WEST KAMENG : Citizen Friendly and Transparent
Swati Sharma

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BRIEF PROFILE

West Kameng district of Arunachal Pradesh state in the Indian sub-continent is located approximately between 91° 30' to 92°40' east longitudes and 26° 54' to 28° 01' north latitudes. The district is surrounded by Tibet region of China in the north, Bhutan in the west, Tawang district in the north-west and East Kameng district in the east and its southern boundary adjoins Sonitpur district of Assam.

WEST KAMENG:
Citizen Friendly and Transparent

Swati Sharma
The name of the district is derived from the Kameng river, a tributary of the mighty Brahmaputra that flows through the district. West Kameng district covers an area of approximately 7422 sq. km. Bomdila is the district headquarters.

Like other parts of North East Frontier Agency (NEFA), the district was under the 'Ministry of External Affairs' and the overall in-charge of the district was a 'Political Officer'. Later, the Political Officer was re-designated as 'Deputy Commissioner' on 1 June, 1980 and Kameng district was again bifurcated into 'East Kameng district' and 'West Kameng district'.

West Kameng district has 4 sub-divisions, viz. Dirang, Rupa, Singchung and Thrizino, each under the supervision of an Additional Deputy Commissioner. There are 3 Extra Assistant Commissioners looking after the developmental activities in Kalaktang, Bhalukpong and Nafra. The district has 12 circles, viz. Dirang, Thembang, Rupa, Kalaktang, Balemu, Singchung, Jamiri, Bhalukpong, Shergaon, Nafra, Bomdila and Thrizino, each under the charge of a Circle Officer. There are 5 development blocks, viz. Dirang, Nafra, Kalaktang, Singchung and Buragaon.

**ACTIVITIES**

Revenue administration is the prime responsibility of the district administration which looks after land administration including land acquisition processes, etc. Apart from revenue matters, district development is also an important objective of the district administration. As head of the district administration, the Deputy Commissioner oversees the all round development of the district through the implementation of various schemes. Maintenance of law and order is also the responsibility of the district administration. Grant of certificates like scheduled tribe certificates, permanent residence certificates, citizenship certificates, inner line permits and trading licenses, etc. is also the responsibility of the administration. Various departments of the district administration like transport, health, education, police, agriculture, urban development, horticulture, food and civil supplies, public works, rural development, tourism, industries, planning, etc., provide various services like issuance of driving licenses, registration certificates, ration cards, provision of adequate health and educational facilities, infrastructure facilities to the people, etc. The Deputy Commissioner as head of the district ensures that people get information and services as quickly as possible.

**CHALLENGES**

West Kameng is a mountainous tract in Arunachal Pradesh with the altitude of the district varying from 650 ft to 13,714 ft. The distances of the sub-divisional headquarters from the district headquarters are as under:

<table>
<thead>
<tr>
<th>Name of District/Circle</th>
<th>Name of District/Circle HQ</th>
<th>Whether Urban/Rural</th>
<th>Distance from Tahsil HQ to District/District HQ by road (in Km.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Kameng</td>
<td>Bomdila</td>
<td>Urban</td>
<td>0</td>
</tr>
<tr>
<td>Dirang</td>
<td>Dirang</td>
<td>Rural</td>
<td>42</td>
</tr>
<tr>
<td>Nafra</td>
<td>Nafra</td>
<td>Rural</td>
<td>55</td>
</tr>
<tr>
<td>Bomdila</td>
<td>Bomdila</td>
<td>Urban</td>
<td>0</td>
</tr>
<tr>
<td>Jamiri</td>
<td>Jamiri</td>
<td>Rural</td>
<td>40</td>
</tr>
<tr>
<td>Thrizino</td>
<td>Thrizino</td>
<td>Rural</td>
<td>126</td>
</tr>
<tr>
<td>Singchung</td>
<td>Singchung</td>
<td>Rural</td>
<td>100</td>
</tr>
<tr>
<td>Bhalukpong</td>
<td>Bhalukpong</td>
<td>Rural</td>
<td>36</td>
</tr>
<tr>
<td>Kalaktang</td>
<td>Kalaktang</td>
<td>Rural</td>
<td>96</td>
</tr>
<tr>
<td>Rupa</td>
<td>Rupa</td>
<td>Rural</td>
<td>16</td>
</tr>
<tr>
<td>Balemu</td>
<td>Balemu</td>
<td>Rural</td>
<td>160</td>
</tr>
</tbody>
</table>
It can be very easily gauged from the Table that the local people had to tread long distances, spending time, money and energy to get required forms/documents, etc., for various services. There was no provision of information to the people about funds allocated or projects undertaken under various centrally sponsored schemes/state government schemes, about whom to contact for specific grievances, etc. There was no direct opportunity to contact the Deputy Commissioner to provide suggestions/feedback or for airing grievances against quality of service delivery.

Further, West Kameng is culturally very rich with five vibrant tribes (Monpas, Sherdukpons, Buguns, Akas and Mijis), has a vast tourism potential and is a part of one of the approved tourist circuits of Arunachal Pradesh. Since the rich cultural heritage of the district with its colourful people invites tourists—both domestic and international to explore the untouched beauty and unlimited delights, it becomes important to provide quality services to them, starting from reservation of govt./private accommodation for them.

<table>
<thead>
<tr>
<th>MONTH</th>
<th>TOURISTS CHECKED IN THE DISTRICT (during first six months of 2009)</th>
</tr>
</thead>
<tbody>
<tr>
<td>JANUARY</td>
<td>1109</td>
</tr>
<tr>
<td>FEBRUARY</td>
<td>1058</td>
</tr>
<tr>
<td>MARCH</td>
<td>2582</td>
</tr>
<tr>
<td>APRIL</td>
<td>2995</td>
</tr>
<tr>
<td>MAY</td>
<td>3389</td>
</tr>
<tr>
<td>JUNE</td>
<td>1708</td>
</tr>
</tbody>
</table>

Hence, the district administration, looking after various developmental activities in the district, felt it imperative to provide citizen friendly services in an easy, effective and transparent manner to the people through the medium of Internet.

**Aims, Goals and Objectives**

Our firm belief ‘Right to Information of our people has to be ensured, has guided us in making the district administration website: ‘westkameng.nic.in’ more responsive and accountable to them.

The Deputy Commissioner set the ball rolling by immediately roping in NIC, Bomdila to refine the old website and to make it user-friendly as also easily readable. A look at the old website tells the story.

In its endeavour to provide citizen-friendly services in an efficient, transparent and effective manner, the district administration decided that all the services have to be provided to our people in a simplified and easily accessible way. Thus, the work began to redesign the old website. The emphasis was to design the website in such a way that the flow of information from the various
offices of the district administration to the general public was available smoothly and seamlessly.

**SETTING THE SCENE**

It was decided that this work would be undertaken by NIC, Bomdila only. The team of the district unit of NIC led by Sh. P.K. Thungon, DIO and Sh. Bimal Chandra Borah, DIA, immediately started to finish the task.

Special care was taken to choose the right colour schemes to make it visually appealing, easy to use navigation systems and to make the website content rich but professional. The website had to provide in detail various activities/schemes/projects undertaken by each department. People’s reach to the heads of departments had to be made easier either telephonically as also through e-mail. Details of activities of the Works Departments of the district relating to PM Package, MPLADS, MLALADS, BADP, NEC, RIDF, SPA, ACA, NLCPR, etc., were also to be uploaded so that the progress of the developmental schemes/projects could be viewed and monitored, thus increasing transparency as also accountability by putting them in the public domain.

**EXPERIENCE**

It was ensured that every page had something valuable to offer. The website redesigning was an in-house project and hence was very cost effective. Many profiles were created for public domain, which included the following:

1. District and District Administration
2. Maps
3. Citizen services like downloadable forms, etc.
4. Circulars/Notices
5. Events
6. Tenders/Quotations
7. Traveller’s Corner
8. Interactive Corner

**OUTCOME**

The initiative received an overwhelming response from all corners. The re-designed website made the system transparent, ensuring greater participation in monitoring as also progress of projects, etc., in the district by the public and panchayati raj members who started feeling more involved in the developmental processes.

Forms, which were till now available only in the DC office, could be downloaded free of cost. Advertisement for examinations/
interviews for vacancies in departments could be viewed at the click of a button. People started writing directly to the Deputy Commissioner giving feedback as also for any complaints. The heads of departments now receive, almost on a regular basis, communications from the general public through the mail IDs created for them. Tourists now apply for reservations in the circuit house/tourist lodge by directly accessing the website, thus saving time and get response very quickly.

LESSONS LEARNT

The system gained momentum when it was put in the public domain. The realization that public involvement increases efficiency and transparency made this work possible. Stress was not on how much we can spend but on what we can achieve. An in-house project is very reliable and cost effective, provided the team works with zeal and shared enthusiasm.

FUTURE PLANS

The website, though very user-friendly is a static one except the 'interactive corner' which is dynamic coded in ASP. Presently, work is going on to make the website completely dynamic. One would, then, be able to apply online for inner line permits, ST certificates, marriage certificates, permanent residence certificates, trading licenses, etc. Also, the status of all applications submitted under various heads would also be made available online, saving time and money of the applicant.

It is said that 'information is the currency of democracy'. Internet has certainly revolutionized the way we view democracy. The provision of information through the district website has enhanced the image of the district as citizen-friendly and that is what is stressed by the district administration of West Kameng.

Swati Sharma, IAS,
Deputy Commissioner,
West Kameng District,
Arunachal Pradesh

WEST KAMENG : Citizen Friendly and Transparent
Improved Health and Sanitation Practices through convergence among District Administration, Panchayats and the Community in District Surguja (C.G.)

Dr Rohit Yadav, Ritu Sain

BACKGROUND

Entire district of Sarguja is covered under the fifth schedule of the constitution. This special status gives an opportunity to the tribal communities of the district to implement special provisions of self-governance given to the fifth schedule areas through PESA.

Surguja is the northern most district of Chhattisgarh State which shares its borders with MP, UP and Jharkhand. More than 54.4 per cent population of the district is tribal, mainly Gond, Uranv, Kanwar, Nageshiya, including the primitive tribes named as P andos and Pahadi korbas. The district is one of the most backward districts of Chhattisgarh with the 55 per cent of literacy. With the backdrop of the above facts, it poses a peculiar challenge to balance the development with the preservation of cultural heritage of the people. The district is the largest district of Chhattisgarh with 16,030 sq. km. area. Almost 8655 sq. km. of the total geographical area is under forest, which is almost 54 per cent of the total geographical area.

The difficult terrain and dense forests have become the facilitating factors for naxalism. The district along with the adjacent districts of MP, UP and Jharkhand falls on the way of maoist red corridor and off late the activities of Maoist violence have taken place in the district. Therefore, it becomes more pertinent to talk about the right kind of development paradigm in the district.

The economy of the district revolves around natural resources and majority of the population has been depending on agriculture and minor forest produces for their livelihood.

Poor health condition has been a prominent feature of the district. The prime cause of poor health can be linked with poor hygienic condition, high degree of malnutrition marked with infant death reading 60 per 1000 live births, low literacy level, and high prevalence of poverty. The poor health condition of the people has often forced them to spend a lot on health care. Many voluntary agencies working in the district for a long period of time have reported that health expenditure has always created a situation where people are caught in a debt trap where money lender gives them loan for treatment and would take heavy interest on this loan.

The existing system of managing water bodies, practice of open defecation, and management of drinking water and other issues of personal hygiene can explain the sanitation behaviour of the community.

After careful analysis of the existing status it was realized that there is a need

- to build a relationship of faith between community and administration,
- to take an initiative which can demonstrate a system where community and administration are working closely for common goal and have been able to achieve the goal.

It was realized that beginning can be made through selecting a programme which is linked with more than one aspect of life. The issue of sanitation was one among them. Thus TSC programme was selected to demonstrate better results in terms of programme output and also in terms of developing better working relationship between community and administration.

With the arrival of new District Collector Dr. Rohit Yadav and Deputy Development Commissioner Ms Ritu Sain, the approach became more focused and priorities were set. "All the problems cannot be solved at one go therefore we need to set one entry point. If one scheme works well others also improve" were the guiding principles. The discussion with the full team led to the conclusion that sanitation should be a starting point as the district is covered under Total Sanitation Campaign and paucity of funds and personnel to
support the community initiative through Continuing Education Programme would not come in way.

**OBJECTIVES**

The basic objective of the programme has been to
- develop a model of convergence where more than one line departments are working together with Panchayat
- showing that community, panchayat and government agencies together can achieve goal in a better manner if roles and responsibilities are well defined and all the stakeholders are working for common goal
- demonstrate that existing resources are enough to bring positive change
- develop learning on role of planning and coordination for better results at ground level.

**STRATEGIES ADOPTED**

- selection of one sector which can have impact on more than one sector
- assessment of the resources and planning
- identification of gram panchayats for effective beginning
  - all gram panchayats of three blocks
  - 83 gram panchayats scattered in rest of the 16 blocks of the district
- working out possible points of linkages among the important departments like health, education, panchayat and rural development, women and child development, tribal welfare, forest and PHED
- using existing community mobilizers as facilitators at community level
- initiating dialogue with markets

**INNOVATIVE METHODS USED**

Following innovative methods were adopted during the project period:

**SMART Goal Setting**

Total Sanitation Campaign (TSC) and Continuing Education Programme were selected for developing integrated model where TSC was supposed to lead the entire initiative. Taking major themes of these programmes goals were fixed. SMART (Specific, Measurable, Authentic, Realistic and Time bound) plan for these panchayats included the following as major content.

- **Sanitation**: Total sanitation coverage by constructing individual household latrines, school and anganwadi toilets and their usage by all family members in 256 selected panchayats with other indicators like personal hygiene, village cleanliness, drainage of dirty water, etc.
- **Drinking water**: Safe handling of drinking water and putting up required infrastructure, cleaning drinking water sources, platform and soak pit near the hand pump, cleaning and covering of the wells.
- **Health**: Improvement in the delivery of health services in the village, and in turn promoting coverage for immunization, institutional deliveries, consultation to doctor or nearest PHC in case of any epidemic outbreak or diseases not to the quack.
- **Education**: Reducing drop outs from school, improving retention in schools, enrollment of all children of 6 to 14 years in school, containing teachers’ absenteeism, bringing quality in education, ensuring fresh and cooked MDM for students, mainstreaming of dropouts and neoliterates.
- **Managing solid and liquid waste** through composting and nadep and soak pits.
- **Community mobilization** to counter social evils like tonahi, liquor addiction, child marriage etc. and organizing women into SHGs and micro financing: Each woman of these 256 panchayats is targeted to be part of any SHG.
- **Strengthening grassroots democracy** through active gram sabhas and making people aware about the environment concerns and plantation.
Ensuring **effective execution** of PDS and other development schemes.

**Assessment of Resources: construction material**

The experience of TSC implementation in other districts showed the price rise of the construction material because of the spur in demand and urgency. To tackle the problem a meeting of all suppliers of brick, cement, pipe, pan and other required material of the district along with mining and revenue department officials was called and rates were fixed after negotiations which were less than the prevailing market rates. Quantum of material and transportation can be appreciated by the following table:

<table>
<thead>
<tr>
<th>Required material</th>
<th>Quantity</th>
<th>Supply on site</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bricks</td>
<td>35.6 million</td>
<td>Timely transfer of funds to Panchayats</td>
</tr>
<tr>
<td>Cement</td>
<td>131170 bags</td>
<td>Timely availability of construction material at controlled price at the door step of beneficiary</td>
</tr>
<tr>
<td>Sand</td>
<td>206300 bags</td>
<td>Price fixation through negotiation with Brick Kiln owners</td>
</tr>
<tr>
<td>Pipe</td>
<td>113350 meter</td>
<td>Meeting with material suppliers to ensure IHHL construction within Rs. 1200,</td>
</tr>
<tr>
<td>ToR steel</td>
<td>3284 qnt.</td>
<td></td>
</tr>
<tr>
<td>Doors</td>
<td>6217 nos.</td>
<td></td>
</tr>
<tr>
<td>Tiles</td>
<td>17800 sq.mt.</td>
<td></td>
</tr>
<tr>
<td>Pipes for school water supply</td>
<td>40530 mt</td>
<td></td>
</tr>
<tr>
<td>HDPE tanks</td>
<td>1351 nos.</td>
<td></td>
</tr>
<tr>
<td>FLHP</td>
<td>945 nos.</td>
<td></td>
</tr>
<tr>
<td>Urinal pots</td>
<td>5406 nos.</td>
<td></td>
</tr>
<tr>
<td>Baby friendly rural pans</td>
<td>813 nos.</td>
<td></td>
</tr>
</tbody>
</table>

**Ensuring Availability of Trained Masons**

Availability of trained mason for such large scale execution and imparting the technical know how according to the standards of Government of India was another challenge. Team approach was planned for ensuring availability of masons. It was decided that a team of 10 to 20 masons will be trained for a cluster and to make it attractive; the rate per toilet was fixed. A mason could work more and get more money.

**Training through IAS Mode**

The Information, Advocacy, Service IAS mode was deliberated by the team. Collector took keen interest with the whole team to work upon it. All Continuing Education Programme motivators and village level functionaries of concerned departments were trained and empowered with the information about the various Integrated Development goals.

Continuing Education programme motivators, anganwadi worker, mitanin, health worker, teacher, sarpanch, village panchayat secretary and masons were identified and trained as critical actors in the village.

The sensitization exercise of this team from each selected villages was conducted at block level and Deputy Development Commissioner herself had gone to all 19 blocks for training. In these workshops the importance of sanitation, education, nutrition, and immunization were discussed with them and their doubts about the programme were cleared. The incentive of Nirmal Gram Puraskar and the dignity of panchayats in achieving them were explained to them.

**Innovative IEC Campaign**

Following IEC campaigns were designed carefully and they provided better results:

- Chetna Rath and film shows at chaupal with appeals of Commissioner, Collector, Deputy Development Commissioner and CEO ZP for a clean and healthy future, thereby ensuring direct access with community.
- Relay from all India radio projecting best performing stakeholders and creating role models in community for learning.
- Usage of hygiene education kit and creating an interactive
dialogue mechanism with community.

- Community sensitization through scout guide, NSS and art of living as CSOs.
- Milestones with pictorial messages on sanitation and hygiene.

All this sensitization culminated in gram sabha and village community discussed about the benefits of the sanitation campaign. Newspaper clippings mentioning the deaths from waterborne diseases and diarrhea, etc., were read out to make the point clear.

Women were motivated to rise against the inconvenience and shame in going for open defecation, particularly young girls came forward to protect their self respect and make toilets.

Community Mobilization

After empowering with information the development agenda was taken to each doorstep through different methods of advocacy. The goal of the exercise was to make community participate. Now critical actors are given a smart agenda with a paradigm shift:

<table>
<thead>
<tr>
<th>General Paradigm</th>
<th>Our Paradigm</th>
</tr>
</thead>
<tbody>
<tr>
<td>We know they don’t know</td>
<td>They know we don’t know</td>
</tr>
<tr>
<td>Nothing is possible without money</td>
<td>Attitudinal changes hold key to solution of at least 70 per cent of problems</td>
</tr>
<tr>
<td>Their attitude is deplorable</td>
<td>They can change their attitude</td>
</tr>
<tr>
<td>Illiterate and poor people cannot solve their problems</td>
<td>Human beings are powerful. They can solve their all problems.</td>
</tr>
<tr>
<td>People are illiterate they do not understand</td>
<td>They can become literate</td>
</tr>
<tr>
<td>People are poor, they cannot afford</td>
<td>They can become rich</td>
</tr>
<tr>
<td>People do not listen</td>
<td>We need to change our ways of communication</td>
</tr>
<tr>
<td>Do planning by using PRA techniques to be implemented by outside agency</td>
<td>Do planning by using PRA techniques to be implemented by community itself</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community should participate in the initiatives of outside agencies (Government and NGOs)</th>
<th>Outside agencies (Government and NGOs) should participate in the initiatives of the community</th>
</tr>
</thead>
<tbody>
<tr>
<td>They need to change before any significant progress can be made</td>
<td>We need to change for making significant progress</td>
</tr>
</tbody>
</table>

With the above paradigm shift team members went to the village with the set advocacy programme. They started with ward meetings. Each ward was covered and then meeting and rally with the school and anganwadi children had taken place in the whole village citing the slogans of safe drinking water habits, personal hygiene, toilet construction and healthy village.

Following steps were taken for better community mobilisation:

- Mashal rallies and culmination into Swachata Sankalp by community and exhorting local goddess Mahamaya as witness to the Sankalp, thereby turning sanitation as creed.
- Village contact drive and door-to-door contact and taking the agenda of sanitation and health to each household.
- Creative writing, essay and drawing competitions in schools and wall writings to invoke the urge for sanitation amongst students.
- PRI strengthening and activation of gram sabha through trainings, advocacy and frequent interactions with officials and experts.
- Self monitoring through Toka taki dals at community level.
- Exposure visits and learning from peers.
- Effective review and supervision mechanism.

Initiative for Convergence and Coordination at the Level of Administration

- Cluster wise responsibility of engineers
- district level quality monitors
- social monitoring
- collector reaching to all the identified villages
PERIOD OF PROJECT INITIATIVES

The project was initiated in May, 2007 and is still continuing in the district. The learning of one year has given strength to launch a second phase in all the remaining villages of the district. The activities started in the first phase have entered into a new phase where community and departments are dealing with second generation issues such as:

- who should clean the toilets?
- who should have the responsibility of maintaining the structures?
- how panchayats can maintain water supply and school sanitation?
- how much resources should be collected through taxation?

POSITIVE OUTCOME: WONDERS THAT HAPPENED

Many positive changes have happened at ground level. These have been listed below:

Total Sanitation Coverage

More than 85,000 individual household toilets, 2,703 sanitation complexes in schools, 813 baby friendly anganwadi toilets (both in govt. and private buildings) were constructed in a very short span of time in 256 identified panchayats. It meant safe disposal of 90 tones human excreta load per day. It saved mankind from millions of viruses and bacteria.

Comparative Study of TSC Surguja in July 2007 to March 2008

<table>
<thead>
<tr>
<th></th>
<th>July 2007</th>
<th>March 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total number of household in Census 2001</td>
<td>3,57,912</td>
<td>28.122 thousands</td>
</tr>
<tr>
<td>Households covered with toilet facility in Census 2001</td>
<td>15,212</td>
<td>101.787 Thousands</td>
</tr>
</tbody>
</table>

Improved Health and Sanitation Practices through convergence among District Administration, Panchayats

Community Participation and Ownership

Involvement in construction of superstructure of toilets and use of toilets by community reflects in variety and novelty in superstructures.

All panchayats are having different kinds of superstructures ranging from soil walls, bamboo walls, maize and other stems, bricks, etc., according to their economic status. Heavy rains cut off many villages but could not dull the enthusiasm of the people. Community participation in making superstructures comes to crores of rupees if calculated in monetary terms.

Community took the ownership of implementation through monitoring and self imposition of fine and assets created are managed by gram panchayats.

Safe Drinking Water Practices

There is drastic improvement in the access and use of hand pump for drinking water purposes. Dependence on dhodhi, which is a pit dug at the places where ground water flows up to the surface, is reduced to a great extent in these places which in turn brought down chances of waterborne diseases, particularly diarrhea, gastroenteritis, etc.
Women through anganwadi worker were sensitized to handle drinking water with clean hands, keeping it at clean place, covered during transit and storage, use of long handle mugs. More than 20,000 long handle mugs were purchased by the villagers from haats.

Behavioral Change (?)
Personal hygiene awareness has increased and now people construe significance of cutting their nails, washing their hands, putting garbage in the dustbin, use of toilets and keeping their environment clean. Women are also sensitized for safe disposal of child excreta.

Behavioral change is most obvious in increased use of bathrooms in the villages for taking bath. Generally villagers were used to take bath in pond where even the animals take bath, which led to many skin diseases. Therefore bathrooms near the hand pumps with separate soak pits were constructed, used, and earlier ones were cleaned by the people.

Ameliorating Health scenario
Hand washing, safe drinking water and safe disposal of human excreta led to the reduction of focal outbreak of diarrhea, malaria and other diseases which convinced people more than anything else for better sanitation and hygiene. With community vigil and frequent visits by official’s delivery of health services became effective and resulted in better immunization coverage, better nutrition support and care in ICDS center which brought down the number of malnutrition cases of grade 3 and grade 4 drastically. All 256 panchayats are now strong contenders for Swastha Panchayat Puraskar. Scientific impact assessment studies are being taken which would reveal actual impact.

Convergence of Sanitation and Education
School sanitation and hygiene education programme was the core of the sanitation agenda. Child friendly schools sanitation complexes are made attractive with pictures. Separate units for boys and girls encouraged the usage. Force lift pumps have been installed for water supply with ceramic tiles on walls and hand washing facilities, which made the usage of toilet convenient. All this generated the demand in children for toilet in the house, which sustained the drive.

Personal hygiene among students improved through Swachahta Diwas and watch by sanitation club. Snake ladder games of sanitation aroused curiosity in young minds who became the change harbinger at home.

Figures of this year enrollment in these panchayats reveal a very optimistic picture with increase in net enrollment ratio, reduction in drop out rates, better retention rates.

Panchayat vigil on parents increased and one can see provision of imposing fine on parents who are not sending their children to schools.

Girl child needs appreciated resulted in enhanced retention with the toilets in schools and incinerator facilities which led to better retention of girl child, particularly adolescent girls and female teachers.

The activism of villagers made teachers vigilant which deterred teacher’s absenteeism. This improved performance of students in examinations.

More than 75,000 of drop outs and neo literates are identified in the process and joining the mainstream of education by appearing in the class 5th and 8th examination in the year 2008.

Solid and Liquid Waste Management
More than 3,500 dustbins and 1,161 nadeps have been constructed, used and maintained by the community which improved the environmental sanitation and conversion of tones of waste into productive manure.

Almost 5,000 soak pits have been constructed and maintained which are useful in keeping the surrounding of hand pumps clean and recharging the ground water. It has prevented million liters of water from becoming mud and mosquito breeding ground, thereby reducing the chances of malaria to a great extent.
Increased Role and Better Coordination among the Line Departments

Line departments have come out of compartmental segments and acting in synergy with each other for better results. ICDS, health, education, tribal welfare, Sarva Siksha Abhiyan, PHE, panchayat and rural development, agriculture, Veterinary, roped in under one umbrella for improvement in service delivery system whether it is leakage in PDS, payment of NREGA, alcoholism or tonahi (witchcrafting) or child marriages quality of nutrition. Social audit exercise of NREGA was conducted in district by Member, national committee NREGA, GOI revealed decline in leakages in NREGA payments and increased activism of public. Bogus brand edible oil and pickle used in MDM were known and consequent raids on suppliers exposed the full racket.

The journey from conceptualization to the execution was not an easy journey. Making the whole drive sustainable and changing the attitude of each stakeholder was the main challenge. The socio-cultural context of the place, difficult terrain, poor access and remoteness were impending but the collective effort of the whole team did not let the vigor dull or die. The whole exercise is to empower and motivate people to fight there on battle rather than looking at government for everything. PRIs capacity building and orientation is a natural achievement of the whole process. Now the rights of Panchayats in Schedule XI of the constitution are not mere words for them but a reality.

The biggest result of the whole development is the realization of the worth of social capital. People now started believing that sending their child to school will make their future better. Taking the snake bitten to the doctor could save life of the patient. Nutrition is necessary for young child and institutional deliveries are safer. One feels happy when some villager tells these things to his fellowmen in the village.

It has brought a ray of hope in these naxal-affected areas. This has demonstrated that piecemeal engineering can work for the betterment of the people in areas where revolutionary forces in form of naxalism and maoism are active or trying to expand.
Personal hygiene and environmental sanitation has improved in the villages and now people are perceiving and discussing the difference made by them. This has given a boost to the team involved in the project and they feel part of the success story. Now they

- wish to expand their area of operation, and
- also wish to sustain the existing project

Innovations in Governance
GOPALKALA ABHIYAN
An Initiative of Community Participation in Child Nourishment

Prajakta Lavangare

It is globally acknowledged that investment in human resource development is a prerequisite for economic development. Children are the future human resources of the society and hence they are the first call on agenda of human resource development.

Hence the programme of the Integrated Child Development Services (ICDS) was launched in 1975 in response to the challenge of providing pre-school education on one hand and breaking the vicious cycle of malnutrition, morbidity and mortality on the other. One of the world's largest programme, it seeks to directly reach out to children below six years, especially from vulnerable and remote areas and give them a head-start by providing an integrated programme of early childhood education, health and nutrition.

THE CONTEXT

The initiative was taken in Ahmednagar district. It is the largest district in Maharashtra encompassing an area of about seventeen thousand square kms. It incorporates both irrigated, prosperous northern side and drought prone southern part. It also includes a tribal taluka and houses a population of about forty lakhs. It has fourteen talukas and 1309 gram panchayats.
district has 3,055 anganwadis providing services to 4,43,103 beneficiary children, 33,142 lactating and 34,267 pregnant mothers.

Maharashtra has been a pioneer in encouraging vibrant self-governing Panchayat Raj Institutions (PRIs) and had transferred most of the development functions including ICDS to the Zilla Parishad, the apex body of PRI in the district. Hence, the function of child health and nutrition through ICDS is an important responsibility of the Zilla Parishad. The ICDS aims at providing a package of services, consisting of:

- Supplementary nutrition
- Immunization
- Health check-up
- Referral services
- Non-formal pre-school education, and
- Nutrition and health education

In order to provide for the holistic development of the child, anganwadi centres, manned by a community based anganwadi worker, have been functioning with the aim to improve the nutritional and health status of vulnerable groups including pre-school children, pregnant women and nursing mothers.

Besides this, the anganwadi centre can emerge as a meeting ground where women's/mother's group can come together, with other frontline workers, to promote awareness and joint action for child development and women's empowerment. Given the potential of this institution to reach out to the disadvantaged groups of the society by promoting their health, education and nutritional needs, it was realized that community participation would go a long way in creation of an enriched human capital.

THE OPPORTUNITY/PROBLEM

The third National Family Health Survey (NFHS) had projected child malnutrition as a major problem nationwide. The survey mentioned that malnutrition rates in India over the past two years had declined at a mere 2 per cent per annum, lower than many countries with a comparable socio-economic profile such as Bangladesh. Around 45.9 per cent of Indian children under three years of age were underweight, 38.4 per cent stunted, and 19.1 per cent wasted, according to NFHS data.

At the state level, a survey by the Rajmata Jijau Mother-Child Health and Nutrition Mission in Aurangabad involving approximately 72 lakh children up to the age of six, in Maharashtra, found that 0.23 per cent of children were severely malnourished. The Mission was set up by the Maharashtra government in association with UNICEF in order to help reduce child malnutrition in the state, a cause of much concern. Malnutrition deaths, the need of a sustainable solution to this sensitive issue, the critical public gaze and media coverage demanded priority intervention by the district administration.

The problem was that in spite of a grass root and community-based machinery for child nutrition, the number of grade 3 and grade 4 children was showing increasing trends and the progress of weight gain by malnourished children seemed abysmally slow. The lack of community involvement in the working of the anganwadi centre made the approach towards tackling this problem haphazard and merely process oriented.

The existing mechanism to control and supervise these village functionaries by hierarchical inspectorial system seemed outdated since it was not coupled with effective social audit that comes with community sensitization.

The lack of community involvement found its roots in the perception towards the anganwadi centre as a rice centre that distributed khichadi to the beneficiaries. It was never seen as a ‘sanskaar kendra’–resource centre, a play centre that nourished children and imbied values that stood her (the beneficiary) in good stead for her entire lifetime. This perception of anganwadi centre had kept out the village from involving itself in the activities of the anganwadi worker, thus making the battle against malnutrition a lonely one. Also malnutrition was considered a women’s issue that forbade participation by other stakeholders. It was necessary to understand the higher truth.
Gopalakala Abhiyaan is an endeavour in this direction. This project is outcome of search of a mechanism to involve the community in a problem that is not solely administrative and through people’s involvement and concomitant and social audit, make the anganwadi centre responsive on a sustainable basis to the issue of malnutrition, in a manner independent of inspectorial mechanism.

AIMS, GOALS AND OBJECTIVES

The objective of Gopalkala Abhiyaan was to control the problem of malnutrition in a sustainable manner that could be achieved by community ownership and their positive interventions. Visits in the anganwadi centres reflected very poor community participation. It was increasingly felt that the village was ignorant about the services that were to be provided by this institution. Elected representatives of the village including the sarpanch and the gram panchayat members considered it a least priority issue so much so that there were almost no visits to the anganwadi centre. The dominant perception was that anganwadi centre is a 'rice centre' and provides food to the beneficiaries. The objective behind the anganwadi centre was totally unknown and so was the gravity of the problem.

Aims

- To make the community aware of its role in the working of the anganwadi centre, to make it jointly responsible for the proper functioning of the anganwadi centre.
- To make the village realize its potential to combat the problem of malnutrition in ways that are innovative, localized and sustainable.
- To make the anganwadi centre accountable to the village and not merely to the supervisory machinery.
- To ensure perceptible results through a decline in grade 3 and grade 4 children of the district.

Thus our ultimate aim is to make efforts to bring about social transformation through participation of the community so that the responsibility for nutrition management is transferred from the government to civil society.

SETTING THE SCENE

Gopalkala Abhiyaan as a Culmination of District Level Efforts

Various attempts had been made to bring about community involvement in the issue of child nourishment. The district administration had taken a number of initiatives like community growth charts that placed anganwadi children based on their weights in the different grades and made mothers aware about the stark differences between healthy children and those suffering from malnutrition. Right from the beginning, as Chief Executive Officer of the Zilla Parishad, the anganwadi workers were given the message that their centres were not just rice centres, but an important institution of learning and growing for the child, probably the only institution, i.e. sanskar kendras.

Celebration of girl child in face of adverse sex ratio, star competition, disha abhiyaan (block level gatherings of all elected women representatives), Yashoda Mata Puraskaar, fruit and vegetable gardens in the anganwadi centre were some initiatives taken by the district administration to enthuse the community and the anganwadis in the district.

It was stressed, in all public functions and ceremonies, that the focal point of the village is and should be the
anganwadi centre since it is the foundation of a child’s progress in more senses than one. The villages were made to realize that only building bridges and roads will not bring prosperity to the village, the real progress of a village depends on a healthy human population.

But this had limited utility as it only mobilized the mothers of beneficiaries leaving the village in the periphery. There was an urgent need to find a tool that made the villagers a natural participant in the process of combating malnutrition.

**Combining Religious Tradition with Nutrition**

On a tour to a village, we were a witness to a religious ceremony (Harinaam Saptah) in which there was participation by almost all the villagers and the striking feature was that in all such religious functions there was a generous donor who gave a feast to all the villagers and all happily participated. Taking a cue from this event, it was felt that this can be a potent strategy since it involved giving a nutritious feast to the participants and also encouraged people’s participation by combining religious tradition with nutrition. It is worthwhile to mention that in such religious feasts, the names of the donors were booked for more than one year in advance. It was considered prestigious to donate nutritious food to the entire village on the eve of a religious function and the names of the donors were always displayed in a conspicuous place of the village.

Thus in every village, there were ample number of donors who considered it prestigious to give generous feasts to the villagers on important religious dates.

Identifying this generous group of donors as a resource group for tackling malnutrition by way of community participation, the Gopalkala Abhiyaan was conceptualized. The tiny tots of the anganwadi center were conceptualized as little Sri Krishna, who was fond of curd and butter, and was the apple of people’s eye of the village.

**THE ANALOGY OF YASHODA MATA**

Also the analogy was that even if Devaki had given birth to Sri Krishna, he had been nursed and nurtured by Yashoda Mata and the anganwadi sevika was likewise the Yashoda Mata of the anganwadi children. These little Sri Krishnas of the anganwadi centre were the future of the village and needed to be fed with healthy diet just as the entire village had nurtured Sri Krishna. Hence donors were appealed that feeding the young ones on the eve of birthdays or in memory of ancestors would be a religious feast in itself and akin to the tradition of Harinaam Saptah. This thought appealed to the villages as it combined religious sentiments with social duty and brought prestige and respect at the same time.

The Zilla Parishad also launched an incentive scheme for anganwadi workers called “Yashoda Mata Puraskaar” whereby due recognition was given to anganwadi centers that controlled malnutrition effectively. They were conceptualized as Yashoda Matas who nursed the children of Devaki. In this backdrop, motivating them to appeal to donors and have maximum feasts became easy and since they had already been conditioned to think of their centers as focal point of development, they had begun to inculcate a lot of pride and dignity in their work and in the institution of anganwadi.

**IMPLEMENTATION OF GOPALKALA ABHIYAAN**

The year long efforts to change the face of the anganwadi centre from a khichadi centre to a centre of growth and learning actually created a
platform to launch the movement. But the success depended on micro planning and systematic implementation with a monitoring mechanism in place. The district heads were sensitized about the issue and were given the designation as guardian officers who would intervene, monitor and give feedback about the implementation for each block. Task forces of anganwadi supervisors headed by CDPOs were set up. The highly motivated anganwadi workers who felt a sense of importance for the first time owned the programme in ways more than one. Regular feedback was also obtained through the anganwadi supervisors about the quality and frequency of feasts. The feasts varied from boondi ladu, wheat lapshi, sweet rice, coconut rice, sweet kheer and such ingredients that made the movement very popular because of the immediate response of the children and their parents.

INVOlVEMENT OF ELECTED REPRESENTATIVES

Since this involved a participatory approach to tackling malnutrition and the concept was new and path breaking, it was necessary to sensitize the elected members of the Zilla Parishad and panchayat samitis so that they themselves take the initiative in their villages by donating feasts and appealing to other donors in their respective villages and constituencies. The Gopalkala Abhiyaan discussed at length in the general body meeting and in the standing committee, the apex decision making bodies of the Zilla Parishad. Sarpanches and especially women elected representatives were sensitized through block level workshops about the movement and letters were written to all MLAs and MPs informing them about the Abhiyaan.

IEC

Street plays and role plays on the issue of malnutrition were designed by anganwadi workers themselves. Gopalkala Abhiyaan was given a due place in all such IEC activities as a sustainable manner of eliminating malnutrition. Demonstrations of nutritious diet (‘sakas poshan ahaar’) in public gatherings at the block level helped identify the ingredients for the feast day. The media was appealed to give wide publicity to all the donors who came forward to host public feasts so that the initiative multiplied in leaps and bounds.

Local media captured the event of the feasts and villages that came forward were portrayed as progressive villages, and villages that lagged behind were given the analogy as ‘villages suffering from malnutrition’ or kuposhit villages as in local parlance. This helped inculcate a spirit of pride and competition that was so essential for the success of this movement.

MONITORING

The Abhiyaan was discussed in the HOD meeting every Monday as priority number one. The guardian officers shared their experiences and innovative ways in which the movement was being implemented in every part of the district. Thus in some villages the birthdays of the
anganwadi children were linked up with the days of public feasts. In some parts uniforms, slates and other utility items were also distributed. PRAs through community growth charts were conducted. There was an attempt to replicate the best practices.

At the block level the coordination meeting of anganwadi supervisors was called on the first of every month and chaired by the block development officers and the Gopalkala Abhiyaan was discussed and villages lagging behind were identified. The reporting of progressive and backward villages was sent to the head of the ICDS department and discussed at the HOD meeting.

From the 25th to 29th of every month, beat level meetings of anganwadi sevikas were taken by the anganwadi supervisors and the progress anganwadi wise was reviewed by the supervisor.

The progress of the scheme was reviewed at the district, block and the beat level and the report was made available at the standing committee meetings every month, before the elected representatives whereby they were urged to intervene in areas with poor response. In a press conference, after every standing committee meeting, the ZP president briefed the press about the progress of the scheme. Thus the issue of malnutrition that was purely reviewed at the administrative level came in the public domain and was owned by the elected representatives from the top to the bottom.

THE EXPERIENCE

The thrust was community and especially male participation in a domain that seemed exclusively for women and children. Also it aimed to bring the anganwadi centre at the focal point of the village, a path breaking thought as it meant changing the mindsets of elected representatives that the crucial indicator of development of a village wasn’t the number of bridges and roads built but the number of healthy children and non-anemic adolescent girls and mothers.

To nail home this point, it was decided to launch this programme with loud fanfare and in the presence of community leaders so that the weak voice of malnutrition is heard far and wide. In a public function in Jawala village in Parner Taluka, on 29th March 2006, in the presence of veteran social activist of national fame, Shri Anna Hazare, the handi filled with curd and butter, was broken in the traditional style of Janmashtami by the anganwadi child dressed in Sri Krishna attire. Anna Hazare's presence coupled with presence of the Collector, ZP president, CEO, local MLAs and others elected representatives helped spread the message of community involvement through Gopalkala Abhiyaan for combating malnutrition very quickly and the initiative spread like wild fire.

Media was taken into confidence and an appeal was made to them to give due publicity to this movement by publishing the names of generous donors of the villages where public feasts took place. The Gopalkala feasts were personally attended by Zilla Parishad President, all subject committee sabhapatis and the CEO also personally attended and felicitated the donors and villages that initiated such feasts. Also the Collector and his officials were invited for such functions repeatedly so that the villages feel rewarded in various ways.

- For the first time, the issue of malnutrition got a public space and the work of anganwadi centre came at the centrestage.
- For the first time elected representatives of the village became aware of the magnitude of the problem in their village. They became familiar with words like survey, grades of malnutrition and schemes like therapeutic food for the severely malnourished.
- Anganwadi workers became accountable to the public and in one stroke, irrespective of the supervisory machinery, her performance showed improvement in terms of the number of beneficiaries attending the centre, the correctness of weights taken and the number of children who showed improvement and who did not.
- And finally, social and economic issues that had a root in the problem began to be addressed by the village and was not left for the anganwadi worker to handle alone.

Thus malnutrition had been taken by the district as a high priority item and village participation by way of public feasts was
considered an effective and familiar way to control it. The institution had succeeded in capturing the pulse of the people.

OUTCOME AND IMPACT

Major positive outcomes are:

- Gopalkala Abhiyaan being a people’s initiative, made extensive coverage covering all the 3000 odd anganwadis and 1309 Gram Panchayats.
- Large scale mobilisation of all the stakeholders was made possible. Elected representatives, government officials, anganwadi workers, media and the people were mobilised on a common platform of Gopalkala Abhiyaan.
- Soft issues of development of women and child became frontline and result oriented and mobilised community presence and funding in unique ways.

The result was a perceptible shift in the mindset of the various stakeholders that had the potential to reduce the problem of malnutrition. Anganwadi became the centre of attention of the village and the focus of the community shifted to the problem of malnutrition in a way that was aligned to their traditions and life customs. The problem now seemed within reach. The tradition of religious feasts being familiar and popular, the issue of malnutrition secured the commitment of one and all.

The social ownership gave a dimension of social audit and issues like weight improvement in the children started being discussed by sarpanch, donors and other well to do people of the village thus bringing the issue of malnutrition in the centre stage. This was an important achievement. Malnutrition had occupied a position of importance in the mindscape of the people.

The community ownership also helped anganwadi workers perform to the best of their abilities as they were being ‘watched’ for the first time thus making them responsive and outcome oriented. Malnutrition at the centrestage gave them importance but also made them accountable.

LESSONS LEARNT

Gopalkala Abhiyaan was conceived as a people’s movement with the ultimate objective of community ownership to the issue of child nutrition. The Abhiyaan was a revelation in ways more than one. Some of the important lessons learnt were:

- Tools enforcing accountability of institutions to the people and community are a powerful way to achieve responsible, result oriented administration at all levels.
- Gopalkala Abhiyaan reposes faith in the ability of people to transform long standing, seemingly impossible problems into opportunities for involvement and public participation in a manner that is embedded in their natural life cycles. It gave us a realisation that innovative approaches to community participation in tune with local customs and cycles would definitely help scale up the movement to combat long standing problems that had a social dimension.
- For any movement to succeed, it is necessary to involve all stakeholders especially the elected representatives, make it an all inclusive movement and for the catalyst to stay in the background.
- The villages who are the core stakeholders welcome schemes if administration repose faith in their abilities and allow them to initiate and innovate. It is necessary to give them what they crave for and it is important for administration to understand their pulse.

FUTURE PLANS

The enthusiastic response of the villages had to find a sustainable pattern for the movement to show results in a long term perspective. Sustainability of the programme was in a way inbuilt as the basic theme was mobilization of the village in a manner that was familiar, based on a traditional life custom that spanned almost all villages not just in the district but in most of the areas where it could be adopted. Since Harinaam Saptah is an important religious tradition and is a
way of life of the people, this custom being linked to Gopalkala Abhiyaan is a most potent means of sustainability. The scope has been expanded in many other ways:

- It was decided that villages that donate the maximum feasts would be specially invited during the felicitation programme on ICDS day.
- Celebration of girl child was coupled with the feasts and girl children were given special attention by being projected as a future mother.
- Slowly the attempt was to enlarge the scope of the movement to include adolescent girls, whose effective nutrition could eliminate the problem of malnutrition from the roots. The focus of girl child was also essential in wake of the adverse sex ratio of the district. Involvement of adolescent girls in the public ceremonies helped them to understand the ingredients of a good, nutritious diet that they needed to learn for a healthy future.
- Also, pregnant and lactating mothers were fed by the women counterparts of the donors and these feasts were celebrated like 'kelwans'—a tradition of feeding would be mothers by the women folk. Coupling such traditions with the purpose of nutrition helped the ownership of this issue even in women of advantaged groups.

Gopalkala Abhiyaan, by and large, had become an all encompassing and all inclusive movement and issue of nutrition had become a community responsibility that would be supported by the ICDS department henceforth.

Improvement Project Case Study
Improving Productivity and Maintainability of Wire Rod Mills Solution for Frequent Failure of Tilting Conveyor

Bijoy Dash

THE CONTEXT

Organisation and its Activities

National Aluminium Company Limited—a premiere public sector undertaking—has the distinction of many accolades in national and international arena. The company is a green-field project engaged in mining of bauxite, refining to alumina and production of aluminium ingots, wire rods, strips, rolled sheets and billets, with its own captive power plant. The company’s products have been registered in the London Metal Exchange and are being exported to 26 countries worldwide. The company has bagged record number of CAPEXIL awards for outstanding export performance and has been accorded the status of “STAR TRADING HOUSE” and “MINI RATNA” by Govt. of India. The company has been rated one of the best-managed PSU by SCOPE (Standing Committee on Public Enterprises).
NALCO's journey of quality management started in mid nineties and within a short span performance of the organization counts among the best of the contemporary players in the world of Aluminium. All the units of the company have been certified with ISO 9001, ISO 14001 and OHSAS 18000 by TUV. Nalco's success on quality management is apparent from the distinction of being the third cheapest aluminium producer of the world. In last few years the company witnessed a major emphasis of top management on company wide quality management with an appreciable change in focus from production to productivity and from customer satisfaction to total customer care.

This case study relates to an innovative improvement project undertaken by the in-house quality circle 'Srujanee' of the mechanical maintenance section of cast house in smelter plant of NALCO, situated at Angul in Orissa.

**OPPORTUNITY/PROBLEM**

Pre-initiative status of the area/domain in which the innovation initiative was undertaken; reasons for taking the decision to start the initiative; persons involved in the decision-making process

Two Wire Rod Mills in the cast house in smelter have been supplied by M/s PROPERZI of Italy, commissioned in 1985, each designed to produce 9 tons per hour of 9.5 mm dia. EC (electrical conductor) grade aluminium wire-rod. Liquid aluminium metal is transferred from the furnace by the launder-tundish assembly to a water-cooled ring mold mounted on the rim of a rotating wheel. Metal solidifies in the ring-mold to a square cross-section known as the cast bar. Cast Bar is fed to the rolling mill stands with the help of the tilting conveyor, bar-straightener and the bar-quench sections. In the rolling mill, fifteen stands gradually reduce and smoothen the square cross-section cast bar to 9.5 mm dia. Wire rod at the exit. Out coming wire rod from the mill after quenching is automatically wound to coil form on the reels of the coiler.

This project case study is concerned with the tilting conveyor, which transfers cast bar from auto-shear to bar-straightener. It consists of a series of rollers on which the cast bar slides and can be tilted down actuated by a pneumatic cylinder as required. If sliding on the rollers is hampered, the cast bar loops and the entire production process has to be stopped. Moreover, the length of cast bar already out of the mold is cropped by the auto shear. Stacking of cropped bars affect safety and house-keeping.

In summary, production and maintenance personnel of Wire Rod Mills were facing the following problems:

- frequent stoppage of cast bar movement on the tilting conveyor leading to stoppage of production and losses
- generation of large quantity of cropped bars which needed to be removed from the vicinity for re-charging into furnaces
- stacking of the same affected safety and house-keeping
- difficulties in maintenance of the Tilting Conveyor due to jamming of area
In 2006-07, the problem had occurred 144 times which alone accounted for 72 hours of down-time.

As the demand for EC grade Wire Rod in domestic market grew in 2007-08 and as a consequence pressure on increasing productivity, this problem was identified as a priority for solving. Quality circle “Srujanee”, a small group of skilled foremen and technicians in the mechanical maintenance section, facilitated by an engineer, came forward to solve this problem with in-house resources.

AIM/GOALS AND OBJECTIVES

What was the initiative all about? What did it set out to achieve?

Within the overall objective of improving the productivity of wire rod mills for this particular project, following primary goal was set:

Seventy percent reduction in frequency of failure of tilting conveyors in Wire Rod Mills

The secondary objectives were:

- to improve work place safety
- to improve maintainability of the equipment

SETTING THE SCENE

Pre-initiative activities, e.g. engaging a consultant, training of personnel, constitution of quality teams/task forces, deciding quality process measures and instruments, etc.

Quality circle 'Srujanee' comprised of:

- Mr S.K. Singh, Jr. Foreman (Leader)
- Mr N.C. Pradhan, Sr. Technician
- Mr P.K. Bhoi, Sr. Technician
- Mr S. Minz, Technician
- Mr D. Pradhan, Member

They were aided and counseled by Mr S.K. Nayak, Jr. Manager and other engineers in the area. They decided their meeting time as every Tuesday from 3 p.m. to 4 p.m. and prepared a milestone chart for monitoring progress.

No external consultant or the technology suppliers needed to be consulted for solving this project.

The Quality circle worked with twelve step methodology of problem solving devised by the QCFI (Quality Circle Forum of India) based on Deming’s PDCA cycle, on which they had been trained by the unit TQM department. The steps or milestones consisted of 'Identification of Problem', 'Selection of Problem', 'Defining the Problem', 'Identification of Causes', 'Data Analysis', 'Finding out the Root-causes', 'Developing Solutions', 'Foreseeing Probable Resistance', 'Trial Implementation and Check Performance', 'Regular Implementation', 'Follow-up/ Review'.

THE EXPERIENCE

How did the institution go about? What did it actually do?

At first, data available in the departmental records for the previous six months was studied by the group. Stratification of the data was done machine-wise, shift-wise and month-wise. As no significant clue was noticed, it was agreed that the problem was not influenced by location, time or periodicity.
Structured brain storming was carried out among the group in which several probable causes were identified and the same were plotted in Fish Bone diagrams.

Then the group went about rigorous on site observation, aided by a Check Sheet. The Check Sheet required them to check/inspect the status of the components of the tilting conveyor, namely the hinge pin, roller housings, rollers and bearings of rollers whether OK/ out of position/ bend, etc.

Next, contribution of significant factors was plotted in a Pareto Graph, which revealed three vital causes:

- roller housing mis-position
- roller out of position
- hinge pin failure

Each of these three vital factors were again analysed for why-why(?) to arrive at the actionable root-causes and brain storming was done to generate alternative solutions.

It was found out that ‘roller housing mis-position’ was being caused by looseness of mounting bolts, as there was single bolt for
mounting which was a design weakness. To remedy the same, it was suggested to provide another mounting bolt or to fix the mounting plate by welding or to provide split housing.

Similarly, it was found out that rollers were coming out of position due to worn-out shafts caused by damaged bearings which were extra light series bearings. To remedy the same, it was proposed to change the bearings to light series.

Similarly, it was found out that hinge pin failures were welding failures caused by heavy jerks during operation due to excess weight of the tilting conveyor. To remedy the same, it was proposed to channels in the conveyor frame with angles or to reduce number of rollers in the conveyor assembly.

After departmental presentation and discussion on the relative merits and demerits of the proposed solutions, the following measures were accepted for implementation:

- provision of split housing for rollers
- replacement of extra-light series bearings (6205) of rollers with light series bearings (6004)
- reduction in number of rollers in the conveyor assembly.

With these solutions, trial implementation was done in Wire Rod Mill-2 on 12 December, 2008. After trial implementation and monitoring was done for six months with a check list by the group members. During this period, not a single failure was witnessed and down-time due to the problem was nil in wire rod mill 2.

Encouraged by the success, regular implementation was done in wire rod mill 1 in June, 2008. The system is now working satisfactorily in both wire rod mills.

For standardization, tilting conveyor assembly drawing was modified incorporating all the changes and the preventive maintenance check list was revised to incorporate regular checking of rollers, bearing assemblies and mounting arrangements.

OUTCOME AND IMPACT
What was the result? How did it affect/ improve the area of activity chosen for improvements?
Apart from improving productivity, maintainability and housekeeping significantly the project has yielded a financial saving of total 9.32 lakhs per annum towards down-time and spare parts.

LESSONS LEARNT
Do’s and don’ts. Conceptualisation of good practices and pit-falls to be avoided

The success of this project has reinforced the trust the management had placed on the in-house quality circle teams’ creativity and capabilities. Management has encouraged formation of new quality circle teams all over the plant and empowered them for solving similar chronic problems with in-house resources.

For the members of the quality circle team, success of this project has bolstered team spirit, motivation and the basic approach to solve problems with QC tools, analysis of data and generation of ideas.

FUTURE PLANS
How are lessons learnt going to be taken care of in the future?

Following the successful completion of this project, several other projects have been taken up to improve productivity and other aspects in Wire Rod Mills by Quality Circles. As on date, all of them are in various stages of implementation/monitoring.

- false guide ejection fault in Rolling Mill
- reduction in failure of casting water pumps
- coil tapering in coilers
- failure of powder coupling
- tripping of DC motors due to anemometer fault

Management of cast house and smelter are continually following up these projects as well as looking for other such opportunities to improve productivity of wire rod mills.

Bijoy Dash, Executive Director (Production)
National Aluminium Company Ltd., Angal, Orissa
Innovations in Governance
Construction of Ten Thousand Vanrai Bandhare

Dr. Shrikar Pardeshi

THE CONTEXT

Panchayati Raj system in India is a landmark in democratic decentralization. It envisions people’s participation in the process of planning, decision-making and implementation. Under the three tier structure of panchayati raj system, the Zilla Parishad is the apex body at the district level followed by panchayat samiti at the intermediate level and gram panchayat at the village level. The Zilla Parishad is primarily an advisory, supervisory and coordinating body for all rural development programmes related to a district. Apart from other functions it is expected to promote innovations and implement new concepts of reforms for the rural masses and ensure community participation in its initiatives.

Yavatmal Zilla Parishad came into existence in 1962 when the three-tier system of panchayat raj was initiated in Maharashtra. Yavatmal district is located in the eastern region (Vidarbha) of Maharashtra. It has a population of nearly 27 lakhs, 80 per cent of which resides in rural areas. There are 16 talukas (blocks) and 1205 gram panchayats in this district.

Out of the total geographical area of 13,58,000 hectares, nearly 9,60,000 hectares is under cultivation, of which 8,90,000 hectares depends on monsoon, i.e. kharip crops. On an average, rabi crops are cultivated on 43,000 hectares only, while summer crops are taken up on 7,000 hectares. Though the potential created for irrigation in the district is 1,48,000 hectares, actual average irrigated area in the five years, 2000-2004, was only 31,000 hectares. The average rainfall
of the district is 964 mm. The mainstay of rural economy is agriculture. As seen from the statistics, 95 per cent of the farming is dependent on monsoon, while rabi and summer crops are grown on just 5 per cent of the cultivable area.

THE OPPORTUNITY/PROBLEM

The district experienced less than 60 per cent of the average annual rainfall for two consecutive years, 2003 and 2004 (Table 1). This resulted in the problem of water scarcity. In the month of September 2004 many rivulets, nullahs (water streams) and wells had gone dry. The average water table had gone down by 1.99 metres. The kharif crops sown over 4,24,000 hectares could not be cultivated successfully. The crop inspection reports estimated the agricultural output to be less than 50 per cent of the expected in 1535 out of the 2144 villages in the district.

By the end of December 2004, nearly 95 per cent of the villages started facing the problem of water scarcity. The number of water supply tankers for the villages increased from 34 in summer of 2003 to 192 in the summer of 2005. A total of 3,27,000 villagers depended on water tankers as the sole source of water. The irrigation projects had only an average of 3 per cent of their water storage capacities at the end of summer 2005. The district was experiencing such an adverse situation for the first time. In addition, the number of farmer’s suicides was also assuming challenging proportions.

It was against this background that I joined as the Chief Executive Officer of Zilla Parishad in November 2004. This was my first major posting and I had the opportunity to lead a district level PRI. The district administration was already implementing relief interventions on a war footing. My interactions with the staff, field visits and review of media reports reiterated the grim picture on the water front. The people of the district were facing extreme hardships and there seemed to be no immediate solution in sight. Equally distressing was the fact that the community appeared helpless and unable to alleviate the problems in any way.

The relief measures to mitigate the water scarcity were being implemented on a large scale. These included digging new bore wells, deepening of existing wells, repairs of piped-water schemes, lying down of new piped water schemes from distant new sources, and when all measures failed, providing water by a tanker. Taking note of the alarming depletion in the water table, water conservation structures were given a priority to garner maximum benefit of the coming monsoon.

Since January 2005 the initiatives for water conservation in the form of well recharging, gabion structure, cement check dam, deepening of well, rainwater harvesting, farm pond, earthen check dams, were given priority. These were constructed under centrally sponsored Sampoorna Gramin Rozgar Yojana (SGRY), National Food for Works Program (NFWP) and state-sponsored Shivkalin Water Harvesting Scheme (SWHS), Yashwant Gram Samriddhi Yojana (YGSY), etc.

The district was hoping for a good monsoon and fortunately there was good rainfall in the year 2005 (Table 1). The experience in the recent past, however, had taught a lesson a lesson to value water.
The experience of water scarcity underscored the need for water conservation, water management and water utilization. At the same time we also wanted the community to shed the feeling of helplessness and dependency and empower them to take up initiatives which were simple, affordable, feasible and effective. During our search for an appropriate solution we zeroed in on the concept of Vanrai bandhara.

Vanrai bandhara is a type of temporary check dam built across the direction of water flow on shallow rivers and streams for the purpose of water harvesting. The construction technique is very simple and of low cost. Empty cement bags need to be filled with sand/soil and should be stitched. The sand/soil available in the stream/rivulet itself can be used. These bags are laid across the rain water channels to impound the flowing water. The gaps in the bags are filled with the black cotton soil to prevent seepage of water.

These small dams retain excess water flow in post-monsoon phase. The backwaters can be used in the form of lift irrigation to adjoining fields. The water also percolates down to recharge the shallow aquifers leading to replenishment of nearby groundwater reserves and wells by raising the water table in the area. The water entrapped by the dam, which includes surface and subsurface water, is primarily intended for use in irrigation during the rabi and summer season. It is useful for livestock as well as domestic needs.

Vanrai bandhara can be constructed at low cost with minimum inputs. The construction is completed in a short period (few hours to a few days). Considering the cost-effectiveness and the scope of sustainability through community participation, a final decision was taken in favour of implementing a campaign for construction of Vanrai bandhara throughout the district.

**SETTING THE SCENE**

To begin with, a meeting of all the ZP staff working at the district and taluka level was called to disseminate the message. The Zilla parishad, panchayat samiti and gram panchayat members were also taken into confidence about the need and benefits of such a venture. All the stakeholders and key players were convinced about the programme. As a result the campaign never faced any political or social opposition during implementation.

The next step was a department-wise division of responsibilities for training and construction activities. The sarpanchs, gramsevaks and teachers in the villages were invited to participate in the training sessions in which they were taught about the appropriate time of construction, criteria for site selection, method of construction and benefits of the dams. Informative booklets were distributed to the participants for ready references in the future. They went back to their villages and demonstrated the construction of the Vanrai bandhara to the community. The gramsevaks motivated and guided the villagers to construct the dams. The ZP staff at the district and taluka level was readily available for help and guidance of the villagers.

Planning was completed in the month of September and Vanrai bandhara were constructed from October to December. The sites were selected carefully to garner maximum benefit. The farmers were involved in the process of site selection to generate their interest and ensure direct utilization of water.

### Table 1: Rainfall in Yavatmal District for year 2001 to 2006

<table>
<thead>
<tr>
<th>Year</th>
<th>Avg. annual rainfall (mm)</th>
<th>Total rainfall (mm)</th>
<th>% rainfall</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>964.70</td>
<td>859.00</td>
<td>89.20</td>
</tr>
<tr>
<td>2002</td>
<td>964.70</td>
<td>889.90</td>
<td>93.00</td>
</tr>
<tr>
<td>2003</td>
<td>964.70</td>
<td>520.00</td>
<td>53.60</td>
</tr>
<tr>
<td>2004</td>
<td>964.70</td>
<td>458.08</td>
<td>47.48</td>
</tr>
<tr>
<td>2005</td>
<td>964.70</td>
<td>1024.86</td>
<td>106.23</td>
</tr>
<tr>
<td>2006</td>
<td>964.70</td>
<td>1068.50</td>
<td>110.76</td>
</tr>
</tbody>
</table>
Making arrangements for empty bags was a major component in the campaign. The provision of empty cement bags was also planned well in advance to avoid any demand-supply gaps. Various departments involved in construction activities under different developmental programmes, i.e. SGRY, YGSY, SSA etc., were requested to provide empty cement bags. In addition, private contractors and agriculture service agencies were also requested to donate empty bags. There was a positive response to this request and fortunately there was no shortage of bags.

THE EXPERIENCE

Involving school children

The Supreme Court had passed a ruling making environment education a compulsory part of school curriculum. As a result the subject 'Environment Education' was introduced in the syllabus from the year 2005. Apart from dealing with the theoretical aspects of this topic, we wanted the children to participate through some practical ways of learning. Massive tree plantation drive in July and August 2005 was the first practical lesson for school children. After a good monsoon we thought this was the appropriate moment to make the children understand the importance of water conservation.

In order to bring the idea of Vanrai bandhara to the forefront it was decided to involve children from all the Zilla Parishad schools in this project. The motto was 'One school-One Vanrai bandhara'. The school children were motivated to construct small check dams in their villages. Since the depth of water in the backwater of the Vanrai bandhara constructed by the school children was just two to three feet, it was a completely safe technique for them. The trained teachers took the message to their schools and the school children reciprocated enthusiastically under the supervision of their teachers. A total of 2048 Vanrai bandhare were constructed by children from 1859 Zilla Parishad schools in a short span of two months. This amounted to 39 per cent of the total check dams built in the district the year 2005.
bandhara. This aroused their interest and helped them study the impact of their inputs. The enthusiasm and interest of the children was extraordinary. They constructed dams in the interior of forests too. Many schools constructed more than one check dam. Some private schools also took up the initiative. The work done by the school children was acknowledged by UNICEF as a major achievement and was published on its website too.

The results
The initiative taken up by the children was well publicized and the community reciprocated overwhelmingly. A farmer in Maregaon block observed the rise in water level in the well near his house due to the Vanrai bandhara constructed on nearby nullah and then voluntarily constructed a Vanrai bandhara near a well on his farm. In Mahagaon block, a group of farmers came together to construct a Vanrai bandhara on a rivulet. The collected water was used to irrigate the crop of sugarcane.

Vanrai bandhara constructed by the children were small and simple in nature. But, we put special emphasis on the gramsevaks and agricultural officers to construct big and technically sound Vanrai bandhara. In Bori arab village in Darwha block, a huge Vanrai bandhara was constructed by the Gram Panchayat using 7,500 bags on a river. The backwater impounded for 4 km stretch of the river led to a rise in level of water table in 17 wells in its catchment area and also provided water for irrigation to the rabi crops in nearby fields.

The campaign moves ahead
Taking into consideration the positive response in the year 2005, we decided to continue the interventions in the year 2006 and also thought of expansion.

It was noted that the SHG (Self Help Group) movement had gained momentum in the district. Women’s SHG programme is mainly directed at economic and social development of women’s groups. It has been realized that in addition to monetary activities, the women SHGs can also act as a cohesive unit to take up some activity for the development of their community.

In Yavatmal, some women SHGs were actively working in Total Sanitation Campaign while some had taken part in the anti liquor
activities. The campaign of constructing Vanrai bandhmare was another area where women SHGs could participate actively. The slogan for them was 'One SHG-One Vanrai bandhara.' There was a remarkable response to this call and a total of 1237 Vanrai bandhmare were constructed by women SHGs in the post-monsoon phase of year 2006.

![Image of women constructing Vanrai bandhmare](image1.png)

Fig. 6. Vanrai bandhara constructed by a Women SHG in Kalamb block.

![Image of women constructing Vanrai bandhmare](image2.png)

Fig. 7. Vanrai bandhara constructed by a Women SHG in Kalamb block.

**OUTCOME AND IMPACT**

Over a period of two years, a total of 12,984 Vanrai bhandhare were constructed in Yavatmal district (Table 2) impounding approximately 56 million cubic feet of water. This resulted in an increase in surface water reservoirs as well as a rise in ground water level. The water was used for irrigation, domestic purposes as well as for livestock rearing. The number of water supply tankers for the villages decreased from 192 in summer 2005 to 28 in summer 2006.

<table>
<thead>
<tr>
<th>Agencies</th>
<th>Year 2005-06</th>
<th>Year 2006-07</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Vanrai bandhara</td>
<td>Vanrai bandhara</td>
</tr>
<tr>
<td>ZP Schools</td>
<td>2048</td>
<td>2087</td>
</tr>
<tr>
<td>Gram Panchayat</td>
<td>2205</td>
<td>4013</td>
</tr>
<tr>
<td>Agriculture Officers</td>
<td>849</td>
<td>273</td>
</tr>
<tr>
<td>Other ZP departments</td>
<td>184</td>
<td>88</td>
</tr>
<tr>
<td>Women SHGs</td>
<td>nil</td>
<td>1237</td>
</tr>
<tr>
<td>Total</td>
<td>5286</td>
<td>7698</td>
</tr>
</tbody>
</table>

![Table 2. Output of the campaign: Number of Vanrai bandhmare constructed by different agencies](table2.png)

The cultivation of rabi and summer crops showed a rise compared to previous year (Table 3). The increase in rabi and summer crops area in year 2005-06 and 2006-07 could be the result of multiple factors, especially good monsoon. But, the contribution of Vanrai bandhmare in this regard was also significant. A few farmers

<table>
<thead>
<tr>
<th>Year</th>
<th>Cultivation of rabi crops (in hectares)</th>
<th>Cultivation of summer crops (in hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average per year</td>
<td>43,700</td>
<td>7,000</td>
</tr>
<tr>
<td>Year 2005-2006</td>
<td>89,200</td>
<td>13,700</td>
</tr>
<tr>
<td>Year 2006-2007</td>
<td>1,08,000</td>
<td>10,700</td>
</tr>
</tbody>
</table>

![Table 3. Cultivation of rabi and summer crops in 2005 and 2006.](table3.png)
reported to have been able to take a second crop on their fields for the first time because of the Vanrai bandhara.

![Fig. 8. Direct irrigation from backwaters of a Vanrai bandhara in Maregaon block.](image)

There were collateral benefits too. The involvement of children in such interventions is important because such activities will groom them into citizens who feel responsible towards the environment. The initiative has empowered the community and changed their outlook towards water conservation and water management. Many community members started taking interest and inquired about permanent structures of water conservation like farm ponds, rain water harvesting, CCT, etc.

Women are primarily involved in fetching water for domestic use in rural areas. As primary domestic water users and managers, they face the maximum brunt in times of water scarcity. The availability of impounded water in the vicinity of their homes saved their energy and time for doing household chores. There were instances where the women folk worshipped the Vanrai bandhara after experiencing its benefits in their daily life.

It is hoped that along with other interventions, such small initiatives will lead to a rise in crop production and increased employment opportunities through increased working days per hectare. This would mean security against impoverishment and migration. The interventions in water management and water conservation do have the potential of improving the quality of life of the rural people and can become the lifeline of their livelihood if implemented successfully.

**LESSONS LEARNT**

The entire process of water conservation and management by constructing Vanrai bandhara was a learning experience.

**Timely initiation**: It was important to implement the campaign in year 2005 itself. There is an old dictum—‘Strike when the iron is hot’. Both, the administration and the community, were convinced about the need to conserve water. It was, therefore, easy to motivate and mobilize everybody. Timely initiation of the campaign ensured extraordinary results.

**No direct expenditure**: It set an example that developmental work can be done and remedies to major problems can be found without government expenditure. One has to believe in the capacities of the community. Lack of any direct monetary inputs in the campaign ensured transparency and simplicity.

**Community involvement**: Mobilizing the community to get involved in any programme can be done by many ways. In this campaign, we reached out to the masses through the existing groups like schools and SHGs. Utilising such groups like Mahila Mandals, Youth Groups, SHGs, NCC, NSS units can be an effective channel to mobilize the community to join a campaign concerning developmental issues. Involving the direct beneficiaries like women, farmers, etc., was also found to be an effective strategy to ensure sustainability.

**Taking various stakeholders into confidence**: Care was taken to train and involve the officers and staff of different departments, e.g. education, DRDA, panchayat, agriculture, etc. The people’s representatives and the local media were also apprised about the
programme. This ensured their total cooperation and was a key to the success of the programme. The mass media played a very proactive role. The local newspapers regularly published stories of the check dams with photographs. The television channels also broadcast the news of Vanrai bandhara in Yavatmal district. This infused enthusiasm and excitement amongst the people and gave them a sense of achievement.

Giving credit: The groups which had played a vital role in construction of the Vanrai bandhara were acknowledged and given due credit. The programme did not belong to any individual or to any particular department. It had gradually reached the masses. Yavatmal Zilla Parishad published two books describing the achievements of the school children (Jal samvardhanatoon Jalsamruddhikade) and Women SHGs. (VasaJalsamruddhicha).

Partnership: The fact that government departments and community are not constantly at loggerheads with each other but can forge effective partnerships was evident in the campaign. The staff of Zilla Parishad provided training, guidance, support and empty cement bags while the community contributed in the form of voluntary labour and time.

Understanding the repercussions: Success of the campaign in the first year of its implementation was imperative to overcome the passive outlook of the community and ensure sustainability. Any failure in implementation would have had serious repercussions as the community would have further distanced itself from such initiatives.

FUTURE

A Vanrai bandhara lasts for one season, i.e. October to June. As these are temporary check dams, continuity of interest and inputs from the community is vital to ensure sustainability of the programme. Once the community experiences the benefits of the initiative, sustainability is ensured. The construction of the check dams continues unabated in Yavatmal in the year 2007 too. The concept of

Vanrai bandhara has accompanied me to Akola, the district where I have been posted as Collector since May 2007. The initiative has potential for sustainability as well as replication in the field.

Increasing demand and decreasing availability of fresh water is bound to result in water scarcity in near future. Some parts of the world are already recognized as water scarce areas while water scarcity in other parts is predicted to be round the corner. The concept of water conservation and proper water management with active community participation has to be accepted and put into action.

Dr. Shrikar Pardeshi, IAS
Collector, Akola
Ex-CEO, Zilla Parishad, Yavatmal
Traditionally district administration has been the only source available to citizens for accessing the wide range of Government-to-Citizen (G2C) services. The process of obtaining the birth, death, domicile, caste, income and other certificates, ration cards, job cards, benefit under various welfare schemes and access to information have been marred by red tape and bureaucratic hassles. Citizens had no option except visiting the district headquarter/tehsil for government related work and getting their grievances addressed.

The conventional administrative mechanisms are constrained by their inability to reach out to most of the citizens. The only way out to use technology effectively to make governance more user friendly to citizens.

The citizens had block, tehsil and district collectorate for accessing wide ranges of G2C services. A journey for improving the service delivery to citizen was started in November 2004 with inception of Lokvani by the then district magistrate Shri Amod Kumar.

Lokvani is a single window, self-sustainable e-governance solution providing transparent, accountable and responsive administration towards grievance handling, land record maintenance as well as an eclectic mixture of essential services.

Lokvani caters to the needs of three major players resulting in a symbiotic and mutually beneficial relationship among its benefactors. The model has been commended unequivocally by various neutral observers/agencies and has been showcased as one of the most successful, popular and influential e-governance solution implemented in India.

Sustainability of the solution after moving out of the champion of the project is still one of the biggest challenges in India. Sitapur not only continued Lokvani but also added more successful e-Governance initiatives on regular basis. The brief introduction to these initiatives is given below.

- **Common Service Centers (CSCs)**: A CSC is a computer center with internet connectivity (improved version of cybercafé) which is operated by a private company. One CSC is being planned for every 6 census villages. Sitapur added the CSCs in addition to Lokvani Centre to give accessibility to G2C and B2C services at doorstep. These CSCs are providing B2C (business to citizen services, e.g. computer training, English speaking training, railway ticketing, financial services like insurance, banking, photography, photocopy, scanning, mobile recharge, etc.) and G2C (government to citizen services, e.g. various information, form submission, certificates, bills deposition, land records, etc.) services to the citizens in rural areas.

- **Lokvani**: Lokvani is an Internet kiosk-based G2C interface for providing various information and public grievance redressal in a transparent, accountable and time-bound manner by forging effective Public-Private Partnership (PPP). This program was started in one district and now effectively covers about half of the districts of UP.

The concept is very simple. To redress his/her grievance a citizen may go to any of the Lokvani Kendra (cybercafé established on a
PPP basis) and directly place his grievance on the website
(www.districtname.nic.in/lokvani). He/she gets a printout and a
unique no. for the grievance. Later on he/she can track the
progress/redressal through phone/website. The same website
also helps in monitoring of the disposal of grievances by the
senior officers. The website is fully transparent and provides
every detail not only about the disposal but also about the
performance of various officers in grievance handling. In UP,
there are about 1,000 Lokvani Kendras. So far about 300,000
grievances have been disposed off using this system.
For directly benefiting and empowering rural citizen, this
initiative of the state government has been winner of several
national and international awards. Notable amongst them are
UN Public Service Award finalist 2008, Stockholm Challenge
Awards special mention 2006, Prime Minister’s award for
excellence in Administration 2007, National e-Governance
award 2006.

- **Computerization of Land Records**: In UP, about 25.4 million
  land records (of about 100,000 villages) have been fully
  computerized in a mission mode, thereby greatly benefiting rural
  farmers. All these records are being regularly updated in all the
tehsils (about 300 in number) of UP. Any farmer desirous of
getting the extract of his land record can now go to any tehsil and
get it after paying Rs.15. Earlier this thing was done by revenue
functionary called lekhpal who used to manually copy the details
of land on a paper, certify it and then give it to the concerned
person. This made the farmer dependent on this functionary,
giving rise to huge amount of corruption. Also the verification of
any record issued in this manner used to take months. Thus this
simple initiative has brought a lot of convenience for the farmers.
Sitapur is delivering copy of land record from all the tehsils with
in service level of one day.

- **e-District**: e-District is a State Mission Mode Project under
  National e-Governance Action Plan 2004-08 of government of
  India. e-District targets certain high volume services delivered at
  the district level, but which are currently not covered by any
  MMP under the NeGP, and undertake back end
  computerization to enable the delivery of these services through
  Common Service Centers with a view towards achieving self-
  sustainability. e-District project has been envisaged by
  Government of Uttar Pradesh (GoUP) as automation of
  workflow and internal processes of district administration with
  the possibility of seamless integration of various departments.
  Sitapur was the first district in Uttar Pradesh and one of the
  foremost districts in India, which has successfully implemented
  this project and is offering more than 22 G2C services from state
  of the art e-District Centre at collectorate and various Lokvani
  and Jan Suvidha Kendra in rural and urban parts of the district.
  Sitapur is offering digital sign copy of the certificate with the help
  of fully automated work flow. All the officers of the district were
  trained for supporting this initiative.

- **ePDS**: Monthly allotment, lifting and distribution details of food
  grains and kerosene for all Fair Price Shops (FPS) of the district
  are available online. Tehsil level officers directly update the data
  on the website which becomes instantly available to public
  though Lokvani website. This information is also available to
  public over telephone through IVRS.

- **Touch Screen Kiosk**: A Touch Screen Kiosk is installed at
  Collectorate, Sitapur. Citizens can use this service free of cost.
  Lokvani Complaints Status; Pension delivery status for Treasury,
  Old Age, Widow, Handicap Pensioners; Scholarship Details for
  Primary, Junior, High, Higher Secondary Schools; and
  Allotment of food grains to Kotedars, Status of Arm License
  Applications, Allotment of Funds to Gramsabha, are available at
  this kiosk.
- **Integrated Voice Response System (IVRS)**: Lokvani complaints status; pension delivery status for treasury, old age, widow, handicap pensioners; scholarship details for primary, junior, high, higher secondary schools; and allotment of food grains to kotedars, status of arm license applications, allotment of funds to gramsabha are also available through ICRS system. India is touching 45 per cent teledensity and hence IVRS is the easiest most for citizen for status update and informational services. IVRS facility in Sitapur can be availed by dialing 05862-240027. The numeric codes for schools/gramsabha/FPS shops/pensioners/scholarship beneficiaries are circulated widely by the respective departments. These codes are also available at all Lokvani Centres and Lokvani Website. Codes are also being displayed at respective FPS shops/schools, etc.

- **Biometric based Attendance System**: A Fingerprint based biomatric attendence system has been introduced in collectorate, Sitapur. All the employees in the collectorate campus are registered in the system. Their daily attendance is registered in the system twice once in the morning and next in the evening. This has greatly helped to keep the employees punctual.

**THE OPPORTUNITY/PROBLEM**

District administration officials in India have a large population base under their purview. Hence, without the deployment of information and communication technology, the task of managing the services becomes insurmountable. But prior to Lokvani system the infrastructure was abysmally inadequate due to limited number of computer systems and non-existent computer networks.

Another factor contributing to the perceived inefficiencies in governance has been the inability of administration to effectively monitor the government officers. Again, ICT can be a tool to address this drawback.

Both the officers and citizens were used to a functioning which repeated physical visits, long queues to meet officers, paper applications, affidavits, files, and babus (clerks) were a routine. The entire backend functioning of the system was shrouded in secrecy and lacked transparency. Added to this, political influence on the process hampered efficient functioning of the government. The system was, generally, not accessible to common citizen, who typically had to take support of either a local political leader or influential people to represent his case/grievance. In this system, there was an opportunity for exploitation of illiterate and uninitiated (to the government's way of functioning) citizens by touts at various stages. Officers were also over-burdened by excessive paperwork without proper filing systems (including file tracking systems) and red-tape (bureaucratic hassles).

Before implementation of the e-governance initiative, there existed no system check on the time taken by an officer towards solving his assigned complaints. This encouraged a lackadaisical approach and dereliction in solving problems.

**AIM, GOAL(S) AND OBJECTIVE(S)**

All the initiatives taken in Sitapur are focused on delivering quality service to the citizen with ease by leveraging available ICT solution. The main objective of the project was to computerize the workflow system and internal processes of the administration of the district with the help of Information & Communications Technologies (ICT) for overcoming the delay and red-tapism in delivery of G2C services.

- implementation of an efficient electronic workflow system for District Administration
- infusion of transparency and accountability in operations
- reduction of workload of department personnel
- ensuring longevity of the data/protection from damage, from moisture and other climatic factors
electronic security and control of confidential data
fast processing of public cases/appeals/grievances dissemination of information as per public requirement
to create an efficient delivery mechanism from the government that brings citizens to the district administration by bridging the gap.
to disseminate the information required by citizenry
to proactively provide an efficient system of disseminating information on the government schemes, planned developmental activities and status of current activities.

SETTING THE SCENE

When Mr. Amod Kumar took over as the District Magistrate, Sitapur, he intended to initiate a system that would ensure transparency in administration. Initially, the intent was more of disseminating information about the works and expenses of the administration to the public at large. He had heard of two “Government to Citizen” (G2C) initiatives, Gyandoot (http://gyandoot.nic.in/) at Dhar District of Madhya Pradesh, and Janmitra (http://jhalawar.nic.in/janmitra.htm) at the Jhalawar District of Rajasthan, that were being implemented.

A team of three people, including the sub-divisional magistrate, Sitapur (from the revenue department), the district information officer (from the technical department), and the block development officer (from the development stream) was sent to visit these two districts and learn from these initiatives in the first week of September, 2004. Revenue and development functions represented the two most critical Government-Citizen (G2C) interfaces at the district level.

In order to implement the project autonomously and reduce the bureaucratic hassles, a society by the name Lokvani was constituted and registered. The National Informatics Centre (NIC) created new software that improvised upon Gyandoot and Janmitra initiatives. Due to the inadequate electricity supply in the district (leading to frequent and long power cuts), it was decided to host the site at the NIC’s Delhi server, rather than at the district headquarters. Therefore, it was decided that Lokvani would be based on the internet rather than the intranet (like Gyandoot and Janmitra) to enable 24*7 accesses. The site design was customized to the local needs. The entire site was in Hindi, the official language (which also happens to be the local language). They conceptualized a user-friendly site with large jumbo-sized lists, rather than small bullet points. The site therefore contained no graphics, large Hindi fonts, and is easy to navigate. The text was written in the language of the commoners (like the link for viewing complaint status was titled as “status of your complaints”, rather than “complaint status”).

A deadline of 15 November, 2004 was set for the test launch of the site. They began pilot testing the site with their public grievances/complaint services on 8 November, 2004, and were fully operational by 10 December, 2004. Initially they began with thirteen Lokvani centers (with two in each tehsil with the exception of Mishrikh that had three kiosks). In the first 20 days since the site was activated, they got complaints in single digits (number of complaints received per day); by the first month, they began receiving complaints in double digits (per day); and by the end of three months, they started getting triple-digit number of complaints. As on July 15, 2005, Lokvani had received 28,008 complaints of which 24,089 had been resolved (attended to). The unresolved complaints included 171 complaints that were beyond their due dates, 3,255 complaints within the due dates, and 493 complaints that were yet to be marked to a specific office/officer (see figure 6 for growth in complaints).

Sitapur continued this journey and kept on adding new e-governance solution. External consultants were hired for implementation of e-district project. A comprehensive training was
given to all the government officials for rolling out e-District Project. Sitapur has regular weekly meeting for monitoring the progress of e-Governance solution.

**OUTCOME AND IMPACT**

The face of district Sitapur has been transformed to one of the most advanced districts in offering service to the citizen in transparent and effective manner by using e-governance.

The citizens are the key beneficiaries from the solution as is evident from the transaction volume of the services.

<table>
<thead>
<tr>
<th>Services</th>
<th>Period</th>
<th>Transaction from CSC's - owned by SCA</th>
<th>Transaction from SWS - owned by Lokvani Society</th>
<th>Transaction from other Government offices</th>
<th>Total Transactions</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Red Dspd Red Dspd Red Dspd Red Dspd</td>
<td>Red Dspd Red Dspd Red Dspd Red Dspd</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Caste certificate</td>
<td>Dec 08</td>
<td>5,568 5,488 57,216 76,471</td>
<td>82,784 81,959</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income certificate</td>
<td>Dec 08</td>
<td>7954 7830 109,499 108,530</td>
<td>117,453 116,360</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Domicile certificate</td>
<td>Dec 08</td>
<td>1,797 1,671 40,906 40,098</td>
<td>42,703 41,769</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employment exchange</td>
<td>Aug 09</td>
<td>- - 124 124</td>
<td>124 124</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Old Age pension</td>
<td>Nov 09</td>
<td>- - - - 117 60</td>
<td>117 60</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Widow pension</td>
<td>Nov 09</td>
<td>- - 182 109</td>
<td>182 109</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicap pension</td>
<td>Nov 09</td>
<td>- - 83 16</td>
<td>83 16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Birth certificates</td>
<td>Nov 09</td>
<td>- - 433 405</td>
<td>433 405</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Death certificates</td>
<td>Dec 09</td>
<td>- - 461 416</td>
<td>461 416</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revenue court case -</td>
<td>Dec 09</td>
<td>- - - - 13,711 13,711</td>
<td>13,711 13,711</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dues &amp; Recovery-Issue of Citation</td>
<td>Jan 10</td>
<td>- - - - - - 1,224</td>
<td>1,224</td>
<td>1,224</td>
<td>1,224</td>
</tr>
<tr>
<td>Dues &amp; Recovery - Tracking of R.C</td>
<td>Jan 10</td>
<td>- - - - - - - 0</td>
<td>- - - - - - - 0</td>
<td>- - - - - - - 0</td>
<td>- - - - - - - 0</td>
</tr>
<tr>
<td>Handicap certificate</td>
<td>Jan 10</td>
<td>- - 1 -</td>
<td>1 -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grievances - Filing of Grievances</td>
<td>Dec 09</td>
<td>- - 5 -</td>
<td>5 -</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grievances - Status Tracking</td>
<td>Dec 09</td>
<td>- - - - - - - 5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td>15,319 14,989 229,027 226,231 28,646</td>
<td>15,319 14,989 229,027 226,231 28,646</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There are 100+ service delivery centers in district and average monthly transaction from these centres is approximately 50,000.

The system has also made government more approachable for the ordinary citizen who had to earlier forego wages to stand in a queue to merely file a petition. The citizen would then have to follow it up with countless visits to various government offices to find out the status and outcome of the petition that was filed. Clearly, with the Lokvani system, the citizen is able to put his or her time to a more productive use which definitely adds up to the local GDP.

Citizens can easily obtain pertinent information from the kiosks that are conveniently located in every block and in few villages. Unlike the traditional method, people are now not required to visit the district/ tehsil headquarter and thus save on precious time, money and effort.

Filing of service request and their follow up has also been streamlined. Citizens can receive disposal reports and can track the status of their filed application without personally visiting any government office.
Computerization of land records has precluded the dependence on the lekhpal for furnishing the official documents. Citizens can access information about various government schemes and their preconditions through kiosks. They can also obtain the list of persons who are benefiting under various schemes. A complaint can be filed against the concerned officer in the case of any discrepancy. For example, if a person benefiting from the Food for Work, Indra Awas Yojana, Mid Day Meal or Prime Minister Gram Sadak Yojana does not completely fulfill the prescribed criteria specified by the government.

The initiatives have also helped the administration in streamlining its operations and have also brought in visibility to internal process bottlenecks. It has also helped in workload rationalization as the system is able to show the workload of each officer. It has also helped in putting public pressure on non-performing officers whose careless response to petitions and grievances is made obvious from the outstanding petitions that the officer possess.

Obviously, the kiosk operators have benefited from this system as it has led to enhancement of their income. Unexpected fallout of the system has also been a perceptible shift towards gender equality. This has occurred as women are more computer literate and some of the most efficient kiosks are being run by women. In a place where not only computer literacy but even regular literacy is at abysmal levels, the system has brought forth the economic value added by women. This has also made many of the women kiosk operators economically self-reliant.

LESSONS LEARNT

Sitapur has successfully showcased a paradigm that can be incorporated by other administrative organizations. It has also proved that low literacy rate, financial constraints, and power shortage are not barriers in implementing successful e-governance project. Sitapur has a 38.6 per cent literacy and negligible computer literacy rate. However this did not prove to be a deterrent to the project as the existing kiosks were used as an interface between the systems and the citizens.

A key learning is that word of mouth is the most effective and efficient mechanism for generating awareness among rural and semi-urban citizens that have low literacy rates. Rural people have lost trust in advertisement due to false promises made to them. Hence, trust can be built only by offering services that satisfy their needs over a period.

Lokvani society charges the kiosk operator annually fee for hosting government services. Contrary to subsidizing kiosks for sustainability, Lokvani has proved that e-governance projects can be a source of the revenue for government. This fact has been established in the district where 88 per cent population is rural and average income of citizen is very low.

The project has succeeded despite several odds such as extremely poor literacy, only 5-6 hours availability of power in rural areas, minimal computer literacy, poor connectivity and inert socio-political atmosphere. This shows that profit motive and competition can overcome many infrastructural inadequacies. The large success of the project has created an e-governance friendly atmosphere in the state.

Lokvani kiosks/ Jan Seva kendra are sustainable in place where electricity is available for less than 6 hours a day. Kiosk can be made sustainable in such adverse situation by maintaining the citizen’s trust on the system.

e-governance initiatives has ensured that all the officers in the district were under public scrutiny, with a subtle threat of being exposed. Since the contents of the applications are available to the
public at large, there is always the threat of media highlighting any malpractices/inefficiencies.

Change management was identified as the toughest task for this project. Attitudes of officers towards learning new technology have not been up to the desired levels. Therefore, it is necessary to have a programmatic approach to change management in order to ensure an effective implementation of the system.

e-governance initiatives have brought true transparency to the working in the administration. These initiatives have excelled in transparency by displaying performance of officers on web. This kind of openness has not been in any of the government organization in country before. People were unaware of their rights as well the possible support provided by the government under various schemes. Widespread awareness and a stronger public opinion can go together on a long way in the fight against corruption.

FUTURE PLANS

Apart from strengthening the existing initiative, Sitapur has also started implementation of the e-governance project in area of public distribution system, jail and government owned centre for accessing the internet and G2C service by the people itself.

A management information system linked with electronic weighing machines has been installed in couple of godowns. This will help in tracking the food grain issued from the state authority and received at districts. Integration of the system with ration card in future may ensure end to end tracking of food grains. Ration card related services are under approval from the state government. This will be implemented as soon as district will get green signal from state government.

An electronic visitor system has been installed in jail to track the interaction of the criminal with of visitors.

government owned system at collectorate for accessing internet and G2C services will be implemented. This will give opportunity to the district administration for regulating the performance and service charges by the private partners (Jan Suvidha Kendra and Lokvani Centers). This will also provide infrastructure for experimenting the future e-governance initiatives.

Shri Amod Kumar
Special Secretary, Deptt. of Basic Education and Mid-day Meal Govt. of U.P., Lucknow
Agriculture continues to form the backbone of the Indian economy and we are among the world’s largest producers of a variety of agricultural crops. However, our exports of the raw agricultural produce are very low compared to the volume of its production, especially for edibles. There are several reasons for this paradoxical situation. The major concern expressed on many occasions by exporters and importing countries is the high pesticide residue content and other chemicals in the raw agricultural produce. This situation has arisen because of the uncontrolled use of pesticides and fertilizers by the farming community. As a result, high toxic residues in the produce pose health-related hazards for the consumers. These are not good agricultural practices and on the whole our country faces a situation where agricultural practices are leading to several different kinds of problems:

- soil degradation
- ground water depletion
- environmental pollution
- health and safety hazards

The above situation calls for a new approach to improve country’s farming practices in accordance with internationally accepted quality standards.

INTERNATIONAL STANDARDS ON GOOD AGRICULTURAL PRACTICES

An agricultural practice can be considered as “good” as long as it conforms to the standards accepted and implemented world-wide, and takes care of the following requirements:

- ensuring safety and quality of the produce
- protecting the environment
- sustaining natural resources
- aligning with positive social impacts

Genesis of EUREPGAP or GLOBALGAP

In the late 1990s, consumers in Europe were highly perturbed over food-related health hazards, and were demanding reassurance for safety of the fresh agricultural produce. This led the prominent European retailers to constitute a committee with leading retailers of Europe, farming organizations and others with the objective of formulating standards on good agricultural practices. The headquarters of this committee, known as FoodPLUS, is located in Cologne, Germany. The standards formulated by this committee were subsequently established as EUREPGAP standards. As the years rolled by, these standards were adopted by many countries across the world, and because of the popularity of these standards, FoodPLUS eventually rechristened EUREPGAP as GLOBALGAP. These standards are amenable to third party certification and specify following 14 control points or basic requirements for ensuring safe and sustainable agriculture:

- **Traceability** - to facilitate the withdrawal of food and provide customers with targeted and accurate information concerning implicated products
- **Record-keeping and internal self-inspection** - to maintain records of fertilizer, pesticide application, water application and harvesting data
Selection of varieties and root stocks - To ensure proper selection of varieties /root-stocks and crop management practices and reduce the usage of fertilizers and pesticides

Site history and site management - To have a system for proper registration of the production location, mapping the characteristics of soil and substrate, provision for soil testing

Fertilizer usage - To ensure judicious use of fertilizers, proper records pertaining to fertilizer application and stock, provision for organic manure testing

Irrigation/fertigation - To ensure judicious application of water, record of water application to be maintained, proper irrigation schemes, provision for water testing

Crop protection - To apply right type of pesticides, in right concentration at right intervals and in a right manner using well maintained equipment, provision for carrying out pesticide residual analysis, proper records pertaining to fertilizer application and stock

Harvesting - To observe hygiene at the time of harvest

Produce handling - To observe hygiene at the time of produce retailing, provision for washing facilities

Waste and pollution management, recycling and re-use - To handle and dispose off waste material

Workers' health, safety and welfare - To train workers on handling and usage of toxic chemicals

Environmental issues - To prevent disturbance to the local flora and fauna, keep the environment clean

Internal inspections - To check implementation of GLOBALGAP requirements at frequent intervals

Complaint forms - To develop system for processing of complaints about the farm produce

CASE STUDY PERTAINING TO THE IMPLEMENTATION OF GOOD AGRICULTURAL PRACTICES IN INDIA

FICCI-NORAD pilot project on EUREPGAP - setting the scene

As early as 2003, Federation of Indian Chambers of Commerce and Industry (FICCI) thought of ways and means to modernize agricultural practices prevalent in the country and make the Indian farming community capable of producing and marketing not only high quality, but more importantly safe fresh farm produce. Taking note of the development of EUREPGAP, a pilot project was undertaken to promote the observance of these standards. With financial assistance from the Royal Norwegian Government, FICCI took up a project to promote EUREPGAP amongst farms producing fruits and vegetables and having high export potential. The objective of this project was to develop resource persons for assisting farmers in implementing these standards facilitate certification of some farms which would serve as role models.

The project achieved notable success in creating awareness of these standards in several states of the country. Maharashtra came into greater focus due to the production of grapes and mangoes, the two major fruits with high export potential. The project resulted in certification of 210 farms which included alphonso and kesar mango growers. It has been recorded by Agricultural and Processed Food Products Export Development Authority (APEDA) that EUREPGAP certified grapes boosted India’s exports to Europe and alphonso and kesar mangoes were exported as well for the first time in the history of the country.

Project implementation strategy

The strategy for promoting GLOBALGAP standards through the FICCI-NORAD pilot project had five main components:

- Conduct of awareness seminars on GLOBALGAP at appropriate locations as per the advice of a PMO and state government officials
• Registration of farms for GLOBALGAP project
• Organization of training programmes for professionals from state horticultural departments and agricultural professionals from the universities
• Setting up reliable test facilities for carrying out pesticide residue analysis.
• Demonstrating the practical implementation of these standards in India

Methodology for implementation of GLOBALGAP standards
The last component of the strategy outlined above consisted of creating real role models in India and finding practical solutions to suit the Indian context. The main thrust of the methodology was on making experts available to provide training and technical assistance to some selected farms. The typical sequence for providing this assistance is shown below:
• Initial training at the farm location to the farm owner and farm workers
• Status survey to assess the deficiencies in their systems and practices at the farm
• Guidance to the farm owner for removing the deficiencies to comply with the standards
• Assistance in development of documentation covering procedures of various activities and records to be maintained
• Implementation of EUREPGAP system within a stipulated time period by farm owner
• Pre-inspection by FICCI experts to assess whether farm owner has complied with the requirements of the standards
• Advice on corrective actions for removing any deficiencies found
• Completion of corrective actions by farm owner and verification by FICCI experts
• Submission of formal application along with the application fees
• Facilitation of inspection by the certification body

Pilot project success stories
The major successes achieved through the pilot project were:
• 210 farms under grapes, mangoes and pomegranates were certified against EUREPGAP standards against a target of 20 farms
• Over 1000 farmers were imparted training for creating awareness of EUREPGAP, its implementation methodology and its benefits
• 60 professionals were trained as resource persons on EUREPGAP against targeted figure of 15
• 50 professionals were given advanced training in EUREPGAP auditing against the targeted figure of 20
• 25 analysts drawn from public and private laboratories were trained on advanced methodologies of testing pesticides residues
• Not a single complaint on pesticide residue was received on account of shipments of grapes made to EU in 2004 as against 21 complaints in 2003 (Source: APEDA, 2005)

Evaluation of the pilot project
The Royal Norwegian Government appointed an independent evaluator from Indian Institute of Management (IIM) Lucknow to assess the project's impact. The evaluation report termed the project as “highly successful” and stated: "This project has seen some critical successes especially in meeting the targets set specific to the pilot project, as well as in validating the systems that will aid the overall objectives of spreading awareness. It has also been very successful in creating awareness of GAP and its implementation on farms and consequent certification. It has definitely fulfilled the potential of diffusion of GAP and
has created a systemic approach to ensuring the same, which can be replicated quite successfully”.

**FICCI-NORAD national project on GLOBALGAP**

In view of the resounding success of the pilot project, a major national project was taken up in 2007 by FICCI with the financial assistance from the Norwegian government. This project is intended to cover twelve states and will continue till December 2010. The objectives for this project are:

- Awareness of modern agricultural practices among the Indian farming community
- Establishment of institutional structure to sustain these practices
- Facilitation of marketing of horticultural produce by ensuring quality, safety and environment conservation not only for exports but also for domestic consumption through food malls and super stores

**Crops targeted for coverage under the national project**

- Alphonso and kesar mangoes
- Varieties of grapes including Thompson varieties
- Other varieties of mango, banana, sapota, pineapple, apple, pomegranate
- Vegetables notably cabbage, cauliflower, capsicum, tomato, brinjal, mushroom, drumstick and broccoli
- Coffee and tea
- Flowers and ornamentals
- Rice

**Sustainability issues**

The main achievements pertaining to sustainability of GLOBALGAP through the project are:

- A proposal for introducing GLOBALGAP as part of course curriculum for undergraduate studies in the agricultural universities of the country has been approved by Indian Council of Agricultural Research (ICAR). The course number and name of the courses which cover all modules of GLOBALGAP as mentioned in ICAR webpage (www.icar.org.in) are FSC 512 and GAP for horticultural crops, respectively
- The personnel who had undergone FICCI’s training program during the pilot project have enthusiastically taken up the work of promoting the GLOBALGAP standards and helping farms in their area to get certification. Sustainability of the system is being gradually established and is very much visible in Maharashtra, Gujarat and Andhra Pradesh
- National Technical Working Group (NTWG) established by Quality Council of India (QCI) has constituted a task force with the objective of interpreting provisions of GLOBALGAP standards for applicability under Indian conditions
- The idea of having an Indian standard such as INDGAP equivalent to GLOBALGAP was conceived at the end of FICCI’s pilot project and has now been taken up by Bureau of Indian Standards (BIS). This has reached an advanced stage of preparation and QCI will take up through its NTWG for bringing it to the level of GLOBALGAP standards
- Prominent retail chains like Khet-Se Agri Produce Ltd., Adani Pvt Ltd., ITC Retail Ltd., Aditya Birla Retail Ltd. are involved in the promotion through a task force constituted by FICCI. The task force is convinced that GLOBALGAP certified products in their stores can be sold at better prices and this would given them distinctive edge over traditional fruits and vegetable growers. Major recommendations of the task force were:
  - Developing the plan for improving quality and safety in agricultural produce
  - Developing quality standards for various kinds of produce particularly horticultural produce with grades for fresh consumption, processing and industrial use
Promoting ethical business practices in retail marketing, keeping the interest of growers and consumers in view

- A documentary film for training people on GLOBALGAP standards is being used for better dissemination of GLOBALGAP standards.

Table 1 shows the extent of GLOBAL adoption through certification under different options.

Table 1: GLOBALGAP certifications in India
(Source: FoodCert India, Hyderabad, 2008)

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of growers under option-1 (individual grower)</th>
<th>Number of growers covered under option-2 (groups*)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>12</td>
<td>Nil</td>
</tr>
<tr>
<td>2004</td>
<td>48</td>
<td>4 (46)</td>
</tr>
<tr>
<td>2005</td>
<td>139</td>
<td>11 (440)</td>
</tr>
<tr>
<td>2006</td>
<td>243</td>
<td>6 (357)</td>
</tr>
<tr>
<td>2007</td>
<td>224</td>
<td>10 (475)</td>
</tr>
<tr>
<td>2008</td>
<td>195</td>
<td>16 (1214)</td>
</tr>
</tbody>
</table>

*Figures in brackets indicate number of farmers covered in respective groups

Table 2 shows quantity of the EUREPGAP certified fruit and vegetable produce exported to Europe and North America over the last four years.

Table 2: EUREPGAP certified exports of fruits and vegetables from India
(Source: APEDA Year Book, 2008)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Qty. in metric tonnes 2005-06</th>
<th>Rupees in lakhs 2005-06</th>
<th>Qty. in metric tonnes 2006-07</th>
<th>Rupees in lakhs 2006-07</th>
<th>Qty. in metric tonnes 2007-08</th>
<th>Rupees in lakhs 2007-08</th>
</tr>
</thead>
<tbody>
<tr>
<td>Onions</td>
<td>9,60,507.32</td>
<td>29,815.88</td>
<td>13,78,373.17</td>
<td>43,230.57</td>
<td>10,88,606</td>
<td>1,03,578</td>
</tr>
<tr>
<td>Mangoes</td>
<td>69,606.6</td>
<td>12,811.12</td>
<td>79,060.88</td>
<td>14,193.95</td>
<td>54,351</td>
<td>12,742</td>
</tr>
<tr>
<td>Grapes</td>
<td>54,049.87</td>
<td>21,460.85</td>
<td>85,897.79</td>
<td>38,192.45</td>
<td>96,964</td>
<td>31,783</td>
</tr>
<tr>
<td>Other fresh vegetables</td>
<td>2,17,280.54</td>
<td>26,769.35</td>
<td>2,75,969.49</td>
<td>43,002.06</td>
<td>3,50,236</td>
<td>48,949</td>
</tr>
</tbody>
</table>

IMPACT AND FUTURE DIRECTIONS

Advantages and benefits of GLOBALGAP implementation

- Increased consciousness in regard to safety of the raw agricultural produce has been inculcated
- A traceability mechanism has been established to retrieve any complaints
- Controlled use of pesticides and fertilizers in the field has been established to conform the absence of any residues or that residues are well within tolerance limits
- Reduction in use of water due to better irrigation practices
- Introduction of better standards in agriculture practices in line with international standards
- Increased confidence among European importers about quality and safety of fruits from India and availability of safe produce for domestic customers
- Financial benefits to farmers through increased exports of fruits and vegetables and better price realization from exporters and domestic retail chains
Significant savings Rs 30,000/- to 40,000/- per annum) if all the control points of GAP as specified under GLOBALGAP standards are scrupulously followed.

Enhanced safety of the produce for the consumer

Challenges in meeting GLOBALGAP

The major challenges in implementation of GLOBALGAP standards through the above projects fall into two categories:

Mindset changes

As GLOBALGAP is modern in its approach there was challenge which still persists in changing the mindset of the farmers to take over a new system. This situation became more complex due to various vernacular languages and had to resort to the help of local consultants for better communication.

Affordability

As the certificates for GLOBALGAP system are awarded by internationally accredited certification bodies, many farmers had no option to meet the certification charges except to resort to assistance of the concerned departments of central/ state governments. During the project execution, efforts were put in to convince these departments of the importance of GLOBALGAP standards and to offer financial assistance to the farmers willing to implement them. Many of these challenges still exist due to various regulations and the time it takes to modify them and provide funds to farmers for paying certification fees.

Future opportunities

GLOBALGAP is a single integrated standard with modular applications for different product groups ranging from plants to livestock production to plant propagating material and compound feed manufacturing. This standard also serves as global reference system for other existing standards and can be applied by all parties in the primary food sector. The comprehensive documentation of the system is organized into five major blocks, each block comprising a set of complimentary elements as shown below:

- Integrated farm assurance standard
- All farm base
- Crop base
- Livestock base
- Aquaculture base

There is a bright future for these standards to spread all over the country. It is estimated that the country has over 120 million of farmers tilling the soil, the largest cattle population in the world and with a 7,000 km coastline, marine resources too are abundant. With all these, the scope for improving farming practices is huge. Covering the entire gamut of all three bases will require mammoth efforts and innovative methodologies for creating awareness and providing support for achieving the standards.

REFERENCES

1. Agricultural and Processed Foods Export Development Authority (APEDA webpage : www.apeda.com
3. FoodCert India Pvt Limited web page : www.foodcert.in
4. Indian Council of Agricultural Research (ICAR) webpage: www.icar.org.in
The Directorate of Sports and Youth Affairs was carved out of the Directorate of Public Instructions in 1985 to upgrade sport infrastructure, tournaments, related disciplines and impart specialized coaching to talented sport persons in addition to facilitating availability of sports equipments and gears.

Promoting sports including indigenous games right from block to the state level, the directorate has laid emphasis on empowerment of youth through capacity building while creating a platform to articulate their vision and foster spirit of competitiveness.

The directorate provides financial assistance in a form of grants-in-aid in tandem with various sport associations to organize various sporting and youth activities. In addition, it offers personnel support through deputation of coaches and physical training instructors. Coaching camps are regularly conducted within the state as well as sponsored camps outside for coaches, referees and athletes in order to acquaint them with the latest norms and techniques.

PROGRAMMES AND ACTIVITIES

In order to accomplish their objectives, the directorate undertakes following programmes:

Construction of Outdoor and Indoor Stadia and Playfields

The State Sports Council of Meghalaya was created during the year 1990-91 to implement and execute sport infrastructure approved and sanctioned by the government. Outdoor and indoor stadia including playfields have been taken up at state capital, district headquarters and important towns and villages. By 2006-07, the department completed 106 schemes. As of now, 42 schemes exist. For 2007-08, budget allocation for infrastructural development is Rs. 480 lakhs in addition to Rs. 24.09 lakhs extended to various clubs and schools. During 2007-2008, around 89 clubs and schools received assistance.

Targeting improvement of playfields and stadia, 90 schools, clubs and associations were financially assisted figuring to Rs. 23.19 lakhs during 2006-07, while 89 beneficiaries received Rs. 24.09 lakhs in 2007-08. During the concurrent periods, 218 of them were extended a sum of Rs. 26.66 lakhs and 196 for Rs. 35.47 lakhs towards procurement of sport material.

TOURNAMENTS

(a) Associations

During the year 2007-08, some 258 clubs and associations were assisted to conduct tournaments. Five State Sport Associations received help to organize various tournaments regional and national levels. The budget provision was touching Rs. 1.40 lakhs.

(b) Directorate of Sports

The directorate along with its district offices organized several inter-school tournaments ranging from Block to State level. Selected athletes participated at national level. A sum of Rs. 44.34 lakhs was earmarked for the year 2007-08.

(c) National Youth Festival

The directorate also promotes participation of youth at various national forums in order to expose them to the varied cultural
and intellectual hues of the India. During the year 2008, 80 youths from the state participated at National Youth Festival and in folk singing and dancing.

(d) College Fiesta

A College Fiesta was organized towards the end of 2008. Working in tandem with colleges in the state, the directorate has been instrumental in creating a confluence of more than 400 future’s prospects who presented a blend of music, art, letter, and camaraderie.

Tie up with Sports Authority of India and Ministry of Youth Affairs and Sports

The directorate is in business of collaboration with Sport Authority of India through routing proposals to the central government for organising rural sport programmes, promotion of sports in schools, women sports festivals and north-east games.

Government of India has also released an amount of Rs. 334.66 lakhs towards construction of district sport complexes etc.

INCENTIVES

The programmes attracting youths are being enriched to meet diversified demands. Through these programmes, the directorate envisages to build their outlook and capacity.

The directorate has been providing incentives to sports persons who have brought laurels to the state. The state so far has produced several champions in Karate, Boxing and Football and financial incentives are being offered to them. In 2008, Meghalaya had one gold and one silver medal at the senior national boxing. In past, state produced a world champion in Karate, help highlight the state name.

CONCLUSION

Focusing on the section of society which the Directorate of Sports and Youth Affairs has to cater which is also dynamic and constantly evolving, the Directorate has worked out a detailed planning.

Most of the programmes conducted and implemented are in collaboration and partnership with civic sport bodies or youth workers and groups. Conceptualizing to its actual execution on the ground, the directorate has played the role of winning in confidence of all stakeholders. This unique paradigm of involving beneficiaries in the implementation of programmes is gradually but definitely paving new grounds to build more secured future.

Uniqueness of Practice

The Directorate of Sports and Youth Affairs, Government of Meghalaya has always stressed on participation of the grassroots to enable effective implementation of its vision and objectives. Hence, every programme is participatory wherein a sport programme or youth event is conceived, structured, assessed, and executed on the ground by group of sport persons or youth workers after being approved by the government.

One of the facilitating bodies on sports in Meghalaya, the Meghalaya Olympic Sports Association of Meghalaya (MSOA) has been at the forefront of promoting olympic sport discipline in the state. Under this banner, 17 sport associations work actively to help, augment and upgrade sporting requirements for the promotion of olympic discipline. To sustain its objectives, the MSOA regularly receives fund from the government of Meghalaya through the Directorate of Sports and Youth Affairs, Meghalaya.

The State Sports Council Meghalaya, on the other hand looks after the infrastructural need for sports in the state. If assists in the construction of stadia and playfields as well as indoor and outdoor
courts as spelt out in the schemes approved and sanctioned by the sports department, government of Meghalaya. Currently, there are 13 centrally sponsored schemes approved by the central government for which the council has undertaken the task.

**Sustainability**

Through these bodies the sports department fulfills its objectives of laying proper requirements for sports in the State. In partnership with them, the government has been encouraging various other sport bodies and youth organizations to come forward and extend and expand its influence through programmes and events. Since these bodies and organizations are closely drawn from a familiar milieu of sport lovers and the youths, the perspectives drawn by them invariably reflect their aspirations for the game as well as their spirit. Therefore, it holds the Directorate of Sports and Youth Affairs, Meghalaya, in good esteem to continue this model of partnership to sustain and promote help the development of sport and youth activities in Meghalaya.

**Tangible Gains**

Through the unique practice of partnership, the directorate has given various associations and organizations the fillip to initiate and conduct programmes which would promote games and youth activities over entire state. Thus, the initiatives taken up by them through the support from the Directorate of Sports and Youth Affairs, Meghalaya will help lend motivation to many other groups to advance the campaign for sports and youth development in the state.

**Replicability**

The model on which programmes and schemes of the directorate have been implemented is relatively simple. The arrangement borne out of the sincere need to build the interest of sports and the youths has proved to be a boon to the beneficiaries. Through the public-private partnership model, the directorate can function more efficiently in close cooperation with other stakeholders. The model is not conjured overnight but is the result of a gradual building of trust between directorate and other players. However, the guidelines governing this effective partnership are simple and hence easy to follow and replicable in virtually every free society.

**Profile**

On AIR media is drawn of a wide range of media professionals who average over 7 years of hard experience. The prime focus on AIR media is to bring out quality work through the profession by employing cutting edge technologies in areas of motion graphics and pictures, animation and 3D illustration, and web and print design.

Having a varied range of services and experience, from video documentation for World Health Organization (South-East Asia Regional Head Office), INFOSYS Technologies, to creating CD/DVD ROMs for the Incredible India Project and Help Age International, Thailand, each individual’s contribution to the media is infinitely priceless.

Drawing from this pool of resources, On AIR media has been created on the principles of making a positive impact in this field whereby the profession is guided not only by business sense but by adhering to cultural practices towards social responsibility in the course of its practice.

On AIR Media envisages in letter and spirit

- To utilize media resources in collection, documentation and dissemination of information on issues of public and social interest,
- To engage in research on subjects as may be deemed fit for further investigation and exploration,
To channel such findings to related departments, institutions, and agencies for developmental initiatives when required,

- To assist in highlighting issues of social, cultural, public or any other interests by way of video, cinema, television broadcast, print internet etc.

- In doing so, to promote awareness and understanding, particularly themes of social, economic, cultural and environmental importance both for their sake and for their value to the benefit of humanity,

- To encourage voluntary and collective participation towards attaining social, economic, cultural and environmental progress.

CONRAD SYIEM
Langkyrding, Nongmynsong, Shillong 793011
91-98630-65931
urshillong@yahoo.com

EDUCATION
1977-1999: Master in Linguistics
North Eastern Hill University, Shillong

EXPERIENCE
2002-2008
Script/Research/Assistant Director
Developmental Documentary Videos commissioned by North Eastern Region Community Resource Management Society (NERCORMP) and International Fund for Agricultural Development (IFAD)

1. “Whispering Changes”
A Film on the impact of Project Intervention focusing on “Group Activities”

2. “Green Hills of Hope”
A Film on the impact of Project Intervention focusing on “Bio-Diversity Conservation”

A Film on the impact of Project Intervention focusing on “Income Generating Activities”

4. “Wheels of Fortune”
A Film on the impact of Project Intervention focusing on “Convergence”

5. “Hearth Song”
A Film on the impact of Project Intervention focusing on “Food Security”

Script/Research/Assistant Director
31 Documentary Videos on Cultures of North East India for Don Bosco Centre for Indigenous Cultures (DBCIC) & Conferanza Episcopale Italia (CEI), Rome

Creative Supervisor
Video Presentations for Administrative Reforms Commission (2007)

Scriptwriter, Content/News Editor
Flashback, a yearly English News Round up for PCN, a local cable TV News Channel
Research/Scriptwriter
“A Prayer From the Living”: A Documentary on “Awareness on HIV/AIDS with special emphasis on awareness on the National Highways/2 Episode/Doordarshan, Shillong

Producer & Director
Print & Electronic

PUBLICITY AND DOCUMENTATION
- 60th and 61st Indian Independence Day Celebrations for Government of Meghalaya
- Youth Fest 2007

PUBLICITY, ON-LINE BROADCAST AND DOCUMENTATION
- Miss Shillong 2007 Beauty Pageant

MASS AWARENESS CAMPAIGN: Video and Print
- Keep Shillong Clean/Shillong Municipal Board

VIDEO PRESENTATION
- “Call of the Clouds”
  A video on Business Potential in Meghalaya; during visit of Minister of Commerce, Royal Government of Thailand
- “A Call from the Streets”
  Based on the Effects of Tobacco use and Dendrite abuse among street children of Shillong/Joint collaboration with Voluntary Health Association of India and Voluntary Health Association of Meghalaya
- “Words on Rain”:

Based on the theme on Rain Water Harvesting/The Energy and Resources Institute, New Delhi

VIDEO DOCUMENTARY
- “Ka roi ka par ha kithain nongkyndong”:
  Based on the theme on Marketing and Rural Support/2 Episodes/Doordarshan Shillong
- “Showers of Blessings”:
  Based on Micro Water Harvesting; Jalkund/26 Minutes/Indian Council for Agricultural Research (ICAR) and Ministry of Water Resources, Government of India

BACKDROP DESIGN
- World Sustainable Development Forum 2009/Swiss Agency for Development and Cooperation SDC

COMPUTER KNOWLEDGE
Photoshop CS3; CS4 Extended, Illustrator CS3; CS4, Premier Pro 1.5; CS3:CS4, After Effects 7.0; CS4, InDesign CS4, In Design CS4, Adobe Encore CS4

Miscellaneous: Founding Director
On Air Media: Youth Social Media Network Initiative

BALAJIED NAZARETH SYIEM
Education: Graduate in Mass Communication and Video Production
St. Anthony’s College, Shillong
Professional: 2006-2008 Alpha International Bangalore

Experience: South-East Asia Communications Head
2005-2006 North East Data Bank Shilling
Cameraperson/Motion Graphic Designer
News and cultural magazine titled North East Round Up/DD National

Cameraperson/Editor
Leading From The Front: Role of NGO’s/DD Shillong,
Protecting The Sylvain: Film on Manas Wildlife Sanctuary/DD NE
2003-2005 Unwind Center Chennai

Media Director
In-house and outdoor events requiring visual communication
Live 101-Live music weekly
Underground-College music festival
School of Music-Videos for students
Acts of Mercy-Community service wing
June Rock Out-Month long mega music fest

Live Event Management (Video Production Crew)
JRO 2004 Showdown: Junoon (Pakistan)/Parikrama/Silk Route.
JRO 2005 Showdown: Red Rain (New Zealand)/Moksha

Direction/Camera/Editing
Acts of Mercy tsunami rehabilitation projects: 2 corporate videos

Direction/Camera/Editing
School of Music corporate video presentation
Worked with SS Music Channel for all on-air promotional of events.

Promoting Sports in Meghalaya

2002-2003 Splitends Media Group Shillong Cameraperson
Waste: A film on children waste pickers in New Delhi/WHO South East Asia Regional Office, New Delhi
Khasi Matrilineal Society: A short film/Arte Channel France
Crafting Magic with their Fingers: Documentary of traditional use of Khasi Iron/DD NE
An Ancient Caravan: Documentary film on Verrier Elwin’s life/DD NE

Cameraperson/Editor
Gandhi Vinobha Khoje Khoje: Documentary of Kasturba Ashram/DD Guwahati
Autumn Notes: Live event coverage of autumn festival/Meghalaya Tourism Development Corporation
Indradhanush: Half-an-hour children’s programme/DD Bharati
Revival Time with Harry Das: Gospel crusade programme/MiracleNet Channel
Come Judgement Day: music video for Mojo
Ghost Revisited: Music video for Lou Majaw
I’m free this Christmas: Music video for Tipriti and Vraisamble
Kam Lei Lei: Music video for Peter Lim’s production

Documentation/Still Photography
Developmental projects in North Cachar and Karbi Anglong districts of Assam/International Fund for Agricultural Development

INDEPENDENT WORK

Direction/Camera/Editing
Acts of Mercy tsunami rehabilitation projects corporate video (Part 2)
Chennai.

Short Film on HR department of INFOSYS Technologies/Chennai
Corporate video presentation for SMARTKIDS Soft Skills/Bangalore

Producer
Kontagious band: live in concert/Ambedkar Bhavan/Bangalore

Editor
Series of 10 second spots for Kontagious band Gulf tour promotional/GOD TV
On-Air Promotions Creative Executive
SS music channel/Chennai
Cameraperson/Assistant Editor
Frame of Mind Studio/Bangalore
Cameraperson/Editor/Event management crew
Casio digital keyboard & piano roadshow and workshop promo/Casio New Delhi

SAMRAT RAY
Creative Director

Education
B.A. (Mass Communication & Video Production) from St. Anthony’s College, Shillong

Work Experience
Webchutney Studio Pvt. Ltd. [Creative Supervisor]
India’s largest interactive Advertising Company
Via Infotech Pvt. Ltd. [Interface Designer]
A multimedia company specializing in interactive design
SplitENDS Media Group [Graphic Designer & Video Editor]

Promoting Sports in Meghalaya

A media group involved in design, documentation and video presentation

Graphic Designer
Incredible India
Interface design for 6 theme based CD-ROMs, Ministry of Tourism
Green Plast
Panel designing for ‘PlastIndia 2006’ for Center for Plastics in the Environment (CPIE), New Delhi
A series of three advertisements done for the Meghalaya Tourism Development Corporation “Kuda Kathain”
A comic book series on waste pickers for Chintan Environmental Research Group, New Delhi
Web interface design
Wideworld India, Oktatabyebye, Infosys, SETLabs, Mentos Perfetti, Airtel IPTV, Fungama Makemytrip

Interactive Design
Age and Image. Understanding ageing and development, Helpage International, Thailand Interactive DVD ROM
Unwind Center, Corporate Profile, Chennai, Interactive DVD
Sarba Shanti Ayog, Corporate Profile, Shillong, Interactive DVD/CD ROM
SplitENDS media group, Corporate Profile, Shillong, Interactive CD ROM

Estimated Budget : Pre-production

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Indian Rupees Three lakh (Three Hundred Thousand)