

Six lakh ideas¹

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Micro, small and medium scale enterprises (MSME) are hit hard by the global recession. Large numbers of workers have been laid off. A sector providing so much employment cannot be left to fend for itself; it needs a major transformation, led by entrepreneurs and policy-makers. There are four different levels for transformative policy: stimulating demand; upgrading technology and skills; promoting innovations for developing new products and services; and forging new partnerships between entrepreneurs and R&D institutions, grassroots innovation networks and technology students.

On the first, stimulating demand: distributed manufacturing, pooling the underutilised capacity of those entrepreneurs with lower costs, can help in becoming competitive. Create portals so that a large number of industries can share capacities. Students from engineering and management colleges can participate in a countrywide campaign to identify redundancy, inappropriate shopfloor design, sourcing procedures, waste re-utilisation processes, obsolete technologies, etc. Treating clusters as ecosystems: one unit's waste becomes another's input, in industrial symbiosis. Energy saving inevitably leads to higher competitiveness.

Upgrading technologies and skills requires many new initiatives, creating capacities and institutional arrangements to help innovation. For instance, in the recent Shodh Yatra in Champaran, I met Birendara Kumar Sinha who has extracted about 12 kg of carbon from one engine of about 12-15 HP in eight to ten months. Carbon credits for attaching pollution control devices to all diesel engines can aid the economy and the environment.

India has more than six lakh technology students. Each does a final-year project. The fate of these projects is unknown. Neither are MSME problems posed to them nor are good projects used by industry. Similar is the fate of thousands of grassroots innovations developed in the informal sector and pooled by an initiative with which I am involved, the Honey Bee Network at the National Innovation Foundation. What we need is a "Techpedia", a portal of students' technology projects accessible to industry. Already volunteers from SVNIT, Surat, have collected more than 4500 projects and contacted around 200 colleges.

To stimulate innovation, one has to take several bold measures. To extend the MSME ministry's current initiatives, one should aim at creating a web presence for at least ten million MSMEs in the next 12-15 months to create demand for Indian MSMEs worldwide. Since many entrepreneurs, particularly in small towns and villages, have minimal Internet access, every rural or small-town petrol pump can become a business centre for agri-business and other enterprises. Financial and business analysts can offer

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their support at these poly-business centres. The Institute of Chartered Accountants of India wants to extend its role in this area.

Millions of industrial workers returning to rural areas can be converted from a crisis to an opportunity by using their skills and industrial attitudes (in some cases, by re-skilling them) to transform the agri- and rural business sector. Similarly, massive rural sanitation and health education campaigns can be launched on the shoulders of re-trained and re-tooled workers. Large numbers of new production-cum-training ITIs can be opened in rural areas, where many of the workers can be trainers.

Many children withdrawn from urban schools may find it difficult to adjust to rural schools. The capacity of Navodaya Vidyalayas may be expanded; industrial workers and supervisors can offer vocational education in the schools all over. Thus, the period of crisis can be used for creating the groundwork for the next round of distributed economic growth.

Creating new partnerships with both informal and formal sections of the R&D sector is very important for boosting the innovation potential of MSMEs. Some of the urgent steps required are:

- (a) a technology audit of MSMEs by formal R&D institutions,
- (b) creating a national innovation fund for MSMEs, dedicated to replacing age-old materials and production processes,
- (c) awards for innovations by and for MSMEs, particularly by engaging the youth as attempted by the Karnataka Council of Science and Technology and the Indian Institute of Science and
- (d) dedicated R&D centres for various industrial clusters

This is a painful time for both MSMEs and workers being laid off. A non-partisan approach is required; let major political parties agree on a revitalisation plan.

Millions of workers and small entrepreneurs will soon evaluate their vision — by their votes.

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