FACTORY IMPROVEMENT PROGRAMME
FARIDABAD, INDIA

“Funded by the Swiss State Secretariat for Economic Affairs"
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Background to the Factory Improvement Programme

In 2002, the ILO developed the Factory Improvement Programme (FIP) in order to help medium and large companies increase competitiveness, strengthen workplace cooperation and improve working conditions.

The FIP has been successfully implemented, with support from the Swiss State Secretariat for Economic Cooperation and the US Department of Labour, in Sri Lankan export oriented garment factories since 2002 and in medium-large factories from various industry sectors in Vietnam in 2004–07. As a result of lessons learned, the FIP project was modified to suit micro and small enterprises, in particular the auto-component industry in the northern industrial belt in Faridabad, India.

The focus of the Indian FIP was to catalyze these lower tier suppliers to seek productivity and quality improvements needed to increase their competitiveness while simultaneously promoting decent work and enhancing workplace relations.

Two clusters of auto-component manufacturing enterprises participated in the programme; light engineering and electroplating enterprises.

Facts about Faridabad, Haryana

- Founded in 1607, Faridabad is the most populated city in Haryana State with over 2 million people.
- Haryana is a major industrial centre with more than 1,230 large & medium and 80,000 small enterprises.
- Faridabad contributes 51% of the income of Haryana State.
- Tractors, motorcycles, switch gears, refrigerators, shoes and tires are famous industrial products of the city.
- Home to hundreds of large scale companies like Orient fans (Birla Group), JCB India Limited, Nirigemes, Agri Machinery Group (Escorts Limited), Yamaha Motor India Pvt. Ltd., Whirlpool, ABB Ltd., Knorr Bremse India Pvt Ltd.

(FSIA : Faridbad)
Background to the pilot programme in Faridabad

The ILO implemented the programme in Faridabad in cooperation with the Faridabad Small Industries Association (FSIA) who was responsible for the overall implementation of FIP in both clusters. Capacity building and involvement of FSIA officials was an integral part of the programme, so as to ensure sustainability of the key objectives.

FSIA also selected three service providers to work directly with enterprises throughout the programme. These service providers; Apex Quality Management Systems, CHASA Resources Limited and MQV – The World of Quality, are all experienced in enterprise consulting in quality, productivity, ISO certification, etc. The ILO supported the capacity building and in-depth guidance to the programme with the involvement of a CTA, Regional FIP Specialist and the SRO in Delhi.

Characteristics of participating companies

Light engineering cluster

The FIP factories in the light engineering (LE) cluster were small to medium units, primarily owner managed. Most companies employed between 15 and 35 people, and had very flat management structures. Five companies were larger (over 50 employees) with more sophisticated management and infrastructure, with an HR function, quality function etc.
Electroplating cluster

The electroplating (EP) units were all small to micro-enterprises with between five and 35 employees. All the EP units were owner-managed, some with a supervisor and/or quality controller, but most lacking in any management functions other than the owner/Chief Executive Officer.

The FIP methodology

The FIP is implemented over 10-12 months combining formal training seminars followed by in-factory consultancy and support. Joint worker-manager factory improvement teams (FIT) make changes in the key areas of workplace cooperation and relations, quality, productivity, cleaner production, health and safety and human resources.

‘Prior to the FIP we never considered our workers in any activities however, now we have understood that workers are the main aspects in our work and as management we have given this importance.’

General Manager, Mehra Metals, September 2007
FIP programme steps

1. **Factory selection**

Using their membership network, FSIA marketed FIP to local enterprises through promotional meetings and marketing materials. Following initial interest, visits were made to each enterprise to assess the suitability of the company based on criteria that included:

- Size of factory, number of workers
- Scope for improvement
- Commitment and attitude of the CEO/Owner.

Following the visits 16 LE factories and 15 EP factories were selected to join the program. For various reasons, some units dropped out, thus 13 LE and 10 EP factories completed the FIP programme.

All participating factories paid a fee to join the programme. This fee was fixed in the LE sector, and varied for EP factories depending on their size and ability to pay according to the discretion of FSIA. The primary aim of the fee was to build commitment by the enterprises to the programme and the fees also covered 25% of the total costs of FIP implementation.

2. **Orientation of service providers**

Service providers (SPs) are experienced consulting companies and carry out all the logistics of implementation, and provide regular, ongoing support to factories to implement changes. In order to prepare for the programme a full-day orientation workshop was held with the three service providers and the FSIA FIP Coordinator.

The aim of this workshop conducted by the CTA & the consultant was to impart to the SPs the FIP methodology and philosophy as well as to develop a plan for the base-line survey, a schedule for module implementation, provide information about the role of SPs in the training and in-factory follow-up consulting, train SPs on monitoring and reporting requirements and explain the role and responsibilities of Factory Improvement Teams (FIT). The FIT are a worker-manager team established in each factory that is responsible for implementation and monitoring of the FIP in the factory.

3. **Baseline survey**

A baseline survey was conducted in order to assess the status of each enterprise at the beginning of the programme. The survey was conducted via a visit to each participant enterprise to assess the physical and managerial environment and discuss FIP with management and workers. Information relevant to each of the seven modules was collected using a pre-determined assessment questionnaire.
The baseline survey information provides baseline data for effective impact measurement. In addition, it provides information on the situation of the enterprise for the service providers and experts so they can effectively tailor the FIP training and in-factory consulting to suit the needs of the specific companies.

4. CEO meeting / Launch

In November 2006, the programme was officially launched by the FSIA and a half day workshop held with CEOs of participating units. The CEO meeting is important to ensure the commitment and understanding of CEOs/owners in FIP. This had a good impact on the subsequent interventions of FIP, in terms of ensuring cooperation and full involvement of the CEOs in training and in-factory improvements.

5. Module implementation

The seven modules of FIP focus on building worker – management relations by working on improvement projects which simultaneously improve competitiveness factors such as quality and productivity, cleaner production, health and safety, waste reduction and customer satisfaction.

Training Seminars

Each module commenced with a two day training workshop to impart theoretical concepts, best practices and share experiences. The workshops were activity based and interactive.

‘Interacting with other enterprises at training seminars and with experts has greatly helped our company.’

CEO, Jamuna Udyog

Prior to each training workshop, each factory undertakes a pre-designed self-assessment of their current status related to the specific issues of that module. The assessments are then used in the training workshop and the in-factory consultations to identify areas for improvement of a short and long term nature.

Two to three managerial / supervisory persons including the person managing the subject matter (ex: the quality officer/manager for the quality module) participated in the off-site training. In Faridabad the EP and LE clusters had separate training. For certain modules such as cleaner production and health and safety the training was tailored to the specific needs and concerns of the different sectors. Expert consultants were engaged to conduct the training and initial in-
factory consultancy visits (see Annex for details). These experts all had experience with the auto-component manufacturing industry. Experts use ILO developed FIP curriculum, localised to be appropriate to the Indian context and for some modules such as cleaner production, it was tailored specifically to meet the needs of the LE and EP sectors.

**In-Factory Consultations**

The **highlight and success** of the FIP methodology is this phase of intervention in the factory, which consists of three to four visits per module over a period of four to six weeks following the training seminar. The initial two visits are conducted by the service providers and the module expert. The expert meets with the FIT and tours the factory providing advice and recommendations for possible improvements. The recommendations are discussed by the FIT and agreements made in the form of a Factory Improvement Plan listing improvement actions, the individuals responsible and the target date for completion which is then reviewed on a subsequent SP visit.

The final two visits to the factory are made by the respective SP. These visits serve to support the FIT in the implementation of their improvement plan and provide additional advice and training if required. The SPs also follow up progress on the commitments of previous modules, thus ensuring cumulative improvements and continuous development of knowledge and skills of the FIT.

<table>
<thead>
<tr>
<th>Pre - Visit</th>
<th>Visit 1</th>
<th>Visit 2</th>
<th>Visit 3</th>
<th>Visit 4</th>
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<tbody>
<tr>
<td>ILO, Expert and SP Assessment in order to tailor training materials</td>
<td>Expert and senior member of SP, Consulting &amp; Training</td>
<td>SP, Follow-up support</td>
<td>SP, Review of Improvement Plan</td>
<td>SP, Final review of Improvement Plan</td>
</tr>
</tbody>
</table>

To ensure progress, the ILO made review visits to every factory during each module.
6. **Mid-term review**

A review including a CEO meeting was held in May ’07 after the Productivity module to discuss progress, report on results and make recommendations for modifications for the second half of the programme. This resulted in having a combined day of training for both sectors to share views and learning.

7. **National conference**

A national conference organised by the FSIA and supported by the ILO was held in August. It was attended by representatives of all the participating enterprises, some key customers of the participating enterprises, FSIA, Service Providers, key stakeholders from government, industry, local non-government organizations and the ILO. The conference was addressed by the National Union Minister for Labour & Employment, the Chief Minister of Haryana, Ministry secretaries, local government officers, Seco, CTA FIP and other distinguished industrialists. Many participant enterprise ‘Before & After’ images with explanations were on display in the foyer for highlighting improvements made in the programmes.

8. **Final review and factory forum**

The completion of the programme was marked by a final review meeting to report on results. At this forum the representatives of each factory presented their improvements to the representatives of FSIA and the ILO.

**FIP Programme Steps**

1. Factory selection
2. Orientation of service providers
3. Baseline survey
4. CEO Meeting
5. Module Implementation (cont.)
6. Mid Term review
7. Final review
How is FIP different?

Factory improvement teams and joint problem solving

One of the unique success factors is the formation of worker-manager Factory Improvement Teams (FIT). FITs include both workers and management and is the team that works across all modules with representatives attending off-site training, participating in in-factory consulting and discussions and implementing improvements. The FIT strengthens workplace relations in the participating factories, while focusing on issues of productivity and quality and specific problem areas that are strengthened through the other modules.

On average the FITs in the Faridabad clusters had 7 to 8 members each, which equates to 10 to 40% of the total employees in the participating enterprises. Enterprises with female employment had a female member in the Improvement Team. However, leading workmen and opinion leaders were involved in the FITs. As the factories in the EP cluster and some in the LE cluster were small (mostly less than 25 employees), the owner/CEO had direct involvement in the functioning of the FIT.

The establishment of an FIT is the first step in facilitating worker-management dialogue and cooperation and it plays a crucial role in FIP implementation, as it creates a sense of ownership of improvement ideas. The FIT also promotes the methodology of joint problem solving. Workers and management discuss problems and possible solutions and jointly agree on actions to be taken. Although the CEO often must give the final approval, the empowerment of employees to propose solutions promoted greater ownership and involvement facilitating change and realising results. Small visual impacts and improved facilities led to a variety of impacts.

Innovative training combined with consultancy

FIP differs from most enterprise improvement programmes in that it combines formal training with hands-on, in factory consulting over a long term (10-12 months). Training materials are modified for each country’s specific legal and economic situation. Experts are also encouraged to incorporate real-life examples from that country and industry to ensure training is relevant to participants. The materials are very practical, using participatory methodology with games, exercises and case studies. In Faridabad, the training was further modified to make it appropriate for the low education level of many of the participants. Film and other visual tools were used to illustrate key concepts. At the end of module training seminars, role plays were conducted to demonstrate real problems of the factories and how the learning of that module could be applied to solve problems. This also helped all factories to realize that most problems they face are common to other factories.

‘The slow and steady and step by step improvement promoted through module based interventions is very rewarding as well as sustainable, as it builds capacity in the factory teams. This is an effective kind of knowledge transfer and capacity building.’

CEO, Autostart Industries Dec. 2007

‘This program has been a turning point for us as we have always wanted to make much-needed changes at our end, but were somehow lost. This program has given us a well-defined path to bring in the desired changes, which have produced results beyond our expectations.’

CEO, KP Tools Ltd, Dec. 2007
FIP in-factory consulting is also quite different from traditional business consultancy approaches. Rather than the traditional directive approach, the experts and service providers aim to empower Factory Improvement Teams by providing information, advice and training and allowing them to discover solutions themselves. In Faridabad a number of the Factory Improvement Teams used an experimental approach to developing solutions, based on advice from FIP experts. This approach is not only effective, it also ensures greater sustainability as the FIT can continue using the tools provided to collect and analyse data and develop improvement solutions.

**Teaching self-compliance**

Many of the modules focus on teaching enterprises simple systems to collect and analyse information for monitoring and performance improvement. FIP aims to assist enterprises to improve their data collection and analysis in order to be able to continuously improve competitiveness. For many of the factories, this was the first time they had systematically collected information about quality, productivity and labour issues.

In Faridabad, an Enterprise Indicator Card (EIC) was introduced after the productivity module. The EIC included fifteen simple Key Performance Indicators that factories could measure in various different parts of the enterprise.

However, collection of accurate statistical data is very challenging in small enterprises, particularly as most of the enterprises had no prior experience with data collection. Participating factories were able to systematically measure most of these indicators as the programme progressed.

**Results and impact**

**Selected key impacts**

Impacts were witnessed in a range of areas throughout the factories.

**Improved quality and productivity**

Desire to improve quality and productivity is the key concern for management of participating factories, and their main reason for joining FIP. All participating factories experienced some results in this area.

Many enterprises introduced major structural or operational changes, in some cases dramatically re-organizing their production floors in order to reduce time and space required, which in turn has resulted in higher productivity. The investment of time and resources required for these initiatives is testament to the participants’ confidence in a positive impact.
Those factories who were able to collect accurate statistics indicate that the FIP methodology brought tangible changes in their bottom line performance, including:

- Production efficiency increase (by 22%);
- Cycle time reduction (by 40%);
- Lower absenteeism (by 20%);
- Productivity efficiency increase (5-20%);
- Layout improvement resulting in saving of space (15-25%).

For most enterprises collecting and analysing data remained a challenge that they gradually conquered. Improvements made by most enterprises in areas contributing to productivity in its various forms are many, thus the significance of the impact of the programmes.

**Enhanced social dialogue and workplace cooperation**

‘The most important change that has taken place is the change in attitude of workers and taking on responsibilities by supervisory staff thus freeing up the CEO from many routine running /operational tasks.’

*CEO, Poonam Industries, September 2007.*

The change in attitudes towards workers was one of the most significant changes among the participating factories. Many of the participating CEOs at the completion of FIP indicated that they believed that FIP had resulted in a significant attitude change in workers and/or management.

Both workers and management were initially sceptical, however they quickly recognised the link between good workplace cooperation and productivity. Improved workplace communication, trust and better relations between management and workers had directly led to:

- Suggestions from the shop floor that enhance productivity. For example, at KP Tools a worker suggested firing products in the furnace in two tiers rather than one. This has significantly reduced production time and fuel costs.
- Greater worker ownership of production and thus higher quality and productivity levels.
- Reduced absenteeism and lower turnover.

**Promotion of decent work**

Most of the factories have invested in their workplace to improve health, safety and facilities for workers. A number of the improvements directly reduced working hours, while maintaining or improving productivity levels.
Many of the factories initially had quite dangerous workplaces with low awareness of health and safety issues. Simple, low cost changes such as implementing 5S\(^1\), equipping machines with safety guards, ensuring safe wiring, improving lighting and exhaust systems, upgrading bathrooms and canteens and supplying personal protective equipment have made a significant difference for workers in most of the enterprises.

**Workplace cooperation at Poonam Industries**

The management of Poonam Industries embraced the concept of workplace cooperation and invested in their workers by improving welfare facilities, protective equipment and HR management. Daily meetings were introduced to improve communication between workers and management and a suggestion scheme implemented. Simple tools were used to support worker performance such as posting standard operating procedures for each manufacturing process. Workers also took on responsibility for quality problems through a matrix showing operator performance and defects which was discussed at the daily meetings.

Significant bottom-line impacts resulted from these changes:

- Working time has reduced from double 12 hour shifts, to a single shift for the same productivity.
- Absenteeism rates decreased from 24% in March 2007 to only 5.4% by November 2007.
- Labour turnover reduced from 13.04% in May 2007 to 0% by November 2007.
- Quality also improved and the environment of the factory is far more positive

Many of the factories initially had quite dangerous workplaces with low awareness of health and safety issues. Simple, low cost changes such as implementing 5S\(^1\), equipping machines with safety guards, ensuring safe wiring, improving lighting and exhaust systems, upgrading bathrooms and canteens and supplying personal protective equipment have made a significant difference for workers in most of the enterprises.

\(^1\) 5S is a philosophy and a way of organizing and managing the workspace and work flow with the intent to improve efficiency.
Introduction of cleaner production techniques and environment protection

The cleaner production concept was one of the most radical and significant for these industries. The tools and techniques introduced in this module enabled the enterprises to maximise use of resources, minimise waste and reduce pollution and environmental impacts. For example, a number of EP factories changed from acid to alkaline medium, which is both cheaper and reduces harmful fumes in the workplace. Small investments such as converting to compact fluorescent light bulbs (CFL) can dramatically reduce costs in the longer term, as well as reducing the environmental impact of the cluster.

- By switching from single bath rinsing to cascade rinsing, Poonam Industries is saving 12,000 litres of water per month and Ashoka Enterprises is saving 4,000 litres per month.

- By switching from normal water to de-mineralized water, consumption has reduced by 85% and had reduced the consumption of cutting oil from 200 to 50 litres per month at Joneja Bright Steel.

‘Overall, the benefits from the FIP have been fabulous, our attitude and speed of work has changed. The communications barrier with our workers has been broken and is the greatest change that has occurred. Decision making has become much smoother and faster.’

CEO, Jamuna Udyog, Sept. 2007
Minimising waste at SI Engineering products Pty Ltd.

SI Engineering is a sheet metal product manufacturing company with over 40 years experience supplying the automotive industry. It is a family owned and managed company with around 25 employees, and capacity for 50 employees.

Initial situation

SI Engineering was concerned about the amount of scrap metal waste produced. Scrap waste was between 10-25% of the total weight of the materials, and can only be sold for around 30% of the cost price, thus adding significantly to the manufacturing cost. The company had tried a number of techniques to reduce the scrap and re-use end pieces but with limited success.

Key Improvements

The FIT worked closely with experts to learn more about waste minimization, including testing various software packages for more efficient design. The FIT analyses all the different components produced for each thickness of metal and grouped them in order to design the most efficient way to use the sheet metal. Various trials were conducted by the FIT and customers were consulted to develop the final layout and tool design. The new process allowed for more efficient production from the original sheets, as well as manufacture of a number of products from the end-pieces.

Results

The improvements resulted in an almost 50% overall reduction in waste. Data from three specific components are:

- Component SM-SHT 112 – scrap reduced from 15-20% to 4%. Manufacturing cost reduced by 25%.
- SR Rings 1260040 – now produced from end pieces, reducing scrap from 50% to 10%. Manufacturing cost reduced by 25%
- VR 243 – now produced from end pieces, reducing scrap from 10-12% to 5-6%. Manufacturing cost reduced by 25%.

Overall programme impact

Almost all the participating enterprises benefited and improved their basic circumstances of production compared to December 2006. Complete ‘transformation’ has been witnessed in two EP enterprises. In addition, recognition of the need for systemisation and worker recognition has been realised by many enterprises and had some impact on operations. At least ten factories in the LE sector made significant changes whilst four enterprises were ‘transformed’ and have moved to a higher level of operations. (Source of diagram: CTA’s Final Report 2008).
Impacts beyond the individual enterprises

The impacts of the Faridabad FIPs have been felt beyond the participating enterprises.

- Based on the success of the pilot round, the Government of India through the Ministry of Micro, Small & Medium Enterprises plans to combine the FIP concept with their Lean Manufacturing Competitiveness Programme to 700 manufacturing clusters over a 5 year period (as they’ve found FIP to be a result generating programme).
- Several of the companies have introduced FIP methodology and tools at their sister units.
- Units surrounding the participant units have also become cleaner and have copied some learning practiced by the participant units.
- Following the participation of the Chief Minister of Haryana at the national conference on ‘Enhancing competitiveness through improved labour practices’ in August 2007 and in response to a request from FSIA, the government has commenced an improvement programme for the infrastructure of roads in the previously neglected EP cluster in sector 58 in Faridabad.
- The State Labour Minister has pledged to make Faridabad a ‘Child Labour Free’ district with the ILO initiative from the add-on Child Labour & HIV awareness programmes conducted by the FSIA with wide coverage and participation.
- The Central Government of India is well aware of the FIP and has on numerous occasions invited the President of FSIA to present about FIP at various forums. Local and foreign delegations have visited the Faridabad FIP units.

Lessons Learned

FIP for small and medium enterprises

Some changes had to be made to the implementation of FIP for smaller and micro factories. In these factories, staffing is small and management structures are very flat and the owner/CEO tends to be responsible for a wide range of functions in the factory including personnel and human resources, quality control, marketing, etc. The FIP modular approach is appropriate for such enterprises as it builds capacity within the factory and provides a step-by-step approach to deal with different areas of improvement in the factory. However, a number of enterprises commented that they would like more time to absorb the information provided by experts, and to work on their improvements. The amount of content in the training and consultancies can be difficult for small and micro enterprises to absorb in a short period of time.

Success builds motivation and success

Many of these factories had already participated in different ‘improvement’ programs in the past. Most of the enterprises were already ISO certified, however no genuine improvements had been made during that certification process. As a result, there was quite a high level of scepticism about certification and even enterprise development programs. FIP was able to overcome this initial resistance through ensuring ‘quick wins’. In module one, simple techniques such as 5S and daily worker-supervisor meetings bring instant, visible changes to the factory and build motivation throughout the factory. These SMEs had limited resources to invest in improvements, however a number of them did invest in more expensive improvements once they could see the benefits of the simple changes.
Improving quality through data management at Jamuna Udyog

Jamuna Udyog makes injection moulded plastic lights for the automobile industry. Before joining FIP, the factory had very high rejection and rework rates, around 6-7%. Significant machine downtime and tool downtime was also a problem as locating and setting up the moulds was taking around 100-120 minutes.

Experts helped the Factory Improvement Team to analyze the customer complaints and improve data collection and analysis. The mould-changing system was also studied to identify ways of reducing the downtime. As a result of the analysis, the factory invested in a ‘quick release’ clamping system to replace the old manual system and semi-automate the process. The mould storage section was also totally redesigned and organized to make it easier for operators to locate the appropriate moulds. New cooling pipes were also installed in a machine to improve its performance.

As a result of these and other investments, the productivity of the factory has increased; the mould changing time has reduced to 30-40 minutes and the cycle time of the machine operation reduced by 42%. Quality defects have also reduced from 6.8% to 0.95%.

Worker involvement is effective even in the most difficult situations

The EP and LE enterprises involved in the FIP Faridabad employ large numbers of workers from surrounding provinces. As a result, they experience high turnover and seasonal absenteeism. Many of the workers were illiterate or had very low education levels, and labour unions are not active in these sectors. Despite this, the FIP philosophy of worker involvement was effective in helping factories to improve quality and productivity as well as addressing these labour issues.

‘By involving our workers in a suggestion scheme and open house discussions we have been able to reduce the rejection rate both in house and at the customer's end by approximately 1.2 %. The deliveries have also increased by a remarkable 8%.’

CEO, KP Tools, Dec. 2007

A number of the CEOs were surprised about the impact of improved workplace communications. Greater commitment by workers led to better productivity levels and more concern for quality of the product. Workers, even those with limited education and literacy, were able to come up with innovative solutions to production problems. The visual techniques encouraged by FIP, such as using ‘before’ and ‘after’
photographs to highlight problem areas in the factory and improvements, are particularly appropriate and can be used by any level of worker or manager.

**FIP Impact on Absenteeism**

<table>
<thead>
<tr>
<th>Factory Name</th>
<th>Initial Rate (Date recorded)</th>
<th>Final Rate (Date recorded)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C-Das Chemicals Pty Ltd</td>
<td>7.89% (April)</td>
<td>5.50% (Oct.)</td>
</tr>
<tr>
<td>Ashoka Enterprises</td>
<td>17.65% (June)</td>
<td>7.10% (Nov.)</td>
</tr>
<tr>
<td>Bhagwati Udyog</td>
<td>33.33% (May)</td>
<td>13.60% (Nov.)</td>
</tr>
<tr>
<td>Poonam Industries</td>
<td>24.00% (March)</td>
<td>6.15% (Oct.)</td>
</tr>
</tbody>
</table>

**Sources for preparation of this report:**

**Reviews and Reports of ILO**

Internal FIP Reports and data including:

- FIP Baseline Surveys (Conducted by Service Providers)
- Service Provider reports from APEX, CHASA & MQV
- FSIA - Module end reports
- Data from Enterprise Indicators cards
- Consultant’s reports

Compiled by Caitlin Wyndham, FIP Project Consultant, Vietnam and reviewed by Kanagarani Selvakumar, ILO – FIP, Jayantha R. de Silva, Consultant, ILO-FIP.
Annex

Factories selected for FIP Faridabad

<table>
<thead>
<tr>
<th>LE Cluster</th>
<th>EP Cluster</th>
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<tbody>
<tr>
<td>1 Autostart India Private Ltd.</td>
<td>Ashoka Enterprises</td>
</tr>
<tr>
<td>2 C-Das Chemicals Pvt. Ltd</td>
<td>Balaji Metals*</td>
</tr>
<tr>
<td>3 Divya Engineers</td>
<td>Bhagwati Udyog</td>
</tr>
<tr>
<td>4 Faridabad Plastics*</td>
<td>Gaurav Enterprises*</td>
</tr>
<tr>
<td>5 Friends Auto*</td>
<td>Hans Industries*</td>
</tr>
<tr>
<td>6 GB Industries</td>
<td>Keasar Engineers</td>
</tr>
<tr>
<td>7 Jairaj Ancillaries Pvt. Ltd</td>
<td>Manoj Enterprises*</td>
</tr>
<tr>
<td>8 Jamuna Udyog</td>
<td>Mayur International*</td>
</tr>
<tr>
<td>9 Joneja Bright Steel</td>
<td>Modern Coating Industries</td>
</tr>
<tr>
<td>10 KP Tools</td>
<td>New Age Electroplaters</td>
</tr>
<tr>
<td>11 Mehra Metal Components</td>
<td>Poonam Industries</td>
</tr>
<tr>
<td>12 RA Engineers*</td>
<td>Quick Metal Finishers</td>
</tr>
<tr>
<td>13 Raga Engineers</td>
<td>Sansar Industries</td>
</tr>
<tr>
<td>14 SI Engineers</td>
<td>Shiv Shakti Industries</td>
</tr>
<tr>
<td>15 Spark Engineering Pvt. Ltd</td>
<td>Techno Coaters</td>
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<tr>
<td>16 Turnwell Components (P) Ltd.</td>
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</tbody>
</table>

These units marked (*) voluntarily withdrew from the program for various reasons, primarily related to lack of time to participate. The final number of participants in FIP Faridabad was 13 Light Engineering units and 10 Electroplating units.

FIP Faridabad Module Experts

<table>
<thead>
<tr>
<th>Module</th>
<th>Expert In-charge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace Cooperation</td>
<td>Mr. Gihan Talgodapitiya, ILO Expert Principal Consultant GTA (Singapore / Sri Lanka).</td>
</tr>
<tr>
<td>Quality</td>
<td>Mr. K K Muthu, Independent Consultant – Delhi.</td>
</tr>
<tr>
<td>Productivity</td>
<td>Mr. S A Khader, SAK Consultants &amp; Associates – Delhi.</td>
</tr>
<tr>
<td>Cleaner Production</td>
<td>Mr. S Kalathiappan, National Productivity Council (NPC)/ National Cleaner Production Centre (NCPC), Mr. Rajiv Garg, NPC/NCPC – Delhi.</td>
</tr>
<tr>
<td>Health &amp; Safety</td>
<td>Mr. Ashok Dhar, Group Head – Technology Management Unit, NPC – Delhi.</td>
</tr>
<tr>
<td>Workplace Relations</td>
<td>Mr. Gotabaya Dasanayaka, Senior Specialist on Employers' Activities (ILO-SRO – Delhi), Mr. Jayantha R de Silva, ILO Expert / Regional Specialist (FIP).</td>
</tr>
<tr>
<td>Human Resources</td>
<td>Mr. Subhash Jagota, MD - Global Business Solutions – Delhi.</td>
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