
Constant
Innovation
taking India to the
new heights

Cover Inside Page

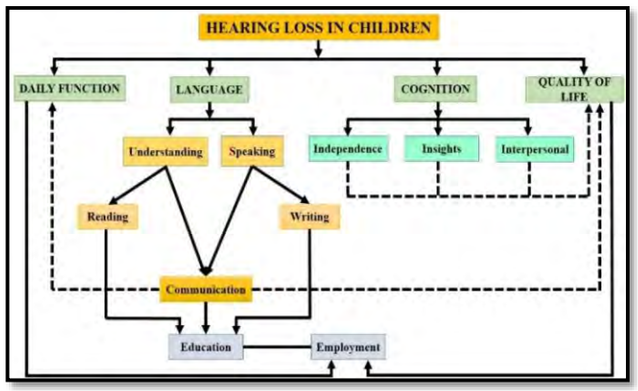
Content

Reaching the Unreached: Empowering the Hearing Challenged Children

Accessible India Campaign entails providing fairness and reachability by creating a barrier free environment for inclusion of persons with disabilities. Ali Yavar Jung National Institute for Speech and Hearing is an autonomous organization under the Department of Empowerment of Persons with Disabilities, Government of India. It administers a financial assistance scheme for disabled persons for purchase of aids/appliances' (ADIP). Providing hearing aids/devices to the hearing impaired children in the age group of 0 to 6 years, is a part of the Scheme. Cochlear implants have been introduced in the ADIP Scheme for children below 5 years of age.

Children born with a severe to profound hearing loss, or those who acquire it in the first few years, need early identification and intervention. In early years the brain's neuroplasticity is the highest, so addressing hearing loss by fitting of a suitable hearing device is a neuro-developmental emergency.

Use of good amplification devices helps their brain interpret the sounds and the spoken language around them. This is vital for the child to communicate and not become a victim of circumstances. Delay in tackling hearing loss in children has far reaching consequences. Early tackling of deficits in children reduces achievement gap and social cost.

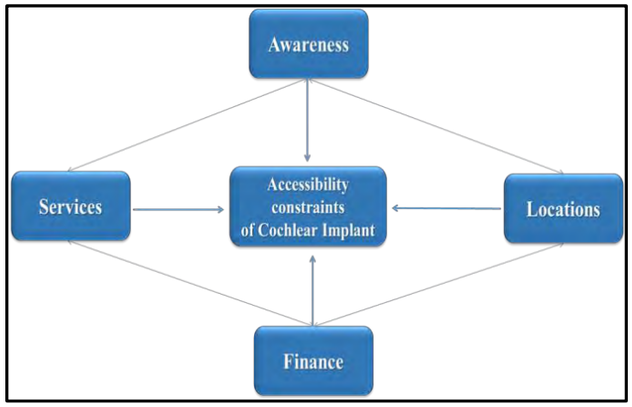


The original ADIP scheme had provisions for body level hearing aids of mild, moderate and strong category along with a cord, chargeable batteries and a solar battery charger. However, the wear and tear issues caused problems to the crawling babies. In case of profoundly deaf children whose cochlea or the hair cells were damaged the sounds could not reach the brain for comprehension. Therefore, cochlear implants (CI) are preferred worldwide.

Cochlear implant has electrical stimulus that activates the auditory nerve and helps the sounds to transmit to the brain. This technology helps the children with hearing loss to lead a life of normalcy, socialising and schooling like other children.

Cochlear implants have shown promising results in children being able to speak and attend mainstream schools with age appropriate literacy skills. But many families (especially in rural and far off areas) either lack awareness or cannot afford the high cost of Rs. 10 Lakhs or more for the implant followed by regular expenses on therapy and maintenance.

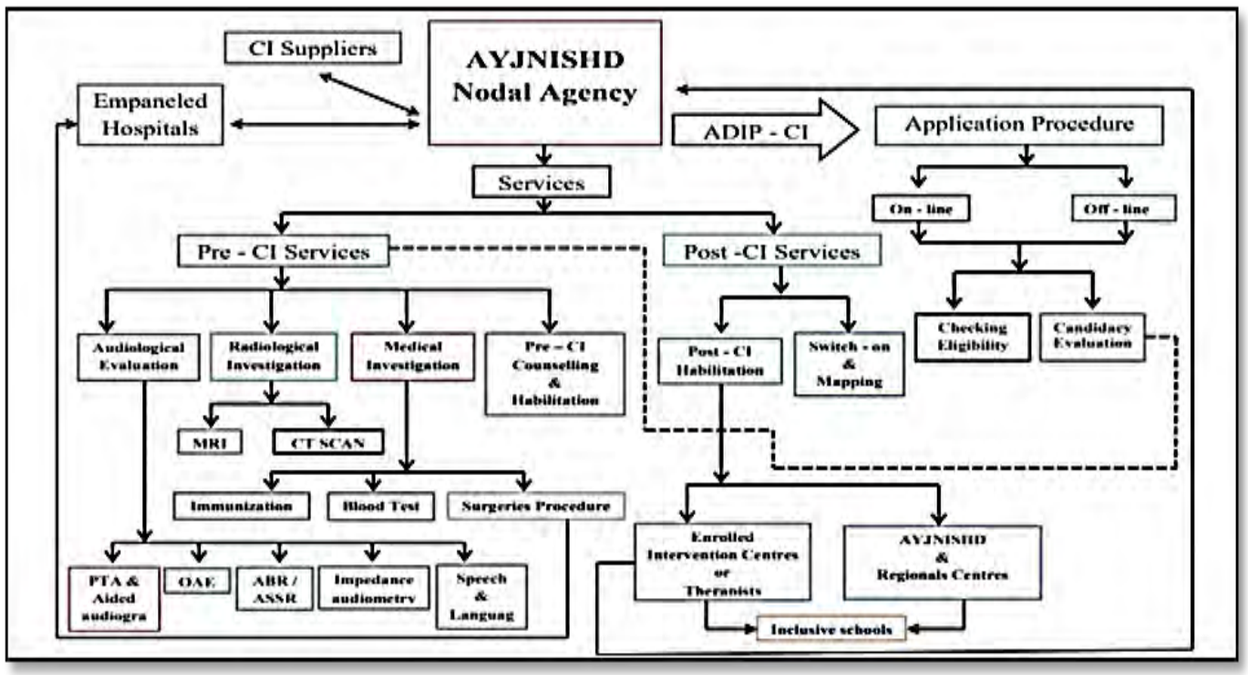
Introducing cochlear implant in the ADIP scheme for young children below 5 years of age has helped reach the unreached children and their families in almost every state of India and brought services to the door step of the families.



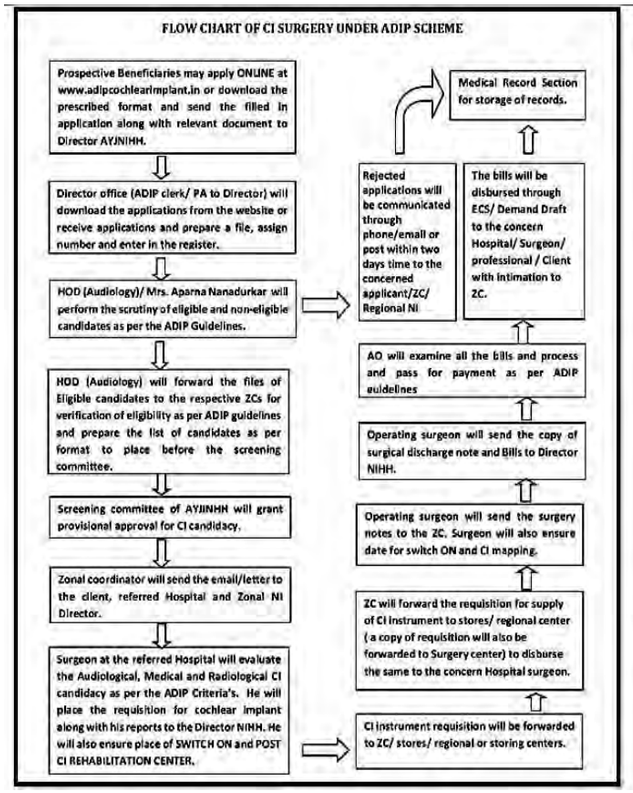
A5 step innovation to maximize the benefit of the scheme

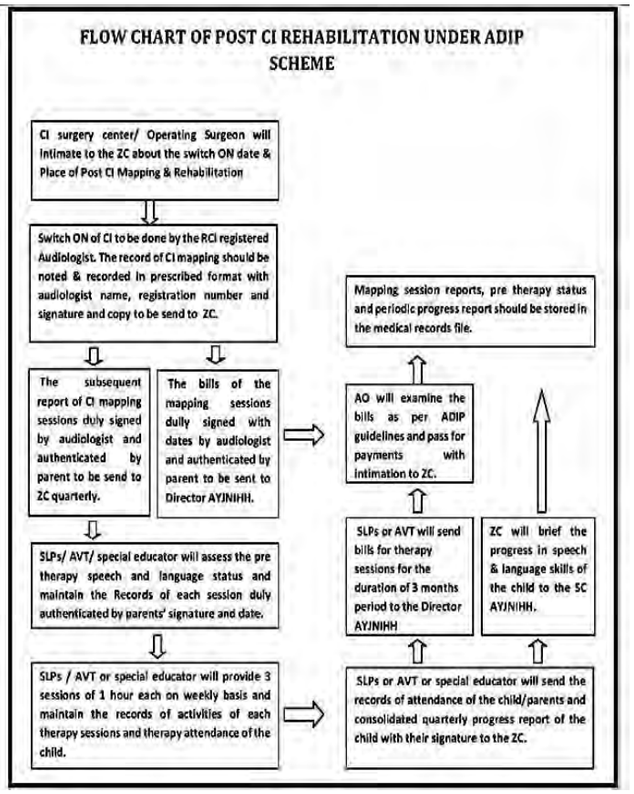
The revised ADIP scheme allocates Rs 6 Lakh per child to cover costs of the device, surgery and post implant habilitation.

Step 1 - Designing a systematized service delivery model



Step 2 - Pre and post cochlear Implant services



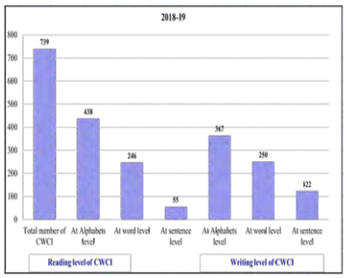


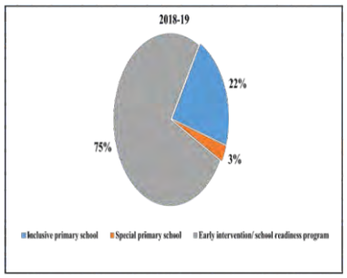
Cochlear implant technology is advanced and dynamic. All efforts are being made to make it affordable. A dedicated website **www.adipcochlearimplant.in** has been created to make the system transparent. All applications are submitted online on the website. Periodic reports of children can be tracked and progress on the standardized tests can be seen by parents. Applicants can also ascertain their number in the waitlist. Funds allocated and spent for each child for each service are also accessible to parents. Answers to FAQs are available on the website and a provision for redressal also exists.

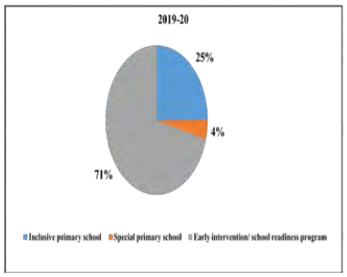
To enhance the sustainability of the programme, workshops, mentorship and training programmes are a regular feature for doctors and professionals. Workshops for parents to empower them with device usage, maintenance and developing educational and transition plans are also conducted. Most of the children with cochlear implant attend mainstream schools. Teacher and peer support is ensured by conducting sensitization programs and celebrations for attitudinal changes leading to sustainability in inclusive schools.

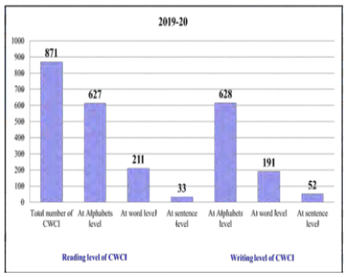
The rural, difficult-to-reach areas, especially the tribal and north eastern states and under-served areas have been prioritized. Hospitals and professionals in local areas are empanelled so that parents don't have to travel far. Priority is accorded to girl child and children belonging to SC/ST and other underprivileged communities. To reduce costs, instead of bilateral, unilateral implant is done in one ear of the child and the other ear is supported by a hearing aid. The increased demand of cochlear implant devices has brought down its cost from the original Rs.6 lakhs to about Rs.3.5 lakhs, which has further accelerated the reach. The use of CSR funds to finance Cochlear implants by the Corporates has also facilitated the spread.

The Visible Effects...Outcomes and benefit

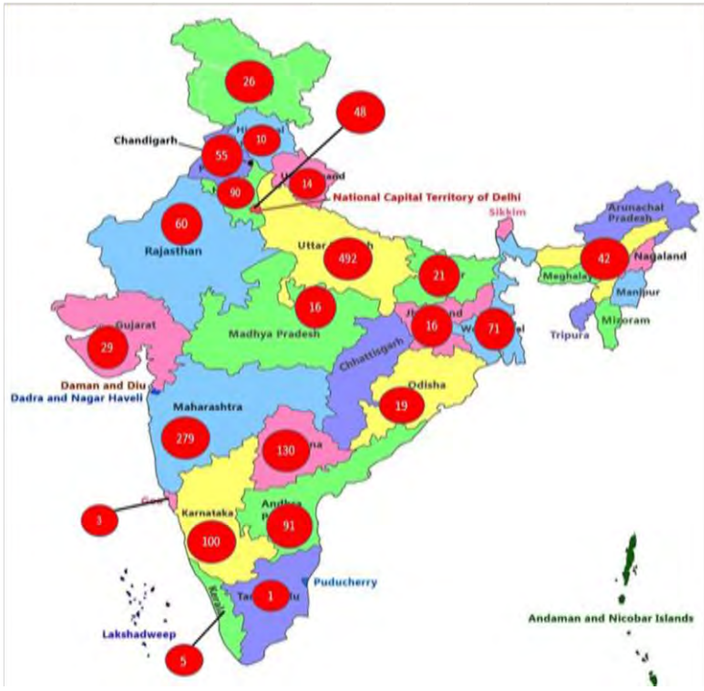








Beneficiaries of 2018-20



Clean energy initiative accelerating innovations

The role of renewable energy has become critical as nations have to contend with the increasingly devastating impact of climate change, largely caused by rapid industrial developmental activities. A cleaner and more resilient future energy system with net-zero emissions requires a wide range of technologies, some of which are still at an early stage of development. Mission Innovation initiative was launched during Paris Climate Change Agreement in Nov 2015. It is a global initiative of 24 countries and the European Union working to accelerate clean energy innovation.

The programme aims at coordinating the activities of Mission Innovation (MI) with Clean Energy – Research, Development and Design (RD&D) initiatives in India, in close partnership with other partnering countries, and apex Mission Innovation Secretariat worldwide. The Department of Biotechnology (DBT) is the nodal agency for supporting and coordinating clean energy national efforts in collaboration with Department of Science and Technology (DST) and other line ministries of Government of India.

The clean energy initiatives have successfully stimulated global and national innovation efforts by increasing public investments, private sector & start-up engagement and becoming the main inter-governmental platform for collaboration around shared clean energy innovation interests.

The joint efforts of researchers, academicians, entrepreneurs, start-ups and private sector have reinvigorated and accelerated the achievement of public and private global innovation for clean energy, which would make it widely affordable.

A concerted effort is being made to enhance the pace of innovation and scale of transformation for clean energy revolution through -

a) Increased international research, development & design collaborations
b) Increased private sector engagement and investment

c) Clean energy investment and technology innovations
d) Delivering the mission innovation breakthroughs
e) Raising awareness of the transformational potential of energy innovation
f) Turning awareness into action
g) Information sharing and outreach activity

Mission Innovation initiative has successfully stimulated global Innovation efforts by increasing public investments. It is the main inter-governmental platform for collaboration around shared clean energy Innovation interests. Strategic International collaborations on clean energy innovation are being promoted and catalyzed.

Technology Innovation processes are complex, and can be challenging for decision makers. Many success stories have emerged relating to India's energy technology research and Innovation systems. A Consultative and Collaborative approach has been followed since the inception of this Clean Energy initiative focusing on technological solution, technology improvement, product Innovation and simultaneously supporting ideas and inspiration of various start-ups engaged in Clean Energy.

Sociopolitical support is essential for Innovation activities to succeed. Targeted energy technologies need subscription and support from public-private partners and major industry incumbents. Unique research and innovation model platform(s) have been developed to provide support from "proof of concept" to "pre-commercialization stage" under Clean Energy Initiative. They covers breakthrough clean technology, innovative waste to energy, energy efficiency and energy access converge and offer transforming potential the way the world produces and consumes energy.

The proactive, curated and demand driven technology scouting under this "collaborative" initiative has helped identify cutting edge innovation and science & technology developments at a deployable stage. A few technologies are being taken forward to next level for implementation in collaboration with suitable stakeholders. The Clean energy initiative is making a concerted effort via bold ideas and breakthrough solutions to enhance the pace of innovation and scale of transformation to strengthen the Energy Innovation Ecosystem.

Funding opportunities in biofuels/ waste to energy have helped in focusing on key gap areas in biofuel research to make them more sustainable and cost-effective. It helps accelerate the innovation ecosystem and brings together the global biofuel research community. It encourages participation of local stakeholders for risk mitigation and takes forward the innovation from lab to pre-commercialization stage.

A recognition programme, "Mission Innovation Champions" has been instituted to celebrate and support innovative researchers, accelerating the clean energy revolution.

The Department of Biotechnology (DBT) and BIRAC (Biotechnology Industry Research Assistance Council, a public sector undertaking) BIRAC have joined hands with Tata Trusts, to set up the first "Clean Energy International Incubation Centre (CEIIC)" in Delhi under the mission to provide support to start ups and innovators at early stage of innovation.

The Clean energy initiative has helped in developing India centric innovations focused around user needs. It has forged strong collaborations between the public sector, private sector, industry, academia, research, start-ups and SMEs. The initiative has also helped in developing a critical mass of more than 500 researchers to meet requirements of R&D professionals and trained manpower for clean energy as also support upstream-end of research, where knowledge, more advanced than the current practice in the industry must have a space.

UDAN: Regional Connectivity Scheme

Civil Aviation in India has grown significantly over the last two decades. However, the growth is largely concentrated on select routes and sectors. As a result, parts of the country are devoid of market-generated supply of Air Services. Fostering air connectivity and developing the regional aviation market would enable regional passengers move to the national aviation market and contribute to a more equitable growth in economic activity. This would enhance economic development and nurture a networked economy. Such services increase efficiency of business and trade, increase employment opportunities, unlock India's tourism potential, enable fast medical services in remote areas and benefit the country as a whole.

The National Civil Aviation Policy (NCAP), 2016 laid down a target of 30 crore domestic ticketing by the year 2022. The extrapolated growth at that time showed that only 17 crore could be achieved. Regional connectivity scheme

was formulated by Ministry of Civil Aviation in October 2016 with to fill this gap. RCS-UDAN [Regional Connectivity Scheme–Ude Desh ka Aam Nagrik] was conceptualized by Ministry of Civil Aviation (MoCA) to enhance regional connectivity in an affordable and economically sustainable manner.

Introduction and implementation took time. Routes were operationalised in a staggered manner and a significant impact could be created from April, 2018. The extrapolation of ticketing figures till FY 2019 showed that 22.5 crore ticketing could be achieved by FY-2022, which is still short of the 30 crore target. RCS is geared to fill this gap, by bringing new areas on the aviation map of the country.

UDAN involves an yearly bidding process wherein airlines bid for routes connecting underserved and unserved airports. To incentivize operations on these routes, airlines are provided viability gap funding (VGF) support on some of the seats. Other concessions, such as reduced VAT and excise duty on Aviation Turbine Fuel (ATF), waivers on airport charges, etc. are provided to rationalize their costs through voluntary collaboration among Central, State and UT governments and airport operators.

To make air travel affordable, there is a cap on airfare on seats for which VGF support is provided.

Primary guiding principles of UDAN include:

a) **Self-financing & sustainable:** Funded through a nominal levy charged on certain domestic routes, it creates a circular economy wherein funds from the sector are used to benefit the sector itself. The airlines are willing participants as they recognize the larger benefits of regional connectivity.

b) **State Government buy-in and cooperative federalism:** The State/UT Governments have voluntarily extended support to reap the benefits of UDAN.

c) **Market driven mechanism:** Airlines are allowed to bid for routes and form their own networks so that it is amenable to their existing operations and assessments of demand.

d) **Sustainability in operations:** VGF support is only for a 3-year period (sunset clause). Airlines are encouraged to experiment with market determined airfares on some of the seats so that routes can commercially take-off after the support period.

A robust institutional mechanism was formed to implement the scheme. A Steering Committee having representatives of Ministry of Tourism, Ministry of DONER and State Governments reviews the scheme from time to time and suggests course correction. An RCS Cell has been created for overall implementation and day to day monitoring of the Scheme. Regional Air Connectivity Fund Trust (RACFT) has been created to manage the funds. It oversees the receipt of RCS levy from airlines, States share of VGF and its disbursement to airlines.

A transparent online platform has been established for operationalizing the Scheme. This platform facilitates timely information sharing, enables levy collection and real time data monitoring, expedites reporting processes and provides airlines with a platform for undertaking a transparent two-stage e-bidding process.

Technological integration supports effective execution. Periodic monitoring of airport infrastructure and training of security personnel for smooth implementation of UDAN is done through regular interactions with State Governments. Airport management information system (AMIS) generates operating data for the airlines. It facilitates timely and accurate billing by the airlines.

To ensure robust internal governance standard operating procedures (SoPs) have been developed. Financial management of RACFT funds is transparent. For smooth implementation, a Manual capturing various processes is being developed.

UDAN scheme is flexible and replicable. The system can dynamically transform itself in a changing market scenario to stay relevant and amenable to its original objectives. Regular stakeholder consultations, careful analysis of market response and participation patterns of the scheme and course corrections are done through a high level Steering Committee.

North-East, Hill and Island States were prioritized under UDAN-2.0 to enhance connectivity to these under connected regions. It provides impetus to helicopter operations to connect remote areas. UDAN-3.0 includes seaplanes and development of Water Aerodromes. Iconic tourist destinations are also being connected. International air connectivity scheme was introduced to facilitate international connectivity.

In UDAN-4.0, modifications have been incorporated to increase focus on already developed airports, smaller aircrafts and shorter routes to facilitate creation of regional hubs.

To maintain sustainability during COVID-19 nationwide lockdown, UDAN introduced flexibilities. 'Lifeline-UDAN' facilitated speedy, seamless transportation and delivery of essential, time-sensitive cargo with medical supplies and teams to various parts of country. A hub and spoke model was created to aid in network planning, continuous engagement and collaboration with stakeholders from aviation and health through a designated response team.

RCS-UDAN received excellent response. Its impact is spread across the country. The average load factor on regional routes is above 70%. More than 335 unconnected routes have been awarded and 218 routes operationalized. Over 40 Lakh passengers have availed benefit, till March 2020. Regional carriers got an opportunity to scale up their operations. . UDAN is strengthening the overall aviation network. The output and employment multipliers of aviation are 3.25 and 6.10 respectively. A strong impact of enhanced air connectivity on economy is in employment generated and the spending by employees. It has stimulated activity across the entire supply chain including aviation fuel suppliers and inter-modal transport operators. It has contributed to economics of other industries including a boost to tourism.

Expanding e-Governance through Passport Seva Kendra

Passport Seva Programme (PSP) is a mission mode programme of the Government of India being run in public private partnership (PPP) mode by Ministry of External Affairs (MEA) as part of National e-Governance Plan. It is one of the most noticeable statutory and citizen-centric services being rendered by the Government. M/s Tata Consultancy Services (TCS) is the Service Provider for the programme.

PSP evolves from the **Digital India drive** of the Government of India which envisions a more effective and efficient service delivery mechanism for the citizens of India. The three pillars of PSP are citizen proximity, process re-engineering, and digital infrastructure. Systemic resources, public-private partnership model, organic change management approach and ecosystem support that facilitate the process.

The applicants apply in the PSP system for passports and related documents online, upload relevant documents, make the payment online, schedule an appointment through a user friendly portal and then visit the designated Passport Seva Kendra or Post Office Passport Seva Kendra.

At the Sewa Kendra, an electronic queue management system (EQMS) works on the principle of first-in first-out (FIFO). It monitors the flow of applicants. Applicants can track the status of their applications through portal, email and SMS services. There is no manual intervention at any stage. The complete process is digitally flown with re-engineered process through a single visit clearance.

Till May, 2014 there were 77 Passport Seva Kendras (PSK) working in public-private partnership (PPP) mode. Since then, MEA has undertaken several steps to bring about quantitative and qualitative improvements in the delivery of passport services. 16 new PSKs have been opened in the North East States.

In order to take the passport services to the doorsteps of the citizens, MEA in association with the Department of Posts announced an innovative initiative on 24 January, 2017 to open Passport Seva Kendras at the Head Post Offices (HPO)/ Post Offices (PO) in the country called 'Post Office Passport Seva Kendra' (POPSK).

The objective was to enhance citizen experience and for better governance in delivery of Passports and related services. The Ministry of External Affairs (MEA) and DOP signed an MOU on 31.01.2019 to operationalise the initiative.

There are 93 PSK and 424 POPSK (total- 517) functioning across the country as on 15 October, 2020. 440 of them have been set-up since May 2014. MEA and DOP are working together to open a POPSK in every Lok Sabha Constituency where there is no PSK/ POPSK to ensure that there is at least one. In the process, 488 Lok Sabha Constituencies have been covered till 15 October, 2020.

With the aim to provide a centralized passport issuance platform and application for Indian citizens living abroad seeking Passport-related services, the Integration with Indian Mission/ Post abroad into the Passport Seva Programme commenced in October 2018. Integration has been successfully done in 116 Indian Missions and Posts till 15 October, 2020. Remaining 64 missions and posts abroad will be integrated soon.

To bring in efficiency, transparency and quality in service delivery information and communication technology has been leveraged. The Foundation is laid on three aspects - citizen proximity, process reengineering and a digital ecosystem. All non-sovereign functions are being catered through the manpower resources provided by the service provider.

The process of delivering a passport involves close interaction with the Police Department for verification of the applicant's credentials as regards criminality and citizenship and with India Post for dispatch of printed Passports to the applicants. Police verification consumes major share of the time taken for issuing a passport. To expedite receipt of police verification report from State/ UT police authorities, the process has been automated upto the office of the District Superintendent of Police. "mPassport Police" App has been launched for speedy submission of police verification report (PVR). The mobile application facilitates police officers to digitally submit the PVR.

The Ministry has also integrated India Security Press Nasik for tracking of blank passport booklets and India Post for dispatch of Passports. These enhancements in the passport delivery ecosystem have helped to improve delivery. The PSP has also leveraged the vast network of over 2-Lakh Citizen Service Centres (CSCs) across the rural hinterland. The CSCs facilitate filing and uploading of passport application forms, online payment of applicable fee and scheduling of appointments for visiting to the PSK/POPSK at a nominal charge not exceeding Rs. 100/-.

MEA has implemented a robust grievance redressal and feedback mechanism to respond to citizens' queries in a time bound manner and receive feedback for improvements and enhancements. The citizens can submit their feedback, suggestions and grievances through multiple channels viz., CPGRAMS, PSP Portal, Call Centre, eMail, Twitter, Grievance Cell etc. These are closely monitored, analysed and responded by a dedicated team.

With the launch of POPSKs, the efficiency and effectiveness of passport services have improved remarkably. The PSP processed more than 1.2 Crore in each of the three years viz., 2019, 2018, and 2017. The number of daily appointments in 2019 crossed the figure of 75,000.

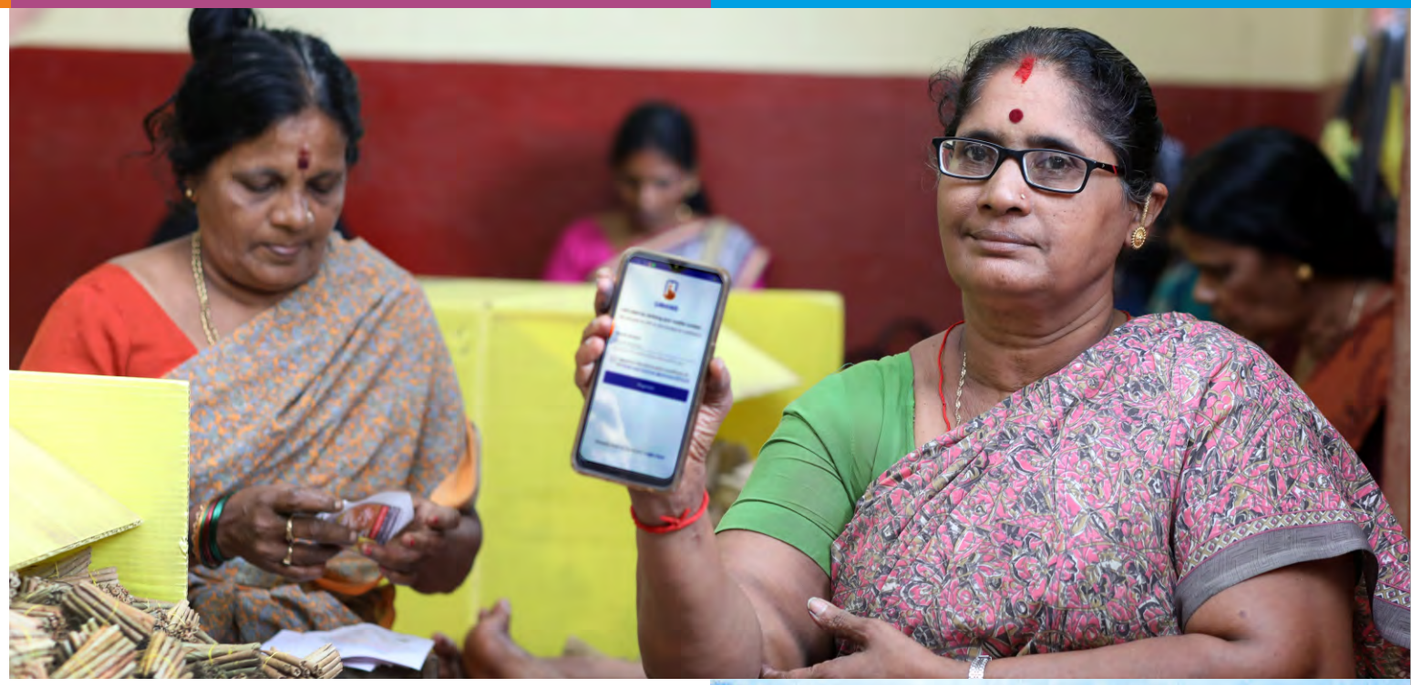
Despite increase in workload, the time taken for issuing a passport has come down to an average of 8 days for normal passports in the year 2019 excluding the time taken for police verification.

There is improvement in police verification process too. The average time has come down from 42 days in 2014 to 18 days in 2019. The outreach and innovative programs like Passport Melas and Passport Seva Camps also added value to the eco-system.

Nirbadh: Seamless Service
EPFO to e-EPFO - Journey from Offline to Online

The Employees' Provident Fund Organisation (EPFO) is the third largest pension fund globally in terms of membership and the eighth largest sovereign pension fund in terms of assets under management. It is the custodian of rainy-day savings of more than 58 million members, their families and over 6.7 million pensioners.

While delivering this essential service to so many in their times of need has been a privilege, it hasn't been easy. EPFO till a few years back used to grapple with mountains of files, long queues of people, and overwhelming backlogs despite a well-intentioned work-force slogging extra-hours. That was partly because this mammoth organisation caters to a size of membership that is more than the population of many countries like Spain, South

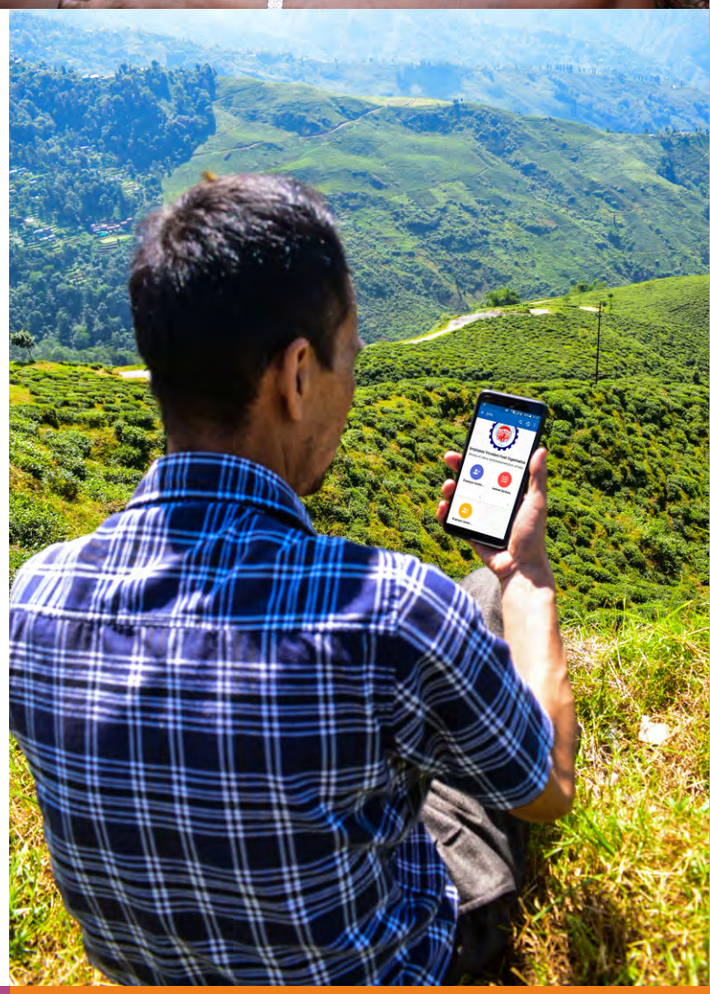


Africa and South Korea. Moreover, the organisation has to deal with individual emergencies on daily basis.

Recognizing that fact, the organization initiated a transformative digital revolution to make lives of its stakeholders (i.e., employers, employees and the pensioners) easy by bringing social security access just a click away. This has led to a series of initiatives in last few years to migrate most of EPFO's service-delivery online.

Members' interface with EPFO has traditionally been mediated through their employers, and therefore EPFO never maintained individual KYC (Know your customer) of its members. Full-proof KYC was imperative for the initiative "Offline to Online" to succeed identification of the members. For this, EPFO partnered with C-DAC (Centre for Development of Advanced Computing.

Building incentives for uptake of KYC by crores of its members wasn't easy as 75 per cent of EPFO's members hail from socio-economically disadvantaged class earning less than Rs. 15,000 per month with limited access to IT tools. Pan-India external outreach strategies like dedicated service centers, Aadhar counters, en-masse camps at industrial clusters, regular



seminars through its 21 zonal, 138 regional and 117 district offices to exhort members to update their KYC were adopted. This helped in seeding of 71.8 million members with Aadhar numbers enabling them to avail multiple services from EPFO's e-platform. Simultaneously many rules were amended swiftly and elements were added to the digital architecture to fundamentally transform the way services were delivered at EPFO, making it efficient and seamless.

EPFO has achieved a 180-degree transformation in the way claims are filed. It has moved from 100 per cent paper claim in May 2017 when the initiative was launched to 93.48% (195.58 lakh) online paperless claims in March 2020. EPFO now receives over 99% claims online. This has ensured fast and faceless transactions.

Going a step further EPFO aided by IT solutions with faster data validation allowed for settlements of claims without human intervention for the KYC compliant accounts. The solution came very handy during the lockdown phase caused by the pandemic when offices functioned with bare minimum staff. Over 21 Lakh claims were settled in auto-mode. More than half of the COVID 19 advances were settled in this mode.

Another pain-point for subscribers was the absence of auto portability of members' previous PF account to the current one during their job shifts. Members chose to withdraw their funds as the transfer process remained cumbersome defeating the very purpose of creating a handsome corpus for the rainy day. An auto-trigger mechanism was introduced for portability of members' previous account to the account with the successive employer after verification and matching of the details of the member between the old and the new employers. Over 14.7 Lakh such transfers have been done through auto trigger mode.

At 67 Lakh, EPFO serves more pensioners than the entire central Government. Earlier, they formed long queues for filing their life certificates in November every year. 'Nirbadh' seamless services would have remained incomplete had it not been extended to this most important stakeholder of EPFO. To make life easy for pensioners EPFO leveraged Government of India initiatives like Jeevan Praman Patra (JPP), DigiLocker, Common Service Centers (CSC) and Unified Mobile Application for New-age Governance (UMANG) mobile app. The e-initiatives of allowing filing of JPP year-round has led to vanishing of November long queues.

EPFO services are available on UMANG mobile app. The organization has onboarded 16 of its core services on UMANG. EPFO services on UMANG App account for over 88% of total hits. This is when 144 government departments have listed over 1450 of their services on the App.

Lockdown triggered by the pandemic (Covid-19) brought all economic activity to standstill causing distress among members. Non-refundable Covid-19 advance was allowed in these extraordinary circumstances. Faster servicing of claims helped many survive the challenge in the job-insecure context of Covid-19. The advances were settled on an average within 72 hours with a 50 per cent increase in speed of settlement from past. The average manpower productivity rose by 87%. Over 40 Lakh such advances were sanctioned and around Rs. 11 thousand crores disbursing to the members when they needed it the most.

The innovations in the functioning have made the organization almost disaster-proof. In future if a flood, earthquake or an epidemic were to shut down a part of the country, the work in EPFO offices will not stop. This tech powered mission and the transactions it enabled turned the relationship with crores of its members completely seamless, and uninterrupted- **Nirbadh.**

Initiatives	Quantitative Impact	Qualitative Impact
Paperless claim settlement	**25** times growth in 2 years **99%** claims paperless	Faceless transaction Ease of living for members
Ease for pensioners File proof of life anytime anywhere PPO in Digilocker	**67** lakh pensioners benefitted	November queues vanished Need for physical visits removed
16 services launched on UMANG mobile app	Largest service provider on UMANG **88%** hits of the total	Access to EPFO services through own mobiles
Online transfer of accounts during job change	Over **14.7** lakh auto trigger transfers	Peace of mind due to auto portability
Updation in Know your customer **(e-KYC)**	**2.56** times growth in Aadhar linked KYC in 2 years	Ensure seamless transaction removing scope for any fraudulent transaction
Online demographic data updation	**2.06** crores updation Of which 1.6 crores in last 2 years	Forged direct bonds with members Removed dependence on employers
Online Grievance redressal **EPFiGMS 2.0**	**9.23** lakhs grievance redressed in one year (disposal 97.7%)	Increased trust and faith
Exceptional rise in staff Productivity	**87%** increase during April to July 2020	Greatly reduced pendency of claims
Enhanced speed of settlement of illness claims	From 20days to **72** hours	Reposed faith in the distressed segment

Urvarak Dashboards – Implementation of DBT 2.0

DBT in Fertilizers is a complex, IT driven initiative which has enabled the department to monitor the availability of fertilizers across the country on a real time basis. It is an e-hub for a wide range of stakeholders viz., 173 Fertiliser manufacturing companies, 23 thousand wholesalers, 2.26 Lakh retailers, 14 Crore farmers and State Agriculture Departments.

Challenges in implementing traditional DBT system in Fertilizers were many. Beneficiary and his entitlement were not defined. Subsidy in Urea is thrice of subsidized MRP. Raising prices of Urea would have put considerable financial burden on the farmers, which could invite resistance. Subsidy in case of Urea varies from plant to plant, even for the same fertilizer company. In case of traditional DBT, like LPG, there is only one product but in fertilizers, there are many products with varying subsidy. These challenges were overcome by redesigning the DBT system in fertilizers: -

a) Fertilizers continue to be sold through PoS at existing MRP.

b) Farmer is identified on the basis of Aadhaar biometric authentication through PoS. In absence of Aadhaar, EPIC or KCC details are used.

c) After entering Soil Health Card No. in PoS (Point of Sale), fertilizer recommendations are shown to farmer.

d) On the basis of quantity selected for purchase by the farmer, system automatically calculates subsidy, which is transferred to Fertilizer Company on behalf of farmers by the Government. Farmer pays only subsidized MRP.

The project followed an inclusive approach in identifying the stakeholders and their roles in planning, capacity building design and in its implementation. 4 workshops

were held with all 4 stakeholders to finalize the DBT model and system design of DBT in Fertilizers. As a precursor to the nation-wide rollout of DBT, a project management unit (PMU) was set up at HQs. State level DBT coordination committee under Principal Secretary Agriculture and District level coordination Committee under District Collectors were set up.

A number of preparatory activities were undertaken for Pan India roll out of DBT. After finalization of PoS specifications, PoS devices were procured (by fertilizer companies) and PoS software developed and installed. The IT infrastructure created includes 86 state-of-the-art servers. Training of master-trainers, wholesalers, retailers, company officials and State Government officials were carried out. About 11,200 Training programmes have been organised so far. 2.26 Lakh devices were deployed after extensive training. The existing process was re-engineered, modified and notified in March, 2017. Software modules like PoS software, Release Order module, DBT Payment Module etc. were prepared and upgraded from time to time to accommodate specific needs of stakeholders. 24 State DBT Coordinators were appointed to oversee PAN-India roll out in States. DBT Cell was set up at HQs to oversee Pan-India roll out of DBT. A fifteen member multilingual helpdesk (1800115501) has been set up at headquarters to handle day to day issues and grievances.

The software developed with the help of NIC includes:-

a) PoS Software to record sale transaction after biometric authentication

b) Release Order(RO) Module to track end-to-end (from port/plant to retail outlet) movement of fertilizers on real time basis

c) Bill Payment Module for generation of and payment of subsidy on weekly basis on the basis of quantity sold through PoS.

d) Bill Tracking Module to track processing of subsidy bills on real time basis.

Since internet connectivity was critical for success of the DBT, Collectors were asked to conduct network survey in their Districts and buy SIM cards with best network for retail outlets. All POS devices were provided with external root-top antenna. Use of such antenna resolved connectivity issue in 90% - 95% cases. POS devices have multiple connectivity options (Wifi, PSTN, LAN, etc.). In difficult locations in Orissa and J&K, VSAT terminals were used for connectivity.

Previous POS software was operating only in English. POS 2.0 software launched in July 2019 has new user interface with 16 major languages of the country. New software is faster and has brought many improvements in the DBT system.

To overcome challenges posed by PoS devices (such as lack of timely support by PoS vendors, limited number of vendors, connectivity issues etc.), PoS Desk-Top Software has been developed and launched on 10th July 2019. The DBT system is device agnostic now.

Following successful PAN-India roll out, system started generating large volume of data on daily basis. The data has been analysed and organized in different dashboards for stakeholders like Kisan Corner, Department of Fertiliser's Movement Division, States Agriculture Departments, District Collector/District Agriculture Officer, Fertilizer companies, and Marketing Federation. Dashboards have been designed on the basis of need assessment and requirement of each stakeholder after extensive consultation.

Earlier subsidy was paid to fertilizers companies on the basis of receipt of fertilizers at District HQ. In DBT, Fertilizers Subsidy is paid to manufacturers on weekly basis electronically on the basis of actual sale of fertilizers to farmers. No physical bills are required to be submitted.

DBT 2.0 uses latest technologies which makes system more user friendly, secured and platform independent. System uses aadhar based e-sign technology for bill verification and electronic signing of bills instead of physical submission of companies' subsidy bills.

DBT has brought significant benefits by improving governance. Some of which are as under: -

a) Creation of Aadhaar seeded data base of beneficiaries.

b) Real time availability of Fertilizer data at State, District, wholesaler & retailer level through stakeholder specific Dashboards.

c) Real Time, online tracking of fertilizer Movement and availability, along the plant/port-rake point-district-wholesaler-retailer chain.

d) Real time tracking of sale of fertilizers to farmers through PoS devices.

e) Provision of Soil Health Card recommendations to farmers

f) Weekly Subsidy bill generation for improving governance. It has made the subsidy payment process more dynamic and faster as compared to earlier monthly cycle.

g) Reduction in dependency on companies and dealers for Reports.

h) Minimized diversion of fertilizers.

ONE NATION ONE RATION CARD

One Nation One Ration Card' (ONORC) is an endeavour of the Department of Food & Public Distribution, Government of India, to ensure seamless delivery of food-security entitlements to all the beneficiaries covered under National Food Security Act, 2013 (NFSA), anywhere in the country, through nationwide portability of ration cards in association with State/UT Governments. This is a part of the PM's Technology Driven System Reforms under Atmanirbhar Bharat Abhiyan.

The system aims to empower numerous (potential) NFSA beneficiaries including migrant labourers, daily-wagers, urban poor like rag-pickers, street-dwellers, temporary workers in organised and un-organised sectors, domestic workers, etc. who frequently change their place of dwelling in search of better opportunities, across the country. It overcomes the constraints of traditional Public Distribution System (PDS) where they lose out on their subsidised food-grains due to migration, as their ration card is tagged to a nearby Fair Price Shop (FPS) in their native place.

This IT-driven system provides option to all beneficiaries to lift their entitled quota of foodgrains from any FPS of their choice in the

upon the strong pillars of automation of PDS operations in States/UTs and ready online availability/ access of PDS data through their respective and central servers.

For an effective and structured implementation of this initiative, the Department launched a Central Sector Scheme, namely – Integrated Management of Public Distribution System (IM-PDS) w.e.f. April 2018 with national portability of ration cards as main objective. In June, 2019 the national portability of ration cards was named, "One Nation One Ration Card Plan". Technical implementation and development of requisite software applications was done with the support of National Informatics Centre.

country by using the same ration card after undergoing biometric/ Aadhaar authentication on an electronic Point of Sale (ePoS) device at the FPS. The enablers of this initiative are installation of ePoS devices at FPSs and Aadhaar seeding of beneficiaries with their ration cards database which can be accessed by FPS dealers using ePoS devices anywhere in the country either through ration card number or Aadhaar number of beneficiaries.

The initiative was conceptualised in furtherance of PDS reforms under which the Department, in association with all States/UTs, had achieved complete digitisation of ration cards/beneficiaries' data in the country, significant Aadhaar seeding and a fast pace of ePoS installation at FPSs. There was computerisation of end-to-end PDS supply chain operations in many States/UTs and availability of web-based applications and digital data/ information across the gamut of PDS operations on States/UTs and Central portals/dashboards. Thus, implementation of this technology-driven system to enable seamless access to Public Distribution System from any FPS in the country was predicated

To enable seamless exchange of data and information of NFSA ration cards/beneficiaries, their entitlements, etc. across different States/UTs, the Department has set up a secure Central Repository of all ration cards/beneficiaries' data, which is being fed by all States/UTs with incremental data on a regular basis through secure application programming interface (API). The centralised system detects duplicity of beneficiaries across States/UTs and alerts the authorities. This facilitates in having a list of eligible beneficiaries for portability transactions without duplicity in distribution or circumvention of someone else's entitlements through portability facility.

The pilot was launched in August 2019 in the form of inter-State portability in two-clusters of two-adjoining States of Andhra Pradesh & Telangana and Gujarat & Maharashtra. In October, 2019 it was expanded to two more clusters of two-adjoining States of Karnataka & Kerala and Haryana & Rajasthan. Subsequently, in January 2020, the States of Goa, Jharkhand, Madhya Pradesh and Tripura were added to the list and the national portability system was seamlessly enabled in a "single integrated cluster" of 12 States under One Nation One Ration Card (ONORC) plan.

Subsequently, 16 more States/UTs (namely - Uttar Pradesh, Bihar, Himachal Pradesh, Punjab, Dadra & Nagar Haveli and Daman & Diu, Mizoram, Odisha, Sikkim, Jammu & Kashmir, Manipur, Nagaland, Uttarakhand, Ladakh, Lakshadweep, Arunachal Pradesh and Tamil Nadu) have been added swiftly in batches of 2-5 States/UTs at a time with the national cluster and at present, the One Nation One Ration Card system is seamlessly enabled in 28 States/UTs from October 2020, covering a total of about 68.6 Crore beneficiaries (~85% of >80 Crore NFSA population) who can lift their food grains from any FPS of choice in these States/UTs. It is targeted to integrate remaining States/UTs, including 2 UTs under DBT Cash Transfers, by 31.03.2021.

Under this system, the food grains are issued as per the 'Scale' and 'Central Issue Prices' (CIP) prescribed under the NFSA and as per the commodity ratio/distribution pattern of the destination/sale State/UT. However, migrant beneficiaries in two DBT (Cash) implementing Union Territories of Chandigarh and Puducherry (from other parts of the country) shall be eligible for receiving equivalent Cash Subsidy (in place of foodgrains) directly into their bank accounts, in the same way as is being done in case of resident beneficiaries.

The States/UTs have been entrusted with wide-scale publicity and awareness generation of this initiative as the responsibility of identification of beneficiaries and foodgrain distribution through PDS rests with them. The Government of India is making concerted efforts for maximum outreach to target groups/ beneficiaries across the country and develop sufficient information, education and communication (IE&C) material for the use of States/UTs.

The Department has also requested all States/UTs to enable a new 14445 toll-free number under this initiative. It is developing a comprehensive mobile/web application for registration of migrants. Focused awareness generation is being carried out to promote the distribution of foodgrains through portability by State/UT authorities and local/filed level officers.

To strengthen the outreach for urban labourers, a separate registration facility is being mulled.

e-Sanjeevani

e-Sanjeevani is an innovative, indigenous and inclusive initiative of Centre for Development of Advanced Computing (C-DAC) to empower the patients in rural India through Telemedicine. It is a real time, cost-effective and integrated tele-consultation (telemedicine) system in accordance with the guidelines for Telemedicine Services in Ayushman Bharat – Health & Wellness Centres, issued by the Union Ministry of Health & Family Welfare (2019).

In tune with the goals of 'Ayushman Bharat', it would pave way to a rich digital health ecosystem in the country. e-Sanjeevani has been designed keeping in view the exclusive nature and needs of India where majority of population lives in rural areas, and is poised to reach those living in isolated and interior communities. It promises to be the world's largest doctor-to-doctor telemedicine system, facilitating equitable delivery of healthcare services across the country.

e-Sanjeevani has been developed for the nationwide rollout at 1,55,000 Health and Wellness Centres (HWCs) to facilitate Ayushman Bharat Scheme, which has HWCs as its core. It is designed to bridge the gap in India's healthcare needs and available healthcare facilities. It aims to address the following challenges in healthcare services:

i) Non-availability of qualified and efficient doctors / specialists in rural areas;

ii) High burden on district hospital and tertiary care facilities due to non-availability of services at primary level; and

iii) Lack of health record creation at primary and secondary level and lack of interoperability of records.

Ayushman Bharat Scheme is world's largest health insurance scheme. It was launched to transform 1.55 lakhs Sub Centres and the Primary Health Centres into Ayushman Bharat-Health & Wellness Centres (AB-HWCs) to deliver comprehensive primary health care. e-Sanjeevani was conceptualised so that the telemedicine technology could be leveraged to enable access of general physicians and medical specialists for

Ministry of Health & Family Welfare
Government of India

NATIONAL HEALTH MISSION
राष्ट्रीय स्वास्थ्य मिशन

eSanjeevani

Integrated Telemedicine

esanjeevani.in

- SNOMED-CT compliant
- Two level teleconsultations
- Real time telemedicine application
- ePrescription enabled (generic drugs)
- Modelled on EHR guidelines, MoHFW, GoI
- Inbuilt video conferencing & DICOM viewer
- Comprehensive dashboard for users & policy makers
- Interfaced with diagnostic device (optional)


VID Management
of COVID/Non COVID
MINISTRY OF HEALTH
&
FAMILY WELFARE
Dr. Sachin Mittal
Lav Agarwal

the beneficiaries in the rural areas and smaller towns. It is now facilitating access to comprehensive healthcare services at beneficiary's doorstep across the country.

e-Sanjeevani architecture supports a double-deck **'Hub and Spoke Model'** with HWCs set up at State Level as Spokes aligned to the Hub of Doctors (comprising of MBBS/ Speciality/ Super-Speciality doctors) at Zonal level. It is designed to provide first level of tele-consultation and subsequent e-Prescription to Mid-Level Health Providers (MLHPs)/ Community Health Officers (CHOs)/ Multi-Purpose Health Workers (MPWs) at Health Sub Centre (HSC)-HWCs, and specialist services to the Medical Officers at Primary Health Centres (PHCs).

The workflow is innovatively designed at three levels as:

Level I : Hubs are created at State Medical College or at tertiary level hospitals for providing Specialist/ Super-specialist Consultation to Doctors/ Medical Officers at PHC and Doctor Consultation to (MLHPs)/ CHOs at HSCs. Each of the Hubs has relevant specialists based on the needs at the corresponding Spokes.

Level II : PHCs are being upgraded by enabling Telemedicine facilities for providing Tele-Medicine services to HSCs and for seeking Specialist/Super Specialist Consultation from Hub. PHCs have dual role in this network, acting as a Hub for Spokes at Sub-Centre,meanwhile, acting as the Spoke for the Hub (with specialists).

Level III : Health Sub Centres with Telemedicine Infrastructure can connect to Medical Officer at PHC or directly seek Tele-Medicine services from Specialists/ Doctors stationed at Hub. The specialists available at District Hospitals can also be utilized through tele-consultation facility.

Sanjeevni Architecture

e-Sanjeevani is modelled on Electronic Health Record (EHR) guidelines of the Union Ministry of Health & Family Welfare. It is Systematised Nomenclature of Medicine and Clinical Terms compliant. Video-conferencing & DICOM (Digital Imaging and Communications in Medicine) viewer is inbuilt. It is integrated with diagnostic device - for wireless import of results PoCTs (Point of Care Testing) & RDTs (Rapid Diagnostic Test). There is provision for SMS notifications. The centralized application, "eSanjeevani" is being implemented in the HWCs, and for continuous monitoring of the project, a Dashboard has been developed for various levels (District/ State/Centre) and integrated with HWCs Dashboard.

eSanjeevani is an effective solution for India's unique health care challenges. It ensures that beneficiaries in rural areas need not go to hospitals in the cities, and the Hub & Spoke model telemedicine network ensures equitable delivery of healthcare services across the country's primary healthcare. Each Hub can cater to the needs of up to 100 Spokes. The e-Prescriptions generated by e-Sanjeevani are free from medical errors, thereby improving quality of care. Around 4,000 HWCs are telemedicine-enabled and operationalised. Over 1,04,000 Indians have already utilised eSanjeevani service.

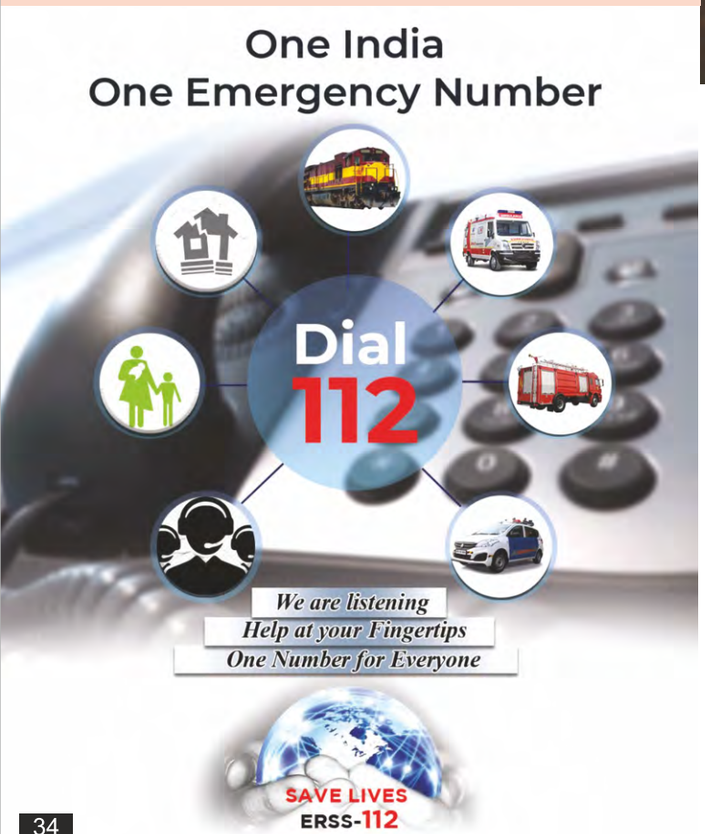
Such a user-friendly, individual -specific and nationwide service would contribute to India's stride towards national and global targets in health indices such as improved life

expectancy, reduced maternal & child mortality, and reduced morbidity & mortality due to communicable diseases. It is expected to enhance efficiency in providing primary, preventive and curative health care by bringing the various health care providers of country's three-tier healthcare delivery system on a single platform. It will enable the beneficiaries to utilise their entitlements under Ayushman Bharat scheme and improve the quality, speed and continuity of care.

eSanjeevani is on its way to transform 1.55 lakh Health & Wellness Centres across the country. It has been deployed in 13 states, with many more states in various stages of roll-out. It is shaping into world's largest doctor-to- doctor telemedicine network with the highest number of users and beneficiaries in its scope. This innovation is working towards transforming India into the land of telemedicine by December, 2022.

Emergency Response Support System -112
(One India-One Number-One Solution)

Emergency Response Support System (ERSS) is the single most important and path-breaking vision of the Government of India which would revamp and revolutionize the existing emergency response support systems in the country by unifying the varied and multiple emergency numbers existent across the nation. It envisages the use of a globally recognized, pan-India single number 112 for all emergency purposes.



ERSS is as an initiative under Nirbhaya Fund Scheme, a non-lapsable corpus fund, constituted for ensuring safety and security of women in the aftermath of the Nirbhaya incident. It is a synergetic endeavour of Ministry of Home Affairs (MHA), Ministry of Women and Child Development (MWCD) and Center for Development of Advanced Computing (C-DAC).

Since the inception of the project in 2017, C-DAC has been in for a long haul completing the project in 19 states and Union Territories by 2019. In 2019-20, this flagship project of the government was marked as a Special Achievement of the MHA portfolio. With highly sophisticated and state-of-the-art system being launched in Delhi in September 2019, C-DAC went ahead with the commissioning and the operationalizing of the ERSS-112 in 29 States and Union Territories with an eye on covering all the 36 states and Union Territories by the end of December 2020.

The advanced technology and state-of-the-art facilities/ components envisaged in ERSS -112 make it a best-of-class integrator solution in adherence with the requirements of MHA. The solution designed and developed at C-DAC lab is a complete end-to-end indigenous solution equipped with intelligent backend systems. The mathematical model and algorithms used in the geographical information system (GIS) analytics is conceived and developed using Free and Open Source tools/software and the sensitive data handled in the ERSS-112 project is secure under the ownership of the Government. This cost-effective solution developed by C-DAC is customizable for various state governments based on Standard Operating Procedure stipulated by MHA and has achieved seamless integration with multiple emergency services all over the country.

The Emergency Response Centre (ERC) accepts a multitude of emergency /distress signals of the likes of voice calls, SMS, e-mail, Twitter and SoS alerts, making it a highly user-friendly and immensely accessible interface. ERSS 112 has a simple yet efficient mechanism where, the Communication Officer (CO) who receives the distress call after recording the necessary event information along with the location of the victim dispatches it to the Dispatch Officer (DO). The Dispatch Officer now aided with the location of the victim will trace the nearest ERU (Emergency Response Unit) and dispatch the event information to that unit in a minimum response time

allowing the rescue officers to pitch in. By integrating all the services under a centralised mechanism, ERSS-112 circumvents the need of connecting with multiple emergency services on the part of the user and negates the tedious process of remembering multiple numbers.

With an average response time of 15 minutes, the ERSS-112 is a boon to any individual in distress. Able to cater to the widest spectrum of distress situations, the services of ERSS- 112 were extended and launched for the public as the Covid Helpline Number for the State of Punjab. The reach of the system was further enhanced with the launching of a mobile application named "112 app" equipped with a unique 'Shout' alert and Incident Locator which ropes in volunteers for distress aid. All these novel features are in addition to the transparency and reliability that ERSS offers to the public in the matter of response to distress, by offering reliable communication and ease of traceability of rescue vehicles.

ERSS 112 has lived up to its reputation as a formidable technology in the matter of rescue operations. During the Kerala floods of 2019, distress calls to 112 saved around 700 lives. A massive disaster was avoided in Udaipur when the rescuers responding to a 112 call reached the site to carry out rescue and evacuation. ERSS-112 extended their help for stranded women/

children/youth during night hours at Chhattisgarh due to non-availability of public transportation and ensured their safe travel to home. During the COVID crisis, Delhi recorded maximum number of actionable calls reporting a whopping 18,16,068 actionable calls, out of the 54,44,447 ones landed.

In the second phase of ERSS-112, multi cloud management and automated operations are planned to be introduced. The individual ERSS systems of different states will be integrated into a unified system, with capability of inter-state dispatch. A national portal NSS (National Support System) will be setup with subscriber database of whole country and a dashboard for monitoring the performance in each state.

Other emergency services of Central Reserve Police Force (CRPF), Railway Protection Force (RPF), and National Disaster Management Agency (NDMA) will also be integrated with ERSS through Machine-to-Machine communication. It will further the vision of 'One India, One Number' many steps forward with 'One Solution'.

Change Management Campaign - ANGIKAAR

Pradhan Mantri Awas Yojana (Urban) [PMAY (U)], implemented by Ministry of Housing and Urban Affairs (MoHUA), is playing a pivotal role in fulfilling the vision housing for all by 2022 and bringing smiles to families.

1.08 crore families have benefitted so far. In order to address issues that arise after moving into a pucca house, ANGIKAAR a reformative campaign for social change management was launched on 29th August, 2019. The nationwide campaign was launched in 4427 cities celebrating the 150th birth anniversary of Mahatma Gandhi on 2nd October 2019.

The objectives of the campaign include:

i) Create awareness on best practices in water & energy conservation, health, hygiene and sanitation.

ii) Provide an enabled environment through convergence with various Urban Missions and schemes of other Central Ministries.

iii) Enable families, communities and resident welfare associations in adapting to newly constructed PMAY (U) houses by fostering cohesive living through social behaviour change management.

iv) Build capacities of beneficiaries and facilitate them to implement best practices like water & energy conservation, waste management, rainwater harvesting, tree plantation etc.

ANGIKAAR adopted 3Cs Strategy to create 360- degree approach focused on mass media and inter & intrapersonal communications for behaviour change management. The activities planned during the campaign were participatory and area & audience specific covering beneficiaries from all four verticals of PMAY (U).

1. **Convergence:** To achieve the objective of building capacities of PMAY (U) beneficiaries in adapting to change though door-to-door awareness on best practices in water & energy conservation, health, hygiene and sanitation. Convergence was brought in with other welfare oriented schemes of the Central and State Governments viz., Ayushman Bharat, Ujjwala, Ujala, Jal Shakti Abhiyan, Fit-India Movement, Poshan Abhiyan and Solar Mission.

2. **Community Engagement:** A first of its kind campaign of this magnitude, this was a collective effort with proactive participation of PMAY (U) beneficiaries, State Governments, UT Administrations, Urban Local Bodies and elected representatives. Around 18,500 Angikaar resource persons (ARPs) were trained by about 2,200 specialists of City Level Technical Cells (CLTCs) working in 4,427 cities of PMAY (U). They acted as foot soldiers and helped propagate the message of the campaign.


प्रधान मंत्री
आवास योजना-शहरी
Pradhan Mantri Awas Yojana-Urban
angikaar
Embracing Change
angikaar wishes you a
HAPPY REPUBLIC DAY

3. **Communication:** A National and State/UT/ Urban Local Bodies (ULB) level information, education and communication strategy was devised. Various Mass Media and intra & interpersonal communication tools (ICT) were developed along with the roll out of 5-6 ward/ city level IEC activities like Swachhata Pledge, Ban on Single Use Plastic, tableaus, sand art, essay competition, Angikaar 'pledge' on change management, street plays, folk songs, rallies, wall paintings, health camps, tree plantations & cleanliness drives and campaigns such as swachh pathshaala, swachh makaan, swachh colony, plogging runs, distribution of LED and solar lights, building rain water harvesting structures etc. were rolled out.

The campaign continued with various activities throughout 2019 and into 2020, some of which include celebrating the 71st Republic Day (26th January 2020), International Women's Day (8th March 2020) along with need assessments, financial outreach and awareness. As part of the campaign, PMAY (U) beneficiaries were also sensitised on COVID-19 safety measures.

The four components of Angikaar are:

i) **Need Assessment:** MoHUA developed an ANGIKAAR module on PMAY (U) mobile application to conduct need assessment. It works in tandem on real time basis with Ayushman Bharat and Ujjwala schemes to check eligibility and provide benefits under the scheme to PMAY (U) beneficiaries.

ii) **Door-to-Door Awareness:** Based on the gap of services ARPs created awareness on best practices of waste management, water and energy conservation, environment protection and sanitation & hygiene and handed over flyers with key messages on change management.

iii) **City and Ward level activities**

a) One to One ward/ cluster level awareness activities using pictorial creative content through flip charts, pamphlets, posters, and banners etc. Flyers with key messages were disseminated in regional/local language.

b) One to Group communications at ward/ cluster through street plays, short films, folk songs, rallies etc with themes such as water & energy conservation, proper disposal of waste, rainwater harvesting/recharge etc.

c) Community activities like distribution of saplings, dustbins, solar and LED lights, tree plantation and cleanliness drives, wall paintings, drawing competitions, etc.

d) Hoardings, Billboards, Posters at strategic viewpoints of ULB premises or entry gate of Affordable Housing in Partnership (AHP), In-Situ Slum Redevelopment (ISSR) and other PMAY (U) project areas/locations for awareness.

e) Transit media: Awareness through public and private transports, bus shelters, vehicle announcements and mobile van branding in wards/ city markets for creating awareness.

f) Audio-Visual tools for embracing change such as e-tutorials through Youtube, documentaries, Radio/ FM, scrolls in cinemas, local TV channels at ward /city level

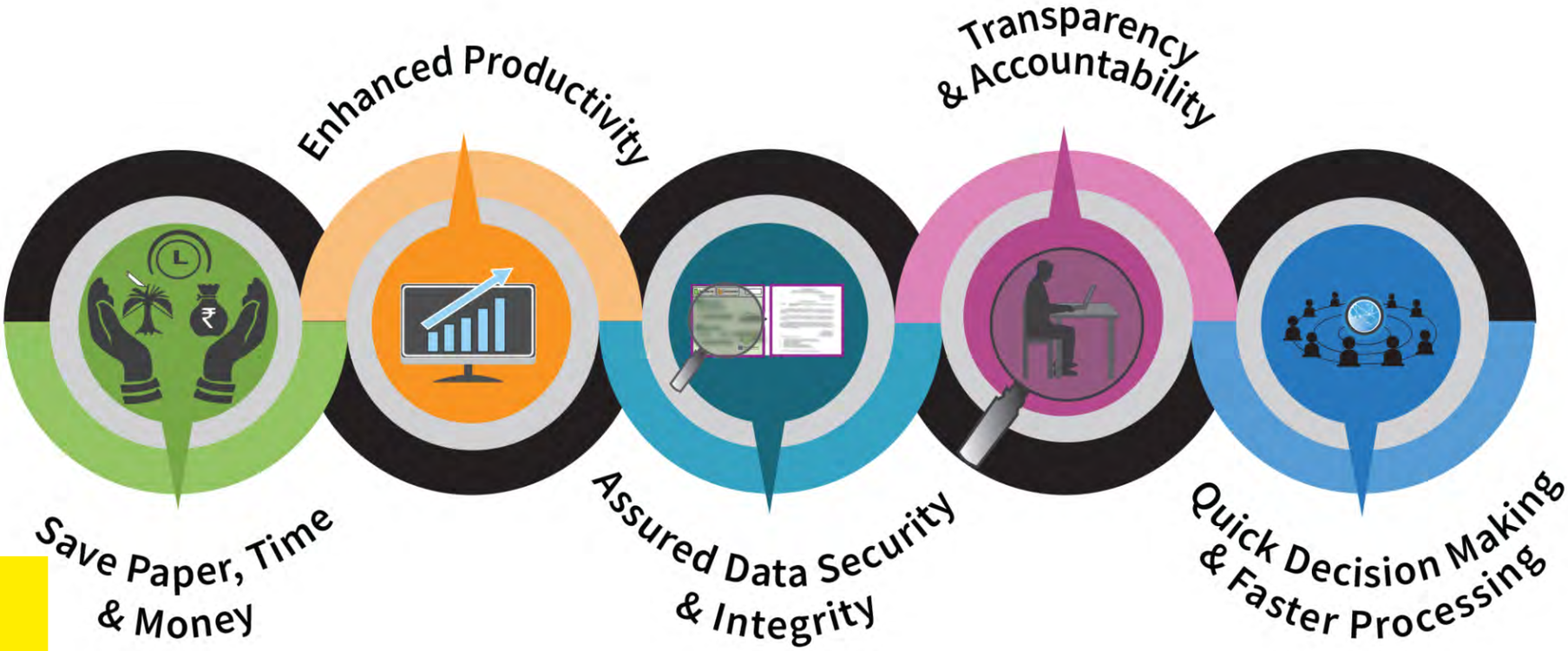
g) Cleanliness Runs: Dedicated campaigns such as plogging runs, swachh pathshaala, swachh makaan, and swachh colony etc. for community engagement.

h) Digital platforms like Facebook, Twitter, website banners etc. used for awareness.

iv) Outreach for financial literacy: Economically weaker section & low-income group beneficiaries were outreached through financial literacy by primary lending institutions (PLIs). Orientation programmes were done on government schemes such as Pradhan Mantri Jan Dhan Yojana, Jeevan Jyoti Bima Yojana, Suraksha Bima Yojana, Atal Pension Yojana, Stand up India, Vaya Vandana Yojana etc.

Achievements under the programme are summarized below:

a) 20 lakh families reached through campaign.
b) 4.5 lakh beneficiaries adopted effective waste management practices.
c) 4.10 lakh saplings planted.
d) 3.90 lakh households began using LED lights.
e) 2.90 lakh households began using solar devices.
f) 240 households built rain water harvesting structures.
g) 920 health camps conducted across the country.



eOffice – A DIGITAL WORKPLACE SOLUTION

eOffice being an integral part of the Digital India Programme, is the medium to achieve simplified, responsive, effective and transparent paperless working in Government offices. It provides a convenient way for officials to access information related to every aspect of their working and knowledge sharing by presenting a single gateway to information and services. It is being increasingly adopted by central and state government departments for achieving the objective of governance with accountability, transparency and innovation (GATI) and to eliminate delays in government offices. The speed and efficiency of e-Office assist departments in informed and quicker decision making as also makes them go paperless.

The primary motivating factor that leads organizations towards the adoption of eOffice is the mitigation of the difficulties in managing the legacy system.

The open architecture, on which e-Office functions, makes it a standard reusable product replicable across the governments, at the central, state and district levels. It is also being accepted at international level. It provides common data sets and standards and is unicode compliant for local language support. A recent and most significant features of eOffice is that it enables organizations to integrate their workflows/systems within eOffice to seeks approvals using standard based application programming interface (API) approach.

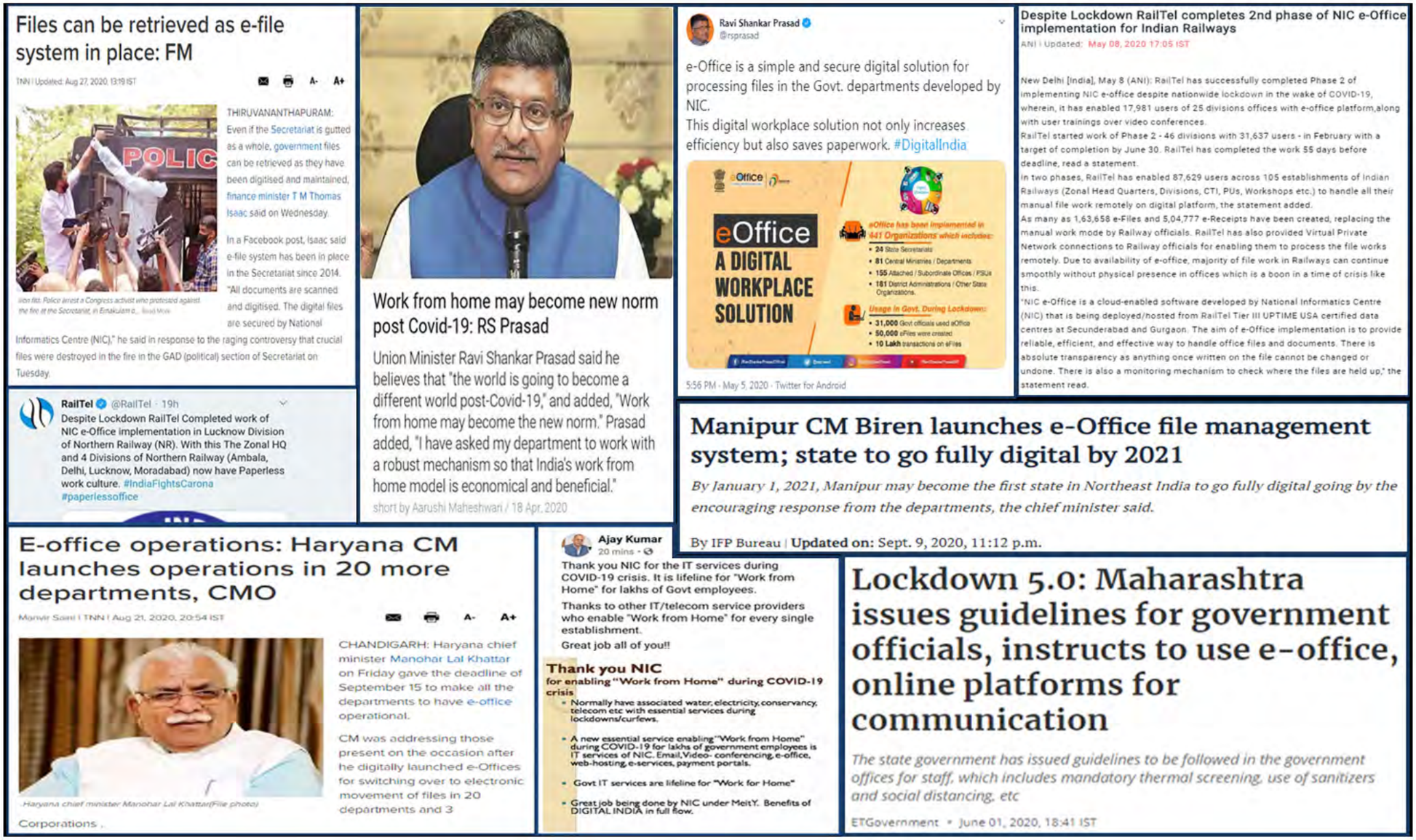
eOffice is a product suite possessing several applications for transforming day to day official work of an organization, as shown below:

1) **File Management System (eFile):** eFile is a workflow-based system that extends the features of existing manual handling of files to more efficient electronic system. The system comprises of different sub modules that are inter-linked to manage the official work flow of the entire life cycle of a document from the moment it is received in the organization till the time it is disposed off with proper set of actions.

   It involves all stages of working in a file viz., scanning, diarisation of inward receipts, creation of files, movement of receipts/ files and finally, the closing of files/ receipts.

2) **Knowledge Management System (KMS):** KMS component of eOffice brought the concept of central repository of documents, from where all users can publish as well as access the information. KMS controls the life cycle of documents of an organization, enabling users to create and manage electronic documents that can be viewed, searched, shared and published. It is also capable of keeping track of the different versions of modified documents by different users (tracking history).

3) **Leave Management System (eLeave):** eLeave is a centralized system for the maintenance of leave record. It is a simple intuitive workflow based system to apply for leave online, track the status of applied leave, details of leaves taken, balance leaves, etc. Approval of leave is enabled through the automated hierarchical channel of submission and leave is routed to the hierarchy that is pre-defined in the work flow.



4) **Tour Management System (eTour):** eTour is a system that facilitates the management of employee tour programmes, from the time of applying for the tour to the final settlement of bills. This system ensures that all tour requests are properly accounted.

5) **Smart Performance Appraisal Report Recording Online Window (SPARROW):** SPARROW is a web-based application designed specifically for the officials of the Government of India to file and process their annual performance appraisal report (APAR) electronically. SPARROW has streamlined the process of recording and processing of APARs thus making the system paperless. The system also provides dashboard facility which enables the service controlling authority to monitor the status such as officers posted, pendency at various levels, APARs processed and closed, etc.

Advantages of e-Office are as follows:-

a) **Quick Decision Making and Faster Delivery of Services:** Files can be accessed anywhere-anytime. The movement of files is fast and real time irrespective of geographical locations and delays are removed because of transparency and accountability.

b) **Elimination of Corruption, Venal Practices and Red Tapism:** Personal priorities/discretions eliminated because of transparency and accountability. Deleting/ replacing the notings or tearing of files cannot be done.

c) **Accountability and Transparency:** Citizen's can track the papers they have submitted in e-office and pendency can be monitored.

d) **Environment Friendly and Go Green Initiative:** Tonnes of papers are saved which in turn saves trees. There is saving on printers, cartridges, cupboards, and office spaces as also travel for transporting of files from one location to other.

e) **Files and Data can never be lost and stored for perpetuity:** Government functioning is not at all impacted due to natural disasters. Officials can work on their files seamlessly, in secured and safe manner from offices/homes.

IMPLEMENTATION STATUS

S.No.	Enterprises	Category	No. of Units where eOffice is implemented	Total
1.	Central Government	Ministries and Departments	83	265
		Attached/Subordinate Offices/PSUs etc.	182	
2.	State Government	Secretariats	27	338
		District Administrations	188	
		Other Departments/PSUs etc.	123	
		TOTAL	603	603

As on 15th OCTOBER 2020

Implementation Status

The latest status of eOffice implementation across PAN-INDIA is available at following LINK: **https://eoffice.gov.in/Dashboard/dashboard.php**.

eOffice is getting adopted across the country as "One India-One Product", fulfilling the needs of various implementing organizations. Over a period of time, eOffice applications eventually evolved as matured platform with products where government functioning and processing on files and performance appraisal is made online in generic and uniform manner.

During COVID-19 lockdown period, eOffice emerged as a game-changer. By facilitating unhindered work, unfettered & secured access to office files it proved to be the lifeline for government officials.

There was a significant rise in use of eOffice & eFiles during this period, as paper-based files had the risk of corona infection. Moreover, it was difficult to continue to work with traditional paper-based file systems during a complete lockdown, without significant delays in the functioning of any government office. During this period, several new organizations have adopted eOffice and many of the existing organizations have increased their user base.

Innovations in Financial Inclusion: AAPKA BANK AAPKE DWAR

Department of Posts (DoP), world's largest postal network, has been at the forefront of financial inclusion by delivering financial solutions to the whole country through the post office savings bank, money orders and postal life insurance.

Formal banking network has faced challenges in trying to expand to the last mile because of lack of scale and costs associated with providing brick and mortar physical presence at the last mile. Interventions like 'Banking Correspondents' have had limited success in enabling digital financial inclusion in rural areas because of lack of trust and other issues. The rural people have difficulties in accessing banking services; possess low levels of digital & financial literacy and little awareness of banking processes and procedures.

Department of Posts attempted to bridge this gap by providing last mile accessibility of banking services through the vehicle of India Post Payments Bank (IPPB) launched on 1st Sept, 2018. The objective is spreading financial inclusion to the length and breadth of the country and bringing to every citizen modern digital financial solutions at their doorstep through the friendly neighbourhood Post Office. IPPB has added formal banking services to the portfolio of financial services being provided through post offices.

Innovative financial products and solutions have been taken to the doorstep of every citizen through the world's largest network of post offices and postmen. Assisted services are provided to those with no banking experience to transition from cash to digital banking.

Under-banked and unbanked locations across the nation (including the urban poor, having difficulty to reach the formal banking system) are the primary target segment.

Financial Solutions and products offered, lie at the confluence of biometric authentication, infrastructural development and extensive mobile connectivity.

Three key features of the IPPB that have helped in bringing Financial Inclusion are as follows:

a) **Doorstep Banking:** Leveraging the unparalleled reach of more than 1.36 lakhs Post Offices and more than 3.0 lakh Postmen/GDS demand driven doorstep banking service has been introduced by DoP through Interoperable Banking platform provided by IPPB thus enabling banking at the doorstep of every citizen, even in the remotest corners of the country. Doorstep banking services have brought down the transactional costs of receiving DBT benefits which are transferred directly to beneficiary's bank accounts.

   This has had a multiplier impact on the rural banking infrastructure, increasing it by almost 2.5 times. The last mile operating model is built on the key pillars of India Stack enabling paperless, cashless and presence-less banking through a core banking solution-integrated smartphone and biometric device.

b) **Assisted Banking:** Postmen & Gram Dak Sevak (GDS) have been enabled to offer Digital Payment Solutions such as Unified Payments Interface (UPI) and Bharat Bill Payment System (BBPS) in assisted mode. Through assisted banking, ubiquitous postman has removed the entry barriers for a large part of the population including those without access to services like UPI, e-bill payments, delivery of insurance products and cash withdrawal including DBT disbursements from any bank.

c) **DoP through the IPPB platform has leveraged simple technological solutions** such as e-KYC based Paperless Banking, QR Card and Biometric authentication based banking so that even the very vulnerable and illiterate can take advantage of the banking system by using biometrics and Aadhaar to open accounts, transact and make payments with assistance, get DBT into accounts and get it delivered at their doorstep in cash. QR card provided to customers contains the customer account number embedded, both as QR code and a bar code. Targeted customers unfamiliar with modern banking no longer need to remember account number or PINs. The QR code on the card can be read by the App in the Smartphones of postmen/ merchants, the bar code can be read by the bar code scanners at the post office counters.

Over 136,000 Post Offices and more than three Lakh trained postman/Gram Dak Sewaks were trained through more than 1 Crore man hours of training and certified as Banking Service Providers to provide a full suite of banking services at customer's doorstep.

As a part of capacity building the post offices and doorstep banking service providers were equipped with more than 3 Lakh micro ATMs and biometric devices creating the single largest banking platform in the country.

Scalable core banking integrated platform with 4 online real-time core banking integrated delivery channels viz. counter/desktop, agent app, mobile banking app and merchant app was made live. In-house implementation of the initiative in a short period of 18 months was done utilizing the resources and project management expertise available within the Department at a cost of Rs 1435 Crores over a period of 4 years.

The key outcomes of the Initiative are summarised below:-

i. More than 3.65 crore bank accounts opened, half of them by Women;
ii. Digital literacy provided through banking services providers (9000 camps targeting 4.5 Lakh people organised);
iii. Merchant ecosystem, rural supply and value chains digitized;
iv. National financial infrastructure setting up for providing interoperable banking services at the last mile including all financial services such as small savings including those offered by post office, microfinance distribution, mutual funds, digital gold and insurance etc.
v. Provision of various government services riding on the platform created such as DBT disbursements and various upcoming services such as Aadhar enrolment etc.
vi. A universal and interoperable digital financial infrastructure created by the DoP network has proven its resiliency during recent times when severe disruptions were caused by CoVID-19 pandemic. People were required to stay at home and post offices through postmen literally brought bank at their doorstep by providing them cash withdrawals at their home irrespective of the bank in which the account was maintained through the Aadhar enabled payment system (AePS) platform.

Some other salient features of IPPB are given below:-

- 90% of customers acquired in rural India,
- 95% of women's accounts are active
- 98% of women's accounts are opened @ Doorstep
- 68% of Incoming DBT is coming in women's accounts
- Customer deposits more than Rs. 1555 Crore
- More than 14.82 Crore Financial Transactions worth Rs 39,595 Cr.
- 80% transactions are happening on Assisted mode
- 90% of IPPB customers are transacting on assisted mode
- More than 1.5 Crore DBT disbursement transactions worth more than Rs 1651 Crore
- More than 60 Lakhs mobile App downloads
- More than 1.5 Crore assisted bill payment transaction worth more than Rs 285 Crores
- More than Rs 5811 Crores disbursed at the doorstep to customers of other banks through more than 2.65 AePS transactions
- During CoVID-19 induced lockdown more than Rs 4950 Crores disbursed at Hotspots and migrant camps

Innovative Reforms in Examination System by Bihar School Examination Board

Bihar School Examination Board (BSEB) was the first board in the country to declare board result in the month of March itself in the year 2019, much ahead of any other board in the country. Even the compartmental exams were completed by May, 2019.

This is significant because lakhs of those students who appear in Inter and matric compartmental exam every year in BSEB got their compartmental exam results much ahead of even annual results of many other State Boards. This helped in saving of one precious academic year for thousands of such compartmental students, who in previous years were not able to take admissions due to declaration of compartmental results in after the admission process to colleges was complete.

This was not the case a few years back when the State Board witnessed some irregularities in the examination process. The analysis of existing examination necessitated the need of extensive reforms in the examination system and computerization of different processes of Bihar School Examination Board. The reformed BSEB has declared the fastest Board results in country for two consecutive years viz., 2019 and 2020, in a record time and much ahead of all other boards in the country. It is now positioned among the topmost boards of the country in all the spheres, as the reforms in examination systems and processes of Bihar Board through multiple innovations has become a reality.


EDUCATION
AWARDS
DELHI
AWARDS
EXPO
10 AUGUST
Certificate
BSEB (BIHAR STATE EXAMINATION BOARD)

Advanced technology has played major role in the BSEB reforms, and the important reforms among them are as follows:-

a) In order to prevent malpractices, about 3.6 crore pre-printed answer booklets (with OMR cover) and OMR sheets were printed and supplied to each student, with their name, roll number and other details pre-printed. Multiple barcodes and litho-codes were printed on each of these 3.6 crore sheets. This was done for the first-time in the country.

b) 5.8 Crore different formats like OMR/flying slips/award sheets/marks foils etc were scanned by use of high-speed scanners and their data was digitally processed to expedite the result processing and with highest degree of accuracy.

c) The entire process was computerised with pre-exam software and post-exam software.

d) New software for online entry of marks of examined copies was introduced at all 309 evaluation centres of the state, which were provided with more than 2100 computers for online entry of marks.

e) "BSEB APPS" were developed for oversight and monitoring of the entire process.

f) Security features including QR Code, M-sign were introduced in marksheets and certificates of the students, which made verification of these certificates easy from any corner of the world.

g) Introduction of ERP (enterprise resource planning) for complete automation of BSEB includes functions like finance, human resources, materials management, purchases, legal, vigilance etc., was done in BSEB.

h) A state-of-the-art data centre with a capacity of 200 TB has been established for safe record keeping and smooth running of IT enabled applications of BSEB.

i) An online facilitation system for students (OFSS) has been introduced for around 23.39 Lakh students in 2018 and 2019 with web and mobile based applications.

The innovative reforms undertaken in BSEB are summarized below:

(i) Introduction of online facilitation system for students (OFSS) for admission in over 3,300 BSEB Affiliated Inter Colleges/Schools.

(ii) Changes in question pattern in line with competitive examinations.

(iii) Development of infrastructure to facilitate Students.

(iv) Establishment of regional offices in all nine divisional headquarters of Bihar and also New Delhi.

(v) Development of Document Management System.

(vi) Digitization of records of all students of the Board from 1983 onwards.

(vii) Zero tolerance in conduct of free and impartial examinations.

PuShTI

"Poshan umbrella for Supply chain through Tech Innovation"

Integrated Child Development Scheme (ICDS) is one of the world's largest programmes for early childhood care and development. Women & Child Development (WCD) Department, Government of Gujarat implements this scheme through a network of 53,029 Anganwadi centres (AWCs) across 33 districts and 6 municipal corporations of the State.

Apropos the National Food Security Act, 2013's mandate, ICDS Gujarat caters to three categories of beneficiaries –

(i) children from 6 months to 6 years

(ii) adolescent girls (AGs) in 11-18 years' age bracket and

(iii) pregnant and lactating women (P&LWs).

While ready-to-cook take home ration (THR) is provided to children below 3 years of age, adolescent girls and P&LWs, hot-cooked-meals (HCM) are served to 3-6 years' children attending AWCs. More than 60 Lakh beneficiaries are being catered to under supplementary nutrition programme (SNP). This scale of implementation posed challenges of quality, acceptability, timely delivery and effective monitoring. PuShTI is a robust integrated supply chain management (SCM) system envisioned and launched by the government to addresses these challenges.

The Department entered into an MoU with Gujarat Cooperative Milk Marketing Federation (GCMMF) for designing, producing and distributing THR across the State through its network of dairy cooperatives. Furthermore, the State has designed a weekly menu for Hot Cooked Meals served 6 days a week to children attending AWCs. Angawadi helpers (AWHs) require food grains – wheat, rice, oil and salt - to cook these meals. All the food items distributed under the scheme are procured by Gujarat State Civil Supply Corporation (GSCSC) for the Government.

Micro-nutrient fortified three products fulfilling the Recommended Dietary Allowances (RDA) requirements have been specially developed with the inputs from the experts through the GCMMF, the owner of world-renowned AMUL viz., BalShakti for children, PurnaShakti for adolescent girls and MatruShakti for Pregnant and lactating women.

Leveraging the advantages of IT, the Department designed and developed PuShTi, an online solution for efficient handling of all SNP procurement. Reliability, precision, accuracy, transparency, involvement of all stakeholders, accountability and efficiency are its hallmarks.

The system follows a bottom up approach of demand assessment, which facilitates an accurate calculation of THR & food-grains required at each AWC based on the number of beneficiaries availing these services. The monthly demand of THR stock and food grains for HCM is generated online at the Block Level to be collated and approved at the district and further reporting to the state government. There is a system-imposed deadline within which each stakeholder has to assess, verify, approve and forward its demand to the next higher level of ICDS hierarchy.

State Program Officer (SPO) places the order with GCMMF, who prepare a production schedule for the three dairy unions- AMUL, SUMUL AND BANAS for production of THR. The production and packaging are done in fully automated specially commissioned plants for production of ICDS-THR. Strict adherence and compliance to all quality assurance norms are ensured. Random samples drawn from THR batch are sent for analysis to the Food & Drug Laboratories of Government of Gujarat.

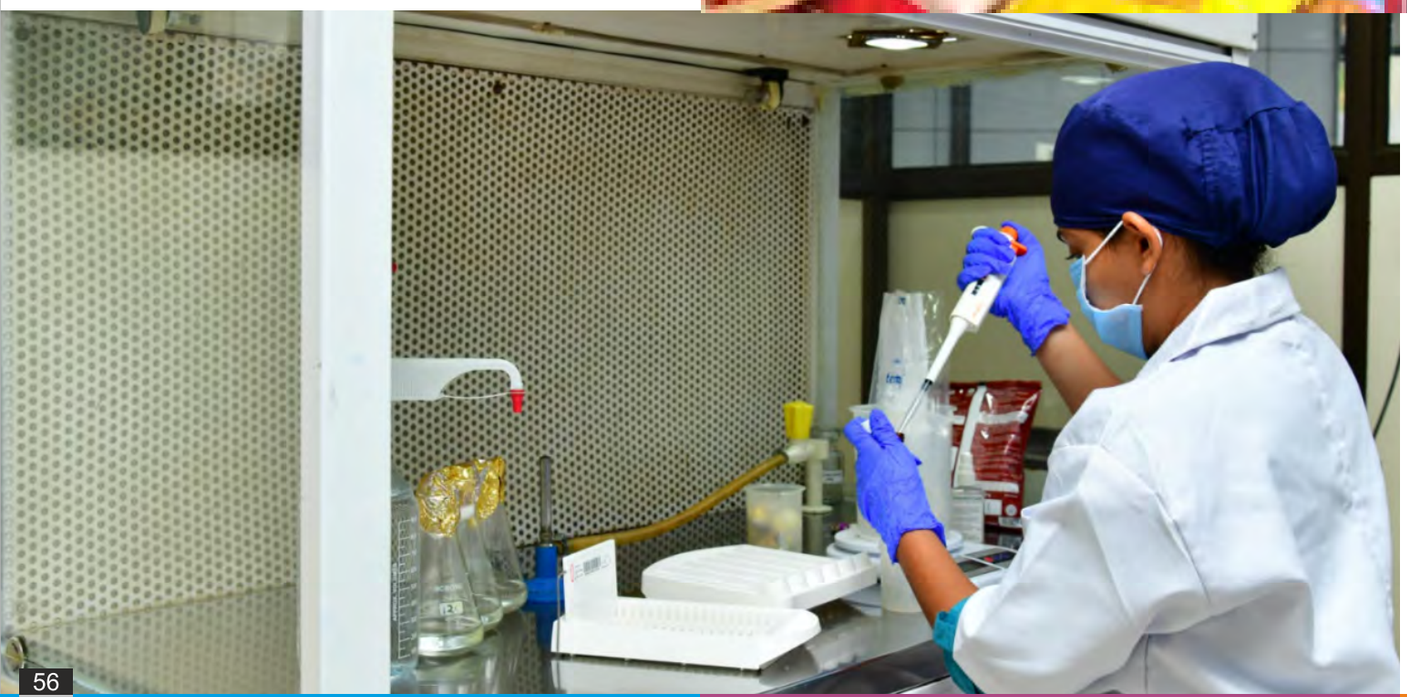
THR is distributed on time to beneficiaries on the basis of an advanced distribution schedule generated online by the dairies and intimated to all the stakeholders. Entire distribution process is monitored online. The supply of THR to the anganwadis is through fair price shops.

The entire supply chain, closely monitored at the State Management Centre (SMC) ensures just in time availability of the take home ration and food-grains. The system is demand driven instead of supply driven. Delivery is being done at the AWC in case of THR and lifting by AWW/ AWH from FPS for HCM. There is 360-degree involvement of all the stakeholders. The web based portal and user friendly Android based App offer a unique solution. The quality in the entire State is uniform and standardised. Active involvement of village community and delivery of THR in their presence ensures social audit.

This is a sustainable process and institution to ensure timely, accurate and quality fulfilment of the entitlements of the beneficiaries and ensures fulfilment of four basic principles of governance, namely - Transparency, Sensitivity Progressiveness and Decisiveness. It also facilitates timely payments to the supplier.

An end-to-end solution it ensures exact demand of the THR for each AWs based on the actual number of beneficiaries. The system incorporates online approval of the monthly demand, sharing the demand with the supplier & facilitating production and transportation schedule till the AWCs.

The delivery is sent to AWW/ AWH through the System generated SMS. Actual delivery takes place through a system generated OTP sent to the AWW/ AWH, who shares the same with the delivery person. In case of the network unavailability in certain remote areas, the delivery takes place through GPS based receipt signed by AWW/ AWH uploaded on the system. The certificate of satisfactory delivery is digitally submitted by the CDPO & PO. Based on which the payment is done to the supplier.



The unique application of digital technology in supply chain management offered following tangible benefits-

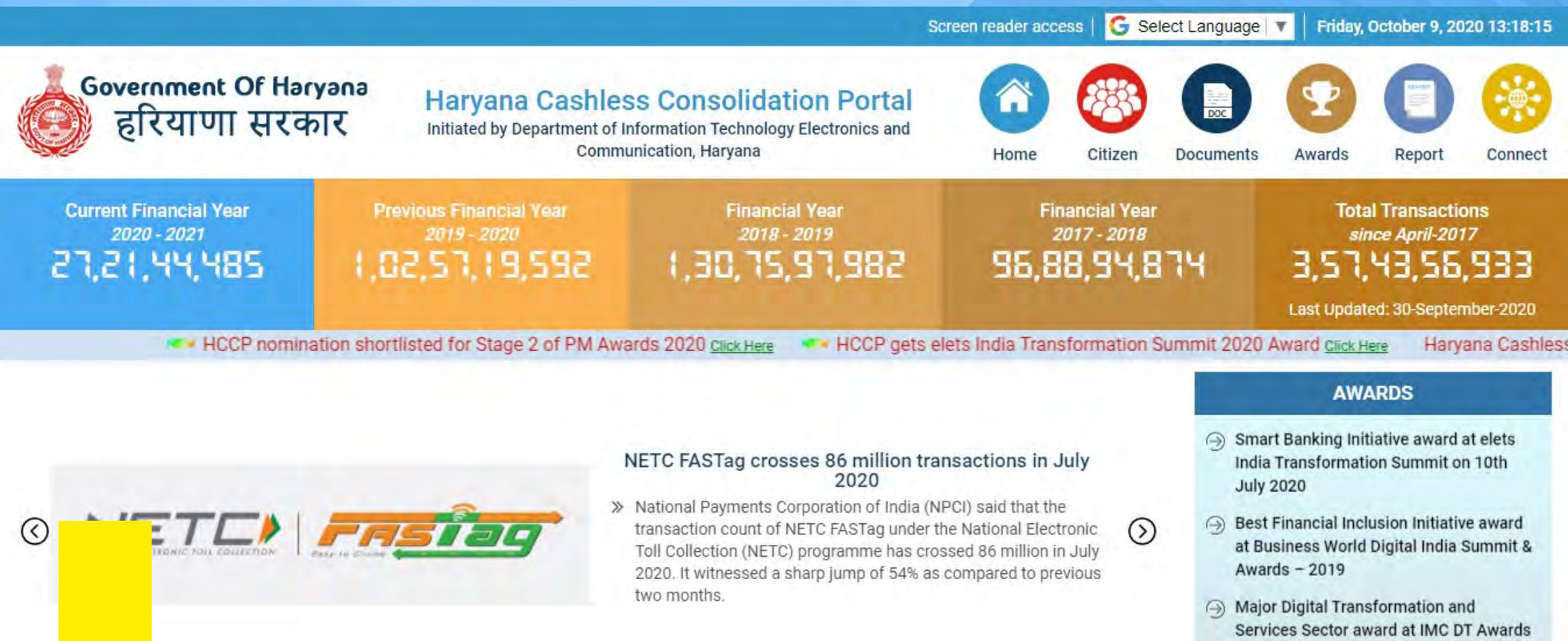
a) Strict compliance to the statutory obligations of supplementary nutrition.

b) Saves time, efforts and resources through a system approach.

c) Timely information support in monitoring and corrective planning.

d) Timely and regular availability of supplementary nutrition to the beneficiaries.

e) Each grain for HCM and THR is accounted for and tracked right from the godown/ plant till AWC.

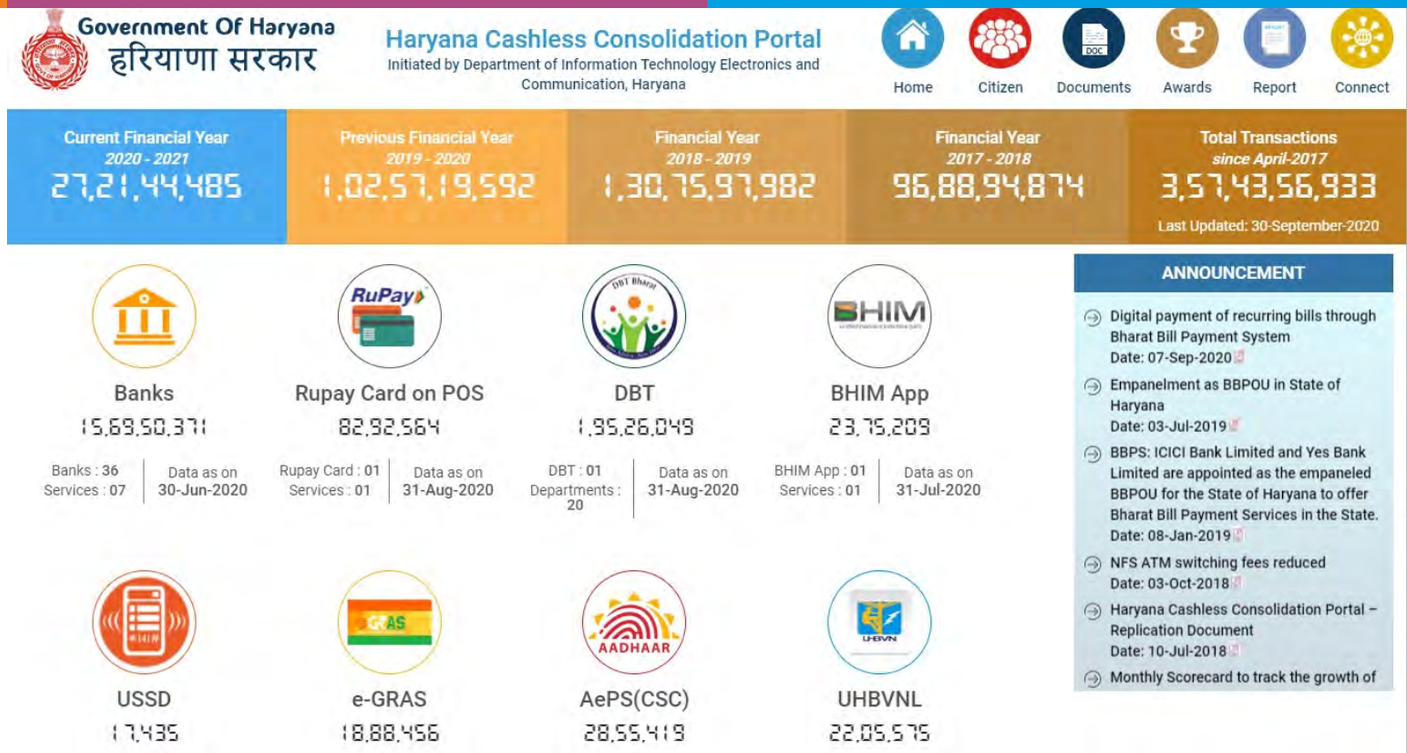


CASHLESS HARYANA

- Haryana Cashless Consolidation Portal (HCCP)

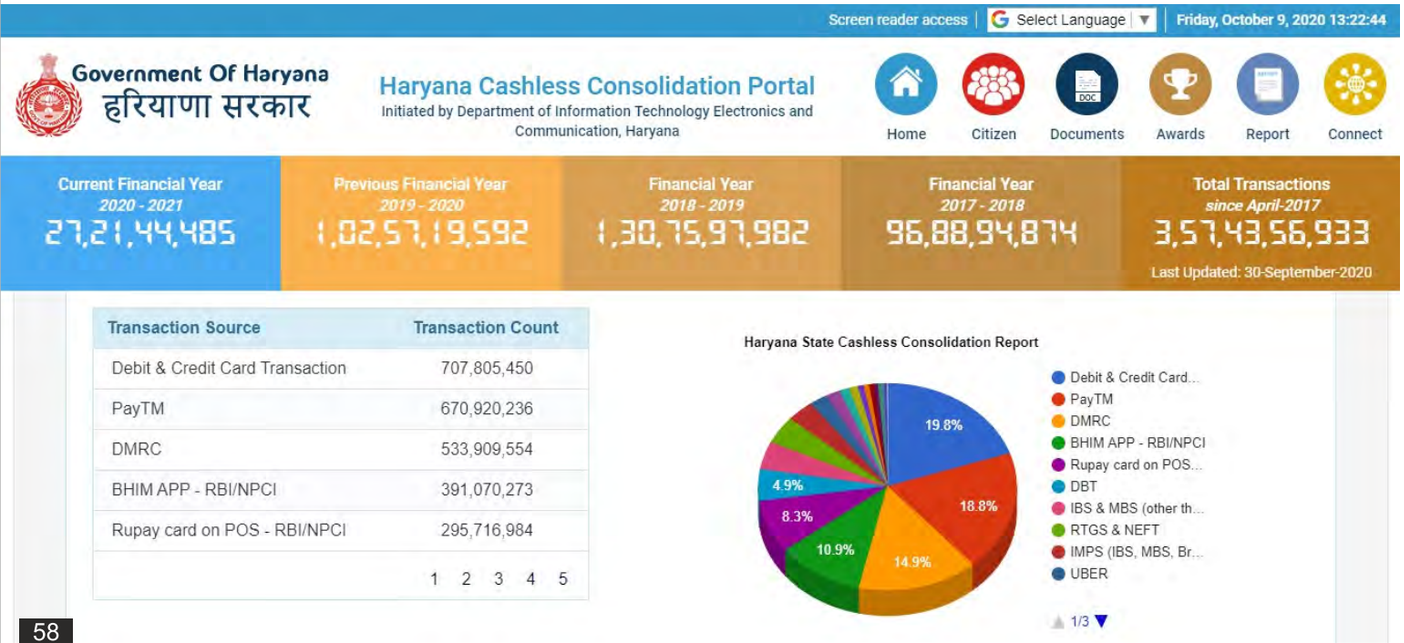
Haryana Cashless Consolidation Portal (HCCP) consolidates all the cashless transactions happening across the State. It is in line with the Digital India initiative for promoting digital payments & moving towards cashless, faceless and paperless society by Government of India.

A sudden rise in the cashless transactions was anticipated after demonetization but due to non-availability of information of digital transactions happening at different touch points and in multiple modes, it was impossible to estimate the quantum of digital payments happening across the State of Haryana. This initiative was envisaged as an integrated monitoring tool to ascertain the progress and penetration of different modes of digital payment transactions across the state. Department of Information Technology, Electronics & Communication, Government of Haryana is the nodal Department for this portal.



After conceptualization of the project and identifying the sources of digital payments the stakeholders were requested to integrate their systems with HCCP. Upon request from stakeholders' multiple options were identified and developed to get the data uploaded in the HCCP portal. The system has various options to receive the digital payments transaction count data, upload it and visualize the aggregated figure at one place.

The portal was developed in December 2017 and launched in April 2018 and the data w.e.f. April, 2017 onwards was collected, consolidated and uploaded. All security parameters have already been implemented in the portal. It has been security audited by Haryana Information Security Management Office (ISMO).



Source	Transaction Count	Amount	Start Date(YYYY-MM-DD)	End Date(YYYY-MM-DD)
Agriculture and Farmers Welfare	0,000	0.00	2017-04-01	2020-08-31
Animal Husbandry & Dairying	21,032,791	232,926,000.00	2017-04-01	2020-08-31
Ayush	0,000	0.00	2018-04-01	2020-08-31
Development & Panchayats	165,003	3,468,000.00	2017-04-01	2020-08-31
Elementary Education	6,142,038	12,841,545.00	2017-04-01	2020-08-31
Employment	2,297,188	442,351,883.00	2017-04-01	2020-08-31
Fisheries	5,812	66,942,500.00	2017-04-01	2020-08-31
Food Civil Supplies &Consumer Affairs	20,877,919	95,235,361.00	2017-04-01	2020-08-31
Forests & Wild Life	9,493	0.00	2018-04-01	2020-08-31
Health and Family Welfare	3,566,947	228,972,130.00	2017-04-01	2020-08-31
Higher Education	151,128	187,399,066.00	2017-04-01	2020-08-31
Horticulture Department	167,101	443,259,835.00	2017-04-01	2020-08-31
National Health Mission	161,534	18,821,475,301.00	2017-04-01	2017-11-30
Other	0,000	0.00	2020-08-01	2020-08-31
Rural Development	8,172,276	1,865,922,935.00	2017-04-01	2020-08-31
Science & Technology	2,786	19,705,000.00	2017-04-01	2020-08-31
Secondary Education	2,720,374	93,345,200.00	2017-04-01	2020-08-31
Skill Development & Industrial Training	23,694	7,400.00	2017-04-01	2020-08-31
Social Justice & Empowerment	103,782,743	40,338,617,495.00	2017-04-01	2020-08-31
Sports & Youth Affair	6,148	3,730,000.00	2017-04-01	2020-08-31
Technical Education	7,332	2,739,528.00	2017-04-01	2020-08-31
Urban Local Bodies	36,048	61,167,000.00	2018-04-01	2020-08-31
Welfare of SC & BC	2,630,687	725,319,300.00	2017-04-01	2020-08-31
Women & Child Development	4,622,406	176,985,973.00	2017-04-01	2020-08-31
Grand Total	176,581,448	63,822,411,452.00		

In order to get the data electronically seeded into the system, initially, the users entered the digital payments transaction data into the system, manually. The provision of application programming interface (API) has been integrated to get the data automatically updated from different sources on the portal. The data received from different sources is analysis to get the status of digital transactions.

A dedicated team regularly monitors and updates the portal and coordinates/ interacts with various departments/ stakeholders at regular intervals to get the data updated in the system. The team also carries out various promotion initiatives for Digital payments throughout the State.

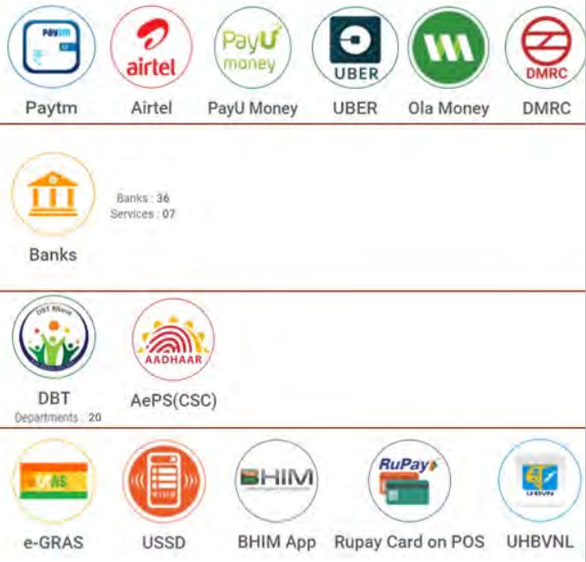
It generates various analytical reports such as prevalent modes of payment for utility bills, commodities payment, etc. along with in-depth analytics and supports decision making for taking various steps to promote cashless payments and achieve less cash society. The portal also displays the source-wise digital transaction count in the State which can be populated year-wise or consolidated based on the requirements of the user. The portal also serves to facilitate digital literacy and financial literacy for citizen.

As per the data available on the portal, more than 357.43 Cr. digital transactions were consolidated from April 2017 till September 2020. The State achieved more than 130.75 Cr. digital transactions against the target of 75 Crore for FY 2018-19. In FY 2017-18 the achievement was more than 96.88 Cr. digital transactions against 72 Cr. target given by Government of India to Haryana State. As per the DigiDhan dashboard (https://digipay.gov.in/), Haryana stands at No. 2 position in the category of large states and at No. 3 position in overall category for per capita digital payment transactions, in India, as on 30th September 2020.

The payment platforms can project their figures of digital transactions to the masses and thus the popularity of a payment mode can be ascertained from the portal. The citizens can find out from this portal the various promotional schemes of different agencies publicized by them.

HCCP'S STAKEHOLDER DETAILS

Various e-Wallet agencies	Paytm, Airtel Money, PayU Money, UBER, Ola Money, DMRC
No. of Banks sharing data	More than 36 Banks such as SBI, PNB, Allahabad Bank, Bank of Baroda, Bank of India, Canara Bank, HDFC Bank, ICCI Bank, IDBI Bank, Central Bank of India etc.
Aadhaar Enabled Payments	DBT, AePS
Other payment sources	e-GRAS, USSD, BHIM App, RupayCard on POS, UHBVN



STAKEHOLDER WISE DIGITAL TRANSACTION COUNT

TRANSACTION SOURCE	TRANSACTION COUNT
Debit & Credit Card Transaction	70,78,05,450
PayTM	67,09,20,236
DMRC	53,39,09,554
BHIM APP - RBI/NPCI	39,10,70,273
Rupay card on POS - RBI/NPCI	29,57,16,984
DBT	17,65,81,448
IBS & MBS (other than IMPS,NEFT,RTGS)	15,65,10,849
RTGS & NEFT	15,43,21,500
IMPS (IBS, MBS, Branches & Others)	12,31,29,903
UBER	8,05,51,996
Other ECS (BC)	6,47,93,383
USSD & UPI, BHIM APP	4,32,37,025
AePS (Fin & Non Fin)	4,09,00,541
Trans Through e-wallets	2,60,58,332
UHBVN	2,48,68,525
e-GRAS	2,20,50,258
Aadhaar Enabled Payment System (AEPS)	1,72,73,969
Ola Money	1,64,40,616
Other Payment Modes such as PayU Money, Airtel, Vodafone M-Pesa, USSD, Aditya Birla Wallet etc.	2,82,16,091
TOTAL	35,74,356,933

The portal captures all digital transactions happening across State of Haryana through this integrated system. Currently with the help of HCCP, the State is able to capture digital transactions of more than 36 Banks, various e-Wallet agencies such as Paytm, Airtel Money, PayU Money, UBER, Ola Money, DMRC, etc., Aadhaar Enabled Payments such as DBT, AePS, etc. and other payment sources such as e-GRAS, USSD, BHIM App, RupayCard on POS, UHBVN etc.

The portal enables the State Government to monitor current status of various payment modes and promote digital payments in the State. The State Government has instructed all institutions of the State Government to deploy adequate modes of digital payments at all citizen touch points.

Haryana is the pioneer state in India in this kind of initiatives. Later it has been replicated in Tripura and Daman & Diu with technical assistance provided by HCCP,. The Department now plans to implement Haryana Unified Billing (HUB) concept under which a single platform can be provided to the citizens to pay their utility bills in a single go at click of a button. HCCP has received numerous recognitions/ awards.

JK PULSE

Real Time Project Monitoring Tool

The 'JK PULSE' is a project monitoring tool. This application has been developed on Android platform for use by field officers. The application has two components. While the Mobile Application is installed on Mobile Phones, the Web Application is used for MIS, database and report viewing at the Headquarters, Sub-Headquarters.

The objective of the project is real-time monitoring and supervision of various schemes/ development works of different departments. With this application, the field officers can capture the photographs/ Videos embedded with Geo tag (Longitude/ Latitude) along with date time stamp of the development works in real time, which facilitates the top- level administration to effectively monitor the development works.

The mobile application facilitates the Inspecting Officers to append their comments and status reports of the scheme along with the photographs and videos, which are embedded with Geo Tags (Location coordinates) and Time Stamp (Date and Time) leaving minimal chance of status tampering. The Picture /Videos/ Status once captured/ submitted by the inspecting officer is beyond his purview for deletion or editing. In the absence of connectivity the application works in offline mode and the inspection report automatically gets uploaded in the system once the device enters a zone with connectivity.

Hierarchy of level is maintained and the access level is secured. Level 1 is the cutting edge level viz., village level officers, supervised by block level officers and then level 3 is for Deputy Commissioner and at top level-4, is for State level officers. User of one block/ district is unable to use the application in another block/ district. The provision of backward communication enables the higher officers to send messages to the subordinate levels in case of any priorities.

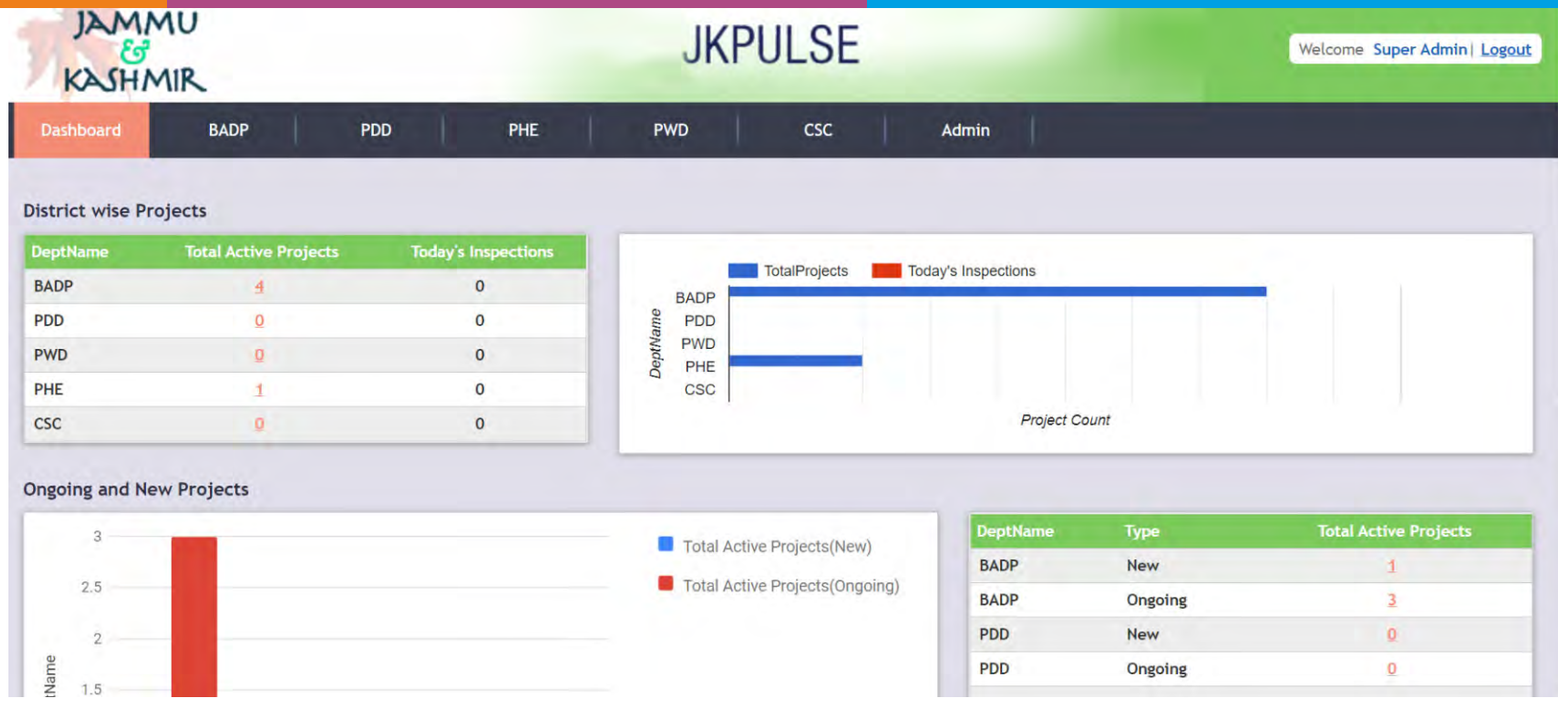
The application has been integrated with the Budget application Budget Estimation and Allocation Management System (BEAMS) of the Finance Department of the UT of J&K. BEAM application is an online platform used for budget allocation and expenditure authorization to different Departments by the Finance Department. The application has also been integrated with Google Maps.

The Web Application facilitates, MIS Reports in .xls format and can be extracted with picture and comments of the official inspecting the site in pdf format. The reports can be extracted in standard format in real-time. It also enables a dashboard view of the inspection being carried out in different districts of the State like schemes inspected & pending, etc.

The commencement of JK-Pulse Project Monitoring tool has ushered more transparency and

accountability in the monitoring process. Real-time monitoring facilitates higher authorities to take decisions and corrective measures faster, in respect of any project/ schemes. The project can be extrapolated to the activities of any other department on a very short notice.

Till October, 2020 the application was rolled out in the following departments:-



a) Planning Development & Monitoring Department for monitoring the works in border districts of UT under the Border Area Development Programme (BADP) of Government of India.

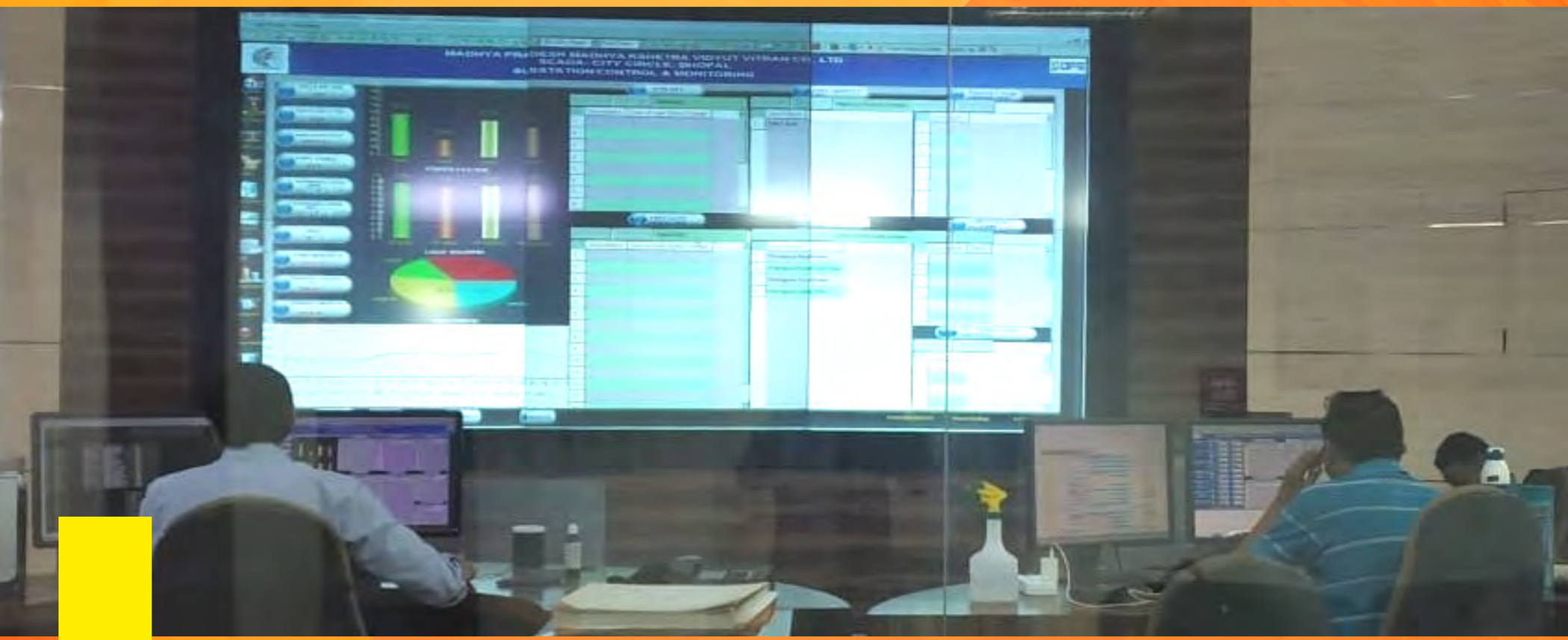
b) Jal Shakti Department (Erstwhile Public Health Engineering & Irrigation and Flood Control Department), J&K for monitoring its development works.

c) Public Works Department (PWD) for monitoring of different schemes and works.

d) Police Housing Corporation (PHC) and Police Construction department of the Home department of UT

e) Power Development Department (PDD)

The capturing of the longitudes and latitudes of development works has been made mandatory by the Finance Department of UT and therefore the said application (JKPULSE) shall be implemented in the rest of the departments where ever required.



Business Transforming IT Tools - MPMKVVCL

The Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited, Bhopal (MP) has devised/ developed and implemented five IT tools that are transforming its business. These are:-

a) Business analytics tool
b) Whatsapp based Chat Bot
c) Selfie Based Attendance System
d) I-Sampark, and
e) Net metering portal

A. BUSINESS ANALYTICS TOOL

Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited (MPMKVVCL), Bhopal, MP generates huge volume of data with increased velocity through billing engine, ERP systems, customer care center and supply maintenance system.

The consolidation of data through traditional ways of system generated reports or long running IT query slowed decision making based on data driven aspects. These suboptimal process of huge data/ report consolidations from various systems takes too much time and manpower and limit the information flows to intent users in time.

Discom has developed open source business analytics IT solution catering to the needs of stakeholder departments viz. Commercial, Supply, Maintenance and Operations, HR, Finance and Field offices. It operates under open-source environment. The IT application covers 17 circles, 58 divisions, 68 city zones, 19 town zones, 157 sub-divisions and 380 distribution centers.

The key benefit realized is that now the Department has a single platform for reporting operational and commercial MIS and System driven dashboard for data accuracy. The BI tool increased the operational, commercial and manpower efficiency in terms of summarized dashboards facilitating effective decision making for deployment of financial and manpower resources. Real time reports and historical trend analysis are accessible up to lowest units.

Micro level analysis in terms of reporting and trend analysis of all commercial parameters in each operational hierarchy (circle/division/DC) facilitate efficient decision making with regard to policies, manpower deployment etc.

B. WHATSAPP BASED CHAT BOT

Being an electricity distribution company, it is very important for MPMKVVCL to have a streamlined interaction with consumers and provide efficient customer support for achieving 100% consumer satisfaction.

To simplify the processes for consumers like registering a complaint, finding its status, registering mobile number with service connection number, viewing or paying bills etc. and to take customer support to social media, chat-bot services were started over whatsapp (No.-0755-255-1222) and the company portal to enhance consumer experience. Chatbot applications streamline interactions between people and services, enhancing customer experience. At the same time, they offer companies new opportunities to improve customer engagement process and operational efficiency by reducing the typical cost of customer service.

The primary objective is to bring all frequently required consumer services on a single platform. The key benefits realized are processes such as meter reading upload, bill distribution is automated, Registration of complaints, self-meter reading has been streamlined which can be routed to the field staff, Single window platform catering to all complaints and requisitions thereby, savings in time and enabling IT system driven processes for transparency and accuracy in data and communication.

C. SELFIE BASED ATTENDANCE SYSTEM (SBAS)

Currently around 20 thousand officers/ employees including outsource employees are working in MPMKVVCL. Previously biometric attendance system, based on desktop application, was deployed for attendance. Desktop application is a standalone application installed in a particular desktop or laptop and the tasks can be performed only at that system.

To overcome with the problem, MPMKVVCL implemented Mobile Application called "Selfie based attendance system (SBAS)" based on Android Technology. SBAS is more inspiring compared to the existing ABAS (Aadhaar Based Attendance System).

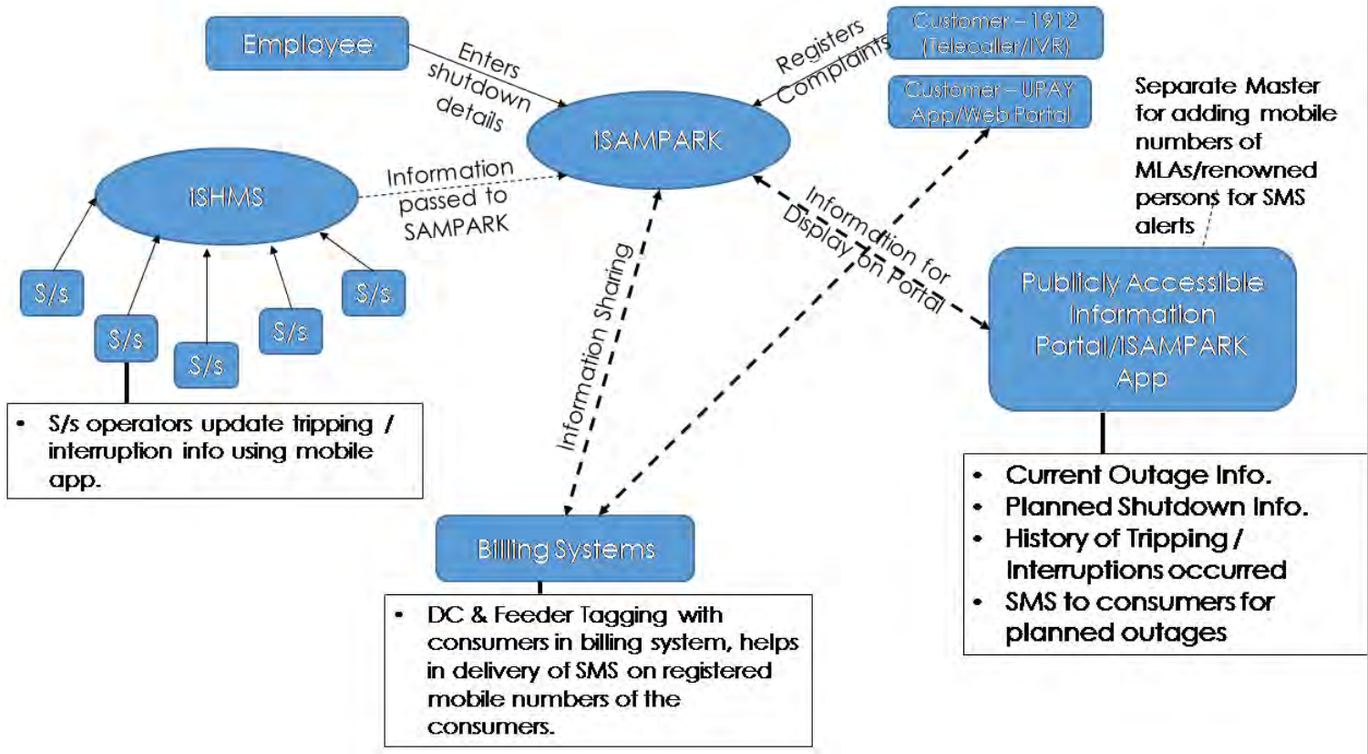
SBAS is helping MPMKVVCL officials to view the employee record using Smart-phone. Employee logs-in to the phone application, gets connected to the server and takes Selfie attendance using Smartphone. After taking the selfie in the mobile, attendance is sent over to the server using geo coordinated (Latitude & longitude) and attendance list is updated automatically.

To reduce chances of fake attendance, the project includes location detection using GPS. Thus, the project eases the problems of reporting officers by providing them a platform that enables them to manage, update and review the attendance of the employee with geo-coordinates. Selfie based attendance authentication ensures that attendance of all government employees is visible in real time on the common attendance web portal and mobile application ensuring transparency and accountability leading to efficiency.

D. i-SAMPARK

It is an integrated ecosystem of multiple activities like complaint lodging, shutdown, feedback etc. delivered to field officers as well as to consumers. A multi-channel gateway has been developed for consumers to facilitate them with an easily accessible complaint lodging mechanism. A variety of complaint gateways were introduced like 1912 (Phone Call), IVR, UPay App, MPCZ Web Portal, WhatsApp Chatbot etc. Time bound prioritized resolution of consumer complaints was introduced. Consumers were pre notified for planned shutdowns leading to less number of fuse-off-call (FOC) complaints and higher consumer satisfaction.

Integration of complaint lodging mechanism between various mobile app modules and web applications increases the inter-departmental efficiency. Provision of escalation related to FOC complaints enables effective resolution of complaints in case it is not resolved by the line staff.



E. NET METERING PORTAL (SOLAR ROOFTOP)

The net metering portal is available for both LT and HT Consumers. Using the portal, they are able to apply for the net metering connection by filling up a short form and track the application status from the comfort of their home/office.

The net metering portal has improved the user experience as now they are able to quickly apply for a new connection and get it sanctioned within the time specified under Public Services Guarantee Act. The existing manual process was completely reengineered to develop a smooth user friendly experience by reducing the form size and the documents required for granting of new net metering connection.

The key benefit is that application can be tracked at each stage and online payments made. The pre-filled data formats for existing consumers facilitate faster processing and increase operational efficiency of operations and maintenance staff.

Ensuring Transparent, Efficient and Timely Delivery of Public Services by Using Information Technology

The Maharashtra Right to Public Services Act, 2015 was enacted with the objective of ensuring transparent, efficient and time-bound delivery of Public Services to Citizens. It empowers the Citizens and makes the administration responsible, answerable and accountable.

technology to deliver public services within the stipulated time limit.

Citizens can apply online for the public services on Aaple Sarkar RTS portal or on RTS Maharashtra Mobile App. The RTS portal and Mobile app are owned by Information

help facilitate citizens to apply online, 30,878 seva kendras have been established in the State covering all the Districts. These centres are very popular. Authority to sanction a new Seva Kendra or terminate it is with the District Collector.

The Maharashtra State Commission for Right to Public Services was established in 2017 to ensure effective implementation of the above Act. Section 7 of the Act mandates the Government to encourage and aspire all public authorities to utilise information

Technology Department of Government of Maharashtra. An important feature of this portal is that it has been integrated with CM Dashboard. The system is extremely user friendly, bilingual – Marathi and English and accessible on android phones and i-phones. To

There is online provision of 403 public services and the District Collector, who has been provided a dashboard for effective monitoring has been declared as controlling officer for RTS implementation in the District. There is a single platform for all services and

different modules have been integrated. The designated officers sign and issue very large number of certificates to students / citizens with digital signatures using HSM (hardware security module) technology and biometric machine. The departments are evaluated and ranked on the basis of response to their online services.

The logo of the commission and tagline were finalised through a competition organised for the citizens. The tagline, 'your service is our duty' popularises the Act and creates awareness.

Every notified service has a time-limit within which the service has to be provided. Delay beyond the prescribed time limit without valid justification can result in pecuniary penalty and departmental enquiry. In order to alert the designated and appellate authorities and avoid delay, the SMS Alert system is used.

For providing easy access to all public services it is essential to have single platform. In Maharashtra this single platform is provided by 'Aaple Sarkar Portal' - which means 'your government'. But several departments had already developed separate portals to provide online service, which have been integrated with Aaple Sarkar and 78 services now available.

Perceptible improvements were brought about by the use of digital signatures using HSM and Biometric machines, providing real time system (RTS) dashboard, evaluation of the departments by red-amber-green (R-A-G) based ranking, online Appeals facility and facility for Third Party verification and Authentication of Digitally signed certificates.

The commission follows the approach of involving the people, understanding their difficulties and requirements and making

provisions for addressing them on an easily accessible single platform. Training and sensitisation of all officers/ staff especially the designated and appellate authorities are insisted upon. The Information Technology Department, Maharashtra Information Technology Corporation and Mahaonline - a joint venture between TCS and Government of Maharashtra have provided excellent technical support to innovations and their implementation.

The impact / benefits resulting from the initiatives are that delivery of public services in Maharashtra has become transparent, efficient and time-bound. It has brought about a paradigm shift in delivery of public services and changed the work culture. In 2019-20 96% services were provided within the stipulated time period.

Since 2nd October 2015 a total of 887.50 Lakh applications have been received and 854.78

Lakh applications have been disposed by providing services to the Citizens. The percentage of rejected applications is around 0.6 percent which is a miniscule.

This initiative has demystified the government processes. Applicants can now track their applications and see their movement. If an application is rejected, the designated officer or appellate authority must record the reasons for rejection and the applicant has a right to file an appeal. Not only people residing in Maharashtra are availing online services but even those residing in other states of India or other countries are also availing of these online public services.

An Appeal can be filed by mere click of the button using RTS Portal. No voluminous documents are to be attached and there is no fee for filing an appeal. Appeal is admissible if there is delay in providing services or the application is rejected without justifiable reasons. The Commission hears appeals through video conference, thus saving time of the citizens besides expenses on travel and accommodation.

The MRTPS Commission is of the opinion that instead of selected notified services, every citizen must have the right to be provided every service by the state government in a time – bound and transparent manner. All departments have been directed to prepare master-list of all services being provided and put it in the public domain. 12 departments have already published their master-list of services. The next step will be to publish time - table when all these services shall be notified under the MRTPS Act.

Citizens expect that all public services should be provided to them under one roof instead of having to run from pillar to post. On the Commission's recommendation, the Government of Maharashtra has issued instructions directing all Seva Kendra to provide all notified public services. This initiative by the Commission will provide greater financial viability to the Seva Kendra's and all public services to citizens under one roof.

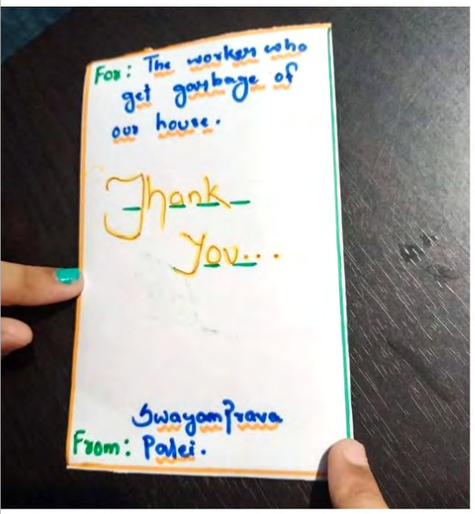
Decentralized Solid Waste Management in Odisha

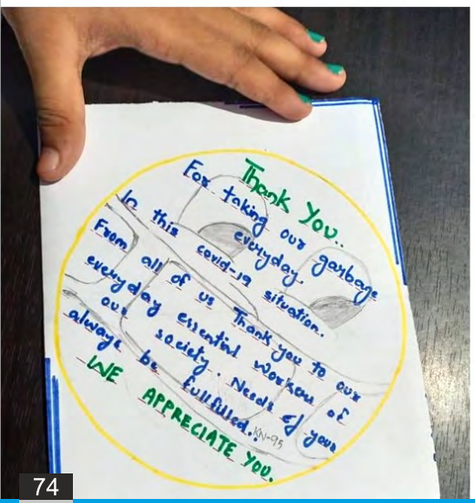
Till 2019 all the urban local bodies (ULBs) in Odisha were collecting, transporting and dumping the garbage on the outskirts of the city. With tipping fee in the range of Rs. 2500 – Rs. 4500 per metric tonne of waste, the State was spending Rs. 400 crore per annum on collecting, transporting and dumping.

In July 2019, the Housing & Urban Development Department, Government of Odisha adopted decentralised model for setting up of micro composting centres (MCC) and material recovery facilities (MRF) for tackling the issue of growing urban municipal solid waste. A strategy document containing standard operating procedure was issued to all the ULBs to guide them for a smooth transition to a simple, cost-effective and decentralized, community-driven solid waste management system.

Rs. 567 Crore was allocated in FY 2019-20 for state-wide implementation of the scheme in all 114 ULBs. Within a year, the State could process almost 1000 tonnes of municipal solid waste (MSW) per day. Establishment of dispersed solid waste processing facilities closest to the source, reduced transportation expenses. The sale of organic compost and recyclable dry waste began generating revenue.

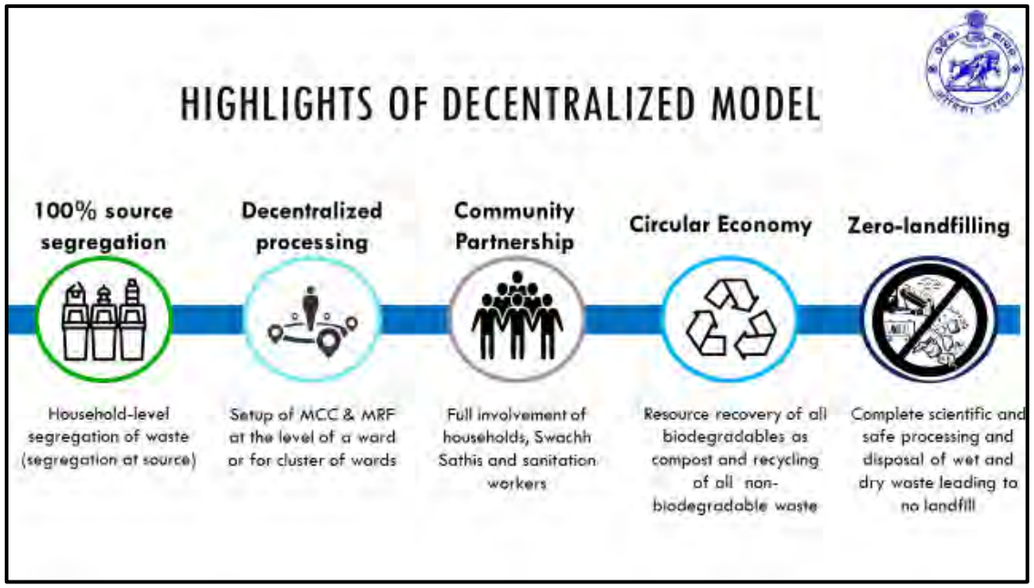
The State partnered with a number of women self-help groups (WSHG) and transgender self help groups (TSHG). 2260 Swacch Saathis – members of WSHG, who are change agents of swachh ward mission (SWM) and 609 Swacch Supervisors were trained to induce behavioural changes in household waste segregation practices, affixing 'Swacch Gruha' stickers to reward for good behavior and 'naming and shaming' for defaulting households in their locality. The SHG members are incentivized with the proceeds from the sale of waste, ensuring long term sustainability of the model.





The State has set the mission of achieving zero-land fill and the paradigm shift from contractor-driven, centralized waste management system to community-based, decentralized waste management system will boost the cleanliness quotient of Odisha's urban scenario. The decentralised system with its low-technology and low space requirement is easily replicable elsewhere too.

Centralised	to	Decentralised
• Contractor-led • Ghost Garbage issues • No processing capacity-only Dumping- state-wide • High cost with no sanitation • Benefit to Contractors	→	• Community-led • No ghost garbage • **1000 TPD** so far **@5+5=10 TPD per MCC+MRF** • Low cost BUT effective sanitation • Benefit to ULB, Swachha sathi & sanitation workers



Bringing about behavioral change in waste segregation amongst millions of citizens, in a time-bound manner was a complex task to achieve. 2,355 members of WSHGs and many TSHGs were on-boarded as 'Swachh Sathis' to spread awareness and ensure 100% door-to-door collection of segregated waste. Many informal sector waste pickers have been roped in to this system and provided opportunities to work at material recovery facilities.

The following strategies were instrumental in driving community engagement:

- Door-to-Door Campaigns were conducted by 2355 Swachh Sathis and 609 Supervisors in all 114 ULBs to induce behavioural change and inculcate spirit of 'my waste, my responsibility'
- 'Swachha Gruha' stickers are affixed on households practicing segregating of waste at source, which nudges defaulters to adopt the practice.
- Mixed waste delivered by households is segregated by sanitation workers in front of the household adopting 3E principles (expose-embarrass-educate) which encourages handing over of segregated waste
- Some of the cities had Swachhata Rath (specially designed vehicles), driving around the streets to create awareness.

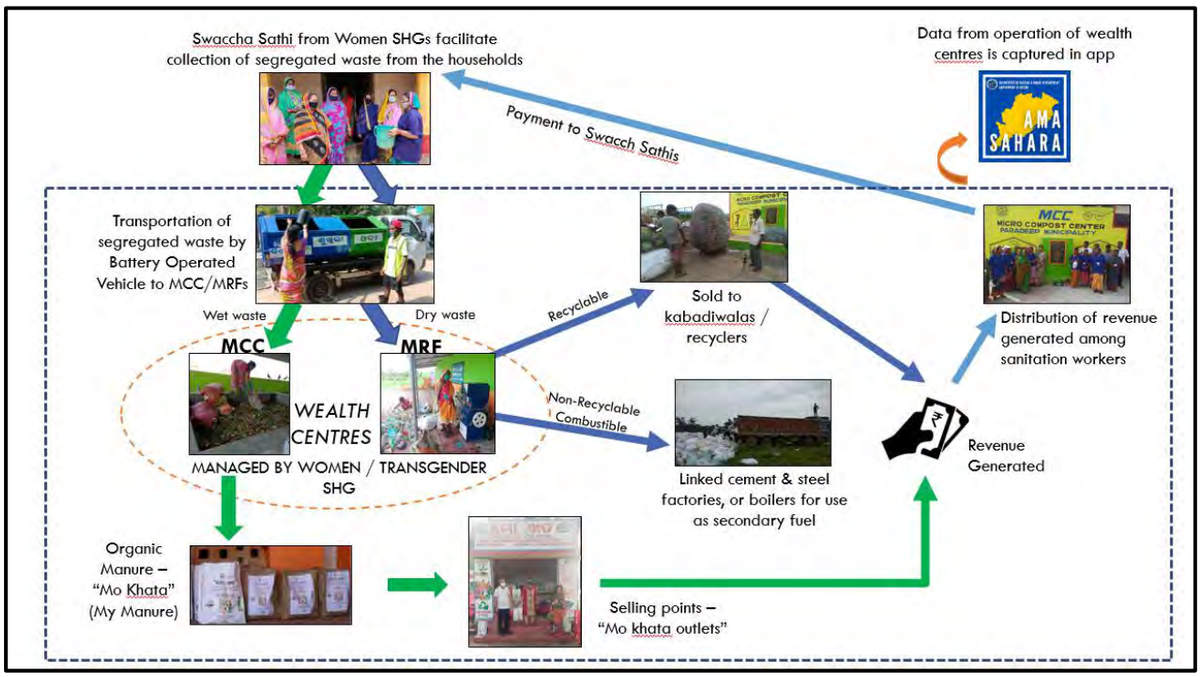
Seamless transition to the new model was made possible through series of training conducted in two phases, to impart training to 28,606 sanitation workers, swachh sathis and other stakeholders.

The practice of 'Bada Khana' (feast) was introduced where sanitation workers, swachh sathis and officials meet every month and discuss sanitation related issues over food. To recognize best practices select Swachh Gruhas are also invited and awarded. Key government officials also participate and interesting success stories are shared to inspire and motivate the teams.

As a result of behaviour change, indiscriminate dumping and incineration of waste has significantly reduced leading to improvement in soil, water and air quality. Organic manure generated from the waste of the households, when returns to the households in a new shape, branded as "MO KHATA" (MY MANURE) creates bondage. This high-quality, organic manure is available at an affordable price of Rs 20 per kg.

Now, around 444 tons of dry waste is being recycled every day. Around 65 Tonnes per day of the organic manure is being generated by MCCs, which is being used in households, parks and farmlands across the State. Use of battery-operated-vehicles (BoV) instead of diesel vehicles for waste pick-up has ensured improvement in air quality.

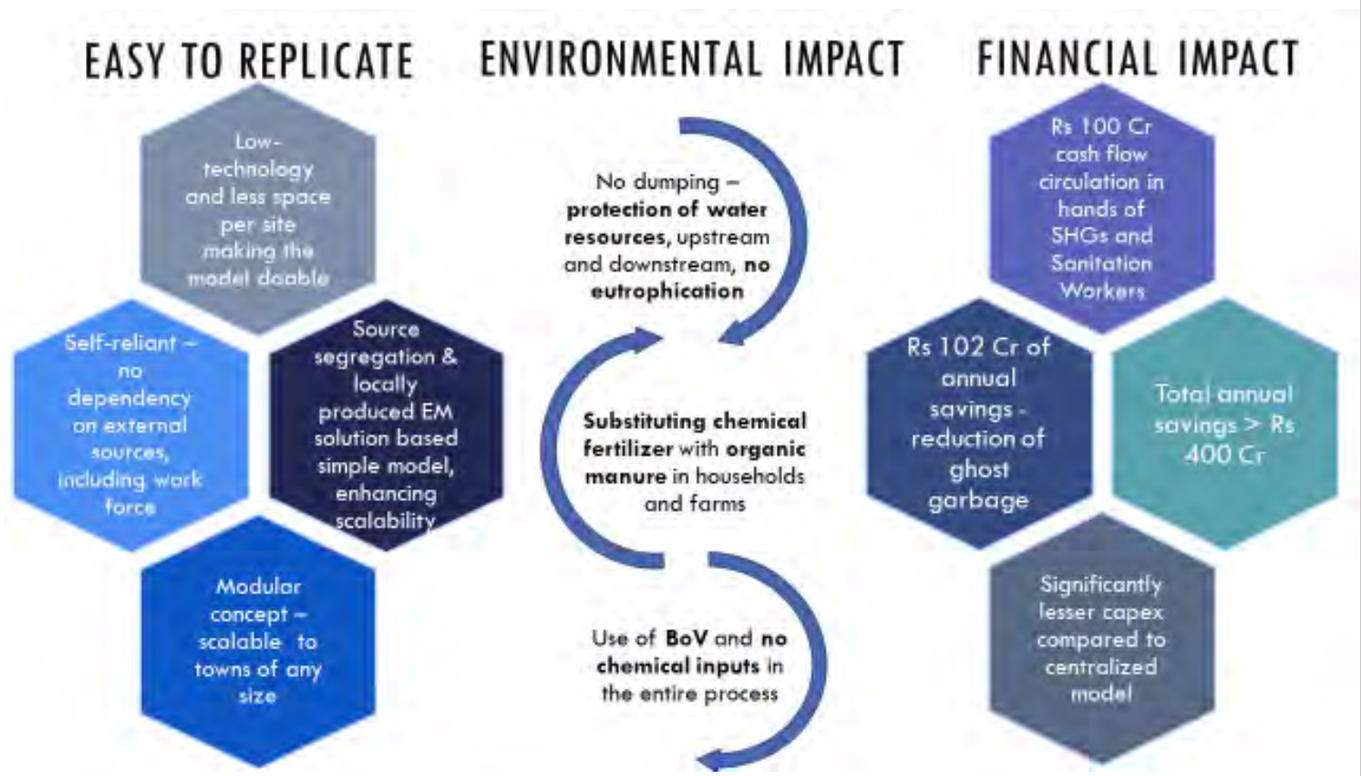
MCCs and MRFs are serving as wealth centres. Decentralised waste management has eliminated the tipping fee model and the associated profit motive of contractors. There is significant reduction in capital expenditure and operating expenditure in the decentralised model. A one-time investment of Rs. 230 crore, by the State Government is saving it an yearly expenditure of Rs. 400 Crores that was paid as annual



Decentralised solid waste management system

tipping fee. Every MCC and MRF as a cluster, would be earning net revenue surplus of about Rs.1.66 Lakh per Tonne per annum of waste treated, resulting in Rs 32 Crore net surplus annually after meeting all expenditures against once all the 245 MCC & MRF clusters are in full-fledged operational mode.

In addition, this model has integrated the community members i.e. Swachha Sathi from WSHGs and TSHGs into the system on performance linked incentive basis creating regular income for them with dignity. This will ensure that these community members will try to sustain this system and act as a barrier to go back to the old contractor centric model. The 'wealth from waste' is accruing to the community. Rs.7.62 Lakhs have so far been distributed as financial incentive to Sanitation Workers and people associated in functioning of MCC and MRF from the sale of organic compost and dry recyclable waste material.



There are vast improvements in living conditions due to cleaner and odor-free streets and higher levels of hygiene in public areas with reduced breeding of flies, mosquitos and insects. 39 cities have reported removal of garbage bins from markets; vegetable vending areas; commercial areas as the waste is stored inside the premises and handed over to the waste collection vehicles.

Integrated Management System at Punjab Mandi Board

Punjab has a vast and well established mandi infrastructure that handles about 120-130 lakh metric tonnes (LMT) wheat and 170-180 LMT Paddy arrivals during each season. Punjab State Agricultural Marketing Board (Punjab Mandi Board) in early 2019 implemented a comprehensive end-to-end digitization of its process in an integrated digital ecosystem. The integrated management system (IMS) has helped Punjab Mandi Board to achieve high operational efficiency and transparency through a central point of communication with real time access to information for stakeholders. The objective of IMS Project in Punjab Mandi Board is

(a) to enhance the efficiency and transparency in mandi operations;

(b) to extend the ease of doing business by facilitating online processes replacing paper applications and records;

(c) to check malpractices of fake and bogus billing thereby reducing loss of fee/charges;

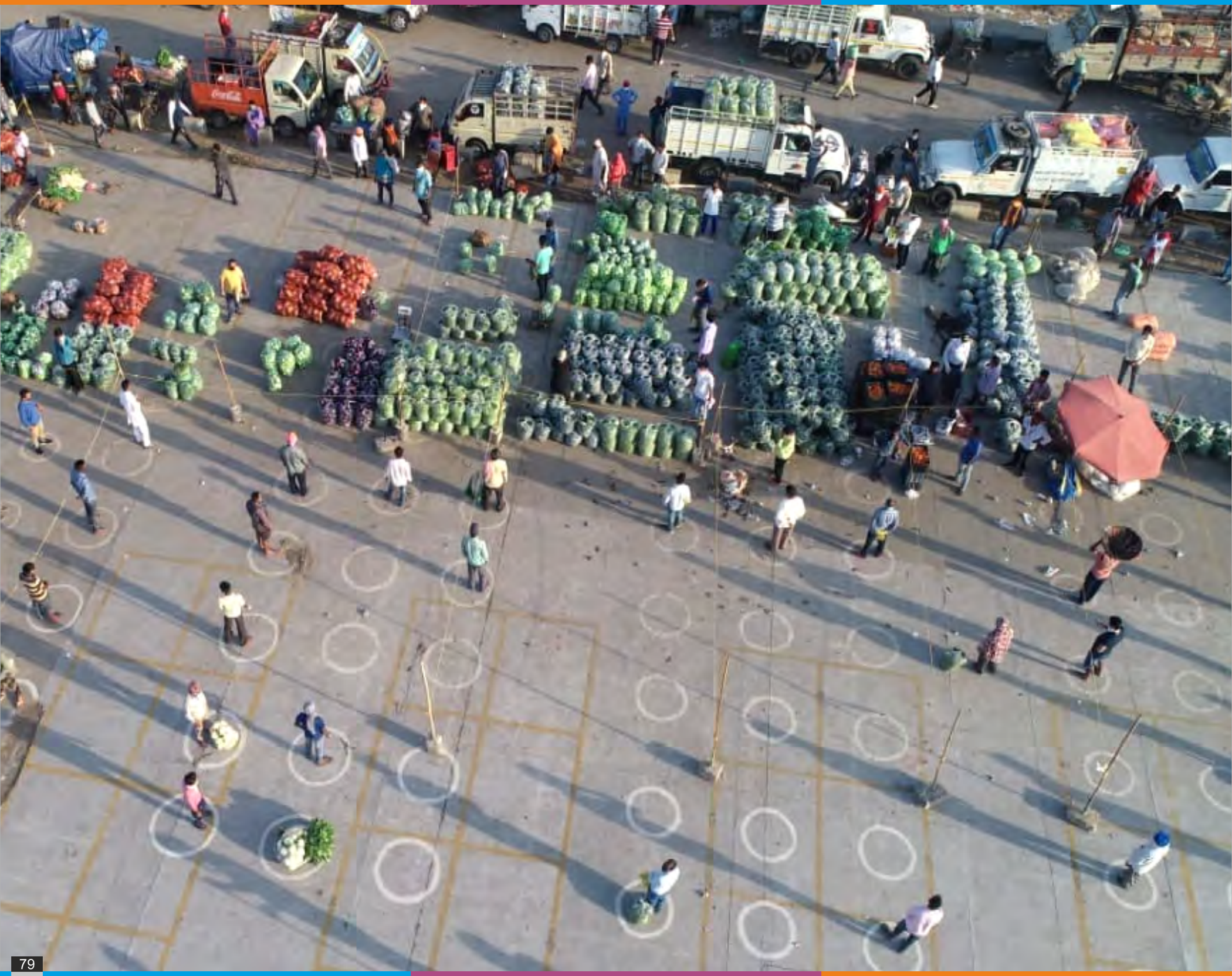
(d) to maintain a lean and efficient organization where operations are facilitated by independent checks and balances with negligible day to day manual intervention;

(e) to have a GPS and mobile based 'ring fenced' staff attendance and monitoring system; and

(f) to digitize old records along with an online electronic property register.

The process re-engineering introduced under the IMS has helped Punjab Mandi Board optimize its operational efficiency. The system has ushered in transparency and productivity empowering the farmers, labour, arthiyas and general public. It has enabled the Board to maintain a clear/unambiguous picture of its activities on a real-time basis. Auction rates of all agriculture produce, fruits and vegetables are displayed and accessible to public. The synergies generated by the implementation of the digitized mandi operations including procurement 'by invitation' rather than 'by will' has given certainty to the mandi operations right upto the farm level where farmers can plan harvest and sale of produce.

This helps in immediate auction/sale of agriculture produce and the farmers return back home on the same day. This system can now be synchronized to adapt to the ongoing field challenges. These novel procurement mechanisms were improvised further during rabi marketing season (RMS) 2020-21 wheat procurement, a season that came with constraints of COVID-19. This helped to ensure 100% procurement of the offered 127 LMT wheat (approx.) without a single case of COVID-19 spread in the mandis.



Absence of manual intervention has enhanced transparency in operations and ensures accountability of all stakeholders. This non-partisan approach has to helped to build and strengthen the trust of the government in all stakeholders.

An innovative procurement e-tool of IMS, the Arthiya-Kisan Pass System integrated with unique E-PMB mobile App - has helped to replace mandi procurement 'by will' with 'by invitation'. In the new system of IMS/procurement by will, the farmer is aware of his turn in the mandi so he can plan his harvest and make arrangements for transporting the produce to the specified mandi, accordingly. The certainty of date wise arrival helps the government procurement agencies and private entities to prepare for and secure the food grains timely. Prompt payment to the farmers is also ensured.

The IMS automation and digitization has assisted the Human Resources restructuring the organization and reassigning staff to the cutting edge level and critical areas of operations vis-à-vis their experience. With the implementation of IMS, Punjab Mandi Board has streamlined procedures to a level of favorable wage to productivity ratio.

The digitization and procedure shakeup has put the Punjab Mandi Board on track to attaining sustained growth in collection of revenue with minimal human intervention. The augmented transparent and objective systems have ensured that the mandi network across the state meets the mandate for regulating the agri-trade for elimination of malpractices.

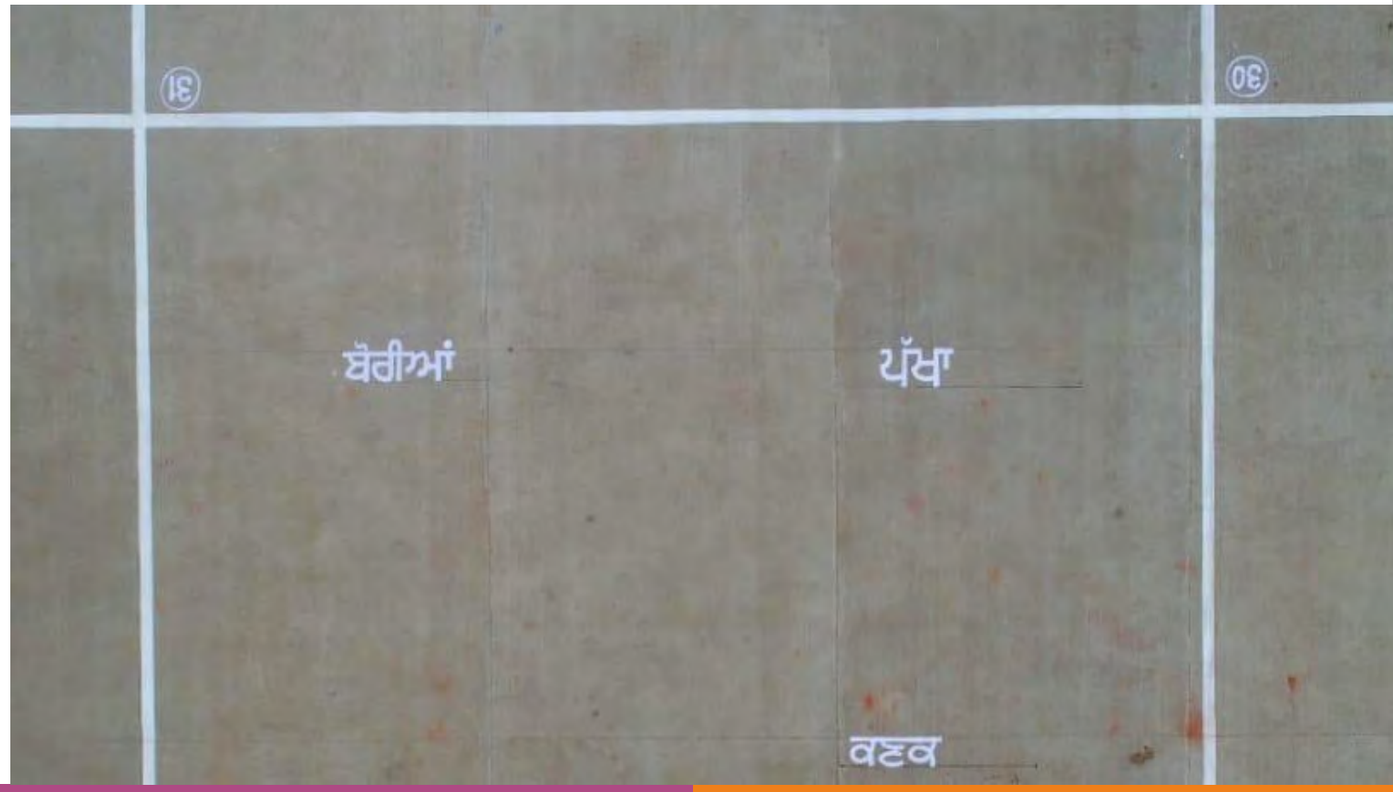
An algorithm based online tool has been developed to generate online passes based on Punjab Mandi Board's historical data. Net gain/loss factor is calculated which is adjusted in the next day's allotment. i.e. the Arthiya who failed to get any allotment or got less than his entitlement for the day, is given priority allotment the succeeding day. The allotted passes are deducted from the balance capacity of the Arthiya. Previous year's trade is taken as a base to estimate the current year's capacity of the procurement centre and arthiya, respectively.

Each market committee (MC) is given web-portal access to generate passes. All passes for the day are to be generated in a single attempt as per the ratio calculated by the system on the bases of Arthiya capacity. MC, on the basis of empty blocks in the mandi generates the number of passes to be issued for the day for a mandi.

These easy to use practical innovations under the IMS have not only enhanced free flow of grains during procurement in both marketing seasons (rabi and kharif) but also ensured that at no time the mandis overflow with produce. This has given certainty to farmers by allowing them to plan their harvest and transport to the mandis. The arthiyas and procurement entities can make advance adequate arrangements in mandis and storage for timely securing the agriculture produce. The regulated arrivals ensure that there is no glut in the mandis and advance arrangements are made for safe arrival and storage of agri-produce.

The Integrated Management System has three sub-systems viz., Mandi Management System, Estate Management System and Accounts Management System. The Mandi Management System has subsystems for online license monitoring, farmer facilitation, gate entry management, auction management, fee/revenue monitoring and management facilitation and reporting. The Estate Management System has modules for property allotment, payment, change of ownership and other options. The allottees have personalized login to monitor the status of property and application. Accounts Management System facilitates budget preparation and authorization, and maintenance of records relating to receipts, payments, investments, deposits, payroll management and tax payments etc.,. This has given the Board a real time access to the finances and accounts of the 154 market committees. The monitoring and audit of the accounts is now done remotely.

The e-PMB Mobile App is integrated with IMS and makes system available through mobile app.



Rajasthan Agricultural Competitiveness Project

Rajasthan Agricultural Competitiveness Project (RACP) is an initiative of the Government of Rajasthan for efficient water use, sustainable farming, promoting livelihoods for boosting economy, doubling farmer's income and bring self sufficiency.

Rajasthan faces problems in availability of water both quantity and quality wise. Covering approximately 10% of India's land area and about 5% of country's population, Rajasthan has only 1% water resources. Erratic rainfall/ recurring droughts have exacerbated the situation. Rajasthan has limited water resources and increasing constraints on water availability, particularly for agriculture. Improving productivity per unit of water used in irrigated agriculture and achieving productivity gains in rain-fed agriculture could improve agriculture sector in the state.

With this objective, RACP was launched to ensure sustainable agriculture and increase farmer's income through water management, technological and market innovations. The project was approved in March 2012 for a period of 7 years. It was restructured in June, 2016 and implementation was effective from 2016-17 FY. As per revised timeline, the project is closed on June 30, 2020 but the ongoing activities continued upto December, 2020.

The total project cost (as per project design) was Rs.832.50 crores of which Rs.545 crores was to be received from the World Bank, Rs.242 crores from the share of the State and Rs. 45.5 crores to be contributed by the farmers. The reimbursement pattern is 70:30 between the World Bank and Rajasthan State. However, after restructuring of the project, the total cost of project on closure is Rs. 712.84 crores. Out of this Rs. 398.23 crores has been obtained from World Bank, Rs.171.61 crore is state share and Rs.143 crores is farmers' share.

The Project was undertaken in 17 clusters in 17 districts. In 16 clusters it was implemented through the 6 Line Departments of the State Government and in one cluster of district Jaipur it was implemented by the District Project Management Unit. Selection was made as per three water scenarios viz., watershed, surface water and ground water, in eight agro-ecological zones. The project was targeted to benefit 1,37,607 households, predominantly small land holders by sustainably increasing their income levels.

The guiding principles of the project were:

a) sustainable and efficient use of water resources, including improved on-farm water use efficiency, reduced water-intensive cropping patterns, and using the resultant savings of water from agriculture sector for economic purposes outside of agriculture in support of State's water policy objectives;

b) increased private sector participation in the development of value chains in processing and marketing in support of the state's agro-processing and agri-business policy; and

c) improved public sector capacity in delivering agriculture support services.

The key performance indicators (KPIs) include reduction in water used in agriculture, increase in water use efficiency and agricultural productivity; and increase in gross margins from crops and livestock products. Key intermediate level indicators were increased ground

water recharge, reduced siltation and increased efficient use of conserved moisture.

The 17 cluster locations are as shown in the map below:-

The Project Components can be briefly summarized under four broad headings:-

i) Climate Resilient Agriculture: Improvement of water-use efficiency; technology transfer & market led advisory services; and livestock strengthening & management.

ii) Markets and Value Chains: Agribusiness promotion facility; information & market infrastructure support; and agribusiness Support.

iii) Farmer Organization and Capacity Building: Farmer groups & participatory planning; and Institution strengthening.

iv) Monitoring and Evaluation: Project management, monitoring & evaluation; and convergence.

The Project activities were implemented by the Departments of Agriculture, Horticulture, Animal Husbandry, Watershed Development, Water Resources and Ground Water under overall supervision of project implementation unit at the State level. At District/ cluster level the project activities were implemented with the support of Non-Government Organizations deployed in cluster. Against the total outlay of Rs. 676.43 Crores, an amount of Rs.515.98 Crores has been utilized till June, 2020 in the project since its inception. In most of the activities 100% achievement has been achieved. Further, only 76% of the total cost is the financial assistance provided the rest 24 % has been contributed by the farmers, which is three times the farmers' share envisaged in the project design. This reflects the acceptability of the project.

A total of 6635 multi task groups (MTGs) of beneficiaries for agriculture, horticulture and 970 women MTGs for animal husbandry were formed. 84 water users association were strengthened in clusters. 30 farmer producer companies (FPCs) were promoted under the project, of which 28 FPCs were focused on agri-commodities/ products and 2 FPCs on animal husbandry activities. The FPCs focusing on agriculture are basically doing business through selling of input items like fertilizers, seeds, pesticides and animal feed. Also, agri processing centers with cleaning, grading and sorting facilities have been established at 10 FPC locations, known as farmer common service centers.

Based on the result provided by monitoring and evaluation agency, the impact of the activities implemented in the project is very encouraging. The March, 2019 field assessment reveals that 57% farmers adopted improved agricultural technology, 99.2% farmers are satisfied with the project interventions, there is 21.2% reduction in water use in agriculture and 110.7% increase in water use efficiency. Further,

a) The gross irrigated area has increased to 57.2% over the baseline of 20% with new/ improved irrigation.

b) The area under less water crops has increased from 15% to 53.2% due to proper selection of crops and change in cropping pattern.

c) The volume of run-off water captured is 20.90 million cubic metres due to watershed management activities. On an average 78.4% farm produce has been sold out as per the survey over the baseline.

d) There is an increase in productivity in bajra (27.91%), barley (34%), maize (22.6%), wheat (18.4%), mustard (24.8%), and gram (22.5%) over the baseline values.

e) The goat weight increased from 15 Kg to 19.54 Kg per animal and milk yield increased from 0.8 liter to 1.09 liter per animal.

Conversion of Abandoned Quarries as Water Reservoirs & Tertiary Treatment of Waste Water for Industrial use in Chennai City

With no perennial water source in the vicinity of the city, Chennai is primarily dependent on rainfall for its water supply. Water shortages and droughts have always been a part of its history. Ensuring uninterrupted water supply is vital for the viability of the dense industrial cluster of Chennai. The total industrial demand is around 100 MLD which is presently met from surface water and desalination. While the water sources remain constant, the demand has been steadily rising. The demand supply gap is 300 to 400 MLD (millions of litre/day).

Chennai faced its historically worst drought in 2019 as there was deficient rainfall during north-east monsoon of 2018 characterised by a 193 days long dry spell. Considering the constraints in creating new large water storage reservoirs for augmenting

the city water supply and meeting the ever-growing demand, Chennai Metropolitan Water Supply & Sewerage Board (CMWSSB), opted for unconventional and climate resilient sources of water supply.

In its effort to decentralize and identify additional sources for City water supply, CMWSSB found an opportunity to convert the abandoned mining quarries in the vicinity of Chennai into water storage reservoirs. As new storage reservoirs, abandoned stone quarries offer promise for expanding the available reservoirs for drinking water supply systems. This project is first of its kind and does not have any previous engineering references to rely upon.

Possibilities of using the stored water left stagnant in the abandoned quarries at Sikkarayapuram, Erumaiyur, Malayambakkam, Pammal, Thiruneermalai, Pallavaram and Nanmangalam were explored. 25 quarries at Sikkarayapuram & 10 quarries at Erumaiyur were taken up, due to their proximity to the existing Water

Treatment Plant at Chembarambakkam. Quality of water was studied for 54 parameters in compliance with IS-10500-1991 standards including radioactivity and was found suitable for consumption after conventional treatment. Detailed bathymetric and topographic studies were undertaken for quantity and designing the engineering system. The water evacuation operation both for inter basin transfer and transmission to water treatment plant had to be carried out in a treacherous terrain. Entire activity was done in 45 days, in the midst of the drought.

Augmentation of storage capacity of the city by at least 1000 mcft. and around 5000 Million litres of water could easily be tapped in a year for city water supply. During 2019, around 30 MLD was drawn for more than 6 months from Sikkarayapuram quarries which was around 6% of the total water supplied and 10MLD was drawn from Erumaiyur quarries. Conversion of abandoned quarries into water storage reservoirs is cost effective compared to other options.

Unlike conventional reservoirs, quarries are very deep and store large quantity of water over a smaller surface area. Rocky nature of the reservoirs allow minimal losses due to seepage and offer storage of excess water during floods thereby acting as a flood mitigator.

Quarrying sites are free of habitations and not easy to be encroached upon, due to which rainwater in their catchment areas can be harnessed efficiently with minimal surface runoff. The concept is easily replicable across the country. Use of quarries as a storage reservoir has been a game changer in Chennai's water supply, given that it is among the most cost-effective intervention with no negative environmental impact.

Chennai city has 12 Sewage Treatment plants at 4 locations with a total installed capacity of 727 MLD. Around 550 MLD of secondary treated effluent is discharged into waterways. In order to supply water to various Industries, CMWSS Board have constructed two tertiary treatment reverse osmosis (TTRO) plants of 45 MLD capacity each expandable to 60 MLD at Koyambedu and Kodungaiyur, and laid conveying pipeline to supply product water to industries.

540 industries from two industrial corridors are the beneficiaries of this technological intervention. The plants were established with funding from Atal Mission for Rejuvenation and Urban Transformation (AMRUT) scheme and World Bank. Chennai is the first Indian city to recycle and reuse 20% of its sewage.

It has resulted in improvement in the availability of water for domestic supply by 90 MLD due to swapping of present fresh water source for industries with reuse water. The dependence of industries on Ground water is completely reduced. With reduced discharge of waste water into water ways, their contamination has been considerably controlled. The treated water is devoid of any physical, chemical or biological contaminants. The TDS level is less than 70 mg/l which is much less than that of conventional tap water which is around 250 mg/L.

Improved Public Experience at Prayagraj Kumbh Mela, 2019

Kumbh Mela is the largest congregation of humans on the planet. Held on floodplains at the confluence of three rivers, Ganga, Yamuna and the mystical Saraswati, the Mela represents centuries-old traditions that are held sacred by millions of individuals.

The Kumbh Mela 2019, held in Prayagraj, was a mega event that witnessed 24 crore pilgrims and tourists in a city with a population around 11 lakhs. The Hon'ble Chief Minister had provided the vision of Divya Kumbh, Bhavya Kumbh which meant that the amenities, facilities, security arrangements, and the overall pilgrim experience had to be elevated to an unprecedented level. For this, green-field and brown-field development works worth Rs. Four thousand crores were decided to be undertaken.

A design thinking approach for large scale coordinated implementation and digital interventions were the backbone on which these improvements in overall planning and management of the world's largest

gathering of humans could be achieved. The Prayagraj Mela Authority led a coordinated effort, where over 32 State and Central Government Departments came together to deliver the safest, cleanest, and an incident-free Kumbh Mela.

The feedback received from the Pilgrims visiting Kumbh Mela 2019 and global media was immensely positive. Kumbh 2019 was visited by the Hon'ble Prime Minister of India twice. Kumbh Mela was a paradigm shift in innovation in project management and visitor experience enhancement. The turnover of pilgrims at Kumbh 2019 was unprecedented for which numerous permanent and temporary physical infrastructural projects were undertaken with multi-stakeholder coordination and management.

Design thinking oriented objectives included making it a zero-incident Mela, accessible to all sections of the society, using digital interventions. To enrich experience of pilgrims it was planned to make it aesthetically pleasing and develop it into a legacy of cultural feats?

Since it involved transformation of the entire city of Prayagraj before the beginning of Kumbh Mela, the planning phase began 18 months prior to the Kumbh Mela 2019. The Prayagraj Mela Authority was formed under U.P. Prayagraj Mela Authority, Allahabad, Act, 2017.

In organising the Kumbh Mela, multiple departments under the GoUP and GoI were involved. Financial planning being the most critical point, it was essential to ensure closures within timelines. New techniques were developed to ensure continuous cash-flows during the implementation phase.

The entire planning was shaped around the peak day (Mauni Amawasya) wherein, the influx of pilgrims touched 5 crores. Kumbh Mela 2019 can be viewed as one of the best practices of effective project management and public administration.

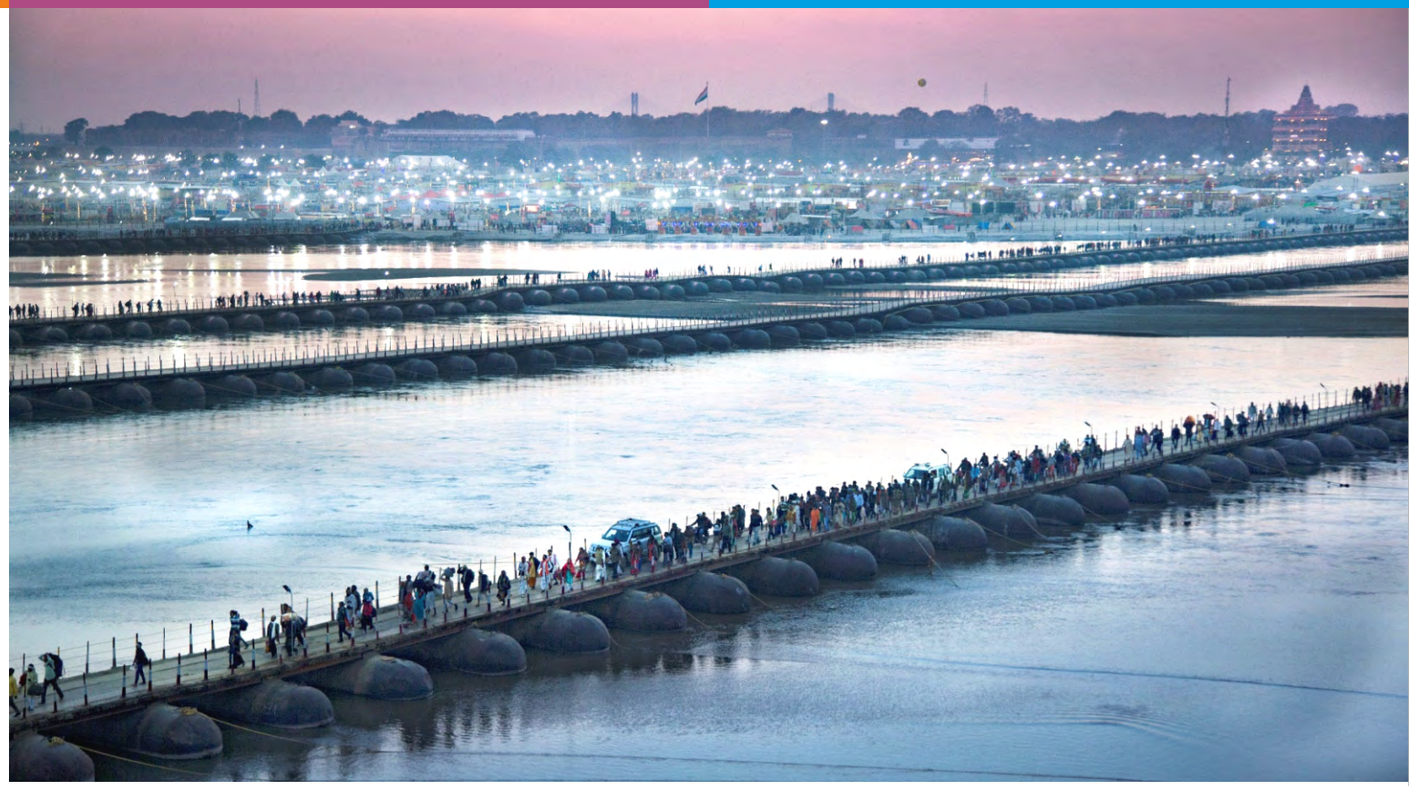
Streamlined bidding process management and vendor on-boarding was unique feature of the project. Within a year, more than 100 tenders were issued in which more than 500 agencies participated. Kumbh Mela 2019 was not only a congregation of people, culture and administration but also that of traditional and modern techniques. Multiple digital innovations were planned and implemented throughout the process. These innovations included – digital lost and found centre, online project management tool (PMIS), digital site planning using AutoCAD, georeferenced temporary parking locations across the city, ICT enabled monitoring of sanitation etc.

Social and Electronic Media presence in Kumbh Mela played a key role in global recognition of the event and reach out to the public. In addition to hosting the largest human gathering, the Mela also garnered global attention by setting up 3 Guinness Book World Records in a row, for the first time in the History of Kumbh &Prayagraj.

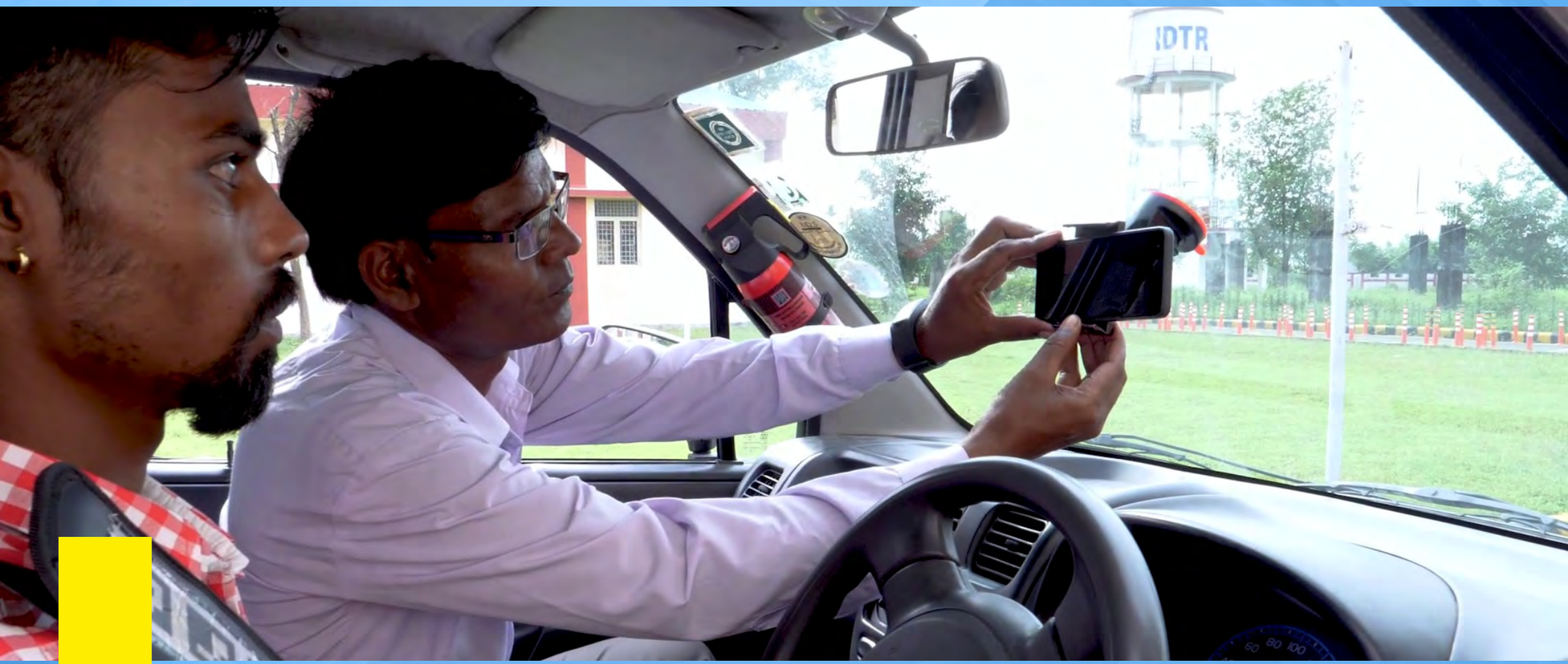
Key Initiatives for achieving – "Divya Kumbh, Bhavya Kumbh"

Following are some of the state-of-the-art interventions in Prayagraj City and Mela area to ensure safety, security, cleanliness, and an enhanced citizen/ pilgrim experience for the pilgrims:

- **Swachh Kumbh:** Maintaining sanitation and hygiene in the 3200 hectare area of Kumbh Mela and the city of Prayagraj where 24 Crore people travelled from across the country and globe was a herculean task. To ensure open defecation free (ODF), garbage free and odour free Kumbh Mela, 1,22,500 toilets were constructed and 20,000 dustbins installed across the Mela. Swachhagrahis were trained to use mobile application and give feedback twice a day.
- **Paint my City:** With support and guidance from National Mission for Clean Ganga (NMCG) and Swachh Bharat Mission (SBM), a campaign was undertaken to paint the entire city of Prayagraj in various hues that reflected the theme and spirit of Kumbh Mela and promoting IEC and behaviour change over Swachh Kumbh. Paintings on these canvasses were blended with a social message.



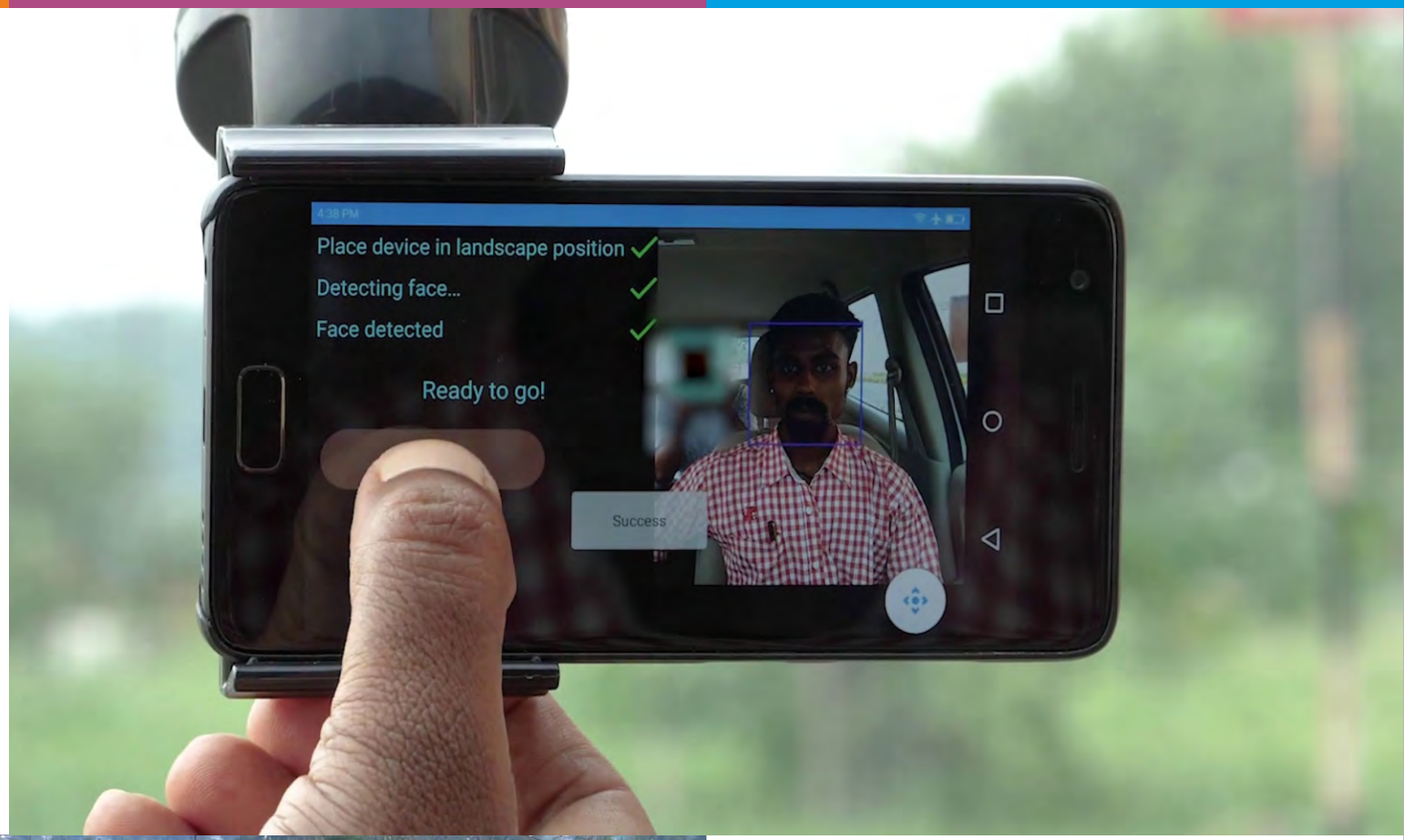
- **Integrated Command and Control Centres to integrate for Pan City Area from Smart City perspective** to enable collation of information and collaborative monitoring, thus helping in the analysis of data for quicker decision making. Intelligent operations capability ensured integrated data visualization, real-time collaboration and deep analytics that help different stakeholders prepare for exigencies, coordinate and manage response efforts, and enhance the ongoing efficiency of city operations.
- **Safety and Surveillance:** Mela Administration together with Police Department executed the Planned Circulation Movements for effective crowd control, channelization and diversions ensuring safe and fast exit of people to prevent stampede. Modern systems were deployed to reunite the pilgrims who get separated from their family and friends in the Mela area.
- **Mobility Planning:** To ensure smooth ingress and egress of pilgrims, 95 dedicated parking areas were developed around the Mela area and connected to the Mela by of 500 full-sized shuttle buses and 500 e-rickshaws.
- **Digital site planning and plot allocation system:** A complete digital plot allocation database of every plot-holder and their activity was identified and created. In addition to efficiencies in the process of allotting the shops, digitalizing the inventory of shops and vendors' database also led to significant revenue gains for Mela Authority.
- A **Project Management Information System (PMIS)** was used by the administration to keep track of the numerous infrastructure projects that were being undertaken for the Kumbh Mela. All departments were on-boarded and regular progress updates were uploaded.
- **Digital PDS:** Many visitors received temporary ration cards for basic food that is subsidized by the government.



Uttarakhand Hams-based Automated Driver License Testing

Road safety is a major public health issue in India. According to the latest data released by Ministry of Road Transport & Highways (MoRTH) on road accidents in India during 2018, fatalities due to road accidents in India were the highest in world. As per the available data, majority of road accidents in India are caused due to Driver's fault. Therefore, ensuring good driving behavior and skill is key to improving road safety. A comprehensive, transparent, and stringent driver license testing process goes a long way in ensuring that unskilled drivers do not drive on our roads and hence promotes safety.

The Transport department of Uttarakhand, in association with Institute of Driver Training and Research (IDTR) and Microsoft Research India, took the initiative to develop an automated driver license test (ADT)system based on the state-of-the-art HAMS (Harnessing Automobile for Safety) Artificial Intelligence (AI) technology.



HAMS, can be deployed inside any four-wheeler through a smart phone, and is extremely effective in testing the driving skills of the applicants.

The ADT implemented at Dehradun is a very comprehensive system for evaluating the driving skills of driving license candidates and is able to successfully cover the majority of the desired driving skill parameters as per the Central Motor Vehicles Rules (CMVR) 1989.

The HAMS-based ADT has a number of capabilities. It ensures only right/genuine person taking the test by face verification facility thus addressing identity fraud. Automatic seat belt use detection enables safety compliance. Traffic signal violations are also automatically detected. Besides, it has the capability to evaluate the person undertaking test on the following parameters also:-

a) Knowledge of road signs.
b) Knowledge of road markings.
c) Ability to validate driving correctness for standard maneuvers like S shape driving, roundabout, parking etc.
d) Smooth driving (drive without stoppage in areas of moving traffic).
e) Reverse parking skills.
f) Perpendicular parking skills.
g) Lane changing skills.
h) Behaviour of driver inside the car while driving.
i) Use of rear-view mirrors during driving
j) Monitoring curve hits during driving
k) Driving in turns and during reverse.

Upon completion of the test, the score and test outcome decision are automatically generated. In the entire driving test process, human intervention is absent.

The HAMS based ADT uses sophisticated AI algorithms which can be deployed on any smart phone to check all the above parameters of every trainee on a real time basis. The test result is generated automatically by the system, within a few minutes after the completion of the test. This ensures high efficiency and transparency.

The entire test is also recorded with pole-top cameras, providing an external view, for evidence purposes. Subsequently, a recording of the test is maintained at the testing center. The ADT at Dehradun has the capacity to test 80-90 applicants in a day.

The ADT also complies with the physical distancing norms on account of COVID-19. The applicant takes the entire license test while seated alone in the vehicle, without any evaluator/examiner, as all the parameters are checked by the Smartphone-based HAMS system.

The implementation of the HAMS-based ADT at Dehradun has brought about significant improvements in the process of issuing Driving Licenses. Some of the key highlights are:

- Successfully conducted more than 7500 (Seven thousand five hundred) tests during July'2019 to March'2020 with very high accuracy.
- Passing percentage of applicants come down from 95% (manual testing) to 55% with Automated Driving Test (ADT), reflecting the rigorous nature of automated testing.
- Consistency in ensuring identical tests and parameters for all trainees has brought fairness in the testing process.
- The above has generated very positive feedback on transparency, fairness, and comprehensiveness of the system by applicants, including those who could not pass the test.

- Apart from being much more comprehensive compared to previous testing mechanisms, the cost of implementation using the innovative HAMS technology for the ADT is 75% lower than alternatives (camera/sensor based techniques), i.e., just one-quarter the cost.

The IDTR Dehradun automated driver license test (ADT) model has been widely acknowledged as a world-class example of technology innovation by many reputed publications, both in India and across the world.

This ADT solution for driver license testing is now being replicated in other states in India such as Bihar and Haryana. There is also keen interest among entities outside India to emulate the Dehradun model for their driving test processes. HAMS-based automated driver testing at IDTR Dehradun is an excellent example of the idea of 'Make in India and offer to the world', as espoused by our Hon'ble Prime Minister.

Village Progress Tracker, Narayanpet

Narayanpet district of Telangana having 282 villages was formed in February 2019, In keeping with the ideals of Adarsh Gram Abhiyan, Swachh Bharat mission, Centre and State priority missions, a comprehensive village development action plan was prepared in Narayanpet district. Being a backward district, it had many problems like shortage of staff and absenteeism, lack of institutional capacity and weak monitoring mechanism that were hampering the district administration.

To ensure that the village development was taking place as envisaged and to ensure all officials were tracking village development evenly across the district, 'PallePragathi app' was developed. While Palle Pragathi is a Scheme of the State Government which literally translates into village-development, PallePragathi app was developed by Narayanpet District as an effective monitoring system to track and monitor development in the district to have a clear programme of action, measurable at all levels.

Extensive consultations were held by Village Special Officer with villagers to develop a vision for village development. This was scaled up into a mandal plan and then district plan. Due to shortage of staff, effective monitoring of lofty goals set for the village development was a challenge. The app was a great facilitator for monitoring timely completion of mandatory targets.

Each officer was assigned a particular village and ward, which was incorporated and updated in the App. It recorded each stage of work progress from the transact walk to all the measurable indexes set by the district administration for completion. 165 government officials and 282 Gram Panchayat Sarpanches and Panchayat Secretaries were drafted for the App.

The App is flexible in setting of targets for each functionary and the programme to be tracked. New programmes can also be incorporated.

The App has three-dimensional functionality, as follows:-

(a) The presence of field level staff in the field can be monitored through geo fencing and location tracing on the App. It can be activated at any time by the district administration. This enables the administration to track basic delivery of services like pension, ration, mid day meals, anganwadis, water supply etc.

(b) Programme tracking can be done effectively in a centralized manner like distributing twin bins to each household and construction of scientific crematorium, public parks, soak pits (to manage sewer water), individual toilets and community toilets.

(c) Special drives are undertaken when the district wants to finish a particular programme. Sanitation improvement, road sweeping, spraying of anti-larvicides and clearing of garbage dumps. Increasing the green cover, dump yard with segregation shed constructed for each village.

The app received overwhelming support from public representatives as the staff presence in the field improved. Supervisory officers began regular visits to villages to address people's concerns.

Villagers participated wholeheartedly in the Pallepragathi programme every Wednesday for making their village clean & green. Participation of youth and women of self-help group was facilitated. Various committees like Green Committee, Village Works Committee, Village Health and Sanitation Committee and Committee to Safeguard Village Assets were formed at in villages. Monitoring of their activities was done on the basis of reports by mandal special officers, village in-charge officers, reports by committees and public representatives on the App. The district administration on the click of a button could view and visualize development at the village level with weekly progress without physical inspections.

Effective monitoring through the Pallepragathi App brought perceptible improvements in processes and systems and strengthening of institutions and brought remarkable changes in the living standard of the villagers.

Attendance of the teachers, doctors, panchayat secretaries and health workers improved as they are to be geo-tagged with pictures. Consequently, fair praise shops and implementation of government schemes is also supervised.

Due to effective monitoring, Anganwadis are strengthened, adequate nutrition is ensured to preschool children, overhead water tanks were cleaned regularly and 98% of the district has piped drinking water connections at their homes. Education standards and student attendance improved in all the village schools. Public electrification through LEDs has happened in all the villages of the district, all the villages have procured tractors, trailers to pick up garbage door to door and transport to segregation sheds. Segregation training was organised in all the villages of the district.

Nearly 85 lakh plantations have been done and 65,227 individual toilets have been constructed across the district making the district ODF, with all the villages achieving 100% IHHLs, community toilets & soak pits construction. 326 Community toilet complexes were constructed with minimum 1 each in each village. 280 villages established dump yards for the entire village and 200 constructed segregation sheds. 47 villages constructed modern crematoriums at their cost. 26,200 soak pits were constructed to bring about higher sanitation standards in the village. Nearly 10 tonnes of plastic waste was collected from the villages and sold for recycling earning the district about 5 lakh rupees.

The usage of PallePragathi App has strengthened regular tracking, monitoring and institutional build-up at the district level. The robustness of village Panchayat increased with the presence of senior officials to guide the villagers. Tax Payment by villagers also improved bringing more financial stability to the village. Thus, the app paved way for comprehensive village development in the district with the district forging ahead in all development parameters.

Animal Hostel-Thadakanapalli (V), Kurnool District

The Animal hostel, a concept conceived by Hon'ble Prime Minister Shri Narendra Modi was envisaged as a place where the cattle of the village are kept and maintained together and have all necessary infrastructure facilities to take care of them . It has been conceptualized as a sustainable management model.

The main Objective of animal hostel is to promote scientific management of milch animals to get optimal production, utilization of the farm waste, for production of bio-gas, power generation and vermin culture.

Pala Pragathi Kendras were introduced in Thadakanapalle Village and high yielding milch animals like Graded Murrah and Murrah were inducted from Tamilanadu and Haryana state. Animal Hostel project was started after a feasibility study and identification of suitable location.

The Animal Hostel established at Thadakanapalli (V), Kallur (M), Kurnool (Dt), Andhra Pradesh is First Animal Hostel established in Andhra Pradesh and 2nd in India. Animal Hostel is maintained by women belonging to the SHGs of the village.

Andhra Pradesh Government has allocated 10 acres of land free of cost and funds of MG-NREGS and special development package were utilized to establish the Hostel. Total estimated cost of the project to house 300 animals is Rs. Two Crores.

The Department of Animal Husbandry is the nodal agency of this project and DRDA –YSR Kranthi Pathakam Kurnool extended financial assistance (Unnathi, Sthree Nidhi and Bank Linkage loans) to purchase animals and ensure feed supply to the Animal Hostel.

The animal hostel brought in eco-technologies and new practice of fodder and feed and animal welfare. Adjoining 9 acre has been developed for cultivating

super napier fodder which is yielding 200 MT per acre per year. This fodder is sufficient for 200 milch animals and very effective in increasing milk yield. Animal dung is used as organic manure in land under cultivation.

Animal Hostel project is women centric and works for the poor families of the village.This pro-poor and pro-women initiative is in line with the existing model of community based organizations in the village.The management committee with 9 women farmers maintains the hostel. The Management Committee meets once in 4 months. Veterinary doctors and DRDA staff are also invited to discuss on the animal healthcare, feed and fodder supply issues, requirement of loans for animals purchase etc.

The Management committee conducts meeting with farmers once in a month. A minimal amount of Rs. 100/- per animal per month is collected as maintenance charges such as the watchmen salary and electricity charges.

20 Azolla and 8 hydroponic units have been established in animal hostel. Azolla is an alternative to concentrated feed. Supply of silage the concentrated feed and mixed feed streamlined to the animals improves the milk production quantity and quality. Hydroponic fodder production is a boon for farmer whose soil is rocky and infertile It is farmer facility alternative technology for landless farmers for fodder production.

Currently 200 milch animals are kept in animal hostel. Daily milk production in the animal hostel is 1000 liters, which is one-third of total village's milk production. There is a tremendous incremental increase in the production of milk

The project has reduced women drudgery in taking care of animals kept at their homes, a saving of 265 person days per month, which is used for other productive activities. The opportunity cost of this is about Rs. 50 thousand per month @ Rs. 250 person/ day. In addition to social returns and income from buffaloes-dung and compost fertiliser there is a rise in the total income for

the SHG members. There is substantial increase in annual net income of all the milk farmers and SHG women. 20 villagers are into the business of preparing and marketing khoa and each member is earning an average of Rs. 36,000/- per month.

The project offers a number of learnings. Entrepreneurial and managerial skills of women if properly developed and put to use bring additional income to the family, which helps in achieving sustainable development goals (SDGs). There is enormous possibility of bio gas production, if the initiative is implemented all over the country. Proper utilisation of dung in bio gas production and utilisation of methane ensures pollution free villages.

The practice also enables to identify and preserve best performing cattle, provides venue for collection and preservation of semen. And, in lines of SEZs, Special Cattle Zones can be developed to ensure employment and draught mitigation in draught prone areas.

This project has also led to and aided in attaining the SWACH BHARAT GRAMEEN (Phase II- activities) as the animals are housed away from the village and domestic premises, the biological wastes of animals is collected and drained properly without causing any inconvenience to residents of the village, thereby improving the participation of local human resources to promote clean village concept.

Bhoojal Badhao, Peyjal Bachao
Kuwan Taalab Jiao

Evolving lifestyle has moved people away from using natural and self- regenerating sources of water. Hence, rivers, ponds, and wells remain neglected. Banda, a district of Bundelkhand region, suffers from acute water shortage.

According to a study by Ground Water Board, more than 71% of wells under observation are depleting at an alarming rate, adding to the water woes of people. There was no awareness, knowledge and sensitivity towards water conservation among people, leading to household stress, low commercial productivity and overall impaired societal growth.

This initiative was undertaken with the objective to resolve perennial water crisis of all the 471 Gram Panchayats and 8 urban bodies of district Banda. This could be possible only with cooperation of the people. Therefore, educating and facilitating people to conserve water and use natural and self-regenerating water sources was necessary.

A tangible action plan was conceptualized. Before it could be implemented in the field, it was necessary to dig proverbial ponds and wells in the heart and minds of people so that they could revive their age old relationships with water bodies.

A multi-pronged approach was followed. The project was designed to ensure that people at the grassroots level, administrators and technical experts were involved and a platform for a sustainable solution provided to them.

A Jal-To-Jan Aandolan was envisaged. As a part of collaborative approach mass ownership was prioritized as the fundamental strength. A District level Water Committee, headed by District Magistrate and comprising key officials from all water related departments, civil society members and technical experts was created.

It was realized that the society has begun to neglect natural & self-regenerating water sources and has a fabricated- inclination towards 'bottled water', symbolically speaking. This has led to the current water crisis, accelerating depletion of ground water-level. Basic knowledge, awareness,

motivation and scientific guidance towards water conservation was lacking in people. And, lack of proper initiative and implementation has resulted in inadequate, superficial, short-term solutions, which do not yield results.

Several activities were undertaken to address the situation, as mentioned below:-

a) **Jal Choupal:** Training and awareness camps were held in each gram panchayat and urban centres to educate people about the idea and benefits of water budgeting and importance of water conservation. Jal choupals were conducted in all 471 gram panchayats.

b) **Trench digging:** Water-retention trenches were dug around hand pumps and ponds, thereby enabling rain water to seep through and add to the ground-water level. 2605 trenches were dug around 2443 hand pumps and wells with a conserving capacity of 3,930 kilolitres saving 1.10 Lakh Kilolitre water annually.

c) **Rejuvenation of old water sources:** Many old hand pumps, wells and ponds that had dried and become unusable due to negligence, were rejuvenated.

d) **Creation of new ponds:** With the help of local residents, local ground parcels were identified and transformed into ponds. Rain water stored during monsoons acted as a boon providing additional water supply in the region.

e) **Rain water harvesting:** Rain water harvesting systems were built in government office buildings, setting an example to be adopted at community level.

f) **Jal March:** A mass walkathon was organized across the city of Banda in which students, professionals, local traders, NGOs, residents of Banda and many others participated. The objective of Jal March was

to increase awareness and educate people about the water conservation efforts and inspire them to make it an individual mission.

g) **Deep Daan:** Considered a very auspicious ceremony, Deep Daan activity was conducted again to re-emphasize the significance of natural water bodies and how they need to be loved and respected as they are the source of water, an essential for life. This attracted masses and captured their mind space.

h) **Tree plantation & Medbandi:** Tree plantation on the banks of river and ponds along with Medbandi of farm boundaries helped achieve reduction in soil erosion and wasteful flow ofwater.

i) **Jal par Kavita & Mushaira Sammelan:** To reach out to people, kavi sammelan and mushaira on 'water' as the theme. Through poetic creativity and entertainment, the message on water conservation reached the masses in an engaging manner. Adding momentum to the initiative **Jal-Hasya-Charcha** with a celebrity comedian as guest was also organized.

As a result of the efforts of District Administration, 572 old ponds were revived; 840 new ponds created, 1536 recharge pits built, Medbandi done at 1311 locations and 82 rain water conservation structures were built. 34,732 villagers have benefitted directly and 15 lakh indirectly. Average water table across Banda increased by 1.34 m and due to increased availability of groundwater average increase in agriculture productivity is 18.48%. Law & order in the district also improved after elimination of water crisis.

A very low cost model it was implemented through 'Shram-Daan' and pooling of resources. The keys to success lay in bridging the people-administration gap, strategic pooling of resources in a channelized manner, revisiting childhood life experiences to explore optimum solutions. It was a people's movement.

Chandauli Black Rice Initiative

Chandauli is popularly known as the "Rice bowl of Uttar Pradesh". Fertile soil, water availability and climatic conditions are favourable for paddy cultivation. In 2018, Chandauli was included in the list of aspirational districts, thus requiring focused attention. The District Administration, Chandauli began to search a high value crop that could increase farmer's income and 'black rice' was identified.

'Black Rice', a variety of rice that could be grown in the climatic conditions of Chandauli and increase farmers' income manifold. One kg of black rice sells up to Rs 300 per Kg. vis-à-vis common rice that sells only for Rs 30-50 per Kg. In 2018, a pilot study was carried out to test the viability of 'Chandauli Black Rice Initiative'. The study was carried out with 30 progressive farmers. The district agriculture department distributed black rice seeds to these 30 farmers and conducted educative seminars for them at Krishi Vikas Kendra.

Black Rice offers a variety of health benefits that enables it to command a higher price in the market. It is rich in anti-oxidants especially anthocyanin which is good for diabetics, prevents risk of cancer, obesity and cardiovascular diseases and is a good source of iron, zinc, micronutrients, proteins and fiber.

Each stage of cultivation was carried out under the supervision of experts including occasional visits by scientists of International Rice Research Institute, Varanasi. The farmers were advised not to use chemical fertilizers or pesticides as organically produced rice would fetch them better price. Black rice paddy was cultivated in about 10 hectares of land and 300 quintals of the crop was produced. The lab test reports confirmed the black rice so produced was nutrient rich and chemical free.

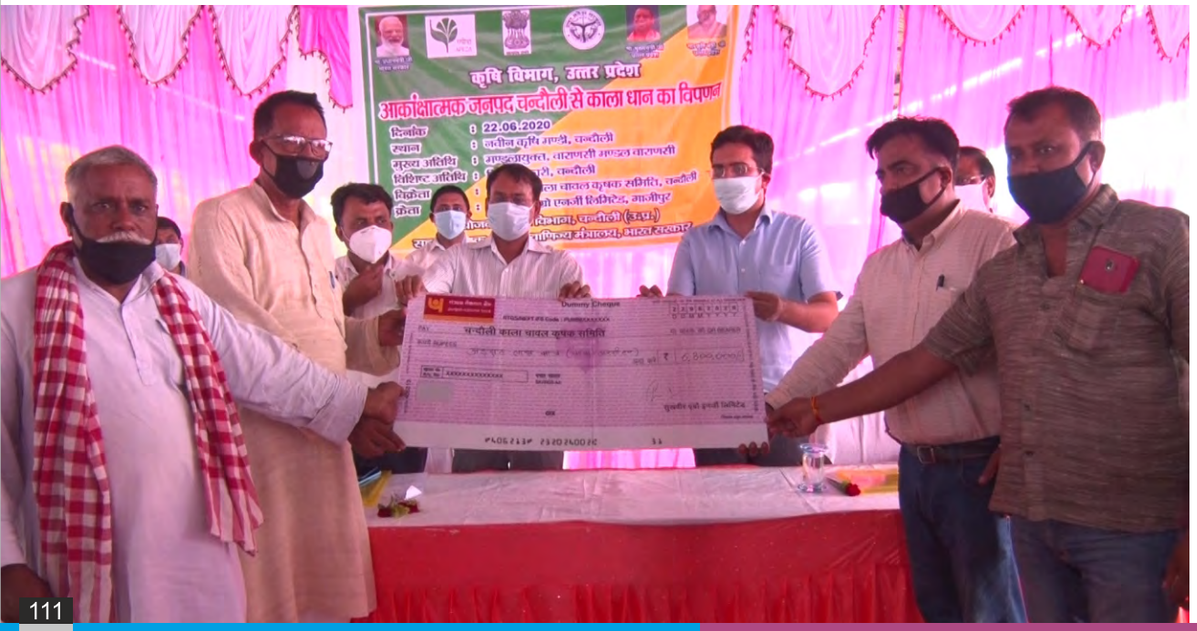
To explore the market, wide publicity was given in print and electronic media. Black Rice was exhibited at various national exhibitions and sold at Rs 200/kg for seeds and Rs 300/kg for rice. To popularize it amongst farmers, it was discussed at various forums like Kisan Pathshalas, Nyay Panchayat, Kisan Goshthis, Kisan Melas and exhibitions. Sufficient quantity of seed was preserved for Kharif, 2019.

The manifold increase in realization per hectare generated by black rice during pilot phase was a pleasant surprise for farming community. In Kharif 2019 more than 400 farmers opted to grow black rice in about 250 hectares. A committee comprising of officials of the departments of Agriculture, Industries and Krishi Vikas Kendra (KVK) was entrusted the task to facilitate bringing the produce from farm to market. A society under the name "Chandauli Kala Chawal Krishak Samiti" was registered comprising of black rice farmers as members. District administration provided handholding support.

An application for collective trade mark, to register CKC (Chandauli Kala Chawal) as a community property of black rice farmers of Chandauli, was filed at Trade Mark Registry, New Delhi by the Samiti. Attractive packaging and logo were designed for the produce to compete in the retail market.

Around 8000 quintals of black rice paddy was produced in Kharif 2019. Chandauli Kala Chawal Krishak Samiti office bearers were sent to various national exhibitions to promote and market the product. It was also showcased at Gulfood, Dubai World Trade Centre. An arrangement with millers having state of the art milling technology was coordinated by the administration.

For retail sales, arrangements for product placement were made with ITC Chaupal at Sagar, Malls, Hotels and Kashi Vishwanath temple help desk. To tap export market, list of rice exporters of the country was obtained from APEDA (Agricultural and Processed Food Products Export Development Authority) and black rice samples were sent to them. A buyer seller meet was organized at Chandauli. It was attended by good number of exporters. Wholesale trade price was finalized at Rs 8500/Quintal. A part consignment was exported to Australia.



Chandauli black rice has high nutritional and medicinal value, which fetches it much higher price than common paddy. The cultivation being organic its cultivation cost is lower also low. The following table illustrates comparative profits that farmers' made by cultivating black rice paddy instead of common paddy per hectare of land:

S. No.	Parameters (per hectare)	Common Paddy	Black Rice Paddy
1	Seeds	30 kg	15 kg
2	Productivity	62 quintals	35 quintals
3	Cost	Rs 58000	Rs 42000
4	Revenue	Rs 1,12,530 (@1815/qtl)	Rs 2,97,500 (@8500/qtl)
5	Profit	Rs 54,530	Rs 2,55,500

From the above, it is evident that farmers' income increased several times by cultivating black rice.

The area under black rice cultivation in Kharif 2020 doubled to 500 hectares and more than 1000 farmers cultivated black rice. The district administration now plans to convert Chandauli Kala Chawal Krishak Samiti into an FPO (Farmers Producers Organization), capable of exporting their produce themselves to other countries which will further improve their profit margins and incomes. To boost retail sales, administration further plans to utilize e-commerce platform in the current season.

Success of the Black Rice Initiative in Chandauli has encouraged farmers from other districts to grow black rice. Farmers from more than 15 districts of Uttar Pradesh and Bihar sourced seeds of black rice from KVK Chandauli, Agriculture department Chandauli and Chandauli Kala Chawal Krishak Samiti to start cultivation of black rice.

Being environmental friendly, black rice cultivation fits into the model of sustainable farming, It is economically profitable to farmers and beneficial to consumer's health. Black rice production can increase at the rate of more than 100% annually in coming years, as more than 5 lakh metric tone paddy is produced in Chandauli annually and there is lot of scope for its substitution with black rice. The high value product has huge export potential and earn substantial foreign exchange for the country.

Procurement of 20 JCBs by Administration of District Sivagangai

The Hon'ble High Court of Madras (Madurai Bench) directed Sivagangai District Administration to desilt and restore water bodies. The District had Farmers Contribution Fund available at District Watershed Development Agency in Sivagangai, which could be utilized for desilting 184 water bodies. But, the Administration went a step ahead and decided to create assets of its own with which it could disilt all 184 water bodies initially and later utilize it for other water bodies like tanks, ooranies, supply channels, rivers as also for eviction of encroachments. The decision to purchase 20 JCBs was a result of this lateral thinking. These JCBs could also be used for removal of prosopis juliflora from farmers' lands at cheaper rates (only diesel cost to be paid by the interested farmers).

District Administration purchased 20 JCB machines out of the above farmers contribution fund and utilized them for desilting water bodies. Prosopis juliflora in 164 km stretch of rivers, such as Vaigai

(48 Kms), Uppar (11 kms), Palar (30 kms), Manimutharu (11 km), Thenaru (8 Kms), Saruganiyaru (10 Kms) and Virusuliaru (12 Kms) was cleared. This enabled free flow of water in river and also eradicated the growth of prosopis in agricultural land as its seeds were now not dispersible through water.

This would also help to bring more land area under cultivation. The recurring expenditure on salary of drivers of JCBs and fuel for them was to be met out from District Mineral Foundation Trust fund and general funds of urban and rural local bodies.

For sustainable agriculture or development, the augmentation of ground water resources becomes necessary. The water body restoration advisory committee suggested the district administration to construct a sub surface dyke across Vaigai River near Thirupachethy in Sivaganga District to recharge the groundwater. The gradient of the riverbed is also much suitable for the construction of sub surface dyke. This was also done with 20 JCBs purchased were utilized by the district administration without availing any

additional financial assistance from the state government.

The procurement of JCBs brought perceptible improvements as the administration could itself de-silt the water bodies and clear jungle without resorting to the highly expensive contract system, which was dispensed with. The panchayats were strengthened as they could effectively get desilting done and maintenance of water bodies was possible at cheaper rates. As a result a number of ground water recharge structure created, ground water level upgraded. There was a significant reduction in the gap between irrigation potential created and irrigation potential utilized. Cost Reduction of 30% to 40% was achieved. The underground water level increased by more than 30 to 40 feet in the adjoining radius of upto 7 Kms stretch away from the sub surface dykes constructed in Vaigai River, with the help of procured assets.

With the construction of sub dykes, there is no need of additional surface reservoirs, no siltation and no loss of reservoir capacity. Environment-friendly, it can be implemented with locally available resources and makes good quality water available, which is not contaminated by insects or bacteria. No land is submerged and therefore nature is not altered in any way and people are not displaced.

After the construction of sub surface dykes in, Thiruppachethi and Muthanenthal villages of Sivaganga district, the ground water level has increased. An average of 30 to 40% percent of reduction is achieved in the gap between irrigation potential created and irrigation potential utilised.

With desilting and clearing of 10 major rivers from prosopis trees now there is free flow of water. Farmers of all the villages were benefitted as the water in tanks is availed for irrigation. The public are benefitted as drinking water bore wells and all drinking water sources are being recharged and rejuvenated in all the villages. After removal of prosopis Juliflora from agricultural lands more area was brought under cultivation. Barren land was converted to fertile land.

Increase in the area under agriculture has increased income of farmers.

265 PWD tanks, 113 ponds, 1,693 minor irrigation tanks and 3,351 small ponds and ooranies in village panchayats were desilted. 6,47,182 cubic meters of silt has been removed and 3250.5 Km of inlet/ outlet channels have also been desilted.

The Sivaganga is a rainfed, drought prone district. All water bodies were dry before cleaning of inlet channels, and now all water bodies are filled with rain water and the district has witnessed two years of successful farming owing to the desilting by JCBS with public participation.

The district was adversely affected by gaja cyclone. Disaster Management trained Volunteer groups and JCBs were pressed into service to set right the uprooted trees and to remove the debris at considerably lesser period of one day.

With the help of these 20 JCBs, 200 tanks and land worth Rs. 500 crores were freed of encroachment, 300 acres additional jungle land brought under cultivation and 370 crore litres of water was saved. Due to improved water management, the single crop land stands converted into double crop land and the cropping pattern has also changed.

Plastic Shredding Unit at Changlang

The District Administration of Changlang **(Arunachal Pradesh)** started a Plastic Shredding Unit with the main goal to reduce, reuse and recycle (RRR) plastic. The shredded plastic was proposed to be used in construction of roads.

The unit was installed in November, 2019 in Kumung Pather Village, Bordumsa Division of Changlang District, Arunachal Pradesh. It is the first-of-its-kind processing unit in eastern Arunachal, wherein single use plastic substances are processed into 2.3 mm fine particles to be mixed with aggregate bitumen for road construction.

The unit by providing employment to the local youth boosts economy and contributes towards a clean and safe environment by getting rid of plastic materials.

Purely a bottom-up approach wherein the community acts as a catalyst to prevent environmental degradation and at the same time generate local employment opportunities. At the same time, it has helped in maintaining good quality roads as bitumen with shredded plastic mix increases durability and strength of the road. The strategic trans-Arunachal highway traversing very close to the set-up unit and also through major parts of Changlang has enabled it to be a central hub, thus catering to the entire eastern Arunachal Pradesh with tie ups extending to most of the districts like Namsai, Lohit, Longding and Tirap.

This project is significant for Changlang District, because there is rampant consumption of bottled water due to lack of pure drinking and thus lots of plastic bottles are thrown into bins. Inadequacy of physical infrastructure for plastic decomposition further compounds the problem. Also this project is helping to serve as central dumping point for all the waste generated in Bordumsa division which didn't have any centralised dumping ground earlier. This has ensured that waste generated is disposed off in a systematic and centralised manner.

Some plastic bottles are reused in constructing a functional greenhouse. The greenhouse serves as a nursery for various agricultural and horticultural crops. Operated by the horticulture department of the district, this helps in convergence of various ongoing schemes like agri-cluster and nutritional

kitchen gardens. Other parts of plastic bottles like wrapper cover and cap are segregated and sold to local recyclers separately.

The administration followed a collaborative and community based approach. The land for the said unit was given by the Kumung Pather Village Panchayat. The unit site is adjacent to the Trans-Arunachal Highway, which eases logistics and connectivity issues. The people employed at the unit are from the same village chosen by local panchayat. Profit sharing


PLASTIC
GREENHOUSE
recykal
Hindustan Unilever Limited

mechanism in running the unit has been decided in the ratio of 90:10. While 10% of the profit goes to the village panchayat for ensuring regular maintenance and other contingencies, the 90% remains with the people running the unit.

The funds for setting up of the unit were mobilised from Oil India Limited (under corporate social responsibility) and untied developmental fund under ADC Bordumsa.

Raw material i.e., waste plastic for the unit is received from within the district and neighbouring districts like Namsai, Lohit, Longding and Tirap. National Highways and Infrastructure Development Corporation (NHIDCL) and the contractors constructing roads in nearby districts are the primary consumers of the processed material.

hile the production and supply chain of the unit continued well from the time it was started in the November, 2019 till February, 2020, the unit had to be closed thereafter for four months due to national lockdown. The operations revived in July, 2020 and now with rising demand, more orders are likely to follow. With two plastic shredder machines in operation, around 7 tonnes of processed material has been produced. Installation of a third machine shall scale up the production to 100 kg/ day.

The benefits of this project are prevention of environmental degradation and generating livelihoods. With the absence of functional plastic waste treatment infrastructure and the already stressed existing dumping grounds, it eases the pressure and helps in better disposal of plastic waste from Changlang as well as the neighbouring districts. The roads made with plastic waste have a long life. It is also a great boost to disposable income of the local people employed.

It is proposed to further scale up the operations and make it a primary hub in eastern Arunachal Pradesh for processing of plastic waste and as the source centre of processed plastic. It is also planned to diversify and begin reusing waste plastic bottles for various beautification drives in the township areas of the district like plastic bottle garbage bins, footways made with caps of plastic bottles in urban parks. With the profits earned in running the plastic shredder unit, construction of recycle and recovery-park in its vicinity is also planned.

Thus, plastic waste, which has been a long lasting public nuisance has been converted into a potential value asset dovetailed to livelihood generation opportunities for sustainability of the project.

POLYBRICK - Simple Solution for Perpetual Problem at Sirmour

Littered in our surroundings, making soil infertile, causing air and water pollution, choking sewage networks, water nallahs, the single use plastic like carry bags, bottles, cutlery etc. and multilayered plastic used for packaging chips, biscuits etc. have become an eyesore for all. Collection, transportation and processing of poly waste is a challenge as such waste has no resale value. Further, 100 % segregation at source is still a distant dream. There is no easy method to manage the plastic waste scientifically.

While dealing with the issue of plastic waste in district Sirmaur, a need was felt to manage it in a way that was free from economical and infrastructural encumbrances. Dry waste mostly consists of single use plastic in the form of packing material, toffee wrappers, plastic bottles, plastic carry bags, toiletries wrappers etc. The central idea was to find simple solutions and make a product that could be used for asset creation.

Sand filled plastic bottles being used in Africa to create masonry bricks led to the idea of filling plastic waste into bottles to make a viable product. It was decided to fill the plastic bottle with used, litter and shredded plastic. This is the genesis of a poly brick, used for construction of benches, mini poly stadium, poly toilets, poly brick boundary wall etc.

Poly-brick is an empty plastic bottle filled with used/ littered plastic with the help of poly stick to make it compact resulting in a rigid bottle packed with plastic.

Easy to adopt, a zero investment initiative proved to be a cost effective solution to create durable assets that would bring behavioural change in society, mitigate pollution and is a viable solution for littered single use plastic

Through educating people of the ill effects of littered waste (e.g. micro plastic in salt) among the common masses led to awareness. The idea was shared on social media to inspire and request all stakeholders to 'Make Your Own Poly Bricks'. Consistent efforts have led to a huge movement that has gained momentum in

Sirmaur District. A mass movement involving rallies, awareness campaigns, Pad-Yatra (7 Panchayats participated in 8 Kms walk), morning assembly lectures for school children was organised on war footing to make the district Sirmaur polythene free.

Households were encouraged to segregate dry and wet waste at source. Two empty bottle theory (one in kitchen and one in bathroom) was propagated to collect single-use plastic, at source. In every classroom of the schools, one empty bottle was kept to collect toffee, chocolate and other wrappers.

Intensive IEC campaigns were taken to sensitise people. The concept of 'Poly Brick' was an important point of discussion in all inter-departmental meetings convened at District Headquarters.

Bench, flower-pot, mini-stadium, boundary wall were constructed using poly-bricks as a visual demonstration for


POLY TOILET
PLANNING & DESIGNING BY: Dr. RK PRUTHI IAS
DEPUTY COMMISSIONER SIRMOUR (H.P.)
FABRICATED BY: S.ANSARI IND.
स्वयं सहायता समुहों

the majority of people visiting the Collectorate as also the Block-Offices and Schools situated along National Highway. Sensitisation camps were organised for Panchayats, Mahila Mandals, Self Help Groups and Yuvak Mandals.

Under the programme, Ek Din School Ke Naam – one day, one hour every fortnight, students would collect waste plastic around a 500 metres radius of their schools and make poly bricks. In Ek Din Panchayat Ke Naam initiative every first Sunday of every month was fixed for collecting waste plastic and making polybricks at all Panchayats. One Mahila Mandal/ SHG was allotted one ward, to make it polythene free.

People of Sirmaur themselves are also making Poly bricks. More than 12000 Kgs of plastic waste has been converted by the public into 24072 poly bricks. In case the poly bricks are not sufficiently compacted, the same are given to cement plant as a refuse derived fuel (RDF).

Markanday (River) Cleanliness Drive was undertaken with the involvement of 8 Teams from 7 Panchayats having 1037 citizens and 144 officials of District Administration who collected 2500 Kg. Plastic Waste from and around the river. A sense of belongingness and cleanliness towards healthy environment was inculcated through public participation,.

Under 'Polythene Mukt Sirmaur Yojana', replacing plastic bags with cloth bags was envisaged. Customarily, cloths are donated to the deities during Puja in certain temples across the District. After Puja, the cloth was discarded. The District Administration inspired groups to prepare carry-bags from the Puja cloth. 15,000 carry bags made of such cloth were distributed.

Durable Assets created by using poly bricks in all 6 blocks of District Sirmaur. In Shillai block, flower pots, poly-stair and poly boundary walls have been built. In Paonta Sahib block a poly toilet, flower pots and poly benches have been created. In Nahan block, besides flower pots, poly-benches and boundary wall, a stadium has been constructed. In Pachhad, Rajgarh and Sangrah blocks ply-benches have been constructed.

SAKSHAM SURAJPUR

(Empowering the students and youth to unleash their potential)

Saksham Surajpur is a programme that is empowering the students and youth to unleash their potential.

Like every other district, Surajpur District (Chhattisgarh) also has a number of government primary schools, middle schools and high schools. Most of these schools have their own library. However, due to less number of students registered in most of these schools, availability of a wide range of books remains a concern. The students studying in small government schools have a narrow, selective range of books to refer to, whereas in schools situated in district or block headquarters there is relatively bigger library with sufficient number of books many of which often remain underutilized.

The number of underutilised books in the district was huge, before this initiative. Many of these books were not issued even once whereas the students of other schools wanted that book but couldn't access it.

With constant updation of syllabus, many of the books had become irrelevant. To widen the scope of learning opportunities for school going students by making a wide range of books available to them, the concept of the "Saksham Surajpur" was conceived.

Under this initiative, a database of all the books available in the libraries of select 154 government schools of the district was created and was made available online. A unique login ID was created for every school and students, using which they could access the database and get the list of books available in various schools of the district, raise the request for the book and get it within 2 days.

To ensure that the book requested by any student reaches him within 2 days, the cluster academic coordinator (CAC) was given the responsibility to hand over the book to block resource coordinator (BRC), who , through district education officer (DEO) will give the same to the BRC of the block from where the demand of book is generated, and the same will be handed over to CAC of the concerned cluster , who will , in turn, hand it over to the principal of that school and finally the book will be issued to the student for 15 days from the date the demand was raised.

After being launched on 5th September, 2019, the initiative gained popularity among the students. This system helped the students to get the books they were in need of. This led to optimum utilization of the books available in 154 Library of the district.

The program also helped the students of the district to develop reading habits. Till 31st March, 2020, 84,312 books have been made accessible to the students in remotest area of the district and 7,812 books have been issued. Interested students can just visit the website and get a book or learning material issued in their name.


सक्षम सूरजपुर
विश्व हाथ धुलाई दिवस
विद्यालयों में बच्चे स्वच्छता का संदेश देते हुए।

Anuppur SMART Classes

Anuppur District is primarily a tribal district with many first generation learners coming to school. To empower people of Anuppur, it was crucial to impart quality education which could translate into better social and economic outcome for the most socially and economically backward communities of this tribal district.

It was felt that use of state-of-art technology could help students compete with the urban and tech savvy students. Intention was to improve classroom delivery and enabling the teacher with modern (digital) technology.

The idea for smart classes was firmed up in May 2019 after brainstorming sessions with all stakeholders, viz., teachers, students and parents. The academic session had already started. The proposal was taken to the Minister in-charge of the district, who readily gave administrative approval to be funded from District Mineral Foundation.

A tender was floated in July 2019 and the process completed by September 2019. The solution designed by a young start-up founded by an IIT Kanpur alumnus was selected through an open tender. Start-ups are high on enthusiasm and energy. The solution was tech-first and that was the key to scale it up quickly across 50 schools.

The schools in the District were divided into two sets. Set A had 50 schools with smart classes labeled "Smart Schools" and Set B had 83 remaining schools without smart classes labeled "Regular Schools". Focus was to actually have a "SMART" solution and not just digital content.

The objective of the Smart Class initiative was to improve learning outcomes and overall pass percentage of the students of Grades IX and X in the District in MPBSE State Board Exams. The school classrooms were being digitally enhanced, teaching aid to teachers and learning aid to the students were being provided.

The solution deployed had several advantages. The video content was created by engaging local State Board teachers, including local teachers from the District, so that the students can assimilate the vernacular content of the lectures easily. The

idea was also to empower the teachers at Anuppur and give them a platform. Localized vernacular content (in Hindi medium) ensured easy adoption by the teachers and enabled them to relate to it easily.

Content layout is exactly as per the Madhya Pradesh Board of Secondary Education (MPBSE) syllabus and as per the chapters and topics in the text books. Besides regular graphics and animations, the content is augmented with real time experiments, so that students can relate to the concept, visualize it and internalize easily.

The complete solution is tech-first, which means all functions are executed through a Smart App. All content is hosted on the AWS (Amazon Web Service) cloud and any additions can be done real-time, which is immediately reflected in all classrooms. Clickers technology was used in the classroom (just like "fastest-fingers-first" in game shows like "Kaun Banega Crorepati") to provide real-time evaluation to the students based on multiple choice questions wherein each student could see his/her response on the screen immediately and also compare it with the class response and match it with the correct answer. This created a lot of enthusiasm and excitement amongst the students.

Wi-fi enabled IP cameras provide live-feed of the classroom 24 X 7. Any classroom may be checked remotely at any time without the need for a physical visit. All content played in the classroom (videos, notes, multiple choice questions, short answer questions, long answer questions, test papers) automatically generates a coverage report on the App after every play. A cumulative report is auto-generated at the end of the day covering all 50 schools and is accessible to all school principals, teachers and nodal officers.

Attendance of students is keyed in through the App when any class starts and a cumulative summary created. Any school that skips smart classes or plays too little or too much in an allotted class gets automatically flagged.

Daily schedule is provided to each of the 50 schools based on the number of sections to ensure effective time utilization. The entire class is run on a 6x4 projector screen so that it is

clearly visible to all students. State-of-the-art Audio/ Video hardware is used in the setup to ensure best smart class experience. Experts were deployed round the year to ensure smooth functioning of all 50 Smart Schools. Free access to the Smart App was provided to the principals, teachers and students of the 50 Smart Schools to enable them to access the content at any time of the day. All the 50 Schools Principals and Teachers were associated in various stages of the selection process, to help create video lectures and augment the digital content for the next session.

The phenomenal impact was seen in the MPBSE Class X State Board results, 2020:-

a) The pass percentage of the District went up from 59.2% (in 2018-19) to 64.66% (in 2019-20).

b) The 50 Smart Schools were the major contributors to this upward swing as their pass percentage went up from 61.66% (in 2018-19) to 72.11% (in 2019-20), an upward swing of +10.45%.

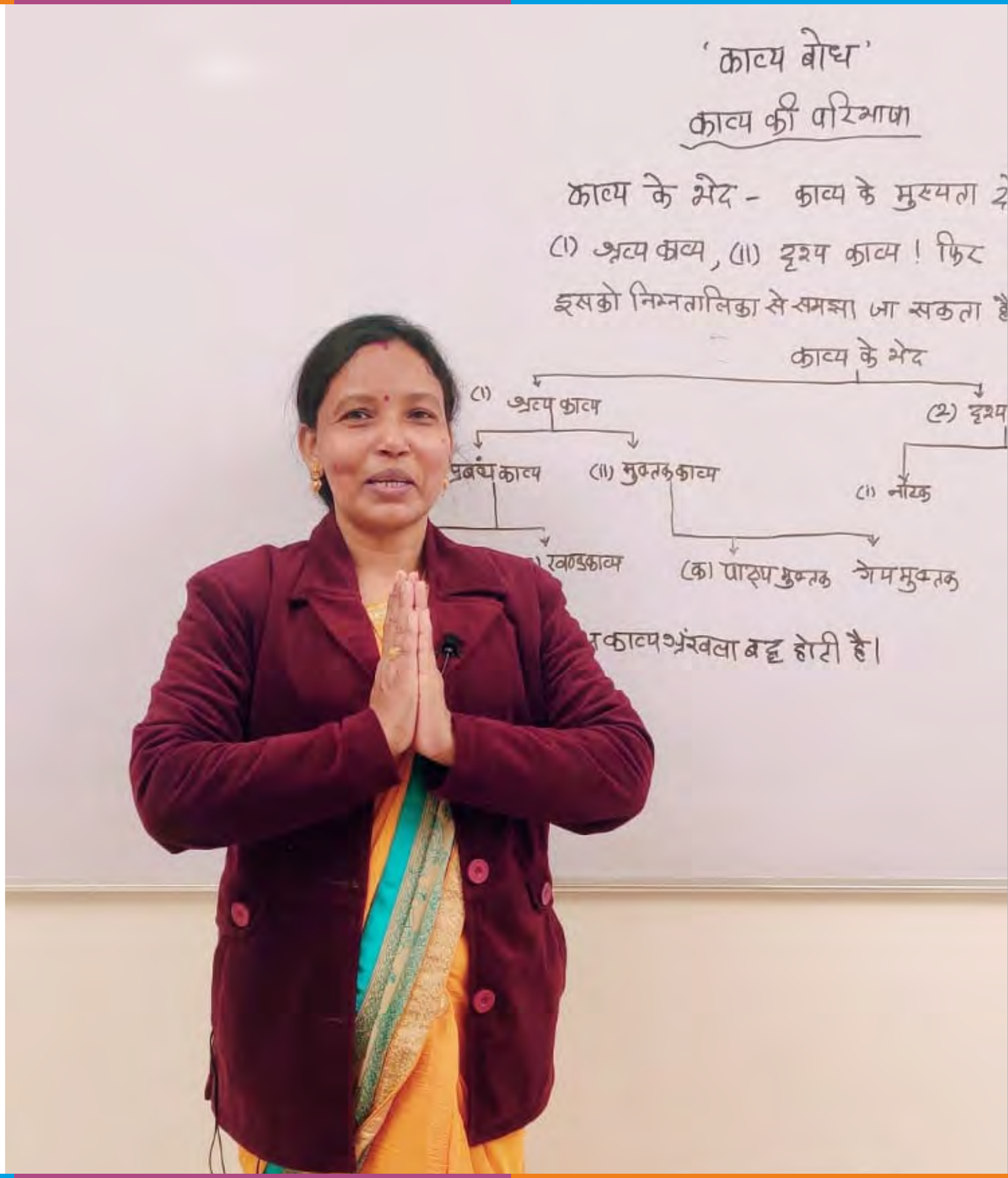
c) The 83 regular schools registered a marginal improvement from 59.27% (in 2018-19) to 61.70% (in 2019-20)

d) The gap between the 50 Smart Schools and the 83 regular schools stood out clearly: 72.11% versus 61.70%

e) More than 10 Smart Schools achieved an upward increment in pass percentage of 25% to 70.17%. One School registered a pass percentage increase from 19.19% in 2018-19 to 89.36% in 2019-20, an amazing 4.66 times.

All this was done in less than a half year since the program was initiated in September 2019. Anuppur Smart Class Initiative brought out the best of government school teachers, government schools and the students.

It is planned to scale up the initiative to all the schools in Anuppur. It is replicable across the entire state of Madhya Pradesh.



New Generation 108 EMS APP

NEW GENERATION 108 EMS APP. 108 Emergency Medical Service (EMS) was launched in August, 2007 in Gujarat and since then it has served more than one crore beneficiaries and saved lives of more than 10 Lakh Beneficiaries in critical situation.

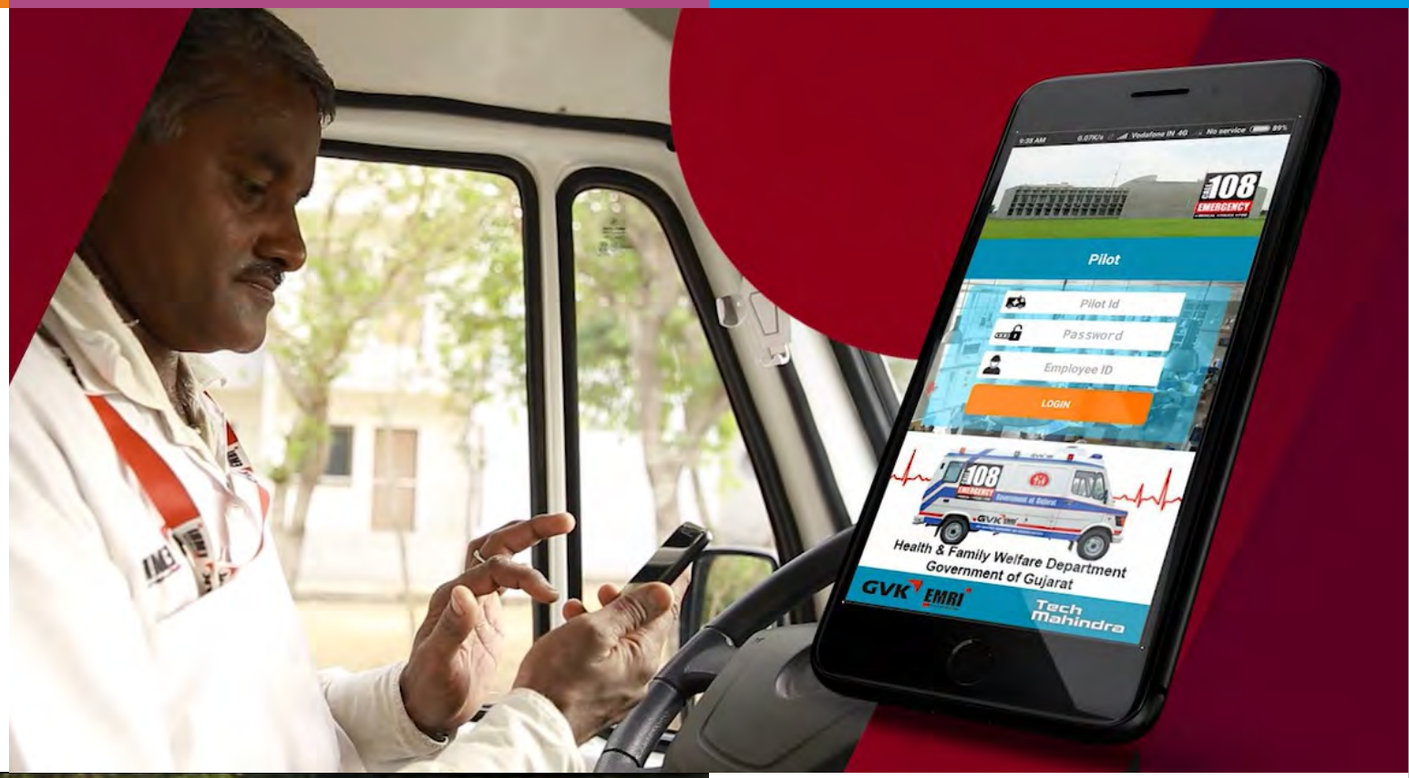
Earlier Emergency call received on 108 Emergency Response Centre (ERC) was assigned to ambulances by doing on call communication with field team, which was time taking. To assign an ambulance to a patient in distress, the emergency response officer had to call multiple ambulances to check their status. The ambulance crew had to call back the emergency response Centre after every case for closure as details were recorded in hard copy, called Patient Care Record (PCR).

The objective behind the 108 EMS App launched in Ahmedabad District was to bring efficiency in the system for faster emergency assignment with the use of technology. The new generation 108 Application helps emergency response centre to identify appropriate ambulances based on the location of the victim/patient for faster case assignment and real-time status of ambulances. The process of case closure by calling to emergency response centre was removed by introducing mobile application and real time case closure details updation by emergency medical team (EMT) and Pilot in the mobile application.

Ahmedabad district contributes to highest number of emergencies in Gujarat, which are increasing every year. With increase in emergencies and diversified area in the Ahmedabad city it was need of hour to bring the new innovation for catering to faster response and digital record of the cases.

The NG-108 App. is built to identify the nearby ambulances based on the latitude and longitude of the victim/patient. It automatically assign the case to the nearest free ambulance immediately. The application has several modules working in synchronized way with each other for faster case assignment and real time status of the ambulances.

ERC Module, checks real time status of the ambulances whether it is free, in the case, in the hospital or going back to base, another module is pilot module which work in sync with ERC module, hence as soon as status is updated by pilot in the pilot



App than the real time status gets updated in ERC module. EMT module includes the medical details of the patients and it is also filled realtime by EMT in the application, hence this helps for faster case assignment, removal of non-value added process of calling to ERC for case closure, sending of PCRs to head office at the end of the month and storage of PCRs.

Real-time, faster case assignment to the nearest available ambulance is the main benefit of this App. In NG 108, ERC is able to know the nearby ambulance and assign the case for faster response to emergencies. The application was developed and implemented on 3rd Feb, 2019 in phased manner.

Key Features of the Innovation

1. **Auto Assignment:** System automatic checks the nearest available ambulance and automatically assigns the case and provides expected time of arrival to the caller.
2. **Digital e-PCR Record:** Each ambulance has two crew staff i.e. Pilot and EMT and each crew has

been provided a separate mobile, Case record and trip details are recorded in the mobile application both by EMT and Pilot and hence digital information is available real time.

3. **Real Time Case Closure:** Every case is closed real-time in mobile application. Incase closure is pending, alert is sent to operational excellence desk, which remind the ambulance to do so.

4. **Immediate Transfer of case to Nearest Ambulance during Breakdown:** Incase ambulance breakdown during emergency the application has feature of SOS which provide alert to level-2 desk in ERC to assign case to nearest ambulance, hence easy case transfer to nearest ambulance during breakdown or any unforeseen circumstances.

5. **Pre-Arrival Intimation of Ambulance to Hospital:** Hospital module has been created wherein each hospital has been provided individual ID and Password. As soon as EMT enters details in application, assigned hospital gets the intimation of arrival of the patient with vitals and patient condition.

6. **Auto Release of Ambulance From Hospital After 10 Mins:** Once the Ambulance Crew triggers that they have reached hospital, system track the time for handover and takeover and releases the ambulance after 10 minutes for making it available to a new case.

7. **Monitoring through Operational Excellence Desk:** This desk monitors each movement of ambulance including delay in departure, change in the path or delay in reaching the scene of patient. It also handholds the field team in case of any difficulty.

The Application has helped bring the average handling time from 127 seconds to73 seconds and further to 45 seconds. Faster case assignment, reduction of departure time of ambulance and eradication of physical records are the main benefits of the Application. A saving of Rs. 17 Lakhs (approximately) in 10 months is estimated. Overall cycle time of an ambulance improved by 8 minutes each ambulance and hence the availability of ambulances has increased.

Water Conservation Initiative of Solapur District

As per National Agricultural Research Project (NARP) classification of agro climatic zones of country, Solapur (Maharashtra) falls in scarcity zone. The average rainfall in solapur is roughly 488 mm Out of 11 blocks 10 blocks are covered under drought prone area programme (DPAP).

The broader objective of the initiative was soil and water conservation to ensure sufficient availability of drinking water making Solapur free of water-scarcity. The Soil and water conservation work would achieve convergence of investments in irrigation. It involves Soil & Water conservation schemes while treating each village as one micro-watershed.

All concerned agencies at State, Taluka and Block level including Agriculture Department, Forest Department, Soil & Water Conservation Department, Zillah Parishad, Water Recourse Ministry, Ground Water Survey & Development Agency (GSDA) were involved to work in integrated manner. The District Collector chaired the initiative.

Scientific approach was adopted for watershed development. Top to bottom approach area treatment works such as compartment bunding, continuous contour trenches (CCT), deep CCT, desilting, nala deepening, repairing of existing structures were preferred over drainage line works such as cement nala band, earthen nala bandh. This preference to area treatment over drainage line treatment was maintained in 70:30 Ratio. Reuse of waste water from urban and rural area was also done. Attempts were made to recharge ground water by reducing runoff and evaporation.

The following actions were taken:-

a) **Use of Treatment potential map**- All Watershed works are planned according to treatment potential map. Each map contain micro watershed & mega watershed boundary, village boundary, survey number, contour, Afforestration area, river, lineament/ dyke. Area treatment & drainage line treatment area.

b) **Water Budgeting Based Planning** - Awareness was generated among rural community for water budgeting in their village, amount of water available through runoff, amount of water required to fulfil the demand of human & livestock population. Crop wise requirement of irrigation water.

c) **Third Party Evaluation & Geo Tagging –** Third party evaluation of all the work done under soil and water conservation was carried out by State Government appointed agencies. 100 percent geo tagging of all the soil & water conservation works done on MRSAC portal.

d) **Nala Deepening & widening** works were undertaken through public participation and CSR funds.

These activities created significant irrigation potential in 2019-20. Compartment bunding was done across 1,77,467 hectare area, continuous contour trenching in 10 hectare area and deep continuous contour trenching in 1849 hectare area. 1600 farm ponds were built. Drainage line treatment was done in cement nala bund, earthen nala bund. Repairing of cement nala bund, percolation tanks and desilting of nallas was done. 19 new barage were constructed and together these efforts bought 1,04,068 hectare area under irrigation @ 0.50 thousand cubic meter water/hectare.

In rural area of Solapur district, soak pits were constructed which could be built and repaired with locally available materials. It is a small land area, low capital cost, low operating cost solution, which helps in recharging of groundwater bodies, reduces mosquito breeding thus preventing vector borne diseases. The streets are also left clean. As a result, around 10,691 million liters of water that is used in rural areas for domestic needs is available for ground water recharge.

Solapur Municipal Corporation has established three sewage treatment plants, which can purify 10.25 crore litre of water per day and the treated water is supplied to the Industry.

During 1972 drought, under a large number of percolation tanks were constructed in solapur district employment guarantee scheme. Over the period these tanks were silted, damaged due to lack of maintenance. To ensure that the water percolates to the ground, it is essential to repair the percolation tank by putting black cotton soil in the cut off trench. 384 percolation tanks were repaired with government funds and desiltation was done by people's participation (mainly local villagers. 685 percolation tanks were repaired, 78 village tanks were repaired. The effective storage capacity restored from repaired structures is 10,512 TCM (thousand cubic metres).

42 Km stretch of river Kasal ganga Odha covering 3 Blocks , 23 villages was rejuvenated with funds received from Tata Trust. The Vitthal Ganga (Bend Odha) rejuvenation Project was funded by the State government and NAAM Foundation, Precision Foundation. The 34 Km covered one block and 13 villages.

As a result of the efforts of the District Administration, the ground water level increased in October, 2019 by 1.40 m compared to average ground water level in October of last five year. The increase in the area of irrigated crops such as Onion, Wheat; Fruit crops such as Pomegranate, Grapes, custard and apple was more than 1.10 Lakh Hectare over rainfed crops due to availability of protective irrigation. Availability of safe drinking water due to decentralized water conservation structures in rural area also increased. 1.7 Lakh new water harvesting structures created irrigation potential of 1.36 Lakh hectare. 13,374 hectare area was bought under drip irrigation with increase in water use efficiency. The organic matter rich silt lifted from water bodies was spread on barren land increasing the productivity.

BLEED WITH PRIDE

Women and girls make up half of India's population, but persistent gender disparities across health, education, nutrition and employment keep them in a chronically disadvantageous position. More than 70% of girls in India have no knowledge of menstruation before their menarche. In India roughly 12 % of menstruating women use sanitary napkins and remaining Indian women cannot afford pads and instead use unhygienic substances such as newspaper, sand, ash, leaves, mud or unsterilized clothes/rags, leading to serious health hazards. One of the biggest reasons of not using sanitary napkins is its prohibitive cost.

'Bleed with Pride' campaign has been formulated to reach out to the community and to talk about menstruation openly towards better understanding of it like any other natural body cycle. It is aimed at empowering women, young girls and community to stand together and fight taboos, stigma and discrimination. Through the free distribution of reusable menstruation kits the District Administration enables to make every girl who has reached puberty, bleed with pride safely and in a hygienically. The cause has been taken up as a ***Jan Andolan***, so that the community stands together to make the young girls stay motivated and inspired.

This cause has converges various key areas of human upliftment i.e. health, hygiene, nutrition, education and awareness, dispelling social/ cultural barriers, women upliftment, economic independence, state and national vision entwined with India's commitment towards United Nations Sustainable Development Goals. There have been a lot of impediments at the onset including non-availability of funds, adequate support and guidance mechanism. However, opportunities reveal themselves to every problem.

The approach transcended all sections of society as conceptualised. For such a campaign to bear fruit not only support and acceptability, but a willing desire to selflessly contribute to the cause must arise in one and all. A sound strategy with focus on identification, convergence, procurement, detailed menstrual hygiene management action plan for workshop sessions and exhaustive

distribution plan was formulated.

The campaign was converged, and launched with *Beti Bachao Beti Padho/ Poshaan Maah/ Eat Right Campaign/ Swatch Bharat Abhiyan/ Fit India Campaign/ Free Anemia Campaign/ Mid-Day Meals/ Mental Health for Adolescents etc.*

A deal was struck with Shashi Kiran Charitable Trust, Mooncatcher Project, USA and Global Shapers. Mapping of government schools was done which identified 5000 girl students studying in class 6 to 12 hailing from very humble background. Meaningful impact was ensured through interactive and detailed educative sessions at the schools. Menstrual hygiene

management workshops / distribution of sanitary pads was undertaken in 10 assembly constituencies of Imphal East reaching out to more than 10000 participants. The snow balling effect has trickled down 'Bleed with Pride' to the general masses through direct participants and mediums like Anganwadi Workers/Helpers by incorporating 'Bleed with Pride' objectives in their activities.

A total of 5000 kits (containing an underwear with adjustable strings with pad-holders and 3 reusable pads, per kit) were procured under CSR and distributed free of cost. Each reusable pad had a life span of 2 years. Most of the beneficiaries were from economically weakest sections of the society.

The reusable pads are very comfortable to the girls and as a result, attendance in government schools covered under this programme improved and dropout rate is likely to decrease. The foot print of this campaign on the hearts and minds of the young generation has been phenomenal. Few of such first-hand experiences are as follows:

- "We now know what freedom is. We actually do not have to be mentally under any pressure". ***– Freedom Attained***
- "Why can't I have one more kit, I have two other sisters at home" ***– Family Bonding Nourished***
- "Ma'am will you be coming again next month"***– Hope Kindled***
- "Ma'am my father and brother now allow me to have meals with them"***- Childhood Blessed***
- "Before this awareness programme I could not attend school properly due to lack of money to buy sanitary pad. This programme gave me courage to share my pain to my father and brother. It destroys my shy". ***- Character Building with Inner Resolve.***

Happiness, self esteem and confidence, participative and self-inclusion attitude, emotional quotient, will to compete with the male counterparts as equals, reduced incidence of abuse amongst poor school girls, reduced incidence of infections/health complications, dispelling taboos and myths are some of the valuable outcomes which lead to holistic growth and development of girls. 'Bleed with Pride' campaign has succeeded in catching the young girls and boys to be change agents.

The World Economic Forum has recognized 'Bleed with Pride' initiative in Imphal East as one of the impactful projects under 'Equity and Inclusion' in the Global Shapers Summit 2020. A common voice has risen- "It's okay to bleed. It's okay to be a girl. It's okay to be a Woman". Not only did it unite the female gender, it united the community.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ABBREVIATIONS USED IN THE BOOK

AePS	:	Aadhar enabled payment system
ABAS	:	Aadhaar based attendance system
AB-HWC	:	Ayushman Bharat-Health & Wellness Centres
ADIP	:	Assistance Scheme for Disabled Persons for Purchase of Aids /Appliances
ADT	:	Automated Driver License Test
AGs	:	Adolescent girls
AI	:	Artificial Intelligence
AMIS	:	Airport management information system
AMRUT	:	Atal Mission for Rejuvenation and Urban Transformation
APAR	:	Annual Performance Appraisal Report
APEDA	:	Agricultural and Processed Food Products Export Development Authority
API	:	Application programming interface
ARPs	:	Angikaar resource persons
ATF	:	Aviation Turbine Fuel
ATM	:	Automated teller machine
AWC	:	Anganwadi centre
AWHs	:	Angawadi helpers
AWS	:	Amazon Web Service
BADP	:	Border Area Development Programme
BEAMS	:	Budget Estimation and Allocation Management System
BIRAC	:	Biotechnology Industry Research Assistance Council
BoV	:	Battery-operated-vehicle
BSEB	:	Bihar School Examination Board
CCT	:	Continuous Contour Trenches
C-DAC	:	Centre for Development of Advanced Computing
CDPO	:	Child Development Project Officer
CEIIC	:	Clean Energy International Incubation Centre
CHO	:	Community Health Officers
CIP	:	Central Issue Prices
CMVR	:	Central Motor Vehicles Rules
CMWSSB	:	Chennai Metropolitan Water Supply & Sewerage Board
CPGRAMS	:	Central Public Grievance Redressal and Addressing Mechanism
CRPF	:	Central Reserve Police Force
CSC	:	Common Service Centers
CSR	:	Corporate Social Responsibility
DBT	:	Department of Biotechnology
DBT	:	Direct Benefit Transfer
DF&PD	:	Department of Food & Public Distribution
DICOM	:	Digital Imaging and Communications in Medicine
DONER	:	Development of North East Region
DoP	:	Department of Posts
DPAP	:	Drought Prone Area Programme
DST	:	Department of Science and Technology
e-EPFO	:	Electronic Employees' Provident Fund Organisation
EHR	:	Electronic Health Record
e-KYC	:	electronic- Know your Customer
EMS	:	Emergency Medical Service
EMT	:	Emergency Medical Team
EPFO	:	Employees' Provident Fund Organisation
EPIC	:	Electors Photo Identity Card
ePoS	:	electronic Point of Sale
EQMS	:	Electronic queue management system
ERC	:	Emergency Response Centre
ERSS	:	Emergency Response Support System
ERU	:	Emergency Response Unit
eTour	:	electronic Tour Management System
FAQ	:	Frequently asked questions
FIFO	:	first-in first-out
FOC	:	Fuse-off-Call
FPC	:	Farmer Producer Company
FPO	:	Farmers Producers Organization
FPS	:	Fair Price Shop
GATI	:	Governance with Accountability, Transparency and Innovation
GCMMF	:	Gujarat Cooperative Milk Marketing Federation
GDS	:	Gram Dak Sevak
GIS	:	Geographical information system
GSCSC	:	Gujarat State Civil Supply Corporation
GSDA	:	Ground Water Survey & Development Agency
HAMS	:	Harnessing Automobile for Safety
HCCP	:	Haryana Cashless Consolidation Portal
HCM	:	Hot-cooked-meals
HSC	:	Health Sub Centre
HSM	:	(hardware security module)
HUB	:	Haryana Unified Billing
HWCs	:	Health and Wellness Centres
ICDS	:	Integrated Child Development Scheme
ICT	:	Intra & Interpersonal Communication Tools
IDTR	:	Institute of Driver Training and Research
IHHL	:	Individual Household Latrine
IM-PDS	:	Integrated Management of Public Distribution System
IMS	:	Integrated management system
IPPB	:	India Post Payments Bank
ISMO	:	Information Security Management Office
IVR	:	Interactive Voice Response
JPP	:	Jeevan Praman Patra
KCC	:	Kisan Credit Card
KMS	:	Kharif marketing season

KMS	:	Knowledge Management System
KPI	:	Key performance indicators
KVK	:	Krishi Vikas Kendra
LAN	:	Local Area Network
LMS	:	Leave Management System
LMT	:	Lakh metric tone
LPG	:	Liquified Petroleum Gas
MC	:	Market committee
MCC	:	Micro composting centre
MEA	:	Ministry of External Affairs
MHA	:	Ministry of Home Affairs
MI	:	Mission Innovation
MLD	:	Millions of litre per day
MLHPs	:	Mid-Level Health Providers
MoCA	:	Ministry of Civil Aviation
MoHUA	:	Ministry of Housing and Urban Affairs
MoRTH	:	Ministry of Road Transport & Highways
MoU	:	Memorandum of Understanding
MPBSE	:	Madhya Pradesh Board of Secondary Education
MPMKVVCL	:	Madhya Pradesh Madhya Kshetra Vidyut Vitaran Company Limited
MPWs	:	Multi-Purpose Health Workers
MRF	:	Material recovery facilities
MRP	:	Maximum Retail Price
MRSAC	:	Maharashtra Remote Sensing Application Centre
MRTPS	:	Maharashtra Right to Public Services
MSW	:	Municipal solid waste
MTG	:	Multi task group
MWCD	:	Ministry of Women and Child Development
NARP	:	National Agricultural Research Project
NCAP	:	National Civil Aviation Policy
NDMA	:	National Disaster Management Agency
NFSA	:	National Food Security Act, 2013
NG-10	:	New Generation 108 Application
NHIDCL	:	National Highways and Infrastructure Development Corporation
NMCG	:	National Mission for Clean Ganga
NSS	:	National Support System
ODF	:	Open defecation free
OFSS	:	Online facilitation system for students
OMR	:	Optical mark recognition
ONORC	:	One Nation One Ration Card
P&LW	:	Pregnant and lactating women
PCR	:	Patient Care Record
PDD	:	Power Development Department
PDS	:	Public distribution system
PHC	:	Police Housing Corporation
PHC	:	Primary Health Centres
PMAY (U)	:	Pradhan Mantri Awas Yojana (Urban)
PMB	:	Punjab Mandi Board
PMIS	:	Project Management Information System
PMU	:	Project Management Unit
PO	:	Project Officer
PoCT	:	Point of Care Testing
PO-PSK	:	Post Office Passport Seva Kendras
PoS	:	Point of Sale
PPP	:	Public Private Partnership
PSAMB	:	Punjab State Agricultural Marketing Board
PSK	:	Passport Seva Kendras
PSP	:	Passport Seva Programme
PSTN	:	Public Switched Telephone Network
PuShTI	:	Poshan umbrella for supply chain through technology innovation
PVR	:	Police verification report
PWD	:	Public Works Department
RACFT	:	Regional Air Connectivity Fund Trust
RACP	:	Rajasthan agricultural competitiveness project
R-A-G	:	Red-Amber-Green
RCS	:	Regional Connectivity Scheme
RD&D	:	Research, Development and Design
RDA	:	Recommended Dietary Allowances
RDT	:	Rapid Diagnostic Test
RMS	:	Rabi marketing season
RPF	:	Railway Protection Force
RRR	:	Reduce, Reuse and Recycle
RTS	:	Real time system
SBAS	:	Selfie based attendance system
SBM	:	Swachh Bharat Mission
SCM	:	Supply chain management
SDG	:	Sustainable Development Goals
SMS	:	Short messaging services
SNP	:	Supplementary nutrition programme
SPARROW	:	Smart Performance Appraisal Report Recording Online Window
SPO	:	State Program Officer
SWM	:	Swachh ward mission
TCM	:	Thousand Cubic Metres
TCS	:	Tata Consultancy Services
TDS	:	Total dissolved solids
THR	:	Take home ration
TTRO	:	Tertiary treatment reverse osmosis
UDAN	:	Ude Desh ka Aam Nagrik
ULB	:	Urban local bodies
UMANG	:	Unified Mobile Application for New-age Governance
UPI	:	Unified Payments Interface
VGF	:	Viability Gap Funding
VSAT	:	Very Small Aperture Terminal
WCD	:	Women & Child Development
WSHG	:	Women self-help groups

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सत्यमेव जयते

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