

**Capacity building of District Biodiversity Management  
Co-ordinators on Biodiversity, Conservation and Documentation  
of Natural Resources for the State of Telangana**



**5<sup>th</sup> - 9<sup>th</sup> October 2015**

**Supported by:**

**Telangana State Biodiversity Board, Hyderabad**

**Organised by:**

**Institute of Trans-Disciplinary Health Sciences and Technology (TDU),  
Bangalore**



**Preamble:**

India is one of the 12 mega biodiversity countries of the world. It harbours varied ecosystems ranging from the tropical rain forests to high alpine cold deserts, grasslands to coasts. The country has three major biological realms and adorned with 10 bio-geographic zones.

However, there is hardly any scope for complacency since there is considerable habitat destruction, fragmentation, degradation and over exploitation of biological resources due to ever increasing human population, rapid expansion of agriculture, industry and urbanization. Unsustainable harvest practices and illegal trade have also severely affecting many species of flora and fauna. Biodiversity is crucial to human wellbeing, sustainable development and poverty reduction.

India is a signatory to the Convention on Biological Diversity (CBD). The National Biodiversity Act was enacted to meet the obligations under the CBD and for proper harnessing and management of the Biodiversity, promote community participation in conservation, sustainable utilisation, equitable sharing of benefits flowing from commercial utilisation of the Biodiversity and associated knowledge. This act envisages establishment of village level biodiversity management committees and district and state level units. This augurs well for the community who were deprived of the preivilages over their resources for decades.

Therefore, it is essential to develop skills of the community who manage these resources so that they become enabled in documentation, conservation and sustainable utilisation.

The State of Telangana has an area of 114,840 square kilometres and is the twelfth largest state in India. It has a semi-arid area and having a predominantly hot and dry climate. A diverse assemblage of wild plant and animal species are found and governed by ecological parameters. The total forest cover is about 22% in the state.

The Telangana State Biodiversity Board was established in the year 2014 in pursuant to the notification of Biological Diversity Act 2002 and Rules 2004, for implementing the Act in Telangana State. The board has established Biodiversity Management Committees (BMC) and appointed coordinators at the district level to facilitate the functioning of BMCs. It has necessitated building capacity of the coordinators on biodiversity, conservation and documentation of traditional knowledge.

The Telangana State Biodiversity Board (TSBDB) identified TransDisciplinary University (TDU) promoted by the Foundation for Revitalisation of Local Health Traditions (FRLHT), Bangalore to organise a training program for the coordinators of BMCs from various districts of the State.

The TransDisciplinary University (TDU) has pioneered the conservation of medicinal plants used in Indian systems of medicine in the country. It has delivered high quality trainings to Front-line staff of Forest Departments, Biodiversity Boards, Medicinal Plant Boards, Village Forest committees (VFC) members of Biodiversity Management Committees (BMC) and folk healers.

A program was drawn for the District Biodiversity Management Coordinators of Telangana to cover all the aspects of biodiversity viz., taxonomy, forest ecology, conservation, sustainable harvesting, adaptive mangement, documentation of Local Health Traditions (LHT), Geographical Indications (GI), Intellectual Property Rights (IPR), Access and Benefit sharing (ABS), functioning of BMCs and preparation of People`s Biodiversity Registers (PBR). The program was delivered using a combination of teaching methods that included lectures, demonstrations and field activities.

### **DAY 1: 05.10.2015, Monday**

The program started with a pre-assessment test. The candidates were given a questionnaire to ascertain the level of their understanding to shape up future course of the training. Through this exercise, it became apparent that though they have a fair idea about the biodiversity and

associated knowledge, their capacity need to be upgraded to enable them to guide the members of BMCs in preparing quality PBRs.

### **Inaugural Session:**

Dr. Abdul Kareem, course co-ordinator welcomed the participants and briefed them about the structure of the program. Sri. DK Ved inaugurated the training program. In his address, he said that the role of the Coordinators of BMC is critical in bringing out a well documented PBR which will guide the policy makers in preparing conservation action programs. He appreciated Telangana State Biodiversity Board in coming forward to train the coordinators of BMC and assured TDU will extend all possible help in this direction. He advised the participants to give importance to finer elements of documenting biodiversity that would be taught during the course of the training.



Shri Ved delivering the inaugural address

Ms. Anu offered vote of thanks.

### **Introductory Session**

This session, in a participatory mode, introduced the key theme of the program, “Medicinal Plant” and allowed the participants to relook at their understanding of the term, *medicinal plant* and rework on its definition and meaning.

In order to achieve its learning objectives, the focal theme was introduced in the form of an engaging activity by Sri. Somashekhar, which also served as an ice breaking exercise. Accordingly, an assemblage of different plant produce in use in one’s daily life was gathered before the participants; the material, included different plant produce dried and fresh, raw and processed, and finished product and herbal formulations. About 30 different material was thus presented to the group, ranging from fresh twig of sacred Basil and Curry leaf, to succulent leaf of Aloe and Hibiscus flower; from a piece of dried Ginger and grains of Black Pepper to

Cinnamon Bark and such other kitchen condiments; from dried seeds and fruits of trees and shrubs to different roots and tubers, from medicated oil to an ointment and popular drugs such as cough syrup, pain balm and *Chyavanprash*.

The participants were then invited to closely look at the material, and choose a particular produce/product which they thought was medicinal or medicinally used. The participants reached the dais with sufficient excitement and enthusiasm and attempted one after the other, to pick out the medicinal part of their choice. Soon it turned out to be an intriguing activity. Accordingly, every participant picked up a medicinal produce of his choice and returned to his seat.

Once everybody had attempted to pick up the medicinal part of choice, the group did a collective reflection on the exercise and the choices made. It was pointed to them that, most of the choices made by them, were focused either on popular medicinal plants such as Tulsi, Neem, Aloe, Hibiscus and kitchen spices, or guided by their prior understanding of the term 'medicinal plant'. As a result, only such popular herbal produce, familiar to them and available in the pool were picked up, while many roots, dried leaves, bark, seeds and fruits were left untouched. It was interesting to note, it was pointed to them, that there was no attempt by anyone to pick out the small bottle of coconut oil from the assemblage, as an example of medicinal produce.

It was a kind of 'eye opener' and realization for the participants. Everybody nodded in agreement and understood how their prior understanding of the term 'medicinal plant' is partial.

Further, while focusing the discussion on the question, *why do we tend to choose only the familiar medicinal plant?*, it was pointed that, the prevailing understanding about the term, "Medicinal plant" is invariably skewed towards the 'curative' element of a plant, which makes everyone to spontaneously recollect only those plants used whenever an ailment, disease or

health condition surfaces. However, in reality, several kinds of plant produce are in use for hair care, dental care, skin care, eye care, and body care on a daily basis, it was asserted.

This biased understanding often smothers the true image of a medicinal plant, as it ignores the 'promotive' and 'preventive' significance of it, it was pointed. The familiar and frequent usage of medicinal plants is more towards the preventive and promotive contexts than the curative, it was concluded.

The session with collective reflection and discussion enabled the participants, to rearticulate their understanding of the term, *medicinal plant* and opened their eyes to the true understanding and significance of medicinal plants resources, and further brought in a congenial state of mind for further learning.

The next session saw participants introduced to the varied types of ecosystem by Dr. Harish Bhat. The participants were briefed about man and nature co-existence, floral and faunal



Dr Harish Bhat explaining about biodiversity

diversity, crop diversity and marine diversity. Man always co-evolved with nature. His livelihood depended on it hence respected the natural wealth. Tradition has it that man practiced sustainable use of biological resources. Landscapes, waterscapes, flora and fauna formed integral part of the ecosystem.

Biodiversity offers both direct (consumptive) and indirect (non- consumptive) values. The participants were made to understand about the eco-system goods and services.

Later, Ms. Souravi gave a presentation on the Indian Biological Act, Rules and guidelines for preparation of people's Biodiversity Registers (PBR). The Biodiversity Act was enacted to meet the obligations under Convention on Biological Diversity (CBD), to which India is a party. It



provides provisions for regulated access to biological resources by bonafide users for various purposes including scientific research and commercial activities and equitable sharing of benefits arising out of the use of these resources and associated knowledge among the stakeholders. The Act is implemented through three functional bodies viz., National Biodiversity Authority (NBA) at the national level, State Biodiversity Boards (SBBs) and Biodiversity Management Committees (BMCs). The rules promulgated under the Act include the provision to constitute the BMCs. The main function of BMC would be to prepare PBR which primarily includes information on bio-resources and associated knowledge. This will help to inventorise and document the local biological and genetic resources and will pave the way for conservation action. The Access and Benefit Sharing was elaborated by citing two case studies of Gramamooligai Company Ltd., Madurai and Amarchinta, Andhra Pradesh.

Ms. Tabassum and Dr. Varghese Thomas demonstrated to the trainees the method to navigate the database on Indian Medicinal Plants that FRLHT-TDU has developed over the years. It covers various subject linked to natural resources used by Indian System of Medicine such as botanical and local names correlation, geo-distribution data, maps, propagation, trade information etc. It is a well referenced and dynamic database. This innovative search based database stores around 7,637 botanical names (6,198 medicinal plants species) with 119183 vernacular names from 12 languages across India. Nearly 2119 plant images are also available in the database.

## **DAY 2: 06.10.2015, Tuesday**

Dr. Kareem started the day's proceedings with a recapitulation and then commenced the topic on conservation of medicinal plants. About 80 % of people in developing countries depend on indigenous system of medicine and about 21,000 plants in the world are said to be in use for its medicinal value. About 8,000 species of



Participants are all ears

plants in India are claimed to be of medicinally important. Out of this, nearly 2400 medicinal plants are used in codified system of Indian Medicine. Of late, these resources are dwindling due to rise in demand, unsustainable use and habitat destruction due to increased urbanisation. Hence, it is important to conserve them. There are various tools and methods for conservation such as *in-situ* (in wild), *ex-situ* (outside wild) and resource augmentation.

Dr. Debabrata Saha presented on the various facets of ecology and legal framework. Ecosystem has two categories – Biotic and abiotic. Biotic factors essentially part of biosphere having life and abiotic factors are non-living things. He informed that the plant resource of a particular region depends on temperature, water, light, and wind and affects the composition of the fauna. In forest ecology, wide variety of life forms and abiotic components are the focal point. In India, forests are protected under the Indian Forest Act 1927 and Forest Conservation Act 1980. While the Forest Act is enacted to consolidate the law relating to forests, transit of forest produce and reserve the areas having good forest cover and significant wildlife, the Forest Conservation Act regulates diversion of forest lands for non forestry uses and maintains a balance between the developmental needs and the conservation of natural heritage.

Sri Jagannatha Rao made the participants appreciate the concept of sustainable harvest by highlighting its advantages. He explained about the sustainable harvest methodology developed by the institute through blending biometric information with the traditional knowledge. The livelihood of present and future generation, availability of quality raw material to industry, surmounting problems of over-harvesting, illegal and unscientific collection can be ensured through the practice of sustainable harvest. Capacity building through constituting a task team, providing opportunities to all stakeholders to apply traditional and scientific knowledge at village level for resource accounting and developing an adaptive management methodology for sustainable harvesting are the method required for conservation of biodiversity. Sustainable wild collection methods were included as part of the forest working plans. A documentary on sustainable harvest practiced in Agumbe, Karnataka was screened for the participants to visualise the concept.



The participants were apprised on the nittigritties of formation of Biodiversity Management Committees (BMC) by Ms. Nandini. The process of BMC formation would essentially involve all the stakeholders in the gram sabha including tribal and other marginalised communities to ensure an effective consultative process. The State Biodiversity Boards will decide on the number of BMCs to be established. Once a BMC is formed, it will receive a grant from the State Biodiversity Board and should start its operations. BMC should follow the guidelines provided by the State Biodiversity Board which should also help in process documentation.

The primary task of BMCs is to prepare People's Biodiversity Register (PBR). However, they are also expected to participate in ensuring conservation and sustainable utilization of biological resources, eco-restoration, management of heritage sites, regulation of access to biological resources, equitable sharing of usufructs arising out of commercial use of bio-resources and protection of traditional knowledge. They may also engage themselves in creating public awareness on conservation and developing bio-cultural community protocols. The BMC can list out potential items for registrations as Geographical Indicators.

The participants were then taught about the process of documenting Peoples Biodiversity Registers (PBRs). This was facilitated by Sri Hariramamurthi through the aid of a presentation.



**Trainees learning process of documenting PBR**

The process involves collection of primary data from knowledgeable individuals, record through field observations, consult official documents and literature and the data is then analysed before consolidating it in the appropriate format. A Participatory approach is advocated which integrates people of different socio-economic and cultural status. The PBR documentation should focus on people-natural resource link, land & waterscape, local biodiversity elements, people's knowledge associated with biodiversity, their perspective on

management issues and a plan to support functioning of BMC. The session concluded with a discussion on the model PBR developed for Kangundi, Kuppam, Andhra Pradesh.

### **DAY 3: 07.10.2015, Wednesday**

After retrospection of the previous day's lessons, Dr. Abdul Kareem gave an overview on the Indian Medical Heritage. There are two streams of Indian Medical Heritage; Samskrit and Prakrit. Samskrit is a codified system practiced by Ayurveda, yoga, siddha, Swa-rigpa and unani practitioners. This system has more than a lakh manuscripts covering both medicine and surgery and based on sophisticated theoretical study. Prakrit is an oral tradition practiced by households, midwives, herbal healers, bonesetters and veterinarians. It is based on ecosystem and ethnic community specific and passed on from generation to generation. Dr. Kareem insisted that it is important to document this knowledge for posterity.

The participants then visited the Indian Institute of Science (IISc), one of India's premier institute for advanced scientific and technological research and education. Established in 1909 by Jamsetji Nusserwanji Tata, it has various centres such as CES (Centre for Ecological Sciences), CiSTUP (The Centre of Infrastructure, Sustainable Transportation, and Urban Planning), the Divecha Centre for Climate Change and the Centre for Earth Sciences. The Institute promotes inter-disciplinary research as well.



**Prof. Ramachandra explaining a finer point**

Prof. Ramachandra took an example of his study on the ecological carrying capacity of Uttara Kannada district to make the participants understand the need to prepare a regional planner and develop appropriate conservation strategies for sustainable management of bioresources. This involved study on every aspect of ecology, for this will be the best guide and tool for policy makers to choose appropriate developmental activities which are in tune with the ecology.

It was also explained to the trainees the role of the water body in catering to the ecological and social needs in a sustained and balanced way. In order to evaluate and understand the role of the water body, environmental flow must be understood. Environmental flow assessment of Yettinaholé River in Karnataka was cited as an example to narrate the role of water body in an ecosystem. This assessment was carried out based on the analysis of land use dynamics using remote sensing data, meteorological data, hydrological data apart from field investigations to quantify water yield in a catchment.



**Trainees getting to know IPR issues**

#### **DAY 4: 08.10.2015, Thursday**

Ms. Nandini explained the issues surrounding protection of traditional knowledge and genetic resources to the participants. The traditional knowledge produced and transmitted in local communities is mostly oral and continually adapting to a changing environment. While, these communities play a vital role in preserving the traditional knowledge and genetic diversity essential to industrially produced pharmaceutical, biotechnological and agricultural products, they often remain unrewarded due to a lack of legal rights over these resources. The Nagoya Protocol on access to genetic resources and the fair and equitable sharing of benefits arising from their utilization as envisaged in the Biological Diversity Act has marked the end of bio-piracy and provides new recognition for farmers, rural agricultural communities and traditional knowledge holders, she informed. Construction of ABS regimes under the CBD has emerged as a way of distributing the financial rewards provided by IPRs to a wider field of contributors. The session was quite informative and relevant to the objective of the training program.

The participants had a day out to Nallur Tamarind Grove: A heritage Site. The tamarind grove is believed to have its origin during the period of Chola dynasty and derives its importance from about 300 gigantic trees spread over an area of 53 acres. The Government of Karnataka has declared this a 'Biodiversity Heritage Site' in the year 2007 and entrusted the task of its

management to the Karnataka Biodiversity Board and Biodiversity Management Committee of Nallur Gram Panchayat. Sri Muniraj, care taker at the grove took the participants around and elaborated on the yield derived, auction process and benefit transferred to BMC. Carbon dating of wood samples showed one tree is 410 years old and the rest around 200 years old. Majority of the trees have hollowed trunks with dome, oval, semi-circle, cone and irregular crowns. Some of the other important associated plant species found in this grove are *Ferronia elephantum*, *Ficus benghalensis*, *Ficus religiosa*, *Diopyros montana*, *Balanitis cordifolia*, *Zizyphus jujuba*, *Tylophora indica*, *Gmelina arborea* and *Prosopis juliflora*. Some of the commonly seen snakes are Cobra, Russell's viper and rat snakes. Red rumped swallow, purple sun bird, spotted dove, bee-eater and red vented bulbul are also seen in this grove. The Board has also undertaking propagation of selected trees.



#### **DAY 5: 09.10.2015, Friday**

A session on the documentation and rapid assessment of Local Health Traditions (LHT) with respect to veterinary sciences was presented by Dr Kumar. He explained, at the outset, that it is essential to prevent erosion of oral traditions, Identify effective remedies for veterinary care and prevent piracy. The solution lies in effective documentation. The process involves, gathering of primary data through field observations, interviews, focus group discussions and information sharing workshops. Herbariums are also collected so as data on matrices. There are innumerable LHT practices and it is important to find out the effectiveness and contemporary relevance of these practices. Rapid assessment is advocated using Indigenous pharmacology which does not involve extensive clinical studies. It is considered as a better tool since it has inherent relation between the classical textual knowledge and the folk knowledge.

Ms. Geetha Suresh dealt with the topic traditional agriculture in PBR. Techniques and methods used in traditional system of agriculture in India are fast disappearing. Documenting practices

such as use of traditional agricultural implements, storage methods, pest and disease control mechanisms and control of weeds are as highly important as documenting traditional varieties of crops. The knowledge so documented will help revive the traditional agricultural practices that have been practiced for generations, it was pointed out.

Later, the participants visited the Herbarium and Raw drug repository at TDU. The repository is the first of its kind for medicinal plants and houses 70% of the total medicinal plants used by the codified Indian Systems of Medicine (ISM). It has engaged in research, training and outreach activities related to the identity, geographical distribution, and taxonomy of botanical resources used by ISM. There are also efforts to capture all the traded medicinal plants of India which are in recent use from different localities in the country. Dr. Noorunnisa Begum gave an overview on the medicinal plants diversity and their distribution in different biogeographic zones. She emphasised on endemism with examples. The methods to collect, process and preserve herbarium specimen, raw drugs was explained. A demonstration was also organised.

Shri Ananth explained about the deciphering, cataloguing and digitisation of manuscripts that is



being undertaken by the Transdisciplinary University. The descriptive catalogues of manuscripts are collected from various institutions across India and brought to the University. The information about medical manuscripts dealing with Ayurveda, Yoga, Unani and Siddha are uploaded in the software. Rare,

unpublished medical manuscripts are transcribed and published into English and other Indian languages. He informed that the centre is willing to accept any manuscripts that trainees may come across during their PBR documentation.

In the afternoon, the participants were taken to a higher platform by bringing in the concept of Community Owned Enterprise. There is an urgent need to reestablish the people-resource

linkage and revitalise the primary health care potential of the traditional knowledge through building resource level community organisations and enhancing the accrual of benefits at community level. Such enterprises could be registered as producer companies, co-operative or public limited companies. This will generate livelihood opportunity for local people. In essence, it brings together the thinking and practice of poverty reduction, sustainable development and empowerment processes into a framework for policy analysis and programming. Shri KS Ravi informed that enterprise development is about more than building a support system for entrepreneurs; it is a strategy of transformation. It is about creating entrepreneurial communities, fostering public policy that invests in enterprise development and embraced by public and civil organisations. The process would involve community mobilisation towards building up livelihoods that are social acceptable, economically viable and environmentally sustainable, forging linkages with main stream resource institutions, scaling up to create long term impacts. The enterprise should focus on evolving systems and processes to perform in the market place, coordination of multifarious functions, hand holding by experts, building up corpus fund, legal formulations, operations and profit sharing mechanism.

In the penultimate session, discussions were held with the trainees on the learnings. Some of the participants shared their experience.

The participants were awarded certificates at the end of the training program.



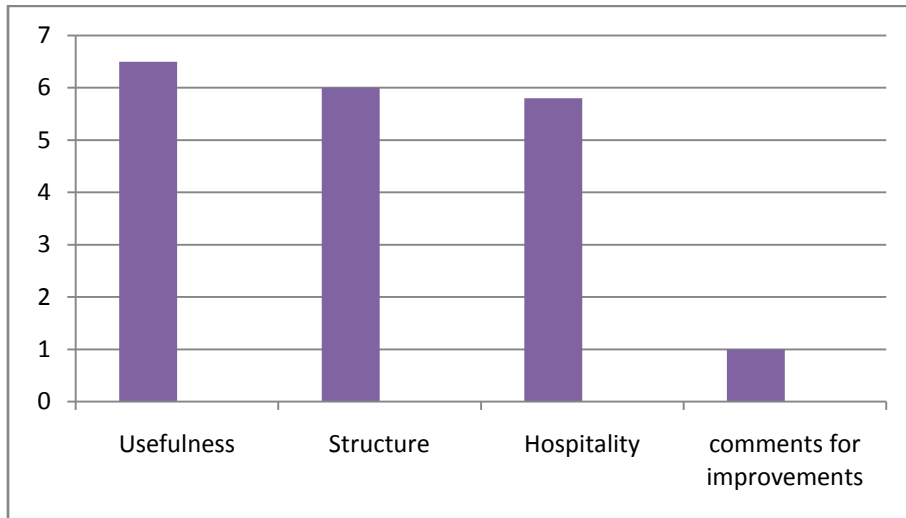
One of the participants sharing his learnings





Certificates being awarded

**Feed back:**



OrganisingTeam:

Dr. M. Abdul Kareem, Associate Professor and Course co-ordinator

Sri. KSN Prakash, Program Officer

Ms. Anu, Research Fellow

Resource persons:

Prof. TV Ramachandra, Sr. Scientist, Indian Institute of Science, Bangalore

Dr Bharath, Research Scholar, Indian Institute of Science, Bangalore

Dr. Harish Bhat, Scientist, Indian Institute of Science, Bangalore

Ms. Souravi K, Research fellow, Indian Institute of Horticulture and Research, Bangalore

Sri KS Ravi, Chartered Accountant, Bangalore



Dr. M. Abdul Kareem, Associate Professor, TDU  
Sri. G. Hariramamurthi, Professor, TDU  
Sri BS Somashekar, Associate Professor, TDU  
Sri. R. Jagannatha Rao, Associate Professor, TDU  
Dr Noorunnisa Begum, Sr. Asst. Professor, TDU  
Dr. Debabrata Saha, Research Officer, TDU  
Ms. Nandini D, Research Officer (Consultant), TDU  
Dr SK Kumar, Assistant Professor, TDU  
Ms. Geetha Suresh, Research Associate, TDU  
Dr. Hemanth TR, Research Fellow, TDU  
Sri. Vidwan Ananth M. A, Research Fellow, TDU  
Ms. Tabassum Ishrath Fathima, Research Officer, TDU  
Dr. Varghese Thomas, Research Fellow, TDU

## Programme Schedule

5<sup>th</sup> - 9<sup>th</sup> October 2015

Supported by: Telangana State Biodiversity Board

Organised by: Institute of Trans-Disciplinary Health Sciences and Technology (TDU), Bangalore

**04.10.2015** Arrival at TDU-FRLHT Campus, Yelahanka, Bangalore and check-in

### **Day 1: 05.10.2015, Monday**

09.30 - 10.00 am      Registration and pre-orientation assessment

#### **Inaugural Session**

10.00 - 10.15 am      Welcome and self introduction

10.15 - 10.30 am      Introduction to the training program - Dr. M. Abdul Kareem,  
Associate Professor and training co-ordinator

10.30 - 10.45 am      Address by Shri. D.K. Ved, Professor, TDU

10.45 - 11.00 am      Vote of thanks – Ms. Anu, Research Fellow

*11.00 - 11.15 am      Tea break*

#### **Introductory Session**

11.15 - 12.15 pm      Ice-breaking exercise & overview of TDU-FRLHT's initiatives in  
Revitalization of Indian Medical Heritage – Sri B.S. Somashekar,  
Associate Professor

12.15 - 01.30 pm      Introduction to Biodiversity (Flora, Fauna and livestock) – Dr.  
Harish Bhat, IISc

*01.30 - 02.30 pm      Lunch*

02.30 - 03.30 pm      Biodiversity Act and its relevance to management of BMCs – Ms.  
Souravi K, IIHR

03.30 - 05.30 pm      Importance of database - an outlook – Ms. Tabassum, Research  
Officer

### **Day 2: 06.10.2015, Tuesday**

09.30 -11.00 am      Conservation of medicinal plant resources – Dr. Abdul Kareem

11.00 -12.30 pm      Forest ecology and legal framework – Dr. D. Saha, Research  
Officer

12.30 - 01.30 pm Sustainable harvesting and adaptive management of bio-resources – Sri Jagannatha Rao, Associate Professor

01.30 - 02.30 pm *Lunch*

02.30 - 04.00 pm Formation of BMC, their role and Local Biodiversity – Ms. Nandini  
04.00 - 05.30 pm Methodology, format and structure of a Model PBR – Sri G Hariramamurthi, Associate Professor

**Day 3: 07.10.2015, Wednesday**

09.30 - 10.15 am Retrospection  
10.15 - 01.00 pm Indian Medical Heritage –An overview - Dr. Kareem

01.00 - 01.45 pm *Lunch*

01.45 - 05.30 pm Visit to Indian Institute of Science to understand the Biodiversity Components and different ecosystems – Prof. TV Ramachandra, Dr Bharath

**Day 4: 08.10.2015, Thursday**







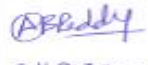


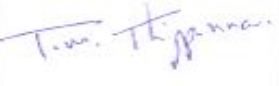
09.30 - 11.00 am GI, IPR and “access and benefit sharing” regimes linked to the resources and traditional knowledge – Ms. Nandini  
11.00 - 05.30 pm Visit to Nallur Tamarind Groove – A bio-heritage site








**Day 5: 09.10.2015, Friday**

09.30 - 10.30 am Documentation of Local Health Traditions in context to Veterinary sciences  
– Dr. S.K. Kumar, Assistant Professor  
10.30 - 11.00 am Traditional agriculture in PBR – Ms. Geetha Suresh, Research Associate  
11.00 - 11.45 am Visit to Herbarium and Raw drug Repository  
11.45 - 12.30 pm Herbarium, seed and raw drug collection and processing, its importance towards preparation of PBRs – Dr Noorunnisa Begum, Sr. Asst. Professor  
12.30 - 01.15 pm Visit to Centre for theoretical foundation – Sri. Ananth, Sr. Research Fellow

01.30 - 02.15 pm	<i>Lunch</i>
02.15 - 04.15 pm	Community Owned Enterprise – Operation and maintenance - Sri KS Ravi, Chartered Accountant
04.15 - 05.00 pm	Discussion with the participants & distribution of certificates

**REGISTRATION**

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1	K. NARAHARI DBC, Warangal	H. NO. 2-5-75/204, Vasista Aparth, Water tank, Nakikatajutta, HANAMKONDA, Warangal, Telangana state.	 Mobile: 800831369
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3	N. SHYAMMANOHAR D.B.C. RR DIST	H. NO. - 6-91, Kuntloor Colony, Hayathnagar RR. Dist. Telangana	 Mob: - 9885220368 7075775524
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5	B. PRASAD DBC Khammam Dist	HNO 1-2-142 (vi). Khanapuram Haveli (mdl). Kham Urban (Dist). Khammam Pin 507002	 cell: 7680996939
6	E. Srinivas DBC Nalgonda Pin: 508223	HNO: 2-191 Post 4M Thirumalagani Dist: Nalgonda (T.S) Cell no: 9603099100	
7	A. BALEESHWAR REDDY DBC. Medak Dist.	HNO: 103, Hanuman Swathi paja 4-31, V. Rosnagar, Dilsukhnagar, Hyderabad. 500060.	 cell 917722444
8	P Yesobu DBC - Khammam Mobile: 8143400962	SHARP, # 14-71/3, Near Govt. Junior College, Khanampeta, KALLURU, Khammam district Telangana, PIN: 507209	
9	C. Bharath Kumar DBC - MAHABUB NAGAR MOBILE - 9063061060	H NO. - 425. JAGANWADA, AMARACHENTA (V), ATMAKUR (M), MAHABUB NAGAR (Dist) TELANGANA - 509130	
10	T.M. THIPPANNA DBC. MAHABUBNAGAR Mobile no. - 9553492549	H. NO. - 39-159, Bandari Nagar, Wanaparthy - 509103 Mahabubnagar Dist. Telangana	

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11	S. SATEESH DBC: ADILABAD	H.No: 4-23 S.P.N NAGAR VILL: DEVAPUR MDL: KASIPET DIST: ADILABAD PIN: 504218	
12	M. VINOD KUMAR DBC: KARIMNAGAR	H.NO: 4-39 KALVACHERLA M KAMANPUR D) KARIMNAGAR 505212	
13	P. RACHU NANDAN DBC: - RANGA REDDY	H.No-5-4-587/1, K.NAGAR V.PURAM, HYD, R.R.DIST 500070.	
14	R. Shraavan Kumar DBC:- Nalgonda	H.No: 3-6 manavathi thanda Polepally (vill) Chandampet (mdl) Nalgonda (Dist) - 508248	
15	A. Lakshmi D.B.C - Waxangal	H.NO: 3-5-9/A, Hanuman Bazar near bus stop. Mahabubabad. (M) Waxangal dist cell no. 9991824297	
16	JINUKA.RAJENDHAR DBC. Nizamabad	H.N: 1-63 (v) Thampally (M) srironda (D) Nizamabad Telangana -503165 cell: 9440689985	
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18			