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**A longitudinal study of corporate
environmental performance**

by
Emmanuel B. Raufflet

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SUMMARY

This paper presents a longitudinal study on the management of the natural resources by the San Rafael Company, a leading Mexican pulp and paper company, in the 1947-1991 period. This study illustrates the need for the use of more encompassing and dynamic frameworks in analyzing corporate environmental performance, including especially environmental, institutional and social dynamics dimensions into the analysis.

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Emmanuel B. Raufflet

INTRODUCTION

In 1942, as Mexico needed increasing amounts of lumber for its industrial development, a national Forestry law established a system of concessions aimed at intensifying lumber production for supplying industrial users.

Under this new management regime, natural-resources-based companies would receive a concession to secure their lumber supply and manage scientifically specific forested areas (Simonian, 1995, Hinojosa Ortiz, 1958). In the following 8 years were established around 20 concessions to specific companies that lasted until 1991. In this paper, we are particularly investigating the management practices of the San Rafael Company, one of the beneficiary companies under this system.

The San Rafael Company was then the leading Mexican pulp and paper producer. From 1947 to 1991, its Forestry Unit managed a forested area of around 120,000 ha in the Iztaccihuatl - Popocatepétl (Izta - Popo) area, at the South-Eastern tip of the Basin of Mexico, in the States of Mexico, Puebla and Morelos.

1. THEORY ON CORPORATE SOCIAL PERFORMANCE

Most frameworks in Management Studies aiming at assessing Corporate Environmental Performance are static and company-centered frameworks (See Clarkson, 1995 ; Wood and Jones, 1995 for excellent summaries). Our intention in this paper is to argue for the use of a historical and multiple stakeholder perspective to assess the management of a resource base by a company. The narration and analysis of this part of the history of the San Rafael Company is aimed at illustrating this theoretical argument. The remainder of the paper is organized in three sections. The first section is mainly *descriptive*. Elements on the Mexican national lumber policy and their implications on the areas managed by San Rafael in the 1947-1991 period are provided. The second section is overarchingly *evaluative*. We briefly assess the implications of this corporate environmental policy from the perspectives of : 1) ecological sustainability, 2) institutional ; and 3) local social dynamics. The last section is *reflective* and *theoretical*. We draw some implications for further research on corporate environmental policy.

1.1. The case study : San Rafael — The context : Mexico in the 1940s

In the 1940s, as Mexico was industrializing fast, there was an increasing need for lumber, especially for construction, electrification and industrialization needs. However, timber was rare and expensive, and this situation was likely to worsen as needs were increasing. In spite of its relatively good endowment in forests, Mexico needed to import cellulose and construction timber (Hinojosa, Ortiz, 1958). World War II further restricted the possibility to import from Canada and the United States and aggravated this shortage situation.

This led Mexican officials to view the largely untapped potential of the forests as storehouses for raw materials for the development of the national economy. Hinojosa Ortiz¹ (1958, p. 9) calculated that in 1955, the forestry sector in Mexico represented for around 25 % of the output of the steel industry and had an “*enormous potential for the welfare of the country*”.

However, the forestry sector was not fulfilling this potential. Its problems were plethora. If there was an agreement that the portfolio had a potential, it does not seem that Mexican officials and scientists had a clear idea of its actual content. For instance, official estimates of the forested area were unclear. They oscillated between 28 million ha in 1944 to 25 million ha in 1952, 39 million in 1950 (Hinojosa Ortiz, 1958, p. 11-12). If the overall picture was unclear, local studies were also often deficient. Accurate information on forest maps, forested areas, stock per ha (existence per ha), exploitation cycles, and land ownership border (*limites de propiedad*) was often lacking. Hinojosa Ortiz (1958) cited the example of the logging plans of a specific company conducted

¹ Various authors and researchers interested in the history of the management of the conservation and forests in Mexico (Hinojosa Ortiz, 1958 ; Chambille, 1983 ; Simonian, 1995 ; Huerta Gonzalez, 1994 ; Alvarez Icaza et al. 1993) pinpoint the overall deficiencies of the archives. The main source used for this section on the forestry sector in Mexico in the mid century is Hinojosa Ortiz's 1958 book entitled *Los Bosques de México, historia de una injusticia y de un despilfarro* (The forests of Mexico, History of an injustice and of a waste). This book was the result of a report asked to Hinojosa Ortiz by Mexican officials. However, once the book was published in 1958, it was withdrawn from bookstores and libraries and confiscated for its specific information and adamant conclusions for the official forestry policy (Source : Fernando Vargas, Historian of the Parks of Mexico, Instituto Nacional de Ecología, SEMARNAP, January 2000).

between 1930 and 1951 by the same forestry engineers. In the 6 different studies, logging cycles for pine trees varied between 60 and 119 years.

But scientific and informational deficiencies were not the main cause for the overall low efficiency of the forestry sector. What was causing this low efficiency was the actual production process and labor organization of the sector. Independent studies conducted in 1945 calculated that between 30 % and 50 % of the timber logged was left and wasted in the forest, and that classification of timber qualities — and even species — was often deficient (cited in Hinojosa Ortiz, 1958, p. 52). Land reform had also contributed to dividing forested areas into relatively small ownership units, which limited the sector's possibility to grow. Most productive plants were small-sized, endowed with old equipment “ *that can not make rational use of the logged timber* ” (Hinojosa Ortiz, 1958, p. 52).

In any case, the State obviously lacked the financial and human means to monitor the enforcement of the forest law. Hinojosa Ortiz (1958, p. 31) calculated that in 1953, the Federal Forestry administration had 223 technicians, 464 administrative employees, and 1 093 forest wardens for around 35 millions ha of forests. In mere numerical terms, dividing the forested area by the number of wards, each forest ward was responsible for the monitoring of around 34 000 ha of forests. Quite a task indeed ! The effectiveness of the Forestry Administration was further hampered by the fact that about half of the whole personnel worked in MexicoCity and a large proportion of the remainder in State capitals. Also, “ *they lacked vehicles, travel expenses, their salaries were notoriously low, which made them easy targets for bribery* ” (Hinojosa Ortiz, 1958, p. 33).

Finally, this limited personnel, endowed with minimal financial and technical resources, saw their capacity for action further crippled by the fact that most of their working time was dedicated to “ *vicious bureaucratic procedures* ” (*procedimientos burocraticos viciosos*), (...) “ *which lead the forest personnel to constantly manage paperwork instead of trees ; all these complicated rules make that the personnel remains remote from of its true function, (...) they have to stay in the office instead of going to the field* ” (Hinojosa Ortiz, 1958, p. 33).

To summarize, the inefficient use of the forestry resources was increasingly representing an obstacle to the fast expansion of the Mexican industry while the State had limited capacities to address this challenge. Mexican officials then enacted a new forestry law to address the problem and “*manage rationally and scientifically the forests*” (Simonian, 1995).

1.2. The 1942 law and the new management regime

The 1942 law aimed at addressing these problems. Since the State had limited means to enforce a policy, it tightened its control on the management of the forests through a regime aimed at favoring key companies in the country. Thus, the 1942 law imposed (1) the *Forestal*, a specific organizational template, (2) centrally decided forestry methods, (3) a regime of forced collaboration between the *Forestal* and the *ejidos*, farmers' cooperatives owners most of the Mexican forests.

The law established an organizational template : the *Unidad Industrial de Explotacion Forestal* (Industrial Forest Exploitation Unit). We will designate these organizations as *Forestal* (singular) and *Forestales* (plural). In this new regime, the government placed contiguous properties — often owned by the farmers — under a single management plan conducted by the *Forestal* for the supply of raw materials to a specific industrial plant such as paper and mining (Simonian, 1995). *Forestales* were established by presidential decree and were officially departments of the Secretary of Agriculture ; however, as service providers in forestry, they were funded by the companies they were supplying raw materials to.

1.3. Local context : the San Rafael Company

San Rafael is a village located within the municipal territory of Tlalmanalco, at the foothills of the Iztaccihuatl volcano, on the eastern boundaries of the State of Mexico, 40 km south east of Mexico City. The San Rafael pulp and paper Company was established at the end of the nineteenth Century in the village of San Rafael due to the location advantages : (1) access to the abundant raw materials, water and lumber ; (2) lower temperature due to the altitude that made the manufacturing processes possible in a tropical country ; and (3) proximity to Mexico City, the main national market (Arango Miranda, 1997). The establishment of the San Rafael company represented a key element in the national Mexican industrialization strategy based on foreign and national private direct investments in consumer goods industrial sectors (Garcia Luna, 1998).

Endowed with modern equipment, abundant natural resources, and a protected national market, the San Rafael Company soon became the leading pulp and paper company in Mexico. It enjoyed a monopoly in the supply of paper to national newspapers until the 1930s. The Company grew from 120 workers in 1900 to 2 000 in the early 1940s, the village being widely acknowledged as a privileged enclave and as a social model (Espejel, 1993).

Land reform in the 1920s and 1930s had allocated most of the land in the Izta-Popo area to ejidos — farming cooperatives, the collective owners of the land. During the land reform, peasants organized into a population nucleus could apply to the government for a grant of land, or *ejido*, for the members. The State retained the title to the land and the *ejido* received an indefinite usufructuary title. A part of the land was allocated to members, who had use rights only and did not have the right to sell, lease or mortgage the land while forests remained in collective management (FAO, 2000). In the 1940s, most forested areas in the region were part of the *ejido* system.

1.4. Implementing Scientific Forest Management

A presidential decree established the UIEFSR (*Unidad Industrial de Explotacion Forestal de San Rafael — San Rafael Industrial Unit of Forest Exploitation*) — or *Forestal* — in 1947 and gave a renewable 60 year concession on the forests of the Izta-Popo area (Barreto Flores, 1998, p. 25). The mission of the *Forestal* was to supply the San Rafael Company while maintaining the forests in the Iztaccihuatl — Popocatepetl area (UIFSR, 1986).

Between 1947 and 1991, the *Forestal* was the pivotal organization in the management of the forests. It provided technical services such as “ *calculating the annual logging, delimiting logging areas, marking trees to be logged, guarding forests, controlling and fighting fires, reforestation, improving eroded soils, and conducting research on the forest, controlling pests* ” (UIEF, 1975, p. 11). In the 1980s, its staff was made of 1 director, 1 technical adviser, 3 technical assistants, 5 field assistants, who were all forestry engineers, 43 permanent employees, 70 temporary workers, 23 temporary laborers (*peones*) for seed collection and around 30 wardens in the fire brigades (Barreto Flores, 1998, p. 44). The San Rafael *Forestal* was one of the most prestigious in the country and attracted engineers from all over Mexico (Barreto Flores, 1998). In addition, physical access to the forested mountains being a constant obstacle, the *Dirección de Caminos* (Roads Department) was established as a separate entity in 1966 to build roads into the forests.

Managing scientifically the forests also implied using scientific forestry methods. An expert from a 1976 report highlights the rationale for the use of the method (*Forestal*, p. 13) :

It is only through up-to-date knowledge of the natural resources that a rational management will be possible. For this reason, it is imperative to use the information that allow to detect changes that such resources face, under the positive action of its cultivation, protection and development, as well as under the negative actions such as plagues (pests), illnesses, irrational pasture, fires and illegal logging essentially that occur even when the forest technician develops special efforts to prevent them.

The areas under the jurisdiction of the *Forestal* were (1) areas formerly part of the Izta-Popo National Park and (2) forested areas of the *ejidos* and *bienes comunales*². The 1938 decree had established the Izta-Popo National Park, where logging, cultivation and hunting were forbidden to protect valuable landscapes around the volcanoes. A 1947 presidential decree aimed at extending the supply area for the San Rafael modified the borders of the Izta-Popo National Park from the 3 000 m altitude line to the 3 600 m altitude line, which shrunk the park area from 89 800 ha to 25 679 ha (Vargas, 1998). To these 64 121 ha were aggregated 57 000 formerly allocated by the land reform to the *ejidos* and *bienes comunales*. Altogether, the jurisdiction of the *Forestal* now extended over 120 000 ha (*Forestal*, 1986).

The new regime did not disown forested areas from the *ejidos*. However, establishing a regime of forced collaboration, it considerably restricted the *ejidos'* access to both decision-making and benefits of their management. First, the decree stated that the mission of all forests under the administration of the *Forestal* was to supply the Company. Thus, *ejidos* had to sell timber exclusively to the Company. The only exception to this monophony for farmers' domestic use was under the condition that the Company would agree not to use a specified quantity of timber. In such as case was required an authorization from the Secretary of Agriculture (SA) to cut the wood for domestic uses only (Hinojosa Ortiz, 1958). Second, prices paid by the Company to the *ejidos* were set by the Secretary for Agriculture. The San Rafael paid timber as cellulose timber (*celulosico*), independently of its quality, which was a low quality / low price timber. Bargaining with the company representatives was extremely limited.

² Both *Ejidos* and *Bienes comunales* are farmers' cooperatives and have collective, democratic decision making processes. However, the difference between the two forms is their origin. *Bienes comunales* date back from before land concentration at the end of the 19th Century, whereas *ejidos* were established as a result of the land reform.

Third, as owners of the forests, farmers had to pay for the technical services of the *Forestal* and for the works made by the Roads Department. These fees were automatically discounted from the amount received from the Company (Barreto Flores, 1998, p. 24). For 100 pesos of timber paid for by the Company for cellulose timber, farmers received 10-12 % for stompage (*derecho de monte*) as compared to 30 % for the *Direccion de Caminos* (Roads Department), and 40 % for the *Forestal* for services (Barreto Flores, 1998 ; Chambille, 1983). Last but not least, ejidos were obliged to participate in the management scheme; they could not withdraw from it. Their role was limited to logging trees marked by the forestry engineers, and reforestation.

2. EVALUATING THE CORPORATE MANAGEMENT OF NATURAL RESOURCES

This management regime lasted with these general traits from 1948 to 1991. It was very controlling ; it imposed an organizational template, the use of scientific forestry methods, and strictly regulated farmers — company — *Forestal* relations. In this section, we evaluate this management regime.

Official evaluations of the management regime are altogether of limited reliability. At the national level, the 1942 decree stated that the concession to the *Forestal* could be withdrawn would the law — including strictly defined management methods — not be applied. However, even if the performance of several *Forestales* in “managing” the forests was debatable (Hinojosa Ortiz, 1958), no permits were withdrawn in more than 40 years (Simonian, 1995). This limited reliability of official documents in assessing the management regime also applies in the particular case of the San Rafael *Forestal*. Two official documents from 1987 and 1992 contradict each other. On one hand, the 1947-1986 report highlights the positive contribution of the *Forestal*'s rational management to the forest's productive capacity (*Forestal*, 1987 ; Barreto Flores, 1998, p. 26). On the other hand, another official document, less than 5 years later, justified a ban on forest use based on the “detrimental” effects of the very same management practices :

The technical and social economic studies conducted by the Secretary of Urban and Ecological Development in collaboration with the Secretary of Agriculture and Hydric Resources and of forest Protection of the State of Mexico have shown that the deforestation levels in the forests of the State of Mexico are damaging the ecosystems. For these reasons, it is imperative to submit immediately the forests to a ban while further studies are conducted to determine the conditions for its rational and orderly exploitation. (Barreto Flores, 1998, p. 55)

Thus, to cut across this confusion regarding the official assessment of the *Forestal*'s performance, we propose to evaluate it from (1) environmental, (2) institutional and (3) social dynamic perspectives. The environmental perspective concerns specifically the biophysical management of the natural resources. The overall question we intend documenting is : ‘Have the extractive practices implemented by the company been conducive to ecological sustainability ?’ The institutional perspective focuses on the governance of the common pool of resources. In most resource bases, such as forests, fisheries, or agricultural lands, various user groups, such as farmers, loggers, fishers, and industrial users, compete in the extracting of various types of resources. From the institutional perspective, managing natural resources is an issue of governing the commons (Ostrom, 1990). The main questions we are interested in is : ‘What institutions, defined as “rules in action”, (Ostrom, 1992) have been established to regulate competition among resource users in the common pool of resources ? — ‘How and to whom have costs and benefits been assigned ?’

The third perspective we are using concerns the effects of this management regime on the local social dynamics. Our postulate is that corporate practices and institutions affect local capacity building. Some institutional frameworks are empowering whereas others tend to disable local capacity building (Bird, 2000). Thus, the question we are documenting is : ‘What have been the long term implications of these institutions on the local social dynamics among resource users ?’

2.1. Evaluation perspective 1 : ecological sustainability

Documents consulted agree in their conclusions that extractive practices altogether were of low impact. The *Forestal* never practiced clear cutting (*matarrazas*) but implemented methods aimed at extracting from natural forests (Forestal, 1976 ; 46). These methods brought low yield per surface considered ; however, the large area under the management of the *Forestal* was sufficient to supply the Company.

Managing the productive capacity of the forests also meant reforestation. Yet, there is controversy on the efforts made by the *Forestal* and the company to reforest. On one hand, the San Rafael Company always proudly emphasized its nature-oriented culture, including a “tree-loving” culture. Its first long time (1897-1936) general director, José de La Macorra, was a forestry engineer and had instilled a “pro-tree” culture in the Company. The Company actually started plantations as early as 1905, and a constant motto in corporate documents on the company’s forestry policy repeatedly affirmed that it was planting 10 trees for 1 cut (Club Deportivo Internacional, 1938). To foster a love of nature, the company also encouraged recreational and outing activities in the forests and in the mountains, both for its employees and for Mexico City dwellers. The social control the company exerted over the local community further limited traditional domestic logging practices :

Nobody dared cut a lot, nobody here (in San Rafael) wanted trouble with the company. We all worked here or had a relative who worked here. (Local dweller, 1999).

To a certain extent, in San Rafael, the all encompassing paternalistic system refrained local dwellers from logging. This social control limited individual or household cutting while corporate efforts contributed to reforestation. Regarding the 1947-1986 period, the *Forestal* report states that “ *between 1962 and 1985, 36 million trees were planted on 42 732 ha*” (Forestal, 1987).

On the other hand, a more detailed look at documents suggests that the company externalized most of the costs related to reforestation. First, there are no records of reforestation between 1947 and 1962 while the *Forestal* logged around 1 million m³ in these 15 years. After 1962, the forced collaboration scheme inserted the *ejidos* as free labor for reforestation. Seeds and plants were provided for free by government’s greenhouses, transported to the areas by the company and planted by the *ejidos*. It was only in 1984 that the *Forestal* conceded *ejido* members to be remunerated for their labor (Barreto Flores, 1998, p. 26-27).

2.2. Evaluation perspective 2 : Institution-building

2.2.1. From the company’s perspective

The forestal actually fulfilled its mission in terms of the Company. In the first half of the century the Company had to seek out timber supplies from other parts of the country. After 1948, the pace of cutting being decided in function of the Company’s cellulose needs, the *Forestal* overall

supplied the quantities required by the company (Forestry Engineer, pers. comm., January 2000). From 1947 to 1984, the forestal supplied 4 448 million m³ to the company (Barreto Flores, 1998).

2.2.2. *Forced collaboration with the ejidos*

The management regime assigned roles to the company, the *Forestal* and the ejidos in their contractual and working relations. Several mechanisms were used to devalue benefits farmers obtained in the contracts. First, the Company paid all the timber as cellulose timber, which was to its advantage; the ejidos would have gained more selling the timber to Mexico City's furniture markets. Second, contracts valued 4 times more services provided by the *Forestal* and 3 times more construction works realized by the Roads Department than stompage and labor provided by the farmers (Hinojosa Ortiz, 1958, p. 99; *Forestal*, 1976, 1987). Third, stompage was not paid directly to the farmers but was deposited on a bank account in a Trust for the Improvement of Rural Life (*Fideicomiso para el mejoramiento de la vida rural*), and farmers had a limited access to this fund. Alvarez Icasa et al. described the situation in a comparable *ejido* in the early 1990s as “ *well funded bank accounts and poor farmers* ” (Alvarez Icaza, 1993).

This management regime also assigned sets of relationships between forest workers. Chambille (1983, p. 95-97) represented these relationships as a system of triple marginality, (1) inside the *Forestal* between the unionized contracted workers (*de planta*) and non unionized ad hoc workers (*eventuales*), (2) between workers from the *Forestal* and the *ejido* leaders; (3) inside the *ejidos* among *ejido* leaders and the other *ejido* members.

There is a striking difference between the work conditions of the workers of the Forestal and the ejido members who work under the contractors. The relations between the unionized workers and the management of the Forestal are regulated by the annual contract whereas ejido members are recruited on an ad hoc basis and have no rights for healthcare. (...) Ejido members have lower salaries, more precarious labor conditions. The labor conditions of the ejido members are bad. In the mountain they sleep on the floor under a plastic veil (vela). By contrast, workers of the UF, when they go to the mountain, are housed in little wooden houses (with their whole families if they desire) with water, cafeteria, a small store and even two movies screenings a week (Chambille, 1983, pp 83-84).

2.2.3. *Passive resistance*

How did *ejidos* react to this unfavorable scheme? It took around three decades for some patterns of passive, scattered resistance to evolve slowly into a more open and united resistance. In the next paragraph, we inquire why.

Interviews and forest reports confirm that the management scheme was actually never fully enforced. Poverty, that affected around 30 % of the population, according to engineers' estimates, triggered “ *ant logging* ” — the extraction of timber for domestic uses. In designing their management plans, forestry engineers typically accounted around 10 % of the wood in “ *illegal logging* ”. Also, large areas of the forests planned to be managed were actually not managed. *Forestal* reports repeatedly (1952, 1966, 1976 and 1987) confirmed that about half of the area

attributed to the *Forestal* had not been managed because of conflicts inside the *ejidos*, and between *ejidos* and the Company. These conflicts impeded the signing of a company-*ejido* supply contract, thus disrupting the *Forestal*'s activities :

The project — under management of the San Rafael — is comprised of 129 parcels : 78 are in the management plan; among those 59 are more or less normally worked, 19 in moderately conflictive situations and are cultivated irregularly, 51 have not been included in the management plan for reasons independent of our doctrine or practice but due to local conflictive or illegal situations. (Forestal, 1976 — 62-63)

2.2.4. Active resistance

It took about three decades though for an active front of the *ejidos* to emerge and bargain one to one with the Company. The Forest *ejidos* federated only in 1974. In 1986 they established the *Union de Ejidos Forestales* to obtain better prices for stompage, timber and labor. In 1991, the *ejidos* finally obtained a 22 % raise, “ even if the prices paid by the company in the new agreement represented 50 % of the average market price of the same lumber in the State of Mexico ” (Barreto Flores, 1998).

In sum, this very controlling management regime, instrumentalized by the *Forestal*, supplied the company with stable and low-priced raw material, and implemented scientific low-impact extractive practices. However, it favoured the Company at the expense of the *ejidos*, whose limited capacity for collective action hampered an improvement of their position in the forced collaboration.

2.3. Evaluation Perspective 3 : Social dynamics and local capacity building

The third perspective we are using focuses on the effects of this management regime on the local social dynamics and capacity building. The overall contribution of the company to the local economic development is undeniable. However, we would like to evaluate the effect of the company's forest policies on the local social dynamics.

Why did it take three decades for the *ejidos*' to react ? The first set of reasons concerns the importance of the forest related incomes in the overall farmers' income. Most *ejidatarios* were farmers and drew most if their livelihood from maize and animal husbandry. While their work in the fields provided their main income, the existing forest management regime further marginalized forest-related incomes. This low value for forest income thus limited individual motivation to act. Conflicts within the *ejidos* and frequent feuds further hampered capacity for action in renegotiating with the company. For instance, the *ejido* of Tlalmanalco, one of the main forest owners with 10 000 ha, has had a tradition of internal conflict. Out of the 13 presidents in the 1934 — 1991 period, one was assassinated and 7 were removed by the *ejido*'s assembly before the end of their terms for “ poor management practices ” — an euphemism for corruption — (Ejidatario, Tlalmanalco, personal communication December 1999). Some local informants also suggested that the Company contributed to fuelling internal divisions within the *ejidos*, repeatedly bribing

the leader of the *ejido* in counterpart of lower prices for timber. The same practice is described in another *Forestal* by Chambille (1983, p. 76).

2.4. Aftermath

In June 1991, the San Rafael Company was declared bankrupt and closed. It reopened two months later with around 25 % of the initial personnel (Arango Miranda, 1997, p. 74). Among the departments closed was the cellulose plant. Cellulose being imported from Canada and the U.S.A., the end of the cellulose plant was the end of the *raison d'être* of this management regime. The *Forestal* closed in October 1991. The company has not been using local timber any more.

There is a general sense in the region that forest management is currently in disarray (Casa UAM, 1998). Smuggling has become widespread, inside and outside of the *ejidos* and recent studies concluded that the vegetal cover diminished by 30 % in the 1988-1993 period and that most trees are old and with a low reproductive capacity (Chavez, 1996).

3. (BRIEF) REFLECTIVE SECTION : A RETURN TO THEORY

Research on corporate performance at large and corporate environmental performance in particular has traditionally focused on the use of (1) static or synchronical, (2) company-centered, (3) a contextual frameworks for analyzing corporate behavior (See Clarkson, 1995 ; Wood and Jones, 1995 for reviews). More recently, however, the stakeholder perspective has been advocated to open the evaluation (Clarkson, 1995). In the case of the management of natural resources, research conducted in management has often tended to consider the situation once the natural resources are appropriated by a company, without considering (1) the interests and actions of other user groups and (2) the institutional framework that actually regulate users and uses of the resource base (Ostrom, 1990).

This study of the environmental policies of the San Rafael Company (1947-1991) illustrates the need to broaden existing evaluative frameworks. Further research on the analysis of corporate environmental policies should aim at (1) including a historical dimension; (2) and considering the evolution of the relations between companies and local stakeholders; and (3) understanding the evolution of these relations in their institutional context. The challenge of developing this new, more encompassing, perspective makes historical perspectives more relevant than ever in understanding the evolution of relations between corporations, stakeholder groups and their common resource base, and more broadly between human societies and ecosystems.

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