

The Clean Development Mechanism:

Issues for Adivasi Peoples in India



Emily Caruso Vijaya Bhaskara Reddy

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Emily Caruso, Forest Peoples Programme and Vijaya Bhaskara Reddy, Yakshi



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Cover photograph: Young

Young girl carrying water in the village of Badwani, Harda District, Madhya Pradesh,

India

[photo: Emily Caruso]

Cathedrals of Industry.
Taken from http://www.msstarship.com/journal/jun01/14.htm
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Introduction

The Kyoto Protocol of the United Nations Framework Convention on Climate Change came into force on the 16th of February 2005. The implementation of the Protocol's market-based 'flexible mechanisms', negotiated these past 8 years by parties to the UNFCCC, has been pushed ahead by many institutions and governments. A great deal of time and money has been invested in research on the possibilities surrounding climate change 'mitigation' through the implementation of greenhouse gas (GHG) 'offset' projects through Joint Implementation and the Clean Development Mechanism (CDM).

Among the analyses carried out with a view to promoting the CDM, two feasibility studies were undertaken in India by Community Forestry International¹, in Harda Forest Division in Madhya Pradesh and in Adilabad District, Andhra Pradesh. The studies reach slightly diverging conclusions concerning the implementation of CDM projects in India, but both promote the concept as a valid and viable income-generating activity for rural (indigenous in these cases) communities.

In July 2004, FPP and local activists carried out field work in Harda Forest Division and Adilabad District to verify some of the findings of the feasibility studies, and to understand the local dynamics between the Forest Department and the Adivasi communities. The findings of the field work highlighted some stark contrasts between the findings from the CFI feasibility studies and the realities found on the ground. It became clear that many unresolved and fundamental issues require analysis prior to the further promotion of such activities, especially with regards to the rights and livelihoods of Adivasi peoples.

The Climate Convention

At the United Nations Conference on Environment and Development in Rio de Janeiro in 1992, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted by 189 countries². In 1997, the Kyoto Protocol (KP)³ was negotiated as a follow-up agreement to the UNFCCC in Kyoto, Japan, during the 3rd Conference of the Parties to the UNFCCC. Industrialised states ratifying the Protocol commit to reducing their carbon and other greenhouse gas (GHG) emissions by 5.2% compared to 1990 levels⁴. The KP came into force on February 16, 2005, having been ratified by 127 countries⁵, representing 61% of global GHG emissions.

Note that the United States, representing 25% of global carbon emissions, has signed but does not intend to ratify the KP.

¹ According to their website: http://www.communityforestryinternational.org/ - "Community Forestry International, Inc. (CFI) assists rural communities to stabilize and regenerate forests by helping policy makers, development agencies, NGOs, and professional foresters create the legal instruments, human resource capacities, and negotiation processes and methods to support resident resource managers.."

² A list of the countries party to the UNFCCC can be found at http://unfccc.int/files/essential_background/convention/status_of_ratification/application/pdf/ratlist.pdf

³ The full text of the Kyoto Protocol can be found at http://unfccc.int/resource/docs/convkp/kpeng.html

 $^{^4}$ Individual state's commitments for reduction vary - e.g. the EU has to reduce its emissions by 8% of 1990 levels, while Iceland is permitted a 10% increase from 1990 levels under this arrangement.

⁵ For a list of the ratifying countries, please visit:

The Protocol reaffirms the UNFCCC principle that countries with most emissions (industrialised countries, also known as Annex I countries⁶) must provide funds and technology transfer to developing countries for climate-related studies and projects. This concept has been further developed through the negotiation of "flexible mechanisms" for emission reduction under the Protocol. Under this banner, countries can use 'Joint Implementation' and the 'Clean Development Mechanism' (CDM) to avoid having to reduce their own emissions directly.

Under the Joint Implementation flexibility mechanism, "industrialized countries [can] meet part of their required cuts in greenhouse-gas emissions by paying for projects that reduce emissions in other industrialized countries". Under the Clean Development Mechanism on the other hand, industrialised countries can invest in projects in developing countries which provide them with emissions reduction credits – and these will go towards their overall emissions reduction targets. Under the CDM, projects must contribute to sustainable development in host countries (see Box 1 for more detail on the CDM and Box 2 for a summary of problems related to the CDM).

Given the significant implications both climate change and the global climate change debate have on indigenous peoples, it is essential that they participate in this debate and the defining of solutions to climate change. This has been reasserted time and again by indigenous peoples and NGOs in the context of the UNFCCC as well as in discussions surrounding sustainable development, forests, biodiversity and human rights. Indigenous peoples have however not been given any significant voice in this debate, and claim that they have been pushed aside by the negotiations, in violation of their inherent rights, including their right to self-determination. It has in fact been noted that although the Kyoto Protocol has churned out over 5 million words, there is not a single mention of indigenous peoples among these. With the Kyoto Protocol coming into force in February 2005, the green light thus given to the registration of CDM projects, indigenous peoples urgently need to be given a meaningful voice in the climate negotiations.

⁶ These countries are: Australia, Austria, Belarus, Belgium, Bulgaria, Canada, Czechoslovakia, Denmark, European Economic Community, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Lithuania,

Luxembourg, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Russian Federation, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America

⁷ See http://www.klimabuendnis.org/english/politics/frameset.htm and

http://www.klimabuendnis.org/english/indigenous/frameset.htm and the website of the World Rainforest Movement (http://www.wrm.org.uy) for more information on the impacts of climate change and the climate change debate on indigenous peoples

 $^{8 \} See \ http://www.klimabuendnis.org/english/politics/frameset.htm \ and$

http://www.klimabuendnis.org/english/indigenous/frameset.htm for a list of the statements made by indigenous peoples at the various COPs of the UNFCCC.

BOX 1: The Clean Development Mechanism

The Clean Development Mechanism has a double mandate:

- to support industrialised countries in achieving their GHG reduction target
- to support developing countries in achieving sustainable development

This is to be operationalised through projects, implemented in developing countries and funded by industrialised countries, which can provide the industrialised countries with "Certified Emission Reduction" (CERs), also known as "carbon credits" -1 CER is equivalent to 1 tonne of carbon dioxide equivalent (tCO₂e). For a detailed description of how the CDM works, please refer to the CDMWatch Clean Development Mechanism Toolkit (found on www.cdmwatch.org). Under the CDM, the host country defines "sustainable development" for itself, and monitoring and verification are carried out against this benchmark.

The types of project which can be implemented under the CDM are:

- Energy efficiency
- Fuel switching
- Gas capture or destruction
- Large hydro
- Renewable energy
- Land Use, Land Use Change and Forestry (LULUCF): Afforestation and reforestation
- Transport
- Waste incineration

Currently, 4 CDM projects have been fully registered under the Protocol (since its entry into force on the 16th of February 2005): NovaGerar landfill (Brazil) and Rio Blanco small hydro (Honduras), Gujarat HFC (India), Ulsan HFC (South Korea) while 4 projects have been validated and await registration: Olavarría landfill (Argentina), Graneros fuel switching (Chile), Cuyamapa small hydro (Honduras) and La Esperanza large hydro (Honduras). There exist however another 154 projects awaiting validation and methodology approval. In total, these 162 projects aim to claim almost 324 million CERs up to 2012, which is equivalent to x% of total emission reduction obligations under the Kyoto Protocol.

CDM projects must respond to various criteria and abide by certain principles in order to be accepted. The projects must be **additional**, which means that they can only receive emission reduction credits if they would not have happened in the absence of the CDM. **Leakage** must be accounted for in project design – i.e. if project implementation engenders displacement of behaviours which release GHG, these releases must be accounted for in the project's carbon accounting. The projects must determine a **baseline** against which emission reduction can be calculated, and this baseline must be established in accordance with given CDM methodologies. There must be **monitoring** and **verification** of projects throughout the project cycle. Also, for Land Use, Land Use Change and Forestry (LULUCF), fuel switching or biomass energy projects, project preparation must consider the effects of the project on all 5 **carbon pools**, and provide details on how these would be affected by the project. **Social and environmental impacts** must be assessed prior to project implementation, and the **sustainable development** aspect of the project must be clearly identified at the outset.

Recently however, at the 10th Conference of the Parties to the UNFCCC in Buenos Aires, Argentina, in 2004, it was decided that these rules would be different for *small scale* LULUCF projects. For these, (i) the CDM Executive Board would **not** require methodology for or estimation of the given baseline, (ii) the condition of all five carbon pools being taken into consideration is dropped, (iii) there is no required estimation of leakage, and (iv) no requirement for monitoring of the baseline.

This report will focus on LULUCF projects under the CDM. During the first Commitment Period (2008-1012), biotic carbon sinks (such as afforestation and reforestation projects) are eligible as a CDM project category for carbon sequestration. Forest conservation (avoided deforestation) was not accepted for the first commitment period (2008 – 2012).

⁹ Please see Appendix 1 for a list of useful definitions.

 $^{^{10}}$ For the UNFCCC, these carbon pools are: above ground biomass, below ground biomass, litter, deadwood and soil carbon

 $^{^{11}}$ For the definitions of these terms please see appendix 1.

¹² Note that although such projects have not been accepted under the CDM for the 1st commitment period, the World Bank's BioCarbon Fund is promoting them (see below).

BOX 2: Problems with the Clean Development Mechanism

Many scientists, NGOs and activists have long refuted the concept of 'flexible mechanisms' as a solution to climate change. ¹³ Providing companies and countries with a license to pollute in exchange for the buying of apparent emission 'reduction' through the implementation of projects outside of the polluting country is illogical if the stated aim of the concept it to *reduce* the levels of GHG in the atmosphere. Furthermore, it entrenches inequalities between the North and the South, by creating a situation where the North, through its own polluting behaviour, effectively is given 'ownership' of the atmosphere and the power to privatise its constituent parts. ¹⁴ By shifting the problematic of climate change in this way, from its root causes to temporary external solutions, the real costs of climate change are not accounted for. Predictably, the costs of climate change, as well as, undoubtedly, of its solutions, will be (and are already) being borne by the poor and the marginalised in the developing world.

Another major flaw in the concept of buying Certified Emission Reductions in exchange for polluting is the acknowledged current lack of any accurate method for measuring the movement of carbon from one pool to the other – particularly in the case of carbon sequestration projects – and the associated effects this unknown variable can have on climate change.

While the storage of carbon in underground fossil deposits is permanent, carbon offset projects based on forestry, land use and land use change must account for the **impermanence** of carbon storage in the biotic environment. Forest fires, changes in the environment and its management, and unpredictable biotic or climatic events can reduce and even reverse the natural environment's capacity to store carbon. Furthermore, a given ecosystem's capacity to absorb carbon is limited – which may lead to carbon forestry projects hitting **saturation**. Recent research has also shown that climate change can have negative effects on vegetation's capacity to absorb and store carbon.¹⁵ For these reasons LULUCF projects established to absorb atmospheric GHG will not, both in the long and short term, store carbon in a way which makes up for its emission through fossil fuel combustion.

One of the major dangers of the CDM is that although the climate negotiations should be promoting renewable energies and energy efficiency in industrialised countries, governments and investors have strongly geared the negotiations towards opening the possibilities of using so-called 'carbon sinks' projects rather that fossil fuel emission reductions. ¹⁶ Given that in many cases the cheapest and most rapid way of acquiring credits in this manner would be through the plantation of large tracts of land with monocultures of fast-growing tree species, sinks pose a serious and proven threat to the livelihoods, territories and cultural survival of indigenous peoples and rural communities (see below in Box 4 *Examples from Elsewhere*). In fact, not only does the global south become burdened with climate change 'mitigation' projects, but its people are those set to lose the most of the consequences of global warming.

Alongside the evolution of the Clean Development Mechanism there has been little associated development in national policy frameworks for the implementation of CDM projects, despite the fact that CDM or CDM-like¹⁷ projects are proposed and are being carried out in various parts of the globe.

The capacity for loopholes within the CDM is vast – for example, the definition of the baseline situation against which additionality is measured could be set at unrealistically low levels, so that the project gets the go-ahead even if it accounts for very dubious emission reductions. Therefore extensive and intensive verification and monitoring of projects will be necessary in order to ensure that the CDM rules are being abided by. This requirement has spawned a rapidly growing industry of Northern consultancy and certification firms all vying for a piece of the carbon cake.

¹³ For analyses of this please see www.cdmwath.org, www.sinkswatch.org, www.wrm.org.uy, www.thecornerhouse.org.uk

 $^{^{14}}$ See Larry Lohman (2001) $\it Democracy \ or \ Carbocracy?$ The Cornerhouse, UK.

¹⁵ See IPCC (2001) *Third Assessment Report* (http://www.grida.no/climate/ipcc_tar/) – specifically: *Volume III: Mitigation* (at http://www.grida.no/climate/ipcc_tar/wg3/163.htm); FERN (2001) *Sinks in the Kyoto Protocol: A Dirty Deal for Forests, Forest Peoples and the Climate.* FERN (available from www.fern.org and www.sinkswatch.org); The Royal Society (2001) *The role of land carbon sinks in mitigating climate change.* The Royal Society, London, UK (available at http://www.royalsociety.org/document.asp?tip=1&id=2520)

¹⁶ See FERN (2002) Sinks in the Kyoto Protocol

¹⁷ *CDM-like projects*: in many cases projects that have not been accredited by the CDM Executive Board but that aim to accrue CERs in exchange for the implementation of GHG 'mitigation' activities in the developing world are already under implementation. The very presence of the CDM has therefore opened a space for non-registered projects to take place outside of the context of the convention and protocol.

The CFI Feasibility Studies

In 2001, with the support of the US Agency for International Development and the USDA Forest Service, Community Forestry International (CFI) and the Indian Institute of Forestry Management (IIFM) carried out a feasibility study in Harda Forest Division, Madhya Pradesh, entitled Communities and Climate Change: The Clean Development Mechanism and Village-based Forest Restoration in Central India. Similarly, in 2002, with the support of the Canadian Government, CFI carried out a feasibility study in Adilabad District, Andhra Pradesh, entitled The Clean Development Mechanism and Village-based Forest Restoration.

Both these studies seek to determine the factors involved in, and possibilities for, generating carbon credits in Adivasi villages through forest restoration.

Harda

The Harda study analysed the social context in Harda Forest Division in the light of Joint Forest Management¹⁸ in order to identify the social parameters to be considered in the implementation of carbon offset forestry. The authors found that the JFM programme had been positive, had improved the relationship between the Forest Department and communities, and had resulted in all-round improved standard of living within Adivasi villages. They also found that JFM had positive impacts on certain forest ranges within the Division, with forests having regenerated quite significantly in Rahetgaon Forest Range, resulting in higher income for the Village Forest Protection Committees. In Handia Forest Range however, they found that social conflicts had resulted in decreased JFM-related investment by the Forest Department and less positive outcomes from the JFM programme as a whole.

The Harda study understands *forest restoration*, the type of carbon offset project proposed, as falling under the CDM definition of afforestation. The study thus compares regenerating forests with more heavily degraded forests for the purpose of the calculation of carbon sequestration. The Harda study uses the term "assisted natural regeneration" to define the type of activity that could be undertaken in this context.

In order to assess the potential for forest regeneration to fulfil CDM requirements for carbon sequestration, the study attempted to establish a carbon baseline, estimate rates of carbon sequestration and design methods for measurement, monitoring and verification. This was done by comparing vegetation in forest plots at different stages of growth and undergoing different anthropogenic pressure and use. The total area of forest under study was 142,535 ha, while the total number of 50m x 50m plots assessed was 39, representing a total study area of 9.75ha. Possible leakage was calculated by counting the number of stumps in the sample plots, and undertaking sample surveys of fuelwood consumption in the participating management communities. The "patterns of

¹⁸ Joint Forest Management (JFM) has been implemented all over India, and is supposed to provide a system for forest protection and sustainable use through the establishment of Village Forest Protection Committees, through which government and development aid funds (the World Bank has substantially contributed to JFM programmes throughout India) are channelled for 'forest management' and village-level development works. JFM has been largely repudiated by Adivasi communities, activists and NGOs, as a system which further entrenches Forest Department control over Adivasi lands and forest management. See Sarin, M. et al (2003). Devolution as a Threat to Democratic Decision-making in Forestry? Findings from Three States in India. Overseas Development Institute, ODI Working Paper no. 197 (available at http://www.odi.org.uk) and Brahmane, G, Panda, BK and Adivasi Mukti Sangathan Sendhwa, 2000. The Adivasis and the World Bank-aided Madhya Pradesh Forestry Project: a case study of indigenous experience. Discussion document prepared for the Workdshop on Indigenous Peoples, Forests and the World Bank: Policies and Practice, May 9-10, Washington DC (available at www.forestpeoples.org).

¹⁹ This is defined as "natural regeneration of forests with deliberate sivlicultural assistance by man, where the source of seed or vegetative reproduction is natural."

forest regeneration and carbon storage and sequestration under varying levels and periods of forest protection" were identified in this way.

The conclusion of the Harda study states that the implementation of CDM projects would provide financial support to JFM, and that "facilitating the extension of JFM to India's forest land is both desirable and necessary" (p.71). The study also concludes by proposing that Handia Forest Range be put forward as an official pilot carbon offset project, and that in order to implement such a project, the Village Forest Protection Committees (VFPC) in the range federate to create a super-VFPC. It proposes that to reduce possible conflicts between communities and the FD, the FD take on a role of mediator and facilitator rather than implementer.

Adilabad

The Adilabad study noted that Forest Protection Committees (known as VSS – Vana Samrakshana Samithi – in Andhra Pradesh) created under the JFM programme were not the best community institution to undertake community-based carbon offset forestry. The reasons given were their inefficiency, the lack of transparency in financial dealings, problems in their relationship with the Forest Department and in some areas, the lack of trust of communities towards the committee members and chairmen. The authors view the women's Self Help Groups (SHG) as a more appropriate institution to carry out carbon offset projects since they are generally considered more dynamic, accountable and transparent than other local institutions.

It is noteworthy that the Adilabad study enumerates the pressures on forest resources in Andhra Pradesh as following, in order of importance: (i) the large and growing human and cattle population, (ii) uncontrolled grazing of cattle in the forests and significantly, (iii) 'encroachment' of forest lands (with estimated government figures of 90,000 ha of forest land 'encroached' upon illegally in the past 20 years) and conversion of forest lands for *podu* (swidden) cultivation.

The ecological appraisal of the area for carbon sequestration was evaluated by comparing a *without-CDM* scenario of degraded forest lands and non forest lands with potential for increasing carbon stocks through reforestation and afforestation with a putative *with-CDM* scenario of reforestation and afforestation of degraded forest and non-forest lands aimed at increasing carbon stocks in vegetation and soils.

The study concludes that:

- (i) SHGs are the most appropriate institution to be associated with carbon offset forestry projects
- (ii) Given the high transaction costs involved in preparing and carrying out such projects, it would be necessary to federate a certain number of SHGs
- (iii) Regeneration of teak and mixed deciduous forests would be most appropriate as a form of reforestation for carbon sequestration
- (iv) If the extensive *podu* lands in the area were excluded from a CDM forestry project, the potential for reforestation would be reduced to 10% of the total forest area
- (v) Although clonal eucalyptus plantations would yield high carbon sequestration rates, their establishment would be financially unfeasible under current CDM rules.

Analysis and Field Findings

Background²⁰

Throughout peninsular India, state appropriation of land from forest-dependent communities began at the end of the 19th century, with the enactment of the Indian Forest Act in 1878, culminating with the enactment of the 1980 Forest Conservation Act. The latter essentially provided the central government with ultimate control over most of the forest land. This was followed up in 2002 when, quoting a Supreme Court ruling, the Ministry of Environment and Forests issued a circular to all state/union territory governments to evict all "encroachers" from forest land, according to the definitions, procedure and authority claimed by the state under the Forest Conservation Act. From the launch of the eviction order on the 3rd of March 2002, until the 31st of March 2004, it is estimated that "encroachers" were evicted from 152,000 hectares of forest land in India, despite neither the Supreme Court nor the MoEF having defined the term "encroacher". Official documents never clarified whether peoples carrying out illegal, commercial logging activities or Adivasi peoples, or both, fell under the definition of "encroacher". On the 23rd of December 2004, the MoEF issued a further circular confessing that due to the lack of definition of "encroacher", many Adivasi people were unjustly evicted from their lands, and that this important distinction would be made in future so-called 'eviction drives'. Nevertheless, the struggle against evictions continues, and in 2002, an estimated 10 million Adivasi people faced the threat of eviction, given the lack of appropriate definition and problems with forest land settlement processes in India.

Finally, following heightened protest by Adivasis and support organisations in late 2004, the Central Government agreed in early 2005 to introduce the *Scheduled Tribes and Forest Dwellers (Recognition of Forests Rights) Bill* before parliament. The Bill would provide Adivasi communities with legal recognition of their forest resource and access in areas traditionally used and occupied by them. This law would facilitate the regularisation of lands being cultivated by Adivasis, the conversion of so-called forest villages²¹ to revenue villages (with title deeds), and the settlement of disputed land claims. Currently, Adivasi and support organisations have to fight against dilution of the Bill's provisions, and for its safe passage through parliament.

Formalised by state governments in the early nineties and largely funded by the World Bank, Joint Forest Management (JFM) was implemented in the states of Madhya Pradesh and Andhra Pradesh, amongst others, with the supposed aim of ensuring forest-dependent people gained some benefit from protecting the forests. According to many Mass Tribal Oorganisations (MTOs), communities and activists, JFM was effectively imposed on them without appropriate consultation during project identification, planning and implementation, and has resulted in the marginalisation, displacement and violation of the customary and traditional rights of the Adivasis in the state²². Contrary to the MoEF circulars issued in the 1990s regarding regularisation of lands cultivated by Adivasis and settlement of land disputes, many state governments implemented JFM programmes on disputed lands. Thus, eviction of forest encroachers has been a feature of the implementation of JFM, which has lead to many Adivasis losing land and access to essential forest resources.

²⁰ See Sarin, M et al (2003) Devolution as a Threat to Decision-making in Forestry? Findings in Three States in India. Overseas Development Institute (ODI), Working Paper 197. (available from www.odi.org) at pages 2-6 for a description of the historical context and evolution of forest policies and laws in India.

²¹ Inhabitants of so-called forest villages lack land title deeds (pattas) and are classified as 'encroaching' on state forest land.

²² Brahmane, G, Panda, BK and Adivasi Mukti Sangathan Sendhwa, 2000. *The Adivasis and the World Bank-aided Madhya Pradesh Forestry Project: a case study of indigenous experience*. Discussion document prepared for the Workdshop on Indigenous Peoples, Forests and the World Bank: Policies and Practice, May 9-10, Washington DC (available at www.forestpeoples.org)

Mass Tribal Organisations, forest-related NGOs and academics have publicised a large body of evidence that JFM Village Forest Protection Committees, composed of community members, function principally as a local, village-level branch and extensions of State forest authority.²³ These local JFM bodies are accused of imposing unjust and unwanted policies on their own communities, of undermining traditional resource management systems and of marginalising traditional and formal self-governing local village authorities.²⁴ In one of the most shocking cases in Madhya Pradesh, a JFM project was still underway while gross violations of human rights were perpetrated when forest authorities and the police shot dead villagers opposing JFM and VFPC policies.

Harda

Findings in this section of the report are based on an analysis of the project document and field interviews with villagers and activists in the Harda Forest Division. Fieldwork was undertaken by the Forest Peoples Programme in collaboration with Shramik Adivasi Sangathan and local activists in July 2004. It aimed to evaluate the CFI study conclusions and the strength of their arguments in favour of Village Forest Protection Committees (VFPC). The objectives of the field visits were to understand the current situation of the VFPCs in Madhya Pradesh and hear the views of local people and activists regarding so-called carbon forestry.

It was found that continuing problems with JFM include:

- conflicts within communities as a result of financial disparity between the VFPC members and the non VFPC-members:
- conflicts between different communities and Adivasi groups;
- contested bans on grazing in the forest and collecting timber for individual household use;
- indiscriminate fining; and
- curtailment of *nistar* rights (customary rights to local natural resources).

According to local activists, a major consequence of the imposition of JFM on Adivasi communities in Harda has been the creation of deep rifts within and between Adivasi villages and between different Adivasi groups. Although funding for the JFM project has finished, the VFPCs are still in place in many villages, recouping salaries from the interest remaining in their JFM accounts and from fines imposed on members of their own and neighbouring communities. According to the communities interviewed in our field study, the Chairman and committee members have become to a large extent the "Forest Department's men". In July 2004, non-VFPC villagers in Harda reported that they would like to see the funding for the Forest Protection Committees stopped and, ultimately, the VFPCs disbanded; they would like to see forest management returned to them and their rights to their traditional lands and resources restored.²⁵

²³ op. cit. footnote 20; See also, Kumar, N (2000) "All is not green with JFM in India" Forests, Trees and People No.42, June 2000:46-50

²⁴ Report of the Joint Mission on Madhya Pradesh Forestry Project (May 1999); Samata (2000) Impact of JFM in North Coastal Andhra Pradesh – a people's perspective Samata and CRY-Net, Hyderbad; and Sarin, M, Singh N M, Sundar, N and Bhogal R K (2003) Devolution as a Threat to Democratic Decision-making in Forestry? Findings from three States in India (Orissa, Madhya Pradesh, Uttarakhand) Overseas Development Institute Working Paper No. 197, ODI, London at pages 33, 35,49-50,56,57,61.

²⁵ For further information on the current situation regarding JFM in Madhya Pradesh, please refer to FPP & Shramik Adivasi Sanghathan (2004) *Village Forest Protection Committees in Madhya Pradesh: an update and critical evaluation* (available from www.forestpeoples.org)

Analysis of the data used in the study indicates that much of it came from the Forest Department and possibly discussions with VFPC Committee members rather than independent field work with the communities, and non VFPC Committee members. The study's assumption that the VFPCs are an adequate body for the implementation of CDM projects is highly contentious, given their demonstrable lack of transparency and the many conflicts they have engendered within communities and between communities and the Forest Department. Furthermore, although the study suggests that in order to reduce transaction costs, a federation of VFPCs ought to be created, it provides no mechanism for this to be put into place. It also suggests that in case of conflict, the Forest Department should act as the decisive authority, a statement which would be unacceptable to communities in current circumstances.

The scientific method for assessing carbon sequestration potential is questionable, and the analysis of the data rests on unrealistic assumptions. For example, the study does not take into account the demographic variation to be expected throughout the duration of the putative project (20-25 years), such as changes in community composition, demographic changes, changes in family composition, etc. The study also avoids specifying to what extent regeneration and plantations would be used.

The study is also deficient in its failure to take into account CDM criteria. JFM has been implemented in Madhya Pradesh since 1991 – how can JFM associated projects conform to the criterion of additionality when the very purpose of JFM is protection and regeneration of forests? Equally, as noted above, the calculations for leakage are very shaky: it was estimated by counting the number of *stumps* found in the study plots (totalling an area of 9.75ha out of a total study area of 142,536 ha), as well as estimating the amount of fuelwood head loading carried out by communities within the study area. It has unrealistically calculated that in Rahetgaon range, every family uses 2 head loads of fuelwood per week, whereas our interviewees suggested that more realistic assessment would be of 18-22 head loads per week, especially during the winter and the monsoon.

The economic aspect of the study is also arguable. The estimated gross economic benefit for the area is said to represent USD 375,000 per year – yet no net benefit has been calculated. The study maintains that based on the 2000 baseline, 1 ha of forests could sequester 1-3 tCO $_2$ e at USD 10-20 per ton. In order for this to be financially viable, transaction costs would have to be reduced to a minimum, but the study provides no indication of how this reduction would take place at the community level. The assumption that communities would bear no costs at all is unrealistic. Supposing that the methodology for calculating carbon sequestration were relatively accurate, the quote for income generation per VFPC is USD 2,500 per year – broken down into family units, and into monthly income, this represents very little, far too little to represent an incentive to relinquish the necessary forest-related harvesting activities currently carried out by communities. Furthermore, there was no method provided for cash accrual to the communities involved. The current lack of transparency in VFPC financial transactions is such that any income generation project to be undertaken by these bodies would require detailed benefit sharing mechanisms to be established, with the full participation of *all* the members of the communities. Current failures with the fair distribution of JFM benefits due to the opacity of the VFPC financial affairs are some of the major reasons for JFM's unpopularity.

Adilabad

Fieldwork in Adilabad District was undertaken by a local activist in July 2004. Findings were that, similarly to the Harda study, Adivasi villages in the area were unaware that the CFI study had been carried out, and were unaware of its purpose. Adivasi communities are unaware of the climate change debate, of what carbon trading means, and of the significance such projects would have for their livelihoods. Of important consequence in the Adilabad District was the implementation of the first climate change related carbon trading project in the village of Powerguda in 2004 (see Box 3).

The CFI Adilabad study is much more realistic about the limitations of using forest restoration under the current CDM system. It states that "many of the conditions of eligibility [under the CDM] being articulated through the COP will exclude a large proportion of India's forests where community forest restoration is already underway or could be carried out in the future". In view of this, it makes a number of recommendations for increased flexibility within CDM eligibility criteria.

The study also notes that forest restoration would be a more effective method of carbon sequestration than clonal eucalyptus plantations, due to the heavy costs of plantation establishment and maintenance. This would also be socially more acceptable, since Adivasi communities and activists have repeatedly condemned plantations of any sort on Adivasi lands as a new form of colonialism. Although the study stresses forest restoration as the preferred method for carbon sequestration in the area, it does note that should the latter not be possible, eucalyptus plantations should be the second option. The study also omits to note that clonal eucalyptus plantations not only would provide carbon, but other commercial uses such as timber and pulp, as well as incremental returns for any interested investor. These incentives would make clonal eucalyptus plantations a more likely option in many cases.

The Adilabad study finds that the best village-level institution for implementing CDM projects in the area is the women's Self-help Group (SHG). These institutions were established by the state-level Inter-tribal Development Agency (ITDA) during the 1990s as a mechanism for improving the financial status at the household level through micro-credit schemes and capacity building. Through the establishment of village SHGs, the government hoped to develop direct linkages between households and financial institutions and government authorities. Despite these groups working better than other village-level institutions, the study does not mention the fact that currently the SHG work in isolation from the Panchayat Raj Institutions (the ultimate village-level formal self-governing authority in rural India), the Forest Department and the VSS. The study also fails to mention how capacity would be strengthened through the SHG, what mechanisms would be implemented to involve them in CDM projects and how the groups would be effectively linked to the carbon market. Furthermore, it states that only if the SHGs come together in a federation would carbon offset forestry projects be financially viable and yet it does not explain how the federation of such SHG would take place among highly isolated, rural communities. On a positive note, however, the study does note that should a CDM project take place in rural India, extensive consultation and capacity building of local communities would have to be carried out.

From an economic point of view, the study suggests that if 1.5 ha of forest is protected by each family, the latter would receive 150 Rupees per month from the sale of CERs. This cannot be considered an incentive for forest protection since there are more remunerative forms of forest utilisation. Furthermore, the study's premise is that tribal villages in the area have 250 ha of degraded land per village to work with and this would provide Rs150 per family per month from the sale of CERs. This is unrealistic. In reality, few Adivasi communities have exclusive rights to such extensive areas. Should CDM projects take place on degraded land near Adivasi communities, "leakage" would be almost inevitable. Adivasis would either have to encroach on their cultivable land, on village common land, or they would take over Forest Department land, in which case the FD's control on any such project would be further amplified.

Finally, in a project scenario, the authors estimate the total cost of a CDM project in Adilabad as USD 270,000, for an area of 2,000 ha (100 ha per village, and 20 villages involved). It is difficult to imagine

²⁶ See for example CK Janu (2003) The South Indian Adivasi Experience in the Nagar Hole National Park and Muthanga Wildlife Sanctuary – speech at the World Parks Congress, Durban, South Africa (8-18 September 2003) – available at http://www.forestpeoples.org/Briefings/Indigenous%20Rights/wpc_india_nagarahole_eng.htm

how small areas of forest regeneration in Adilabad District could provide enough carbon, at fluctuating market-prices, to make such a project feasible and provide reasonable and usable benefits to the communities.

BOX 3: Pongamia plantations in Adilabad and a World Bank workshop

In 2004, the women's Self-help Group of Powerguda village in Adilabad district was given cash in exchange for the plantation of Pongamia trees. The pressing of Pongamia seeds produces a biofuel which can be used to power vehicles instead of petrol, reducing GHG emissions.

The SHG was given a certificate and USD 645 in order to offset the emissions produced by a World Bank workshop (on climate change) held in Washington DC. The carbon trading scheme²⁷ was set up by Emmanuel D'Silva, the principal author of the CFI Adilabad study. It will take 30 years of biofuel use by government authorities in Andhra Pradesh for the carbon emissions for this workshop to be offset.

The findings of fieldwork in the area reveal that the women were unaware of the reason they received the money, they were also totally unaware of the various benefits to be accrued by the carbon traders, releasers and agencies involved, and of how their activities related to climate change. The irony of this is that northern Andhra Pradesh has recently been hit by one of the most devastating droughts it has ever experienced, most probably as a result of the changing climate. In the summer of 2004 (the year in which the transaction took place), this drought brought the total number of farmer suicides to 3,000, driven to desperation by their crippling debts.

CDM Projects: Issues for Adivasi Peoples in India

The main danger associated with feasibility studies such as those of CFI is the legitimacy they are affording the implementation of the 'flexible mechanisms' to tackle climate change, thus providing further support for the notion that climate change can be mitigated by the implementation of carbon offset forestry projects in developing countries.

The Harda study is not the only research project that has strongly supported Joint Forest Management as providing a sound basis for the implementation of carbon forestry projects. International research institutions, such as Centre for International Forestry (CIFOR), Consultative Group on International Agricultural Research (CGIAR), and other academics, have published papers supporting the implementation of carbon forestry projects through JFM (and its successors, Community Forest Management [CFM] and Participatory Forest Management [PFM]). Both JFM and CFM (the latter has been implemented in Andhra Pradesh since 2002) have proven negative track records;²⁸ their failure is due to:²⁹

²⁷ This is an example of a non-CDM carbon trading project. The project bypassed government and the CDM Executive Board and was implemented between two private entities, thus eschewing all legal requirements for registration, monitoring and verification

²⁸ See footnote 17 and: FPP and Samata (2004) An Independent Evaluation of the World Bank's Community Forest Management Project in Andhra Pradesh, Forest Peoples Programme, UK.

²⁹ See footnotes 22, 23 and 26 for references on the failures of JFM and CFM

- lack of transparency in the financial dealings within the VPFC and between the VFPC and the Forest Department;
- restriction and/or violation of Adivasi rights and access to lands and resources (involuntary resettlement has occurred under JFM in many areas, and there are indications it is occurring under CFM in Andhra Pradesh as well);³⁰
- lack of participation in the design and implementation of JFM/CFM programmes, and of the policies and projects implemented under these programmes;
- lack of benefit distribution to the communities, especially the disadvantaged sectors of these communities:
- inter-community conflicts generated by the imposition of VFPC boundaries without reference to customary village boundaries;
- intra-community conflict due to restrictions imposed by the VFPCs and economic disparity between VFPC members and non-VFPC members;
- weakening of traditional village authorities and local self-governing institutions like the Panchayati Raj Institutions.³¹

According to a local activist, these failures "demonstrate how JFM and CFM are being used as tools to exclude the Adivasis from their survival sources, and are compelling them to slip into poverty and migrate in search of work. This is clear evidence that instead of giving legal expression to the 1990s circulars and recognising Adivasi rights to the forest, the government is seeking their eviction through all possible means."

The implementation of CDM or carbon sequestration projects through these structures would provide further financing for their implementation by the Forest Department, thus entrenching the negative social impacts on Adivasi communities. The World Bank has a particular interest in forestry in India, being one of the principal funding sources for JFM and CFM in many Indian states, and currently seeking to increase funding of forestry projects in India. It has also become one of the most significant players in the new global carbon market, thus clearly carving out a niche for itself in carbon forestry (see Box 4).

³⁰ According to the AP Forest Department, 26,000 ha of cultivated land was retrieved under the JFM programme, and brought under forest cover.

³¹ The Panchayati Raj Institutions are the locally elected, grass-roots unit of self-government, which are supposed to provide Adivasi communities with greater autonomy and control over their lands and resources. For more information and a critique of the functioning of PRIs, please visit http://www.pucl.org/

BOX 4: The World Bank Connection

Since 1999, the World Bank has become one of the most important promoters of the carbon market. In July 1999, the Prototype Carbon Fund (PCF) was launched; it is a "private-public partnership aimed at catalyzing the market for project-based greenhouse gas Emissions Reductions within the framework of the Kyoto Protocol, while contributing to sustainable development". The PCF's current project portfolio for the FY 2005 ensures about US\$ 160 million of signed Emission Reductions Purchase Agreements (ERPAs).³² So far, out of its 18 projects with signed ERPAs and 14 projects under development, the PCF has 2 projects under development in India for energy production from municipal solid waste in Uttar Pradesh and the removal of Nitrous Oxide from the production of Nitric Acid. The Prototype Carbon Fund has pioneered the trading of carbon credits resulting from the controversial Plantar project in Brazil (see Box 5) and is currently obtaining 1.5 million tCO2e (i.e. 1.5 million CERs) from the project.

Following the establishment of the PCF, the Bank expanded its GHG trading activities by establishing the BioCarbon Fund in September 2002 and the Community Development Carbon Fund in March 2003. The BioCarbon Fund (BCF) was set up to implement carbon sequestration or conservation activities in biological and agricultural ecosystems.³³ The BCF accepts projects which are not currently eligible for registration under CDM rules, such as forest conservation projects and "avoided deforestation" projects. By providing legitimacy to such projects, the BCF is establishing a precedent which could lead to such projects being accepted under future Kyoto commitment periods. In fact, the Bank's own report on the PCF notes that "The procedures, documentation and methodologies developed by the PCF are helping to structure CDM and JI projects and carbon transactions beyond the PCF." It can be assumed that the same would apply to the BCF.

The Community Development Carbon Fund has recently boasted an "unexpected boost" in its funds, when public and private money brought the funds for its portfolio to US\$ 128 million.³⁴ The CDCF was established to "[link] small-scale projects in developing countries seeking carbon finance with companies, governments, foundations, and NGOs seeking to improve the livelihoods of local communities and obtain verified emission reductions". The CDCF's proposed projects in India are: "Karnataka Municipal Water Pumping Improvements" and "Vertical Shaft Brick Kiln Cluster Project". The first annual review of the CDCF, published in June 2004, states that "the delivery of community benefits is what distinguishes the Community Development Carbon Fund from other funds in the World Bank's carbon business". This statement is slightly worrying given that one of the CDM's two mandates is to promote sustainable development. What exactly, and to whom, are the Bank's other "carbon business" funds delivering?

Despite the CDCF being the sole fund delivering community benefits, the review states that the community benefit procedures must be made as "simple as possible" and therefore suggests that "verification of community benefits should not add unduly to [the high transaction] costs" so "certain standard and predictable benefits" such as access to energy, health, environmental benefits, jobs and welfare of women and children should be focussed on. It is unclear whether the communities involved have any say in the matter. Further to these statements, the review notes that "consultation will be most important in cases where community benefits are not an intrinsic outcome of the project but are negotiated as additional elements, funded out of project returns" (emphasis added). This statement could imply that (i) where community benefits are considered 'intrinsic' to the project outcomes, consultation is not very important, and (ii) that there will be projects funded under the **community** fund that do not necessarily result in intrinsic benefits for communities. The review also notes that "every effort should be made to ensure that projects create jobs for people displaced from traditional occupations" – thus accepting the possibility that displacement from traditional activities may occur.

The PCF, BCF and CDCF thus appear to be yet another mechanism for 'business-as-usual' within the Bank, and their activities are very likely to have detrimental effects on indigenous peoples and rural communities' livelihoods and rights.

³² World Bank (2004) Seventh Report on the Implementation of the Prototype Carbon Fund, World Bank, USA.

³³ See the BioCarbon Fund's website at http://carbonfinance.org/biocarbon/home.cfm

³⁴ See World Bank Press Release (01/03/2005) "Community Development Carbon Fund Gets Unexpected Boost; Public & Private

Partners Invest US\$ 128 million" at http://carbonfinance.org/cdcf/router.cfm?Page=News

³⁵ see the CDCF webpage http://carbonfinance.org/cdcf/home.cfm

 $³⁶ see the CDCF we bpage \ http://carbon finance.org/cdcf/router.cfm ? Page = Projects \ for \ details \ on \ these \ projects.$

The consequences of promoting CDM projects are manifold, and can have severe repercussions for indigenous peoples. Indian activists fear that by creating a market for carbon which impinges on Adivasi land and resource use, CDM projects will engender change in the relationship between Adivasis and their lands and resources. They say that access and ownership rights to resources are thus transformed into benefit-sharing and stakeholder-type relationships. Coupled with the loss of control over land and forest resources, this transformation will lead to the systematic loss of Adivasi communities' capacity to sustain their livelihoods and food security, as well as the disintegration of their fundamental social, cultural and spiritual ties, which are intricately linked to dependence on their land and forest resources. Activists in India are thus concerned that the commodification of forest resources upon which CDM projects relies will ultimately lead Adivasi peoples to face a real crisis of survival.

Furthermore, many indigenous peoples and NGOs fear that the emergence of plantations as a solution to climate change under the CDM may impose important costs on indigenous communities, and they have repeatedly publicly repudiated the promotion of plantations.³⁷ While the negative social consequences of such projects have often been documented, it appears that tree monocultures, pesticides and large tracts of land constitute the ingredients of a cheap recipe to deal with climate change, and many investors are jumping on the bandwagon.

Although currently forest conservation projects have not been accepted for LULUCF projects under the CDM, conservation financiers are increasingly promoting the importance of protected areas as an additional source of carbon credits. The World Bank and the GEF have been particularly implicated, and many GEF protected area projects now mention that alternative sources of funding for conservation may soon be found in carbon sequestration related projects to be carried out within protected areas.³⁸ Indigenous peoples may consequently face a redoubled struggle should carbon sequestration and protected area projects come together on their lands and territories.

Whether they are plantation or protected area projects, carbon forestry projects present potential problems for indigenous peoples. The first threat would be to indigenous peoples' lands and territorial security. In many countries, in India in particular, governmental agencies still refer to large areas of land constituting important livelihood bases for many indigenous and forest-dependent peoples as "wasteland" or "degraded land". International financial institutions, northern governments and even international research institutions use similar language in their documents. As one activist in Madhya Pradesh put it "Government figures show that there are about 5 crores (50 million) hectares of 'waste land' in India, land which according to this definition now lies open to exploitation through carbon forestry schemes. What the central government does not say is that most of this 'waste land' belongs to Adivasis and other forest dependent communities, who will be the first to lose out from the development of such schemes." Customary ownership of and rights to these lands are not recognised by the government, and lie open to abuse through the implementation of CDM plantation projects. In fact, in Andhra Pradesh, activists reveal that the state government is currently promoting Pongamia plantations (see Box 3), and proposes establishing up to 3 million hectares of new plantations on so-called "common land" (or "waste land") throughout the state.

³⁷ See Climate Justice Now! Durban Declaration on Carbon Trading (www.sinkswatch.org), other Indigenous Peoples' statements at WTO, WIPO, CBD, etc

³⁸ For example, GEF (2004) Conservation of Transboundary Biodiversity in the Minkébé-Odzala-Dja Inter-zone in Gabon, Congo, and Cameroon: Project Brief, GEF (available at http://www.gefonline.org/projectDetails.cfm?projID=1095)

In order to fulfil the criteria on **additionality** under afforestation and reforestation projects, plantations can be established on lands that have not been forested for 50 years for an afforestation project, and 15 years for a reforestation project. This could have serious consequences for Adivasi peoples practicing swidden cultivation and those belonging to "forest villages" and cultivating land within so-called government Forest Land. Another CDM project requirement which may impact indigenous peoples is that of avoidance of leakage in CDM projects. This means that any carbon sequestration project must account for (and therefore attempt to avoid) emissions as a result of project activities. For example, say a carbon sequestration project is implemented on Adivasi lands, and that in order to fulfil livelihood requirements, community members are forced to displace activities such as cattle grazing, fuelwood cutting and felling of trees for swidden cultivation to an area outside of the project, the project implementers would have to account for the resulting emissions and would lose some of the carbon credits generated by the project. In areas where indigenous peoples' rights are not respected by government authorities and the private sector, one can expect an increase in Forest Department control on Adivasi forest-related activities such as grazing, swidden cultivation and fuelwood gathering.

Research into the possibility for small scale LULUCF CDM projects has found that one of the most critical elements to be accounted for is ownership. Ownership of the land, ownership of the carbon, ownership of the project: these elements must be established prior to the implementation of any LULUCF project in order to avoid conflicts further into the project. ³⁹ Since in much of India, the government claims ownership and control over indigenous lands and resources, this will be a contentious issue when LULUCF projects are proposed. Despite the fact that, according to international law and best practice, indigenous land and resource rights must be accounted for in all development projects, the CDM has not highlighted these, nor that the free, prior and informed consent of indigenous peoples is a fundamental requirement for any project to be implemented on their lands. Moreover, when establishing social baselines and undertaking social assessments, CDM project promoters in India would have to take into account caste-related problems present in rural communities, the problem of the landless farmers, and the entrenched discrimination against Adivasi communities by rural elites and government authorities.

 $^{^{39}}$ for example the International Institute for Environment and Development booklet: Stephen Bass et al. (2000) Rural livelihoods and carbon management. Natural Resources Issues Paper 1, IIED, UK (www.iied.org)

BOX 5:

Examples from Elsewhere

Norway in Uganda

Tree Farms, a Norwegian forestry company, has been involved in plantations in Uganda since the mid 1990's. In 1996, it made a deal with the Ugandan authorities for an extremely cheap land lease in the Bukaleba Forest Reserve, which is to be planted up mainly with Eucalyptus and fast-growing pines. In 2001, Norwatch, a Norwegian NGO, carried out a field study in the area to assess the impact of the Tree Farms plantation⁴⁰. It found that the Tree Farms' project could not be carried out "without some 8,000 people, mainly farmers and fishermen, being evicted from the company's areas and thus deprived of their livelihoods". Norwatch quoted the Managing Director of Tree Farms as stating "Everyone living and farming inside our area are illegal intruders. But we don't want to do the dirty job chasing them out. We have told the forest authorities quite clearly that this is their responsibility". Tree Farms was also found to be exploiting farmers by using them as free labour to clear and prepare the land for plantation. According to Norwatch, "the fact that the company has also collected payment from the farmers by collecting maize from them (as well as probably cash), makes what goes on at Tree Farms resemble a Middle Age feudal system but without the mandatory "noblesse oblige" and with the farmers paying for the bulk of the investment cost of the plantation establishment".

The World Bank in Brazil

In Brazil, the Plantar plantation project, which has not been approved by the CDM Executive Board, has received substantial support from the World Bank's Prototype Carbon Fund (see Box 4 above for more information). The project will increase the area of an existing plantation by planting 23,100 ha of Eucalyptus, and is claiming 12.8 million credits over 21 years. The Plantar project has engendered serious social unrest and protest in Minas Gerais⁴¹. The state's many landless farmers claim that plantation projects such as Plantar are encroaching on land which was traditionally used by local farmers, while small farmers farming on the edges of the plantations have seen their irrigation dry up, and plantation chemicals destroy their crops, poison their cattle and kill the fish they rely on for food. Furthermore, the labour conditions under which local employees work are intolerable. A case study carried out by the WRM⁴² found that among other complaints, employees in the plantations were working in subhuman labour conditions, excessively long working hours, doing unhealthy and degrading work; there were accusations of child labour, illegal outsourcing, subjection of the workers, blacklisting of worker leaders and violation of international regulations concerning freedom of association and autonomy of trade union representation.

 $^{^{40}}$ Norwatch (2001) CO_2 lonialism: Norwegian Tree Plantations, Carbon Credits and Land Conflicts in Uganda.

⁴¹ See http://www.wrm.org.uy/bulletin/6o/value.html and http://www.wrm.org.uy/bulletin/84/Plantar.html as well as www.sinkswatch.org and www.cdmwatch.org

⁴² see World Rainforest Movement, 2003, Certifying the Uncertifiable, WRM, Uruguay.

Conclusions

With the coming into force of the Kyoto Protocol, the number of proposals for CDM projects and registration of projects is increasing, despite a global voice of disagreement with the fundamental concept of this mechanism as a solution to climate change. Furthermore, principles regarding indigenous peoples' rights and free, prior and informed consent have still not officially been addressed by the decision-making bodies, despite these having been demanded time and again by the indigenous peoples' caucus at climate negotiations.⁴³

These points made in Indigenous Peoples' Statement made at the 9^{th} Conference of Parties to the UNFCCC in Milan in 2003 sum up their demands:

"The Clean Development Mechanism (CDM) and Joint Implementation (JI) must incorporate principles which address transparency, free, prior and informed consent and equitable benefit sharing with Indigenous Peoples in order to accomplish the objectives of lowering greenhouse gas emissions and achieving sustainable development in developed and developing countries.

All development projects within indigenous ancestral territories must respect our fundamental rights to lands, territories, self-determination and ensure our right to our free, prior and informed consent. Sinks projects do not contribute to climate change mitigation and sustainable development. The modalities and procedures for afforestation and reforestation project activities under the CDM do not respect and guarantee our right to lands, territories, and self-determination."

In India, there is currently no legal framework to deal with CDM carbon forestry and associated carbon trading, so any project proposals are on hold until this is established. Nevertheless, World Bank and the private sector interests are increasingly pushing for this to take place. Despite the lack of legal framework, studies evaluating the possibility of implementing CDM projects have been and are being undertaken, and the World Bank's carbon funds have started to implement CDM-like projects, in India. As suggested by the analysis in this briefing, climate change mitigation projects, specifically forest-related projects, are likely to severely impact indigenous communities in India, principally through further loss of Adivasi control over lands and resources which such projects would entail. Issues for Adivasi peoples remain in the balance, and increased monitoring of the CDM and related projects in India is essential.

⁴³ Indigenous Peoples' Statements at COP8 in Delhi and COP9 in Milan (the can be found on the website of the Climate Alliance http://www.klimabuendnis.org/)

Appendix I: Some useful definitions in the Kyoto Protocol and the CDM

- *additionality:* Article 12(5c) of the Protocol a CDM emission reduction activity can only be registered if its emissions reductions are "additional to any that would occur in the absence of the certified project activity". The increase has to be verified in all carbon pools (above and below ground biomass, dead organic matter, soil organic carbon, or chosen pools
- **baseline:** This increase has to be verified against a project-specific baseline, established in a transparent and conservative manner and taking into account national/sectoral policies in the forestry sector.
- *leakage*: Leakage occurs when a project's activities and outputs create incentives to increase GHG emissions in processes taking place elsewhere. These processes may or may not be directly associated with the project. The main sources of leakage are market effects.
- **slippage:** Slippage occurs when the GHG benefits from a project are partially negated by increased GHG emissions from similar processes in another area. The main sources of slippage are activity shifting, when activities causing emissions are displaced to another area.
- **permanence:** carbon stocks generated by the project need to be secure over the long term and any future emissions that may arise from these stocks need to be accounted for (impermanence of biotic stocks a problem).
- **afforestation:** "direct human-induced conversion of land that has not been forested for a period of at least 50 years to forested land through planting, seeding and/or the human induced promotion of natural seed source" (IIED Guide)
- **reforestation:** "direct human-induced conversion of non-forested land to forested land through planting, seeding or human induced promotion of natural seed sources, on land that was forested but that has been converted to non forested land. For the first commitment period (2008-2012), reforestation activities will be limited to reforestation occurring on those lands that did not contain forest on 31st December 1989." (IIED Guide)
- *LULUCF*: (Land Use, Land Use Change and Forestry) emissions reductions projects that seek to increase carbon sequestration through improved land use and forest management.
- **commitment period:** The period under the Kyoto Protocol during which Annex I Parties' GHG emissions, averaged over the period, must be within their emission targets. The first commitment period runs from January 1, 2008 to December 31, 2012.

This report analyses the impact of the Kyoto Protocol's Clean Development Mechanism (CDM) on Adivasi peoples in Madhya Pradesh and Andhra Pradesh. Fieldwork carried out in July 2004 followed up on the experiences of village community members who had been involved in feasibility studies, commissioned by North American international development agencies, to determine how to implement CDM projects in rural India.

Forest Peoples Programme
1c Fosseway Centre, Stratford Road
Moreton-in-Marsh, GL56 9NQ, UK
Tel: +44 (0)1608 652893, fax: +44 (0)1608 652878

email: info@forestpeoples.org http://www.forestpeoples.org