.[ccxxviii] The government may therefore provide financial support to infant industries in the early stages of development. Similarly, the government may use its centralized power to utilize revenues to support general poverty alleviation mechanisms.[ccxxix] For instance, education and training programs for communities will enhance local livelihoods, while being mutually beneficial in creating next-generation political leaders who are educated yet have the benefits of understanding local nature and needs.[ccxxx]

REDD – The Realities of Moving Forward

REDD schemes are promising, and involvement of the DRC in such global movements towards conservation will likely bring positive repute on the world stage. However, they will have high transaction costs, particularly in regards to monitoring and verification of compliance. Furthermore, payments are performance based.[ccxxxi] The scheme will therefore not provide any immediate source of revenue, and the REDD initiative must be coupled with other policy functions and means of income. In 2008 the World Bank listed the DRC as one of 13 countries chosen for REDD funding through the Forest Carbon Partnership Facility, to provide financial and executive help in implementing REDD.[ccxxxii] However, the scheme at that time received much criticism for neglecting local communities in policy designing, and implementation of REDD within the context of DRC community-based conservation may therefore be optimum. The main criticisms of REDD, as outlined earlier, are a lack of attention to customary rights and community voices, problems of "leakage", and issues of additionality. In bringing the DRC into the REDD initiative these issues must be avoided, while ensuring initiative funding as well as proper disbursal of revenue.

A DRC Progress Sheet for February 2011 was released by the World Bank, outlining the financial and social readiness for REDD implementation. A US$200,000 FCPF was fully disbursed, with another US$3.4million grant ready to be signed March 2011.[ccxxxiii] The DRC's National REDD Coordination is deemed "operational", with over 15 active technical staff, and the National REDD Committee and Interministerial Committee met for the second time February 2011.[ccxxxiv] With funding attributed, it is vital to address community involvement in REDD. The current readiness status as set out by the World Bank notes that positive efforts have been made to provide information and REDD awareness to rural communities. Province-level workshops were held to train journalists on REDD issues, and

radio and television "awareness raising" sketches have been distributed in French, Kiswahili, Kikongo, Tschiluba and Lingala.[ccxxxv]

These are positive movements towards a successful move to REDD in the DRC. While the emphasis on community involvement is applaudable, one of the main concerns with REDD is the "carving up" of forest lands, protecting (via limited local access) areas that policymakers fail to recognize as fundamental to the livelihood of forest-dependent communities. Raising awareness through television and radio publications may, therefore, not go far enough. In January 2011 a "Province Level Dynamics" process was initiated in the Maniema province, involving consultations regarding each of the endeavors taken by the National Coordination Committee.[ccxxxvi] This type of intimate communication between policymakers and local communities is vital if REDD is to truly adopt local welfare in its planning. The Maniema Province Level Dynamic consultations are a tangible example of sufficient communication, and is a structure that the National Coordination Committee should implement across the DRC, to create a successful REDD structure for its own sake, but also to avoid further criticism from human rights groups and to ensure continued funding from the World Bank.

At this present stage the limitation of such structures to one province is understandable, as dialogue between local communities and higher authorities has been historically weak. The proposed community-based conservation structure would, then, organize community structures and establish elected representatives, creating points of contact within communities for policymakers to address. Furthermore, the conservation structure would help delineate conservation areas with limited access, and areas that communities would exploit, thus avoiding much-feared issues of REDD restricting access to lands vital to communities. The REDD structure is one that could, feasibly, be implemented

independently, with no regard to forest-dependent communities. However, doing so would rally further opposition from human rights groups, and would likely fail to come into compliance with World Bank notions of "readiness" and thus hinder further funding. The REDD should, then, be implemented in cooperation with community-based conservation methods.

A report by the Woods Hole Research Center in the United Nations Framework Convention on Climate Change suggests dividing future income from REDD into Governance Funds, a Private Stewardship Fund, and a Public stewardship Fund.[ccxxxvii] The Private Stewardship Fund would distribute funds to local, forest-dependent communities.[ccxxxviii] If REDD is partnered with community-based conservation these funds may be used to finance CBV type groups and governance, as well as helping to improve the general standard of living. As previously mentioned, community organization in the manners suggested, as well as means of contact with local government and access to information, have been historically low. A Private Stewardship Fund may use a portion of REDD revenue to improve communication and finance community organization. Furthermore, the report suggests investing a portion of the Fund in intensifying agricultural production, effectively supporting communities on less land.[ccxxxix] Investing in improved seeds, shock-resistant crops, better agricultural technologies, and basic education will allow communities to sustain populations using less land and, perhaps, moving away from swidden agriculture, as community-based conservation will require some level of sedentariness. The Public Stewardship Fund would offset the opportunity costs in cancelling commercial logging concessions and offset incentives to grant more. The Fund may also be used to finance proper management of companies whose concessions are retained.

The report expresses need for a major overhaul of current government practices. Though great moves have been made in the installation of a democratic government, national infrastructure is still weak and the notorious propensity for corruption in the DRC will not be overcome easily. The Governance Fund will therefore be dedicated to strengthen political infrastructure. This is of political relevance to the implementation of community-based conservation; the suggested community-government relationship will require increased and stronger infrastructure nationwide, to ensure adequate man power to converse with community groups and oversee conservation activities. Division of REDD revenue will promote fair distribution. Establishment of three separate funds will simplify the distribution process, and emphasis on transparency within the three will prevent previous instances of income being absorbed by corrupt institutions. Continued funding from the World Bank should, ideally, be contingent upon such transparency.

Regulation of Artisanal Logging

Artisanal logging has received no direct regulation under the DRC Forest Code, and artisanal logging companies have therefore negotiated personal contracts with communities in returns for the right to log their forests. This usually results in the communities being provided with less than the rights to their land would be worth, though, in some cases, communities make extreme demands which artisanal companies are unable to provide.[ccxl] Because artisanal logging is illegal, it is not regulated, and the environmental and community impacts are difficult to quantify. Logging is opportunistic and, beyond payments in the initial agreement and short-term employment, contributes little to local communities. As it

is part of informal economy artisanal loggers often receive low timber prices. Yet artisanal logging inflicts little harm on the environment, as trees are often cut by hand with chainsaws and logs transported via bicycle or human labor (thus providing short-term employment to locals).[ccxli] The practice can also create market access and establish physical routes for local producers.[ccxlii] The DRC should therefore include artisanal logging within its Forestry Code, so that it may be regulated and contribute to the community.

In 2008 the USAID Central African Regional Program for the Environment instigated a project in the Ituri landscape of the Mambasa Territory, placing regulation of artisanal logging in the hands of local communities. Primary products of artisanal logging in the area are planks, beams and rafters sold for production purposes, and in 2005 an estimated 60 artisanal logging groups were present in the area covering a total of 11,620ha. The Community Based Natural Resource Management project was implemented in the Banana zone, an area dependent on Agriculture as the primary mode subsistence. Prior to the 2008 project implementation, local leaders would cede rights to incoming artisanal loggers who would strip areas of land, or grant access rights to miners who would then use forest areas around mining sites. This granting of access bred contention within communities, and allowed the communities as a whole to gain little from the transactions.[ccxliii]

The Community Based Natural Resource Management project placed 42,500ha of forestland under a community management plan, a 25-year management scheme that will be redrafted every five years, with each five-year draft submitted to community groups and local government for approval. The project hired a DRC environmental specialist lawyer to oversee discussion between forest-dwelling communities and government authorities to debate the management plan's structure, and to analyze past and current logging and forest-use trends. Land use plans are allocated to specific areas within the region, with culturally

sacred and ecologically sensitive sites being avoided. Timber harvesting is spatially controlled to ensure that tree regeneration is possible. This factor is extremely fundamental to the plan's long-term success, and is part of the necessity for the 25-year structure. Local committees and inter-village Community Based Natural Resource Management committees were established, overseen by NGOs, such as the WCS, in order to facilitate committee organization and quell initial conflicts. These committees were instrumental in the shaping of the management plan, and in demarcating distribution of artisanal logging revenues. According to the study revenues shall be divided between funding equipment maintenance, taxes and permits, compensating logging teams, paying customary tributes to landowners, and establishing a village credit union.[ccxliv]

The Banana zone community-management project is an example in which artisanal logging can be regulated within the community-based conservation framework, managing the scale of the logging and helping bring higher timber prices for loggers and fair payments for local communities ceding portions of land. Agricultural subsistence and preservation of cultural and environmentally sensitive areas continued in concurrence with managed artisanal logging, illustrating that a properly funded management program with adequate dialogue between village communities, local governments, and outside stakeholders, can breed a sustainable and mutually beneficial forest management plan.

Non-Timber Forest Products

Though Terborgh, Dugelby and Salafsky study provided a bleak portrayal of the feasibility of non-timber forest products as a policy solution, it should not be so quickly

disregarded as a conservation method. Non-timber forest product extraction is less environmentally detrimental than timber extraction, commercialization of products may bolster income to local communities that already depend on product extraction and sale for subsistence, and recognition of non-timber products' potential increases valuation of forest resources, thus increasing incentives to conserve. The authors' analysis focused primarily on the failure of non-timber forest products as the primary means of offsetting deforestation, yet integration of product extraction and some level of commercialization would augment the aforementioned policy proposal of community-based conservation.

Verina Ingram completes a value chain analysis of non-timber forest products in the Congo Basin, and sees similar potential. She cites the honey trade from Cameroon as an instance of successful product commercialization, pointing to the formalization of the sector as the root of the success.[ccxlv] Formalization of honey harvesting and marketing strengthened cooperation between producers and intermediaries, and opened wider distribution markets that increased trade with urban areas.[ccxlvi] This led to a strengthening of social and commercial structures, leading to the success of the product's commercialization. Ingram notes that many of the non-timber forest products that would be popular with consumers have production chains that would prove unsustainable when faced with increased demand, and would require government regulatory intervention, or domestication.[ccxlvii]

Yet J. E. Michael Arnold and M. Ruiz Pérez analyze the impacts and potentials of commercializing non-timber forest products, and conclude that community oversight may counter issues of unsustainable exploitation.[ccxlviii] The authors note that product harvesting asserts direct and indirect pressures on the forest.[ccxlix] Competition between local groups for certain food products and for prime products for commercialization exacts an indirect

pressure, exacerbated by competition from animal population for the same edible goods.[ccl] Similarly, focusing harvest on a few marketable products disrupts the balance of the forest's biodiversity, affecting dependant species.[ccli] Direct pressure stems from depletion of the harvested species itself, as high valuation and increased market access may bring a sudden surge of desire to harvest that exceeds the forest's sustainable yield. This notion is exacerbated by the fact that many communities harvest in unsustainable ways; it is estimated that 40 percent of *Gnetum* harvesters, a climbing vine used as a protein-rich vegetable and for medicinal purposes, harvest in a manner that destroys the vine, the roots, and often the tree itself.[cclii] Numerous studies have predicted non-timber forest product commercialization leading to overextraction or inevitable domestication of certain species; increased access to markets and trade would cause some products used for subsistence to be replaced with imported goods, and forest products would therefore be harvested only for sale, at high, probably unsustainable levels.[ccliii]

Arnold and Ruiz Pérez thus clarify the need for monitoring and control of non-timber forest products extraction. Monitoring would ensure that certain species are not harvested beyond the forest's sustainable yield, check that competing groups gain equitable access to resources, and ensure that the products are being extracted in manners that do minimum damage to the forest itself. They note that traditional methods of top-down conservation – namely limiting local access to land through national parks and restricted areas – hindered local control of non-timber forest product harvesting levels.[ccliv] In this sense, non-timber forest product trade may work best when coupled with community-based conservation. However, establishing a management framework within communities who may be vying for access to the same resources would be problematic, and conflict resolution would likely require government intervention, partially undermining the concept of

community-based conservation in itself. Furthermore, there is a disparity in terms of the uses of non-timber forest products that is dependent on economic status. For those living in poverty, the products provide a subsistence safety net in times of hardship.[cclv] Yet commercialization and marketing of non-timber forest products have high transactions costs and high labor opportunity costs, and is therefore not a viable possibility for those living in poverty, or for those emerging from it.[cclvi]

In this sense non-timber product commercialization would have the highest potential for sustainable success if implemented once community-based conservation initiatives are well established, and communities are already generating steady income from other sources. Similarly, once management structures have been firmly established for purposes of overall forest management, they may help to develop and oversee product harvesting and marketing structures. Implementation of overall conservation structures should have already ascertained which forest areas are prime for which conservation methods, and areas most eligible for non-timber forest product extraction may therefore be more clearly defined. Furthermore, ground-level oversight may monitor harvesting methods, ensuring that goods are harvested in ways that do not damage the trees or fauna, and at levels that do not exceed the sustainable yield. Non-timber forest products are certainly a necessary part of local livelihood, especially in periods of economic and food-access hardship, and access to them should not be limited. However, the realities of non-timber product commercialization are that it is difficult to implement without heavy impacts on the forest and, consequentially, on the communities themselves. While current trade with local markets supplements community income, expanding trade to national and international markets would be difficult, if not impossible, to achieve without domesticating the goods or implementing strict regulation of product harvesting. Intensive product commercialization

may therefore be useful only to buttress other conservation methods, and only in cases where specific products have been deemed prime for marketing due to high yields that may be harvested sustainably.

Forest Product Certification Systems

Currently, no companies in the DRC are FSC certified. However, the FSC certifies three companies in neighboring Congo, covering almost two million hectares, and more than seven million hectares of African forest overall.[cclvii] Why, then, are FSC certified companies present across Africa and not in the DRC, and how may the DRC increase certification? The Convention of International Trades of Endangered Species of Wild Fauna and Flora (CITES Treaty) prevents harvesting and trade of endangered species. Yet the Afrormosia and Sapelli trees, both listed under Appendix II of the treaty as endangered species, are harvested in the DRC and sold on an underground international market.[cclviii] The Sapelli tree is the sole habitat of the Nudaurelia Oyemensis caterpillar species, one of the most widely consumed insect species, accounting for 9600 tonnes of edible caterpillar species sold in the capital Kinshasa.[cclix] The species is being threatened by extensive logging of the high-value Sapelli tree, which is deemed the most valuable tropical timber species at US$850/m3.[cclx] Despite the CITES Treaty designation the DRC has increased exports in recent years and is

now the highest exporter of the tree species worldwide.[cclxi] Continuation of such practices is not only harmful in terms of direct effects on the environment itself, but is detrimental to the global reputation of the DRC and the dedication to reform forestry policy.

Dedication to certification standards and to preexisting regulations such as the CITES treaty is therefore an important factor in DRC forestry policy. However, the hitherto lack of certification in the DRC calls for delicate attention to the way funding and management infrastructures are developed during initial stages of implementation. Cashore notes that forestry certification is weakly institutionalized in Africa, which he suggests is primarily due to governments having focused attention on traditional forest conservation methods.[cclxii] Certification may therefore be fostered by mere governmental attention to it as a conservation method. Similarly, industry support of certification systems foster stronger infrastructures and incentives to certify. An estimated 80 percent of South Africa's plantain sector supports FSC, which Cashore suggests provides vital cooperative support while quelling market access problems.[cclxiii] NGO cooperation provides vital support during initial certification stages, and continued backing for long-sighted certification success. NGOs are also important for external oversight; some NGOs have been rejecting certification of some enterprises as they do not foresee long-sighted success.[cclxiv] For example, a group of NGOs, including the Native Rainforest Network and the World Rainforest Movement, called for a moratorium on select Gabon firms as they saw inadequate management structures and a lack of stakeholder consultation. Furthermore, they suspected negative environmental impacts on nearby protected areas, and thus requested that the moratorium be upheld until a more stringent environmental analysis was completed by the FSC.[cclxv] Support from industry and from NGOs is therefore an important factor in successful establishment of certification systems in the DRC.

The dispersed nature of the DRC's population, the suggested formalization of artisanal logging, and the shift to community based conservation will lead to a prevalence of small, community-based forestry enterprises, and certification of these smaller systems must therefore be examined. In a paper backed by the FAO Forestry Group, Matthew D. Markopoulos analyzes certification systems based on community-based forest enterprises.[cclxvi] Enterprises regarded as community based may change depending on global context, but share certain characteristics; the labor force live near the harvesting site, harvesting operations are small-scale, enterprises are less capital intensive than their industrial counterparts, and profits are usually invested locally.[cclxvii] Though the size of the community-based enterprise may vary from a few small loggers to larger operations employing upwards of 100 individuals, they are small-scale enterprises in comparison to larger industrial companies.[cclxviii]

Cashore notes that community-based enterprises that become FSC certified tend to "wane" a short time after certification due to high costs, low economic benefits, problems of management structures, and inadequate access to global markets and production chains.[cclxix] Community support of the certification weakens due to these issues, and the author cites assistance from external aid agencies as an important factor in enterprises with longevity. Implementing certification in the DRC may therefore benefit from cooperating with outside donors, particularly in the initial stages. Furthermore, certification of the community-based enterprises should focus on utilizing the FSC's burgeoning Small and Low-Intensity Forest Management scheme, which is geared specifically to small and community-based forestry enterprises. Doing so will not only simplify the procedure, but will somewhat quell market access issues through new FSC market access schemes and a new 'community based' product labeling system being developed specifically for products of this nature.[cclxx]

Markopoulos notes that the economics of the enterprises tend to be localized around families or close communities, and extension beyond these realms is highly dependent on the cohesion of individual communities and whether they choose to manage the enterprise with new or traditional leadership and management structures.[cclxxi] The study notes that, in many cases, the demands of markets overwhelm enterprises that opt to continue with traditional structures.[cclxxii] In this sense, certification of small, community-based enterprises could be beneficial, so long as the enterprise structures can withstand the demands of increased markets. According to Markopoulos' study, the distribution of income usually depends on the primary intention of certification. If the primary intention is income generation in itself, revenue is dispersed among community members. Yet areas with low employment levels may use revenues to create jobs and bolster employment, cycling income back into the system. Without stable infrastructures such as secure property rights, licensing requirements, financial services, and concrete business regulations, income generation based systems may undercapitalize enterprises and create instances of low worker payment levels and conflict within local communities.[cclxxiii] Therefore, much like non-timber forest products, certification of community-based systems would be best implemented once the overarching structure of community-based conservation has been realized, as property rights and ground-level structures will be more concrete.

5. Conclusion

The current nature of DRC politics and forestry policy provides a real opportunity to move forward in responsible and sustainable ways. Logging concessions covering vast plots

of lands have been granted, though are yet to be acted upon. The newly democratic government has the opportunity to fashion forestry policy in a way that preserves resources while concurrently supporting the country's people. This opportunity, coupled with the DRC's abundant forest resources, has garnered attention from international actors, spurring emphasis on global initiatives such as REDD. At the same time, this attention has helped provide substantial funding from the World Bank and aid from NGOs, and such backing will be fundamental to proper implementation of revised forestry policy, especially in initial transition periods.

Classical forestry conservation methods that exclude local communities from policymaking and from access to forest resources have proven unsuccessful, in general and in specific cases within the DRC. Creation of national parks and protected areas that allow no access to forest dwelling communities prevent communities from continuing traditional subsistence, religious and cultural practices. The problems inherent in this type of conservation mechanism extends beyond ethical issues; such exclusion breeds corruption, with local communities continuing to utilize the areas' resources illegally and often beyond sustainable levels, out of feelings of resentment as well as a basic need for survival. Furthermore, protecting areas of such magnitude requires a level of policing that is logistically infeasible and will likely fall prey to corruption, which is prevalent in DRC history. Similarly, implementation of other forest conservation mechanisms without including local communities will face potential pitfalls. REDD has been criticized for overlooking the needs of forest dwelling communities in its policy implementation in much the same manner as national park creation, outlining protected areas with little attention given to the people dwelling within their boundaries. Yet REDD faces additional criticism for failing to adequately disburse revenues to forest dwelling people, whose land rights are

ceded in order to create protected areas. As one of the World Bank's focus countries for funding under the Forest Carbon Partnership Facility, evading such criticism and demonstrating a dedication to economic responsibility is vital to secure continued funding and assistance.

Community-based conservation should therefore be at the heart of the DRC's forestry policy. A fundamental aspect of the country's physical and human geography is that a large portion of the population dwells in communities spanning the DRC's rich forest landscape. A mutuality of interests and responsibilities exists; forestry policy needs to consider the rights and livelihoods of these communities, and the communities themselves can be fundamental in the policy implementation process. Many communities have lived in the forest areas for numerous generations and thus provide an intimate knowledge of the ecosystem and its fluctuations. This knowledge can be vital to protecting the resource, particularly in knowing which areas are prime for conservation and which may be best put to other purposes, such as extraction of non-timber forest products. Furthermore, including local communities in the conservation projects creates an incentive to conserve. When access to land and its resources are cut off, there is an incentive to loot the land and harvest as much as possible as access is correctly perceived as short-term. In contrast, involving communities in conservation creates a sense of stewardship and thus an incentive to exploit resources in sustainable, farsighted ways. An expectation of stability would therefore be necessary to ensure stable and long-term conservation practices.

Community-based conservation should therefore be the lynchpin to the DRC's future forestry policy, with an integration of other conservation mechanisms. Implementation of community-based conservation as exhibited in the Bikoro Territory trial would put ground-level conservation and oversight in the hands of local people, while

providing guidance, funding and oversight from higher governmental authorities and non-governmental organizations. Yet fundamental to the success of such a scheme is careful attention to the allotment of areas, both in terms of the designation of rights to specific communities and the focal use of particular areas, such as non-timber forest production collection, or ecotourism. Inclusion of local communities is fundamental to execution of this, as forest-dwelling communities tend to have an intimate, long-standing relationship with local forest areas, and would therefore know best which conservation methods are most suited to which areas. This said, cooperation of higher levels of government is vital to ensure that these communities function harmoniously with other organizations and among themselves, and will be especially necessary in early transition periods, where community rights, hierarchies and general management structures will likely be tumultuous as the new structures settle into place.

Structuring community-based conservation is this way will provide a multi-level cooperative platform on which to instigate the various other conservation mechanisms. For example, the multi-level structures will ensure considerable dialogue between local communities and higher government, so that the needs and rights of local communities may be adequately considered during policy creation and implementation. For instance, the criticisms of the REDD scheme's failure to take into account access rights of forest dwelling communities would be quelled, as their voices could be involved in REDD implementation procedures, and they may help suggest forest areas most apt for conservation under REDD. Similarly, structuring conservation in such a way will help offset issues of leakage, as intimate, ground-level oversight of forest use will prevent harvesting popping up in other controlled areas. Furthermore, as one of thirteen countries listed under the World Bank's Forest Carbon Partnership Facility, the DRC stands to receive funding and attention that

will be invaluable in proper implementation of forestry conservation mechanisms, ensuring continued funding. Attention to local communities and efforts to offset leakage and other REDD-related criticisms will illustrate a dedication to proper forestry policy, and will establish the DRC as an environmentally responsible country on the world stage.

Visible dedication to sound policy – and, with it, a move away from notoriety for corruption – will have a positive impact on forestry certification systems in the DRC. A fundamental aspect of the success of certification systems is trust in the legitimacy of product sources at each stage, from producers to national and international consumers. Establishing legitimate forestry management systems will help foster this trust, as will the accountability and strict oversight of ground level community conservers. The incentive for sustainable practices that community-based oversight fosters will help ensure close attention to harvesting and production practices, and the aforementioned differentiation of areas prime for conservation under REDD schemes and those that are suited to harvesting will further guarantee sustainable practices.

Implementation of non-timber forest product harvesting and marketing will function in much the same way. Non-timber forest products, as a buttress to broader conservation policies, rather than a primary conservation alternative in itself, can bolster community income and allow forest resources to be utilized without timber harvesting. Illustrating dedication to national sustainable forestry practices on the world stage may help increase access to international markets, though a simple expansion of preexisting local and national markets for non-timber forest products may suffice to bolster income and offset the need to harvest. Furthermore, a balance must be found between increasing forest product harvesting and ever-expanding markets to the point where harvesting becomes unsustainable and species need to become agriculturally domesticated. Focusing on national and local

markets, rather than pressing to expand international markets, may help maintain this equilibrium. Establishing non-timber product extraction as a legitimate supplement to conservation policies will also stress the value of preserving local communities traditional rights to and interactions with the forest. In essence, inclusion of non-timber forest products in the policy framework should aim to legitimize and protect the population's preexisting use of the products, safeguarding communities' rights to continue harvesting rather than expanding product marketing beyond sustainable levels.

In this same way, legitimizing and regulating artisanal logging will permit government oversight of a forest activity that already exists, albeit illegally, allowing for sustainable harvest levels to be established and harvesting and production regulations to be instigated. Dovetailing from this is the introduction of forestry certification systems that focus on small-scale, community-based production groups, which could provide certification to legal artisanal systems and therefore, through increased access to markets, create further incentives to act sustainably.

Placing forest conservation in the hands of local communities creates an incentive to conserve. Legitimizing the customary rights of forest-dwelling communities and involving them in the preservation of their own land would make it their own interest to ensure forest resources are used in sustainable ways, in order to safeguard their future homes and livelihoods. Furthermore, implementing community-based conservation as the lynchpin of forestry policy would create a harmony between this ground-level conservation mechanism and more centralized initiatives such as REDD. Legitimizing the roles and rights of forest-dwelling communities would ensure their voices are heard in planning and implementation of REDD and other centralized conservation efforts, while the long-term knowledge of the forest ecosystems that the local communities can provide will help determine which forest

areas may me best suited to which uses. Ground-level conservation also provides a means of overseeing protected areas and harvesting practices, which can be economically and logistically infeasible when implemented in a top-down manner. Allard Blom characterized typical top-down, centralized policy structures as "conservation for the people", and basically community-oriented, bottom-up structures as "conservation by the people". Establishing equilibrium between community-based conservation and national policy initiatives would implement "conservation with the people", utilizing the unique knowledge of forest-dwelling communities to create and implement sound forestry policy, and shaping top-down policies in a way that recognizes the communities' rights. Conserving with the people in this manner is crucial in moving forward with forestry policy in the DRC, creating a farsighted set of policy initiatives that protect a precious environmental resource while supplying the economic benefits and community stability to a newly democratic country with extensive potential.

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