

und

THE LOCAL TRAGEDIES OF GLOBAL CLIMATE POLICIES. WHICH KIND OF GOVERNANCE, WHICH KIND OF KNOWLEDGE?

Leticia Merino

Instituto de Investigaciones Sociales, Universidad Nacional Autónoma de México
merinoleticia@gmail.com

Introduction: Thinking on Climate as Commons

The challenges identified by those who have thought on climate change and the difficulties of mitigation efforts from a commons perspective (Ostrom 2009, 2012) relate to:

- Global Climate and Global Climate Regulation Process as Commons

The capacity of the Earth System to regulate the climate can be considered as a shared “good”. Global climate regulation and the reduction of carbon emissions are dependent on the decisions of multiple actors. The governance of “climate commons” demands collective action, cooperation and coordination of multiple actors in diverse scales, among whom profound social and political inequalities do exist.

Ostrom (2009, 2012) defined Climate change as a global public bad from which nobody can be excluded. Consequently the initiatives to revert it –as in the case of public goods– face “provision problems”: nobody has incentives to take costly actions to avoid negative externalities. Free riding is frequent, as experienced by participants of the Kyoto Protocol, costly measures taken by some actors create global benefits, including those who did not “cooperate”, eroding global credibility and social capital.

- The complex nature of the processes

There is a great degree of uncertainty, a large gap in terms of knowledge and perception of the causal relations of many actions –in terms of their carbon footprint– and outcomes in terms of concrete climatic events and their impacts (Jansen). There are also profound differences regarding access to information, interests and preferences among relevant actors aggravating problems of freeriding and unwillingness to cooperate.

- The global and multi-scale nature of the processes

Since climate change is a global process, most recommendations refer to global solutions, and only to global solutions. Sub-national scales, particularly local scales are mostly left aside in terms of governance and agency, even if it is widely accepted that climate change results from “nested externalities” (Ostrom 2012) the accumulation of the impacts of local and regional actions.

Ostrom remarked that conventional discourse, and “common sense” on climate change and climate policies such as REDD respond to these challenges with base on two general assumptions:

- The still prevalent “Conventional Theory of Collective Action” (Ostrom, 2010) that regards individuals left to themselves as unable to reduce their emissions, unless they are forced by central governments to do so. It is also proposed that “Cap and Trade” mechanisms may reduce overall emissions while letting “the market” work to get the

und

rights to a smaller and smaller quantity of greenhouse gases (GG) to those who have the most demand (Ostrom, 2012). Local societies and citizens' role is that of passive followers of multilateral agencies, global carbon markets and central governments.

- Global solutions are sufficient to face all types of global challenges, therefore adequate governance schemes be based on global treaties among central governments. As the perception of danger or "scarcity of the global good" (an stable climate) grows the perceived need for hard command and control policies grows with it. The nested and complex nature of climate change process is not addressed with nested governance structures.

Thinking on Climate Change as Commons Ostrom (2009, 2012) urged about the need of a change of assumptions regarding the conventional theory of collective action and the scale of actors, actions and policies. Her recommended approach was policentricity, though she also acknowledged the large gap of research and policy experience about global commons governance. Conventional approaches and commons based perspectives also differ in regards of perception of the challenges, type of knowledge, research and monitoring to be promoted and their roles.

Heterogeneity and Inequality. Power Gaps, Power Struggles and Elite Capture..

Inequality is a stronger contributor to un-governability and unsustainability than poverty (Wilkinson, 2009, Sen 1999). It feeds elite capture and conflict, eroding social capital and pervading collective action base of many sustainability initiatives. The maintenance of the commons in contexts of high inequality tends to benefit minorities at the expense of the exclusion of many and often rests on hierarchical governance schemes. The systemic analysis of the impacts of inequality on "climate governance" among but also within countries is a key dimension disregarded in many global climate initiatives. At different scales Inequality and perceptions of injustice limit drastically the viability of climate initiatives. Global and national policies should give special care not to aggravate inequality and injustice. Among the relevant aspects of inequality related to "climate commons" it is worth to consider:

- The deeply unequal contribution to Green House Gasses among countries and within countries, while the production and lifestyles of many developed countries and rich minorities in developing ones, are extremely wasteful, millions live under energy deprivation. Central America with nearly 50 million people is responsible of 0.09% of global carbon emissions.
- The distribution of the impacts of climate hazards and of the capacities to "adapt" is markedly unequal. More than 90% of the land of Central American is considered as highly vulnerable and 90% of the Central Americans live in vulnerable areas.
- The distribution of the costs of climate policies is also unequal and perceived by many as unfair. "Cheap" climate strategies such as REDD tend to overlook the costs imposed to the rural poor. There is a tendency to impose global and national "panaceas" to local disempowered communities at the expense of their rights and livelihoods, while powerful actors continue abusing the global commons. This is the case of expanding mining operations in many forest areas of Latin America. Additionally the emphasis given by global negotiations and many national governments in developing countries to the

und

construction of capacities to “adapt” to the impacts of climate change, mostly local and regional, is much lesser than that received by mitigation strategies.

- Within countries with colonial past and a tradition of authoritarian rule, mistrust and elite capture are constant features of political life. Climate policies (as previously Protected Areas) are perceived by rural communities as a renewed threat to their rights over their lands and resources.

- The experiences of successful global governance schemes to rely on is scare, on the Contrary they are pervaded by strong power and economic asymmetries.

Global inequality and inequality within countries will not diminish without policy and civic efforts acknowledgeable of its pervasive impacts on social life, environment and governance (Wilkinson, 2009), without considering it as a “public bad” that feeds consumerism and irresponsibility towards global commons.

More than twenty years of research and experience on commons governance around the world repeatedly show that local rights and local governance schemes are vital for the conservation of water bodies, fisheries, wildlife and forests (IFRI, www.iasc-comons.org etc.). More recently similar patterns were shown in regards of the preservation of carbon sinks (Agrawal, Hardin and Chatre). Another important finding from commons research is the risk to “overcrowd” local governance with over regulation and other schemes of extreme restrictions and rules imposed by external powers (Cárdenas, 2009). More specifically a large body of research on the commons identifies as key components of sustainable governance of the commons:

- The recognition of local rights and local incentives
- A meaningful level of local autonomy to rule and manage common resources
- Monitoring of the commons by user groups and other stakeholders.

These are key components that cannot be replaced by global or even national actions, without the risk of extended commons tragedies. These are also nested elements: rights necessarily include control rights (Schallerger and Ostrom), rules responsive to local contexts, responsibilities and incentives to monitor that derive from use and control rights, local monitoring that create trust and feedback for local management.

The Risks of Global Perspectives: Seeing Only Like a State Leads to Misread Local Landscapes.

The tendency of global understanding of local landscapes and local societies to homogenized, misread and impose foreign and dysfunctional panaceas has been recalled by many (Scott, 1999; Fairhead and Leach, 1996; Foucault, 1975; Ostrom, 2007) these visions not only result from ignorance about local realities, but impose readings built from positions of power, oriented to justify and maintain subordination of different types: of traditional and indigenous groups versus modern and globalized sectors, of rural communities and landscapes to urban centers, of local societies to national and global powers and capital. It is worth to remark that academia and science are not immune to this bias and its consequences. Taking the risk to reduce and oversimplify, I propose that in the

und

field of Climate Change these differences relate to: (i) visions and knowledge about natural landscapes, (ii) visions and knowledge of rural communities and rural livelihoods, (iii) prescriptions of ideal management schemes and monitoring approaches, (iv) vision of rights and governance of natural systems.

a. Visions of natural landscapes

For most global actors, national governments and many urban stakeholders, natural landscapes are mostly hinterlands. Dense forests are ideal landscapes, and forest density has value in itself, in detriment of “cultivated” landscapes. Forests are mainly (often exclusively) valued as carbon sinks, other provision and regulation ecosystemic services (such as the provision of goods and even biodiversity conservation in some cases) are subordinated to the maintenance of carbon sinks. Relevant knowledge focuses in the measurement of forest areas and their stability. It is exclusively an expert domain accountable to national governments, global agencies and carbon markets.

From the perspective of local communities in most of Mesoamerica, natural landscapes are also cultural landscapes, source of livelihoods, identity and common purpose, center of collective governance. Landscapes have a patrimonial value connecting communities with past and future generations. Communities’ lands and forests are dynamic landscapes, whose uses and conditions may change but can maintain capacities to provide eco-systemic services (flow, support, regulation, cultural). Knowledge on local landscapes is built over time, based on occupation and use over generations, it often includes (and adapt) academic and technical knowledge; it is mainly adaptive knowledge, problem solving oriented. Local knowledge on communities’ landscapes is built and used as a common.

b. Vision of rural communities and rural livelihoods

Global, governmental and urban visions of local communities are plagued with a Malthusian perspective. Communities are viewed as “population” and “anthropic pressures”. Population diminishing, agricultural and forestry abandon are considered favorable for conservation and mitigation of climate change as proposed by the “Forest Transition Theory” (Rudell, 1998). As a consequence of this vision different policies disincentive or criminalize local uses of natural resources, agriculture, husbandry and forestry, in search of environmental and modernity panaceas. Knowledge about communities is mostly demographic and descriptive, rural livelihoods are perceived as unsustainable per se.

From a local and commons perspective communities, their members, and institutions are key resources for the maintenance of the commons. Landscape based livelihoods generate incentives to protect and rule and assume the costs implicated in protection, management and governance of natural commons. Landscapes based livelihoods also generate culture and knowledge on these commons. The construction of “low carbon” agriculture, husbandry and forestry, compatible with the provision of hydrological services and biodiversity (and their certification) is an important current challenge, that requires local and academic knowledge.

c. Vision of management and monitoring of carbon sequestration.

From global and governmental perspectives the best management strategy of rural landscapes is the absence of use and management. Dense forests should be maintained, promoted and segregated from productive areas. Deforestation is regarded as a universal

und

permanent threat to be avoided by all means and reforestation is often imposed as compulsory goal, a panacea. Market incentives, subsidies and force are means to avoid production activities. Management schemes consider poorly the need to build resilience, capacities to face different types of pressures on forests (longer dry seasons, fires, pests, illegal logging and illegal cropping). Not surprisingly monitoring is mostly focused on the report of forest carbon sinks and stocks, accountable to national governments and global agencies, it is mostly the field of academic experts, which rarely incorporates local knowledge and local perspectives, and does not report to local societies.

On the contrary active management of forests and other landscapes is based on adaptive management and productive uses including locally regulated harvest (appropriation) and provision (protection, investment) activities. Adaptation and mitigation can be both management goals. Climate change face communities and user groups with the need to build capacities –including knowledge- to rule and protect landscapes and fight different pressures. Human capital and local knowledge are essential components of landscapes management. Monitoring is a key dimension of communities management schemes, in the scheme of the Consejo Civil Mexicano and UNAM project (www.ccmss.org.mx) it is oriented to report communities (and other interested stakeholders) about the capacities of landscapes to provide different eco-systemic services, including carbon captured in areas under diverse land uses. As in the scheme of the IFRI program, it also reports social and human capital and local wellbeing, regarded all as inter-related dimensions of socio-environmental systems. Monitoring potentially reports to outsiders (markets, governmental and international programs) but generates knowledge and feedback to sustain management and governance of natural landscapes. Carbon accounting should focus on balance and flows, not only stocks. According with the proposal of the Canadian Forest Service and broadening the scope of carbon monitoring and accounting. Forest Communities proposal for REDD scheme in Mexico takes into account the carbon sequestered in forest products and products that use timber as raw material, that remain captured for long periods of time. The carbon footprint of the use of firewood as energy source should be assessed in regards of other energy sources such as fossil fuels (with larger carbon releases into the atmosphere).

d. In regards of rights and governance of carbon and landscapes I find that:

From a global and national perspective the ultimate right holders of carbon sinks are the national states (and particularly central governments) this is true even in Mexico where public forests account for less than 5% and communities own around 75% of the forest lands. Forests are seen as spaces empty of rights and local institutions. When local rights are considered they are treated as contrary to global interests and of less public importance. The recognition of local rights is reduced to the payment of rents (whose value is fixed in global markets) to give away use and control rights. Management and governance of natural landscapes faced to climate change should be centralized in national governments and their experts.

From a local perspective landscapes governance is based on local presence and rights. Local institutions and governance systems based on local knowledge produces provision and appropriation rules, carry on monitoring, relate on participation and conflict resolution practices.

und

Mexico's Climate Policies: Panaceas versus local rights

73% of México has a forest cover, nearly 142 million hectares comprising a wide variety of forest ecosystems. Mexican forest regions are home of nearly twelve million people. Many of them are indigenous (INEGI, 2000) who are mostly poor and have weak political representation and voice. Forest dwellers are often forest owners with varied levels of dependence on forest resources. The vast majority of the forestland (75%) is under collective tenure and more than 50% of all collective holdings are forest communities¹. Collective forest tenure is the result of an extensive Agrarian Reform implemented from the 1930 to the early 1980ⁱ. The National Forest Commission (CONAFOR) estimates that 105 million hectares are collectively owned by 30,305 communities. During the last two decades policy analysts and lobbying groups have underlined the importance of the recognition of property rights to local forest users as key for sustainability and equity. In Mexico communities got this recognition earlier than anywhere else in modern times, but de facto rights were often denied through the establishment of extended forest concessions and logging vans in communities' lands.

Since the late 1980 many communities strongly opposed forest concessions fighting to regain rights to manage and use forests. They were backed by the progressive forest administration of the time that supported them to engage in commercial community forestry. After few years some achieved remarkable gains: promoting local economies, investment in public goods in the town, forest protection and conservation. As early as the 1990 many communities became certified by the Forest Stewardship Council. Nevertheless also in the 1990s, governmental support of community forestry faded. The experience became hard to replicate as communities had to face the impacts of the opening of national market to foreign forest productsⁱⁱ, strong over-regulation of forest activities and the rapid expansion of restrictive protected areas, the extended presence of illegal logging and illegal cropping and the inability to implement the law.

As in many other places forest eco-systemic services are currently perceived as increasingly scarce by urban sectors who demand stronger public control over forest areas. Control over forests has become an increasing contested domain national urban and international perceptions are mostly expressed as concerns about deforestation. Common wisdom and public policies blame forest collective tenure and poverty of forest dwellers as the main causes of deforestation. The last two federal administrations have been strongly responsive to these concerns, reforestation programs captured around 70% of the total budget dedicated to forest policies, while forest products harvest became increasingly over-regulated. The impact of Climate change process and the prevalent discourse of climate change exacerbate this trend. Climate change policies tend to be regarded as an exclusive field for experts and central governments, favor re-centralization of decision making and property rights. Local communities, owners of most of the forest land of the country are regarded as an obstacle for ecological conservation; their own perceptions of environmental change, livelihoods and governance experience are poorly considered in the design of the

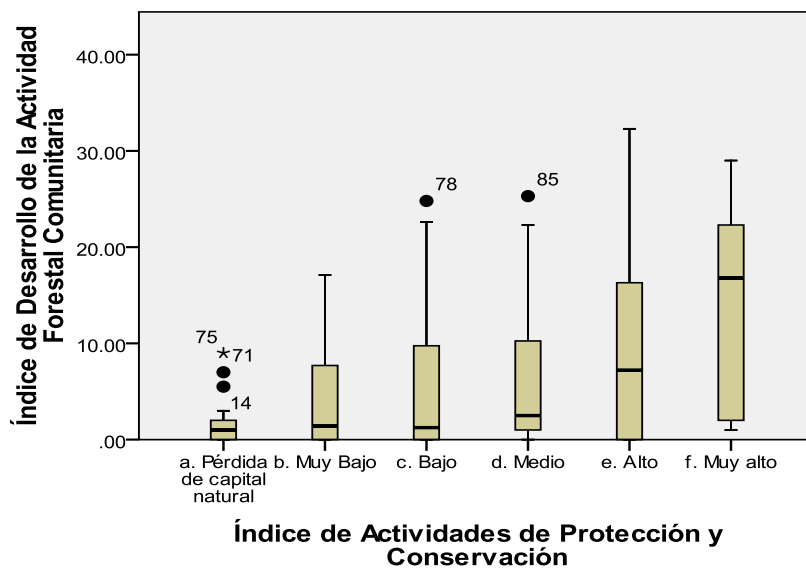
¹ Officially designed as *ejidos and comunidades agrarias*, I use the term community to refer indistinctly to both of them..

und

country climatic policies that largely prioritize mitigation targets over local adaptation needs.

Governance, Economy and Forest Protection

In 2008 a team of the IIS with the support of the IFRI Program and Mexico's CONACYT² applied a questionnaire to a random sample of 103 forest communities³. We summarize many of the results using five indexes built with this purpose, the Index of Organization and Social Capital, the Index of Forest Economy, the Index of Protection and Conservation Activities and the Index of Pressures of Forests. As expected the results show that –in spite of the presence of relatively strong organization, the majority of the forests face important pressures and local protection and conservation measures tend to be weak. Those communities where forests are sources of employment and income are less than 10% (see Annex 1). Nevertheless it is important to mention that: the data also documented successful cases, and furthermore the relation among these variables (measured by the indexes) show: that pressures on forests tend to be lower in those communities with stronger forest economies, which perhaps show a larger capacity to monitor, respond and prevent local forest pressures, also communities with technical capacities and permanent human presence in forest areas. Protection and conservation activities also tend to increase according with the development of local forest economies which create incentives and means to do so. Organization and social Capital also relate closely with practices of protection and conservation that largely rely on collective action and local governance⁴.



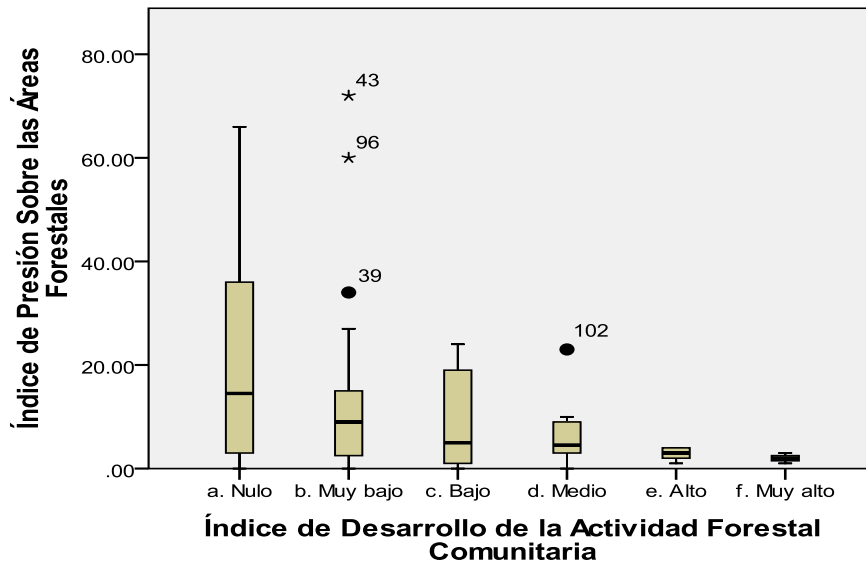
² IFRI is the International Program Forest Resources and Institutions, based in Indiana University and the University of Michigan www.ifri.org, CONACYT is the Mexico's National Council for Science and Technology.

³ This sample was built among communities, owners of a minimum of 300 hectares of temperate forests in five the states of the country that jointly count for more than half of Mexico's forestland and produce more than half of the timber volume: Oaxaca, Guerrero, Michoacán, Jalisco and Durango.

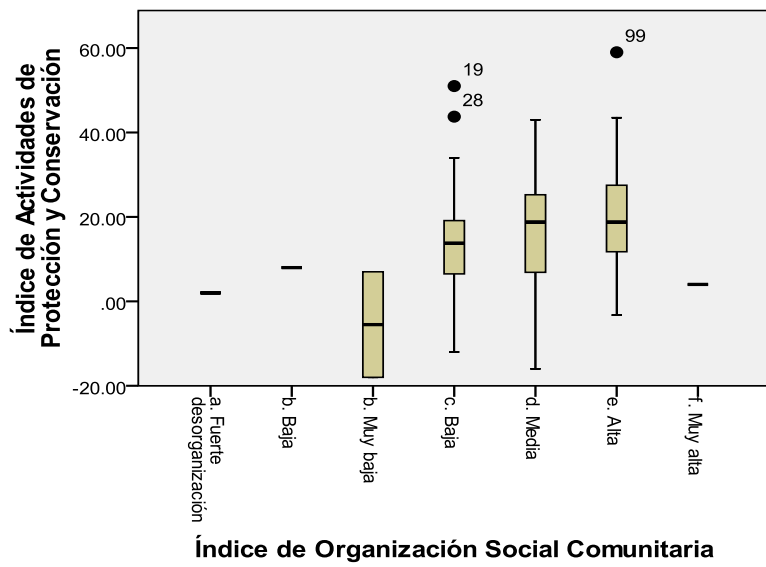
⁴ The survey, results, methodology used for the construction of the indexes are accessible at www.ccmss.org.mx

und

Source: Survey on Forest Communities of Mexico, IIS-UNAM (www.ccmss.org)

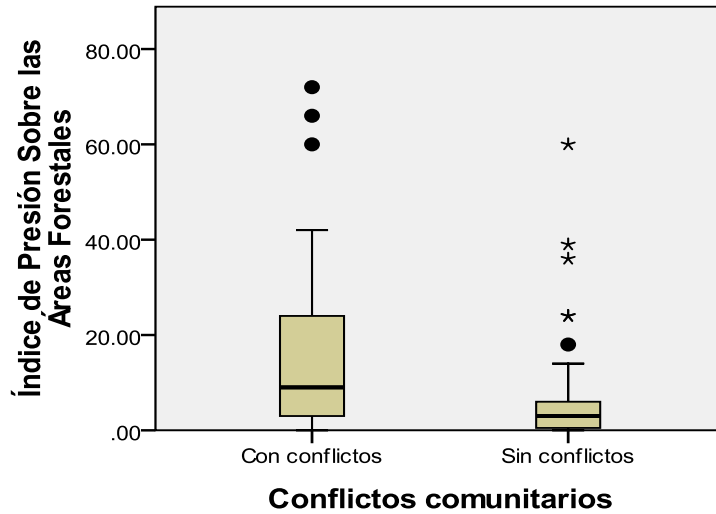


Source: Survey on Forest Communities of Mexico, IIS-UNAM (www.ccmss.org)



Source: Survey on Forest Communities of Mexico, IIS-UNAM (www.ccmss.org)

und



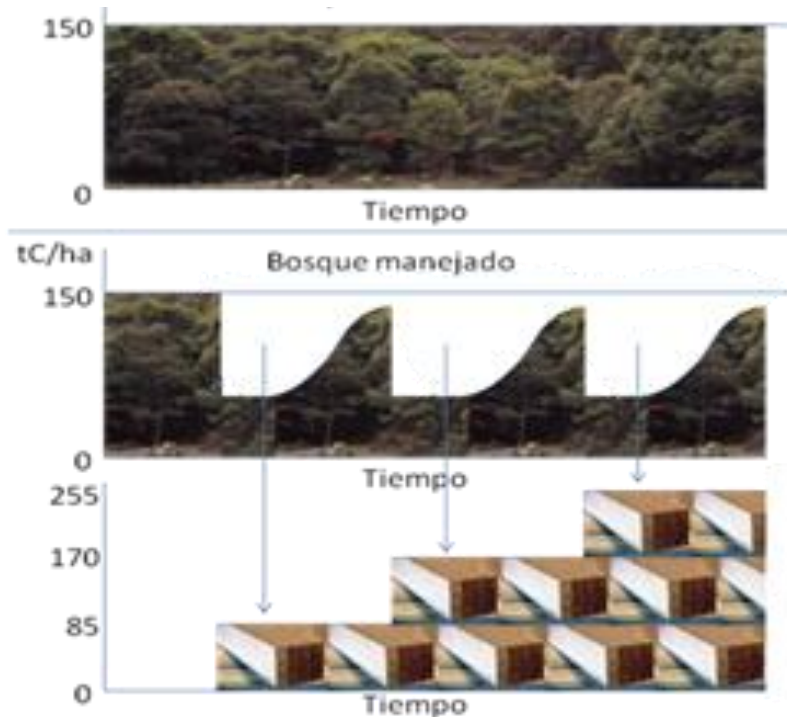
Source: Survey on Forest Communities of Mexico, IIS-UNAM (www.ccmss.org)

Enhancing Forest Carbon Stocks through different strategies

Policy schemes for Payment for Environmental Services implemented in Mexico during the last decade regard forest environmental services and local uses of natural resources are contradictory goals. The REDD program, the main climate change mitigation strategy in regards to forests is largely based in similar assumptions, with little opening for alternative perspectives, more responsive to local needs and rights.

Assessments of carbon capture made by the Mexican Program for Carbon, based on the approach of the Canadian Forest Service suggest different possibilities. Comparing purely conservation and production forests, they estimate that even if in well managed production forests, the carbon sequestered in the biomass lowers immediately after logging is performed, it reaches the same carbon volume (than conservation forests) some years after, but the carbon sequestered in different timber products remains sequestered. If this carbon – largely absent in most carbon accountings- is considered the carbon sequestered by sustainably managed production forests is higher.

und



Source: Ben de Jong, 2011, Programa Mexicano del Carbono

Recent assessments of forest carbon stocks under different management strategies carried by the Mexican Council for Sustainable Silviculture in Central Mexico, go further showing that the trees growth rates (closely related to the increase of carbon stocks) of coniferous forest areas where logging is performed⁵ can be up to 50% higher in a ten year period that the trees growth rates of forest areas without logging.

Ostrom called for a shift of paradigms of Climate Change policies approaches in regards of scale and assumptions of collective action. I argue that similar changes are needed in regards of the impact of local livelihoods and local rights. These shifts may enable climate policies and knowledge to collaborate with polycentric complex knowledge and governance systems. Based on these data I argue that local forest governance and sustainable forest use contribute –not only- to conservation and mitigation of Green House Gases, but to build local socio-environmental resilience key to respond and adapt to the impact of Global Environmental Change. In consequence policies should be oriented towards the strengthening of local capacities, to trust local right holders and forest users, without “crowding out” local institutions by imposing over-regulatory schemes and global dysfunctional panaceas.

Rapid urbanization and out-migration are dominant national and global tendencies nevertheless empty rural areas are often unviable conservation schemes in regions

⁵ Based on conservative selective logging

und

characterized by communities' ownership and patrimonial meaning of the land, nor in regions where un-governability is frequent common law. Local rural governance is needed due to social and environmental conditions. Rural governance, local stewardship of natural resources and dignified rural livelihoods and culture require to be based in new types of urban-rural relations and paradigms. Natural resources, can difficultly be managed by "remote control".

Value of the Indexes of Communities Governance and Forest Management

INDEXES	Very High	High	Medium	Low	Very Low	None
Index of Organization and Social Capital	3%	54%	15%	25%		3% lack of organization
Index of Forest Economy		54%	15%	25%	3%	
Index of Protection and Conservation Activities	5%	10%	22%	27%	19%	17% loses of natural capital
Index of Pressures on forests	24%	13%	26%	26%		11%

REFERENCES

- Agrawal, Arun, Ashwini Chhatre, and Rebecca Hardin (2008). Changing Governance of World's Forests. *Science* 320:1460-62
- David Bray y Leticia Merino, 2004; La experiencia de las comunidades forestales mexicanas. Instituto Nacional de Ecología, México, 2004.
- Bray, David, Merino, Leticia y Deborah Barry; Los bosques comunitarios de México: manejo sustentable de paisajes forestales. Instituto Nacional de Ecología, México D.F, 2007.
- Cárdenas, Juan Camilo, 2006; Los dilemas de los Colectivo. Universidad de Los Andes, 2006. Bogotá.
- Elvira Durán Medina, Jean Francois Mas , Alejandro Velázquez, 2005. Cambios en las coberturas de vegetación y usos del suelo en regiones con manejo forestal comunitario y Áreas Naturales Protegidas de México, en Bray, D.; Merino, L. y Barry D. op.cit.
- Fairhead James and and Leach, 1998; Misreading the African Landscape: Society and Ecology in a Forest-Savanna Mosaic (African Studies), Cambridge University Press, 1996.
- Gibson, Clark; McQueen, Margaret and Ostrom, Elinor; 2000; Peoples and Forests, Communities, Institutions and Governance, 2000 Massachusetts Institute of Technology .
- Anne M. Larson, Deborah Barry, Ganga Ram Dahal and Carol J. Pierce Colfer; Forests for People, Community Rights and Forest Tenure Reform, [The Earthscan Forest Library](#). February 2010.

und

- Merino, Leticia, 2004; Conservación o Deterioro. El Impacto de las Políticas Públicas en las Comunidades y en los Bosques de México. Ed. Instituto Nacional de Ecología, México 2004.
- Skutsch, M. and de Jong, D. (2010) The permanence debate. Commentary: Science, vol 327 p 1079.
- Merino, Leticia y Gabriela Ortiz, 2012; Encuentros y Desencuentros. La Política Forestal en Tiempos de Transición Política. Instituto de Investigaciones Sociales de la UNAM y Miguel Angel Porrúa. México. D.F.
- Ostrom, 1991, Governing the Commons. The Evolution of the Institutions for Collective Action. Cambridge University Press, Cambridge.
- Ostrom, 2001; Governing the Commons. The Evolution of the Institutions for Collective Action. Cambridge University Press, 1990.
- Ostrom 2009, A General Framework for Analyzing Sustainability of Social-Ecological Systems *Science 24 July 2009: Vol. 325 no. 5939 pp. 419-422, DOI: 10.1126/science.1172133.*
- Amy R. Poteete, Marco A. Janssen & Elinor Ostrom, Working Together: Collective Action, the Commons, and Multiple Methods in Practice, Princeton University Press, 2010.
- Herman Rosa; Mitigation and Adaptation to Climate Change in the context of High Vulnerability of El Salvador; Key Note Speech; XIII Conference of the International Association for the Study of the Commons; Hyderabad, India, January 2011.

und
