Telangana State Forest Department
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Telangana State.

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Initiatives & Innovations

Experience from Telangana State Forest Department

Telangana State Forest Department

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(Head Of Forest Force)

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FOREWORD

The idea of publishing this book originated from a vision to share the experiences of the initiatives and innovations implemented in the state of Telangana that led to a paradigm shift in many systems and processes that existed in the erstwhile state. Moving forward from the teething troubles of bifurcation and then carving out 23 more districts to the existing 10 districts was a huge systemic challenge. Taking up the implementation of one of the largest greening programmes on the planet with small cadre strength of forest force was another challenge. This book narrates the initiatives and innovations that are being implemented in addressing these challenges and helping Telangana emerge as one of the top-performing states in the country.

All this was possible with the excellent team of PCCFs Sri P. Raghuveer,IFS, Sri, M. Prudhvi Raju,IFS, Smt. R. Sobha,IFS, and Addl. PCCFs Sri. Munindra,IFS, Sri. R.M. Dobriyal,IFS, Sri. Lokesh Jayaswal,IFS, Sri. Swargam Srinivas,IFS, and Sri. M.C. Pargaien,IFS at Aranya Bhavan, my retired colleagues Sri. M.R. Bhanja,IFS Sri. C.B. Malasi,IFS and Sri S.K. Gupta,IFS the competent field officers and the supporting staff at all levels. The team at Aranya Bhavan as an Apex Body has taken several decisions to put structures and systems in place and make processes work efficiently at the field level. Professional decision-making was not easy in a dynamic environment, but the fruitful discussions in the Apex body gave us the best possible solutions to address field-level challenges. The innovations and initiatives by the field functionaries were recognised and the experience shared by them at various fora has certainly added value.

I owe a special debt of gratitude to the Hon'ble Chief Minister, Sri. K. Chandrashekar Rao garu for having faith in our abilities and entrusting us with the biggest challenge of greening the state and declaring it as a flagship program. The enthusiasm of the Hon'ble Minister for Environment & Forest was a driving force. The contribution of Sri. K. Bhoopal Reddy,IFS (Retd), Spl. Secretary in CMO and Smt. Priyankaa Varghese, IFS as OSD in CMO was immensely useful for strong policy support. For the first time, a greening program has become a state endeavour rather than a departmental effort. The involvement of people from different walks of life for planting saplings during the rainy season in the state has turned this into a campaign.

I acknowledge the support extended by the Government of India lead by the Director General of Forests Sri. Siddantha Das, IFS as every endeavouris considered with the best possible outcome for forest development in the state.

The convergence with all departments and coordination with all the District Collectors for the greening mandate was made easy with the involvement of the Chief Secretary to the State Government. I am grateful to the encouragement given by Sri. S.K. Joshi,IAS, Chief Secretary and Sri. Rajiv Sharma ,IAS and Sri. S.P. Singh, IAS, the former Chief Secretaries. I am grateful to the encouragement and support extended by Sri. Ajay Mishra,IAS, Spl. Chief Secretary to Government, EFS&T Department, Telangana State.

The support extended by the NGOs, Civil Society Organizations, Employee Associations and Scientific Institutions in every endeavour of the department is highly appreciated.

The book has classified chapters on administrative transformation, wildlife management, Telangana ku Haritha Haram, forest lands reconciliation, urban forestry, streamlining FCA clearances, forest production and so on and so forth. I am sure the narration about the processes followed and the lessons learnt will certainly be useful for field officers as well as senior forest officers.

The way forward will certainly act as a baseline for the policy makers, administrators, NGOs and forest officers in planning for the future. This book provides insights to the future heads of the Forest Department as it captures every initiative and innovation implemented in the new state. It will help as a starting point and as a guide for modifying processes for efficiency and promoting best practices for the development of forests in the state.

My profound thanks to Dr. G. Chandrashekar Reddy,IFS, Addl. PCCF, Hyderabad and Dr. Tirupataiah,IFS (Retd), Consultant TSFD and his team comprising of Sri. M.V. Ramachandrudu, Ms. Manasi Bhallamudi and Mr. K. Hariharan for giving a structure and translating my thoughts to this book. Thanks to one and all, as I depart from serving Mother Nature in official capacity. I pray for the best in the times to come.

Prashant Kumar Jha 9/7/2019

(Prashant Kumar Jha)
Principal Chief Conservator of Forest
(Head of Forest Force)

Dt: 09.07.2019

AJAY MISRA I.A.S.
Special Chief Secretary to Government
(FAC)

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Message

It is not an easy task to continue on any mission mode approach beyond 3 years with the same enthusiasm and excitement. The initiatives and innovations encouraged in the department, under the leadership of Sri. P.K. Jha IFS PCCF (HoFF) for the implementation of "Telangana Ku Haritha Haram", the flagship program of the state government, have been successful in sustaining the enthusiasm for moving forward and facing much bigger challenges such as, giving technical guidance for raising a nursery in every village of the state and planting over 100 crore saplings per annum.

The systematic narration of the initiatives given in this publication is nothing but the real-time performance reflection of the department. This will help in thinking beyond, instead of reinventing the wheel, in every aspect of forest management in the state.

The contribution of the Apex Body comprising of all PCCFs and APCCFs and their supporting staff is highly appreciated for their initiatives in their respective fields. The hard work put in by the field officers is also commendable.

I heard of the footprints left by eminent forest officers while in the field for few locations in the state. This is a printed version of all the foresters' footprints in the state of Telangana. I appreciate the efforts made by the team in bringing out the details in this publication, which I am sure, will be valuable to one and all. Congratulations and best wishes.

(AJAY MISRA)

A. INDRAKARAN REDDY
MINISTER FOR FOREST & ENVIRONMENT,
SCIENCE & TECHNOLOGY, LAW & ENDOWMENTS
GOVERNMENT OF TELANGANA

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Hyderabad-500022.
Ph : +91 40 2345 0503, 2345 0708

Date : 09.07.2019

MESSAGE

I am extremely delighted to see this publication on the initiatives and innovations implemented in the state of Telangana. This is a path-breaking publication for moving forward in forest development by learning from past experiences. I am sure this will help in the decision-making at all levels for the development of forests in the state. Congratulations to Sri. P.K. Jha, I.F.S., PCCF (HoFF) and his team who contributed to this publication.

The department has taken up several programs in tune with the thoughts of the Hon'ble Chief Minister Sri. K. Chandrasekhar Rao garu who always inspires everyone to plant saplings by saying: "We may create enormous amount of wealth but it has no meaning if we don't have a better environment to live and therefore, we must all thrive to green the planet". The department has implemented one of the largest programmes for greening the planet with more than a billion saplings as part of the state-driven flagship program "Telangana Ku Haritha Haram" launched by the Hon'ble Chief Minister.

The state has also made a remarkable difference in wildlife management, especially with regard to water and fodder availability in lean seasons and reducing the man-animal conflicts. The multifunctional roles performed by the smaller remote field units of the forest administration have moved the field staff closer to the forests for professional management. The land reconciliation process has now been streamlined and the efforts made by the department in getting FCA clearances for some of the largest irrigation projects in a record time for growth and development of the new state have been highly appreciated by one and all.

With the processes for change, the lessons learnt and the way forward narrated in every chapter of this book, it will provide valuable insights for everyone. I am sure the efforts will motivate everyone to go the extra mile and take innovative steps for the development of forests in the state. My best wishes to everyone.

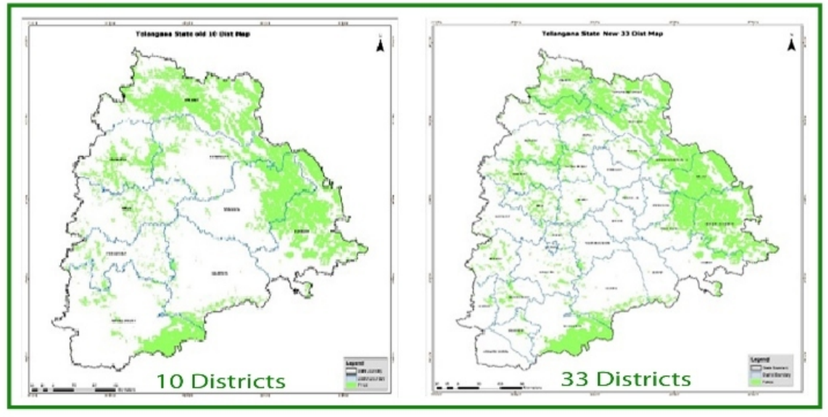
(ALLOLA INDRAKARAN REDDY)

Organizational Transformation

Organizational Transformation

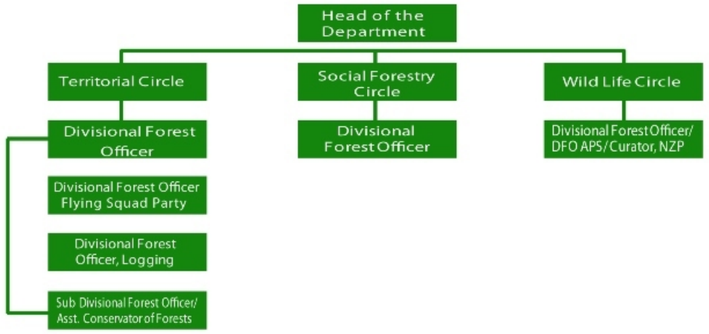
Context

A responsive administration which is ready for adapting to changes with the passing time is one of the important factors for success of any organisation. The bifurcation of the erstwhile state of Andhra Pradesh and the formation of the new state of Telangana with 10 districts gave a major opportunity for organizational transformation of the Forest Department. A second major change occurred when the Telangana Government carved out 31 districts, later expanded to 33, from the previous 10 districts. The purpose of organizational transformation is to take forest management at the District level closer to the people. However, the rider was that no additional staff would be sanctioned. Further, Telangana being a mostly drought-prone area, the State Government gave unprecedented importance to the agenda related to forests. Regeneration of forest lands and improving green cover in the total geography of the state have been integrated into the overall development strategy of the state. These major State-level structural changes posed challenges to the Forest Department at two levels: a) less strength due to bifurcation of the state and b) expansion of districts in Telangana meant further redistribution of meager human resources. Therefore, the "business as usual" approach was not an option.

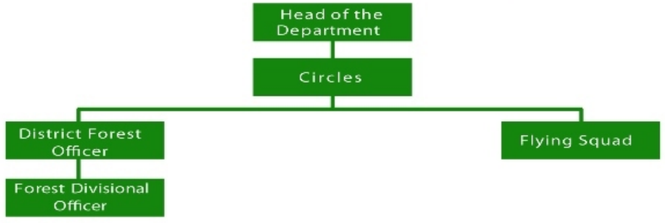


Generally, the complexity of state bifurcation and a non-responsive administration can spark chaos. It would take a newly-formed state a long time to settle down and get back to work. However, the Forest Department (Telangana) seized this opportunity to trigger the process of reforms and restructuring of the organization and quickly re-positioned itself into one of the highest-performing agencies in the country in a short span of five years. The focus of the leadership was on restructuring and reforms of the department to realize the goals of an aspiring young state.

STRUCTURE BEFORE REORGANIZATION



REORGANIZED STRUCTURE



I. Organizational Restructuring

Organizational transformation was carried out through three Rs (RRR) i.e. Restructuring, Reforms and Reviews.

I. Organizational Restructuring

The following objectives were kept in mind during organizational restructuring:

- To rationalize and optimize the deployment of staff in the context of new districts
- To have a strong presence at the District level in a coordinating role
- To improve the overall efficiency of the department through multifunctional roles

Government issued orders vide G.O.Rt.No.2238, General Administration (Special-B) Department, Dated:11-10-2016, for reorganisation and re-designation of IFS cadre posts; G.O.Rt.No.187, EFS&T (FOR.II)Department, Dated: 09-11-2016 for reorganization and re-designation of circles, District/Divisional forest offices, Ranges, Sections and Beats. Accordingly, a new organogram was issued vide PCCF (HoFF) ref.No. 14384/2016/Admn-2, Dated:21-10-2016.

1. Designing & facilitating change: The Consultation process

The change process had to be necessarily inclusive. The leadership of the Forest Department did not want to impose any new ideas on to the department staff. The leadership realized the need for consultative processes to re-articulate the organization's role, purpose and design/ structure to meet the challenges and aspirations of the new state – people and government. Elaborate discussions were held with various Service Associations in the department, including uniform staff, officials and ministerial staff, on the reorganization of department in view of the formation of additional (21) districts and a mandate to not create any additional posts during the district reorganization exercise was given. These consultations provided a higher-level sense of involvement, engagement and ownership to the staff of the Forest Department and also ensured that the changes are rooted in the new reality and accepted by the entire department.

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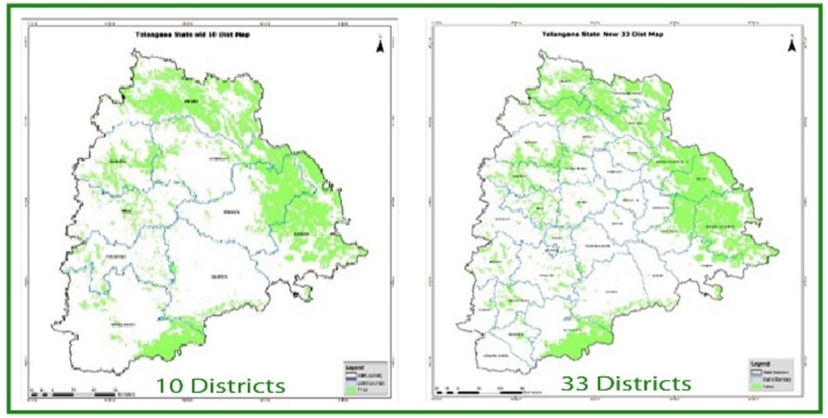

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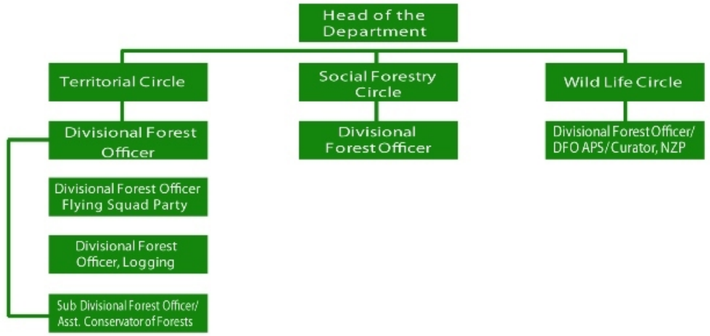

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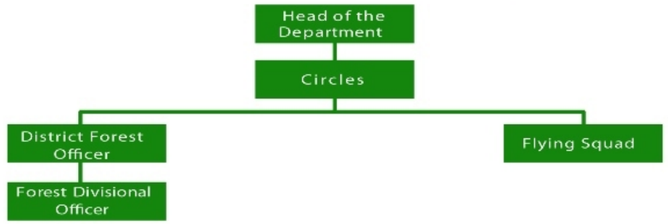

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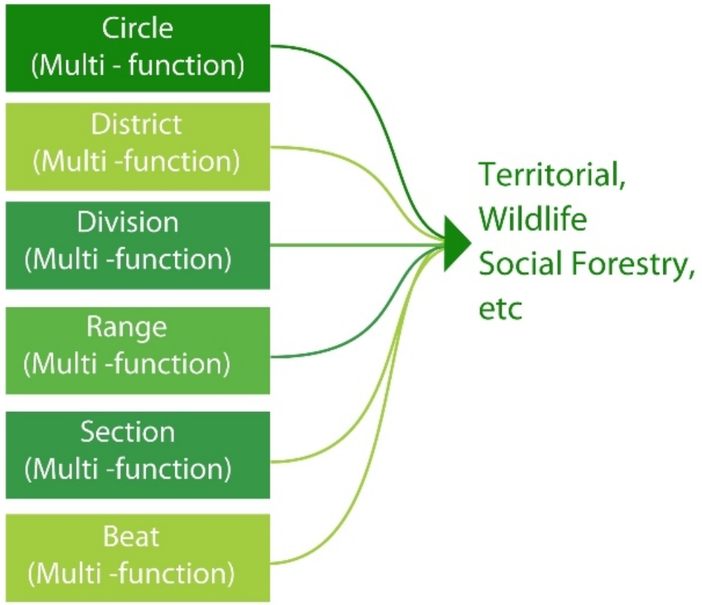
2. Multifunctional Roles

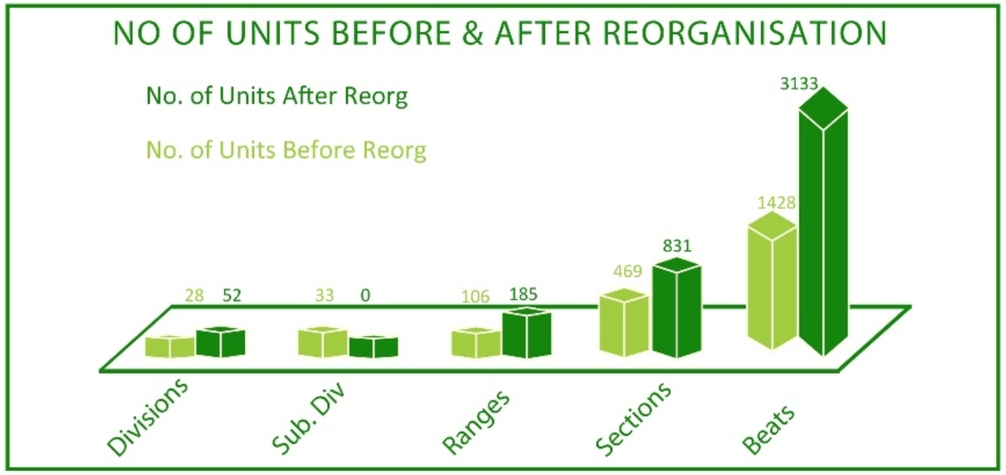
In the past, separate wings were created for Social Forestry, Wildlife, Logging, Research, etc. without the creation of required additional posts. The problem got compounded due to no recruitment in the department for many years. As a result, almost all the wings of the department, including territorial, were under-staffed with only about 50% of Forest Beat Officers to ACF/DCF cadre from all vacancies. There was a lot of "overlap" in jurisdiction, leading to wastage of time and effort of human resources. Smaller districts offered an opportunity to move towards "multi-functional" roles for the staff. Thus, all special wings were merged right from the Beat to Circle levels.

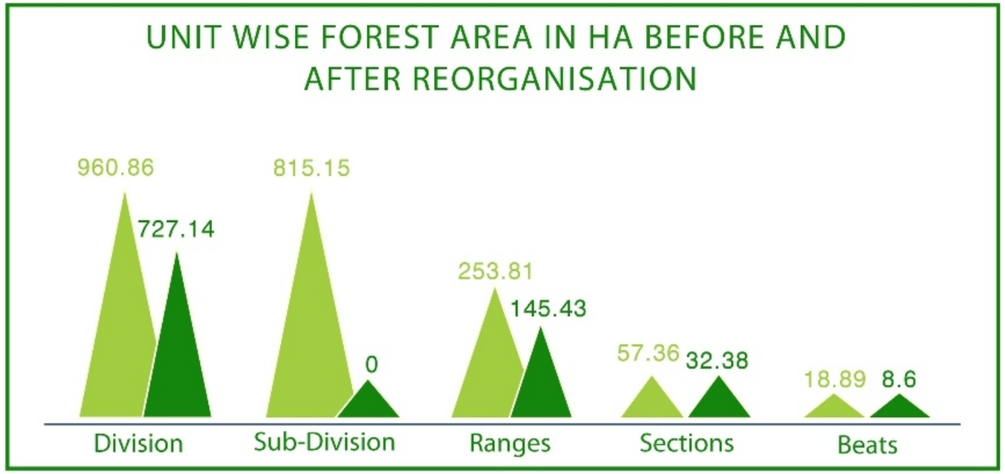
MULTI - FUNCTIONAL UNITS



In a multi-functional role, available personnel were deployed effectively. On account of such an exercise, each territorial unit starting from Beat up to Circle, became a multi-functional unit which will take care of all the functions of the department within its jurisdiction. Consequently, the size of territorial units from Beat level to Division level came down substantially as shown below:

Average size of different territorial units before and after re-structuring





3. Strengthening grassroots administration

Prior to the reorganization, each Beat was managed by a Forest Beat Officer (FBO) who was assisted by an Assistant Beat Officer (ABO). The ABO did not have any specific duties/responsibilities except for following the FBO. As part of reorganization, the post of ABO was discontinued and all such posts were upgraded to FBO. As a result, the number of FBOs increased substantially from 1428 to 3133, without creating any additional posts. The FBO is the backbone of the Forest Department and this restructuring helped in better forest management and protection with reduction in the Beat area from 18.89 sq. kms to just 8.60 sq. kms.

4. Concept of District Forest Officer

One of the major challenges faced by the forest departments across the country is the absence of any institution to represent it at the District level. This affected the process of coordination with the District Administration, other departments and public representatives adversely. The need for a District level institution was probably not felt historically, as the forest department was a regulatory department with an area of operation limited to the remote forest areas and very little or no direct public interaction.

With the introduction of Social Forestry in the mid-1980s to increase the green cover outside the forest and participation of forest department in watershed management programmes and different employment generation schemes like JRY, EAS, interaction and coordination with the District Administration and other development departments increased significantly. The Forest Department is now expected to be an active partner in the development functions. Further, the ever-increasing pressure on forest land and its produce means that greater initiative is required from the Forest Department to work with other departments like Revenue, Police etc. on a regular basis.

Based on the above factors, the government issued orders for the creation of the posts of District Forest Officers and Divisional Forest Officers vide G.O.Ms. No.30, EFS&T (For-I), Dated:29-08-2017 which were notified vide The Telangana Gazette No.250, Dated: 04-09-2017. In districts having more forest cover, district posts are manned by IFS officers. While in others, they are manned by state service officers.

5. Amending recruitment rules

On account of non-recruitment in direct recruitment quota since several years, there were large scale vacancies to the extent of about 50% in cadres starting from Forest Beat Officer to Asst. Conservator of Forests levels which adversely affected forest protection, wildlife management and forest development in the state. After the formation of Telangana, the State Government gave permission to recruit 2058 posts that were vacant since more than a decade. This included (67) Forest Range Officers, (90) Forest Section Officers and (1857) Forest Beat Officers. For the first time, recruitment of Forest Section Officers and Forest Beat Officers was entrusted, by amending the Rules (G.O.Ms.No. 25, EFS&T (For.II) Department, Dated:23-07-2018), to the Telangana State Public Service Commission to ensure a free and fair recruitment process. Newly recruited Forest Range Officers are undergoing training, while the Forest Section Officers are already working on the field. The result of Forest Beat Officers is expected to be declared soon.

II. Organizational Reforms:

While several old practices and traditions were built on the wisdom/ experiences of seniors, there were also issues/ practices that were not conducive for the efficient and effective functioning of the organization. As part of the transition process, it was important to address these critical issues so that an enabling organization culture is established in the department. The TS Forest Department identified such issues through various consultation meetings and started addressing them one by one. These are largely internal issues of the organization which needed attention in terms of new approaches/ solutions to old problems.

The objectives of these reforms were:

- To give a direction and purpose to the department staff
- To improve the working conditions of the staff
- To build confidence and trust among the staff on the transition process
- To build the capacities of the teams so that they move from general administration within the department to forest management (i.e. improve professional capabilities)
- To recognize contributions made

The process adopted to implement the reform agenda was as follows:

1. Clear purpose

The Department identified 15 deliverables aligned with its objectives, covering forests and wildlife management as priority items across all levels. This agenda gave clarity of purpose across all levels and everyone started working in unison. The deliverables as issued vide PCCF (HoFF) Rc.No. 388/2018/Admn-3, Dated:14-09-2018

i. Water source in every 4 sq. km grid in Protected Areas (PAs) and in 9 sq. km grid outside PAs
ii. Forest fire incidents to be reduced by 75% during 2019
iii. CA and un-notified forest blocks notification
iv. Entering forest lands in Revenue records and RF notification to be posted on TGFMIS
v. Booking cases and filing charge sheets in all encroachment cases
vi. 3 Mt. tall seedlings in 8X12 nags and 1 ½ Mt. in 5X9 bags
vii. Completion of urban forest blocks in each municipality wherever feasible by March 2019
viii. School children awareness programme – Vana Darshini
ix. Village level awareness meetings on smuggling, encroachment and poaching
x. Planting to be completed by June end
xi. Posting of TGFMIS
xii. 75% disposal of disciplinary cases by March 2019
xiii. Minimum one fodder plot in each beat
xiv. CPT and stabilization of bund by gacha kaya planting
xv. Achieving physical and financial targets under different schemes by the end of January of the financial year

2. Ensuring staff presence at headquarters

Forest department in erstwhile Andhra Pradesh suffered a lot due to left-wing extremist (LWE) problems in the past and forest officials were not permitted to stay at the headquarters located in interior forests. As a result, most of the field officers were operating from nearby towns or Divisional headquarters. The same trend continued even after the problem of LWE was almost eliminated in the state. The stay for field officers in their respective headquarters was made mandatory and payment of their monthly salary has been linked with furnishing a necessary certificate of staying in their respective headquarters and it is monitored on the department website. This has resulted in increased visibility of forest staff in their respective jurisdiction.

3. Rationalisation of promotional opportunities for Forest Section Officers

Promotion of Forest Section Officer to Dy. Range Officer cadre was not uniform on account of different ratios for promotion being followed in different Circles. This was rationalized and it was made uniform in all the Circles in the ratio of 1: 2.7 (G.O.Ms.No.154, Finance (HRM-I), Dept, Dated:14-09-2018). This policy enabled uniform promotion across the state, earned the goodwill among staff and reduced grievances.

4. Rationalization of Training Period:

It was felt that the one-year period of training for Forest Section Officers (for both direct recruits and promoted from FBOs) was quite long. After some deliberations and examining the recommendation of the Director Forest Education (DFE), the duration of training for Forest Section Officers (Direct Recruited) was reduced from one year to six months (G.O.Ms.No.35, EFS&T (For.II) Department, Dated:28-05-2019) and in case of promoted officers (who already underwent six months training as FBOs), it was reduced from one year to three months (G.O.Ms.No.76, EFS&T (For.IV) Department, Dated: 19-12-2016). This measure coupled with the revision of syllabus, helped in offering a focused training that is practically-oriented. This also ensured that field officers are back to their duties in less time.

5. Mobility to all

Effective forest and wildlife protection can be ensured only when the frontline staff are mobile. Realizing this, the department took steps to provide vehicles at all levels in a phased manner. This improved the mobility of field officers.

For F.D.Os

For Front Line Staff

For F.R.Os

6. Pension Policy

Timely settlement of pensioner benefits had been a major issue in the Forest Department. But now, proceedings for encashment of Earned Leave are issued on the date of retirement itself. This arrangement gave considerable financial support to retired employees.

III. Monitoring & Review

Intensive monitoring and constant reviews are essential to understand the status of progress. In this regard, the forest department put in place following mechanism:

1. Apex Body-steering the transformation

In the Office of the Prl. Chief Conservator of Forests (HoFF), senior officers in the rank of Prl. CCF / Addl. Prl. CCF deal with the subjects allocated to them and all subjects merge only at the Prl. CCF (HoFF) level. In this arrangement, which is being followed in other states also, the subject heads are only aware of the activities taken up in their respective field/subject and they are not aware of the developments happening in other wings of the Department. To address this limitation, an "Apex Body" was formed with Prl. CCF (HoFF) and all senior officers in Head office. The Apex body is a forum to discuss not only urgent matters but also major initiatives taken by various wings. Senior officers explain the initiatives being taken in their field and take advise from others. All important issues of the department are discussed threadbare in the Apex Body and inputs given help the Prl. CCF (HoFF) to take appropriate decisions. As all important issues are discussed and decided in the Apex Body, all members feel empowered and own the collective decisions. The Apex Body has helped in building a strong team in the Prl. CCF (HoFF) office as well as in keeping the senior officers well-informed about all the activities of the department.

Apex Body meeting chaired by PCCF (HoFF)

2. Reviews with Circle Officers

Circle officers are the Mentors to District and Divisional forest officers. They could play this role only when they have clear understanding of the initiatives of the department and are able to pass on the knowledge to officers under their jurisdiction. Towards this end, bi-monthly review meetings were held with Circle officers with specific agenda. These review meetings helped Circle officers to gain adequate insight in to the department initiatives for guiding their officers effectively.

3. Regular Video Conferences

Even though Circle Officers pass on instructions from the Head Office to field officers, it was necessary to interact with the field officers directly to find out whether they understood the department's activities in the first place and to also clarify doubts. Video conferences were held on a fortnightly basis (weekly during planting season) where FROs and sometimes even the FSO and FBOs participated. These video conferences are in addition to the monthly video conference held by the Chief Secretary in which all departments participate.

District officials Participating in V.C

Video Conference by PCCF (HoFF) along with Senior Officers

4. Workshops

Senior leadership felt that officers up to the cadre of Forest Divisional Officers are required to debate on issues of vital importance to the department and for this, they needed inputs from experts of national/international repute. Half-yearly conference/workshop of officers, were organized to brainstorm on emerging/priority issues. Guest speakers were invited to share their experiences with the officers. Many of the inputs received from guest speakers were taken up by the department and implemented in the field.

Chief Secritary Dr. S.K Joshi, IAS
Releasing Awareness Poster on Snakes

PCCF (HoFF) addresign officers

Enabling Conditions

- Strong political will for reforms and performance

As soon as the new state of Telangana was formed, the Hon'ble Chief Minister held a workshop for all members of legislature and identified priority areas of the government. Increasing the green cover of Telangana was identified as one of the priority areas. This was followed by the launch of Telangana Ku Haritha Haram, the third largest planting programme in the world. This initiative brought the Forest Department to the forefront. The leadership provided by the Hon'ble CM ensured that the programme was not only implemented by all departments of the government but also by people from all walks of life.

- Strong departmental leadership and teamwork

The Telangana Forest Department has arguably the best team of senior officers in the country. The clarity of thought and unified effort helped in the smooth transformation of the department. All Apex Body discussions are consolidated into circulars/guidelines/ instructions for staff to follow immediately.

Early Results

Though some of the expected outcomes may take a longer time to emerge, there are visible early results of the efforts made by the Forest Department in triggering a change process on organizational issues. They are as follows:

- Clear priorities (15 points) helped in focused work at all levels
- Frontline staff have acquired multi-disciplinary skills and have become more professional
- Visibility of the department at the field-level has increased
- Coordination with other agencies at District/sub-district level has improved
- Team spirit and sense of ownership on the process of transformation among the senior staff and other staff members has improved
- The department moved from a general administration mode to a professionalized way of managing forest resources

In the years to come, the impact of these initiatives could be monitored and documented.

Telangana ku
Haritha Haram

Telangana Ku
Haritha Haram (TKHH)

The term 'social forestry' was first used in the report of the National Commission on Agriculture (1976). Social forestry was advocated in all unused lands and fallows to take pressure off the existing forests. Over the years, social forestry encompassed branches like Farm forestry, Community forestry (rural forestry), Extension forestry (roads, railway lines, canals, etc) and Agro-forestry.

Hon'ble C M TS Planting in the presence of Hon'ble Union Minister Sri Prakash Javadekar

The Great Green Wall of China, built to check the spread of the Gobi Desert, is considered to be the world's largest planting programme spread over 4000 kms. This programme was launched in 1978 and is expected to be completed in 2050. In the Amazonian state of Para in Brazil, the world's largest forest restoration programme named "One Billion Trees in Amazon" was started during 2008-13. A campaign called "Vana Mahotsav" or festival of planting trees was in vogue since 1950. Many states in India also took up mass planting campaigns. In 2016, in Uttar Pradesh, 50 million trees were planted on a single day by 8.0 lakh volunteers. Similarly, in Madhya Pradesh, 15.0 lakh volunteers planted 66 million plants within 12 hours in 2017. However, these efforts are all one-time efforts and mostly located outside forest lands.

The Government of Telangana identified the need for increasing the forest cover in the very beginning of 2014. The Hon'ble Chief Minister, all Ministers and Members of Legislative Assembly/Council participated in a workshop where the idea for launching a massive campaign for greening Telangana was discussed. Then, Telangana Ku Haritha Haram (TKHH), a flagship programme of the government aimed at increasing the green cover from the present 24% to 33% in tune with the target set in the National Forest Policy, 1988 was launched on 3rd July 2015 by the Hon'ble Chief Minister of Telangana. TKHH aims at planting 230 crore (2300 million or 2.3 billion) plants.

About 1/3rd of the forest land in Telangana has moderately dense and very dense forests while the remaining area is in different stages of degradation. The Forest Department looked at this status as an opportunity to rejuvenate the degraded forests under TKHH. Unlike the above-mentioned initiatives where only planting is taken up, TKHH aims at rejuvenating degraded forests also while improving the green cover outside forest areas. Of the 230 crore seedlings planned to be planted, 120 crores will be planted in outside forest areas, both in rural and urban localities. 10 crore seedlings will be planted in the HMDA area and 100 crore seedlings will be planted in forest areas. Of the 100 crore seedlings, only 20 crores of them will be planted, while the remaining 80 crore seedlings will be raised through protection and rejuvenation of existing root stock in degraded forest areas.

Objectives

The following are the objectives were of TKHH:

- To increase green cover in Telangana from 24% to 33%
- To rejuvenate degraded forests
- To involve people from all walks of life on a campaign mode
- To increase visibility of forest activities

Initiatives

Rejuvenation of degraded forest lands

Before introducing any intervention, the factors responsible for the degradation of forests were identified. Unregulated grazing, forest fires and other biotic pressures were identified as major causes. The activities taken up on the basis of this analysis are as follows:

CPT

1. Protection from biotic pressure

(i) Cattle proof trench

The major factor responsible for forest degradation is the biotic pressure from cattle grazing inside the forests that is much beyond the carrying capacity. One way of preventing unregulated entry of cattle into the forests is to "cattle proof" the forest areas. The forest boundaries falling under each Beat were surveyed by handheld GPS and the boundaries suitable for digging deep trenches were identified along with those stretches where trenches are neither feasible nor required. Priority was given to forest boundaries adjoining agricultural fields and private lands. The total extent of forest boundary in the state extends to 40,000 kms, out of which 26,000 kms is found to be suitable for digging trenches. Deep Cattle Proof Trench (CPT) of 2 mt depth with 2 mt top width and 1.5 mt bottom width were dug along the forest boundary. Septa were provided at an interval of 50 mt and at a depth of 1.0 mt. So far, an extent of 8,287 kms of forest boundary has been covered with trenches and gacha kaya planting. The entire work is proposed to be completed by 2019-20 and provide full protection to the entire forest area in the state.

CPT with Water

(ii) Live fence on trench mounds

However deep and wide the trenches may be, they will silt up and become ineffective after a while. So, in order to provide permanent and effective protection, gacha kaya (caesalpinia bonduc) seedlings, which are thorny bushy plants, are planted on the dug-up earth/trench mound in three rows at an espacement of 2 mt X 2 mt, in a staggered manner. Within one and a half year, the seedlings grow into thick, thorny bushes that do not allow any domestic animal into the forest. This vegetative fencing also prevents wildlife from venturing out of the forests, thus reducing man-animal conflict.

Gacha kaya on CPT mound

2. Drawing fire lines

Another major reason for the degradation of forests is the incidence of repeated forest fires that occur during the summer months every year. To protect the forests from these fires, the areas which are susceptible have been identified. Fire lines have been drawn as a prevention measure in the identified vulnerable areas during November and December. Within the 5 mt width of the fire line, grass and bushes were cut, heaped in the middle and control burnt without causing any damage to the trees which fall within the fire lines. Additionally, during the forest fire season starting from February to April, teams were formed to put off any fire reported and sufficient number of fire blowers and other equipment (rakes, gloves, shoe, specs etc.) were provided to the field staff for effective fire control, especially in the teak-bearing forests. During 2018-19, out of the total 6875 km, 1052 kms of new fire lines have been drawn in addition to the maintenance of fire lines over a length of 5823 km.

Fire Line

3. Assisted Natural Regeneration

(i) Identification of degraded forests for rejuvenation

For the rejuvenation of degraded forests, Assisted Natural Regeneration (ANR) method was adopted on a "plot" basis in degraded forests of about 50-500 ha in united Andhra Pradesh. While the results were good, somehow these efforts were not taken up on a large scale. The Telangana Forest Department saw an opportunity to upscale ANR under TKHH for the rejuvenation of degraded forests which needed management badly.

Due to the hacking of saplings and pole crop, especially by cattle and sheep grazers, coupled with the spread of weeds and other biotic pressures, the existing root stock in the forests could not develop into a mature crop. To address this problem, singling and coppicing was done. However, singling and coppicing was not possible in degraded forests in terms of cost and also because of the lack of sufficient root stock. While the degraded open forests with a density of (0.1 to 0.4) may respond well to singling and coppicing operations due to sufficient root stock, it was concluded that the degraded scrub forests with less than (0.1) density will not respond well to these methods. Hence, it was decided that artificial regeneration techniques would be used in the latter.

Degraded Forest

(ii) Root stock assessment and cultural operations

To assess the existence of root stock, degraded forests in each forest block with a density ranging between (0.1 to 0.4) were identified Beat-wise and random sampling was done with a sample plot size of 0.05 ha and sampling intensity of 0.1%. Accordingly, 9767 of the sample plots were identified. In each plot of 0.05 ha, saplings above 3 cmt diameter and trees of above 30 cmt girth were enumerated to assess the root stock. To assess regeneration status, 3 mt x 3mt plots were identified within the sample plot and seedlings up to 50 cm height were enumerated. After the completion of enumeration, degraded forests with not less than 600 no. of root stock per Ha were identified preferably in the miscellaneous forests with young crop. In the selected areas, singling and coppicing was supplemented by removal of invasive weed, climbers and other cultural operations.

After Cultural Operations

4. Soil and Moisture conservation measures

As degraded forests had been subjected to continuous biotic pressures, frequent fires etc., the soil became compact and susceptible to erosion. Soil and Moisture Conservation (SMC) measures were taken in such soils with the available department funds. In addition, funds under Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS) are also being utilized in a big way with the cooperation of District Collectors. Staggered trenches are dug manually under MGNREGS, thereby providing employment to the local people during dry summers (non-agriculture lean period). This has proved to be very effective in conserving soil and moisture.

Staggered trenches

STATUS OF REJUVENATION OF DEGRADED FORESTS IS AS FOLLOWS:

S. No.	District	Area Ha	No. of estimated plants (height in mts)			
			0.5 to 1.5	1.5 to 3	3 to 5	Total
1	Adilabad	16295	7811597	7695530	2429031	17936158
2	Kothagudem	51241	22002518	22955591	9285791	54243900
3	Bhupalpally	36492	14653778	15156035	5596115	35405928
4	Kamareddy	9978	4731318	6183036	1966622	12880976
5	Khammam	15099	1918690	5008605	1519802	8447097
6	Asifabad	8965	3663098	3251386	1040536	7955020
7	Mahabubabad	7165	5462253	4035385	1102178	10599816
8	Mahabubnagar	14025	2545294	4371222	1333575	8250091
9	Mancherial	22527	12994591	9989891	3522261	26506743
10	Medak	10450	2232797	5680247	3358118	11271162
11	Nalgonda	16019	577867	2047500	646785	3272152
12	Nirmal	10494	11081879	3373626	1275081	15730586
13	Nizamabad	17192	7150783	9134373	3257438	19542594
14	Peddapally	7641	2299651	4512637	1333256	8145544
15	Rangareddy	2748	257922	210953	105451	574326
16	Sangareddy	4914	795367	1552764	312873	2661004
17	Sircilla	9709	7102857	4777630	2246650	14127137
18	Vikarabad	1333	193221	301565	86639	581425
19	Warangal (R)	851	154502	455581	271085	881168
20	Yadadri	1576	103586	383672	213655	700913
	GRAND TOTAL	**264714**	**107733569**	**111077229**	**40902942**	**259713740**

Artificial regeneration

(i) Identification of areas

As far as artificial regeneration in the forests is concerned, plantation is being done on areas that were retrieved from encroachment, as a measure of preventing encroachments a second time, on top priority. Old seed origin Eucalyptus plantations with poor stocking are being replaced with miscellaneous forests in the next stage. To increase the diversity in the plantations, about 107 species of native origin are being raised in nurseries besides 37 wild fruit-bearing plant species aimed at providing fruits in the forests to tackle monkey menace.

Old Eucalyptus plantations

(ii) Critical watering

Early planting is essential for the successful establishment and growth of the seedlings planted. Previously, planting used to start in July and would continue till either mid- or end of August. It has been observed that during monsoon, rain comes in spells. The first spell of rains is always followed by a dry spell ranging between 7-20 days. If the planting is not completed in the first spell of rains, the process of planting has to be stalled till the second spell. There is a lot of difference in the establishment, survival and growth of seedlings planted during the first spell of rain and the seedlings planted during the subsequent spells of rain. It is thus desirable to complete the planting during the first spell of rain and take full advantage of the monsoon. But it may not always be possible to complete planting in all locations during the first spell which normally stays for a short period of 7-10 days.

Critical watering

AR Komatibanda -Before

To overcome this operational challenge, the concept of "critical watering" has been introduced. Once the planting starts, it has to continue without any stoppage. If there is a dry spell for more than 2 days, critical watering is done at the time of planting and if the dry spell extends beyond 7 days, two waterings are given with the permission of the District Forest Officer and Conservator of Forests, respectively. With the introduction of critical watering, the entire planting operation is completed, latest by the first week of July, thereby taking full advantage of the rains received during the second and subsequent spells.

AR Komatibanda -After

(iii) Weed control

Due to the opening of soil in semi-mechanical plantations, there is a spread of weeds which are difficult to control. To address this problem, hamata seeds and other locally collected grass seeds are being sown in the inter-planting spaces. This is also increasing soil nutrition and arresting soil erosion.

(iv) Haritha Vanalu

In order to mobilize manpower and resources available with other departments, especially PR&RD Department, the Haritha Vanalu concept was conceived. In this initiative, forest areas adjoining villages were identified and the Gram Panchayats are permitted to take up plantations using MGNREGS.

II. Planting activities outside forest areas

1. Campaign mode

In addition to the rejuvenation of degraded forests, TKHH also includes massive plantations outside the forests to increase greenery. For taking up such massive plantations of 130.00 crore seedlings, everyone at an individual and institution level are involved.

During planting season of July-August, the entire state machinery is involved in planting seedlings at all available locations like colony roads, village roads, village commons, government institutions, educational institutions, government wetlands, panchayat raj lands etc. In addition, free seedlings are supplied to the people for raising homestead plants. Similarly, farmers are given free seedlings to raise plants of their choice in their agricultural fields. Marginal farmers and landless people are also given financial support to raise and maintain plantations for 2 years under NREGS.

Hamata

Hon'ble Ministers Agriculture & Forest during seed ball Campaign

2. Nurseries

Each village has been given a target of raising and planting 40,000 seedlings every year and each Assembly constituency has been given a target of 40 lakh seedlings. A total of 45.00 crore seedlings have been raised annually to take up plantation to the extent of 40.00 crores and remaining for casualty replacement. From 2019, the target for raising seedlings has been raised to 100.00 crore from the earlier 40.00 crore. Each gram panchayat is raising a nursery by utilizing funds under NREGS. Till now, 11, 944 nurseries have been developed to raise 100.00 crore seedlings in the state.

Nursery

3. Planning & implementation from Gram Panchyat level up

At the village level, Haritha Rakshan Committees have been constituted under the Chairmanship of the Sarpanch. The Committees identify all the suitable locations in the village for plantation and accordingly decide the number and variety of seedlings required. The requirement of seedlings along with the proposed plantation locations are collected from each Gram Panchayat and Urban body for compilation at the District level. Then, the District Action Plan under Haritha Haram is prepared under the Chairmanship of the District Collector with the involvement of all District-level departments. After this, department-wise targets are given at the District level for raising nurseries and plantations. Gram Panchayats have also been mandated to raise seedlings and plantations as per the new Panchayati Raj Act, 2018. The Forest Department has taken up the massive exercise of training four people from each Panchayat in raising seedlings during 2018-19. The Panchayat Secretary is personally made responsible to ensure 85% of survival.

G P Nursery

4. Monitoring mechanism

To coordinate such a mammoth exercise, a monitoring mechanism has been developed. At the State level, a Committee is constituted under the Chairmanship of the Chief Secretary to Government for reviewing Haritha Haram with all departments and other institutions/organizations. A similar Committee is formed at the District level under the Chairmanship of the District Collector and District Forest Officer as member-secretary to coordinate and monitor all TKHH activities in the district. To monitor the progress and to sort out any interdepartmental issues, the Chief Secretary to Government conducts a weekly video conference on Haritha Haram on every Tuesday with the District Collectors and other District-level officers. While the Forest Department is the nodal agency at both State and District levels, the District Collectors are the implementors. The Forest Department also gives technical support under TKHH to all departments in addition to its own activities. As accountability for the seedlings planted is a major concern under any plantation drive, all planting sites except homestead plantations, are being geo-referenced and uploaded on the Forest Department website for the purpose of open access and to bring transparency and reliability in the programme. The entire TKHH programme is monitored on the website and all department functionaries up to the mandal (block) level have been given access and technical support to upload all plantations including geo-referencing on the department website.

Chief Secretary Dr. S. K.Joshi, IAS taking VC

5. Avenue Plantations

As avenue plantations are the most visible and feasible component of TKHH, emphasis is laid on raising them successfully. A new technique has been developed to raise avenue plantations wherein the plantation process starts in the month of February instead of the earlier practice of starting in September. Previously, the protection of avenue plantations was a major challenge. But with the introduction of plastic tree guards, this issue has been solved to a great extent. So far, 7409 kms of avenue plantations have been raised under the programme.

6. Nursery-level innovations

For raising successful plantations, nursery-level innovations become important. Gusseted bags have been introduced in all nurseries and seedlings are being raised initially in root trainers, and are being shifted to polybags. To boost the growth of seedlings, cow dung slurry and jeevaamrutham (biomix) is being applied.

7. Sandalwood plantations

The Forest Department and Horticulture Department have started raising seedlings of sandalwood as the dry agroclimatic conditions in Telangana are favourable for its growth. For 2018-19, 20.00 lakh seedlings are being given to farmers, free of cost. Till now, no state in the country has taken up such an exercise on such a massive scale.

Sandal wood nursery

8. Improving nutrition through fruit trees

Another step taken by the department to motivate farmers for taking up plantation is the procurement of about 40.00 lakh grafted horticulture plants from the Horticulture Department and distributing them free of cost, especially to small and marginal farmers to increase their nutritional intake and greenery.

9. Tissue culture bamboo

About 4.3 lakh tissue cultured bamboo clone seedlings of high yielding varieties such as Bambusa balcooa, Bambusa tulda, Dendrocalamus asper etc. have been procured from Rewa Flora Culture from MP. In coordination with the Horticulture Department, these seedlings will be supplied free of cost to the farmers who have drip irrigation facilities. This is being done as bamboo is considered the poor man's timber that is good for plantations on agricultural land.

Tissue culture bamboo

10. Capturing the imagination of young minds

Special emphasis is being put on creating awareness among children about the importance of nature and environment, particularly through TKHH. For this, school children are being encouraged to plant seedlings in their school premises as well as in their homes. Under Swacha Pathshala- Haritha Pathshala campaign of 2018-19, 39.00 lakh school students participated and planted 68 lakh seedlings.

It has been observed that urban children mostly studying in private schools are taken on excursions to forest areas. But children studying in government schools that adjoin forests areas do not have an opportunity of visiting these forests. For addressing this disadvantage, the Forest Department arranged the Vana Darshini programme under which school children, especially those studying in class IX and X in government schools are being taken to the forests for a day long excursion that includes nature study, showcasing the activities of the department and trekking. The entire cost of transport and refreshments is borne by the department. During the day-long programme, the students are told about the importance of forests and wildlife, and also about the management practices followed by the Forest Department for improving and protecting forests. During 2018-19, a total of 774 rural high schools have been covered and 50,393 students have participated, including 25,364 girl students.

Hon'ble Dy. CM Sri. Kadiam Srihari, reviewing Haritha Patashala Campaign

11. Green Brigade

To encourage the participation of people in Haritha Haram, anybody can register themselves as a green brigadier on the Forest Department website, both at the individual and institution levels. Till now, 30,900 teams have been formed with 4,82,508 members; out of which about 50% are women.

12. Haritha Mithra Awards

To motivate and recognize the efforts of successful implementation of TKHH, Haritha Mithra awards are being given annually, at both individual and institution levels. This has the categories of best village, best mandal, best district, best public representative, best forest, best institution etc. A budgetary support of 15.00 crore is provided to give awards on every Independence Day, both at the State level and District level.

State Haritha Mitra Award

13. Haritha Haram at Rashtrapati Nilayam

The Hon'ble President of India comes to Hyderabad every year and stays in the Rashtrapati Nilayam at Bollaram, Secunderabad. The Rashtrapati Nilayam is spread over 75 acres and is managed by the Horticulture wing of Rashtrapati Office, New Delhi. The Hon'ble President of India, during his visit to Hyderabad in June, 2018 was impressed with the mass-scale greenery programme undertaken by the Telangana Government under TKHH in the entire State. He requested the State Government to extend the Haritha Haram programme to improve the greenery in the Rashtrapati Nilayam with the help of the Forest Department. After the interaction of the Hon'ble President of India with senior forest officials, the department prepared an Action Plan at a cost of Rs.1.7 crore and submitted the same for approval to the President's Office in New Delhi. The Hon'ble President of India was kind enough to approve the project and funds were released to the State Forest Department.

Rashtrapati Nilayam

The Forest Department has developed the greenery in the Rashtrapati Nilayam through theme-based plantations of native species, built a rock garden etc., in a short time frame of 4 months. The Hon'ble President of India, during his visit in December, 2018, inaugurated the park and highly appreciated the work done by the department.

CAMPA:
Bringing in transparency
and efficiency

CAMPA:
Bringing in Transparency and Efficiency

Context

Post Forest (Conservation) Act 1980, the diversion of forest lands for non-forestry purposes was permitted only with certain conditions that included providing land for land and also meeting the cost of raising plantations in the identified non-forest land. Such a fund was deposited with States by User Agencies. However, the Supreme Court of India in 2002 observed that such funds were under-utilized and hence, the National Compensatory Afforestation Fund Management and Planning Authority (CAMPA) was set up. In 2009, States also followed suit and set up State-level CAMPAs.

The Controller and Auditor General (CAG) of India in 2013 observed that even with this mechanism, funds were under-utilized and it was then decided to bring the fund under Public Accounts of India to ensure more transparency and accountability. From the year 2019-20, under the new Act and Rules of CAMPA, States will receive 90% of all money deposited by them with the Centre and the Centre would retain 10%.

Objectives

The activities taken up under CAMPA address the following objectives:

- To prepare the Annual Plan of Operations (APO) in an inclusive and innovative way
- To achieve complete utilization and complete claim of funds
- To ensure quality through third-party evaluation
- To bring in transparency and accountability in expenditure through FAMIS
- To adopt innovative ways to protect Compensatory Afforestation lands

APO Conference

Initiatives

1. Preparation of Annual Plan of Operations

Annual Plan of Operations (APO) under CAMPA is prepared in a consultative process where field officers are involved and components to be included in the APO are discussed threadbare. A "Project mode approach" aimed at saturation of an area has been adopted for planning.

In addition to CA Plantations, the Department is taking up works on a massive scale for rejuvenation of degraded forest lands under NPV component of CAMPA. Named as Assisted Natural Regeneration (ANR), it was taken up in areas with the density of 0.1-0.4. Activities include boundary protection, fire protection, cultural operations, soil and moisture conservation, biodiversity conservation, urban parks and other activities. Priority areas were identified for artificial regeneration where the density is only between 0.0-0.1 with either Labour Intensive (LI) or Semi-Mechanical Method (SMM) of plantation.

2.. Complete utilization and claim of funds

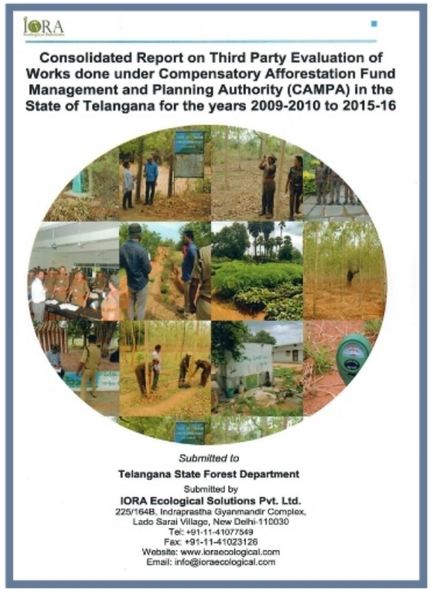
In erstwhile Andhra Pradesh, an amount of Rs.246.55 crore was received between 2009-10 to 2013-14 with an average annual amount of about Rs.49 crore. After the formation of Telangana State, from 2014-15 to 2018-19, a total amount of Rs.645 crore was received with an average annual amount of about Rs. 129 crore i.e. more than double the amount received in the undivided state. Telangana is ranked among the top in utilization of CAMPA funds with 99.82 % during 2016-17, 111 % during 2017-18 and more than 90% in 2018-19, in spite of the time lost due to a series of elections. Such improved receipts were possible due to the achievement of nearly a full utilization of funds and rendering UCs in time. Taking into account this impressive performance, the APO for 2019-20 has been approved for an amount of Rs. 500 crores, nearly doubling the allocations.

S. No.	Year	Expenditure	Remarks
1	2009-10	818.342	
2	2010-11	4762.982	
3	2011-12	7822.855	
4	2012-13	5089.214	
5	2013-14	6718.584	
6	2014-15	7790.932	
7	2015-16	7305.809	
8	2016-17	11029.588	
9	2017-18	13760.482	
10	2018-19	21319.429	
11	2019-20	50000.000	Approved APO

3. Third-party evaluation

The TS Forest Department is one of the first departments in the country to complete "Third Party Evaluation" of CAMPA works for the period 2009-10 to 2015-16 through an independent agency (IORA Ecological Solutions Pvt. Ltd.) and become eligible to obtain full funding from MoEF & CC.

The Indian Institute of Forest Management (IIFM) Developed Module was followed for the third-party evaluation initiative. A two-stage random sampling strategy was adopted for evaluation of CAMPA works. In the first stage, 10% of works in each year were randomly selected. The basis for selecting 10% for plantation activities was the National Evaluation Manual for CAMPA. In the second stage, random plots of 0.1 ha size were laid in the selected plantations for field verification as per National Working Plan Code (NWPC), 2014. For other activities, works carried out were randomly sampled and 10% of the activities were selected every year for evaluation. Third Party Evaluation of plantations is quite common but the initiative to get all items/components verified is unique to Telangana.


IORA

Consolidated Report on Third Party Evaluation of Works done under Compensatory Afforestation Fund Management and Planning Authority (CAMPA) in the State of Telangana for the years 2009-2010 to 2015-16

Submitted to

Telangana State Forest Department

Submitted by

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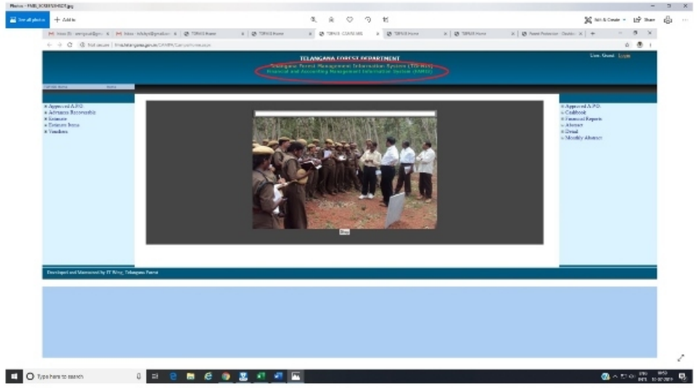
4. FAMIS module

To bring transparency, accountability and financial discipline, as per FA-IX, online accounting has been introduced under CAMPA through Financial and Accounting Management Information System (FAMIS) Module. Under this, the achievement of financial targets was closely monitored and this application enabled the Fund Management Authority to take timely decisions on the release of funds.



5. Protection of non-forest lands

Protection of non-forest land given in lieu of forest land under FCA, 1980 is a major challenge since some of the areas given are isolated and surrounded by private lands, while a few are adjoining to the forest land. Divisional Forest Officers concerned used to prescribe different protection measures like trench, barbed wire, chain link fence etc, under CA plantations while preparing the Compensatory Scheme under FCA. But there was no uniformity in the approach.

A policy decision was taken to fence the CA areas with chain link fence wherever CA land is given in isolated patches away from the forests to ensure its protection. Wherever CA land is given in contiguity of forest land, in place of chain link fence, a deep trench coupled with gacha kaya planting on the soil mound is being adopted as a vegetative barrier and the same is also adopted for all NPV plantations.

Land protection

6. Objectivity in recording works on ground

Most of the forest works are located in remote areas and only the field staff know the locations and ground status. In order to bring transparency in the recording and reporting of the actual status, photos using the Notecam app were insisted. These pictures give the Lat-Long of the location with the date and time recorded at the bottom of the picture. There is also a provision to enter site descriptions before saving the picture. This way, undisputable evidence of the ground status of various works was recorded, thus bringing in complete transparency. This approach also ensures the first time-series photos taken in a given location to be compared over a period of time.

7. Ensuring quality in civil works

a) Quality of GI Chain link mesh

Previously Galvanized Iron (GI) chain link mesh was procured locally by calling tenders for erecting chain link fencing around CA plantations and other wildlife-related activities. As there were no standard specifications prescribed along with protocol for testing the quality, suppliers would sometimes supply improper quality material which used to get rusted within a few years. The department has now prepared a protocol (Circular No.04/2017, Rc.No. 506/2017/TG/WLR-2(ii), Dated:01-09-2017) for the procurement of GI Chain Links, duly prescribing the standards as prescribed by the Bureau of Indian Standards (BIS) (IS 2721;2003), Government of India and now suppliers have to get the material tested in a certified laboratory before any payment is affected. This way, a proper standard and quality of material is ensured.

b) Third-party evaluation of civil works

As per the Forest Act, the civil works executed by the department are supposed to be checked and test checked by the forest officials themselves without involving any third-party, which sometimes results in compromising with the quality. The Forest Department has given detailed guidelines (Rc.No. 18554/2016/WLR-2, Dated:06-02-2019) for quality control by engaging a certified external third-party agency for all civil works and fencing works.

c) Strengthening the tender committees

Tenders for civil works used to be opened and finalized by a committee consisting of only forest officials at Division and Circle levels. Now, instructions have been issued (G.O.Rt.No.74, EFS&T (For.I) Dept Dated: 26-05-2018) for constituting tender committees at Circle, District and Divisional Levels, duly involving qualified Engineers from PR & RD Department and R&B Department, in addition to the forest officials, to finalise tenders. This arrangement helped the forest officers in tenders, especially e-tenders, where the complicated terms and conditions involved are understood by engineering officials who are well-versed and experienced in finalizing such tenders for civil works.

Water and Fodder:
Key to inclusive Wildlife Management

Water and Fodder :
Key to Inclusive Wildlife Management

Context

Wildlife Management received a fillip through the National Wildlife Policy, 1970 that eventually lead to the Wildlife (Protection) Act 1972.

Protected Areas

Special areas called Protected Areas (PAs) like National Parks, Wildlife Sanctuaries, conservation reserves and community reserves were formed for conservation of wildlife. PAs are the last refuge for endangered wildlife. Being river watersheds, they provide ecosystem services and sequester carbon.

Aichi target, under the Convention on Biological Diversity (CBD), for PAs is 17% of the terrestrial land area of a Nation. The extent of PAs in India is about 5%. The National Board for Wildlife (NBWL) in January, 2019 resolved to double the extent under PAs and urged states to take action towards this. The NBWL also formed a Panel to develop a policy framework on wildlife & human conflict and Landscape level conservation.

Objectives

The achievement of the following objectives has driven the wildlife management initiatives in Telangana:

- To implement inclusive wildlife management concept
- To provide fodder and water for wildlife in all forest areas (more so in PAs)
- To ensure timely payment of compensation and earn the goodwill of people
- To engage civil society for a collaborative partnership
- To improve ex-situ conservation, particularly in Nehru Zoological Park, Hyderabad
- To train veterinary doctors in handling wildlife emergencies
- To improve wildlife crime control
- To carry out research for conservation of select endangered species
- To promote eco-tourism in wildlife areas as a tool in wildlife management.

Initiatives

1. Inclusive approach of TSFD

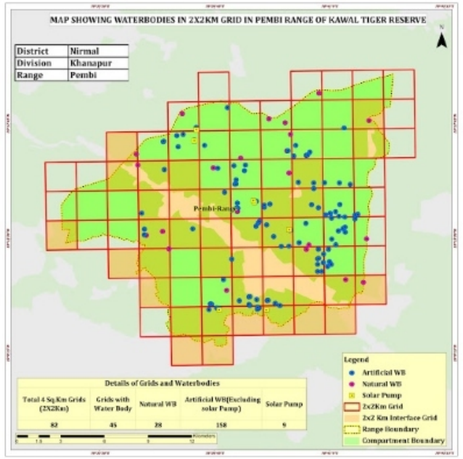
Telangana has about 5% of its geographical area under PAs (20% of forest area) with 3 National Parks, 9 Wildlife Sanctuaries of which 2 are Tiger Reserves. Telangana Forest Department analysed the present dispensation of wildlife management and found that schemes/funding is mostly limited to PAs. To correct this approach, a decision was taken to follow an inclusive approach in wildlife management where measures are taken for wildlife protection in all forest areas, irrespective of whether they are in PAs or not. The guiding principle was that the intensity of activities in non-protected areas could be lower compared to those in PAs because of funds and human resource constraints.

2. Ensuring water for wildlife- the grid approach

The Grid-based approach in this regard was followed in some Project Tiger areas in India. But this was not followed extensively in all PAs and it was probably not tried in non-PAs. After holding detailed discussions with wildlife experts, a scientific grid-based approach has been adopted in the entire forest area of Telangana State. For Protected Areas, the size of the grid adopted is 4 sq. km (2 x 2 km) and in non-protected areas, it is 9 sq. km (3 x 3 km) because of the lower density of wildlife population. The ability of wildlife to move around for water was also an important criterion in deciding the grid size. The entire forest area has been divided into grids of either 2X2 Grid or 3X3, depending on the status of the area and directions were issued to ensure at least one water source – either natural or artificial – in each grid. All existing water resources were mapped grid-wise. Grids already having adequate water resources were eliminated to begin with. Next, grids that are falling in steep slopes/ inaccessible areas were also eliminated, considering the difficulty in creating water sources. In the balance grid areas, priority was given for those grids which have an interface with agricultural land / human habitations. This was done with a view to stop wildlife from going out of forest areas in search of water. Inner grids are identified for the phased development of water resources. Water sources created under each grid were also geo-referenced to assess saturation.

The latest position of saturation of grids is as follows:

No. of Grids	-	6102
No. of Grids with water source	-	2763
No. of inaccessible grids	-	1393
No. of water grids to be provided with water source	-	1940



Status of natural water sources and artificially-created water sources is as follows:

Check Dams	-	726
Percolation Tanks	-	1206
Solar Pumps	-	193
Saucers	-	3226
Others	-	433

Identification and maintenance of natural water sources was given priority. A basket of structures was identified for providing water to wildlife. This included natural sources like Chelmas (deepened pits inside streams), ponds in natural depressions, etc. Artificial structures like mini-percolation tanks were constructed wherever feasible. As a last resort, cement structures like saucers, ring-structure etc., were provided wherever natural water sources do not exist. These structures were filled with water through tankers.

Chelima

Mini Forest Tank

Water Saucer

solar Bore well

In order to provide water to birds during peak summer, a campaign was launched to place earthen pots filled with water in all forest offices starting from Aranya Bhavan up to Forest Beat Officers level. This caught the imagination of the people from all walks of life and they too placed earthen pots with water and sometimes even food grains in their localities/houses/offices. The result of these initiatives was that incidences of wild animals coming to fringe villages for water came down significantly and providing water to birds became a campaign across the state.

3. Augmenting and enriching grasslands within forest areas

Traditionally, foresters have concentrated on the management of tree crop and very little was done towards fodder management. Also, in a few project areas where grass was developed, it was done mostly in a "plot method" i.e. in a limited area. The TS Forest Department got enlightened on this subject through interactions with Prof. G. D. Muratkar (Amravathi University), a grassland expert from Maharashtra. It was decided that grassland management would be done on a large scale with an "area approach" that would only focus on native grass species.

After initial discussions, the first training was conducted at Amrabad Tiger Reserve where officers up to Range Officer level, representing all divisions participated in two batches. Officers were oriented towards importance of grasses in wildlife management, identification of grass species and basics of grassland management. This was followed by a second round of training, where preparation of herbarium of grasses was shown and more inputs on grassland management like weed control and importance of legumes were given. Those trained by Prof. Muratkar, in turn, trained other field staff up to the Beat Officer level.

5. Partnering with civil society

There are several Non-Governmental Organizations (NGOs) committed to wildlife protection and conservation based in Telangana, like World Wide Fund for Nature (WWF), Hyderabad Tiger Conservation Society, Friends of Snakes Society, People for Animals, Deccan Birders etc. A Consultative Group was created with these organizations and meetings were held twice a year. Discussions were held on various issues related to wildlife management and decisions were taken with consensus. These organizations partnered with the TS Forest Department in conducting the All India Tiger Estimation - 2018, water hole census - 2019, Anti-Poaching Drive and rescue of wild animals. This association was a win-win situation where the Forest Department was benefited by their advice, one hand and on the other hand, the NGOs were familiarized with the department's activities for better transparency and building mutual trust.

NGOS in Waterhole Census

6. Zoo management

Spread over an area of 380 acres, the Nehru Zoological Park (NZP) is one of the oldest and biggest zoos in the country.

While the Central Zoo Authority (CZA) makes no mention of any Advisory Committee, as a major initiative, an Advisory Committee was formed under the Zoos and Parks Authority of Telangana (ZAPAT), with representation from sister departments like Police, Revenue, Irrigation, Electricity, GHMC, NGOs and experts. This body met regularly and gave suggestions for the effective management of the NZP and also helped in inter-departmental coordination.

For another initiative, activities under "enrichment" were taken up in animal enclosures to break monotony and keep the animals engaged and active through play equipment. Additionally, the construction of one of the biggest aviaries in India is under way in NZP, while the walk-in-aviary which has been started in two bird's enclosures has been a big hit with the public. Sensitivity towards visitors' amenities has also resulted in establishing "Amma Vodi" (Mother's lap) for lactating mothers.

7. Training veterinary doctors in handling wildlife emergencies

Veterinary doctors were earlier involved in only carrying out a post-mortem of wild animals or cattle killed by wild animals. The TSFD thought that it necessary to impart training to these doctors in handling wildlife emergencies. Two batches of Veterinary Assistant Surgeons (VAS) totalling about 60 were trained on handling wildlife emergencies in association with the Animal Husbandry Department and CCMB, LaCONES during 2018-19.

8. Wildlife crime control

a) Dog Squads

Services of trained dog squads are regularly utilized by Police, Customs and other departments for a long time. However, such an initiative is new for forest departments. The need for dog squads arose since offenders are not often found at the crime scene.

Two Dog Squads (each squad comprising of one dog, one trainer, one jeep, and driver) were set up by the TS Forest Department at the two Tiger Reserves i.e. Amrabad and Kawal Tiger Reserves. They were trained by the Traffic India. The dog squads have helped in detecting about 50 cases so far.

b) Capacity Building

Training of Trainers (ToT) programme was conducted for Range Officers of each Division on detection, inquiry & investigation, case preparation & filing and presentation in courts of law. This was facilitated by Wildlife Conservation Society (WCS), Bengaluru.

c) Police and forest interface

Perhaps for the first time, the entire police machinery was involved in forest/wildlife protection, encroachment removal etc. in Telangana. The Chief Secretary facilitated the video conferences where DG Police and PCCF (HoFF) addressed police and forest personnel jointly for sending a clear message of cooperation. A similar arrangement was made at the District level and down below. The constant exchange of information between the two departments and swift action made a significant difference in boosting the confidence of forest officials on the field.

As forest departments do not possess an elaborate intelligence network, the TSFD utilized intelligence gathered by the State Police department on movements of habitual offenders, crime information, etc. related to wildlife and forests.

Targets were fixed for grass seed collection for the period of Nov, 2018 to January, 2019. A third round of training was given on seeds collection, drying and storage. While collection and drying were done in situ, storage was done at the Range level. For the first time in the Forest Department, 6500 kgs of grass seeds were collected; a record for Telangana State. Simultaneously, wild leguminous seeds were also collected and stored.

During May-June, Prof. Muratkar gave inputs on how to sow grass seeds in the forest area. It was decided that grass plots in both protected areas and outside protected areas would be used. In protected areas, a minimum of one grass plot would be raised in each Beat and in non-protected areas, one grass plot would be used in each Section for the season of 2019-20. Grass plots are identified with two objectives: a) augmenting grass where there is a deficiency of grasses and b) improving composition where only homogenous grass occurs. Thus, fodder requirements of both grazers and browsers are taken care.

After grass plot areas are marked on the ground with lines, seeds are sown in lines by scooping the soil, dropping a few seeds and covering them with the scooped soil. Each grass plot would be protected by brushwood fencing, in general. Chain link fencing would only be done where required.

4. Man-animal conflict-timely payment of compensation

Disturbances in wildlife habitat resulted in wild animals straying out of their secure habitat into human habitations and resulting in attacks on domestic cattle, and occasionally on human beings. This was identified as an area that could make or mar the image of the department if swift action is not taken.

Circular instructions are now issued to field officers to complete the process of verification of wildlife attacks expeditiously and arrange for payment of compensation within the time-frame indicated, without budgetary constraints. Due to these measures, no case of poisoning of wild animals was detected in 2018-19.

9. Research Initiatives

a) LaCONES

The breeding of Mouse Deer, (a scheduled – I animal) was taken up in NZP with assistance from LaCONES. Started in 2010 with 2 males and 4 females, their number went up to about 300 in 2018-19. The Forest Department, in coordination with LaCONES, took up capacity building of field staff for successful re-introduction of Mouse Deer in Amrabad Tiger Reserve, Kinnerasani Wildlife Sanctuary and Mrugavani National Park, Chilkur. The released Mouse Deer adapted well to the wild and new born were noticed in Mrugavani NP. Secondly, a satellite lab of LaCONES is coming up in the TS Forest Academy with an objective to pass on forensic knowledge and skills to the Department and to train forest staff on this subject. An MoU was also signed with LaCONES for technical assistance in wildlife forensics. As part of the MoU, LaCONES would test up to 300 samples annually, free of cost for TSFD. Further, they also helped in the genetic profiling of Mouse Deer that would go a long way in preventing inbreeding.

b) Conservation of Long billed vulture

Long-billed Vulture (Gyps indica) is found only in the Palarapu gutta area of Kaghaznagar division, Telangana. They nest and breed on ledges high on the rocks where no one can disturb them. Biologists and bird trackers have been engaged to observe the well-being of these birds from watch towers. The number of birds which was estimated to be 10-12 in 2011-12 rose to 30 (7-8 pairs and 6-7 chicks) by 2018-19. People in nearby villages were also sensitized to not use Diclofenac, the main cause for death of these vultures.

Enabling conditions

- Clear concept of inclusive approach for wildlife management
- Convergence of forest & wildlife up to Beat officer level (Multi-role)
- Technical support of Prof. G.D. Muratkar, Advisory Committee, NGOs, LaCONES etc.

Results

- By inclusive approach, wildlife management became a priority item across the state
- Incidents of wild animals straying into fringe villages for water came down
- All forest officers acquired knowledge and skills on grassland management
- Timely compensation payment earned goodwill of the people towards the department
- Partnership with NGOs enabled looking at issues from different perspectives
- Increase in positive feedback from visitors to the Zoo Park
- Trained veterinary doctors available in forest areas to handle wildlife emergencies
- Positioning of dog squads sent a strong deterrent signal to poachers
- Police collaboration helped in better intelligence and field support
- Forest officials better equipped for control of wildlife crime
- Conservation of Mouse Deer and Long-Billed Vulture

Integrated
Forest Protection

Integrated
Forest Protection

Context

Forest protection is intricately linked to forest management. In the pre-colonial era, forests were owned by people, both individually and as a community. After the advent of the colonial era and later in Independent India, forest management including protection was vested with the Central and State governments.

Increasing biotic pressures, forest fires, encroachments etc. have become major issues in forest protection. In the Tenth Five Year Plan (FYP), the GoI brought in a Centrally Sponsored Scheme (CSS) named Integrated Forest Protection Scheme (IFPS). Under this, Central and State sector interventions were provided. While the Central sector focused on developing systems (fire danger rating) for effective monitoring, the State sector focused on strengthening forest protection infrastructure including, Management Information Systems, wireless network, satellite phones, vehicles etc.

Forests are precious in the sense that they not only provide economic benefits, but also environmental and ecological benefits. It is important to protect these lands. While there are several natural threats to forests (such as forest fires, pest attack, weed invasion), there are also man-made threats to forest lands (such as encroachments, smuggling, illegal felling/ cutting). Forest protection is the core function of the Forest Department and year by year, it is becoming more and more challenging due to aforementioned reasons. Forest Department, Government of Telangana, brought forth several innovative practices to ensure effective forest protection.

Objectives

The main objectives of forest protection are as follows:

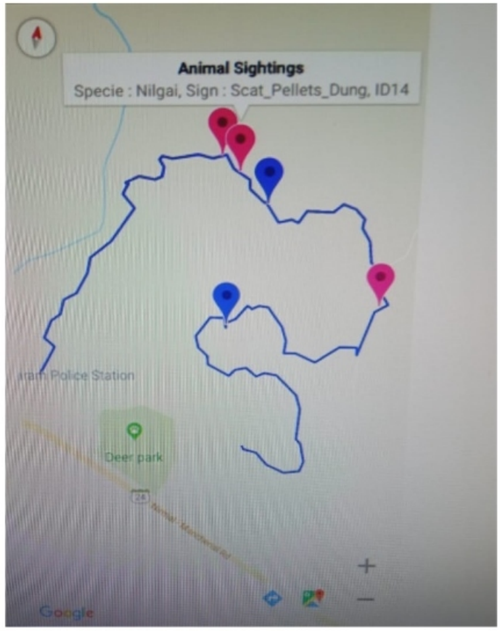
- To ensure effective forest protection by employing multiple forces
- To ensure stringent punishments to offenders
- To develop and share information on encroachments at all levels
- To prevent occurrences of and damages caused by forest fires
- Secure forest boundaries and prevent/detect encroachments
- Secure public participation and support in forest protection

Initiatives

1. Improving presence of protection force

Field presence of staff from Forest Beat Officer to Forest Range Officer is ensured by linking presence to salaries in the first stage. In the second stage, the field staff are provided with random route maps for foot patrolling, followed by written reports on things that they observed like encroachments, felling etc. Follow-up action is taken based on such reports.

Secondly, an app is being pilot-tested to track the movements of the field staff online. This would not only ensure their presence on the field, but would also act as a safety measure to track their well-being. Wherever presence of more force is required, the Base Camp staff are mobilised to support the regular field officers. In cases where serious action would be required, Strike Force is also engaged. The inter-departmental coordination with the Police Department also ensures that police personnel would help forest staff in forest protection, when required. This kind of multi-level protection mechanism improved the presence of forest staff at the ground level significantly and sent a strong message of deterrence to offenders.



Patroling Route Map

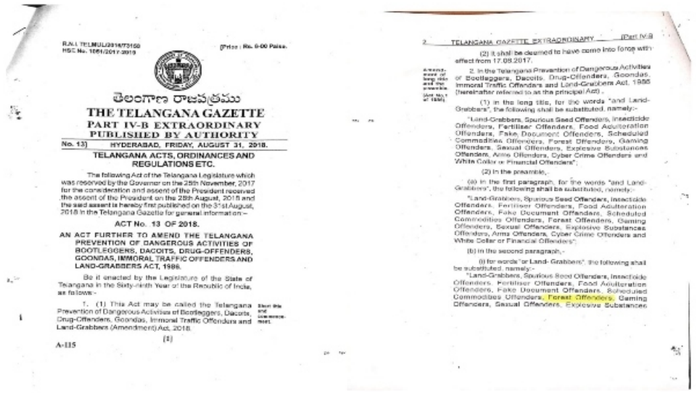
Strike Force

Base Camp

2. Ensuring stringent punishments

Legal provisions under the Forest Act in the State, like in other states, are very weak and forest offences by nature are non-cognizable and bailable. On account of weak legal provisions, compounded by poor conviction rates, there is no fear of forest law among smugglers who resort to felling of trees and poaching of wildlife. However, it has been found that Preventive Detention Act (PD Act) is very effective in controlling such habitual offenders. The forest offences were not specifically included in the State PD Act (1950) and sometimes, habitual forest offenders used to get released from the higher courts of law due to such lacuna in the Act. Considering the importance of forest protection, the State Government amended the PD Act recently (Gazette No.13, August 31, 2018) and "Forest offenders" have been included in the PD Act. Notorious habitual forest and wildlife offenders are now being detained under PD Act with the cooperation of Superintendents of Police and District Collectors. Three Multanis forest offenders in the Echoda Division of Adilabad district were recently booked under PD Act.

Amendment PD Act to include Forest offenders



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THE TELANGANA GAZETTE
PART IV-B EXTRAORDINARY
PUBLISHED BY AUTHORITY

No. 13) HYDERABAD, FRIDAY, AUGUST 31, 2018.

TELANGANA ACTS, ORDINANCES AND REGULATIONS ETC.

The following Act of the Telangana Legislature which was reserved by the Governor on the 25th November, 2017 for the consideration and assent of the President received the assent of the President on the 28th August, 2018 and the said assent is hereby first published on the 31st August, 2018 in the Telangana Gazette for general information:-

ACT No. 13 OF 2018.

AN ACT FURTHER TO AMEND THE TELANGANA PREVENTION OF DANGEROUS ACTIVITIES OF BOOTLEGGERS, DACOITS, DRUG-OFFENDERS, GOONDAS, IMMORAL TRAFFIC OFFENDERS AND LAND-GRABBERS ACT, 1986.

Be it enacted by the Legislature of the State of Telangana in the Sixty-ninth Year of the Republic of India, as follows:-

1. (1) This Act may be called the Telangana Prevention of Dangerous Activities of Bootleggers, Dacoits, Drug-Offenders, Goondas, Immoral Traffic Offenders and Land-Grabbers (Amendment) Act, 2018.

(2)

A-115

TELANGANA GAZETTE EXTRAORDINARY [Part IV-B

(2) It shall be deemed to have come into force with effect from 17.08.2017.

2. In the Telangana Prevention of Dangerous Activities of Bootleggers, Dacoits, Drug-Offenders, Goondas, Immoral Traffic Offenders and Land-Grabbers Act, 1986 (hereinafter referred to as the principal Act),

(1) in the long title, for the words "and Land-Grabbers", the following shall be substituted, namely:-

"Land-Grabbers, Spurious Seed Offenders, Insecticide Offenders, Fertiliser Offenders, Food Adulteration Offenders, Fake Document Offenders, Scheduled Commodities Offenders, Forest Offenders, Gaming Offenders, Sexual Offenders, Explosive Substances Offenders, Arms Offenders, Cyber Crime Offenders and White Collar or Financial Offenders";

(2) in the preamble,

(a) in the first paragraph, for the words "and Land-Grabbers", the following shall be substituted, namely:-

"Land-Grabbers, Spurious Seed Offenders, Insecticide Offenders, Fertiliser Offenders, Food Adulteration Offenders, Fake Document Offenders, Scheduled Commodities Offenders, Forest Offenders, Gaming Offenders, Sexual Offenders, Explosive Substances Offenders, Arms Offenders, Cyber Crime Offenders and White Collar or Financial Offenders";

(b) in the second paragraph,-

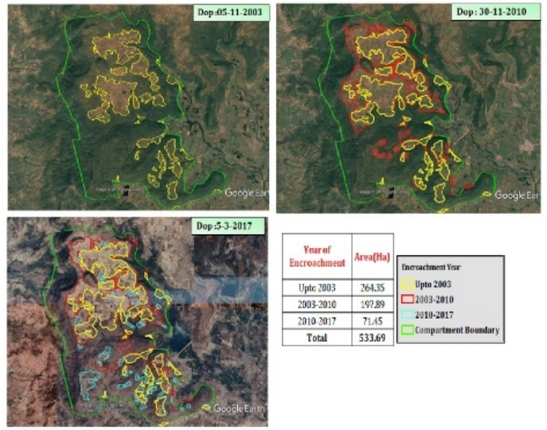
(i) for words "or Land- Grabbers", the following shall be substituted, namely:-

"Land-Grabbers, Spurious Seed Offenders, Insecticide Offenders, Fertiliser Offenders, Food Adulteration Offenders, Fake Document Offenders, Scheduled Commodities Offenders, Forest Offenders, Gaming Offenders, Sexual Offenders, Explosive Substances

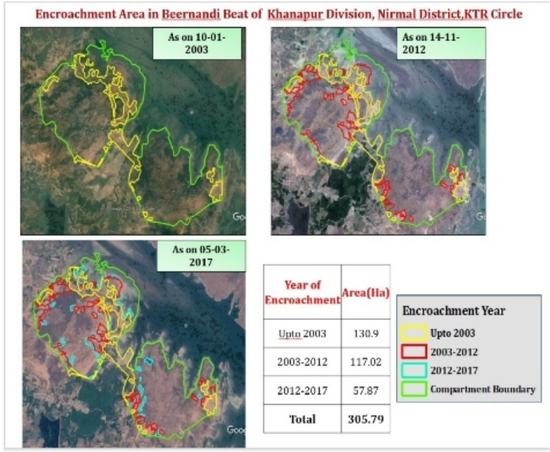
3. Widespread sharing of information on encroachments

Encroachments are another major hurdle faced by the Forest Department in relation to forest protection. The State faced Left Wing Extremist (LWE) problems for decades and because of that, large tracts of land have been encroached. Fresh encroachments take place incrementally, by a few chains every year. However, when the Forest Department puts forth measures to retrieve forest land, the encroachers often come up with a plea that they have been cultivating those lands for many years. Unfortunately, they too receive political patronage sometimes and that often complicates the overall situation.

The Telangana State Forest Department, using satellite images, developed undisputable evidence on encroachments and their status over a timeline. The startling evidence is now used to spread information on the extent of the menace of encroachments among people, especially public representatives.



Year of Encroachment	Area(Ha)
Upto 2003	264.35
2003-2010	197.89
2010-2017	71.45
Total	533.69



Year of Encroachment	Area(Ha)
Upto 2003	130.9
2003-2012	117.02
2012-2017	57.87
Total	305.79

4. Rationalization of check posts

Forest check posts were established a long time ago and over the years, smugglers realized that check posts are permanently positioned and that they can take other routes (developed in the later years) to bypass these check posts.

There are 90 Forest check posts in Telangana, both old and new put together. A thorough review of the location of forest check posts was conducted and new locations were identified for moving them. This move was a real surprise for the forest offenders transporting forest produce and the new locations immediately proved to be effective. To further strengthen the check posts, CCTVs were fixed at selected check posts to ensure a higher level of adherence to duties and functions by the staff posted at these check posts.

5. Seeking public support

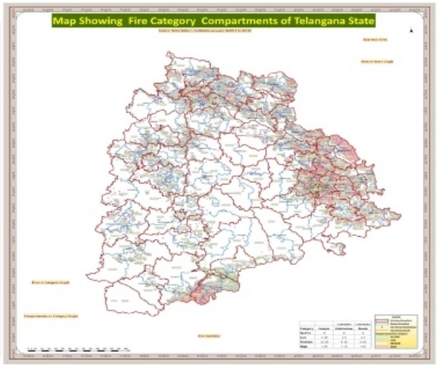
Prevention of forest crime/ offences cannot be the sole mandate of any one agency. Community/ society have to be an active partner in this process and agenda. Considering this fact, the Forest Department made significant efforts to engage communities in the forest fringe villages for vigilance and prevention of forest crimes. Village contact programmes were conducted in many areas and importance of forests and wildlife, and the role of the public, were explained. A toll free number (1800-4255364) was also set up for the public to report any forest offences.

6. Detection, prevention and management forest fires

A significant portion of forests is lost due to forest fires every year. A systematic analysis of forest fires revealed that the majority of forest fires occurred as a result of human negligence or deliberate intervention. The prime culprits for forest fires were shepherds, beedi leaf contractors and collectors, smugglers etc. Apart from drawing new fire lines and maintaining the old ones, the Forest Department used other means to manage forest fires. One of these initiatives was to enter into an MOU with the National Remote Sensing Center (NRSC). NRSC provided fire vulnerability alerts which were passed on to the field staff. This way, it was possible to take preventive measures or immediate action in the event of fire and the extent of damage could be controlled.

A series of awareness camps and publicity events were also organized at the village level and stakeholders were oriented on the prevention of forest fires. Additionally, Fire Protection has been included in the State and District Disaster Management Action Plans and reviewed by the respective Authority. State Disaster Management and Fire Services department assists the Forest Department in fire fighting and also in building capacity of forest officers in fire- fighting.

FIRE RISK ZONATION MAP



FIRE RISK ZONATION MAP

Circle wise High Fire Vulnerable Info			
	Compartments	Habitations	Roads
CIRCLE	High Category	High Category	High Category
ADILABAD	98	277	398
AMRABAD TR	77	12	55
HYDERABAD	0	0	0
KARIMNAGAR	19	65	130
KAWAL TR	66	136	372
KHAMMAM	18	14	46
KOTHAGUDEM	447	461	948
MAHABUBNAGAR	1	1	2
MEDAK	1	14	42
NIZAMABAD	10	73	136
RANGAREDDY	2	3	15
WARANGAL	367	223	386
Grand Total	1106	1279	2530

Compartments		
Category	Class	9,790
Zero Fire Compts	No Fire	1987
Fire Compts		7,803
1 to 5	Low	5876
6 to 10	Medium	1621
> 20	High	1106

Habitations 2 km Buffer		
Total Habs	Class	16,176
Zero Fire	No Fire	12286
Fire Habs		3890
1 to 5	Low	2033
6 to 10	Medium	578
> 10 Fire	High	1279

Roads 1 km Buffer		
Total Roads		10,633
No Fire Roads	No Fire	2,881
Fire Roads		7,752
1 to 5	Low	3,847
6 to 10	Medium	1,375
> 10	High	2530

7. Support of Police Department

The State Government has made forest protection a very high priority. Joint meetings of PCCF (HoFF) and DG Police and senior officers were held and a clear message was sent, to both Forest as well as Police officers down below, to work in unison for forest and wildlife protection. One of the Leopard cases, a high-profile one, was actually detected by the police and they helped in tracing and arresting the offenders. Similarly, connivance of officials was detected and stringent action was taken on both, the forest and police officials.

Spl. CS EFS & T, DGP and PCCF (HoFF)
Joint V C

8. Other initiatives

- Deployment of two Dog Squads in Amrabad Tiger Reserve and Kawal Tiger Reserve
- Campaign to remove snares, and electric fencing to save wildlife
- Campaign against Chinese manja during the Kite festival to save the lives of birds

Enabling Conditions

- Complete support of the government
- Amendment to PD Act, 1950 for the inclusion of forest offenders
- MOU with NRSC for fire alerts and technical support of Forest Survey of India
- Support of the Police department

Early Results

- First cases booked under PD Act for forest offences
- Incidence and extent of damage due to fires has come down
- Timeline maps on encroachments really made an impact on the attitude of people, especially elected representatives, about the enormous loss of forests and forest lands
- Intelligence sharing with the Police Department strengthened the effectiveness of the TSFD in booking cases

Forest Land Reconciliation and Record Management

Forest Land Reconciliation & Record Management

Context

Land laws underwent significant changes till the British era. Forests were mostly a community resource until the British set up a separate Forest Department in the late 1800s. Traditionally, cultivated land was managed for revenue collection while forest land remained a community asset. During the Nizam era, a forest land survey was not done and subsequent surveys only focused on revenue generation. Survey numbers were given to forest areas in 1950, after Independence. However, it was done by the Revenue Department. Back then, Forestry was clubbed with Agriculture and other departments before getting its own identity. Overall, the forest lands were neither surveyed nor were survey numbers allotted. Hence, the forest department did not have any information on the subject.

Post-42nd Amendment, forest lands came under the Concurrent List and the Forest (Conservation) Act, 1980 virtually put forest lands in the control of the Central Government. As Forest Land Governance is now a Center-State issue, one of the major challenges before the Forest Departments in the country is the reconciliation of forest land with revenue records. Most of the forest lands have not been entered in revenue records and as a result, revenue officials sometimes resort to assigning pattas on forest land to the landless unknowingly or knowingly. Non-reconciliation of forest lands also leads to boundary disputes with farmers/private land owners and gaps in record reconciliation are sometimes a cause for encroachment on forest lands, and making a claim for pattas. Similarly, the ambiguity and erroneous land records resulted in several court litigations with regard to ownership of land.

The RoFR Act, 2006 and subsequent recognition of the rights of traditional dwellers also formed the background to forest land governance. The Revenue Department took up the massive exercise of updating and purification of land records, after the launch of "Rythu Bandhu", its flagship programme. Detailed guidelines on the programme were communicated vide Ref.No. CMRO/342/2017, Dated: 09-09-2017. This exercise was executed in two stages. In the first stage, reconciliation of the records was taken up where there was no dispute. In the second stage, a survey was conducted for disputed lands. As part of this exercise, the State Government formed teams which visited all the villages in a time-bound programme (100 days), and organized Gram Sabhas. During this exercise, the land records maintained at the village level were verified and rectified.

Objectives

The Forest Department joined the land reconciliation exercise with the following objectives:

- To reconcile the Forest Department land records with that of the Revenue Department records
- To get old forest notifications in Farsi, Urdu etc. translated and digitized
- To build the capacity of Forest Department officers in using survey methods of the Revenue Department
- To procure and use modern tools of survey

Initiatives

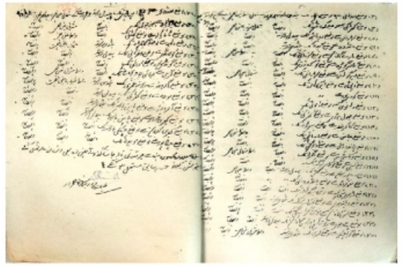
1. Voluntarily joining the Land Records Updating Project (LRUP)

The Forest Department realized that this is a golden opportunity to get forest lands reconciled and recognized on a permanent basis. Hence, TSFD took the initiative to participate in LRUP. Forest and Revenue officials worked with synergy at the village, mandal and State levels. As per point-12 of the guidelines, the visiting teams recorded all details of forest lands survey number wise and their status.

The latest status of reconciliation of Forest records with Revenue records is as follows

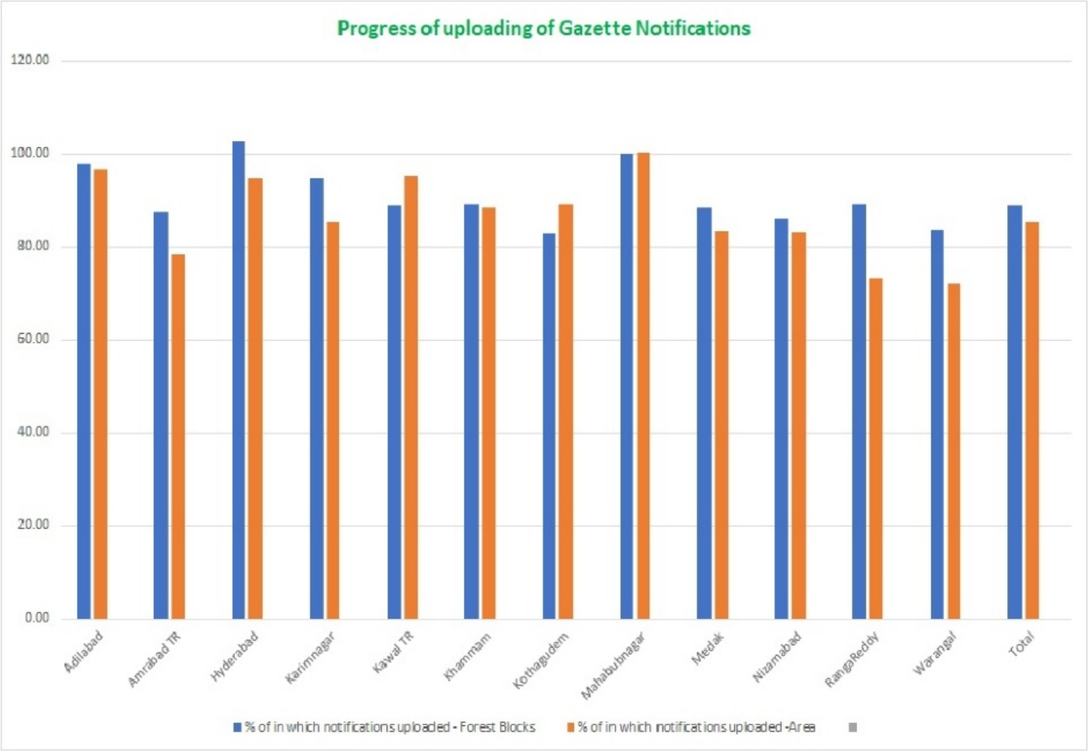
2. Translation of old Gazette notifications

The maintenance of the Reserve Forest Gazette Notification records is a major task for the Forest Department. Some of the forest blocks notified during the Nizam period are in Urdu or Farsi. While retaining original notifications in Urdu or Farsi, there was a need to get them translated into English for posterity. While getting qualified persons to translate Urdu into English was not very difficult, that of Farsi became very difficult. The department engaged a certified agency to get all the old forest block notifications in Urdu and Farsi translated into English.



3. Digitization of Gazette notifications

Most of the old forest notifications became too fragile to handle. Sometimes, forest notifications get misplaced or lost in the process of shifting offices or due to any natural calamity. Taking the above exigencies into consideration, it was decided that all forest notifications would be digitized and uploaded on the Department website (www.tgfmis.telangana.gov.in) for the use of forest officials and the public. This entire exercise has been taken up on a mission mode and so far, 88.87% of forest notifications for forest blocks covering 85.34% area, have been digitized and uploaded on the website. Efforts are on to procure notifications from the State Archives or from old records for digitizing and uploading them. For some forest block notifications, even offices of adjoining states like Maharashtra are being visited. The benefit of having notifications of forest blocks in a digital form was realized when the Hon'ble Chief Minister asked about the area of the Mrugavani National Park and information regarding the same could be given in a matter of minutes.



COMPREHENSIVE LAND RECORDS RECONCILIATION - FORMAT - III
DISTRICT WISE - ABSTRACT REPORT
Report as on : 28.06.2019.

Sl.No	District Name	Total Information			As per State LRUP Status Report, As on 05-01-2018		Balance area to be reconciled
		Total No. of Revenue Villages	No. of Forest Villages as per GIS Layers	Total Extent of Forest Area as per GIS Layers (Acers - Gnts)	Part - A Clear Forest land	Part - B Not Clear - Forest / Revenue boundary dispute	
1	2	3	4	5	6	7	8
1	Komaram Bheem Asifabad	434	353	604003.32	156404.49	41974.6	405624.2
2	Nagarkurnool	353	111	619068.48	301288	6156	311624.5
3	Mahabubabad	287	164	348704.57	31486.48	35075.4	282142.7
4	Nalgonda	563	138	159483.07	38457.78	13451.26	107574.0
5	B. Kothagudem	376	292	1063697.41	980081.37	26715.34	56900.7
6	Warangal (R)	230	40	35260.74	10714.17	207.1	24339.5
7	Kamareddy	473	260	216965.52	155309.2	38900.31	22756.0
8	Rangareddy	602	181	70631.26	48972.58	3336.37	18322.3
9	Mancherial	383	287	436074.22	363253.14	56137.26	16683.8
10	Khammam	379	72	154945.66	108025.99	34455	12464.7
11	Jayashankar Bhupalpally	559	398	1113175.65	1017930.66	85185.42	10059.6
12	Peddapalli	214	93	83806.54	72051.59	4669.26	7085.7
13	Jagtial	292	160	138863.53	126311.37	5585.16	6967.0
14	Suryapet	279	31	30752.9	20925.35	3123	6704.6
15	Siddipet	382	151	63552.67	47259.9	10218.58	6074.2
16	Rajanna Sircilla	171	87	94338.91	88162.57	134.91	6041.4
17	Mahabubnagar	565	123	90300.81	68556.16	16310.26	5434.4
18	Medak	391	250	144791.11	112866.02	26909.32	5015.8
19	Warangal (U)	124	13	7482.44	2397.18	1245.37	3839.9
20	Wanaparthy	224	51	28723.07	21583.22	3701.59	3438.3
21	Vikarabad	501	216	110039.02	66700.1	41845.91	1493.0
22	Jangoan	193	13	6876.06	5037.16	415.21	1423.7
23	Hyderabad	0	1	355.4	0	0	355.4
24	Sangareddy	596	149	51680.78	44091.26	7345.08	244.4
25	Medchal	162	73	20627.67	18205.16	2634.22	0.0
26	Jogulamba Gadwal	198	4	1845.75	2009.19	56.14	0.0
27	Karimnagar	206	7	854.79	1395.24	17.34	0.0
28	Yadadri Bhuvanagiri	304	61	29342.6	26728.28	3554.17	0.0
29	Nizamabad	445	220	214093.75	192882.39	23878.04	0.0
30	Adilabad	509	366	426235.55	283969.78	149203	0.0
31	Nirmal	428	198	300460.99	296912.07	19414	0.0
	Total:	10823	4563	6667034.24	4709967.85	661854.62	1295211.8

As can be seen from the data, the Forest Department did not have any idea about the extent of forest land that was included in the revenue records previously. Out of the total forest area of 66.670 acres, so far 47.099 lakh acres (70.65%) of forest land has been found to be clear of any dispute. About 6.619 lakh acres (9.92%) of forest land is disputed and about 12.952 lakh acres (19.430%) reconciliation is in progress. This is a tremendous achievement of the TSFD because such a reconciliation exercise was probably taken up for the first time by a state forest department.

4. Training forest cadre for revenue survey

Sometimes, there is a contradiction between the Forest Department and Revenue Department in the demarcation of forest boundaries because of the difference in methodology adopted by the two departments. While the Forest Department adopts the chain compass method for forest survey, the Revenue Department adopts the triangulation method. As the forest officials were not aware of survey methods being followed by the Revenue Department, they were not in a position to challenge the boundary line demarcated by the latter. To overcome this, forest officials would have to understand the survey methods followed by the Revenue Department, in addition to their own method of survey to avoid any conflict and to safeguard the interests of the Forest Department.

For this purpose, the Forest Department approached the government for permission to get forest officers trained in revenue survey methods. Government vide Memo No. 5235/For. II (1)/2017, EFS&T (For. II) Department, dated: 23-12-2017) accorded the permission and a six-week training module was developed in consultation with the Telangana Academy of Land Information Management (TALIM) and was conducted partly at Telangana State Forest Academy (TSFA) and partly at TALIM. The module was so designed that it had inputs on the entire survey process, area calculations and record maintenance. One batch of 32 forest officers have been trained and the second batch is likely to start shortly.

In addition to the above-mentioned specialized course for selected forest officers, a two-week basic course on revenue survey was included in all Foundation Courses of Forest Beat Officers (FBOs), Forest Section Officers (FSOs) and Forest Range Officers (FRO), and was conducted at the Telangana State Forest Academy (TSFA), Dulapally.

5. Use of modern tools of survey

First batch of GNSS ToT

The Forest Department had been adopting the chain and compass method for survey and demarcation of forest boundaries in which the forest blocks are notified by taking the compass reading. Most of these forest lands were surveyed several decades earlier by chain compass. Due to diffraction in the magnetic field of the Earth, the compass readings taken are likely to change. This means that the survey method can have problems of authenticity and accuracy. Therefore, it was time to adopt modern tools of survey for avoiding such deviations in the future. It has been decided that Differential Global Positioning System (DGPS) survey methods will be used for all forest surveys in the future. It has already been introduced in the survey of Compensatory Afforestation (CA) lands and a model Gazette Notification has been prepared for CA lands by using DGPS survey to avoid any litigation in the future on account of errors in the traditional chain compass survey.

Enabling Conditions

- Government initiative on updating land records
- Forest Department's proactive initiative to reconcile forest records
- Availability of authentic translators of Urdu and Farsi
- Availability and accessibility of TALIM
- Cooperation from District Collectors and Revenue officials

Early Results

- About 3/4th of the forest land is reconciled
- About 90% of the forest block notifications are digitized and uploaded on the website
- 32 trained forest officers are now available to facilitate further reconciliation processes
- Quick retrieval of records demonstrated

The logical conclusion to the initiatives under this subject would be to get the forest lands entered in the Prohibitory Order Book (POB) of the Revenue Department and in the ownership column (column 12) of Adangal maintained by revenue authorities.

FC Act, 1980:
Balancing conservation concerns and development goals

Implementing Forest (Conservation) Act, 1980:
Balancing Conservation Concerns with Development Goals

Context:

Dis-reservation of forest lands for non-forestry purposes was done easily till the 1970s because forest was a state subject. The 42nd Amendment (1976) to the Constitution of India brought the subject of forests into the Concurrent List for enabling the Central Government to pass legislations on it. The Forest (Conservation) Act, 1980 is an exceptional piece of law enactment and a regulatory mechanism brought by the Government of India that reflects the collective will of the nation to protect its rich biodiversity and natural heritage. The Act permits only unavoidable use of forest land for various non-forest developmental purposes. The act embodies the firm commitment of the Government of India to balance the conservation of forests with the sustainable development requirements of the country. The most important point is that forests are diverted without change in the ownership of land and dis-reserved only in exceptional cases.

After the advent of the Forest (Conservation) Act, 1980, most of the proposals are for public projects. Any delay in approvals of public projects funded by the State/ Central Government (like roads, irrigation, communication etc) under the Forest (Conservation) Act, 1980 not only results in the escalation of project cost, but also causes delays in delivering the benefits of such projects to the public. Such delays also give an opportunity to the public, press, user agencies and public representatives to criticise the Forest Department. These delays also adversely affected interdepartmental relations, both at the State level and Central level.

One of the major issues raised in the struggle for a separate state of Telangana was the lack of development projects for a long time. Naturally, when the new state was formed, many development projects were initiated in a short period of time. Some of them came under notified forests and Protected Areas. These require permission under Forest (Conservation) Act, 1980 and Wildlife (Protection) Act, 1972, which is not only a complex process but also a time-consuming one. Hence, special strategies were required for speedy approvals.

Objectives

The following are the objectives of the Forest Department in implementing the FCA, 1980:

- To analyse causes of delay and streamline the process
- To treat public projects as joint ventures with user agency
- To reduce the time taken for processing applications
- To follow-up with the MoEF & CC and obtain clearances in time/before time
- To ensure that user agencies realize their responsibility and respect the Act
- To ensure the image of the department as an active partner in the development of the state

Initiatives

I. Analysing delays

Rules, Guidelines and clarifications were issued from time to time by the MoEF & CC and GoI, about the process for diversion of forest land for non-forest purposes in order to avoid delays and make it more user-friendly. Forest (Conservation) Rules, 2003 and Amendments were also issued towards this end.

Forest clearances are given in two stages i.e. Stage-I (in principle approval) with conditions, and Stage-II (final approval) after compliance with conditions laid down in Stage-I approval. If at each stage no shortcomings (in the proposals) are noticed, then the time given for according Stage I approvals ranges from 140 to 300 days. The time schedule given in the rules is not binding in nature and no remedy is provided for any delay that may occur at any stage. Further, no time schedule is prescribed under the rules for granting of the Stage-II approval after obtaining Stage-I approval. As a result, the delays that occur in obtaining approvals under FCA, 1980 sometimes extend from 2-3 years and beyond. The main reasons for such delays are as follows:

i) Absence of skills/ knowledge at User Agency Level:

Several User Agencies are not familiar with the protocols/ procedures related to project (application) preparation for obtaining approvals. There are several gaps in these applications/ proposals. During the process of scrutiny, queries/ clarifications may be raised at any level starting from the Forest Divisional Officer to the Nodal Officer (FCA)/ Principal Chief Conservator of Forests (HOFF), and even the Government in some cases. It takes considerable time to get a reply from the concerned User Agency. Sometimes, queries are raised repeatedly and that causes further delays.

ii) Absence of appropriate mechanisms for arbitration and regular monitoring on such proposals/ approvals:

Normally, forest officials feel that it is the responsibility of the User Agency to have correspondence with the forest offices and get the proposal cleared, while the User Agencies think the opposite. Important public projects are generally reviewed at the higher level by the Hon'ble Minister concerned or the Hon'ble Chief Minister. When these projects/ applications are directly reviewed at such a level, there is always a chance for further delay due to coordination problems and other issues between departments. There is no mechanism/ arrangement in the scheme of things to arbitrate and review both the Forest Department and User Agencies together.

To address the above issues, the following measures have been taken:

1. Inter-departmental coordination

For the first time in the country, a High-Level Committee was constituted (G.O.RT.No.108, EFS&T(FOR.I), Department dated:24.08.2016) under the Chairmanship of the Chief Secretary (CS) to Government with Secretaries to the major infrastructure departments as members apart from the Principal Secretary, Forests and Principal Chief Conservator of Forests (HoFF) and Chief Wildlife Warden. This committee was entrusted with the responsibility of reviewing all public projects under FC Act, 1980 and sort out inter-departmental issues. The Committee meets once in every three months and CS being a neutral person, can sort out interdepartmental issues and proposals can now be processed at every level expeditiously.

2. Attitudinal change among foresters

A State-level workshop was held to explain the issue in the right perspective to all the District Forest Officers and Forest Divisional Officers. The same was also explained to the field-level officers through video conference. Forest officers were requested to treat all "public projects as a joint venture between the Forest Department and the User Agency". Capacity building programs have also helped in bringing attitudinal changes in the forest officials. Forest officials have now become proactive in contacting and informing the User Agencies about any deficiencies. In this partnership mode, a lot of field-level delays were avoided.

Handholding support

The Forest Department extended handholding support to sister departments in preparation, processing and obtaining approval of public projects. Regular video conferences and workshops were conducted by the Principal Chief Conservator of Forests (HoFF) office jointly with the field functionaries of the Forest Department and other sister departments like Irrigation, Panchayat Raj, Roads & Buildings etc. Not only was the progress of processing the proposals reviewed, but it was also used to explain different procedural requirements under FCA, 1980 and Wildlife (Protection) Act, 1972 to the User Agencies. Definite time frames were given to both parties for completion of procedural requirements

4. Streamlining of processing of applications and compliance for speedy clearance

- Periodic orientation workshops were conducted by TSFD for the field level officials of User Departments as well as frontline-forest staff on procedures involved
- The procedure for ETS & DGPS/ DGNSS Survey and its authentication was prescribed for arriving at the actual extent of forest lands involved for the diversion for non-forestry purposes
- Pre-scrutiny of proposals by FD before submission by User Agency (UA) as a pre-requisite to ensure no shortcomings and that proposals are in complete shape
- TSFD ensured proper uploading of proposals by assisting the UA in online uploading

Coordination with District Collectors, UA and Field-level Forest officers for identification of suitable non-forest CA lands and issue of RoFR certificates with enclosures

- Frequent monitoring of processing of proposals with forest officers & UAs through review meetings and video conferencing.
- Preparation of CAT Plan, SMC scheme and Wildlife Mitigation plans along with proposals not waiting for conditions in Stage I clearance.
- Vetting of the Demand notices raised by DFO on email by the Nodal Officer
- Helping the UA in uploading demand notices and generation of challan for payment through Ministry's portal
- Handholding with UA for filing compliance reports for Stage I
- Taking up the issue of Stage II clearances with the competent authority periodically

5. Special projects, special efforts

The Kaleshwaram Lift Irrigation Project, the world's largest multi-stage lift irrigation project at an estimated cost of Rs 80,000 crores, is the most prestigious project taken up by Telangana State. This project is aimed to irrigate 45.00 lakhs of dry agriculture land in Telangana. The project involved a diversion of 3,168 Ha of forest land spread over eight divisions and CA land of 3,367 Ha was identified in seven divisions of the state. It was a big challenge to get proposals processed simultaneously from thirteen divisions in seven circles. The Forest Department initiated a new mechanism for processing these applications and ensured that the project approval/ clearance was accorded in a record time without compromising on the core principles of the FCA, 1980.

After inspection of the forest area as well as the proposed non-forest CA area, all the concerned Forest Divisional Officers, District Forest Officers and Conservators of Forests from Forest Department and concerned Executive Engineer, Superintendent Engineer and Chief Engineer, were called to the Principal Chief Conservator of Forests (HoFF) office for two days. The proposal was finalized jointly by the Forest Department and Irrigation Department officials during the two-day exercise, which is probably the first of its kind in the country. On account of cooperation extended by the forest department, the proposals were submitted within 41 days to MoEF & CC, GoI and Stage-I approval was obtained from MoEF & CC after site inspections by Regional Office and further clarifications from Irrigation department. This process usually takes 2-3 years, but was completed within 2 months.

Stage-II approval, which normally takes one year or more was obtained in 33 days for such a major irrigation project. This was possible because of collecting and finalising compliance reports on Stage-I conditions by organizing a two-day meeting with all concerned forest officers and Irrigation Department officials in the office of PCCF(HoFF), Telangana. The mutation of all non-forest CA lands and handing over to the Forest Department was completed within a week in seven divisions. To meet the number of planting points stipulated in Stage I, additional areas of CA in degraded forest lands were also identified in 10 divisions and schemes were prepared. Compliance to Stage I was furnished within 10 days.

The role played by the Forest Department in obtaining early approval of the project has been appreciated by the Hon'ble Chief Minister. The Hon'ble Minister for Irrigation has called all the concerned forest officials to Hyderabad and felicitated each one of them; an honour given to forest officers for the first time in the State and probably for the first time in the country.

6. Persuasion at all levels

Though identification of non-forest CA land and getting RoFR certificate was the responsibility of the User Agency, the Forest Department coordinated with District Collectors, in addition to the persuasion by the concerned UA. The Department also helped User Agencies in the preparation of proposal, its online uploading and processing, along with pursuing the approval of public projects with the State Government, Regional Office, Chennai as well as MoEF & CC, New Delhi, from its side, in addition to the efforts by the User Agency.

Meeting with Regional Officer MoEF&CC

7. Finding Opportunity in Challenge

a) Innovative ways to facilitate wildlife crossing

It is observed that linier projects like roads, canals etc., cause hindrance to the movement of wildlife and it sometimes cause fatal accidents. To address this problem, the Wild Life Institute of India (WII), Dehradun published a book containing different mitigation structures to facilitate movement of wild animals. But such mitigation structures are confined to road, rails and power lines and that too for projects passing through protected areas. For other linier projects, especially for irrigation structures like canals, no mitigation structures are prescribed by the WII or MoEF & CC. Similarly, the MoEF & CC does not insist on providing such mitigation structures for linear projects in respect of forests falling outside the protected areas. The Telangana Forest Department insisted on providing mitigation structures, which are eco-friendly, for all linear projects passing through non-protected areas as well. The Forest Department designed CM & CD structures like under tunnels, super passage, ramps for wildlife crossing and also provided drinking water to wildlife in consultation with the Irrigation Department by duly prescribing detailed specifications.

Box Culvert over ORR.

b) Twin clearances at one go

As per the MoEF & CC guidelines, separate proposals have to be prepared for the projects involving protected areas for obtaining clearance under a) Forest (Conservation) Act, 1980 and for b) obtaining approval from National Board for Wildlife under Wildlife (Protection) Act, 1972. Normally, proposals for both clearances are submitted and processed separately. This often resulted in delays for obtaining approvals from either of the bodies. Telangana Forest Department insisted on the submission of both proposals simultaneously and both were processed together and submitted to the State Government and MoEF & CC. As a result of this initiative, delays were avoided and both approvals were obtained from MoEF & CC, more or less at the same time.

8. Forest area demarcation and saving for the public exchequer

The MoEF & CC, while according Stage-I approval, stipulates erection of boundary pillars of 4 ft height at an interval of 20 mts. In united Andhra Pradesh, there was only one approved design for erection of forest boundary pillars, which was an RCC structure with 4 ft./ 4 ft at the base, 1ft X 1ft at top and 4 ft height above ground, and it normally costed Rs.9000. While there is justification for insisting on erecting such big boundary pillars in the areas involving block forest lands given for projects like mining, dams etc., the erection of such huge boundary pillars will not only be very costly but will also not serve much purpose for linear projects like laying of communication lines along road margins, drinking water pipe lines etc.

For example, the cost of erecting such boundary pillars, mostly passing by the side of roads (right of way), was worked out for the Bhagiratha Drinking Water Project and it was found to be running into hundreds of crores of rupees. The entire issue was examined and detailed instructions were issued to erect boundary pillars for linear projects. Under this, big boundary pillars have been confined at the entry and exit of each reserved forest at every interval of 200 mts to 1 km for certain categories, and also at turnings. Pillars of smaller dimensions of 6'X6' with 4 feet height in between big pillars were erected at every interval of 20 mts as stipulated by MoEF & CC. This state-specific initiative not only complied with the conditions stipulated by MoEF & CC (without compromising with the protection of forest land diverted for linear projects), but also resulted in huge savings to the public exchequer consequently.

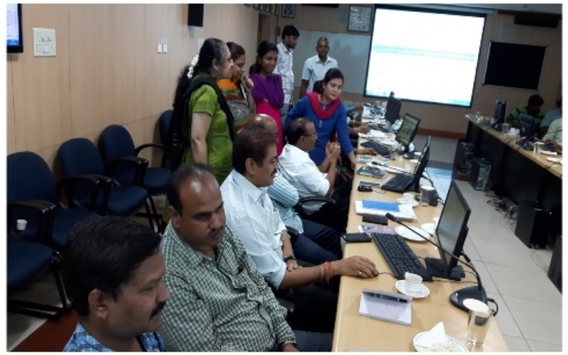
For example, on account of such revised prescriptions, there was a saving of Rs. 302 crores in respect of the Bhagiratha project; Rs. 95 crore in Kaleshwaram Lift Irrigation Project; Rs. 60 crore for Road projects; Rs. 12 crore for Sitarama Lift Irrigation Project and Rs. 10 crores for Transmission lines. Nearly Rs. 1285 crores was saved by prescribing specifications for designs of CM & CD structures in Irrigation and Road projects i.e. animal crossings, super passages, under tunnels, road bridges, ramps for wild animals as per the guidelines of WII, Dehradun.

About Rs.100 crores was saved by aadopting the proposed ESZ as boundary and recommending for the non-requirement of clearance from NBWL/ NTCA, thus saving deposition of minimum 2% of project cost. About Rs.180 crores was saved specially for irrigation projects by deleting the Soil and Moisture Conservation (SMC) costs from the proposed CA Scheme and including that component separately under 25% cost over CA as stipulated. This resulted in saving an additional cost of 25% over proposed CA for SMC. By not raising the additional demand over certain conditions imposed in Part II and III of proposals and meeting the same from NPV Costs deposited, about Rs.160 crores was saved. About Rs.80 crores was saved by streamlining techniques and year-wise operations for avenue and dwarf / low height shrub plantations, afforestation in CA lands etc and for minimising the Unit Costs.

Pillar for linear projects

Standard Pillar

Enabling Conditions:



- Effective and regular functioning of the High-Level Committee is one of the most important enabling conditions in the state for ensuring the adherence to the core principles of the FCA,1980 and expediting timely proposals

- Role of Forest Department changed from approver of applications received from User Agencies to an enabler/ partner/ supporter/ facilitator to UAs in the process of seeking approvals under FCA, 1980 and Wildlife (Protection) Act, 1972.

- Capacity building measures (training programs, joint workshops, hand holding support, joint video conferences and review meetings) for both forest department staff and staff of UAs helped in developing necessary knowledge and skill set among the functionaries on the procedural aspects of the FCA, 1980

- Capacity building measures also helped to create a new mindset among the department staff about their role in the process of conservation/ protection of forest lands and also facilitating development in the state

- The Partnership Model enabled the forest officers to identify with development goals while also attending to conservation concerns

Early Results

- Timely clearance of proposals for diversion of forest lands for public projects

- Understanding and appreciation of the proactive role of the Forest Department among all sister departments/UAs

- Improved coordination among departments and District Administrations

- Enhanced expertise in the field staff of Forest and User Departments

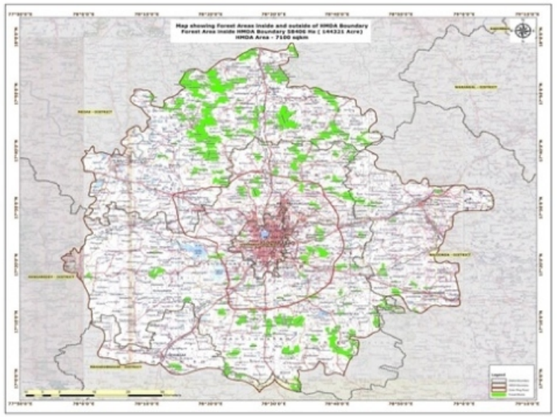
- Special appreciation from Hon'ble Chief Minister and Hon'ble Ministers

- Innovative designs leading to huge savings for public exchequer

- In addition to CA area, planting in degraded forest lands made possible; promoting "Land to Land" and "Tree for Tree" concept

Urban Forest Ecosystems:
A step towards climate resilience

Urban Forest Ecosystems: A Step Towards Climate Resilience



Context

In the 1900s, the percentage of urban population was less than 10% of the total global population. Now, it has increased to 55% and is expected to go up to 68% by 2050. The high-density urban population has demand for green surroundings and a better environment, but their scale of contribution is miniscule. The impact of urbanization added with climate change impact is taking a toll on the health of these urban populations. Thus, there is a need for improving the resilience of urban forests to make the city and its people climate resilient. The Hyderabad Metropolitan Region, with an area of 7228.09 sq.km., is 1/3 of the total population in the state.

The forest reserves make up 8.2% of this area i.e. 592 sq.km. Spread across 188 fragmented blocks, these are southern tropical thorn or deciduous forests. The average size of the blocks is about 300 hectares and they have the potential for providing the maximum ecosystem services to the city. Furthermore, it has been found that out of the 148 Municipalities/Corporations in the state, forest blocks exist within 5 kms with respect to 90 Municipalities/Corporations. Hyderabad is also probably the only metro city in the country which has 188 forest blocks spread over 1.5 lakh acres within the limits of Hyderabad Metropolitan Development Authority (HMDA). By conserving these urban forest blocks (UFBs) in the HMDA area, the per capita open space can be increased tremendously. This also provides an opportunity for protecting and preserving urban lung spaces that have become highly vulnerable due to urbanization.

With the advent of the Smart Cities initiative, there is an emphasis on making cities green to combat climate change. There is an impetus to create and develop at least one city forest under the Nagar Vana Udyan Yojana of the MoEFCC. In case of Hyderabad, the Forest Department has protected and developed the KBR forest block as an urban park (now, a national park) for many years. Every year, around 3 lakh people visit KBR park and that includes 4000 regular walkers who have annual passes. More importantly, the park acts as a carbon sink in the heart of the city. But with the threat of climate change looming on a global scale, it is important to make the city climate resilient for the present and future generations by protecting its urban forest reserves. In this regard, the implementation of TKHH done on a campaign mode in the state and the construction of the Outer Ring Road (ORR), put the spotlight on urban green spaces and green infrastructure.

The Hon'ble Chief Minister, analysing the rapid urbanization in and around the HMDA area, came up with the idea of conserving and preserving the UFBs in the entire state. In the case of Hyderabad, all 188 UFBs located in 129 locations within the HMDA area, have been identified for development at an estimated cost of Rs. 495 crores. Furthermore, 90 forest blocks located within 5-10 kms of other urban local bodies have also been identified for development.

Sri. A.Indrakaran Reddy, Hon'ble M. Forest &
Sri Ch. Malla Reddy M L& E inaugurating Aviary at Kandlakoya

Objectives

The main objectives of urban forest management are as follows:

- Protect and conserve urban forest blocks for ecosystem services
- Preserve and enhance biodiversity
- Facilitate the maintenance of micro-climate and air quality
- In-situ soil & water conservation
- Social benefits like health & education
- Sustainable eco-tourism/Recreational use

Initiatives

1. Securing financial support

The city climate resilience project was presented before in the State Climate Change Mitigation Committee (SCCMC) meeting headed by the Chief Secretary for the approval of the proposal for financial support under the Green Climate Fund. Realizing the necessity of this project, he extended full support for the programme and assured that the finances will be met by the state for all the blocks and conducted periodical reviews on its progress.

2. Coordinated effort

The State Government issued orders (G.O.Rt.No.73, EFS&T (For.I) Dept. Dt: 25-05-2018) for allotting the 129 forest blocks within the HMDA area to different agencies for development and management. They have been allotted to the Forest Department (85), HMDA (17), TSIIC (11), Tourism (7), TSFDC (4), GHMC (3) and HMR (2). Out of these, 59 blocks are located near habitations and they would be developed as urban forest parks similar to KBR Park. The balance 70 forest blocks are located away from the habitations and are not easily accessible to the public. Hence, they would be developed as conservation parks. The maintenance of these blocks and ownership remains with the Forest Department and the activities taken up will also have prior approval from the Forest Department. With reference to this, a State-level High-Power Committee and District level committees have been constituted under these orders for monitoring the implementation of the programme.

3. Management strategy

UFB management is classified as follows:

- Blocks for conservation and recreation
- Blocks for conservation only
- Blocks with conservation and recreation but with potential for eco-tourism

As many forest blocks are located close to/within the urban areas, they become susceptible to biotic pressures and impacts of urbanization. While developing these UFBs for conservation, the recreational needs of the local population have been considered. The UFBs will have two zones. While the "visitor's zone" will have an entry plaza and parking area apart from other amenities like pathways and education centres, the "conservation zone" will not be open to the public but measures for rejuvenating the forests and minimizing the biotic interference from human and non-human sources shall be taken by the Forest Department. The blocks proposed for "conservation" will only have rejuvenation activities along with protection measures, and the blocks with "ecotourism potential" will have added eco-tourism attractions apart from the scope for recreation in the visitors' zone.

The common rejuvenation measures in all urban blocks are as follows:

The blocks proposed for "conservation" will only have rejuvenation activities along with protection measures, and the blocks with "ecotourism potential" will have added eco-tourism attractions apart from the scope for recreation in the visitors' zone.

The common rejuvenation measures in all urban blocks are as follows:

1. Forest Protection

All activities towards protecting urban forest ecosystems are being taken up on a mission mode, right from the forest blocks that are in the city's inner zone and under more biotic pressure, to the outer zone where the forest blocks are less vulnerable.
Initially, masonry walls were constructed to protect urban forest lands. But they were blocking the beautiful view of the greenery inside the forest blocks. However, chain-link fencing around the forests is now being done to prevent and protect the forests from becoming burial grounds, dumping of waste, drainage, trespassing and fragmentation. This demarcation seeks to minimize the scope for land disputes and encroachments, while increasing the scope for nature to rejuvenate. Fire prevention measures like fire breaker lines and fire control equipment are also available in all urban parks.

2. Restoring ecological functions

The conservation areas that are not frequented by people have been identified for the restoration of ecological functions. To improve the biodiversity and composition of the forests, efforts are being directed to restore hydrology, recycle soil nutrients and make soil moisture available. While the soil and moisture conservation techniques are being applied to help species survive in hot climatic conditions, the tending of existing trees and planting of local species is being done to improve natural regeneration of existing root stock. Apart from these activities, critical watering for planted saplings and fire prevention measures are being taken.

3. Removal of invasive alien weed species

The removal of invasive alien weed species is a major task that has been taken up to reduce the competition for local species and provide a space for their growth, so that they will ultimately help in the sustainable provision of ecological services. In addition to this, the process of introducing selective, climate-hardy plants to make the ecosystem more resilient has begun.

4. Rejuvenating water sources

Watershed approach has been followed to harvest rainwater in the UFBs. Water harvesting structures have been constructed to ensure availability of water to the fauna during summer and to also retain the runoff water that will recharge the groundwater table. With an increase in the groundwater, the drinking water needs of the nearby urban population will be met, besides preventing the flooding of low-lying areas. Additionally, water holes are being filled through solar borewells and the ponds in the forest blocks are being rejuvenated.

5. People's participation

The visitor's zone in the urban forests is not only helping people understand the need for conservation, but also giving them a space to be with nature. The user fee paid by the visitors is being used for the maintenance of such parks and nature camps are being conducted for children in the same vicinity to create awareness in the neighbourhood communities. So far, these zones have been made in 76 urban forest blocks and 26 such parks have already been opened to the public.

Revival of Water Bodies

Enabling Measures

- Strong will and complete commitment from the government
- State and District level committees to monitor implementation
- Master plan with a budget commitment for developing UFBs
- Setting up an Urban cell within the MA&UD Department at the State and Municipality/Corporation levels
- Convergence with other urban development departments
- Periodical monitoring of progress by the Chief Secretary

Tiger Awareness Day

Early Results

The successful opening of urban parks to the public has not only projected a positive image of the Department, but has also garnered praise from the public. Citizens have appreciated the efforts of the Forest Department after seeing the benefits of having urban forest parks in their localities. For example, the Kandlakoya Oxygen Park can be termed as a success story. The park's aviary has become a hit with students and adults alike.

Similarly, the Lakkaram forest block in Yadadri district has become very popular due to the plantation which was done on Miyawaki lines (i.e. encourage natural vegetation for restoration of degraded habitats) near Lakkaram village. The amenities provided there became a good attraction for the local community and it soon became an eco-learning centre for students.

The increase in the number of visitors to the park is reflective of their environmental awareness, their willingness to pay a fee for its maintenance, and the need for urban lung spaces. In fact, the demand has increased so much that every park opened to the public so far has become self-sustainable in terms of maintenance.
As citizens are becoming more aware of the ecosystem services provided by these blocks, the demand for more such parks is growing. This initiative has expanded the scope for improving the knowledge of forest officials through research, capacity building, and replicating such projects in other parts of Telangana.

Forest Production:
Ease of doing business

Forest Production:
Promoting Ease of Doing Business

Context

Till the late 1980s, forest production was a key revenue source for the department and the government. After the advent of the National Forest Policy, 1988, conservation concerns came to the fore front. However, regulating procurement and use of various forest produce is an important revenue-earning and regulatory function of the department. It is also a sensitive issue that calls for ensuring ease of doing business on the one hand and enforcing strict regulation on the other. While proper handling of this issue can bring good name to the government in doing business, the opposite could mar its image.

The Forest Department directly interfaces with society and citizens for granting permissions for tree felling in private lands and collecting, transporting and processing forest products like beedi leaves from forest areas. This is mainly a regulatory role of the department. There were several challenges in monitoring this production process and the systems were largely manual with limited IT applications. Citizens had to face considerable delays in the process of getting permissions and there was no efficient system in place for monitoring the progress on these matters. This is the only item from the Forest Department included in the indicators of Ease of Doing Business (EoDB) of the government. Keeping this in view, the Forest Department, Government of Telangana decided to take this opportunity to change the system for better.

Government vide Gazette notification No.40 9th September 2017 issued amendments to scheduled II of Telangana Forest Produce transit rules, 1970 listing out 40 species in the exempted list. This resulted in a multi-fold increase in the number of applications requesting permission for tree felling.

Objectives

The main objectives behind the initiatives are:

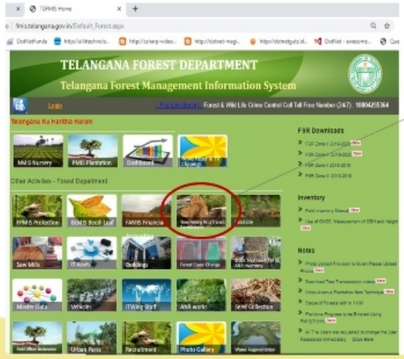
- To bring in efficiency and transparency into the information systems regarding the issuance of tenders and sale process of beedi leaves.
- To effectively monitor the activities of saw mills and other wood-based industries.

Initiatives

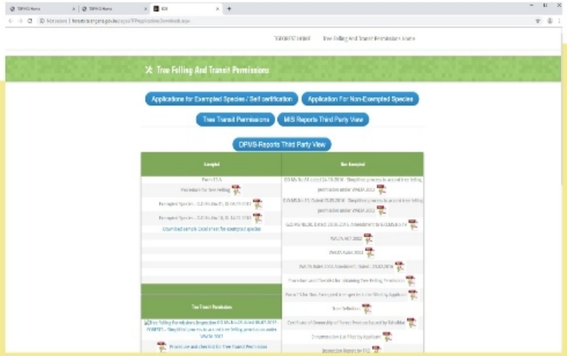
I. Online Permission for Tree felling

In Telangana, tree felling outside the forests is regulated under the Water, Land and Tree Act (WALTA) Act, 2002 and the transit permit is regulated under TS Forest Act. Earlier, applications for tree felling used to be submitted manually along with the required documents to the DFO. Once the application was received at the Division office, it would be forwarded to the Forest Range Officer by post. The Forest Range Officer would then conduct inspection and submit a report to the Divisional Forest Officer. The Divisional Forest Officers, in turn, would grant the tree felling and transit permit, and communicate the same to the applicant and Forest Range Officer via post. The entire process used to take a minimum of 2-3 months, in addition to the time lost in the visits made by the applicants to different offices.

As part of improving the systems on this agenda, the Forest Department and the Government of Telangana decided to 'go digital'. First, the entire process of tree felling and transit permit was made online after orders were issued under G.O.Ms.23 EFS & T (For-I) Dept. dated 05.07.2017. Under this new system, the applicant submits an application on the Department's website (http://fmis.telangana.gov.in/EDB/Registration.aspx) which gets forwarded to the concerned Divisional Forest Officer. The DFO/FDO can login and find a list of all applications forwarded in the "dash board". DFO/FDO in turn forward the same to the Forest Range Officer online. The FRO can login and find all applications forwarded in the 'dash board'. The Forest Range Officer, on the completion of inspection, submits an inspection report to the DFO/FDO and marks an online copy to the applicant. The DFO/FDO grants the tree felling permission and posts the same on the website. The officer also informs the applicant and Forest Range Officer electronically. In addition, the applicant can view the status of his/her application at any time. Any query raised at any stage is electronically sent to the applicant and the applicant in turn submits the required information by uploading the same. For processing and according the tree felling permission, time limits have been given at every stage and the final permission should be granted within 12 days. As the entire process has gone online, the applicant need not visit any office. Not only has this measure reduced the time frame from the earlier 2-3 months to 12 days, but it has also improved transparency, accountability and trust of the public in the Forest Department.

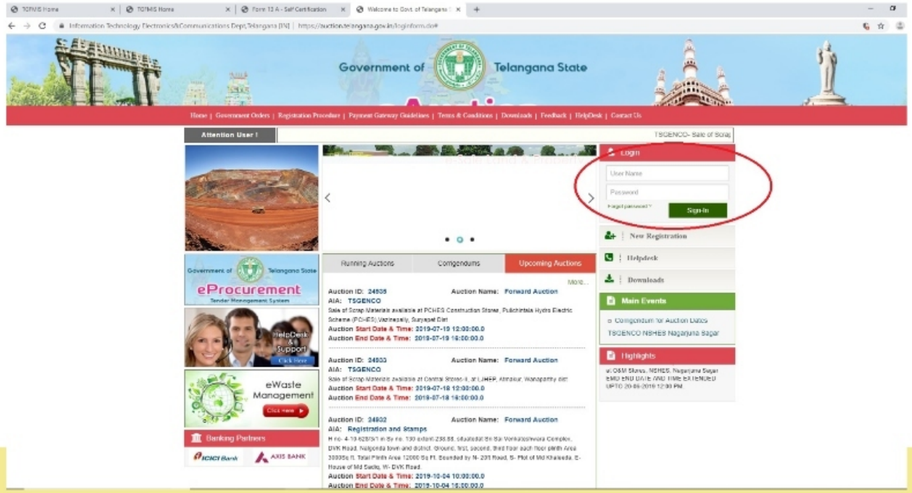


Click on Tree Felling and Transit Permissions



II. E-Tendering for beedi leaves sale

Large number of tribal people and others close to forest lands are dependent on collection/ process of beedi leaves. The arrangements followed for monitoring/ approving this activity are not the best ones. The sale of beedi leaves was through tendering procedure. Forest Department used to advertise for tenders in newspapers and the tenders used to be opened in Hyderabad. Field officers had to come to Hyderabad to open tenders, analyse them and announce the highest bidders. All this was being done in the presence of prospective beedi leaf purchasers by organizing bid opening process. The same exercise used to be repeated for 3-4 rounds, since sales were not completed in one go. This whole manual process used to be cumbersome and time-consuming for the forest officers whose duties would be disrupted 3-4 times and at least 1-2 days each time of visit, during the sale process. It was also inconvenient for the purchasers as well. Through BLMIS, almost real time data is obtained about beedi leaves collection, bagging and storage.



Government vide G.O.Ms.No.14, IT, E&C (E-procurement) Dept. dated 18.09.2017 launched a new version of e-procurement and e-auction application. Further, vide G.O.Ms.No.11, IT E&C (e-procurement) Dept. dated 27.06.2018, Government issued orders for implementation of E-auction services in all departments. In 2017, beedi leaf e-auction was introduced in the sale process under G.O.Ms.55, EFS &T (For-I) Dept. dated 26.09.2016. In addition to saving the travel time of field officers, the e-auction enabled the purchasers to participate in the process from any part of the country without taking the trouble of travelling to Hyderabad. It has also improved the efficiency and transparency of the system. Now, the entire information system is online. All information regarding the collection, transport and storage of beedi leaves is updated on a daily basis at the Range Office. On account of the online availability of all information, monitoring at the Divisional, Circle and Head Office levels has become easier and has resulted in saving lots of paper work, thereby helping the citizens and department to function in an environment-friendly manner.

1. Beedi Leaves Process Monitoring

The collection of beedi leaves, its transport and storage in godowns all ove
Previously, information about the beedi leaves collected on a daily basis in
recorded manually, consuming a lot of time and energy. This information
before being forwarded to the Head Office. There used to be a time lag of
of effective monitoring.

4. Monitoring of activities of wood-based industries:

With regard to saw mills in the state, the TS Forest Act, 1967 framed its rules and regulation under the TS Saw Mill (Regulation) Rules, 1969. Traditionally, the Forest Department insisted that only saw mills need to obtain a license from the Department; leaving out other wood-based industries. However, the Hon'ble Supreme Court in W.P. No. 202/1995, (T.N. Godavarman Thirumulpad v. Union of India, Supreme Court of India) mandated the State Government to close all wood-based industries including plywood, veneer etc., that were running without a license and further directed that new licenses can only be given after taking approval from the Central Empowered Committee (CEC). In 2006, the CEC gave certain directions (minutes of

the meeting held on 26.05.2006 regarding Wood based Industries in A.P.) for the implementation of the orders of the Hon'ble Supreme Court.

After studying the Saw Mill Rules in other states and countries, the Forest Department prepared the Draft Wood Based Industries (Regulation) Rules. Complying with the orders issued from the Supreme Court and CEC, the Department submitted the draft rules to the latter for approval. After the approval of the draft rules by the CEC, the State Government promulgated the TS Wood Based Industries (Regulation) Rules, 2016 and repealed the old Saw Mill Rules, 1969. In the new rules, wood-based industries have been classified into different categories depending on the source and type of material used in them. Accordingly, regulatory mechanisms have been put in place to have a higher level of monitoring of wood-based industries that use forest-based timber. Additionally, instructions have been issued (Rc.No.3860/2017/Prod-2, Dt.02.02.2019 of the PCCF (HoFF) T.S., Hyderabad) to install CCTV cameras to keep a close watch on any illegal conversion of timber that may take place in the saw mills that convert forest-based timber. Such a move has not only made the saw mill owners accountable, but has also checked any harassment by Forest/Police officials.

Enabling Conditions:

- Amendment to Schedule-II of Telangana Forest Produce Transit Rules, 1970 expanding the exempted species to 40
- Issue of Telangana Wood Based Industries (Regulation) Rules, 2016 clearly stating the business procedures
- Simplified process to accord tree felling permission and transit permit under WALTA, 2002
- Opening of an e-procurement portal by the Government

Early Results:

- Time required for granting permissions in case of cutting trees on private lands has reduced drastically
- Time lags between data sharing and monitoring have reduced, and that has helped quick decision-making related to procure ments, sales and transit permits of beedi leaves
- Better regulation/control over wood-based industries (particularly saw mills) is now established
- Contribution to the state government's ease of doing business

Capacity Building
for a competent workforce

Capacity Building
for a Competent Workforce

Context

Capacity Building (CB) is the process through which individuals and organizations acquire, improve and retain the knowledge, skills, tools and other resources required for performing their tasks competently. The National Training Policy (NTP), 2012 lays emphasis on the fundamental principle of competency framework as a basis for CB. It becomes a crucial input when less people have to do more, as was the case in the newly formed TSFD. The new and challenging assignments given to the forest department called for a comprehensive CB initiative.

Objectives

CB was initiated to address the following:

- To equip all officers and staff with CB inputs on selected topics by conducting programmes
- To provide CB support to other stakeholders

Initiatives

1. Universal coverage approach

In the traditional setting of classroom training, only a few officials can be trained in any given year, which means that all the staff up to the Beat Officer lose out on training opportunities. Hence, a two-level approach for the Training of Trainers (ToT) strategy was adopted to reach all the officers and staff on selected topics. In the first phase, trainers were selected from each Division and Circle and were trained at the Telangana State Forest Academy (TSFA). They were provided with reading material as well as a module for training the officers at the District/Division level. ToTs were conducted on the following subjects

S. No.	Subject/Topic of ToT
1	ToT on Grasslands Management
2	ToT on Vanadarshini
3	ToT on Swacha Pathashaala-Haritha Paathashaala
4	ToT on Gram Panchayat Nursery Raising
5	ToT on Water Harvesting Structures
6	ToT on Forest Fire Management
7	ToT on Sandalwood Nursery raising
8	ToT on Wildlife Crime control
9	ToT on Biodiversity

Due to the ToT approach, all officers up to the last level have gained knowledge and skills on the important subjects related to the department. This enabled everyone to be on the same page and work cohesively.

2. Focus on off-campus programmes for better reach

TSFA is the nodal institute for the department to organize training at all levels. Institutional and residential training involves travel of field staff and many a time it is better and efficient if the trainings are organized at field level. Keeping this in view, focus was given to off-campus programmes at two levels: a) Circle level programmes where 2-3-day programmes focusing more on knowledge as well as skills were organized and b) Division/District level programmes where one day courses on specific field related topics were organized.
Focus on off-campus programmes enabled the department to train a greater number of officers at less cost and it also helped in taking more Forest Range Officers (FROs) for an 18-month long Induction Training Programme (ITP) at TSFA, along with accommodating the three-year intake (150) of B.Sc. Forestry students of Forest College and Research Institute (FCRI).

3. Meeting the knowledge/skill needs of senior officers

It was felt that Senior Officers need to be exposed to the latest developments in the field of Forestry & Wildlife at periodic intervals. If officers are sponsored for courses outside, only a few can be sent due to cost concerns. Thus, experts of national/international repute were invited to Telangana during Forest Officers' conferences to share their experiences on selected topics. This really helped the senior officers to develop a comprehensive view on different contemporary subjects.

4. Design and implementation of programmes for public outreach

Implementation of TKHH implied that capacity building of other stakeholders, especially outside the government, was necessary. In this regard, the TSFD identified a number of outreach programmes like nature study camps, village contact, school visits, eco-sensitization meets, empowering green brigades, organizing Green Runs, etc.

Detailed guidelines were issued on organizing these events through PCCF (HoFF) Rc.No.9882/2018/SF-III, Dated:08-11-2018.

II. Awards and Rewards

Context

American psychologist Abraham Maslow proposed the "Theory of Human Motivation" in 1942. Under this, Maslow presented a hierarchy of needs in which 'basic needs' like 'physiological needs' (food, water, shelter, safety, security, etc.) are at the bottom, above which 'psychological needs' like relationships and feelings of accomplishment are placed. Once these levels are crossed, an individual would be able to achieve their full potential.

While jobs provide for the basic needs, organisations need to ensure that good working conditions are built at the workplace (i.e. organizational culture) to foster better relationships between employees. TSFD tried to address these concerns through a series of administrative reforms.

Objectives

When an individual's or a group's work is recognized, they feel a sense of achievement. While TSFD chalked out a clear path and committedly followed it in the last five years without keeping awards/rewards in view, the good work was still recognized.

3. Meeting the knowledge/skill needs of senior officers

It was felt that Senior Officers need to be exposed to the latest developments in the field of Forestry & Wildlife at periodic intervals. If officers are sponsored for courses outside, only a few can be sent due to cost concerns. Thus, experts of national/international repute were invited to Telangana during Forest Officers' conferences to share their experiences on selected topics. This really helped the senior officers to develop a comprehensive view on different contemporary subjects.

2. Haritha Haram Award

The Government of Telangana introduced the Haritha Haram Awards to be distributed both at the State and District levels for recognizing the services rendered by officials of different departments and institutions like schools, colleges, Gram Panchayats, Municipalities, Corporations etc. on 15th August, every year. Till now, 3 field officers from the Forest Department have received State level awards and 34 at the district level.

3. Rotary Club Award

Rotary Club, Telangana Chapter has awarded 5 forest field officials in the cadre of Forest Beat Officers and Forest Section Officers in recognition of their services in the field of Forest and Wildlife protection. The awards were distributed at Hyderabad on 17th April, 2019

Enabling conditions

- Clear capacity building strategy based on department priorities
- Complete coordination between department and Academy
- Full financial and logistic support from the department for CB activities

Early results

- Forest officers from the top to the Beat Officer gained knowledge and skills on priority areas of the department as evident from their actions
- Creation of a large pool of trainers for engagement on need basis
- The reach of CB activities is now more than four times the normal numbers

III. Forest College and Research Institute- Developing Future Foresters

The Government of Telangana issued orders for the establishment of "FOREST COLLEGE & RESEARCH INSTITUTE", Hyderabad at Mulugu. Vide G.O.Ms.No.51, Date: 09-10-2015, EFS&T Department with the following vision and mission:

Vision

- Emerging as an Institution of excellence for Forestry Education, Research, Management and Outreach.

Mission

- To establish a world class institution in forestry education
- To bring out qualified forestry professionals for conservation and sustainable management of forest resources
- To develop appropriate methods through research for propagation of the plantation crops to meet the demand from industry and domestic needs
- Extension training to the farmers
- Networking and partnership with similar institutions to synergise learning
- To develop Agro-Forestry models suitable for different agro-ecological situations, apart from conventional forestry operations so as to reduce pressure on natural stands, economic upliftment of farming communities and to enhance ecological conditions

Progress

1. Forest College and Research Institute, Mulugu (FCRI) has 150 B.Sc. Forestry students in 2nd, 4th and 6th semesters. The first academic year was started in 2016. The first batch will come out in 2020.
2. Admission in to B.Sc. Forestry at FCRI is through TS-EAMCET merit.
3. M.Sc. Forestry shall commence from the year 2020 and PhD Forestry from the year 2022.
4. Currently, FCRI is affiliated to Osmania University, future plan is to develop FCRI into University of Forestry and Natural Resources which will be the first of its kind in India.
5. There are 7 departments in FCRI viz., 1. Silviculture and Agroforestry2. Natural Resource Management and Conservation3. Wildlife and Habitat Management4. Forest Products and Utilization5. Tree breeding and Improvement6. Forest Ecology and Climate Science 7. Basic and Social Sciences.
6. FCRI is fully functional with 14 regular Faculty members, recruited through TSPSC. Few guest faculty are also on the rolls of FCRI.
7. Regular staff of 66, including faculty and office staff, and 52 outsourcing staff members are sanctioned, based on the requirement, the services are engaged.
8. Rs. 75 crore administrative sanction is given for infrastructure and buildings. The construction work is taken up by TS Police Housing Corporation Ltd.
9. Hostel blocks, one for boys and other for girls, are in ready to occupy state. Administrative block including college building, mess block, protection wall and other infrastructure like staff quarters, internal roads, entry gate and others are in progress & would be ready by July 2019. At full capacity, campus will have about 324 students in all courses put together.
10. Students have attended summer internships in about a dozen organizations for past 2 years and the faculty has mobilised 4 projects so far.

Public Relations:
Reaching out to stakeholders

Public Relations
Reaching Out to Stakeholders

Context

Public relations is the practice of managing the spread of information between an individual or an organization and the public. Public relations serves the purpose of sharing information on the activities of an organization, building its image and acting as a feedback channel. The media plays a major role in building public opinion and with the advent of new platforms, social media has become an important source for news. Due to this, government representatives, international organizations, corporates etc., are now diversifying their public relations by using various channels of communication.
Traditionally, forest officials were found to be shy in sharing information with the press. The coverage of forests and wildlife related news had been very poor in print and electronic media. The limited sharing of information resulted in the media publishing negative stories based on their own sources than positive ones.

Objectives

The main objectives of the public relations initiative are as follows:

- To improve the overall coverage of department news in print and electronic media
- To improve the percentage of positive news coverage
- To communicate the activities of the department to the public proactively

Initiatives

1. Institution of Public Relations Officer

The launch of TKHH implied that it was necessary to create awareness about its purpose on a massive scale. This exercise could only be done through public relations which is a specialized area that requires a certain skillset. Thus, to improve visibility and media relations, a professional Public Relations Officer (PRO), with a rich experience of working in print media, had been engaged in the department on contract basis from June 1, 2017.

Union Director General of Forests extols State initiatives

STATE BUREAU
Hyderabad

Union Director General of Forests Siddhanth Das hailed the programmes launched by the Telangana government to increase the green cover and to better utilise the river waters and described them as a role model for others to emulate.

Das on Saturday met Chief Minister K Chandrashekhar Rao at Pragathi Bhavan. He congratulated the State government for realising the importance of trees and water and implementing programmes such as Haritha Haram and others.

The Chief Minister said through Haritha Haram, it was planned to raise 230 crore saplings in the State and added that there were 4,000 nurseries in the State as on date and by next year, every village panchayat would have a nursery. To create awareness among people of the next generation, lessons on Haritha Haram would be introduced in the school textbooks from the next year. The Chief Minister said though Krishna and Godavari flow in the State, there were no projects to utilise the water and hence the State government embarked upon constructing major projects. He said under Mission Kakatiya programme, some 46,000 tanks were being revived.

FORMAL WELCOME: *Chief Minister K Chandrashekhar Rao presenting a memento to DG of Forests Siddhanth Das at Pragathi Bhavan. Ministers T Harish Rao and Jogu Ramanna are also seen.*

Doing best to protect forest lands: Officials

STATE BUREAU
Hyderabad

Haritha Haram, a plantation drive taken up by the Telangana government, is reaping benefits and is helping the government achieve the required green cover in the State, officials from the State Forest Department told Siddhant Das, Director General of Forests, on Saturday.

In a meeting with forest officials of Karnataka, AP, Odisha and TS, the DG emphasised the need for concrete steps from the governments to protect forest lands. "The situation is changing across the world. Forest lands are trampled upon in the name of development. According to a recent survey taken up by the Forest Survey of India, the country's forest cover is only 24 per cent," he said and added that there are a number of legal cases pertaining to the ownership of forest lands.

Reacting to this claim, TS officials told the DG that the State was surveying all the lands as a part of its land record digitisation scheme.

2. Collection of information and quick sharing

The PRO engaged by the Forest Department collects information from the entire state, converts it into news items and shares them with the print and electronic media. On account of this pro-active step taken by the department, the overall news coverage has gone up substantially. As media personnel require quick information, a WhatsApp group with media representatives has been created. But in the age of information explosion, immediate fact-checking, verification of news items etc., has become important for crisis management. For this purpose, the PRO is now available 24x7.

Both positive and negative news are shared with all officials in the department. In case of adverse news, the department has acted quickly in taking prompt action wherever any deficiency was noticed. For internal coordination and having a single source for all news, another WhatsApp group has been formed with top-level officials from the Forest Department and CMO where daily updates are posted every morning.

3. Field tours

Media personnel have been taken on field visits (i.e. Haritha Darshini) to places like Gajwel to familiarize them with the activities of the department. As the institution of PRO was constituted for TKHH initially, seminars at the school level have been arranged and now department representatives are being invited to talk on such initiatives by educational institutions. Apart from TV and print media, theatres and FM radio, outdoor publicity has also been done for TKHH.

4. Online monitoring

The PRO monitors and documents all sorts of coverage in a physical database and uploads the same on the website (tgfmis.com) on a daily-basis. This is being done for creating a digital library and having open access for the public at any time. All the news items posted on the website are further analysed language-wise, subject-wise and categorized into positive and negative news.
The Heads of Department (HoDs) and the concerned officials go through the news items on a daily basis, especially the negative news for taking corrective action. The news items published and uploaded on the department website for the last two years from June, 2017 to June, 2019 are analysed as follows:

CALL OF NATURE

Learning in woods: Govt school kids taken on field trip to forest

As part of the Vana Darshini programme, over 118 students were taken to forest areas in Bhupalpally | EXPRESS

ANIL KUMAR @ Warangal

THE Forest Department in Bhupalpally has started a novel programme called Vana Darshini for students of government schools with the aim to familiarise them with forest and its benefits.

Over 118 students from Government Model School, Venkatapur and Kasturba Gandhi Balika Vidyalaya (KGBV) were taken to nearby forest area. The forest officials explained the students about the importance of forest and how it is responsible for rainfall. Students were shown different plants and taught about its importance. The forest officials also screened a documentary on Eturnagaram wildlife sanctuary.

"We are organising these visits so that students have a first hand experience and show concern for nature," said Bhupalpally district forest officer SV Pradeep Kumar Shetty. The students trekked long distances to see the facilities that forest officials have provided for wild animals. They learnt about tiger trenches and saucer pits. The students were also taken to environment education centre and were briefed about environment conservation.

District eco-tourism coordinator Suman Kalyanapu claimed positive results. "We are receiving good feedback from schools," she said.

INDIAN EXPRESS Mon, 24 December 2018
epaper.newindianexpress.com/c/35132610

DECCAN Chronicle
THE LARGEST CIRCULATED ENGLISH DAILY IN SOUTH INDIA
KARIMNAGAR | TUESDAY | 16 MAY 2017

Collectors get expert tips on 'seed bombing' concept

DC CORRESPONDENT
WARANGAL, MAY 15

A workshop on the benefits of Seed Bombing to grow more trees as part of Telanganaku Haritha Haram, organised by retired IAS officer K. Amarnarayana, who popularised the seed bomb concept.

District collectors of Warangal Urban Amrapali Kata, Warangal Rural Prashant Jeevan Patil, Jangaon A. Sri Devasena attended the workshop at the collectors' conference hall.

Mr Amarnarayana made a presentation of success stories achieved by seed bombing technology to regenerate forests and increase the green cover. He said they succeeded in growing a dense forest on several hillocks in Karnataka over the years.

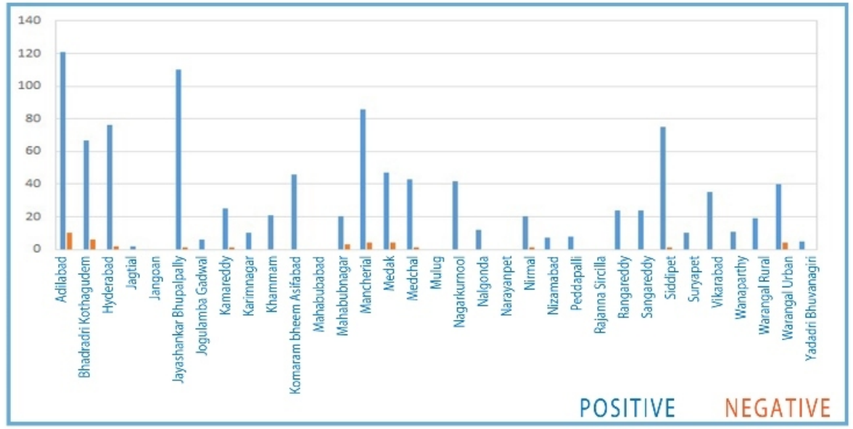
He explained that a seed bomb is made of clay, manure, water and seeds in the middle. These balls are dried up and are thrown in barren lands just before the monsoon. Once there was rain, the balls open up and seed starts germinating.

Amarnarayana shared his experiences of how he turned denuded hillocks into dense forests in Chitradurga, other districts.

Appreciating the state government's decision to plant 40 crore trees this year as part of Haritha Haram, Mr Amarnarayana advised the officials to fix responsibility and involve every section including police, NGO, students, inmates of destitute homes and others.

Speaking after the presentation, collector Sri Devasena sought the guidance of Mr Amarnarayana, in turning drought-hit Jangaon green with trees.

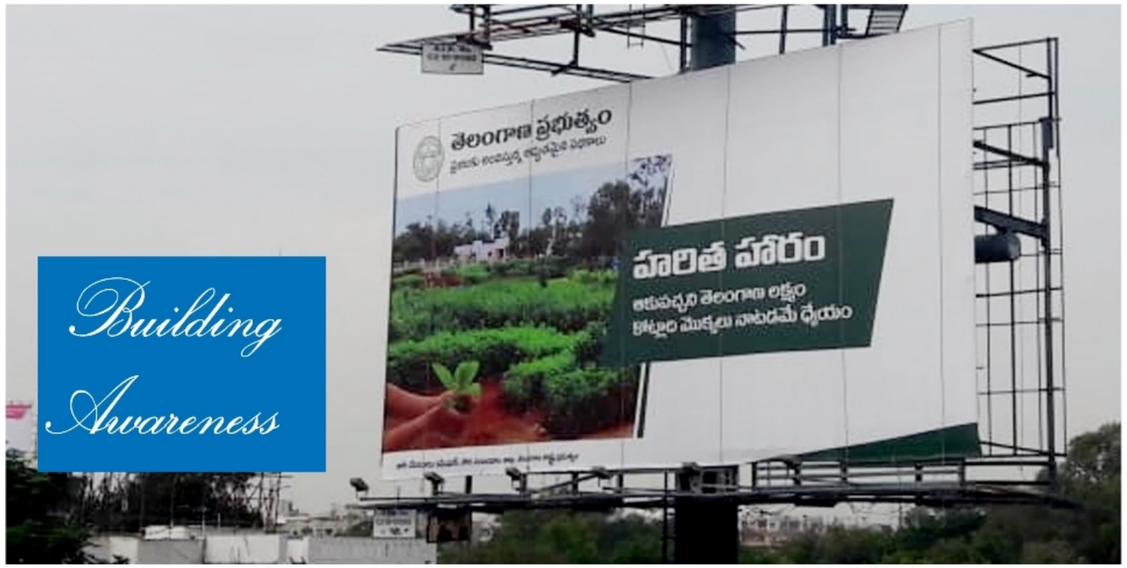
News Coverage Between June 17 – June 19



As seen from the above analysis, a total of 6, 210 news items were published over the last two years. Out of these, only 213 (0.034%) are negative news while the rest (99.97%) is positive news. Further, 99.03% state edition news and 99.96% district edition news are positive. The average published news items related to forest and wildlife is about 9 per day, making it the highest among all the departments at the State level.

Enabling conditions

- Commitment to improve the public image of the department
- Setting up the institution of PRO
- Creating and using a quick sharing mechanism
- Taking immediate action in the event of adverse news



Early results

The entire PR exercise has helped the department in improving its public image. From the very insignificant press coverage earlier, the department has now achieved high levels of media coverage. Apart from the coverage of State-level initiatives, District-level activities are also being covered by the media. This has helped in boosting the morale of District-level officials and field officers. Similarly, the department's Twitter handle and Facebook page which has 25k followers, has played an important role in public outreach. Information on urban parks, employee-oriented initiatives, CAMPA funds utilization, forest regeneration, workshops conducted etc., is now openly available for bringing more transparency. As the institution of PRO is one of the first in the country, officials from other states are appreciating it and seeing the scope for replicating the same in their own states.

Going extra mile to make Amrabad reserve litter-free

BALU PULIPAKA
Hyderabad

Travellers on their way to Srisailam through the Amrabad Tiger Reserve were in for a surprise on Sunday with the Forest department staff conducting an awareness drive against throwing of trash in the forest.

The drive was conducted with 22 of the department staff asking people to deposit their trash with them. "We collected plastic bottles and empty snack bags that were enough to fill 18 gunny sacks," the reserve's field director CP Vinod Kumar said.

The drive, he told *Telangana Today*, was a part of the exercise by the reserve staff as they prepare to declare the tiger reserve as plastic litter-free from June 5. A few days ago, the Telangana Forest department announced that it will ensure removal of plastic waste from all wildlife sanctuaries, reserves and national parks as well as from urban forest parks from June 5, which is observed as World Environment Day.

Kumar said the staff split into two teams and stopped every vehicle crossing the two forest checkposts — Mannanur and Domalpenta — on either side of the nearly 60 km road that passes through the reserve. "We asked passengers to deposit any waste material they were carrying with us. Our staff also checked all buses. We collected about 700 plastic bottles and hundreds of plastic snack bags and wrappers on Sunday," he said.

In addition to collecting the trash, Kumar said everyone was informed about the awareness drive to keep the forest clean. "Many people appreciated the efforts of the staff," he said.

Encouraged by Sunday's response from people, Kumar said they were planning to set up two trash collection points at the checkposts to help people dispose plastic bottles or bags. "We will do this on an experimental basis. After we evaluate the response over a few days, we will take a call on whether to make these points permanent. This will be in addition to patrol teams that will catch people throwing trash in the forest," he said.

ECO-FRIENDLY: *According to officials, the Forest Department is planning to set up two trash collection points at the checkposts to help people dispose plastic bottles or bags.*

How a once-encroached forest land came back to life

EXPRESS NEWS SERVICE
@expressbuzz

Well-nigh a 750-ha forest area in Kinnerasani Wildlife Sanctuary has sprung back to life in the past four years, optimizing how nature can restore itself over time if the right conditions are provided and unnecessary human interference is minimised.

The Gollala area of forest land in Chatakonda reserved forest, was retrieved from encroachers by the forest department in 2014-15, following which it was protected by trenches from further encroachments and along with conservation of vegetation regeneration works. These works were conducted with CAMPA and BIOSAT funds.

Following this, the once-encroached area, now a forest land, started being visited by various wild animals. Recently a big herd of the endangered animal Gaur (Indian Bison) was caught in a camera trap set up by the Forest Department, apart from other small herbivores.

According to media release, the entire 750ha site was protected by a participatory trench. Protective grass were sprout in the deep jungle which prevented the movement of cattle into the site but permitted entry of wild herbivores. Conservation and Encroachment is the different area of this piece of forest land, which falls under Kothagudem territorial division, were also removed and restored with afforestation works.

Soil and moisture also set up in the centre of the 750ha area and forest guards kept regular watch.

A water bore well was also dug along with concreteration of a percolation tank, for the sake of drinking water for the wild animals. Grasslands were also developed in the area however, Hawaii grass was a major hindrance. The forest staff had to face backlash of excreting excess water from the forest lands on the base camp. It was once burned down by miscreants and solar panels were broken down.

But the forest department has paid rich dividends as small herds of Gaur started visiting the area along with other herbivorous like Spotted Deer, Sambar, Wild boar and Bonglaat from 2015-16. During the day time, these deer were also released here.

Now the forest officials are a large herd of gaur, apart from other small herbivores and carnivores like leopard, have become a common sight.

A large herd of gaur, apart from other small herbivores and carnivores like leopard, has become a common sight in the forest land three days

Express Photo

Keeping A Watch

Succour in summer for animals

Over 42 saucer pits filled up in Medak forest to help them quench thirst as several water bodies go dry

T SAMANGAR REDDY
MEDAK

With temperatures soaring by the day, the Forest Department authorities in Medak district have started filling up saucer pits in the forest areas on a regular basis to quench the thirst of wild animals and birds as the natural water bodies run poor dry.

Divisional Forest Officer M Pushpagiri said that the department has one saucer pit as a water source for every four sq km of forest area, which was spread over 32,000 hectares.

Speaking to Telangana Today, the DFO said that he ordered those saucer pits in addition to the existing forest to supply drinking water to the wild animals. A check dam was also constructed in Kowdipally forest area to store rainwater during the coming summer, she said.

Medak forest, which is known for its rich biodiversity, has leopards, bears, wild dogs and several other animals. Leopards over 100 species of birds, finding that the department started supplying water from January itself, Pushpagiri said. "Since we started filling the saucer pits, we have not seen any incidents of wild animals coming into the forest areas on a regular basis to quench the thirst of wild animals and birds as the natural water bodies have