



Lessons for REDD+ benefit-sharing mechanisms from anti-corruption measures in Indonesia

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Key lessons

- Measures to tackle corruption in Indonesia can inform the design of benefit-sharing mechanisms (BSMs) for REDD+ in five main areas: (i) designing for transparency and accountability; (ii) ensuring participation of all stakeholders; (iii) matching appropriate levels of authority with their function; (iv) strengthening coordination between institutions; and (v) factoring costs into the design.
- Information and communication technology (ICT) has strengthened accountability and transparency in anti-corruption measures. It can be used to: (i) limit any direct interactions between officials and the public that offer opportunities for bribery (particularly in licensing); (ii) trace suspected violations; and (iii) simplify processes and shorten procedural times. ICT may be useful for REDD+ BSMs in registering beneficiaries, reconciling transfers and documenting impacts for monitoring and evaluation.
- Strong coordination between institutions and ministries is key for both anti-corruption measures (ACMs) and BSMs, as both involve multiple sectors and governance levels. Coordination can be strengthened by: (i) involving local governments in design, implementation and monitoring; (ii) spreading responsibility among all relevant institutions; (iii) establishing an institution with sufficient authority to serve as a facilitator; and (iv) providing sufficient resources for coordination.
- ACMs can benefit from a facilitating institution with both investigative and punitive authorities to oversee and resolve corruption and to mediate conflicts. However, care should be taken to maintain (i) a power balance between investigative and punitive functions; and (ii) oversight of the institution within the design. This would be an important factor to consider in the management of a REDD+ BSM system.

Introduction

Various forms of illegality are prevalent in the forestry sector (Larmour 2011) and forest governance is weak in many REDD+ countries, with corruption by government officials by private sector actors in commercial forestry commonplace (Barr 2011; Pham et al. 2013; Williams 2013). REDD+ can be compromised, particularly if substantial amounts of money are to flow through new, untested financial markets and mechanisms (Transparency International 2011). Within the context of REDD+ BSMs, “corruption is likely to happen when administering revenues or as a result of the misallocation of funds for the targeted recipients” (Tacconi et al. 2009). Other risk areas are failures in systems such as measuring, reporting and verification (MRV).

Fostering and enforcing principles of good governance – such as transparency, accountability and public participation – in design, implementation and monitoring of REDD+

policies are important for achieving REDD+ goals, and are particularly crucial for BSMs (Brown and Corbera 2003; Barr et al. 2009; Williams 2013). UNFCCC mentions the importance of transparency within REDD+ implementation in the Warsaw COP Decision 3/CP.19 (UNFCCC 2014). Corruption can increase transaction costs and prevent the distribution of benefits to eligible parties, therefore potential avenues for corruption within REDD+ must be identified and closed. We define corruption as “abuse of public power for private benefit through bribery, extortion, influence peddling, nepotism, fraud, or embezzlement” (Campos and Pradhan 2007).

This review of secondary literature of ACMs in both forestry and non-forestry sectors considered the measures taken to tackle the corruption problems that might be potentially faced by REDD+ benefit sharing. An ACM is a plan or course of action taken to reduce and prevent corruption. It can be **preventive** (such as administrative reforms to improve transparency and accountability), **punitive** (the use of laws, rules and mechanisms that lead to disciplinary actions) or **investigative** (efforts to find or reveal corruption) (Heidenheimer and Johnston 2005). A total of 16 ACMs, implemented or designed in Indonesia between 1998 and

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2013, were selected (see Table 1). The list of selected ACMs was then grouped into three categories based on the actor that implements it. These included:

- government-related ACMs (implemented to improve government function/service); or ACMs established by government (even if funding came from other sources);
- civil society organization (CSO)-related ACMs initiated by CSOs in their role as 'watchdogs';
- private sector/market-related ACMs which aim to improve accountability toward the private sector's stakeholders (e.g. shareholders or buyers) and to improve transparency of the company's relation with government, not necessarily initiated by the private sector.

Box 1. The 3Es

In this brief, *effectiveness* refers to the extent of corruption reduction achieved by the ACM; *efficiency* refers to the actual costs of such reduction; and *equity* refers to the distributional aspects of the associated costs and benefits, procedural aspects of participatory decision-making and the specific contexts that shape stakeholders' perceptions of equity (adapted from Angelsen et al. 2009 and McDermott et al. 2013)

Each ACM was assessed using the 3Es (effective, efficient and equity) criteria (See Box 1). For those ACMs at an early stage of implementation, we focused on assessing what could be learned from the design and process of implementing the ACM.

Lessons for REDD+ benefit-sharing

Forestry-related corruption in Indonesia includes the issues of: licensing, management, monitoring, area status determination, and tax revenue generation from the forestry sector (Dermawan et al. 2011). Sunderlin and Atmadja (2009) describe the ways in which REDD+ readiness plans stress the need to reform global governance in order to achieve effective implementation, but they do not include clear plans for the challenges of dealing with: transparency and accountability, weak capacity, overlapping mandates of resource ministries, and perverse incentives for deforestation and forest mismanagement. We based this review on what we can learn from ACMs centered on five topics relevant to the design of REDD+ BSMs, such as: (i) how to design for transparency and accountability in carbon accounting and in the management and distribution of REDD+ finance as well as in-kind benefits; (ii) how to promote participation of all stakeholders, including REDD+ target groups and local government, for FPIC (free, prior and informed consent) implementation, design and monitoring of REDD+ BSMs; (iii) the need to match appropriate levels of authority based on the function or objective of all agencies/parties involved in the BSM; (iv) how to increase coordination between institutions for the whole process of REDD+ including BSMs; and (v) how to include consideration of costs in the design of BSMs.

Designing for transparency and accountability

Dermawan et al. (2011) suggest that making decisions public and improving transparency could be critical in limiting corruption and fraud in REDD+. Issues of transparency and accountability provide a number of lessons for REDD+ BSMs as they are core objectives for most of the ACMs we reviewed.

Our review of government related ACMs show the benefits in terms of improving transparency and accountability by reducing bureaucracy, simplifying the process and limiting direct interaction between government officers and customers. This reflects wider research that shows that simplified processes reduce the subjectivity of bureaucratic decision-making (Tacconi et al. 2009). The police agency's "mobile SIM car" is a good example of positive results generated (Komisi Kepolisian Indonesia 2010; Harsono 2012; Triana 2012) in an agency which has struggled with a public perception of high corruption levels. The driving license renewal process was shortened and direct interaction between police officials and the public was restricted. This was said to have decreased the risk of bribery and brokering practices taking place (Suara Tokoh Online 2010; Virhdhani 2013; Sinar Harapan 2014) and resulted in changes in practice by the public once they realized that the new system protected them from spending extra money on brokers.

Processes for fostering transparency and accountability can be simplified through the use of ICTs, primarily through Internet access and social media. For example, by putting their permit application service online, the Ministry of Forestry simplified and shortened what had previously been a lengthy and complex process. This service aims to eliminate the need of face-to-face meetings with forestry officers so bribery chances are reduced (KPK 2014); this effect is also suggested by another study on corruption by Campos and Pradhan (2007). The LKPP (Goods and Services Procurement Policy Agency) introduced a procurement for managing government spending on goods and services (see Table 1) which replaced the previous system conducted by government officials in person with an online bidding system that is simpler, more efficient and more transparent. According to the LKPP website (<http://www.lkpp.go.id/v3/>), the new system has already saved the government about USD 4.7 million. As all transactions and processes are recorded electronically, it is harder to destroy evidence and easier to trace any violations. In addition, computerized procedures can make it possible to track decisions and actions, which can help deter corruption (Arpit 2012) – an important consideration given that a major factor in corruption in many Asian countries is the low risk of detection and punishment (Quah 2006).

However, a crucial issue faced in the design of ICT-related ACMs such as Indonesia Memantau Hutan – a website initiated by KPK that promotes transparency and public participation in monitoring forest use – is that the Internet is not always available in remote areas and to poorer members of society. Just 16.7% of Indonesians have access to the Internet (Internet Live Stats 2014). In addition, technical problems with large servers (that are required to deal with frequent updates) has hampered the launch of this initiative. The security needed to prevent hacking is another factor that must be considered in the case of online public interface monitoring systems (Ginting 2013).

Table 1. The anti-corruption measures included in the review

ACM Name and key details	Description
Government-related cluster	
<p>PPATK (Pusat Pelaporan dan Analisis Transaksi Keuangan/Center for Financial Transaction Reporting and Analysis)</p> <p>🕒 20 October 2003–...</p> <p>📍 Government of Indonesia (Gol)</p> <p>🏠 National to subnational</p> <p>✂ Investigative</p>	<p>PPATK monitors any suspicious transaction related to fraud, money laundering, and corruption based on Law No. 8 of 2010 on the Prevention and Combating of Money Laundering. Article 23 requires Financial Service Providers to submit financial transaction reports including fund transfers from abroad. PPATK works with financial institutions, law enforcement agencies and government institutions. They conduct computer based investigations and have the power to instruct banks to hold transactions (for 5-15 days) and to terminate the transaction. Many transactions related to corruption cases in various government institutions have been reported to law enforcement agencies (KPK and Police) for further investigation and law enforcement.</p>
<p>LPPI (Lembaga Pengawas dan Pengaduan Independen/Independent Governance Watch Agency)</p> <p>🕒 2003–2005</p> <p>📍 District Government of Solok with funding support from GIZ</p> <p>🏠 District</p> <p>✂ Investigative, punitive</p>	<p>A one-stop service center established as part of a GIZ-funded good governance project to improve transparency and quality of subnational government (Zulaiha and Ariati 2006). The Solok district head at the time approached GIZ to include his district. Initially it was intended that district government would provide co-financing but in this case GIZ financed it all. The district head carefully chose some people from NGOs/CSOs and universities that he could cooperate well with to run LPPI. LPPI provided information on district government programs to the public and received complaints on bad government services and evidence of corruption. When LPPI received reports, they would investigate and report the result to the district head. A study by Hasegawa (2010) found it was quite rare that findings were reported to police or state prosecutors. When that district head was appointed as a cabinet minister LPPI fell into inactivity, GIZ funds ended and the program was closed. In all government agencies there is an inspectorate unit that serves as an “early warning system” to detect budget misappropriation. The inspectorate units are responsible to the minister or the head of the institution or the head of the region. This form of internal reporting may have limited impact which was tried to be augmented by the external audit approach of LPPI.</p>
<p>Driving license extension - mobile service</p> <p>🕒 2007–...</p> <p>📍 Indonesian National Police</p> <p>🏠 City level</p> <p>✂ Preventive</p>	<p>A car equipped with a computer integrated with driving license data operates in a number of places in Jakarta and its suburbs to renew driving licenses. Information about the current location is provided by local police station websites. The process, which normally consists of: (i) registration, (ii) queuing to be photographed and to pay the fee, (iii) queuing to wait for the printing of a new driving license, is simple and short compared to the service at the police station. The payment rate is clearly displayed on the inside of each car.</p>
<p>State audit on forest area management-related to mining tax and reforestation fund</p> <p>🕒 2007–...</p> <p>📍 BPK (Badan Pemeriksa Keuangan/Supreme Audit Agency)</p> <p>🏠 Audit at subnational level. Report and legal action at national level</p> <p>✂ Investigative</p>	<p>The audit was carried out at the subnational level while the report and legal action was issued at the national level. The audit findings provided input for the KPK to conduct further investigation and law enforcement (Hukum Online 2013; Kanal Satu 2013; Tribun Jabar 2013).</p>
<p>E-procurement system</p> <p>🕒 2008–...</p> <p>📍 LKPP (Lembaga Kebijakan Pengadaan Barang dan Jasa Pemerintah/Government Goods and Services Procurement Policy Agency)</p> <p>🏠 National level</p> <p>✂ Preventive</p>	<p>LKPP introduces e-procurement to establish an easy, efficient and more transparent system of government spending on goods and services. Within the ‘vendor bidding process’ clear selection criteria and selection results are announced on a website that can be accessed by the public. In 2008, the first transaction was USD 3.98 million and electronic auction recorded the accumulative value of USD 58.6 million by the end of 2015. The total savings of state budget generated by the system is around USD 4.7 million. Currently, it is only about 35% of government spending on goods/services that uses electronic systems. As well as the development of the e-procurement system, the LKPP has also established e-catalogs and e-purchasing system.</p>

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Table 1. (continued)

ACM Name and key details	Description
<p>Review on Forest Area Management and Planning system</p> <p>🕒 January–December 2010</p> <p>👤 KPK (Komisi Pemberantasan Korupsi/Corruption Eradication Commission)</p> <p>🏠 National level</p> <p>✂ Investigative, punitive</p>	<p>A legal and policy review of forest area management and planning system was carried out to reveal loopholes that can lead to corruption. The review only had an investigative function but as it was carried out by the KPK (which has both investigative and punitive functions) it had additional weight.</p>
<p>Multi-door approach</p> <p>🕒 Launching 2011. First guideline published: 2013</p> <p>👤 REDD+ Task Force in collaboration with Indonesian National Police, KPK, Ministry of Forestry (MoF) and Ministry of Environment (MoE)</p> <p>🏠 National to subnational</p> <p>✂ Investigative</p>	<p>The multi-door approach aimed to accelerate the legal prosecution process of environmental/forestry related crimes (UKP4 2013; Santosa et al. 2013) by using a combination of various different laws (environmental, forestry and spatial planning laws, regulations on plantation, mining, taxation, corruption and money laundering). This approach aims to: (i) optimize deterrent effect by focusing punishment to main perpetrators; (ii) restore environment, and returning state property; and (iii) optimize the functions and roles of law enforcement officers that handle forest and natural resources related crimes such as police officers, PPNS (Penyidik Pegawai Negeri Sipil/Investigator for Government Officers), prosecutors, KPK and PPATK. To implement this approach, REDD+ Task Force signed a MoU with several ministries/institutions.</p>
<p>Indonesian Memantau Hutan website</p> <p>🕒 December 2012 (soft launch). Up to now, it is not yet functioning</p> <p>👤 KPK (Corruption Eradication Commission)</p> <p>🏠 National to subnational</p> <p>✂ Preventive</p>	<p>The website is initiated by KPK and aims to improve forest management by promoting transparency and public participation in monitoring forest use. It consists of 4 systems: i) Spatial Monitoring System for Forestry where the public can access forest or mining activities data, that consists of location, map, type of business, company name and its owner, name and contact of responsible officers; (ii) Public Response System that provides opportunity for the public to respond (e.g. new updated for map data, reporting any violation at field level, discussion in forum moderated by CSOs); (iii) Deforestation Analysis System (closed system) which assists the KPK in computerized forest cover classification analysis; and (iv) Red Flag System as an early warning system for forest management that was built by the first three systems. The website is not yet fully functioning due to insufficient server capacity (Ginting 2013).</p>
<p>Indonesia National Standard (SNI) for Demonstration Activity (DA) REDD+ Project</p> <p>🕒 30 January 2013–...</p> <p>👤 Ministry of Forestry (Pustanling - Environmental Standardization Center)</p> <p>🏠 Standard applied at national level, implementation at project level</p> <p>✂ Preventive</p>	<p>The standard aims to ensure a minimum quality delivered by REDD+ projects in Indonesia, including establishment of BSMs.</p>
<p>Online permit application service from Ministry of Forestry (Pelayanan Informasi Perijinan Online)</p> <p>🕒 Launched on September 2013</p> <p>👤 Ministry of Forestry – General Bureau</p> <p>🏠 National level, particularly within Ministry of Forestry</p> <p>✂ Preventive</p>	<p>As a follow-up to the KPK review, the BPK audit and Ministry of Administrative Reform recommendations, MoF established an online permit application service in 2013. The introduction of the new system aimed to simplify the bureaucracy, make it more effective and efficient, reduce bribery, high transaction costs, and cut time consuming bureaucracy associated with the permit issuance mechanism within MoF. The procedures to apply for permit were: (i) <i>Registration</i>: applicant registers in the website to obtain a user name and password; (ii) <i>Online permit application</i>: applicant upload required documents into the website; and (iii) <i>Validation</i>: administrator will check and validate required documents; first in first out. If there are missing documents the administrator will contact the applicant via email. Website address: http://lpp.dephut.go.id/home. There are six permits covered by the online service namely, License for Utilization of Timber Forest Products - Natural Forest (IUPHHK-HA), License for Utilization of Timber Forest Products - Industrial Plantation Forest (IUPHHK-HTI), Business License for Timber Forest Product Utilization - Ecosystem Restoration (IUPHHKRE), Lease Permit of Forest Use for mining operation and non-mining activities, Lease Permit of Forest Use for exploitation and survey activities, and Permit for Convertible Production Forest Area (HPK). After the merger of Ministry of Environment and Ministry of Forestry in 2014, based on Regulation of the Minister of Environment and Forests No. 97 Year 2014, the management of the licensing system was transferred under BKPM (Investment Coordinating Board) with MoF assessing technical suitability of permit applicants.</p>

Table 1. (continued)

ACM Name and key details	Description
<p>Initiative of Jakarta Governor Office to broadcast regular meeting on YouTube</p> <p>🕒 2013–...</p> <p>👤 Jakarta Governor Office</p> <p>🏠 Province level</p> <p>🔗 Preventive</p>	<p>The Jakarta Provincial Government established a public relations division that publishes meetings that discussed budget allocation on YouTube. The goal is to enable the public to monitor budget use. It is combined with a cell phone number set as a platform for the public to report problems related to government service.</p>
Private Sector/market related cluster	
<p>Annual report by public listed company</p> <p>🕒 1996–...</p> <p>👤 Badan Pengawas Pasar Modal dan Lembaga Keuangan (Supervisory Agency of Capital Market and Financial Institution)</p> <p>🏠 Regulation applied at national level, implementation at company level</p> <p>🔗 Preventive</p>	<p>It is obligatory for a public listed company to publish yearly reports for their shareholders. The report will inform shareholders about the company's latest condition. It consists of a financial report, and management predictions on future prospect of the company based on operations results on previous years. It focuses mainly to provide transparency, accountability and financial reconciliation of the company operation.</p>
<p>Know Your Customer Principle</p> <p>🕒 2001–...</p> <p>👤 Bank of Indonesia</p> <p>🏠 National level</p> <p>🔗 Punitive, Preventive</p>	<p>The KYC regulation requires banks to conduct identification and verification, for both individual and corporate customers, using the supporting documents provided by the prospective customer. This process includes conducting extensive due diligence on any prospective customer, including state officials, operating in a high-risk country, in a high-risk business, or deemed to be a high-risk customer. Integrated transaction records and credit database at central bank provides ideal baseline to conduct the measure</p>
<p>EITI (Extractive Industries Transparency Initiative)</p> <p>🕒 1st implementation intention: 2009 Current status: candidate</p> <p>👤 Government of Indonesia</p> <p>🏠 National level</p> <p>🔗 Punitive, preventive</p>	<p>EITI is a global standard for transparency and accountability in government revenues from the extractive sector including oil, gas, minerals and coal. EITI forms a coalition of governments, companies, civil society organizations, investors and international organizations. It has developed a straightforward and flexible methodology for monitoring and reconciling company payments and government revenues (https://eiti.org/indonesia). Companies are required to report payments they made to the government in the form of taxes, royalties, as well as in-kind, while the government required to report revenues derived from extractive companies. The reports include subnational or social/community payments and non-production-related transactions. These two reports are then compared and reconciled by an independent auditor and published in a report from EITI country and accessible to all citizens. EITI also involves the development of a multi-stakeholder oversight mechanism to ensure sound and timely implementation of the EITI process in each country and to stimulate greater public debate about how time-limited resource revenues are spent. In Indonesia, EITI is at an early stage of implementation (Natural Resource Governance Institute 2009; EITI 2014).</p>
CSO related cluster	
<p>FITRA (Forum Indonesia untuk Transparansi Anggaran/Indonesian Forum on Budget Transparency)</p> <p>🕒 September 1998–...</p> <p>👤 Numbers of NGOs and academicians</p> <p>🏠 National to provincial level</p> <p>🔗 Investigative, Preventive</p>	<p>The Budget Resource Center provides the public with access to information to monitor the use of state budget. FITRA provides training and capacity building for public to empower and enable their active participation in public monitoring. It fosters transparency and participation on government services and programs.</p>
<p>Investigation by Koalisi Anti Mafia Hutan (Coalition of Anti-Forestry Mafia)</p> <p>🕒 2010</p> <p>👤 Coalition of Environmental NGOs</p> <p>🏠 Audit (at subnational level), report (published at national level)</p> <p>🔗 Investigative</p>	<p>This is a coalition of environmental NGOs, which used a subnational network to investigate violations in the forestry sector (particularly related to plantation and mining permits and mining reclamation fund) in three provinces: West Kalimantan, East Kalimantan and South Sumatra. The audit was supported with a literature study. The audit result was submitted to KPK, Directorate General of Taxation of Indonesian National Police and UKP4 (Unit Kerja Presiden Bidang Pengawasan dan Pengendalian Pembangunan – Presidential Work Unit for Development Monitoring and Control of Development) for further investigation.</p>

Symbol key: 🕒 = start – end date of ACM implementation, 👤 = the initiator of ACM, 🏠 = Level of governance, 🔗 = type of measure

People find it difficult to exercise their rights and make informed choices without access to information (Lyster 2011). However, transparency – just making information available – does not necessarily prevent corruption. For example, the Online Permit Application Service from MoF provides increased data transparency and reduces interaction with officials, but as there are delays in processing the applications, bribery can occur in an attempt to speed up the application process (Situmorang et al. 2013). This raises the issue of how the capacity of the public can be strengthened to deal with corruption. If the release of information to the public is to have an impact on the behavior of potentially corrupt government officials, the public needs access to some kind of sanctioning mechanism (e.g. the ability to bring class actions (Kaligis 2006; Santosa 2007; Sundari 2013) and firm follow-up by a relevant authority. This is what Lindstedt and Naurin (2010) have termed “the accountability condition”. In benefit sharing, it is important to provide transparent information particularly for FPIC implementation, the design process and the monitoring of benefit distribution. By having this information, stakeholders can review and make informed choices. However, it is also important to ensure that the stakeholders have the capacity to do so.

Lessons from the private sector/market-related ACMs suggest that reconciliation systems can foster transparency and accountability, particularly in the way they provide a platform for society to access information and respond to it. The requirement for annual reports from public-listed companies is part of a mandatory audit process in which companies provide information on audit reconciliation for their shareholders and stakeholders. Similarly, the EITI (Extractive Industries Transparency Initiative) uses a reconciliation system to foster transparency in the relationship between mining companies and government. The public availability of these reports provides data that makes it easier to expose corruption (PWYP 2014). REDD+ BSMs could benefit from reconciliation systems in the management and distribution of REDD+ finance, particularly to avoid double counting in carbon measurement and crediting, as well as in benefit distribution. However, studies of the ministries involved in EITI (such as the Ministry of Mining and Energy) suggest that there will be challenges in introducing a report reconciliation system, as data is not synchronized between the subnational and national levels (Indonesia REDD+ Task Force 2012; OTDA 2014; Telapak 2014). Thus, addressing challenges related to national–local government relations may be important in the implementation of ACMs such as EITI, which depend on data reconciliation between different levels of authority.

Promoting local and public participation

Public participation is important for REDD+ BSMs because it can enhance the procedural equity of decision-making processes and contextual equity (the overall capacities of relevant stakeholders to participate, access and capture benefits) (McDermott et al. 2013). Public participation is important for ACMs because it can help to reduce corruption (Chêne 2008) – for example, public participation can improve monitoring and control systems.

Wilcox (1999) specifies five levels of public participation (from the lowest to the highest): (i) access to information; (ii) consultation; (iii) deciding together; (iv) acting together; and (v) supporting individual community initiatives. Some of the ACMs we reviewed that involve public participation (e.g. Indonesia Memantau Hutan Website and Online Permit Application System) reach the first level, providing information to the public through the use of ICTs. These examples help the public to access forestry related information which was not accessible before, an important basis for higher levels of participation and public oversight.

A more elaborative effort is shown by the Jakarta’s governor’s office initiative to broadcast their regular meetings on YouTube. This provided the public with information on decision-making processes, and involved them in the subsequent monitoring of implementation. In addition to this initiative, a cell phone number is provided for the public to report problems related to government service directly to the governor (Gunarso 2014; Sitorus 2014). The Indonesia Memantau Hutan website also plans to provide a platform for the public to report any forest-related violations such as encroachment and land-use conflicts. Both ACMs have reached the second level of Wilcox’s framework, in which the government can consult the public to find violations. The use of ICTs can reduce the cost of collecting, distributing and accessing government information (Arpit 2012), thus avoiding the high costs and high level of time consumption of conventional public participation (Parker 2000; Callahan 2007).

Fostering public participation through the use of ICTs in ACMs also raises important concerns such as the level of accessibility and inclusivity of ACMs in wider society. Are these information outlets targeted at the users/beneficiaries? These questions stem from the reflection that many REDD+ projects are located in remote areas where Internet infrastructure and capacity is not as good as in the urban areas. The provision of online information does, in principle, promote access to information, but low technological capacities, limited access to the Internet and even traditional literacy barriers remain, limiting the inclusivity of these attempts (Howick and Whalley 2008; Yang et al. 2014). This suggests the need to provide multiple and various type of participation platforms to reach different stakeholders within REDD+ projects to ensure adequate public participation.

In REDD+ projects context, contextual equity can be enhanced by making local communities aware of their rights and the sanctioning mechanisms available. The Indonesia National Standard (SNI) for Demonstration Activity (DA) REDD+ Project (Badan Standarisasi Nasional 2013) addresses this aspect by having requirements for public consultation during key decision-making processes within REDD+ project design and a dispute-solving mechanism for REDD+ implementation. There are no guidelines to establish the mechanism; they leave the design of public consultation to each REDD+ proponent. They argue this is because the design should be based on the local context where REDD+ implementation takes place. A review of FPIC implementation in some REDD+ projects in Indonesia (Putro et al. 2013) showed that local communities living around the forest are usually not aware of their right to participate in decision-making and the importance of doing so.

Another lesson emerging from our review is the importance of participation of local government and other subnational players. ACMs such as PPATK, State Audit on Forest Area Management-related to Mining Tax and Reforestation Fund, FITRA and Investigation by Coalition of Anti-Forestry Mafia operate within multiple sectors and cut across all governance levels. Their success requires active participation from subnational players. This is a relevant lesson for REDD+ BSMs which also operates across all government levels. Another factor in the Indonesian context that stresses the importance of subnational participation is decentralization, particularly in distributing mandate and authority from national to subnational level. Some natural resources management mandate at the field level belongs to the subnational authority.

In the case of REDD+ BSMs, local government has two important aspects. One is local governments' proximity to the REDD+ location and the other is comprehension of the local context that empowers the local community by involving them in decision-making processes, particularly for FPIC implementation, the design process of REDD+ BSMs and monitoring of benefit distribution. LPPI, with the head of the district as a driving force, illustrates the importance of local government commitment and leadership to eradicate corruption. However there is a need for mechanisms to develop robust structures, which can persist under different leaders. An initiative whose success is solely based on one leader as its driving force is vulnerable once that leader leaves.

Many forest land-use violations occur at subnational level and often involve subnational government (Yosami 2012; Malage 2014). This can equally challenge the design of ACMs within a BSM, which includes local government players. Thus, this highlights the importance of promoting public participation at subnational level to act as an oversight mechanism over local government. NGOs with extensive networks at subnational level, such as the Coalition of Anti-Forestry Mafia, can substitute the role of subnational government in empowering local communities by ensuring their public participation. One example of this is the work of FITRA with their training and awareness program on government budget monitoring (World Bank, n.d.).

In applying the ACM experiences to REDD+ BSMs, it is clear that participation is crucially needed in FPIC, the design process of REDD+ BSM, carbon accounting and monitoring of benefit distribution, and each need different levels of participation with different sets of stakeholders.

Matching design of BSMs to authority level

We examine the scope and nature of authority of the ACM implementing agency and find that it is often limited to one or two out of our three categories: preventive, investigative and punitive (see Table 1). We define 'authority' here as the 'breadth of power'. The degree of authority an ACM has is related to its effectiveness. For instance, much of the effectiveness of KPK is because it has privileges that other law enforcing agencies do not have because corruption is categorized as extraordinary

crime, legally regulated by Law No.30/2002 about KPK.¹ This matches the conclusions of Chêne and Hodess (2009) from their study of the coordination mechanisms of anti-corruption institutions that: to enforce effective cross-agency cooperation, the agency in charge of coordinating and monitoring the implementation of the anti-corruption policies should have sufficient authority, resources, capacity and political backing to perform its mandate and compel line ministries to implement measures and report on progress.

The importance of authority is also emphasized in the example of LPPI whose activities were said to be strictly under the control of the district leader as its main driving force (Hasegawa 2010). Accusations only reached officials at the sub-district (*kecamatan*) level and questions were not asked about those at higher levels, possibly to avoid pressure on district leader governance. Thus limited authority limited its effectiveness despite its design.

In the case of the comprehensive State Audit on Forest Area Management carried out regularly by the BPK since 2007 (Human Rights Watch 2009; Mongabay 2013) its ultimate impact relies on the interest and ability of the KPK to follow up on this audit with further investigation, law enforcement and reform. The KPK played a crucial facilitation role with its coordination of the current NKB/Nota Kesepakatan Bersama process (the signing of the MOU by 12 ministries) involving action points directly related to the BPK review. This suggests once again the importance of those with an investigative role with close coordination and commitment to follow up from institutions with a punitive role. As Quah (2006) emphasizes in his review of corruption across Asia, when the investigative and punitive functions are separated, there is likely to be a delay in taking legal action. However there are risks associated with putting all of those functions under one institution, as this can lead to a lack of supervision. Distribution of authority should be appropriate to ensure that no one can be both suspect and judge on the same matter.

The degree of authority may also influence the level of law enforcement needed when corruption occurs. This is highlighted by the experience of NGO networks such as FITRA and the Coalition of Anti-Forestry Mafia's (Hukum Online 2013) whose investigations were not followed up with legal action due to a lack of formal acknowledgement of these NGOs by legal authorities such as the police agency (Hendar 2014). Therefore, if NGO networks are included as strategic partners in REDD+ BSMs, there should be a formal acknowledgement to support its function. The introduction of ACMs, which rely on a strong law enforcement capacity may also require associated capacity building. The multi-door approach reveals the need for capacity building of public prosecutors in combining laws from various sectors in the case of environmental crimes (Saturi 2012).

¹ These privileges include: to take over the investigation or prosecution of corruptor from the police or prosecutors. [Article 8 paragraph 2], the right to conduct an inquiry, investigation, and prosecution of corruption cases involving law enforcement officials, state officials, and others in connection with corruption offenses committed by law enforcement officials or government officials (Article 11) and the right to intercepting and recording conversations without asking permission first [Article 12]).

Increasing coordination

In the context of REDD+ benefit sharing, coordination is needed for two reasons. The first one is to overcome conflicting policies that may cause inequality in benefit distribution (Thuy et al. 2013). Indonesia has multiple policies at multiple scales that create numerous conflicts in the forestry and land-use sectors. These include the MP3EI (*Master plan for acceleration and expansion of Indonesia's economic development*) and the RAN-GRK (*National action plan for greenhouse gas emission*) at national level, as well as conflicting jurisdictional regulations on land-use allocation and permit issuance between agricultural and plantation, energy and mining, and forestry agencies at subnational level. Conflicting policies will clearly reduce effectiveness in the implementation of the policy and will hamper the future design and implementation of REDD+ BSMs.

REDD+ requires good implementation at subnational level to achieve national reductions and deliver benefits at subnational level. Consequently, there are differences in prioritizing REDD+ between national government and subnational government. Coordination between national and subnational government is very important and requires involvement of subnational governments in the design, implementation and monitoring processes of REDD+ BSMs.

According to Larmour (2011) corruption usually occurs across different institutions or the driver of corruption is outside the sector where the corruption occurs. Our review of ACMs emphasizes that coordination is needed for effective and efficient implementation and to reduce the risks of conflicts among institutions/sectors and reduce potential of corruption. The experience of the multi-door approach in particular reveals the challenges of attempting to coordinate across different sectors and institutions. The combination of different sectors' laws to prosecute environmental related crime requires strong internal coordination within law enforcement agencies (police, judiciary, etc.) and external coordination with related institutions such as tax, human rights and finance (for expert witness).

Many ACMs are implemented separately by different agencies with little coordination. Our review suggests there is benefit in using a systemic approach and to consider the whole process rather than organizing anti-corruption efforts based on "institutional task specialization" (*tupoksi*). The *KPK review on forest area management and planning system* provides a good example. As a follow-up action of the review, the KPK endorsed and facilitated the signing of a MoU (NKB/Nota Kesepakatan Bersama) between 12 ministries and institutions for accelerating measures for enabling forest governance, namely forest area gazettement, the one map initiative and Indonesia Memantau Hutan website. The MoU attempts to spread responsibility for protecting the forest to all related institutions/ministries, put them as elements of a system rather than a single function ministry. In this effort, KPK plays an important role as a coordinator of ministries/institutions that do not regularly coordinate these issues. The MoU has potential to help coordinate institutions and to align different ministries and programs.

Similarly, REDD+ involves different institutions and sectors (finance, forestry, land use, agriculture, amongst others) and the importance of coordination between sectors and harmonization of different land-use and fiscal policies will be important. The effectiveness and efficiency of a REDD+ BSM is clearly affected if forest and land users/managers perceive other competing or conflicting policy (e.g. land concessions) and fiscal (e.g. agriculture subsidies) signals.

Considering costs in design

One key lesson for BSMs which our review highlights, is the importance of considering costs in the design of ACMs and how this is relevant to its efficiency and effectiveness. In this paper we use 'cost' to refer to transaction and implementation costs. The level of costs depends on the context within which the ACM is developed. If transparency, accountability, public participation, strong authority and coordination are absent, implementation costs can be very high because these must be designed and implemented from scratch. Transaction costs are also high, particularly with government-related ACMs, where for example coordination is often required but not budgeted for. The failure to do so can undermine coordination efforts, especially when there are capacity barriers and long distances are involved. Thus, in the design of institutional arrangements for benefit sharing coordination, costs need to be budgeted from the start. The use of ICTs (as discussed in Section 2.2) can also be helpful in cutting the coordination costs.

Our review shows the advantages of establishing specific specialist institutions to help monitor corruption in REDD+ BSMs – as in the example of PPATK (Center for Financial Transaction Reporting and Analysis) and the LPPI (Independent Governance Watch Agency), both of which are effective in identifying potential corruption at an early stage. In both cases however, the establishment of a new agency or structure requires significant up-front investment. Moreover, this arrangement can create a financial burden that affects the operation of the ACM once external funding is depleted, as shown by LPPI with its time-limited GIZ funding.

The success of other ACMs, such as KYCP, is said to be partly due to the way in which the system was embedded into day-to-day standard operating procedures, which meant that it did not require many additional transaction costs, could use existing monitoring and evaluation scheme and by becoming part of daily practice could lead to behavioral change (BTN 2008; Bank Sinarmas 2010). Thus, the specific specialist institutions to help monitor corruption in REDD+ BSMs should have a regular source of financing to support its operation (at least during the period of the REDD+ project) or the function should be embedded into the existing institution, which already have fixed financing.

Relevant experience for the design of BSMs from CSO-related ACMs, such as FITRA's budget monitoring program, suggest the value of having an extensive network at grass-root level to assist their work, increase coverage and provide updates. It is more cost efficient for local networks to carry out regular monitoring or investigations at local level than for government agencies

that might have to mobilize the staff from national offices (for example in the case of the KPK or BPK audits). Lessons from FITRA also reveal that the use of coordinating NGOs with a good previous track record can strengthen the reputation of the ACM.

The example of the development of SNI for DA REDD+ suggests the high costs of using certification for standard systems. The cost of obtaining a single SNI certification is estimated to vary from USD 1200 to USD 9300² (BSI 2014; Kompas 2014). This will inevitably add to implementation costs that the project has to bear. In most cases certification requires extensive documentation for the audit process (Dankers et al. 2003; Nelson et al. 2009). Documentation is an important element for accountability but it is also the biggest challenge, as it places a large burden on local communities and there is often a lack of capacity of actors at the field level. There is also the need to pay a third party auditor. These high costs can place a barrier on small-scale farmers/local communities, resulting in inequity of access to the benefits associated with this mechanism.

Conclusion

The effectiveness of the mechanism varies noticeably in the different ACMs that we reviewed. We suggest that there are certain factors that determine the success of an ACM. These factors range from the degree to which the ACM possess strong law enforcement to the design of the monitoring system that the ACM imposes (see Table 2). The time duration of ACM implementation is considered to be less influential.

In summary, measures to address corruption in REDD+ BSM design suggest the importance of:

- mechanisms to ensure transparency and accessibility of both carbon accounting and REDD+ finance data for easy reconciliation and monitoring evaluation
- multiple and various type of public participation platforms to reach different stakeholders within REDD+ projects, particularly for FPIC implementation, the design process of REDD+ BSMs and monitoring of benefit distribution
- coordination mechanisms and financing between national and subnational government as REDD+ requires good implementation at subnational level to achieve national reductions and deliver benefits at subnational level
- coordination between sectors and harmonization of different land use and fiscal policies
- establishment of oversight functions over benefit distribution, the new institution – preferably with the function embedded in the existing institution – need to be armed with punitive authority to process any violation and lines of accountability that will not be counterproductive. Alternatively, the designated institution need to establish a strong cooperation with related law enforcement agencies
- a cost efficiency strategy – by embedding new arrangement into day-to-day standard operating procedures to avoid additional transaction costs and having national NGOs that have extensive network at subnational level as strategic partners, particularly for FPIC implementation and MRV processes.

Table 2. Determiner factors of ACM effectiveness

Impact (actual or predicted)	ACM	Features (not all examples possess all of these features)
Low	Indonesia National Standard (SNI) for DA REDD+ Project Online permit application service from MoF LPPI (Independent Governance Watch Agency)	<ul style="list-style-type: none"> ➤ Voluntary-based implementation ➤ preventative measures ➤ self-supervised, mainly from internal systems ➤ established by creating new structures outside the existing system
Moderate	Driving License Extension – Mobile Service Initiative of Jakarta Governor Office to broadcast regular meeting on YouTube BPK (State Audit) esp. on forest area management-related to mining and Reforestation Fund Multi-door approach Indonesian forest monitor website Koalisi Anti Mafia Hutan (Coalition of Anti-Forestry Mafia)	<ul style="list-style-type: none"> ➤ simple and easy public participation particularly in monitoring ➤ clear financial and non-financial benefit for the public ➤ implementing reconciliation mechanisms ➤ legal follow-up from high authoritative agencies
High	KPK Review on Forest Area Management and Planning System Center for Financial Transaction Reporting and Analysis (PPATK - Pusat Pelaporan dan Analisis Transaksi Keuangan) Know Your Customer Principle Annual report by public listed company FITRA (Indonesian Forum on Budget Transparency) EITI (Extractive Industries Transparency Initiative) E-procurement from LKPP	<ul style="list-style-type: none"> ➤ clear, strong and consistent law enforcement ➤ there is a significant economic consequence associated with the corruption they are addressing ➤ has an extensive network at subnational as a support system

2 1 USD = IDR 12,168 (www.xe.com, 20 Nov 2014)

This review shows that an ideal ACM for REDD+ BSMs would combine the flexibility of NGO arrangements with its extensive network at subnational level, the market-based accountability of private sector-based mechanisms and the legal authority which government-based mechanisms provide. The KPK is a good example as it derives its effectiveness from the strong law enforcement authority it possess, the practical support it gains from NGOs and the market in acting in a monitoring capacity as well as the moral and political support of the public at large. Furthermore, success in implementation of some ACMs reviewed in this brief (particularly those which are related directly to the forestry sector) will provide enabling conditions for REDD+ BSMs, as they will help to improve the function of some government bodies as well as the overall governance system within the forestry sector.

Acknowledgments

The authors gratefully acknowledge funding received from the European Commission, Norwegian Agency for Development Cooperation (Norad), UKAid and the Australian Agency for International Development (AusAID). We also gratefully acknowledge Laode Syarif (Chief of Cluster for Security and Justice at Partnership for Governance Reform in Indonesia), Dadang Trisasongko (Secretary General of Transparency International Indonesia), Lasse Loft, Anna Sinaga and Ahmad Dermawan whose critical remarks have helped to improve the article.

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This info brief is part of a series of reviews on existing literature and practices to derive relevant lessons for the design of REDD+ benefit sharing mechanisms. The reviews aim to stimulate debate on balancing effectiveness and efficiency, while ensuring equity in ongoing policy processes in the development of REDD+ as a performance-based mechanism.



RESEARCH
PROGRAM ON
Forests, Trees and
Agroforestry

This research was carried out by CIFOR as part of the CGIAR Research Program on Forests, Trees and Agroforestry (CRP-FTA). This collaborative program aims to enhance the management and use of forests, agroforestry and tree genetic resources across the landscape from forests to farms. CIFOR leads CRP-FTA in partnership with Bioversity International, CATIE, CIRAD, the International Center for Tropical Agriculture and the World Agroforestry Centre.



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