



Integrated Technology Upgradation and Management Programme (UPTECH)*

Small Scale Industries contribute significantly (to the extent of 40%) in the industrial production of India. They produce a variety of products ranging from traditional to hi-tech. Although the volume of production from Small Scale Industries is quite large, the quality of the product, productivity, energy and environmental issues have always been a concern. These concerns have accentuated with the opening of the economy where productivity and quality play a major role for the survival of the Small Scale Industries. In this background, the Ministry of SSI, through the Office of Development Commissioner (SSI) took a timely step by launching the scheme “Integrated Technology Upgradation and Management Programme’ (UPTECH) in 1998, which has now been renamed as “Small Industry Cluster Development Programme”. The Scheme applies to any Cluster of industries where there is a commonality in the method of production, quality control and testing, energy conservation, pollution control etc. among the units of the Cluster. While taking care of the modernization and technological needs of the Cluster, it covers a comprehensive range of issues related to technology upgradation, improvement of productivity, energy conservation, environment friendliness, product diversification, skill upgradation and market development.

Scope of the Scheme

- ❖ Exclusively for a Cluster of industries



- ❖ To carry out the technology status and needs studies of identified clusters
- ❖ To scout for and identify appropriate technologies and their providers
- ❖ To facilitate contract/need based research, if any, required to adapt the available technology to the specific needs of the end users
- ❖ To promote and facilitate the demonstration of technologies to the target groups of small enterprises
- ❖ To promote and facilitate the delivery of the technology from its producer to the recipient user
- ❖ To promote the assimilation and diffusion of the identified technology across the cluster of small enterprises.

Purpose for which the Financial Support is available

- ❖ Conducting diagnostic study of the Cluster
- ❖ Carrying out industries related R&D, if needed
- ❖ Setting up of new technology demonstration plant
- ❖ Setting up of a Common Facility Centre, if required
- ❖ Training of users
- ❖ Seminars, workshops, study visits for quick dissemination of technology among the industries of the Cluster.

Amount of Financial Support

The amount of financial support is not fixed but varies from project to project.

Progress

Eight Projects of diverse products spread all over the country were taken up initially under the UPTECH Programme. These cover products such as, Tiles, Bulk Drugs and Formulations, Neem-Based Products, Foundry and Forging Industries, Fruit Processing Industry, Pottery Industry, Hydrogenated Oils, etc. Till date, 25 projects have been sanctioned under UPTECH (including four sectoral National Programmes).

* Now renamed as “Small Industry Cluster Development Programme”.



Development of Pottery Industry Cluster, Khurja Under UPTECH *A Case Study of achievements*

The Diagnostic Study for this Cluster was entrusted by the Ministry of Small Scale Industries to TATA Energy Research Institute (TERI).

The Study suggested modifications in the areas related to raw material preparations, compounding body mixes, process control in grinding, pug milling, shaping of article by Jigger-Jolly and by casting, glaze preparation and energy conservation measures at the furnace site. Three measures for energy conservation were identified for quick results, namely, reduction in dead weight, replacement of Saggar by Decker plate in tunnel furnace and the installation of recuperator in shuttle furnace. Subsequently, the Implementation Committee of UPTECH held a meeting with the Association of Pottery Manufacturers at Khurja to ascertain the acceptability of the suggested measures and also to identify the pioneering unit for demonstration in consultation with the Association. Khurja Pottery Association

was appointed as the agency for implementing the above measures. Central Glass & Ceramics Research Institute (CGCRI), Khurja was designated as the Monitoring Agency for the Project. Post implementation evaluation results in the cluster indicate that replacement of saggar by decker plates has resulted into saving of 13.24 litres of fuel per metric tonne of pottery products, increase in production by 4900 Kg./day and improvement in productivity to the tune of 35%. The pay back period for the investment is 80 days. Replacement of conventional Kiln car with low thermal mass Kiln car has resulted into 6.4% saving of fuel per firing of the Kiln amounting to a saving of Rs. 5750/- for each firing. Installation of Auto on / off burner in another unit has been found to have resulted into saving of 5% in fuel cost. It is estimated that adoption of all the three technology upgradation, measures taken together will lead to a saving of about 47% for a pottery unit.

