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UNIDO

Triple Bottom Line Demonstration Project in South Asian Countries

PAKISTAN COMPONENT

PROJECT REPORT

2002

RBI

Responsible Business Initiative

rbipk@yahoo.com

Ambreen Waheed
National Expert

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ACKNOWLEDGEMENTS

The TBL Project's Pakistan Component has managed to rise to a number of unforeseen challenges. Much more immediate than the stresses and strains of the post-11th September world has been the tight-rope that characterizes stakeholder dialogue in a set of industries already wading through a succession of crises. That the TBL project was able to infuse enthusiasm and new thinking around ethical supply chains in Pakistan's key SME sectors such as textile, knitwear and leather garments is in itself gratifying to RBI's TBL project team. However, of the greatest satisfaction for us remains the opportunity of having to work with a rarely gifted set of individuals, both in Pakistan and abroad.

The TBL project might very probably have lacked a Pakistan component, were it not for the reassuring encouragement and confidence we received despite obvious setbacks. The RBI project team gratefully acknowledges friends at UNIDO Vienna; The Government of Pakistan, Ministry of Industries, Islamabad and the Export Promotion Bureau, Lahore; The Lahore Chamber of Commerce & Industry; the University of Engineering & Technology, Lahore, SMED Colombo, and NCPC Delhi; AVS, Lahore and SolChem, Lahore for their support and hospitality.

Our partners have been most accommodating through a period where we ended up challenging a number of their perspectives at the process level. Despite our many lapses it was their steadfast belief in the value of what we were all trying to achieve that made the difference. The project team learnt much from the state of the art managerial and financial systems that these diverse companies brought to the TBL project, and inspired by the vision and dedication of the business leaders we had the privilege to work with. The TBL teams at Angora Textiles, Ammar Textiles, ICC Textiles and Royal Leather deserve the real credit for the project.

We know that enabling small export businesses to meet new challenges in an increasingly competitive world, can help create more opportunities for equitable global trade. And we are convinced that making TBL more relevant to Pakistan's SME sector means a "win-win" for all stakeholders, our communities and our environment.

Together with our host institutions and our TBL partners, RBI looks forward to REAP – the *Responsible Entrepreneur Achievement Program* – as it leads the way in developing role models and making ethical business profitable and exciting.

Ambreen Waheed

Faiz Shah

Bilal Akbar

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1.0 – EXECUTIVE SUMMARY

Project Overview

Conceived as an evolutionary extension of UNIDO's successful Cleaner Production (CP) Methodology, the Triple Bottom Line (TBL) Demonstration Project in South Asia was begun with the aim of adding potency to CP's already substantial impact on the profitability of small & medium-sized enterprises (SME's). The project aims to show that a working methodology such as TBL can help companies make financially viable investments in social and environmental performance without sacrificing profitability. And thus make supply chains more readily acceptable to the customer as well as the end-user, and at the same time make socially responsible business thinking and action financially attractive to SMEs.

The TBL project began in March 2001 with an orientation workshop in Colombo, for country experts from India, Pakistan and Sri Lanka. The orientation seminar led into action plans for each country component, which were in turn to be driven by UNIDO country offices and identified "sponsoring institutions".

Project activity in Pakistan was initiated immediately thereafter, with an Introductory Seminar held at the Lahore Chamber of Commerce & Industry (LCCI) Lahore on April 4th, 2001. The Government's Export Promotion Bureau (EPB) agreed to become the sponsor along with LCCI. UNIDO Islamabad gave the go ahead in June, by which time RBI had set up project infrastructure, identified partners, sensitized key constituencies, raised resources for interim costs, and negotiated Memoranda of Understanding (MOUs) with five industry partners. Despite the overarching instability of the political situation, with its attendant impact on partner confidence, expatriate travel, regional exchanges, and budget overruns, the RBI team was able to achieve project objectives.

In the final analysis, while the Pakistan component has been able to make its contribution to the outcome of the project, the project team feels it could have done better. Similarly, the team feels it could have benefited more from a number of capacity-building opportunities inherent in the project, firstly, by not being able to acquire CP skills from across the region, and secondly, by not being able to share its own strengths in social auditing and labour standards management with project counterparts.

Chronology

PHASE I: LEAD-UP

Upon approval by the Ministry of Industries, EPB and LCCI helped identify potential TBL partners – representing export SMEs – who attended the first Introductory Seminar in April 2001 at LCCI hosted by EPB. A short-list of 10 across three sectors – textile, knitwear and leather garments – yielded five finalists, each of whom agreed to become TBL partners.

Of these, four signed MOUs along with committing resources, validated by EPB and LCCI by end-August. Organizational TBL teams were created within each partner organization, representing relevant functions. Baseline organizational data – financial, social and environmental – were collected through September, culminating in a TBL Orientation Seminar, held in mid-October 2001.

PHASE II – PREPARATION & GAP ANALYSIS

Partner TBL teams agreed on process-level indicators of social and environmental performance, and sensitized process-level personnel. Sub-sector specialists assisted TBL teams in a gap analysis of process-level inputs and outputs along with health & safety and

ergonomic issues impacting performance. This phase culminated with a brainstorming session with the international expert to determine action points for a TBL trial phase.

PHASE III –TRIAL & REVIEW

Owing to the short time frame a trial run of TBL reporting and tracking methods was conducted, so as to demonstrate TBL as a management information and decision-support system. This phase informs the development of REAP software. A backstopping phase is part of the MOU, and the outcomes of the trial, along with learning from other regional projects will help develop a final version of the TBL methodology that can be implemented through REAP.

Project Outcome

The project has had relative success in achieving the following objectives set out in the project document, well within the risk map:

1. ***Four companies completed the program,*** instead of five enterprises originally short-listed for the Pakistan component, as per the project document. Having successfully experimented with implementing environment and social responsibility programs, they are now prepared to share their TBL experience with their national and regional counterparts;

2. ***Each is a TBL champion and role model,*** and committed to promote a better understanding of environmental and social requirements of the global supply chain, and how these requirements are similar to or different from their national requirements;

3. ***RBI has enhanced capacity as a TBL support institution*** in Pakistan, and is available to assist enterprises in complying with environmental and social responsibilities demanded by their respective supply chains; and

4. ***UNIDO has access to learning from the Pakistan TBL experience to UNIDO,*** as a contribution to the relevant presentation at the World Summit on Sustainable Development (WSSD) in South Africa in mid-2002, outlining country-specific experiences of complying with environmental and social requirements of the global supply chain.

Learning & Conclusions

GENERAL

1. "Value-Added" is an appropriate measure for the triple bottom line:

Indicators for social, environmental and financial performance are distinct and varied, ranging from the quantifiable to the un-quantifiable. "Value-added" is a measure that enables a cross-cutting comparison for each of the three TBL components.

2. Process-level information maximizes timely decision-making:

Each manufacturing process can be broken down into distinct levels where "value-added" can be measured. Tracking TBL indicators at this level generates information that can optimize decision-making, leading to efficiencies and savings.

3. Small process-level savings mean organization-wide benefits:

While process-level efficiencies may seem insignificant when compared to the overall turn-over of the whole business process, these small savings add up to appreciable sums that buffer margins and free up resources to boost compliance.

4. Planned waste management/recycling contribute significant savings:

By mapping process-level wastes, and managing these through a plan, it is possible to firstly minimize waste, and secondly, envision possible downstream utilization that can either add to profitability or subtract from the cost of disposal.

5. Labor relations investments pay measurable dividends:

Minimal labour law compliance is justified as a cost-saver, but leads to poor employee "ownership", tolerance for wasteful practices and resentment for management control, which can be reversed through confidence-building and stress-relief measures.

6. Human development & capacity-building is a cost-effective approach:

Supervisors often understand their product but not necessarily productivity, leaving the workforce under-motivated and unable to take decisions that enhance efficiencies. A planned empowerment effort to build such process-level capacity adds value.

SPECIFIC PROCESS-LEVEL EXAMPLES OF TBL AT WORK:

i) Waste Disposal Planning:

Ammar was able to plan its waste disposal of 1,700 tonnes of non-reusable or non-recyclable solid waste, saving warehousing and sorting costs and adding PKR 4.2 million, or 0.3% of turnover to the bottom-line.

ii) Zero-defect Process Management:

Angora saves PKR 1.5 million in re-dyeing per 24 hour cycle by ensuring first-time-right dyeing using computerized color dosing, about 0.1% of turnover.

iii) Down-Stream Recycling:

Royal generates about PKR 1 million from sale of leather-trim waste per month when operating at full capacity, averaging 2% of turnover.

iv) Human Capital Optimization:

ICC's 5% profit-sharing keeps staff retention to over 95%, which being thrice the industry average, saves in excess of PKR 1 million per year, or 0.2% of turnover.

2.0 – CONTEXT

Pakistan's Business Paradigm

Pakistan's is country of 138 million people, whose overwhelming reliance on agro-based exports is reflected in its export list. Of the nation's total export of about USD 8.9 billion in 2001, 8.1 billion stems directly from agriculture, fisheries and labour-intensive cottage industry. Of this USD 5.4 billion derives from cotton and its products, 1.3 billion from food and produce, and 1.4 billion from low value-added manufacturing such as leather, carpets, sports goods, surgical instruments and handicrafts. Value-added goods and services, including engineering, chemicals, pharmaceuticals, petroleum products, services and IT all together account for less than USD 300 million (3.4%).

Typical to most developing countries, Pakistan's agricultural outputs often return to the country in the shape of expensive consumer goods. The acute shortfall in human resources and technology exacerbated by inadequate capital flows means this will continue. In fact the gap will widen given the growth of the knowledge-based global economy.

As an example of the recent shift to value addition, the expanding textile, knitwear and leather garment manufacturing sector already faces overcapacity because of the international tariff barriers presently in place. Ironically, it has been seen that while the average consumer price of a typical Pakistani cotton or leather product has registered an increase of 3-5% over the past 3 years, the export price has tended to decrease by a similar margin. Pakistan faces quota restrictions that cap its value-added textile exports to Europe and the USA to roughly USD 2 billion. Hence any chance of compensating low prices through high volumes is blocked, while the cost of diversification and non-availability of the required technology or raw materials is beyond the reach of the average entrepreneur.

As WTO negotiates the progressive elimination of protective tariffs and quotas, producers in Pakistan face a new, more fundamental challenge. Buyers, driven by an increasingly aware and sensitive consumer-base are demanding that their far-flung vendors conform to recognizable social and environmental standards as part of the deal. These conditionalities, despite cries of "neo-protectionism", are rapidly becoming entrenched in the fabric of business dealings. *In any case there is a strong business case for creating opportunity from this looming paradigm shift.*

Exporters' Dilemma & the Business Case for TBL

Thus far any competitive advantage that countries like Pakistan have enjoyed has lain in rock-bottom labour costs and a regulatory void often easy to exploit given poor compliance mechanisms. In the emerging scenario local manufacturers can clearly see that they can no longer rely on these elements alone to drive down the price of the product. Buyers are now wary of vendors who do not agree to invest in measures to guarantee better compliance with labour practice, workplace standards and ethical business principles.

Thus, the very gambit that allowed manufacturers in countries like Pakistan to attract buyers – cheap labour and poor compliance standards – now turns them away. The dilemma for the average exporter, therefore, is how to invest in social and environmental standards, establish a "clean" supply chain and give a visibly "good deal" to its labour force, while still somehow maintaining price competitiveness.

A TBL argument is that the huge sums of capital spent by textile exporters to buy export quota permits – traded much like commodities on the open market – offer a significant alternative investment reserve for implementing social and environmental standards. The obvious advantage here is that instead of blocking capital in quotas, a TBL investment would contribute directly to quality of life at the community level.

Can TBL Save the Day?

This project, within its obvious constraints aims to demonstrate that there are ways of transferring savings derived from higher efficiencies and better plant operations to social and environmental improvements, without significantly increasing production costs. It must be said, however, that more work needs to be done at the practical level to make the TBL concept as presented here attractive to SMEs in sufficient numbers to add up to a differentiating factor that sets Pakistan's exporters apart in a cut-throat international environment. Hopefully, the envisaged REAP initiative will be a further step in this direction.

Industry is increasingly being required to meet stringent social and environmental specifications in the international market. A number of developing country industries fear that they may not be able to meet these requirements without loosing their competitive edge in international markets. They are also aware that if they do not meet these requirements in a cost effective way, they will not be in a position to access new foreign markets or large international buyers who stipulate their own codes of corporate ethics. Non-compliers are therefore being forced to reconsider environmental and social specifications of their operations. But, very often small and medium scale enterprises are at a loss on how to effect the technical and managerial changes that would enable them to meet emerging environmental and social standards.

It is clear that there is a pressing need for private industry in developing countries to have a set of global norms against which to judge their own performance, as well as to have an internationally acceptable framework to assess their performance in terms of environmental and social parameters. This would also enable industry to identify areas for improvement to make them globally competitive, and, not be victims of non-tariff barriers such as those inherent in initiatives such as eco-labeling.

Limitations and Opportunities

However, it must be recognized that a project such as this cannot be everything to everyone, and neither can an 8-month initiative serve to lay more than a mere foundation for the TBL approach suggested here. What this project must achieve is to energize the SME sector to carry forward the learning through a more permanent and viable learning process that can achieve the aims put forward above.

As such, the Pakistan TBL team looks forward to the formalization of the REAP initiative, since that promises to provide the vehicle for measuring the success of the past eight months and innovating ways to move forward. At a time when pressures on third world SMEs build up in equal measure to the sensitivities of the first world consumer this can be the proverbial silver lining in the cloud.

3.0 – TBL PROJECT PARTNERS

Partner Selection

According to the project guidelines agreed during the Colombo orientation session, each country component was to choose at least one textile company and others that reflect the country's export profile. Similarly, it was agreed that the selected TBL partners would be export-oriented SMEs with moderately sophisticated management systems and technology. Finally, each partner was expected to contribute to the local costs of the project.

During the time project modalities were being finalized – April to June 2000 – the two host institutions, EPB and LCCI short-listed five companies as TBL partners. July and August were utilized for archival research and evaluating CSR models applicable in the Pakistan SME sector, and for evaluating existing knowledge and practices. During this time senior management and decision-makers were interviewed at the selected partner SMEs, for feedback on their expectations from the project. By mid-September all partners had signed MOUs, and had nominated their TBL task teams nominated. This coincided with what is referred to as the Methodological Development (first) phase in the project document but precedes what is described as the "lead-up phase" in this report.

The following TBL partners were selected according to these guidelines, and are fairly representative of Pakistan's general export SME profile:

I. **Knitwear & Garment Manufacture**

- Ammar Textiles, Multan Road, Lahore
- Angora Textiles, Multan Road, Lahore

II. **Woven Textile Manufacture**

- ICC Textiles, Multan Road, Lahore

III. **Leather Tanning & Garment Manufacture**

- Royal Leather Industries, Sheikhupura Road, Lahore

The selection of these companies was aimed to ensure:

- ***Region-wide Industry Constant, i.e., Textile*** – selected to conform to project partner guidelines so that the Pakistan component can present results that can be compared with other textile companies across the region;
- ***Country-specific Industry, i.e., Leather*** – selected because leather is an increasingly important export & because its processes are particularly suitable for TBL due to their environmental and social impact;
- ***Variety of Organizational Process*** – selected partners exhibited sufficient breadth of process-level activity for TBL to become relevant all across an organization;
- ***Verticality of Organizational Process*** – selected partners have in place sufficient value-addition from raw material to merchandise. In case of the textile partners this involved yarn to finished garment, and in the leather partner, from raw hides to fashion articles;

- ***Variety of Organizational Maturity*** – all selected partners are SMEs, but despite similarity as family-owned companies, each showed distinct levels of organizational maturity as evidenced by their internal management systems, decision-making and documentation etc.;

- ***Variety of Organizational Complexity*** – selected partners demonstrated disparate corporate structures and delegation of responsibility;

- ***Variety of Quality Perception*** – each partner was aware of industry-wide quality standards for product or process integrity. Of these ISO 9000 was familiar to all, ISO 14000 to three, and SA8000 to two. Two are ISO9000 certified, while one each are preparing for ISO14000 and SA8000 respectively. All of them said they volunteered for the project because it would give them give them additional skills to respond to CSR demands, add to their credibility with customers, and prepare them for third party audits of buyer codes and external verifications.

- ***Buy-in and Post-project Commitment*** – a last, important determinant for choosing the above partners was their enthusiasm and acceptance of disclosure and transparency. Each company's leadership expressed a keenness to become part of the research and act as role-models for others in their respective sector. Another variable that helped the selection was that leaders form each of the partners were active in their respective trade association and were already engaged in canvassing their peers with regard to ethical business and social standards. Their contribution to local costs of the project while awaiting UNIDO Pakistan approval was instrumental in keeping project to schedule.

Four partners maintained full participation since in June 2001, which was well within the risk map presented in the project document. The chosen SME partners represent sectors that have expressed concerns that they might not be able to respond to social and environmental requirements without losing their competitive edge in international markets.

As a consequence the Pakistan TBL component, compared to other national components, lays a greater emphasis on capacity-building in addition to experimenting with implementing environment and social responsibility programs.

Detailed company and plant data for each partner are part of the Annexure.

4.0 – APPROACH & METHODOLOGY

Laying the groundwork

The project had two primary objectives. The first one was to formulate and test an approach to TBL improvements that would prove useful for medium-sized exporting enterprises in Pakistan. A less visible yet important second goal was to help enhance the capacity of a national institution for advising small manufacturing enterprises (SMEs) on TBL modalities.

Project work was begun by reviewing a set of available global corporate social responsibility (CSR) standards, and choosing TBL indicators most appropriate for partners in the local context. The term CSR is still employed in a variety of meanings. Its wider interpretation lumps practically all social, environmental and business-society interface issues as part of CSR, ostensibly because the term "social" itself is often fluid. While on the one hand defining CSR is still an open question, on the other, with discourse becoming more concrete, practitioners continue to present working definitions of CSR that more often reflect the context of the discussion than an all-embracing definition.

The purpose of this review was to identify a manageable set of parameters, which SMEs could use to improve performance on financial, social and environmental parameters. Hence this particular TBL intervention was sought as a limited, yet targeted effort to build capacity to respond to an important demand of their supply chain.

The following documents represent a selection of resources acquired from public and institutional sources, covering the various parameters of TBL – whether social, environmental or economic – so as to inform on the TBL tool selection and/or development process: Global Reporting Initiative (GRI), Fair Trade guidelines, Cleaner Production (CP) guidelines, AA 1000, SA8000, ISO 9000, ISO 14000, Pakistan National Environmental Quality Standards (NEQS), Pakistan Labour Code, and M&E tools developed by RBI for its partners.

More specific guidance on environmental issues was from ISO 146 on air quality, ISO 147 on water quality, ISO 190 on soil quality; Pakistan's National Environmental Quality standards on water; norms for energy consumption, exclusion requirements for the use of chemicals and dyes; EU eco-labeling criteria on energy consumption during manufacturing, consumption of water during wet treatment, waste water parameters in the manufacturing process, and detergents and complexing agents, reference to other eco-labeling criteria such as OKEO-TEX; and guidelines on the textile and leather industry from the World Bank and Pakistan's Export Promotion Bureau.

Social standards were reviewed primarily from ILO conventions, ISO and Social Accountability International (SAI) guidelines, OSHA standards and relevant Occupational Safety and Health standards from Pakistani Legislation; A range of corporate codes of practice governing the supply chain in Pakistan, prevailing management policies on employee working hours and work contracts; salaries, pensions and compensations; employee civil rights, employment effects, participation of women and children, child labour, and workplace rights to freedom of association; and a survey of working conditions by the All Pakistan Federation of Labour (APFOL).

Risk Map

1. Appropriate partners were available, but time-lines and externalities led to one pulling out, leaving only four out of the original target of five. It was considered expedient to carry on with the four available;
2. Demonstrable TBL improvements as envisaged in the project document may not be visible at the desirable level of sophistication, immediately for the report. However,

because of partner interest and the momentum TBL has attained thus far, it might be realistic to expect that more data will be available in time to present in South Africa;

3. The risk of insufficient project funds was calculated at the time of launching the Pakistan Component, and a realistic subscription was negotiated from the partners. This has been invaluable in sustaining project momentum and enable backstopping to continue beyond the January 2002 deadline. RBI hopes that a medium term commitment to REAP from UNIDO will enable it to raise further corporate funding and widen the scope of the subsequent promise of the TBL project; and
4. It is uncertain what the Pakistan Component's impact will be on the overall UNIDO project, but from a purely country-level perspective, the project has achieved a crucial objective – that of piquing industry interest and building strategic relationships with government, corporate stakeholders and labour representatives. This could form the basis for many a multi-stakeholder initiative in the future, thus favourably impacting the long-term overall success of the project.

Practical Considerations

After a review by the project team in end-September, the content of the first orientation seminar was agreed between the RBI coordinator and the UNIDO international expert. This event itself, despite a short delay because of external factors, was successfully held in mid-October. It marked the beginning of the second phase of the project. Outcomes of this event included a set of deliverables agreed among all TBL partners over the project timeline.

Between October and late November, regular factory visits were initiated, with TBL teams themselves engaged in the practical aspects of the project. The actual performance is reflected below within the context of the two phases originally envisaged. In short the two phases envisioned in the project document were split up into three for practical reason:

I. Methodological Development Phase (June – September 2001)

According to the project document, this phase was for reviewing the various potential standards available for evaluating and improving performance. It included developing a usable benchmark of self-selected TBL parameters in at least two sectors (leather and textiles), and then devising a common tool or method, appropriate to local needs that would allow companies to assess their own TBL performance. Later it was to review the identified approach and parameters for reporting TBL compliance with partners and seek their agreement, because there is no global consensus about the most appropriate standards for financial, social and environmental of parameters.

In practice, this phase was divided into two sub-phases for practical reasons. The first, termed the "Lead-up Phase" that set up the logistics and forged the partnerships required to make the TBL review process described above practical and inclusive, in tandem with the archival work required from this phase. The last of these objectives were transferred to the "Preparation & Gap Analysis Phase".

II. Application and Testing Phase (October 2001– January 2002)

According to the project document, this was to include training a select number of national experts and representatives of potential partners to apply the TBL approach. This was to be followed by an enterprise-level demonstration to show how enterprises can move towards conformance with self-selected TBL standards. Training was to cover techniques of multi-stakeholder negotiations, such as with importers, workers and communities, involving local

host institutions and their partner companies to look at assessing their performance against those TBL standards found most suitable from among those available.

However, it was found more expedient given the circumstances to separate the training and stakeholder dialogue, and place it into the "Preparation & Gap Analysis Phase" described above. The testing was placed in a "Trial and Review Phase" that was confined to on-site TBL applications and backstopping partner interventions. In order to present data for the project deadline it was decided to end the trial in January 2002, but continue with the review programme, and link it up to a possible REAP initiative.

The TBL Methodology Framework

The focal point of the TBL framework is the process through which a value-added product emerges from production inputs including materials, energy, water and labour. The output, in addition to the finished product includes by-products, emissions, effluents and solid wastes originating for each relevant stage of the production process. By tracking these and comparing them to financial indicators, it is possible to create a TBL profile, for which the following steps would be necessary:

Step 1 Identify Process-level Indicators

Step 2 Field TBL Resource Team

Step 3 Select TBL Partners

Step 4 Form Organizational TBL Teams

Step 5 Conduct Internal Sensitization

Step 6 Audit Process-Level TBL Indicators

Step 7 Build Internal Capacity to Identify & Implement TBL

Step 8 Launch TBL Reporting Program

Step 9 Analyze TBL data & Report Performance

Step 10 Review & Plan for Step 1

Project Activity Route Map (March 2001 – April 2002)

Implementation, based on the pattern of UNIDO's earlier successful Cleaner Production Program, was re-organized as follows:

- Introductory seminar hosted by local Chamber of Commerce;
- Selection of 5 enterprises for the demonstration project;
- Signing MOUs, choosing company TBL, and a participation fee;
- TBL orientation and hands-on capacity-building by TBL experts;
- Brainstorming to prepare TBL implementation plan;
- Demonstrations projects in chosen companies;
- National seminar with government and industry leaders;

- Review of Project and compilation of reports;
- Post-demonstration back-stopping and TBL audits;
- On-line advice & backstopping from national & international experts;
- Finalize report on project and TBL manual & software;
- Presentations at the World Summit on Sustainable Development in mid-2002.

5.0 – PARTNER TBL DATA

Summary

The following tables summarize the options selected by the partners, and their preliminary impacts to the three bottom lines.

1. Ammar Textile

Option selected	Impacts
• Better boiler management through preventive maint-enance, stopping energy and water/steam leakage; • Cost not to exceed 5% of present boiler costs	• Reduce energy bill by up to 15% • Potential yearly cost saving of PKR 6.8 million, a saving of 0.5% to the bottom-line; • Better risk management and reduction in threat of accidents

2. Angora Textile

Option selected	Impacts
• Better utilization of dye-stuff and chemicals through computerized dyeing kitchen, and dispensing unit; • High one-time cost, but significantly low maintenance	• Installation cost of PKR 10 million recoverable within one year at full capacity • Positive impact on product quality and rejection control leading to client loyalty and profitability

3. ICC Textile

Option selected	Impacts
• Corporate policy development and better documentation of worker-management relations for tracking impact of social standards on bottom-line; • Cost less than PKR 100,000.	• Direct impact of PPE policy on worker health and retention in terms of lower staff health costs and higher productivity estimated at PKR 4 million per year, approximately 5% of annual revenues

4. Royal Leather

Option selected	Impacts
• Time-carding various plant operations for tracking of process utilization, energy and raw material consumption, and higher predictability of costs • Cost about PKR 500,000.	• Better de-salting, washing, dyeing process management, enhanced labour and productivity ratios, all impact value-addition by approximately PKR 50 million, or 8% of revenues

Partner Baseline

S/No	TBL Partner	Corporate Status	Number of Employees	Principal Product	Annual Output (unit)	Export %-age
1	**AMMAR Textiles (Pvt) Ltd**	Private Limited Company	2350	Knitwear	3.8 million garment units	100 %
2	**ANGORA Textiles (Pvt) Ltd**	Private Limited Company	2410	Knitwear	3.2 million garment units	100 %
3	**ICC Textiles (Pvt) Ltd**	Private Limited Company	424	Greige cloth	11.6 million linear meters	91 %
4	**ROYAL Leather Industries (Pvt) Ltd**	Private Limited Company	525	Finished leather & Garments	3.6 million sq. ft leather; 5.1 million sq. ft in garments	100 %

Select Post-TBL Data

ENVIRONMENTAL (per prevailing benchmark)					
	Benchmark	AMMAR	ANGORA	ICC	ROYAL
BOD mg/l	NEQS 80 (mg/l)	32	40	71	545
COD mg/l	NEQS 150 (mg/l)	50	115	170	1708.5
Waste Water m^2/day		1760 m^3/day	800 m^3/day	630 m^3/day	558 m^3/day
Electricity (kWh)		9,565,692	10,500,600	6,054,600	1,741,196
Solid Waste Kg/year		1,682,312	1,186,053	37,351	1,540,870
Chemicals Kg/year		3,690,000	2,400,000	527,844	2,184,160
Dyestuff Kg/year		92,400	48,000	--	199,472
Fuel litres/year		280,000	10,000	47,777	17,570

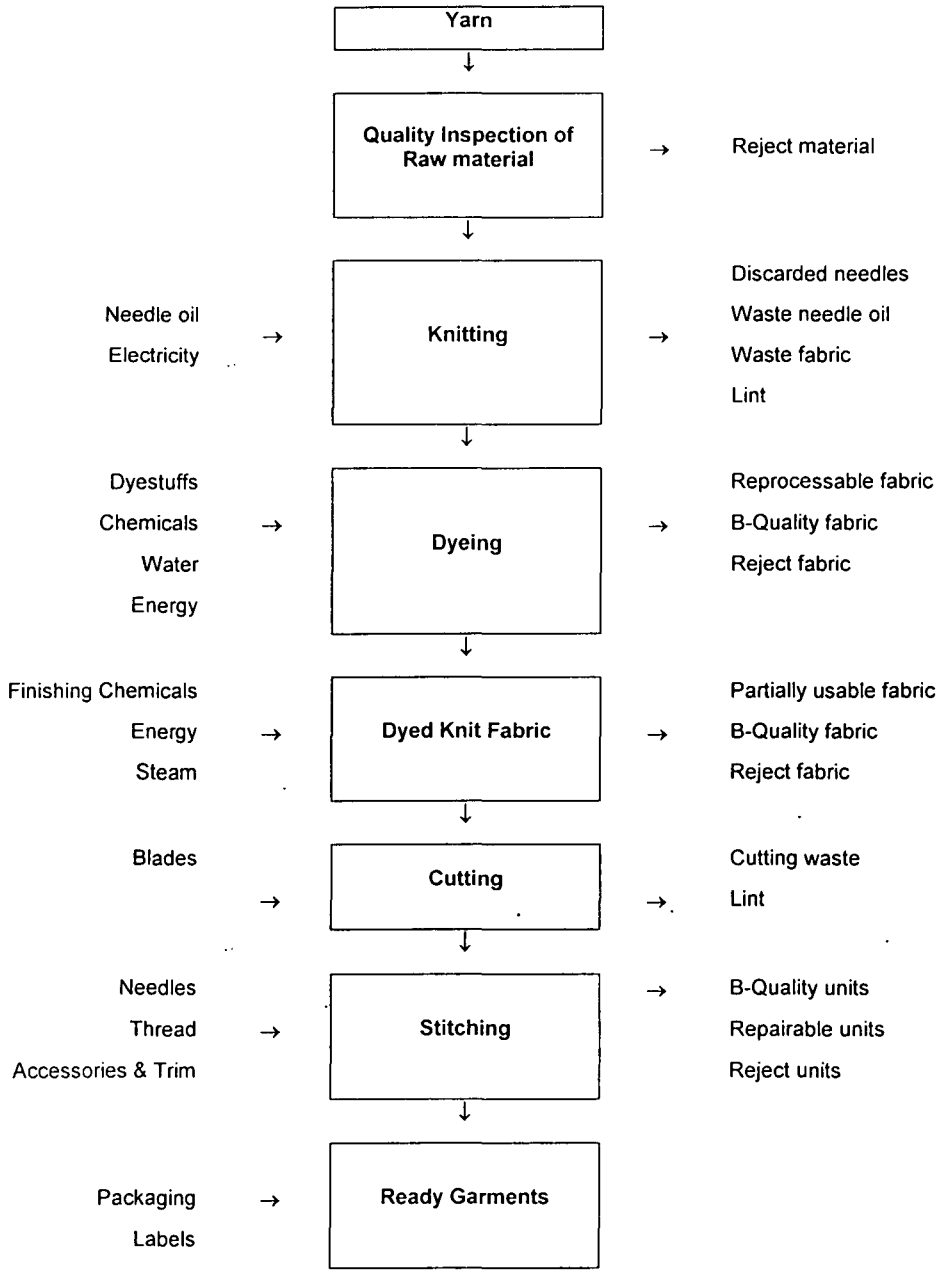
FINANCIAL (PK Rupees – rounded off)					
	Abbrev.	AMMAR	ANGORA	ICC	ROYAL
Annual Turnover	ATO	1.36 billion	1.01 billion	628 million	537 million
Total Value-Added	VA	147 million	108 million	32 million	50 milion
Pre-tax Earning	EBIT	119 million	113 million	78 million	20 million
Average Capital Employed	ACE	450 million	370 million	137 million	260 million
Return on Ave. Capital Employed	ROR ACE	26.4%	23%	57%	7.7%
Value Added as % of input	VAI	24.8%	25.02%	5.5%	9.6%
Value Added per unit output	VAO	38.4 per garment	36.2%	1.79 per linear meter	8.6 per square ft
Value Added per Employee	VAE	63,000	66,000	76,000	36,000
Value Added per employee hour	VAEH	6,806	7,230	9,493	4,562
Value Added as % of total wage bill	VAWB	160%	162%	128%	317%
Value Added as % of ACE	VACE	32.5%	34%	23%	19.6%
Value Added per kWh energy used	VAEn	15.4%	12%	5.2%	32.4%
Average Plant Utilization	APU	65%	80%	95%	45%
APU per technical maxima	APT	72.8%	85%	95%	47%
Work Days Lost per paid days	WDL	18.4%	17.5%	3.6%	18.4%
Overtime per total hours worked	OVT	3.3%	3.5%	3.5%	11%
Labour Retention rate	LRR	87.2%	82.4%	94.3%	91.4%

SOCIAL (weighted score with "5" indicating full compliance)					
	BENCHMARK	AMMAR	ANGORA	ICC	ROYAL
Written Contract with all workers in local language	5	5	2	4	4
Induction Manual that includes "Workers Rights"	5	5	2	2	4
Induction briefing for all workers duly recorded	5	4	1	3	3
Free Association via Participatory structures in place	5	5	0	4	5
Written Policies on work ethics & non-discrimination	5	5	1	2	5
LabourStandards visibly posted in local language	5	5	5	5	5
Training on Labour Standards & Policies	5	4	1	2	5
Procedures for reporting worker abuse/grievances	5	3	1	4	5
Stoppage Report mechanism for disruptions/causes	5	0	0	4	5
Communication between Workers and Management	5	5	1	2	5
Confidentiality for workers with grievances	5	4	0	1	3
Recognition & uniform worker incentive schemes	5	5	4	4	5
Workplace Safety Standards & policy implemented	5	5	5	5	5
Training manual on safety & accident prevention	5	5	4	4	5
Safety training/ drills conducted & documented	5	5	3	3	5
Fire/Smoke Alarms working & inspected regularly	5	5	5	5	0
Safety devices on machines working/inspected	5	5	3	4	4
PPE Policy in local language implemented	5	5	3	4	5

SOCIAL... contd. (weighted score)					
	BENCHMARK	AMMAR	ANGORA	ICC	ROYAL
Correct PPE gear provided & its use monitored	5	5	4	5	5
Emergency & containment measures & drills	5	4	4	4	4
Storage areas Posted with safety & evacuation signs	5	4	4	4	5
Posted signage understood & followed	5	5	5	5	5
Ergonomic standards & training for workers	5	5	5	5	5
First Aid manuals, kits & certified personnel available	5	5	5	5	5
Periodic checks for health & occupational risk	5	4	3	4	3
Creche/child care services for all workers' children	5	5	0	0	5
Non-cash benefits & Fair-price shop per law	5	1	1	1	4
HazMat Policy, MSDS & training for safe handling	5	5	2	4	5
Solid Waste Mgt Plan & separated waste streams	5	0	0	4	5
Effluent Mgt Plan for separate, treated streams	5	5	5	5	5

TBL Process-Level Review

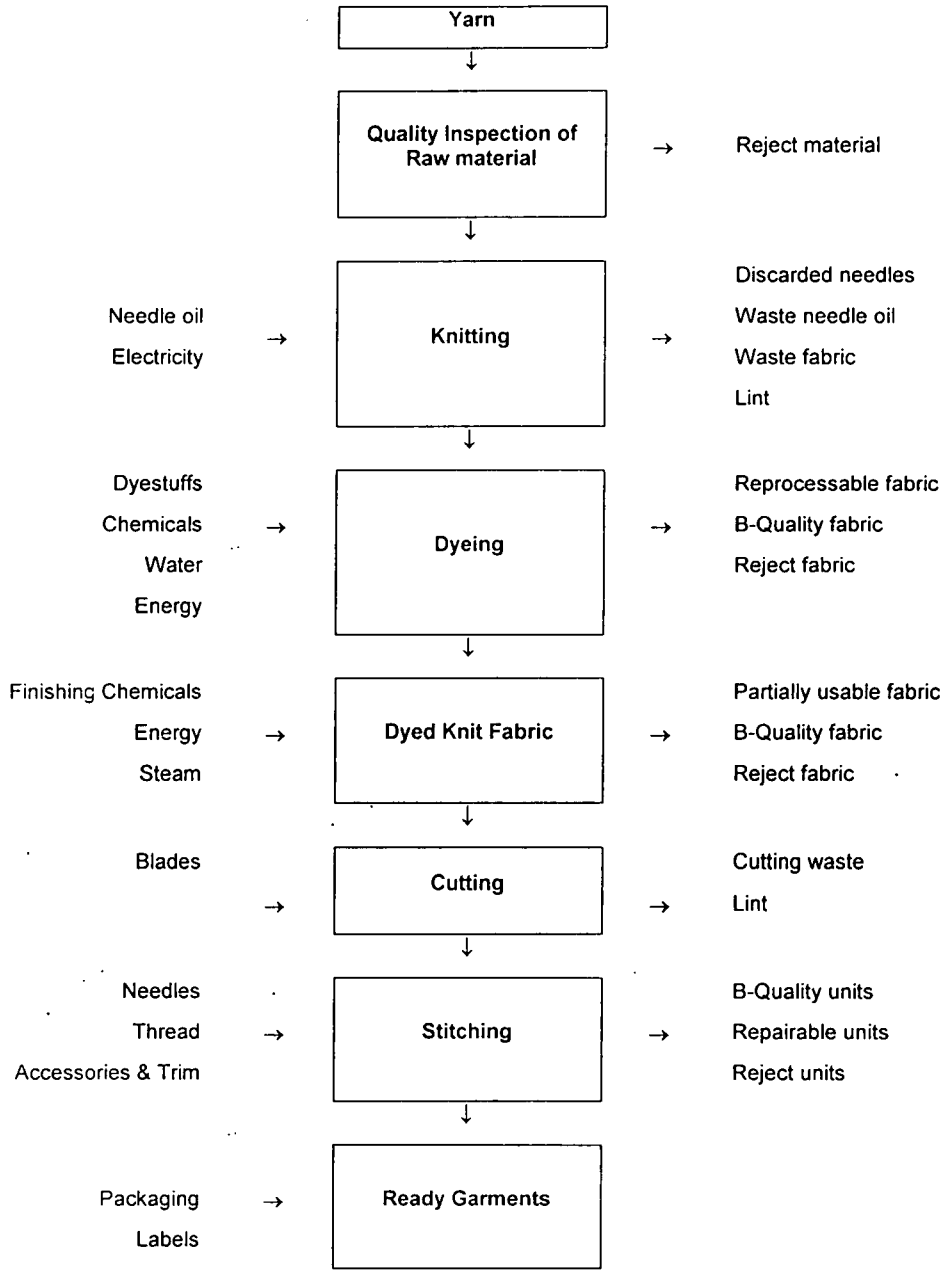
1. AMMAR



TBL Options

Sr. No.	Problem	Options
1	Poor environmental awareness among employees & high solid waste dumping costs	Awareness program and segregated waste bins under solid waste management plan
2	High use of chemicals & dyes despite computerized dosing	Technical inputs from UNIDO in training dye house technicians
3	Worker – supervisor isolation leading to quality issues	Integrated decision-making at floor level
4	Steam wastage	Better boiler maintenance
5	High cutting wate	Install laser cutters
6	Inconsistent work from piece-rate stitchers	In-house stitcher training school

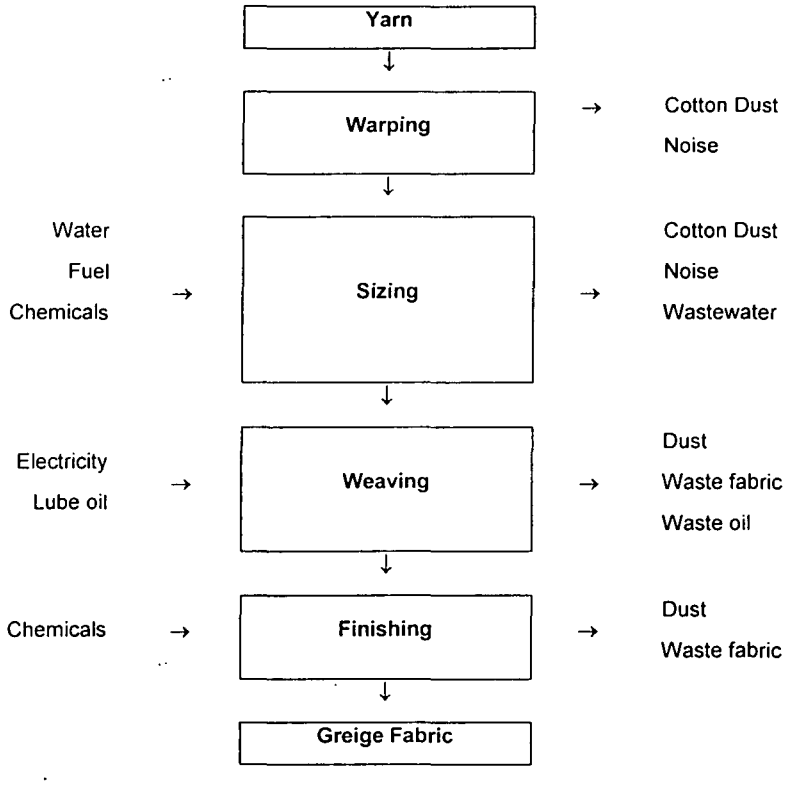
2. ANGORA



TBL Options

S/No	Problem	TBL Solutions
1	High overheads of dyeing department and low workload	Outsource dyeing & shut down plant
2	Re-dyeing costs due to inconsistent mixing & dosing	Install computerized dosing

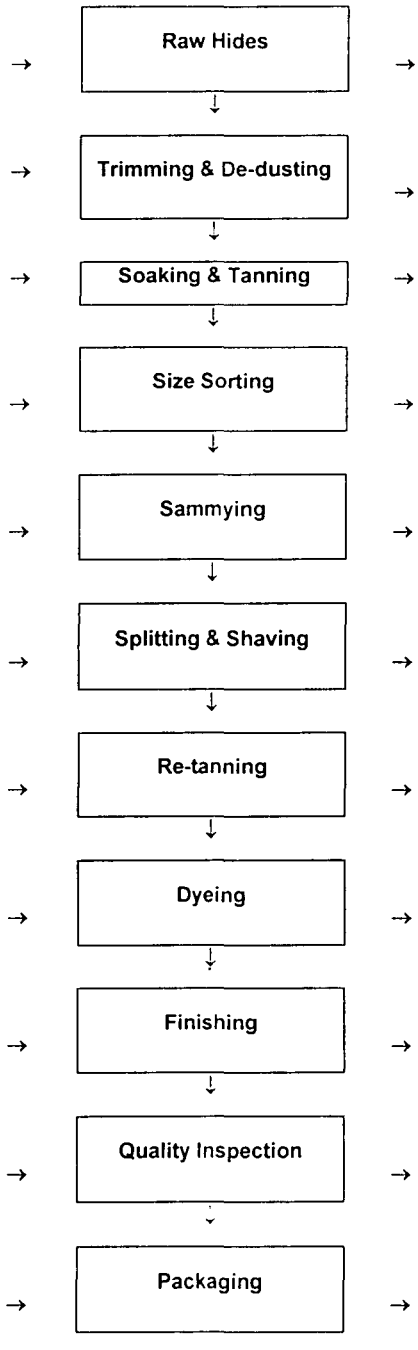
3. ICC



TBL Options

Sr. No.	Problem	Options
1	High noise levels	PPE & training & supervision mandatory
2	Fluff in weaving & warping department	Better maintenance of compressed air cleaning system and PPE for workers
3	Poor PPE compliance at floor level	Incentives for PPE use and set role model
4	Open dumping of cotton fluff	Explore marketing opportunities with mushroom farmers
5	Poor policy documentation & awareness	Release policy documents in Urdu and post
6	High humidity in weaving department	Optimize existing ventilation and dampers

4. ROYAL



TBL Options

Sr. No.	Problem	Options
1	High water consumption	Install flow meters
2	High BOD/COD loads	Separate hair from waste water, Use coagualation/flocculation treatment, improve salt removal
3	High NH and SO2 levels	Increase ventilation & provide PPE
4	Steam loss	Couple with steam-powered generator
5	Poor PPE use	Incentives for use & role models
6	Allergies & skin conditions among workers	PPE compliance, documented medical inspection & referrals

6.0 – CONCLUSION

The results and analysis of applying the framework to four selected factories engaged in producing knitted garments, greige fabric and finished leather products demonstrate the usefulness of applying process-level TBL indicators to benchmark and report the environmental and social performance of enterprises, especially those competing in the global markets. Being able to track at the process level – in real time – each of the three "bottom-lines" on their own, and then being able to compare their cumulative effect on "people, planet and profit" make TBL a useful tool for self-assessmnt and decision support for managers, process supervisors and administrative decision-makers.

The assessment was found particularly useful for identifying areas for improvement in the adoption of cleaner technologies and in corporate practices relating to occupational health and safety provisions, training, education and awareness of workers.

The links between environmental improvements and better working conditions are especially important. The case studies suggest that there is a positive correlation between reduced environmental loads, and, training and awareness programs for workers. Increased awareness about conserving inputs such as water and energy results in better utilization of these inputs.

It is in the interest of management to ensure that the workers receive technical training and are educated and made aware of the importance of conserving the raw materials and resource use. It is true that very often small and medium scale enterprises (SMEs) cannot afford continuous training and skills up gradation of workers. This is where capacity-building approach helps in retaining a motivated workforce.

It is clear that corporate managers need to pay more attention to in-factory occupational health and safety conditions. Factories that had high levels of in-factory air pollution levels were also those that had inadequate occupational health and safety conditions. In addition, if a company were to reduce emissions of volatile organic compounds through investments in cleaner technologies, it could reduce its expenditures on occupational health and safety measures and at a same time meet international requirements or specific requirements of buyers, thereby improving it's export potential.

Lessons Learned

The following questions arising out of the periodic brainstorming sessions – each answered in the affirmative – point out the learnings:

1. Can SMEs implement TBL without undue financial burden?
2. Can SMEs really exploit opportunities for trade inherent in rising environmental and social welfare expectations in their export markets?
3. Is TBL adequate as a framework for self-assessment of environmental and social performance and decision-support in relation to an SME's financial strength?
4. Does TBL help in identifying areas for improvement in the adoption of cleaner technologies and corporate practices on occupational health and safety, training, education and awareness of workers?
5. Does TBL make improvements in environmental & social performance more sustainable when linked to worker training and awareness of conservation concepts?
6. Does a company save on expenditures on occupational health and safety measures and attract more buyers if it invests in cleaner technologies?
7. Can a company meet buyer codes of conduct/ethics with greater ease and savings if it improves social and environmental performance through TBL?
8. Does TBL-led compliance place a company in a better position to exploit trade opportunities inherent in the demand for sustainably produced goods, increasing market shares, exports and of course, better environmental and working conditions?
9. Does TBL "level the playing field" by encouraging trade in sustainably produced goods between developed and developing countries?
10. Can TBL-driven industry encourage the development of adequate policy framework for better environmental and social performance in countries that lack policy incentives for conserving raw materials and inputs such as water and energy?

9.0 – ANNEXURE

a) Pakistan Factory Act Summary
b) Environmental Safety Act
c) National Environmental Quality Standards
d) Baseline Datasheets
e) TBL Datasheets

Base Line Data Sheet

1.0	**ORGANIZATION**				
1.1	*Registered Name*				
1.2	*Brand Name or DBA*				
1.3	Incorporation	1.3.1	Public Limited Company	1.3.2	Private Limited Company
		1.3.3	Partnership	1.3.4	Sole Proprietorship
		1.3.5	Non-Profit Company	1.3.6	Other (_____)
1.4	*Status*	1.4.1	Subsidiary of larger group	1.4.2	Independent Company
		1.4.3	Domestic Joint Venture	1.4.4	International Joint Venture
1.5	*Address*	1.5.1	Head Office	1.5.2	Selected TBL Facility
	Telephone				
	Fax				
	Email				
	Web				
1.6	*Human Resources*		*%-age*		*%-age*
		1.6.1	Top Management:	1.6.2	Mid-Management:
		1.6.3	Technical:	1.6.4	Labour:
		1.6.5	Permanent:	1.6.6	Contract (Piece rate):
		1.6.7	Part Time:	1.6.8	Other (_____):
		1.6.9	Male:	1.6.10	Female:
1.7	*CONTACT PERSON/s*				
		1		2.	
	Designation				
	Telephone				
	Mobile				
	Email				

2.0	**PRODUCT**				
		2.1	*Exporting since:*	2.2	*Percent Exported:*
2.3	Major Product Range	2.3.1		2.3.2	
		2.3.3		2.3.4	
		2.3.5		2.3.6	
2.4	*Export Destinations*	2.4.1		2.4.2	
		2.4.3		2.4.4	
2.5	*Major Brand Clients*	2.5.1		2.5.2	
		2.5.3		2.5.4	
3.0	**PROCESS**				
		3.1	TEXTILE	3.2	LEATHER
	Existing Product Cycle	3.1.1	PRODUCTION ORDER	3.2.1	*PRODUCTION ORDER*
	please list here **each component of the product cycle in the sequence it is carried out at your facility **beginning from** the point where a certain production order is confirmed – either for a customer order or in-line production, and **ending where** the said order is shipped to the customer.*	3.1.2		3.2.2	
		3.1.3		3.2.3	
		3.1.4		3.2.4	
		3.1.5		3.2.5	
		3.1.6		3.2.6	
		3.1.7		3.2.7	
		3.1.8		3.2.8	
		3.1.9		3.2.9	
	IMPORTANT:	3.1.10		3.2.10	
	*Please include **every** Possible step, as this is crucial to setting up the TBL methodology specific to your unit.*	3.1.11		3.2.11	
		3.1.12		3.2.12	
		3.1.13		3.2.13	

4.0	**DISCLOSURE**	4.0.1	*Reporting Period: (month)*	*From:*	*To:*	*Reporting Currency: (Conversion rate)*	
4.1	Outputs by Product Class		*Product*	*Volume*	**Units**		**Value**
		4.1.1				4.1.2	
		4.2.1				4.2.2	
		4.3.1				4.3.2	
	Total	4.4.1				4.4.2	
4.2	*Process Verification*		*Inspection Type*		*MOV*	**Date**	**Verifying Org.**
		4.2.1	*Internal*	4.2.1.1			
				4.2.1.2			
		4.2.2	*Fee-for-Service*	4.2.2.1			
				4.2.2.2			
				4.2.2.3			
		4.2.3	*National Body*	4.2.3.1			
				4.2.3.2			
				4.2.3.3			
		4.2.4	*International*	4.2.4.1			
				4.2.4.2			
				4.2.4.3			
		4.2.5	*Buyers/Agents*	4.2.5.1			
				4.2.5.2			
				4.2.5.3			
		4.2.6	*Other*	4.2.6.1			
				4.2.6.2			
4.3	Liability/Risk Management			*Ref.*	*Type*		*Coverage*
		4.3.1	*Org. Policy*				
		4.3.2	*Internal SOPs*				
		4.3.3	*Insurance*				
5.0		Name		Designation		*Dept.*	*Contact Information*
5.1							
5.2							

1

. AMMAR

Ammar Textile

Cycle Time
= One Year

Processes	Input										Output					
	Raw material		Chemicals		Dyes		Overheads		Labor		Value able material		Solid waste			Liquid waste
	Kg/ year	Amount Rs.	Kg/ year	Amount Rs.	Kg/ year	Amount Rs.	Electricity Kwh	Amount Rs.	No.of Workers	Pay Rs.	kg/year	Amount Rs.	Sold kg/ year	Sold Amount Rs.	Open dump kg	Flow m^3
Knitting	3,096,329	433,193,165					526,436	2,837,491	139	596,588	1,915,848		50,616	839,335	Nil	
Dyeing			3,794,410	103,564,415	95,765	56,648,413	1,276,480	6,880,226	102	543,354	3,699,617		Nil		Nil	2750
Sewing							1,348,445	7,268,117	396	1,778,832	3,277,898 No of pcs shipped		114,345	1,896,115	Nil	
Other Processes							5,312,434	28,634,020	963	4,570,826			1,506,761	24,985,730	Nil	1250
Total	3,096,329	433,193,165	3,794,410	103,564,415	95,765	56,648,413	8,463,795	45,619,854	1600	7,489,600	3,277,898 No of pcs		1,671,722	27,721,182	Nil	4000

2. ANGORA

Cycle Time
= One Year

Processes	Input									Output					
	Raw material		Chemicals		Water Consumption	Overheads		Labor		Value able material		Solid waste			Liquid waste
	PCS/ year	Amount Rs.	Kg/ year	Amount Rs.	Flow m^3	Electricity Kwh	Amount Rs.	No.of Workers	Avg. pay Rs.	SFt/year	Amount Rs.	Sold kg/ year	Sold Amount Rs.	Open dump kg	Flow m^3
Raw trimming & De dusting	7,236,000	299,112,000	NA		NA	4,768	24,698	2	72,000	7,236,000		387,400	2,400	Nil	NA
Soaking & Tanning			691,514	15,224,283	140,313	662,792	3,433,263	11	396,000			854,280	80,000		NA
Wet Blue			NA		NA	15,734	81,502	11	396,000			Nil	Nil	Nil	NA
Wet machine Operations			NA		NA	570,253	2,953,911	17	612,000			331.913	1,036,258		NA
Re tanning & Dyeing			532,670	60,098,109	26,238	395,744	2,049,954	9	324,000			NA	NA	Nil	32,138
Dry machine Operations			NA		NA	473,139	2,450,860	52	1,872,000			28,310	13,371		NA
Finishing			123,436	76,759,858	402.3	684,208	3,544,197	23	828,000			4,843	4,800		493
Packing			NA		NA	11,442	59,270	7	252,000			120.314 Sft	108,957		NA
Others			NA		NA	195,250	1,011,395	65	2,340,000			Not available	1,583,139		
Total	7,236,000		1,347,620	152,082,250	166,953	2,818,080	15,609,050	197	7,092,000			1,606,746	2,828,925		32,631

3. ICC

Environment DataSheet-3

ICC Textile

Cycle Time = One Year

Processes	Input								Output					
	Raw material		Chemicals		Overheads		Labor		Value able material		Solid waste			Liquid waste
	Kg/ year	Amount	Kg/ year	Amount	Electricity Kwh	Amount	No.of Workers	Pay Rs.	kg/year	Amount	Sold		Open dump	Flow
											kg/ year	Amount	kg	m^3/day
Warping			NA	NA	58176		11							
Sizing			520051		247812		18				8151			
Drawing-In			NA	NA	-		10							
Weaving			NA	NA	5516232		160				29200			
Shearing			NA	NA	53868		5							
Inspection			4900		51720		42							
Packing			NA	NA	96972		10							
Dispatch			NA	NA	-		10							
Other Processes			2893		29820		136							
Total			527,844		6,054,600		402				37,351			

Cycle Time = One Year

Processes	Input									Output					
	Raw material		Chemicals		Water Consumption	Overheads		Labor		Value able material		Solid waste			Liquid waste
	PCS/ year	Amount Rs.	Kg/ year	Amount Rs.	Flow m^3	Electricity Kwh	Amount Rs.	No.of Workers	Avg. pay Rs.	SFt/year	Amount Rs.	Sold kg/ year	Sold Amount Rs.	Open dump kg	Flow m^3
Raw trimming & De dusting	7,236,000	299,112,000	NA		NA	4,768	24,698	2	72,000	7,236,000		387,400	2,400	Nil	NA
Soaking & Tanning			691,514	15,224,283	140,313	662,792	3,433,263	11	396,000			854,280	80,000		NA
Wet Blue			NA		NA	15,734	81,502	11	396,000			Nil	Nil	Nil	NA
Wet machine Operations			NA		NA	570,253	2,953,911	17	612,000			331,913	1,036,258		NA
Re tanning & Dyeing			532,670	60,098,109	26,238	395,744	2,049,954	9	324,000			NA	NA	Nil	32,138
Dry machine Operations			NA		NA	473,139	2,450,860	52	1,872,000			28,310	13,371		NA
Finishing			123,436	76,759,858	402.3	684,208	3,544,197	23	828,000			4,843	4,800		493
Packing			NA		NA	11,442	59,270	7	252,000			120,314 Sft	108,957		NA
Others			NA		NA	195,250	1,011,395	65	2,340,000			Not available	1,583,139		
Total	7,236,000		1,347,620	152,082,250	166,953	2,818,080	15,609,050	197	7,092,000			1,606,746	2,828,925		32,631

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