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Quarterly Newsletter from National Informatics Centre

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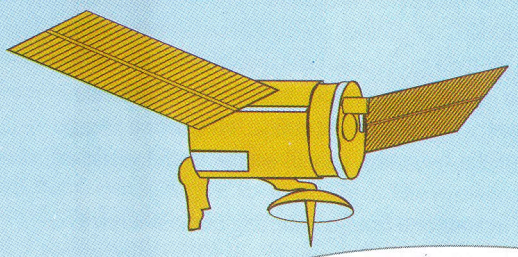
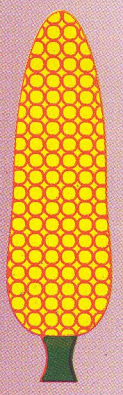
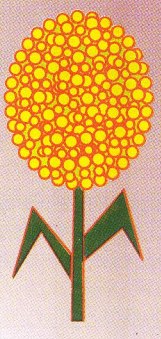
# Informatics

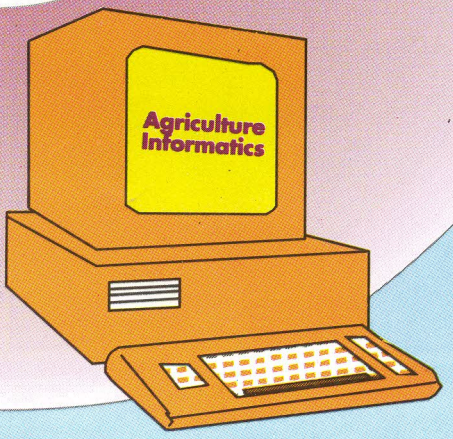
NICNET



## Informatics for Sustainable Agricultural Development








### THIS ISSUE BRINGS TO YOU

**AROUND THE NIC WORLD** Page - 3
The news section

**COVER STORY** Page - 4
Informatics for Sustainable Agri. Development

**PRODUCTS/SERVICES** Page - 6
How they are being utilized

**PROJECTS** Page - 7
A glimpse of some of NIC's projects

**IN THE LIMELIGHT** Page - 8
A profile of NIC Gurdaspur District Centre

• • • *and all our regular columns.*

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EDITOR'S NOTE

# An Agent of Cultural Change

In this quarter, two very significant events --- the signing of MoUs for computerization of District Industry Centres; and the Conference on Informatics for Sustainable Agricultural Development, 1995 --- have again highlighted the fact that informatics is fast gaining the status of a culture proper in the Country.

Culture is defined as *the way of living* of a community, and the way of living of a vast majority of people has definitely undergone a radical change in the last two decades. It all began in a very inconspicuous way nearly a quarter of a century ago. Introduction of computers in workplaces led to a change in perceptions. People who were stuck with workloads far greater than they could ever hope to manage through manual means, realized that Information Technology was the answer to all their problems. Speed and efficiency being the result of computerization, its effect was also felt and appreciated by the common man. It has been smooth sailing since. Thereafter, satellite-based computer-communication system entered the scene to weave the whole Country into one single entity. Information was no more the preserve of the very privileged. Decision makers and planners at every level of the hierarchy gained access to the world of information. Planning and decision making achieved new dimensions.

It was a change the Country could not have done without. A change from the culture of tedious and time-consuming manual work to a culture of speed and efficiency ---the culture of informatics.

As the premier IT organization of the Country, NIC is proud of the role it has played in bringing about this cultural change.

Rubaiyat Ali

## PHOTOTALK

**The Southern Regional Centre of NIC located in the BRR Complex, Tank Bund Road, Hyderabad.**

## "Quotable Quotes"

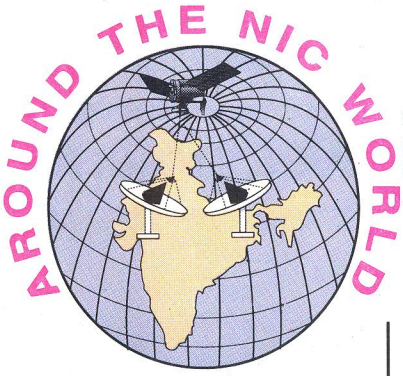
*Modernization is an essential component for sustained growth today. Information Technology gives a viable route for creating meaningful database on Small Scale Industries Sector. Fortunately, we have in the Country, NICNET which has its nodes up to the district level; and NICNET as a system provides answers to the problems of decentralized data collection and processing.*

●●● **Mr N Mohanty, Secretary, Small Scale Industries and Agro & Rural Industries**, in his welcome address at the DCSSI-NIC Workshop on Computerization of District Industries Centres organized at the Vigyan Bhawan, New Delhi on June 15, 1995.

*We will see a demand expansion. It is after three years that the IT industry can applaud the Finance Minister.*

●●● **Mr Gopal Srinivasan, MD, TVS Electronics** Ltd, on the impact of economic liberalization on the IT Industry.

**The correct abbreviation for CRISP is Computerized Rural Information Systems Project. It was inadvertantly printed wrong in the April, 1995 issue of Informatics. --- Editor.**




## NICNET SERVICE FOR MPs' LIBRARY

**From our Local Correspondent**

**New Delhi:** The National Informatics Centre will provide NICNET connectivity to a sophisticated library for Members of Parliament, coming up at Talkatora Road, New Delhi.

NICNET connectivity will enable Parliamentarians to access libraries across the world. With NICNET, they will be able to tap information from the UN Library and other major libraries in countries such as the UK, USA, France, Austria, Bulgaria and Romania.

## WORKSHOP FOR DIC COMPUTERIZATION

**From our Local Correspondent**

**New Delhi:** A one-day Workshop on Computerization of District Industry Centres, organized by NIC in collaboration with the Department of Small Scale Industries on June 15, 1995, concluded with the signing of MoUs between NIC and State Governments concerned for the computerization of 92 leading District Industry Centres.

**(For details, refer Pg-7)**

## ISDA-95

**From our Local Correspondent**

**New Delhi:** A two-day Conference on Informatics for Sustainable Agricultural Development, 1995 (ISDA-95) was organized by NIC in collaboration with the Ministry of Agriculture, Ministry of Rural Areas and Employment and Department of Fertilizers on May 24 & 25, 1995, at the Vigyan Bhawan, New Delhi.

**(For details, refer Pg-4)**

# FOREST NETWORK ON THE CARDS

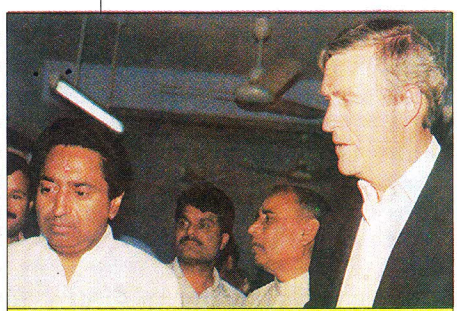
**From our Local Correspondent**

**New Delhi:** The National Informatics Centre has taken up the responsibility of setting up a 'Forest Network' for the Indian Council of Forest Research and Education (ICFRE).

To facilitate the exchange of information pertaining to forest research, all major forest institutes under ICFRE will be interconnected through NICNET.

The project also envisages the establishment of a centralized Forest Library Database on the network so that it can be provided to all research institutes and agencies both in India and abroad.

NICNET services were demonstrated to Mr Kamal Nath, Minister of State for Environment and Forest and Mr Tim Writh, US Under Secretary at the inaugural function of the National Forest Library Information Centre, organized by the World Health Organization on April 10, 1995 at Dehradun.



**NICNET Services Demonstration for Mr Kamal Nath (Middle) and Mr Tim Writh (Left)**

# NIC TO COLLABORATE IN REDESIGNING MARUTI CARS

**From our Local Correspondent**

**New Delhi :** NIC is on the verge of signing an MoU with the Maruti Udyog Limited (MUL) to collaborate in the redesigning of MUL's passenger cars for the European market.

Once the MoU is through, NIC will be setting up a pilot project for the automation of MUL's entire re-engineering process. This could pave the way for the setting up of a full-fledged Computer Aided Design (CAD) facility at MUL's manufacturing base at Gurgaon. The company is planning to increase its production to 70,000 vehicles every year and would find such a design centre very handy.

MUL plans to redesign its 800cc, 1000cc and Zen models, besides designing a new car, to suit the requirements of its European clients.

Earlier, NIC had successfully designed a new crankshaft and a leafspring for the Maruti 800. NIC is equipped with state-of-the-art CAD facilities.

# TEHSIL-LEVEL COMPUTERIZATION MOOTED

**From our Rajasthan Correspondent**

**Rajasthan:** The Nehru Yuva Kendra (NYK), Tonk Distric organized a one-day workshop on the occasion of the death anniversary of Pundit Jawaharlal Nehru on May 27, 1995. The workshop deliberated on a wide range of development issues with particular emphasis on informatics.

The workshop was inaugurated by Ms Saroj Gurjar, Zilla Pramukh of Tonk. The inaugural function was presided over by Mr BK Pandaya, CEO, Zilla Parishad.

**Workshop in progress**

The following recommendations were forwarded for the promotion of information technology:

- Extension of NICNET to Tehsil level for the benefit of the common man. All the participants appreciated the work done by the NIC Tonk District Centre, but were of the view that availability of NIC services at the tehsil level would make them more accessible for the rural youth.
- Linking NYK with NICNET for effective data collection and survey.
- Development of a suitable village-level database.
- Computerization of the Land Records System of the District.

# Informatics for Sustainable Agricultural Development

***On May 24 and 25, 1995, the Vigyan Bhawan at New Delhi was witness to the coming together of two scientific communities dedicated to interests seemingly unrelated: agriculture and informatics.***

***The conference on Informatics for Sustainable Agricultural Development, 1995 (ISDA-95) in which Agricultural Scientists and Informatics Professionals met to discuss ways and means to promote agriculture through the use of informatics, marked a milestone in the Country's endeavour to break away from traditions and take to modern technology in search of development.***

***The two-day conference organized by NIC in collaboration with the Ministry of Agriculture, Ministry of Rural Areas and Employment and Department of Fertilizers, paved the way for practical application of informatics services for the cause of sustainable agricultural development.***

Dr Bal Ram Jakhar delivering the valedictory address

The 1991 Census records 190 million out of the total population of the Country as farmers and agriculturists. This accounts for 23 per cent of the total population and drives home the importance of agriculture in shaping the economy of the Country. We also have to keep in mind that this 23 per cent of the population has to be able to produce enough not only to feed the entire Country but also to earn revenue through exports. Since independence, there has been considerable growth in the agriculture sector. But the basic question is: has this growth been sustainable? In five decades, we have tripled our grain production but caused waterlogging, soil degradation, nutrient deficiency and over population. These in turn have led to over exploitation of land and water resources, and the environment. Since today's welfare cannot be at the cost of tomorrow's, we are now at a stage where we have to reconsider our entire development strategy. This brings us directly to the issue of sustainability.

## *Sustainability in Development*

Sustainable Development implies a model of development in which both the present and the future are taken into consideration. Sustainability provides development the foresight required to spill over to the future without any additional effort. It is one-time planning without any stop-gap arrangements. Planning for Sustainable Development in Agriculture has to take three basic tenets into consideration:

- Temporal sustainability demands careful maintenance of the delicate balance between productivity parameters and conservation practices.
- Environment sustainability implies development strategies which are eco-friendly, energy efficient and waste minimal.
- Economic models should optimize growth subject to ecological, economic, social and cultural constraints. They cannot assume unconstrained maxima. In the face of economic liberalization, which is essential and inevitable, this brings in the concept of sustainable liberalization.

All these require meticulous planning. Planning in turn requires adequate, accurate and timely information. And the onus of providing adequate, accurate and timely information falls squarely on the shoulders of informatics professionals. Thus the Conference on Informatics for Sustainable Agricultural Development (ISDA-95) where agricultural scientists and informatics professionals came together to carve out a new path of sustainable development.

## *Informatics for Agriculture*

ISDA-95 aimed at creating awareness and promoting the spread of informatics for agricultural research, production and extension in order to facilitate harmonious development of land, water, vegetation, livestock and other resources of the Country, in a sustainable and eco-friendly manner , at the grass-root level.

The objectives of ISDA-95 included:

- Creation of awareness about the potential use of informatics in agricultural development.
- Making the participants understand the informatics needs of Users from the Agriculture Sector.
- Bringing together various service pro-

A session of ISDA-95 in progress

viders including networks and value-added information providers, and data vendors.

❒ Promoting greater use of informatics in the Agriculture Sector.

The two-day conference consisting of 16 subject sessions, preceded by a plenary session and followed by a valedictory session, was attended by more than 600 delegates from all over the Country. The 16 subject sessions were on Agricultural Research; Agrometeorology; Crop Production and Protection; Agricultural Engineering and Food Processing; Soil and Water Management; Fertilizers and Manures; Extension and Transfer of Technology; Dairying, Livestock and Animal Husbandry; Fisheries; Environment and Forest; Irrigation and Drainage System; Watershed Development; Wastelands Development; Agricultural Marketing; Credit and Co-operation; and Rural Development and Planning. A national level task force on each of the theme covered in the Conference is being set up by NIC to ensure that all the recommendations are implemented at the earliest possible.

## *Conforming to National Policy*

In his valedictory address on May 25, 1995, Dr Bal Ram Jakhar, the Union Agriculture Minister, spoke at length on the impact of economic liberalization on agricultural production and the relevance of informatics in this context. "The new economic reforms and liberalized trade policy will require the farmers to take decisions as to what to produce in the context of global and domestic trade environment. Some of the progressive farmers may like to adjust their production plans on the basis of market conditions. For this purpose, latest and updated information would be of great use to the farmers. Informatics and its application could help in transformation of Indian agriculture and help in its rapid development", he opined.

Speaking on the Government's efforts to usher in sustainability and eco-friendliness in agricultural development, he cited examples which made it very clear that there has been a major policy re-orientation to make way for sustainability. The Agriculture Ministry has implemented a number of projects in which environmental aspects are a major consideration, and the Minister was of the view that the success of these programmes would depend to a large extent on their effective monitoring at the field level. "This", Dr Jakhar pointed out, " is an area where the National Informatics Centre could provide major support. In fact, about 1,700 micro watersheds from 21 States have already initiated reporting, through NICNET, progress of the project on a quarterly basis. It would be useful to develop similar monitoring system in respect to other major programmes also."

Specifying NIC's role in sustainable agricultural development, Dr Jakhar said that since agriculture is a very complex and huge sector, and processing of complex inter-sectorial linkages and large masses of data on various aspects is a must in policy formulation, only the best available tools and techniques of informatics could provide possible policy solutions. Computers and computerization has already progressed rapidly in the Agriculture Sector and it is NIC's responsibility to strengthen its efforts to provide its services to professionals working in the field of agriculture, he said.

**(For further information, please contact : Agricultural Informatics Division, National Informatics Centre, A-Block, CGO Complex, Lodhi Road, New Delhi : 100 003.Ph: +91-11-4362790; Fax: +91-11-4364873; Tlx: 031-61274 NICS IN; E-mail: moni@hub.nic.in)**

## Gist of ISDA-95 Recommendations

Conceived by the amalgamation of two fields of science, one as old as civilization itself and the other relatively newborn but deemed as the most viable promise of the future, the recommendations of ISDA-95 come as a breathe of fresh air for stagnating development. The ISDA-95 recommendations have been classified into three broad categories. Gists of the more significant recommendations within these categories are:

❒ **IT Infrastructural Requirements**

- The Informatics Infrastructure in the Agriculture Sector needs to be modernized through the introduction of computers and computer-communication networks.
- Existing computer-communication networks such as NICNET, INET and ERNET should be utilized to the maximum extent possible.
- Sharing of library resources over networks, and utilization of library resources already available in magnetic form, have to be encouraged.
- The culture of utilizing CDROM databases should be promoted.
- An inventory of software developed in various agricultural institutions is to be made, and sharing of software between institutions structured by creating a clearing house on the computer communication network.
- Agricultural Extension Officers and Field Officers are to be encouraged to use palm-top computers.
- Networking of various institutes should be carried out through E-Mail and Remote Database Access.

❒ **Evaluation, Monitoring and Policy**

- Out of the annual budget of about Rs 2,500 crore for agriculture, at least three per cent is to be spent on informatics and network support during the current year and, within the next two years, this has to be enhanced to six per cent.
- Integrated Information Systems have to be developed for the 16 sub-areas identified.
- IT-based modernization targets should be fixed for various organizations and extension centres and the progress of implementation should be strictly monitored by a committee of specialists.
- Agriculture being a State Subject, the State Machinery has to be geared up for substantive induction of informatics and modernization in the agricultural sector.
- An integrated database is to be developed in each state for effective inter-ministerial co-ordination and management to synergize various sustainable development efforts.

❒ **Manpower and Training**

- IT-based manpower training for all agricultural extension officers should be taken up on a crash-programme basis. All field-level officers should be trained on palm-top computers.
- NIC will take up the responsibility of training of at least 3,000 personnel on network-based creation of database and retrieval of information from databases, during the period 1995-96.
- Suitable course on Informatics, with hands-on training, should be made compulsory in the curriculum of all Agriculture University courses leading to diplomas or degrees.

## On-line Reservation System for Chartered Flights

From our Andaman & Nicobar Correspondent

The Andaman and Nicobar UT Unit of NIC successfully developed and implemented an on-line computerized reservation system for chartered flights to and from the Islands.

The three ships which serve the Islands are not sufficient to meet the tourist demand during the rush holiday seasons. The UT Administration has to charter flights to meet the requirement.

Salient features of the on-line Reservation System include:

- Advanced reservation of passages
- Waiting List management
- Quota management
- Cancellation/modification of reservation
- Automatic ticketing with accounting
- Enquiries

The software incorporates multi-user features to facilitate simultaneous booking, cancellation, etc. Each option is provided security to avoid unauthorized usage.

## Tele-Informatics finds wide Application

From our Local Correspondent

After the successful development and implementation of a low-cost indigenous PC-based Teletext Broadcast System for the Indian Railways, Indian Airlines and Lok Sabha and Doordarshan, the Tele-informatics Development and Promotion Programme of NIC has moved on to new areas of application. Its achievements during 1994-95 include:

- Designing the Current Road Accident Information System for the Delhi Police and its subsequent incorporation in the Teletext Services on Doordarshan, on an experimental basis.

- Development and fabrication of a low-cost satellite teletext receiver in collaboration with M/s ET&T. Teletext receivers were installed and made operational at Bombay, Madras and Hyderabad.

- Implementation of a NICNET-based 1994 Assembly Election Results System for Doordarshan Centres at Delhi, Bombay and Hyderabad, and for the Press Information Bureau (PIB).

- Setting up of a Local Area Network (LAN) in the Doordarshan newsroom to facilitate collection of news agency input and speeding up script preparation.

- Development of a closed-circuit Teletext Display System for seat allotment under the All India Quota in medical colleges, for the Directorate of General Health Services.

- Successful demonstration of NIC Satellite Data Broadcast Facility using Receive Only VSAT at INFOCOM-94, Bombay.

NIC plans to extend teletext facilities to information providers and vendors. The same online information will be made available at the NIC server through data links, enabling access of the online teletext information using VSAT and NICNET connectivity, by end-Users.

## Computers streamline Central Excise Collectorate

From our Uttar Pradesh Correspondent

The advent of computers in the Central Excise Collectorate, Allahabad, has increased efficiency and speed and reduced monotony in work to a great extent. Computers were installed in the Collectorate on March 20, 1993, with software as well as hardware support from NIC. In a very short span of time, NIC personnel posted in the Collectorate designed and developed information systems and software packages to facilitate efficient monitoring of important items of work.

Apart from implementing SERMON (System for Excise Revenue and Monitoring) ---the standard NIC software package specifically developed for Central Excise Computerization --- other in-house projects were undertaken under the guidance of the Excise Collectors Mr VP Singh and Mr KM Tewari to remove bottlenecks in the decision-making process and thereby speed up the flow of information. These projects resulted in the development and implementation of information systems which have served to streamline the functioning of the Collectorate. Notable among these are:

### *Revenue Monitoring System*

This System provides a wide range of information on revenues, to the Collector. The Collector is fed information on revenue realization, and provided with comparative studies between actual revenue realized with perorate fixed for the year and revenue realized in the previous five years. The data can be analysed separately for revenue earned on commodities and factories for each division of the Collectorate.

### *Appeal Monitoring System*

This System helps the Collector (Appeals) in monitoring the status of appeal cases. He gets information on all the appeal cases filed along with the cases disposed of and pending. Detailed analyses of the cases decided are provided giving the amount of revenue involved and the trend of the decision taken, namely, whether the case was admitted, modified or rejected. The System maintains a daily case diary and prints various monthly statements for the Principal Collector and the Board.

### *Cardex Monitoring System*

The Cardex Monitoring System provides details of the biodata and posting of each uniformed officer posted under the Allahabad Collectorate. The Collector and the Additional Collector (P&V) can query the System to obtain any information they require. Further, a list of officers who have completed the tenure of their posting can also be generated.

## 20-Point Programme Monitoring

**From our Uttar Pradesh Correspondent**

The NIC Uttar Pradesh State Unit has developed and implemented a monitoring system for the 20-Point Programme, at the district and commissionary level. This 20-Point Programme Monitoring System is supported by NICNET.

Manual monitoring of the 20-Point Programme proved ineffective largely because of communication gaps between different agencies involved. The process was also found to be very time-consuming. In the manual system, data was entered at the district centre and forwarded to the commissionary level through the Directorate of Economics and Statistics. After being scrutinized and modified at the commissionary level, the data was again manually communicated to respective district centres for generation of reports.

In the computerized monitoring system, with the introduction of NICNET, all the inherent bottlenecks have been effectively overcome. It is now possible to generate reports at the district, commissioner and state levels without any delay, as the data is now transferred from the district to state unit and Commissioner's Office respectively, without any delay.

## Inventory System for Text Book Corporation

**From our Madhya Pradesh Correspondent**

The Madhya Pradesh State Unit of NIC has undertaken a new paid project for the computerization of stock management of text books for the MP Text Book Corporation. The main objective of this project is to design, develop and implement an appropriate computer-based Inventory System . The System would enable the various depots of the Corporation to generate the stock accounts and fortnightly/monthly MIS reports for the Headquarters.

The necessary design for system development has already been completed. The required software for data entry, updation and maintenance pertaining to both receipts, sales and issue has also been developed. The System is fully menu-driven in Hindi and is thus extremely user friendly. It has been designed to take inputs as well as generate reports in Hindi.

The software for the System has been functionally divided into two levels: district and state. The district level component of the System is used to input data related to receipts, sales and issue of text books. Thereafter, data is transmitted to the State Centre through NICNET for consolidation of physical and financial parameters.

The System presently facilitates the generation of day book, ledger and monthly stock position. The present System can also generate consolidated financial statements, receipts, sales records, inter-depot receipts, and distribution and bank draft statements, etc. Estimation of the textbooks printed for the following year, by various subjects, for different classes, is an additional characteristic of the System. For the smooth operation of the System, an appropriate user manual has been prepared in Hindi. The System has already been implemented and is operational in various depots. Necessary training has also been imparted to the personnel concerned at the 13 depots in the State.

Besides this System, software for payroll and financial management is also being developed. All these application packages are being developed in FoxBase in UNIX/XENIX operating system to enable effective and efficient implementation of the System utilizing the infrastructure expertise of NIC District Centres and State Units.

# District Industry Centres to be computerized

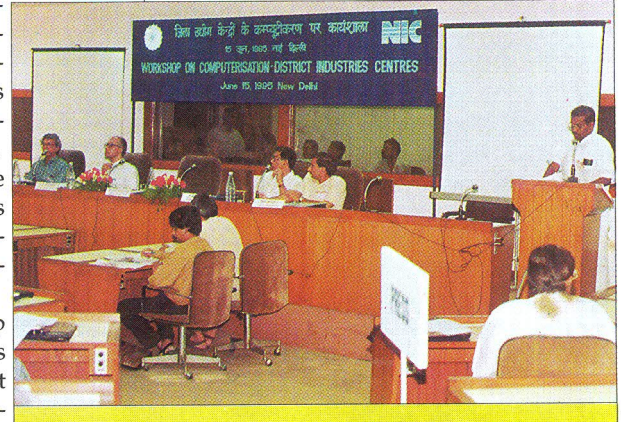
**From our Local Correspondent**

The National Informatics Centre has been entrusted with the responsibility of computerizing the functioning of District Industry Centres all over the Country. A workshop on Computerization of District Industries Centre , organized jointly by the Department of Small Scale and Agro Rural Industry (SSI & ARI), Ministry of Industry and the National Informatics Centre on June 15, 1995 at the Vigyan Bhawan, New Delhi, ended with the signing of MoUs between NIC and Governments of States for computerization of District Industry Centres (DICs) all over the Country.

Inaugurating the Workshop, Mr M Arunachalam, Union Minister of State for Small Scale and Agro & Rural Industry, appealed to the participants to dedicate themselves to the cause of revolutionizing the information system of India's enormous and growing small scale sector, so that the true strength of this sector is unveiled. The Minister's appeal highlighted one of the most urgent needs of Indian industries: a well-planned computer-support infrastructure which could usher in speed, efficiency and availability of information as never before.

NIC will play a key role in the implementation of the Project. NIC State Centres, in consultation with NIC Headquarters, will be responsible for:

- Procuring and installing of computer systems at SDIs and DICs.
- Upgrading computer facilities at DICs with existing computer infrastructure and connecting these centres with NIC's satellite-based computer communication network, NICNET.
- Working out detailed site specifications for locations where site preparation is required for computer installations.
- Providing essential dial-up links between SDIs and DICs on one hand and the nearest NIC centre on the other, to provide access to NICNET. In most cases, DICs will be connected, over a telephone or wireless modem, to the VSAT at the nearest NIC District Computer Centre; SDIs will however be provided with direct VSAT connection to NICNET.
- Organizing training programmes for SDI and DIC personnel.
- Developing and replicating project software and ensuring their implementation.




**Mr M Arunachalam inaugurating the workshop**

# Gurdaspur: A Secure Future

**From our Punjab Correspondent**

The District of Gurdaspur in Punjab is said to have derived its name from Shri Gurya ji. Caressed by the river Beas in the east, Gurdaspur shares common borders with Jammu & Kashmir and Himachal Pradesh in the north. What lends this district special significance is its long border with Pakistan in the west. The river Ravi flows as a natural demarcation along most of this western border. With a population of 17,65,834, this border district spreads over an area of 3,562 sq. km.

## *In Retrospect*

The NIC Gurdaspur District Centre first became operational in 1989. The beginning was the toughest part. A new technology, a new way of doing things, a new culture was being advocated. The people of Gurdaspur had to be made aware of the utility of informatics, government personnel had to be trained in the use of computers. Gaining acceptance was no easy task, but help was always at hand. Thanks to the support and co-operation of the District Administration and the unstinted efforts of NIC officials, the Gurdaspur District Centre got off to a flying start.

Deemed to be an underdeveloped district, today Gurdaspur is well on its way to progress and development. That informatics, by the way of NIC services, has had a considerable role to play all along, is amply proved by the inroads Information Technology has made into practically every sphere of development activities.

## *Planned Approach*

NIC activities in any district follow a planned approach and can be broadly divided into three distinct categories: activities which cater to the specific needs of the District Administration, national-level activities which tie up the district with the national framework of development, and activities related to the development of a sound communication infrastructure. These different categories are however inter-related and mutually dependent.

## *District-level Scenario*

**The District Information System of NIC (DISNIC)** is tailored to meet the information requirements at the district level. DISNIC consists of a total of 27 sectors out of which work in four sectors have been undertaken in Gurdaspur. The **DISNIC-PLAN** database, with relevant data from all villages and blocks, is now available for use by the District Administration. **DISNIC-Industry** contains data of 570 small scale industrial units of the District. In **DISNIC Co-operation**, the first phase of identification and codification of Primary Agriculture Co-operative Societies (PACS) has been completed. Similarly, registration data pertaining to around 6,000 vehicles has been computerized under the **DISNIC-Transport** sector.

Computers have been fruitfully applied in monitoring public grievances received by the office of the Deputy Commissioner. The Gurdaspur District Centre has lend a helping hand to the cause of social welfare by successfully computerizing the individual records of 11,000 beneficiaries of various social welfare schemes. Various Plan Schemes, approved by the District Planning and Development Board, are being monitored on a regular basis. Data from 1,451 villages under **Unnat Gram Yojana** has been computerized for smooth running and monitoring of the Yojana. NIC services have been utilized for streamlining the process of procurement of essential commodities.

A notable achievement of the Gurdaspur District Centre is the creation of a **Village Directory**. The database of this Directory contains details of all the 1,631 villages in the District. The Village Directory has been found to be a handy source of information for planning purposes. Working on similar lines, an Integrated Crisis Management Plan was prepared on the computer by compiling information from various sectors.

The General Elections, Assembly Elections and Panchayat Elections in Punjab saw the Gurdaspur District Centre working round-the-clock to provide all necessary informatics support to the Administration.

## *With the Nation*

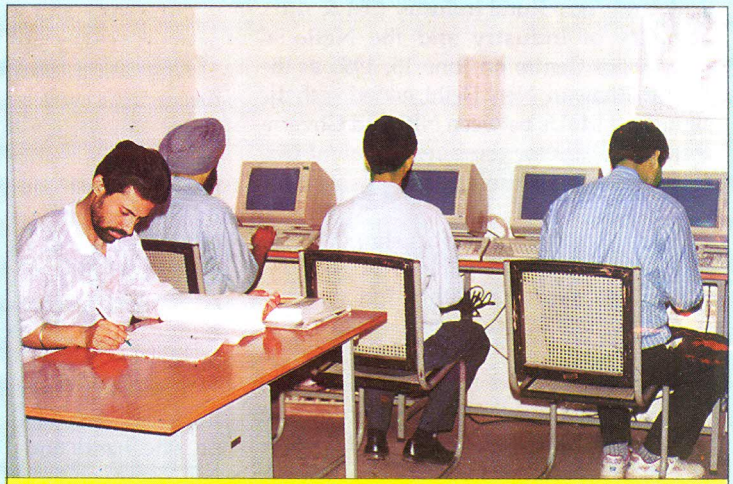
At the national level, the Gurdaspur District Centre successfully prepared the ground for the implementation of the Total Literacy Campaign (TLC). TLC was launched in Gurdaspur in June 1995.

The software package for monitoring the National Watershed Development Programme for Rural Areas (NWDPRA) has been implemented in the District. The data is updated every quarter, and various reports generated for use by the local soil conservation office. The data is also transmitted to Delhi for consolidation.

## *Keeping in Touch*

NICNET, as in other districts, has carved out an exclusive niche for itself in Gurdaspur. Considering Gurdaspur's proximity to the border, NICNET is an indispensable asset for the District Administration. Various departments such as Industries, Education, Health, Public Relations, etc., are using NICNET facilities extensively.

**Informatics has a special part to play in districts such as Gurdaspur where development and security go hand-in-hand. The success of NIC in Gurdaspar is bound to have its own ramifications over the entire Country.**



**Work in progress in the NIC Gurdaspur District Centre .**