

# **SOCIAL NETWORKS OF THE CARPET AND GARMENT INDUSTRIES OF NEPAL**

## **A case of trans-boundary production and consumption, and the environmental issues<sup>1</sup>**

- Navin K. Devkota  
Env. Policy Group, WUR, the NL

### *Abstract:*

Present world trade mechanism considers economy and environment as two sides of the same coin, and economy overshadows environment when they converge at some debatable issue. PPM of many commodities consumed across the national boundaries has been such issue when the commodities have affected global and/or regional trade balance. However, the PPM has yet not received full attention from the international/trans-national stakeholders when its (environmental) impact has been confined to domestic environment except that some of the I(N)GOs have been endeavouring to transfer environmental impact mitigating technologies. PPM of Carpet/Garment industries of Nepal and thus resulting domestic environmental impacts also fall in this second category of environmental impacts of trans-boundary production and consumption.

Environmental problems resulting from the Carpet/Garment Industries of Nepal and the options to mitigate them cannot be ignored at international level from socio-environmental perspective. The same has been ignored by many of the developing and underdeveloped countries from economic perspective. And, no international organisation including the WTO is interested in bringing this issue under certain legal framework.

To penetrate through the problem and better understand the constraint and opportunities faced by the local as well as the international organisation in mitigating the environmental impacts of these industries, this paper studies the social networks of these Nepalese industries and will also try to sketch out the issues that need serious attention in designing the environmental policy. It can also give insight into similar problem faced by other countries in the same or different industrial sector.

## **1 Introduction**

Whether in the IMF and the World Bank's strategy of 'exporting more' to overcome indebtedness (see: Agrawal, 1992) or in the urge for 'the South to produce more and the North to reduce its production for sustainable development' (see: Brundtland, 1987), export has been perceived as the most effective means for the economic development, and subsequently the solution inter alia to the environmental problems being faced by the developing countries. At

---

<sup>1</sup> This paper is a part of a research work titled *Export Oriented Industries and the Domestic Environment: Restructuring the Nepali Carpet and Garment Industries Ecologically*. Thus, it is difficult here to elaborate the urban environmental impacts of the Carpet/Garment Industries. Readers, therefore, may refer author's *Strategies for Internalising Industries' Externalities: A Case Study on the Carpet Industry of the Kathmandu Valley* (Environmental Sociology Publication, Wageningen University, The Netherlands) and *Garment Industry's Impacts on the Nepali Urban Environment* (Proceedings of ENRICH Conference 2002: Managing the Environment in Developmental State: Asian Perspective (Department of Environmental Science and Engineering, Tsinghua University, Beijing, P.R. of China; Environmental Policy Group, Department of Social Sciences, Wageningen University, The Netherlands). However, the urban environmental impacts of selected carpet/garment industries have been presented in [Appendix-1](#).

the same time, cosmopolitan cities like Mexico City, Bangkok, Sao Paulo, Calcutta, Shanghai etc, which amongst other cosmopolitan cities around the world form a network to facilitate globalisation, are being referred in different studies as the cities with poor urban environmental conditions. Environmental impacts of industries in these and other developing cities, thus, need no reiteration. What needs attention is that, instead of showing any sign of major improvement, urban environments of these cities are degrading day by day. Though not at the same rate, urban areas of Nepal, especially those within the Kathmandu Valley (hereinafter, the Valley), which serve as a platform for different activities linking the nation to the global system, are showing similar symptoms of physical developments (see: Pant et al, 1994; Bhattarai, 1995; Adhikari, 1998). Because of the increasing density, and changing scenarios in the global arena, these urban areas have offered job opportunities for people – ranging from qualified professionals to unskilled labours – from all parts of the country as well as from India.

In these urban areas, SSIs, formal or informal, pop up due to the initial demand and vanish due to their inability to sustain amongst the proliferating competitors. Of the total 100 thousand 159 SSIs (including service and consulting industries) registered in the DSSCI till today, only 30 percent of them are learnt to have survived. On the other hand, SSIs contribute up to 85% of the country's total industrial output and employs more than one million people (KP, Feb. 17, 1999). The Carpet/Garment Industries also fall in this category excepting few large garment industries.

Because of their functional value at reasonable cost, Nepali hand-knotted woollen carpets got room in the international markets in the Northwest part of the world. Consequently, these carpets needed to be washed and trimmed properly to suit the quality demanded in these markets. Thus, local skills and potentials are being exploited to transform the cottage industries into commercial ones. As a result, they have recently been introduced in other countries like Austria, Belgium and the USA. To meet the increasing qualitative as well as quantitative demands, wool is being imported from a distant country like New Zealand in addition to the regular business with the Tibet province of China.

The existence of the garment industry in the Nepali land can be attributed to the quotas imposed on the *new* clothing exporting countries by the major clothing importing countries (mainly the USA and the EU) under the MFA. Despite the introduction of MFA in 1974, export of readymade garments from Nepal was trivial until the early 1980s for various reasons: absence of sufficient and qualitative textile production, weak knowledge of the garment production process, longer delivery time etc. She also emerged as a new entrant in the clothing trade after the eighties, particularly to the USA. Since then the garment sector has been contributing significantly to the Nepali economy in terms of export earnings, investments, employment generation, industrialisation (as a number of backward linkages have been developed), and increased value addition (an average net value addition of about 35%) (Shakya, 2001). Textiles for garment production are either supplied by the buyers or imported from India as per the specifications.

Economically, the Carpet and Garment Industries have contributed about xxx% and 7.2% of the total manufacturing sector of the national economy,<sup>2</sup> and had xxx% and xxx% share of the total commodities exported overseas in 2001/2002. From this perspective, these industries are currently regarded as two mechanisms for reducing the trade deficit with the countries overseas. Socially, these industries are being blamed for urban environmental deterioration in the Valley (see: Footnote-1).

---

<sup>2</sup> CBS, Current Census (in Shakya, 2001).

To understand better the intra as well as inter relations amongst the industries, authorities, I(N)GOs, CBOs etc for future exploration of the options for mitigating urban environmental impacts of these industries, this paper uses below the *triad-network* model (see: Mol, 1995). These analytical models have the advantages of combining both, the structural properties of institutions and the interactions between actors constructing a network, in ecological restructuring of the industrial society. These networks can be characterised as social systems in which actors involve in more or less permanent, institutionalised interrelations (ibid.).

## **2 Social networks of the Carpet/Garment Industries and the environmental issues**

Social networks of these industries bear linear character rather than representing intercepting relations amongst its various stakeholders basically for two reasons. First, the raw-material suppliers and the consumers are not directly concerned with the local environment problems associated with these products as these two groups of actors mainly are foreigners. Secondly, following the first reason as well as because of the government's economic policy of labelling them the status of export oriented industries, the industries and the local citizens are a little isolated from each other. Hence, all the three networks appear distinct from each other as well.

As, the social networks differ in time and space, it may be helpful to have brief introduction of the prevailing Nepalese policy styles against the criteria set by Waarden (1995) for a better understanding of these networks: Nepal has been endeavouring to adopt and implement decentralised approach, but centralised bureaucracy still prevails. Theoretically, the development organisations are stratified from centre to the grass-root level<sup>3</sup>. Practically, all of them depend on the centre for technical assistance. Authorities are claiming that the economic policies have been liberalised and free trade promoted<sup>4</sup>, but unpopular steps are needed for internalising the externalities.

Though the country has a practice of preparing integrated plan every five year, the ministries carry out their programmes independently. Other ministries are consulted to meet one's particular objective, but not for adopting an integrated approach for the same. Deputing professional staff in other ministries for short-terms are exceptional cases. Generally, institutions and organisations have been found to adopt reactive attitude. State's approach, in administrating and carrying out development activities, is very much legalistic and rigid. Relations among the organisations as well as among the personnel, and between these are very much formal.

In light of the above, this paper in its different sections also highlights the general relations of the Carpet/Garment Industries, which may not look relevant to understand the environmental problems, but are ultimately responsible for the same. The child-labour issue discussed below is an instance in this regard.

### **2.1 Environmental Policy Network**

Intense and distinct concern regarding the environmental issues, in Nepal, has been observed after the publication of *Our Common Future* in 1987. Global enthusiasm associated with this report has caused rapid development in the environmental policymaking, but at the same time,

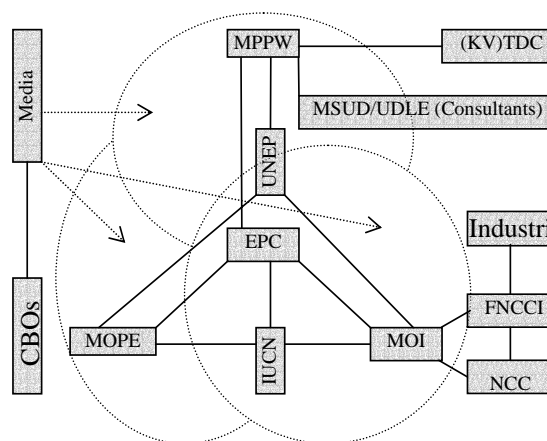
---

<sup>3</sup>There are 4 levels of development institutions: Wards at the community level, VDC/Municipality at the village/town level, DDC at the district level and the government at national level.

<sup>4</sup>Nepal has applied for the WTO-membership.

has caused the policies and its implementation approaches to be little theoretical. In the present context, main institutions, which form the policy community of these industries, are EPC, MOI and MOPE. But, because of the late creation of MOPE and continuation of the MOI's activities regarding the environmental issues, there exist two different policy communities at the same time. International I(N)GOs like UNEP and IUCN are helping these ministries in transforming the achievements made in the international arena. While MPOE-related community was observed to be focused on the absolute environment policy side, MOI-related community was found to be concerned with the technical aspects like the CP options. FNCCI and a few of the individual industrialists are sometimes consulted but not involved during policy formulation (Joshi, FNCCI). The industries or the CBOs have rare opportunity to access the policy community, indicating how adversarial the government's policy style is.

EPC and MPPW form third policy community that address the urban environmental issues from physical planning perspective. In fact, MPPW-related community was working as a de facto entity to cope with the urban environmental problems before the establishment of MOPE in 1995. International consultants and IGOs like the GTZ have been assisting MPPW in its mission. Public opinion in this regard is gathered either through the media or through the consultants who do research at the grass-root levels.



**Figure-1:** Environmental policy communities: from general environment (MOPE), physical-planning (MPPW), and (MOI) perspectives.

Until the establishment of MOPE, industrial pollution was the concern of MOI under the Industrial Enterprises (IE) Act-1992. Regulations under this Act still prevail. According to the provisions under the industrial regulations, registration procedure of the industries, in general, needs the proponent to commit in writing that the industry will take care of the society and install measures to reduce its effluents and emissions. Further, their registration will not be renewed if they are found to differ from their commitments. However, the MOI has no practice of dictating the type of measures the industries have to install (Koirala, DOI). **This, together with the MOI's institutional weakness in monitoring the industries, has been causing the NBSM designed standards ineffective.** *Industrial Pollution Monitoring Team (IPMT)* comprising members from MOI, DOI, DCSSI and NBSM which had visited about 22 carpet industries had not found any of them to have installed an ETP or adopted any other measure to neutralise their wastes (Gautam, MOPE; Kunwar, NBSM). Institutional weakness is not the main reason for such impacts of the industries on the environment. MOI's attitudes can also be considered as one of the main reasons as DOI-sources' reactions to the queries concerning monitoring of the CIs and the integration of environmental issues in them were:

*"It is difficult for the monitoring team to look after all the industries functioning informally and therefore, we concentrate only on those which have been registered" (it is to be noted that all of the 22 CIs visited are only the registered industries). ..... "If there is a conflict between the economy and the environment, then naturally we will be biased towards economy".*

According to the MOI sources, it is mediating between the UNEP and the industries for the transformation of CP options. However, as the *hand-knotted woollen carpet industries* have

**Opmerking:** Placing of this paragraph has to be given a little thought

less to think about the changes in raw materials or product or the process of production, their effort in mitigating their environmental impacts has been limited to good house keeping. As most of the garment industries are focused on fabricating the imported textiles of the specified colours and patterns, UNEP and the GIs are hardly linked to each other, directly or indirectly. The dyeing industries, which mainly serve the CIs, have now been prohibited to function within the municipal areas of the Valley. However, this *relocation* has definitely been resulted because of the pressure from the *residents of the municipal areas of the capital city*, and not from the farsightedness of the MOI authorities. Other side of the coin is that, this relocation has given an opportunity to the landowners of the near by VDC to shift from farming to land renting out practice. As a result, the paddy fields of the urban fringe house informal/temporary factory sheds. Such opportunities boosted by the loopholes in the regulations as well as their weak implementations and the weak communications amongst the three policy communities have provoked filthy urban developments in Nepal<sup>5</sup>.

MPPW, established in 1990 and that took over physical-planning activities from the Ministry of Works and Transport, is looking at the industry-related urban problems from physical planning and urban management perspectives. Deep concern regarding the relocation of the CIs from the Municipalities of the Valley (*but where?*) along with other measures like the enforcement of effluent standards etc in its report *Urban Environment Management Programme* (1994)<sup>6</sup> indicates its line of approach. But, the government's disintegrated *physical planning, land reform* and *local development* policies have caused all such proposals ineffective: Property Inheritance Act allows the landowners to freely subdivide and sell or use their land without the consent of the municipalities rendering all land-use plans prepared by the MPPW ineffective. For instance, Municipal Bylaws in the Valley has made differential land coverage provision according to the use functions as mixed land-use prevails in there. If any landowner wants to bypass the bylaws and increase the built up area in its land, then it can transfer the vacant portion of its land in to some other person's (generally another family member) name in accordance to the PI Act and built a new building there legally. Hence, if any landowner – including the intermediaries in the carpet/garment production business – finds the land suitable to him for otherwise reasons and the bylaws a constraint, then he can easily meet his objectives without bothering the constraint. Increasing built up density in the urban areas where the CIs are densely located, and the land covered by the SCI-II's sheds explain this.

Developments regarding the environmental issues in the international arena caused the government to establish MOPE and design the Environment Protection Act-1997, and take up environmental issues separately. But practically, prevalence of the IE Act parallel to the EP Act – and its authority to take care of the industrial pollution by formulating independent policies – has caused confusions rather than dealing the environmental issues separately, and has already started showing negative consequences. Amendment in the EP Act within one year of its enforcement because of the FNCCI's pressure (Joshi, FNCCI) can be regarded as the poor beginning of good intentions. An event specific to the CI has also hinted the weaknesses associated with the implementation of this Act. A few years back, MOPE had issued a public notice demanding all CIs to install ETPs within one week, in accordance to their written commitments at the time of their establishments. MOPE's action did not show the dents, instead it created conflicts between MOPE and the industries (Sharma, CCIA). Conflict

---

<sup>5</sup> Subdivisions of big plots by the land brokers into small plots to earn profits at intermediate level by making the plots suit the nuclear family's need has been identified as the other major reason for the dense and filthy development (Adhikari, 1998). However, both reasons have their origins at the changing social lifestyles.

<sup>6</sup> This report was produced in order to assist the government in incorporating environmental issues in its ninth Five-Year Plan starting from 1997 (Tiwari, 1994).

was also sensed between MOPE and the MOI, as the reaction of the latter in this regard was that the MOPE should not have been so impatient. More disappointing than this is MOPE's exclusion from IPMT that comprised of members from different departments of MOI and which visited the CIs regarding MOPE's command. If such exclusion has taken place because of the public notice that MOPE issued, then it shows that the MOPE will be alone in internalising the externalities, and the government has a mammoth task ahead for complying with its promises. The need for a joint effort by MOPE, MOI, MPPW and MLR in managing the urban environment is highlighted by this situation: All the carpet industries that had been visited by the IPMT are formally registered at the DOI or at the DCSSI. Members of the monitoring team expressed that it was beyond their mandate and not possible also to visit all informal industries. Even if they did not express it directly their expression implied that other organisations should look after this (most probably the Municipalities!). It is clear that the Municipal Bylaws are not respected, especially regarding the functioning of any building<sup>7</sup>.

Because of the need to explore alternative employment opportunities and to balance the increasing trade deficit with other countries, the government is in favour of industrialisation of the country. Thus it has constituted a general *Industrial Promotion Board (IPB)* under the IE Act. And, because of the potentials in the CI, it has constituted an autonomous *Carpet and Wool Development Board (CWDB)* in accordance with the Development Board Act-1956 for giving special attention to this sector. This Board has taken over the CI-related issues from the Trade Promotion Centre since 1993. Many of the actors in these two boards are common, especially the government line agencies. This has been giving opportunities for these actors to work together in general and specific to the CI. While IPB is focusing on identifying, classifying and promoting industrial activities, the CWDB is focusing mainly in market exploration through international exhibitions, quality control and labour. There is no such body to look after the CI, as they are secured by the MFA till date. Intermediate business organisations like the FNCCI, NCC etc are jointly involved in meeting the objectives of the CWDB, CCIA and GAN. Non-inclusion of MOPE in the IPB shows a gap between other issues and the environmental issues while industrialising the nation.

In general, environmental policies have resulted through the consensus amongst the government line agencies and various international institutions and not as a product that has its root deep into the native soil. For instance, MOPE has just published (NEPAP II) – a *reference planning tool* for the relevant ministries in the industry, forestry and water resource sectors, ...to develop and implement projects to achieve their environmental objectives (NEPAP II, Preface) – following HMG's broad environment policies published as NEPAP<sup>8</sup> in 1993. But, excepting few LSIs and the professionals related, in one way or the other, to the environmental issues, the *polluter pays* or the *polluters pay* principles mentioned in it is beyond the perceptions of industrialists and the citizens in general. Also, options suggested for relocating the CIs outside the Valley adopting different land development policies also do not seem pragmatic (discussed below). Similarly, CIs ignorance regarding the EP Act's requirement for the dyeing and washing industries to submit IEE report before their establishment has also shown how passive is the CI's relation with MOPE regarding the environmental issues. Thus, government's objective and effort in this regard can be called the adversarial effort of emancipating the ecological domain from its economic counterpart. These policies have yet not born any fruit.

---

<sup>7</sup> The buildings in the Valley, except for certain protected areas, are being used flexibly. The municipalities are not being able to restrict the owners to stick to the use-functions of the building to which they were intended at the time of their construction.

<sup>8</sup> "Objectives of NEPAP (NEPAP II refers it as NEPAP I) are consistent with those accepted globally by various international forums, resolutions and declaration embodied in Agenda 21 and subsequent initiatives" (NEPAP II).

MOF has also given tax rebate on items intended for environmental care in the country, for importing an ETP or parts of it, for instance. From the practical point of view, on one hand, the bureaucratic procedure is not in favour of the industries, as it is very difficult to convince the officials that the items being bought or imported are really meant for the environmental care, and on the other hand, some unfaithful businessmen are exploiting this provision for their personal benefit (Joshi, FNCCI). For instance, a piece of cement or metal pipe can be bought or imported for channelling the effluents or for some general purpose; it depends on the officials how they take it at the time of import or at the time of reimbursing the industrialists, as there is hardly any practice of making regular visits to the industries. From the policy point of view, such a tax rebate is meaningless for the industries. It is meaningless for the SSIs, as it cannot reduce the huge cost of environmental care compared to the cost of the plant itself (Shrestha, KDS). It is meaningless for the LSIs, because it is very tiny compared to the profit they are making. For instance, investment made by the SCI-I in constructing its ETP is considerably huge in comparison to this rebate in tax (Shrestha, SCI-I).

**Opmerking:** Placing of this paragraph has to be given a little thought

Consequences of the isolated policy communities have been found really adverse to the urban environment. For instance, while the IE Act allows the cottage industries, including CIs, to function up to six months without registration, the Municipal Act and its bylaws require every urban function to get prior approval before they are initiated. As the municipalities (and the VDCs as well) and the MOI also have no relation or direct interaction with each other, environmental problems associated with the industries have also been looked from different angles. This has also caused the indirect impact of the industries to be insignificant in the eyes of those who look at it from MOI's perspective and to be threatening in the eyes of those who look at it from the Municipality's and from the urban environmental management perspective. Study on the SCI-II and UWS shows that while their temporary sheds are regarded to result from ineffective enforcement of the building bylaws, the MOI has been exempted from its monitoring and controlling responsibilities. Thus, MOI's solutions to the urban environmental problems on the whole have been guided by '*grow first, clean up later*' strategies, while MPPW's recommendations indicate dispersion and relocation of those ill industries including the CI/GIs. Similarly, (secondary) considerations to the environmental issues in the IE Act parallel to the (primary) provisions made in the EP Act has caused dual line of action and thus has caused the later ineffective. For instance, when MOPE had shown its concern in installing ETPs in the CIs, MOI came into action and intensified their monitoring activities. The environmental issues seem to have been rendered by the financial issues until now, as no positive action has yet been taken by the CIs.

While UN organisations and INGOs are directly or indirectly involved in the policy network, the NGOs and CBOs still have to be recognised as one of the stakeholders in policy formulation process. The same is the case with the NWSC and other organisations that are directly or indirectly responsible for improving the ambient environment (Appendix-2). NWSC, on one hand, has been bearing the public blames for not being able to supply sufficient potable water and one of the reasons for this has been the floating populations caused by the CI/GIs and similar other sector. On the other hand, only the professionals know that the urban environmental impacts of such floating population is actually associated with the loopholes in the prevailing industrial policies and the lack of vision to deal with the urban problems from a broader perspective, and not with the industrial development in general. "The problem has crossed beyond the objectives and strength of the NWSC. Theoretically, what it can do is to check misuse of portable water. As far as illegal connections to the main supply-lines are concerned it is monitoring and controlling them. What can it do, if there is a sudden increase in the population or if potable waters from the taps intended for the carpet industries' labour are being used for the industrial purpose? The government should solve this problem at macro level" (Shah, NWSC). Use of tap water by informal industries in residential areas, especially

for washing the Tibetan wool, and to some extent, in washing the carpets, is the real problem in monitoring the water use. Hence, NWSC has no choice other than finding alternative additional means to meet the increasing demand.

## 2.2 Economic Network and the Environmental Issues

Unlike the case of the paint industries in Europe where the resin suppliers have been dictating the network (Mol, 1995), raw-material suppliers of the CI/GIs are totally guided by the exporters who are also guided by the buyer's specifications. Thus, the industrialists are not in a position to take risk of investing on transporting the carpets/garments abroad and waiting for general customers to visit their show rooms. They are dependent on the international buyers who themselves come to Nepal and order for the same. Economic networks of the CI/GIs bear similar characteristics of being guided by the buyers' specifications. While the raw material suppliers and the buyers at times are same in case of GI, they are always different in case of the CI. Thus, while CI's economic network is linear in character, GI's network is cyclic at times. In other words, CIs' bond with its buyers is much flexible than the GIs' bond with its buyers.

### 2.2.1 Economic Network of the Carpet Industry

This network consists of three distinct phases: import of wool, production of carpets and export of these carpets to the international consumers.

Import of the Tibetan or the New Zealand-wool entirely depends upon the mixing-ratio (of the two type of wool) that the exporters would like to adopt. Thus, if the exporters find it profitable to use, say, the Australian wool, then the wool suppliers will immediately shift to it. Further, as many of the carpet producers have cultural links with the Tibetans, government has adopted softer wool importing criteria for Tibetan-wool against the New Zealand-wool. For these reasons, the unwashed Tibetan, wool, which has high demand in the market because of its technical qualities, has been polluting the water bodies of the Valley and causing load on NWSC water-supply system as well<sup>9</sup>. As all of the SSCIs like KDS, SCI-II and UWS are dependent on these exporters for selling the carpets they produce or process, they also have no choice other than to obey the rules of the game that these exporters set. The remarkable difference between the commanding positions of the above mentioned resin suppliers and the carpet exporters is that, in the first case, the *resins* have been playing a decisive role while in the second case, only the *intentions* are doing so.

Because of the relatively small quantity of dyes and bleaching chemicals needed for producing the carpets, profit motive of the chemical suppliers has been significant than the interests of the chemical producers. Banning carcinogenic (and thus, detrimental to health) dyes could be a strong step in this regard, as such dyes are not produced in Nepal (Upreti, NCT). But Nepal's such move will be proven ineffective<sup>10</sup> unless India responds to it positively or such matters will be dealt at the regional level. At the regional level, SAARC's main objectives<sup>11</sup>, among

---

<sup>9</sup> At larger scale, the Tibetan wool is being washed in the urban rivers (see photograph), especially in the Bagmati river, and at small scale it is being washed in a pool dug in the yard of the SSCIs. During my preliminary survey of the CI in general, I had to sacrifice the objective of collecting pictorial evidence of the activities at smaller scale in order to receive other important information.

<sup>10</sup> "Nepal has banned the pesticides and drugs falling in the WHO category 1(A)...But the officials say that such chemicals do enter Nepal illegally because of the open border between Nepal and India (The Kantipur Daily, Oct. 13, 1999)"

<sup>11</sup> Visit internet <<http://www.saarc.com/scharter.html>> for details.



others, have been ...to promote active collaboration and mutual assistance in the economic, social, cultural, technical and scientific fields, and to strengthen co-operation among themselves in international forums on matters of common interests...but, “until now, the carpet industry and related issues have not been a matter of common interest.” (Bhadra, IUCN).

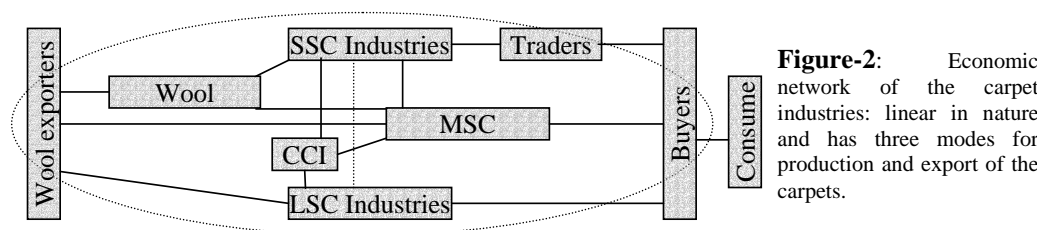
The cotton threads industries is a silent stakeholder of the CI as the later uses natural cotton thread and is interested only in the quality of the cotton the spinning mills use.

Horizontal dimension of the CI is also distinct and very narrow. All the SSCIs, whether carding, spinning, weaving, dyeing or washing, exclusively serve for the industry. They are not linked to the networks of any other kind of industry. But, there exist different competing channels of carpet production within this sector. The LSCIs, which follow the Fordistic characteristics in general, form the first channel that houses all functions viz. carding, spinning, dyeing, weaving, washing and finishing, and many of them are proactive towards environment protection. The MSCIs and SSCIs together form second channel. In this case the former gets assistance from the latter in producing carpets as and when the demand rises suddenly. And, the carpet traders together with the SSCIs constitute a third channel. In this case the former mobilises the latter to stock the carpets and export them when they get good opportunity. As almost all of the small-scale dyeing and washing industries have not installed any kind of effluent treatment measures, both of these channels are causing environmental problems.

At the macro-economic level, the government is being advised by international organisations like the Asian Development Bank and World Bank to gradually cease all kinds of grants and subsidies. Even the SSIs are not to become exceptions (Manandhar, MOI). At micro level, the banks do not want to make unsecured investments. For instance, the rates of return of one small dyeing unit with and without an ETP unit are very much different. Put ETP aside, the SSCIs’ are facing hard economic criteria even to establish themselves. Hence, neither the financiers nor the industrialists are interested in including the ETP units in the industries (Joshi, FNCCI). In fact, the CIs and their patrons are pressurising the government to subsidise for installing environment protection measures in the CIs and claiming that the subsidy (from NRB) on the interests of the bank loans in this regard is insignificant with respect to the total cost of installing such measures. The reason they put forward for such subsidy has been that *CI is contributing a lot for the economic growth of the country* (Joshi, CWDB; Sherpa, 1999).

Rise of the Intermediaries:

As the CI is a labour intensive industry, capital investment in the infrastructure is considerably high compared to the investment in the materials for carpet production. Thus, an ordinary industrialist wishing to start a carpet industry in the Valley can not think of buying land for



**Figure-2:** Economic network of the carpet industries: linear in nature and has three modes for production and export of the carpets.

constructing needed infrastructures, rents it instead. Competition through the reduced cost following the buyers’ domination has further made the exporters sceptical about such investments. This has given rise to three kinds of intermediaries.

The traders at the top, who have access to the international markets and who prefer to mobilise the SSCIs instead of turning themselves into industrialists, act as the first kind of intermediaries between the buyers and the SSCIs. Second types of intermediaries are those who have little vacant land at suitable location. They either rent out their land, or construct infrastructure at the minimum possible cost and rent that out to the SSCIs. The reasons for such cheap investments by the landowners or by the SSCIs on others' property – not related to Carpet/Garment Industries only, but also to the sawmill and furniture, automobile workshops etc – rest on the private land use practices in the Valley. The statuses of sample industries also explain this clearly as only the SCI-I has its own land and even the MSCI like the NCI has expanded itself on leased land indicating that –following the market pressure – it is in favour of mobilising other landlords instead of investing further on land. If the landowners whose lands have suitable locations also have links to the carpet exporters, then they project themselves as proprietors besides the small-scale carpet entrepreneurs.

Another type of intermediaries in the chain is the labour supplier, as one of the interviewees put it:

*“One labour, which enters carpet industries and if he realises his further capabilities, becomes a labour supplier soon after his entry. As a next step, he then becomes a foreman in this industry<sup>12</sup>. The industrialists rely on such persons and are linked to their workers through them for receiving the service and giving facilities in return. If this industry happens to get some handsome order, which overloads the workers, then this person takes the job on labour contract and collects extra labours (may be from other industries!) to finish the job. This way he turns himself into an intermediate industrialist.”*

If such intermediaries are created because of the market demand or technical reason where the parent industries mobilise the petty ones as their own component and support them in technical and financial matters, then the relation between these industries resembles flexible specialisation, but if this happens by exploiting the labour, then this situation matches exactly with what Pedersen et al (1994) call the proliferation of *sweatshops*. Ultimate exploitation of labour is the employment of children in such sweatshops, as they have no resource and physical strength to retaliate. CI of the Valley suffers from such sweatshop-diseases. As all functions of the CI require specific skill and knowledge, it is dynamic within the carpet sector depending on where the export orders are concentrated. But because of the influx of the rural labour force in the urban areas, these labours are handicapped to bargain with the carpet industries on the environmental grounds. They are dependent on the government agencies and the I(N)GOs for their rights in this regard. Child labour issue<sup>13</sup> was one strong reason for the downfall of Nepalese carpet industry in and around 1994.

Rise of such intermediaries has caused the CI so insecure that everybody at the top in its chain prefers not to invest further in it, but mobilise lower intermediaries. This situation can better be understood by analysing the doubts some of the stakeholders raised regarding the dyeing units of SCI-I at its Kakani location. A few of the interviewees passively claimed that the SCI-I is not operating its dyeing and washing units at Kakani, instead it is also hiring the SSCIs of the Valley for above mentioned tasks. At the same time, SCI-I showed its dissatisfaction with the ongoing uncontrolled growth of the industry as well as with the government's and with a

---

<sup>12</sup> New labours are brought from villages from among the relatives or through personal contacts.

<sup>13</sup> Many experts have a little softer opinion about the child labour involved in the carpet industry. According to them – in the countries like Nepal, which have serious unemployment problems – if children help their parents in their business, the issue should not be exaggerated to the extent of the whole families being jobless (Sharma, DHUD). Their view, I believe, does not refer to the exploitation of child labour by the intermediaries. If children work for their family, they get social security in return (citizens of Nepal have no other social security excepting against the criminal acts) which can not be expected from the intermediaries. Instead, they will squeeze them to the possible extent and find next ones in case if they face retaliation.

few of the NGO's policy and attitudes. At first, these expressions imply that there is some kind of conflicts among the stakeholders. But if we try to understand the situation impartially, it contributes in understanding the real problems associated with this industry. The question here is that if SCI-I is using its own unit, then why it is using those? And if it is not using its own units and hiring the local petty industries then why it is doing so?

When SCI-I shifted its water-based functions to Kakani, an out-of-the-Valley location, either it was very much environment conscious or it had foreseen economic benefits in tapping the environment consciousness of the international consumers. It is baseless to put those two together, those who talk about their intentions and those who show their intentions physically by investing their capitals. Getting Sandoz's agency before others could get it also shows its farsightedness. If it is hiring the SSCIs to assist it, then most probably it wants to avoid unnecessary transportation and administrative costs (looking after offices located at two faraway locations) in order to compete with the exporters who get the carpet produced at one locality. We can also suspect that if SCI-I had anticipated the negative growth of the carpet industry, then probably it would have not invested to that extent. It could also wave off government's rules and regulations as almost all industries have been doing until now. Thus if SCI-I is not using its Kakani based units, then it implies that in the present market condition, the economic issues themselves have become as critical as the environmental issues, and that other stakeholders' suspicion about SCI-I not operating its dyeing units at Kakani should be regarded as obvious doubt resulting from the market condition irrespective of what SCI-I is doing.

Relocation Issue: Rise of the intermediaries has also made the relocation of the CIs outside the Valley difficult. One previous study in this regard has found that "because of the soaring land prices and a few other reasons, the carpet industries have been unable to expand. Thus, relocation is justified in the long-term interest of the industry<sup>14</sup>, the environment and socio-economic growth at the national level. Thus the government needs to initiate 'Relocation Subsidies' as the relocation costs are high because of the interruption in production and transportation of movable parts of the industries during relocation, and because of the need to purchase lands in new locations" (Pant et al, 1994). Relocation of these industries has also been given priority in the NEPAP-II while the Municipalities of the Valley have put this issue at the top of their agenda for improving their urban environment. But, despite the fact that there are financial benefits associated with the relocation, the industries are not willing to go out. The reason is that the whole industries are dictated by the exporters; and, the financial benefits associated with the relocation of these industries are very tiny to the earnings through the carpet export. If we look at this issue from the traders' point of view, carpet is not the only item to be traded and thus they cannot shift to other places just for the sake of the CI to care for the environment. And the SSCIs, which are dependent on and tacitly attached to these traders, cannot move away from them.

These situations have not been clearly understood while making a *provision of IIE, before starting a dyeing and/or washing industry* in the EP Act, and adopting relocation strategies for mitigating the urban environmental impacts of the CIs. Submission of no IEE report by any new carpet industries and '*submission of only one EIA report and three IEE report as against approximately two hundred large and MSI registered at the MOI since the enforcement of EP Act*' (Mathema, 1999) explains these situations.

Use of cheaper and environmental unfriendly dyes also follows the intermediaries' intention of competing through the reduced costs. As long as such dyes are available in the market and as

---

<sup>14</sup> On an average Rs.180.00 (about \$ 2.50) can be saved in producing one square metre of carpet (Pant et al 1994).

long as the buyers have no specific demand, their use is difficult to be avoided. For instance, as long as the twenty groups of *azo* dyes are only suspected to be detrimental to health their production and export to those markets, which accept them, will be carried on and difficult to be banned. The case can be much difficult for Nepal once it enters into free-trade (WTO) since it has no institutional strength to prove that such steps, if taken, will not be a technical barrier to trade. Under such conditions, what the CI can do is avoid using them, as the Europeans are doing. *‘The reason is not clear why such dyes are being produced and sold to other countries, if they are suspected to be detrimental to health and are not being used (prohibited?) where they are being produced (Europe)’*. (Joshi, Rajbhandari, FNCCI; Bhadra, Ghimire, IUCN).

*The conflicting relations:* Because of the existence of different lines of carpet production and export, supplemented by the loopholes and weaknesses in the existing industrial and economic policies, there seems to exist a chaotic situation and the industries’ reluctance to invest for internalising their externalities. As Mr. Sharma has put it...*‘We (CCIA) have a bargaining relation with the government.’*

The carpet industries have been given all kinds of facilities and financial incentives, including nominal income tax, for increasing the export. What they have to pay is 0.12% and 0.5% of the total amount earned respectively to the NCC for getting Certificate of Origin and to the custom for trade promotion, and Rs. 2.00 (approx. equals \$0.03) per square metre of the export to CWDB’s activities (Joshi, CWDB)<sup>15</sup>. These charges are very tiny if compared to this period’s average income of the exporters i.e. \$57.00 per square metre of the carpet. Now the question comes what is left there for the CCIA to have a bargaining relation with the government? There may be several issues, which CCIA did not want to disclose. But, it can be guessed that internalising the externalities was obviously one of such issues. In simple words, additional investments in this regard will raise their cost of production while the exporters, which will stick to the informal line of carpet production, will have an upper hand in selling their carpets to the buyers. And, as long as the buyers get carpets at cheaper prices and as long as they have no pressures from the consumers, the formal industries that did abide by the government’s rules will slowly and slowly loose their grip in this business.

The three different kinds of complains registered by the different scales of the CI further explains the relations among these industries and the prevailing situation in which they are functioning. *‘The LSCIs, in general, have no problems other than exploring the international markets while the MSCIs are demanding extra facilities like tax rebates in importing luxury goods (especially in importing the vehicles). On the other hand, the SCCI are pressuring the CWDB for government’s security as they are being exploited by the LSCIs (including the fake industries); in other words, they are demanding that the government should buy the carpet they produce’* (Joshi, CWDB). The informal industries are few more steps down the ladder, as they have no access to this CWDB because of their illegal status.

*‘As long as the carpet production was limited, the deal used to be made at the carpet show rooms. These days, the deals are made at the hotels where the buyers stay’* (Paudyal, UWS). *‘The buyers have pinpointed our weakness – which is bank loans – that cause the businessmen to dispose off the goods as early as possible and can not resist the market pressure...Buyers have been cancelling their orders after the carpets are produced. But Nepalese producers are not willing to object to such situation. CCIA has also been found inert in this regard (Satyal, 1998)’* *‘...There was over production and the importers also took the opportunities of dictating the price. That led to the production of low quality carpets’*<sup>16</sup>. These were the reasons why

---

<sup>15</sup> This data is based on the 1998/99 budget.

<sup>16</sup> In recent years, the carpet exporters in general are producing ample quantity of low quality carpets by using semiskilled labours and short or cut wool fibres.

carpet industry slide down and more than 50 % of them have been shut down” (Shah, S., 1998). Obviously, such loss is being compensated by low quality carpet production, exploitation of the ambient urban environment and labour.

Anticipating the *industrialists' probable race to the bottom*, the government has fixed a floor price of \$54.00 per square metre of the carpet at export points<sup>17</sup>. Until the eighties, this floor price did not matter as it was much less than the international market price. CIs had the flexibility to compete at the upper limit without compromising with the quality. Because of the stakeholders' inability to protect the industry, some people started to compromise with the quality and spoil the Image of Nepalese carpets. As a result the buyers got the upper hand. Instead of controlling the situation industries are adopting cheap practices to keep the price of their carpets low (Shrestha, SCI-I, Shah, 1998). There are some people who have sceptical about this floor-price. According to them “*the Board has not made it clear about the purpose of the floor-price, and it seems only a bureaucratic barrier to create lobbying platform at the expense of the industries itself*” (Shrestha, B., 1993)<sup>18</sup>. And the pressure has become so severe that the CWDB is thinking and working out a differential floor price system for different quality of carpets (Joshi, CWDB), as the Nepalese carpets in the international markets cost about 30% more than the carpets from her neighbouring countries (Sherpa, 1999). This means that a helical economic cycle is screwing these industries towards recession. The good-quality carpets are facing challenges more from the regional competitors than from the low-quality local carpets as long as the buyers are able to differentiate the types of carpet and as long as the producers are able to stand against the buyers' move. But in the long run, Nepalese carpet's image will definitely be destroyed because of the ample export of low quality carpets. Consequently Nepalese carpets will slide down the regional merit list in the international market, and thus hamper the business of the good quality carpet producers as well. The same may be the case with the industries in other countries that compete with Nepalese CIs. Under these circumstances, the CIs at the very bottom of the race are competing with native rivals and a few steps ahead in the race, with their regional rivals through reduced costs. As the prevailing policies and their implementations are weak, further consequences of such unhealthy competition are very clear. Those who compromise with the quality of the carpets to earn profit definitely will transfer the buyers' pressure to others and externalise the social obligations that they should have otherwise been responsible for. The victims in Nepal, at present, are the helpless labour and the environment as they are the lowermost links in this business chain.

### 2.2.2 Economic Network of the Garment Industry

Unlike in the CI, role of the absolute traders at the raw-material import and garment export points is minimal if there exists any. While the LSGIs and MSGIs themselves act as the traders, the petty industries serve them when their efficiency is saturated. In fact, existence of these petty industries is dependent upon the fate of the LSCIs and MSCIs. Work exchange amongst the LSGIs and MSGIs is rare and is dependent on the personal relations among the proprietors of the industries. Sub-contracting and the work exchange amongst the industries take place on piece-rate basis. This network has two kinds of buyers: regional and western. Western buyers generally buy the products as per their specifications and approved samples. Regional buyers (mainly Indians), generally supply all kinds of materials i.e. textiles, buttons, zippers, thread etc and get the garments produced from these LSCIs and MSCIs. Regional

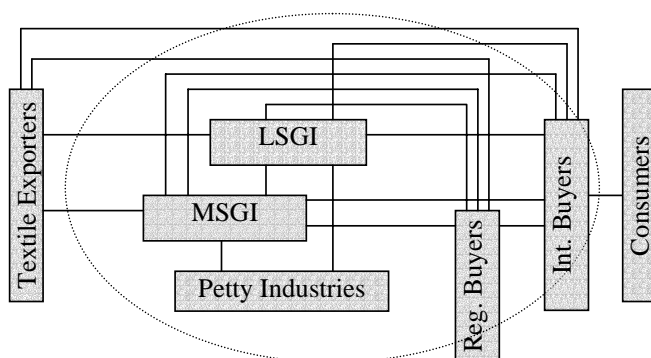
---

<sup>17</sup> The exporters are not allowed to trade below this price.

<sup>18</sup> This view can be regarded as to represent one whole school of thoughts, as the author is one of the leading carpet producer-cum-exporter and has served in the CCIA for a considerable period of time.

buyers, therefore, are not letting these Nepalese industries enjoy any benefits other than the ones given by the fabrication process of the garments. In other words, at times these LSGI and MSGI are serving as petty industries in the regional context. In the case of direct involvement of the international buyers, these industries get the opportunities to receive reasonable margins on the accessories by exploring the regional markets. In any case, despite the mode of import, textiles mainly come from China, India, South Korea or Pakistan.

These products do have to get prior approval of the international buyers to meet the specified designs and the levels of chemical contents in them. And, of course, these buyers are not strict about the environmental outcomes of the PPM in which the garments are produced. For instance, Gap Inc. (an internationally reputed garment produced/trader) has approved Myshop's status to work for them with the condition, among others, that Myshop will install ETP in its dyeing plant; however, no ETP has been installed to date. Provision and inclusion of safety measures in Momento Apparels as per the buyers' demand show that the labour issues



**Figure-3:** Economic network of the Garment Industry. In this network, only a few Petty industries are operating informally.

have received more international attention than the environmental issues have done so far. As the GIs demand skilled labour (machine operators), child labour is not associated with it.

When the garments are produced through the mediation of the Indian buyers, there is hardly any concern about the labour-safety or the environmental issues. Poor working conditions in Nir Fashion and its offence against the Municipal byelaws elaborate this situation.

In the regional context, because of Nepal being a land locked country, cost of garment fabrication here is about 25% higher than in other South Asian countries; the *lead time*<sup>19</sup> is three times greater compared to the Indian GI's lead time (Foreword: Shakya, 2001). The chances for any improvement in this scenario seems less as various factors, including governments' policies, affect the production costs. For instance, Bangladesh has already introduced separate law (Murarka, Matarani Garments) to protect her GI, which account for 70% of her total export (ibid.). In the global context, these industries (and many other Asian countries) are not in a position to compete with the Caribbean and African GIs as the USA (main and common consumer of these GIs) has adopted differential tax policy for them. While Nepalese garments are subjected to 17-35% tariffs, the others are subjected to zero tax, they being privileged by the African Growth and Opportunity Act 2000 and the Caribbean Basin Trade Partnership Act 2000 of the USA (Shakya, 2001). The *rules of origin* act as another constraint to the countries like Nepal that have no fabric base. For instance, the EU's rules of origin require two stages of processing (for instance, garment must be made from imported yarn, not from woven fabrics) to receive the GSP facility by any LDC (ibid). In addition to

<sup>19</sup> Lead time is the time period between the date of order and the date of shipment of the final product.

these situations, the industrialists are demanding all the facilities from the government that the GIs in the neighbouring countries are getting from their governments. For instance, Nepalese industrialists have to pay about 1% export tax besides the income tax, while other countries in the region have no such provision (Agrawal, S.P. Garments). Instead, the Indian exporters get 7% bonus from their government if they export more than the minimum limit specified by the government (Murarka, Matarani Garments).

Recently, a Bill to exempt Nepalese garments from import tax was tabled in the US Senate. But, it has been withdrawn on the political ground as the US charged Nepal of not abiding by the international rules when she returned the eighteen illegal immigrants to China.

Owing to this condition, the average garment industrialists in Nepal are not in a position to invest in infrastructures. Thus, as the carpet industrialists, they are also encouraging filthy physical developments in the urban areas and renting those in for establishing their factories. Resulting direct urban environmental impact is the noise from their machines and the music (worker's entertainment!).

### **2.3 WTO and the PPM Issue**

Industries in the economically countries are oriented towards foreign markets for raw-material input and consumption of their products, as the local markets are incompatible to do so. Because of the competition in the international market, such industries are facing enormous problem to comply with the environmental regulations. UNCTAD's empirical studies have demonstrated that (such) SME in the developing countries in labour intensive sectors like textiles/garments, leather/footwear etc, where the variable cost component of complying with the environmental standards is very high, on the one hand, are affected by the environmental standard often set unilaterally by the importing governments. On the other hand, they have encountered difficulties in complying with the emerging environmental policies in their own countries (see: Shahin, 1999)<sup>20</sup>. The recommendations therefore, have been to assist SMEs with supportive measures like subsidies, technology transfer, etc (see: Sorsa, 1992; Frijns et al, 1997). However, in some cases governments have been tough and ordered SME to stop functioning, if they could not meet the environmental standards (Suzhen, 1995 and Chakraborty, 1995 in Frijns et al, 1997).

In absence of ETPs and/or recycling plants, environmental problems resulting from the organic products, like these carpets and garments, are minor problems compared to the ones resulting from inorganic and synthetic products. But, the adopted process and production methods in producing these commodities can have greater immediate and/or long-term impacts on the environment. At international level, including in the WTO, the product related environmental standards have been widely recognised as the right of the importing nation as long as such standards are imposed impartially (see WTO-preamble, Article XX). But, when the industries have become a part of the global system, the process and production methods (PPM) have become a subject of dispute between economy and the environment. The tuna-dolphin case between the US and Mexico, and the sea-turtle case between US and the Asian countries are some of the scintillating examples. While the environmentalists and the developed countries are of the opinion that the environmental issues, including PPM, need to be incorporated in the GATT by amending its Article XX, economists biased towards free trade and the developing countries have stood against such amendment. The latter group consider it as a means to

---

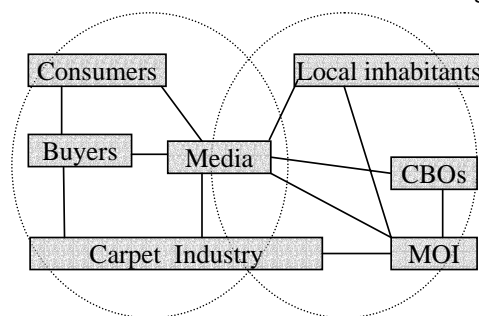
<sup>20</sup>Tobey (1990) finds, for example, that (because of the) strict environmental regulations imposed in the 1960s and 1970s...(T)he most polluting industry – chemicals – faced abatement costs equal to 2.89 per cent of total cost (Subramanian, 1992).

undermine the competitiveness through comparative advantage as well as a non-tariff barrier for differential treatment to the exporting nations, and thus, an obstacle to free trade. For instance, the Dispute Settlement Panel and the Appellate Body of the WTO have justified the complainants' claim that the US's intentions in imposing the bans, in the tuna-dolphin case, was to protect their domestic industries, and in the sea-turtle case, was to support the Caribbean fishing industries (see: Shahin, 1999). Some experts even fear that such unilateral sanctions against PPM in another country would fundamentally shift the trading system towards one based on power rather than on the rules<sup>21</sup>. Some experts even opine that, "...all we need is a multilateral rules-based system (similar to that of the WTO) for environment – a *World Environmental Organisation* – to be the institutional and legal counterpart to the WTO" (R. Ruggiero, former DG of the WTO, in Shahin, 1999)<sup>22</sup>. The embarrassing issue here is that the GATT/WTO has not shown its interest to incorporate PPM in its trade mechanism even when the lower (environmental) standards of PPM are widely 'alleged to be *de facto* subsidies' (Subramanian, 1992) while it considers (direct) subsidies a barrier to free trade.

The economy-environment debate is still in limbo as the failure of various WTO rounds to deal with the environmental and labour issues has shown. Consequently, the industries in the countries at the economic bottom-line have been carrying on with their strategy of competing through reduced and/or subsidised price as Durning (1992) has cited (see also: Clark, 1996). However, such strategy has not been in favour of the domestic environment (ibid.), though the governments in such countries are hoping this strategy of *growing first and cleaning later* to bear fruit in the long run. MOI's ignorance towards the industries' attitude of establishing themselves in whatsoever physical conditions also reflects above phenomenon.

#### 2.4 Societal Networks of the Carpet/Garment Industries

As the carpet/garment consumers are specific and as they are the residents of foreign nations, environmental concerns at international and domestic levels are different. While the consumers are critical about the dyes and chemicals used in these industries, inhabitants of the Valley are worried because of the pollution in the ambient environment and the filthy and unsystematic physical developments in and around the city. And, the industries' direct responses to the environmental movement have been reactive to the possible financial losses and benefits. As consumer's demand – often conveyed indirectly through the buyers or through the media – secures their business, they respond to such demands positively. Use of vegetable dyes or high quality synthetic dyes has resulted from such demands. Fountainhead of the consumer's environmental awareness has caused occasional production of carpets from natural wool i.e. they are not dyed (Shrestha, SCI-I). Ongoing use of environment unfriendly dyes in the CIs show that the consumers' pressure is not uniformly born by the industries. Similar is the case in the garment sector.



**Figure-4:** Societal cores of the carpets: one confined to the Valley and the other extending beyond the national boundary.

<sup>21</sup> World Bank representative's concern while addressing the High Level Symposium on Trade and Environment (Jha, 1999).

<sup>22</sup> Such a proposal has been put forward on a number of occasions, the last being the High Level Symposium on Trade and Environment in the WTO on 15 March 1999 (Shahin, 1999)



Society's passive relation with these industries has resulted from various reasons: first, they do not have producer-consumer relation. Second, the households themselves are also responsible for polluting the water-bodies by directly discharging their wastewater into the sewerage system<sup>23</sup>. Therefore, they generally raise industry related environmental issues through media or different forums, *Save the Bagmati* for instance, which focus on pollution receiving ecological components. Closest interface between the local residents and the industries occurs if the former registers a complain at the MOI or in one of its departments, and when the arbitration takes place there. However, no complains have yet been registered against these industries (Manandhar, MOI; Karanjit, DSSCI; Koirala, DOI). This procedure indicates one more thing – how isolated MOPE is, even regarding the environmental issues.

Filthy physical developments in ones locality have been found to have two different effects. For those neighbours, who are in no way related to the industry except as neighbours, the industries are causing all kinds of social nuisance and environmental problems viz. noise during the nights, toxic fumes etc (Ghimire, a neighbour). But for those who do get slight benefit from this industry – for example, the landlord of UWS – they are matters to be tolerated for regular income. Latter was the reaction in the locality where the CIs, whether formal or informal, are densely located.

On the whole, environmental concern of the Valley's inhabitants has at least made the authorities to react. Ongoing joint effort from all stakeholders for establishing an institution, which will award Eco-labels to environment friendly Nepalese products<sup>24</sup>, and the NEPAP II's strategies regarding the construction of a pilot dyeing plant in – and subsequently relocating the CIs outside – the Valley can be regarded as a consequence of such public concern. Still, relocating and systematising the GIs still remains a matter of future concern, as the noise pollution and filthy urban development resulting from these industries have not been realised yet, whether by MOI or by MOPE or by the CBOs at any level.

#### *The CI and the Child-labour issue*

In the early nineties, the proliferating sweatshops, which degraded up to the exploitation of the child labour, dragged the whole carpet industry into recession<sup>25</sup>. A joint effort by all stakeholders with help from INGOs, especially from *Rugmark* and *Care and Fair Foundations*, was able to revive the industries' image in the international markets.

Then, the individual industries started/intensified their concern about the environmental health of their workers. For instance, SCI-I has well-ventilated and planned workplace (observation is limited to its sheds in Kathmandu) while NCI admits that the factory is little crowded. In addition, workers at the SCI-I have health insurance automatically associated with the job. Both, SCI-I and NCI, have provision of weakly health check up for their workers. This is a general case with the LSIs and some of the MSIs, but not with the SSCIs. Working conditions in the SSCIs are worst than what NCI's managing director has admitted. CWDB has been

---

<sup>23</sup> In fact, the urban areas have no comprehensive sewerage system. Provided pipelines are intended to serve as underground drains in the urban areas, but the households are having illegal connections to directly dispose of their wastewater. Only the effluents from the septic tanks are supposed to enter into the pipelines.

<sup>24</sup> The process for establishing such institution is nearing completion under Finish assistance (Manandhar, MOI).

<sup>25</sup> "This was not a big issue but a conspiracy against the Nepalese carpets" (Josji, FNCCI; Sharma, CCIA; Shrestha, SCI-II; Shakya, NCI et al). The issue seem to have been exaggerated as there was no organisation like Rugmark Foundation which could assure the international consumers about the chastity against child-labour abuse, and such issues have not hampered other competitors in the regional though other nations also suffer from the child labour problems (Internet: < <http://www.carpetcomm.com.pk/61.htm> >and <.../68.htm >).

doing the same in the national context<sup>26</sup>. Inclusion of MOL in the CWDB also shows how concerned the government has been in this regard. But a dark side of these efforts is that the labours from the dyeing and washing industries do not get such facilities, as neither the consumers nor the government has recognised them as the real *carpet labours*. The reason for them not getting governments recognition is their SSCI and informal entity, respectively. The reason for them not being cared by their industries is probably the unawareness of the consumers.

To give continuity to their joint effort NASPEC, where the CWDB and CCIA are also represented, was established in 1994. NASPEC, which highlights its objectives regarding the environmental issues as well, have yet not come up with concrete programmes in this regard. It is involved in rescuing the child-workers by making sudden visits to the carpet industries and rehabilitating them. It communicates to the government only through MOL (Shrestha, NASPEC). There are other organisations like Care and Fair Foundation (INGO) and CIWIN (NGO) etc which have the same objectives, but not specific to carpets sector only. Establishment of Rugmark Foundation, which gives permission to use its emblem to *child-labour-free* carpets, has helped recognise their efforts in the international arena. However, ongoing efforts of the stakeholders cannot be said to be more than their compliance to the market conditions.

While above mentioned efforts are going on to protect the CI's image in the international arena, CBOs like *Save the Bagmati*, *Save the Bagmati and Bishnumati* etc and the media, are involved in bring the general environmental issues in light. Their concerns are directed towards the pollution recipient bodies, rather than towards the source of pollution. This is because, the social circles in the Valley are generally stratified on the basis of economic well-being. As the Valley has not been planned properly, different social circles intercept with each other in terms of physical existence. As a result, different heights of compound walls can be found in the same neighbourhoods, depending upon the extent to which the household wants or is forced to isolate itself from its neighbourhood. Therefore, regular communications in the neighbourhood are extreme cases. As the carpet industry has also a stratified structure, members of the industry working at different levels belong to the different classes of the society. The situation in this regard can be visualised from the general case where carpet exporters and carpet workers are related only through the intermediaries. This creates a situation where the seriousness of the problems or the issues perceived at different strata of the society are different. Hence governing organisations are the only links among these different strata of the society.

## 2.5 Inter-Network Relations

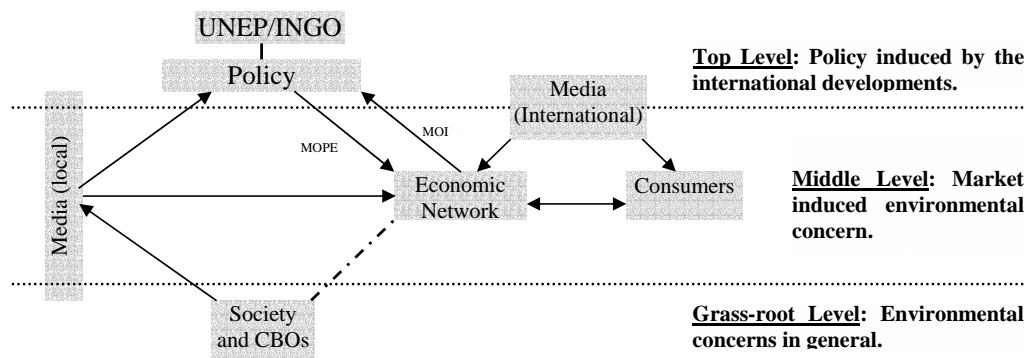
Prevailing wave of environmental concerns in Nepal has been found to be at the infant stage and somewhat identical to the first wave of environmental concern in the West in the seventies. Because of the developments in the international arena, adversarial approach of the government, and general social pressure through CBOs, environmental policies in Nepal are coming down from the top. The industries are responding only to the market conditions while the society (including CBOs) has been communicating with the industries and the government through different media. Thus, it can be understood that the stakeholders are virtually not related to each other (Figure-5). This has caused the NEPAP II to adopt easy-in-thinking but difficult-in-adopting strategies regarding the negative consequences from the industries.

---

<sup>26</sup>The labours just have to produce identifications from the industry they are working in, and nominal registration fee while CWDB is spending a lot of money raised from the industries.

First, NEPAP II has given first priority to the construction of a *pilot scale carpet dye treatment plant* (programme no. 026). Construction is not difficult, if the government is going to invest public money. The problem is that NEPAP II does not specify these industries will be encouraged or forced to build their own ETP following the demonstration. Present trend shows that the industries, especially the dyeing industries, will not built such ETP, as this will cause a reduction in their internal rate of return. This means that the public money that will be invested in demonstrating technological transformation goes down the drain.

Second, NEPAP II, “has proposed the relocation of *the CI* (programme no. 071) outside the Valley and in line with such relocation, another proposal has been made for *EIA on specific sites for a carpet village* (Programme no. 175)”. Relocation of the CIs has been emphasised in different other studies (Tiwari et al, 1994; Pant et al, 1994; Bhattarai et al, 1995). Bhattarai has recommended to adopt different land development options in this regard. Such strategy has



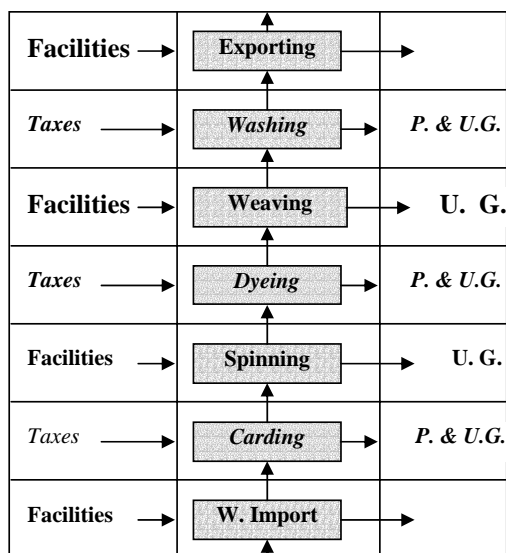
**Figure-5:** Inter-relations amongst the different social networks of the CI. The society and the CBOs are connected through media. The policy community and the economic network have dual relation: Industries’ link to policy community is through MOI while the relation other way is through MOPE.

resulted from superficial consultation with the MPPW. To understand it better we need to understand the three land development options that have been in practice. First is the *Guided Land Development* (GLD), which basically is being adopted for medium density built-up areas where the existing lanes are widened for increasing accessibility and laying other infrastructure. Second is the *Site and Service* (SAS), in which small plots are designed and sold to the new buyers through acquisition of agricultural lands by *reasonably* compensating the original landowners. Failure of this SAS because of the displacement of the original landowners has caused the TDCs to adopt the Land Pooling (LP) strategy which is a replica of the SAS, but in this case, the redesigned plots are returned to the original landowners; the landowners contribute about 33% (average) of their land for roads and other infrastructure, and for recovering the administrative costs of the TDC. Now, the only option in creating a huge space for relocating the CI is the adoption of SAS and use of force or handsome compensation to displace the landowners from the identified new location. Now the problem, on one hand, is that once such location is identified, the landowners will automatically have the upper hand and demand for handsome compensation. On the other hand, as CIs’ have not shown any interest in investing (further) in infrastructure developments (for e.g. NCI’s hired others land for its extension while the SSCI like the SCI-II, UWS are functioning on other’s properties), government seems to have no other choice than to subsidise the relocation process. And this is against the objective of internalising the externalities.

CI’s strategy of taking advantage of the existing policy

Irrespective of the ideological inclinations of the political parties, successive governments in this decade have been in favour of free market economy with the intention of inviting foreign investment for national economic growth. As Nepal suffers from trade deficit many other countries, the export-oriented industries have been the last ones to be targeted for levying any kind of taxes and has stated in the IE Act that *no income tax shall be levied on the income earned through export...and...no cottage industries shall be levied sales tax, excise duty and income tax*<sup>27</sup>. On the other hand, this same Act has classified cottage industries as *the traditional industries utilising specific skill or local raw materials and resources, and labour intensive and related with national tradition, art and culture as mentioned in Annex-I*<sup>28</sup> shall be named as cottage industries and the SSIs, which include dyeing and washing functions, as *those which have a fixed asset up to an amount not exceeding thirty million rupees (approx. = \$435,000)*. Thus on one hand, the SSIs in general do not prefer to shift to the LSIs unless and until they see some financial gains because of the incremental registration renewal fees. On the other hand, medium-order carpet exporters prefer to run only the weaving industry and let other SSIs serve them for the dyeing and washing functions as these functions are subjected to the facilities and taxes respectively (Figure-6). Though the GIs are not privileged as the CIs, still most of them are getting rid of the dyeing business. SP garment's link with Myshop shows this. Thus the dyeing and washing industries, like the Myshop, KDS and UWS, have emerged only to fill the gap left by the carpet exporters, like the traders and the MSCI like NCI. Similarly small-scale weaving industries, in addition to the dyeing and washing industries, have emerged to fill the gap left by the traders. Recently, machine carding has been found to replace hand carding of the wool for mass production of the carpet (Shrestha, 1993). SSCIs

like the carding and weaving (including SCI-II) industries, and all CIs are functioning round the clock by hiring the labours in shifts and thus disturbing their neighbours by the music (intended for the workers' entertainment) and machine made noises at night. This is happening because, on one hand, they can continue working as small industries if they do not increase their capital investment. And on the other hand, with the same capital, they can increase their production by almost double. This is not the case only with the SSCIs. Even the LSCIs, like the SCI-I and the MSCIs, like the NCI, are functioning as SSCIs to take advantage from the existing policies. How SCI-I is doing so is by stratifying itself into different small-scale industries as the weaving, dyeing and the washing industries. Consequently, the carpet industry, which has heterogeneous functions, is fragmented. The traders are one step ahead than these industries and have been enjoying the facilities given at the carpet/garment export stage. In 1998, the



**Figure-6:** Schematic diagram of the *Stratified Carpet Industry: Policies, Functions and the Environmental impacts*. (U.G. = Uncontrolled Growth, and P = Pollution).

<sup>27</sup> Government has proposed to levy nominal export and income tax on such export-oriented industries from this fiscal year annoying the industrialists. This however, has resulted from the decrease in last year's revenue collection owing to the internal political instability and not on the environmental ground.

<sup>28</sup> Annex-I of this act has put Woollen Carpets, and Dyeing and Printing under the cottage industries. But, according to the SSCI sources, only the traditional *vat-dyeing* is recognised as cottage industry and not those mechanical dyeing plants which are prevailing in the Valley.

government had given rebate on bank loan for the increase in export that the exporters made. This incentive was intended for producers, but the exporters got the benefit<sup>29</sup>. Such situation in general has prevailed since 1961 (Sharma, CCIA). And, the victims are the large number of SSCIs, as they have no direct access to the international markets and sell their product to the native exporters.

On the import side, wool traders have to pay 10 % import tax while the industries are subjected to only 1 % if they import it exclusively for their own purpose. This policy has given rise to many fake industries that import wool in their name and sell the same to the SSCIs (Shrestha, SCI-I). As the SSCIs lack resources (informal industries also lack legitimacy), they are dictated by these wool traders and are unable to get benefit from this provision. The government has also not been able to monitor and check this (Joshi, CWDB). Textile trading has no such dual mode.

### 3 Epilogue

In case of the CIs, their gross earning shows that they can bear environmental taxes, but the conflicting lines of carpet production, on one hand, and the different scales of industrial operations on the other, makes it difficult to apply economic instruments impartially. Lower level of environmental tax means the ineffectiveness of the tax. Higher taxes imposed under the prevailing policy implementation approaches will force the industries (especially the SSCIs) either to shut down or to cancel their registration and continue operating informally. And the present attitudes of the monitoring organisations will be an added advantage to them. MOPE's failure to make the CIs install ETP shows that even CAC is also not being effective.

If many of the SSCIs and informal industries shut down because of the government's strong actions, then there will be fewer traders compared to the industrialist and thus the price of the carpet will again go up. But then again, the industrialists will face challenges from outside the country and then the government again has to counter the regional market conditions. If the situation, which is prevailing in the country regarding these industries, is also prevailing in the neighbouring countries, then the upper limit of the government's attempt to improve the local environment by applying economic instruments will be guided by the progress in other countries. It shows that the political boundaries have less meaning in both the cases i.e., on one hand, if the local industries compete with each other by reducing cost, then the regional competition does not matter. On the other hand, if the competing industries from outside the nation adopt the same strategy, effort to impose effective environmental taxes will hamper internal economy. CWDB's new strategies of introducing differential floor-price for different quality of carpets because of the industrialists pressure shows that the environmental taxes will have to bear the same pressure. The industry itself has a trading character. It buys wool from New Zealand and Tibet, and sells them to the West by adding values to them. Hence the floor-price seems to have less meaning *provided that* they will not compromise with the quality of the carpet *and* will bear the cost of ground water depletion, pollution and ongoing negative urban growth. But, MOPE's task will not be as simple as that of the CWDB, since it will have to impose higher taxes on the low quality carpets.

In case of the GIs, environmental tax imposition is much more difficult for two reasons: first, though the society has recognised *noise* originating in these industries as a kind of air pollution, the government institutions are yet to do so. Second, as these GIs are behind the CIs

---

<sup>29</sup> Taking advantage of the weak monitoring habits, most of the bank loans intended to support the industrial establishment process are invested by such exporters in non-priority sectors.

in the list of urban environmental degraders (based on NEPAP II priority list of environmentally sensitive industries), they will definitely prefer to be the second behind the CIs to be taxed on environmental grounds, and MOPE should keep this in mind before coming into action.

The relocation issue is not only a technical one; there are social values associated with it. Under the present policy implementation constraints, relocating the carpets outside the Valley can turn out to be a relocation of the social and environmental problems *from the residents of the capital city* to some other weaker society in the country. Relocation of the dyeing industries outside the municipalities, and in the powerless VDCs within the Valley serves as an example at micro level. Other side of the coin is that under what conditions other societies will accept these industries if they are able to identify the benefits and losses they will get from such action?<sup>30</sup> Despite the fact, that relocation has been demanded by the Municipalities of the Valley, recommended by IUCN (1995)<sup>31</sup> and adopted by the NEPAP-II, the government needs to think twice before it puts its energy and resources<sup>32</sup> in meeting this objectives.

Management problems have their root deep into the national policies. If the government wants to maintain its Etatist approach, it should have clear vision of the implications of its broad policies at the micro level as well. Consequences of the general provision for the cottage industries to operate without registration on the urban environment have already been explained above. Government's ongoing effort in giving monetary value to the ground water can have similar consequences. For instance, as the Water Resources Act-1991 allows a person or a group to use water without permission for drinking, irrigation and to run windmills (basic need of major population in the plane lands), the government is in the process of designing another Act to protect the groundwater (Sherchen, 1999). This new act is definitely targeted towards the deep tube-wells with larger diameters that are being installed by heavy industries. If this happens, then there is a possibility that the new Act along with the weak monitoring practices will favour SSCIs and informal industries, like the CI/GI washing and dyeing industries, which do not need deep tube-wells. Such loopholes in the policies cannot be patched up by the effort of one organisation, MOPE for instance, or it requires time and resources.

Such are the situations that need to be studied, not only in the CI/GI sector, but also in industrialising the country and turning the industrial sector into an environmentally sound one.

---

<sup>30</sup> The government had imposed a ban (effective from September 18, 1999) on the operation of diesel-operated three-wheeled vehicles in the Valley. As a result, about 500 vehicles had to go outside. But, all the municipalities outside the Valley had already taken necessary steps (in response to the government's announcement in this regard) not to allow such vehicles in their area. The same may be the case with the industries as these industries' negative impact, on the localities where they function, is much greater than the benefit they have been giving to them.

<sup>31</sup> During the data collection, it was known that the IUCN has submitted its *Regulating Growth: Kathmandu Valley* to MOPE. But, I had no access to the final draft of this report at both the sources, MOPE and IUCN, and which shows how adversarial the policy design process is. Thus, my analysis has been based on its preliminary draft produced in 1995.

<sup>32</sup> "Relocation Subsidies" calculated by Pant et al (1994) for shifting the weaving, dyeing and washing functions amounts to be about Rs. 63,330,000.00 (approximately equalled US \$820,000.00).