



Extension Activity report

Academic Year 2022-23

Training to the frontline staff of Protected Areas for Grassland Management



Beneficiary of Training Workshop: Frontline staff and officers of TadobaAndhari Tiger Reserve ,NawegaonNagzira Tiger Reserve , Sahyndri Tiger Reserve, Melghat Tiger Reserve (Maharashtra State) , Valmiki Tiger Reserve (Bihar), Mudumalai Tiger Reserve , Wallanadu Black Buck wildlife sanctuary(Tamil Nadu) , Ratapani Wildlife Sanctuary , Kanha Tiger Reserve (Madhya Pradesh)

**Training by : Prof G D Muratkar , Assist. Prof ,
Environmental Science**

**Academic Year: 2022- 23
Department of Environmental Science**

Extension Activity Report

Training to the Frontline Forest Staff

For Grassland Management in Protected Areas of India

1. Title

Training to the frontline forest staff for Grasslands Management in Protected Areas of India.

2. Goal

- To train forest department frontline staff for grassland development and management in Protected Areas of India.
- To develop grazing habitat for herbivores in Protected Areas especially in Tiger Reserve, Sanctuary and National park.

Participants in the field workshop

Sr. No.	Name of Protected Area	Duration	Beneficiaries	Beneficiary Number
1	Melghat Tiger Reserve Maharashtra State	October 2022	DCF, Field Director, RFO, Section officer, Bit guard of tiger reserve	45
2	Sahyandri Tiger Reserve , Maharashtra State	November 2022	DCF, Field Director, RFO, Section officer, Bit guard of tiger reserve	35
3	Tadoba Andhari Tiger Reserve MS	July , September , December 2022 and May 2023	DCF, Field Director, RFO, Bit guard	45

4	Navegaon Nagzira Tiger Reserve, Maharashtra State	December 2022	DCF, Field Director, RFO, Section officer, Bit guard of tiger reserve	25
5	Mudumalail Tiger Reserve, Tamil Nadu	June 23	DCF, Field Director, RFO, Section officer, Bit guard of tiger reserve	40
6	Wallanadu Black Buck Wildlife Sanctuary, Tutthikudi TN	May 23	DCF,, RFO, Section officer, Bit guard of tiger reserve	20
7	Elephant Reserve Ambikapur Chattisgarh State	June 2023	CF, DCF, RFO, Section officer, Bit guard of Elephant reserve	85

Concept

Forest Ecosystem in Protected Areas shows distribution of grasslands, the % of forest should be 33% and grasslands 7%, but recently grassland areas are decreasing year by year due to invasion of woody species and invasive weeds. Herbivores require grasslands for grazing, breeding, nesting, and hiding habitats for wild habitat management.

Grasses are annual, perennial, soft, coarse, palatable and non-palatable. Grasslands are of three types: smaller, intermediate and taller. Soil present in forest ecosystem determines composition of grasslands. Fodder value of grasses is determined by chemicals, nutrients, fiber % before and after flowering. Grassland development and management in Protected Areas like Tiger Reserve, Sanctuary is important work and to train frontline staff is regular work from 2012.

To know the soil characters, texture, colour and water holding capacity

habited in the protected areas. The grasses are the producers, soil binders, provides chemical energy to the wildlife in the form of fodder species. The protected areas forest are with 2.0 to 4.5% grasses naturally it should be 6-7%. Now recently natural grasslands and relocated areas of the Protected Areas are developing in to good grasslands for the herbivores. Grasslands are the green ground cover of protected areas in forest. The grasses are useful for grazing habitat of wildlife (Herbivores).

The grassland management practices:

1. To give the field training to the forest field staff in the natural grasslands and relocated areas of the Protected Areas in each season of the year.
2. To know the exact area of grassland yearwise by demarcation of grassland area by GPS.
3. Grasses identification training to field staff by local names and scientific names.
4. Weeds identification with local names and their flowering season.
5. Browsing species identification with local names.
6. Field training to collect the grasses seeds and wild legumes seeds.
7. Weederadication program met two times in a year
8. Grasslands enrichment by seed broadcasting in May - June season.
9. Grasses biomass management practices in mosaic pattern.
10. Wild fruit trees identification and addition in relocated areas.
11. Complete training programmes are organized by the CCF & Field Director of the respective Tiger Reserves in each season.

The practices in the field

1. Grasses identification - October.
2. Weeds identification - August.

3. Wildleguminousplantsidentification–September.
4. Weedsuprootingthreetimesineachyear.
5. Grassesseedscollection–SeptembertoFebruary.
6. Wildlegumesseedscollection-November–December.
7. Grassesseedsadditioninselectedareasforgrasslanddevelopment.
8. Observationofgrasslands.
9. Toknowthecompositionofgrasslands.
10. Brushwoodmanagementtoreducewoodland.
11. Topreparegrasslandmanagementregister.

Results of Extension activity

- CapacitybuildingoffrontlinestaffofProtectedAreas.
- FieldinterventionsforhabitatimprovementinProtectedAreas.
- EHerbarium of grasses and identification.
- Documentation of benchmarks and results.
- Comparative analysis before and after work.
- Ecological restorations of grasslands.
- Improvement in wildlife habitat.
- Frontline staff get trained for grassland management.
- Forest Department in India actively participating in grasslandsmanagement.

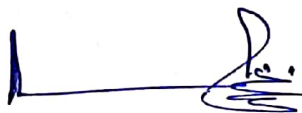
Date: 14.06.2023



(Mr.G.D.Muratkar)

G. D. Muratkar

Asst. Professor & H.O.D.
Dept. of Environmental Science
Arts, Science & Commerce College, Chikhaldara,
Dist. Amravati.
Chikhaldara



ML
PRINCIPAL
Art, Science & Commerce
College, Chikhaldara






Training to frontline staff for Grassland Management



DR. RAJA RAO, IFS
 IAS/IFS (Drover & Secretary), CITNARM



Telangana State Forest Academy
 Government of Telangana,
 Dulpally, Hyderabad - 500 100
 Land Line (O) : 040 - 29 70 48 96
 Mob : 91 94 40 81 01 66
 e-mail : tafa_hyd@gmail.com
 post@tafa@gmail.com

Letter of Appreciation

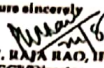
My sincere appreciation to Prof. Gajanan Dadaraji Muratkar.

Thank you very much for delivering informative and stimulating session through Zoom Webinar on "Grassland Management" held on 04.08.2022 for KTR Nirmal, Adilabad, Warangal, Karimnagar, Kothagudem & Nizamabad Circles.


It was a splendid presentation besides interaction with frontline staff from the cadre of Forest Range Officers till the level of Forest Beat Officers. You have provided a wide exposure of various kinds of Grass Species along with the good field practice.

Your eloquent sharing on "Grassland Development and Management" is appreciated and they have got benefited from your views and vast experience in this field.

Looking forward to your cooperation for promotion and imparting professional expertise in future as well.

Yours sincerely

 (DR. F. V. RAJA RAO, IFS)
 APC/7/Director

To
 Prof. Gajanan Dadaraji Muratkar
 Head, The Botany and Environmental Science Department of the Arts, Science and Commerce College at Chikhaldara, Maharashtra State



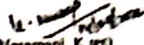
(Office of the Conservator of Forests cum Field Director, Valmiki Tiger Reserve,
 Forest Office, Fardiga, West Champaran, Bihar 844001
 Phone: 844011, 142721, Email address: forest@valmikitiger.org, field@valmikitiger.org)

Letter No. 2753 Betsisi, Date: 14.9.2022

Sir,


Subject: Letter of Appreciation


On behalf of Valmiki Tiger Reserve, Bihar, I place on record our sincere appreciation towards Prof. G. D. Muratkar, Grass Ecologist & Agronomist, Maharashtra for his laudable contribution towards improvement of grassland management practices in Valmiki Tiger Reserve. He has conducted field visits and conducted on field training and workshops involving Forest officials from the cadre of Casual staffs, Forest Beat Guards to Field Director on the grassland management, Wild Insect Identification, grass seed collection and weed eradication. This will help us to bring visible change in different grassland spread over this Tiger Reserve and we express our gratitude and acknowledge the services rendered by him, and hope for his continuing technical support and guidance in future.

Sincerely Yours

 (Dr. Mesamati K. K. S.)
 Conservator of Forests-cum-Field Director,
 Valmiki Tiger Reserve.

To,
 The Principal,
 Arts, Science and Commerce College,
 Chikhaldara, Amaravati District,
 Maharashtra- 444907.

Letter of Appreciations for Training to Frontline Staff for Grassland Management






Government of Maharashtra
 Office of The Deputy Conservator of Forests, MTR,
 Sipra Wildlife Division, Paratwada
 Timber Depot, Paratwada 410805


Paratwada, Dated: 19/09/2022



Letter of Appreciation

I extend my sincere appreciation and thanks to Professor G. D. Muratkar, Grass Ecologist, Sipra College (ASCC), Chikhaldara for his support in developing grasslands of Sipra. He conducted workshop to over 40 staffs on 15/07/2022 in Semaduh and has been continuously guiding staff for developing the grasslands which are in nascent stage in relocated Pili village. I am very grateful for his contribution and guidance and wish him all the best.

Sincerely Yours,

 Dr. Dhye Bharathi M., IFS,
 Deputy Conservator of Forests,
 Meghat Tiger Project,
 Sipra Wildlife Division,
 Paratwada.

To
 The Principal,
 Arts, Science and Commerce college,
 Chikhaldara, Ta - Achalpur,
 Dist - Amravati, Maharashtra

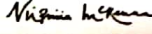



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SATPUDA LANDSCAPE TIGER PARTNERSHIP
 CONSERVATION HERO AWARD 2022

This certificate is presented to
Dr. Gajanan D Muratkar

for grassroots conservation
 work in central India.

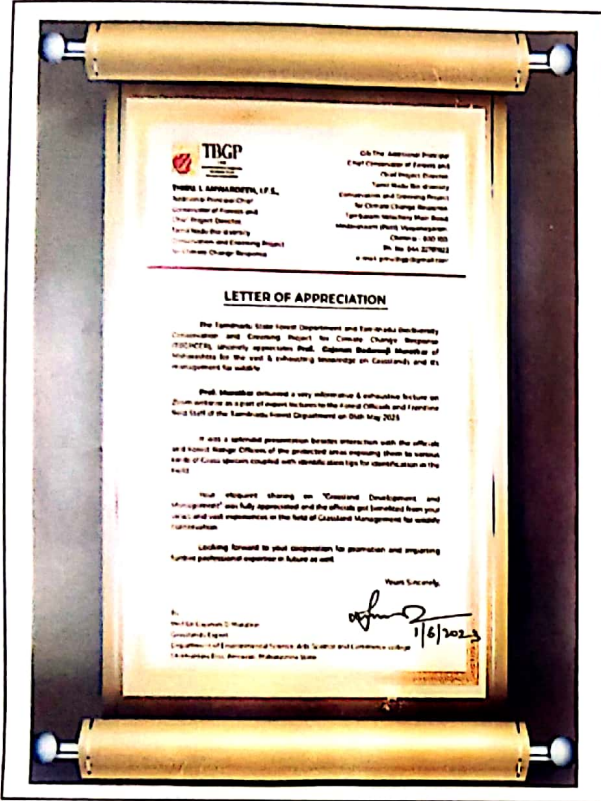

 Virginia McKenna OBE
 Co-Founder & Trustee, Born Free


 Professor Claudio Silveira
 Chief Scientist, Born Free



KEEP WILDLIFE IN THE WILD

Appreciation Letters for Extension Activity Academic Year 2022-23



Piyush Prasad Jagtap, IFS
 Additional Director (Training)
 Chandrapur

Government of Maharashtra
 Chandrapur Forest Academy of
 Administration, Development & Management,
 Chandrapur
 Plot Road, Chandrapur - 442401 (MS)
 Contact No. 0713235519
 E-mail: gpmahat@mahat.gov.in
 dirchandra@mahat.gov.in

No. Dend-1(O)/CVA/Training/2022-23/2715 Chandrapur, Date 10/6/23

Letter of Appreciation

To

Dr. Gajanan Dadaraoji Muratkar

Thank you very much for delivering informative and stimulating session on "Grassland Management" held on 06-12-2022 for a batch of IFS officers at the academy as part of the one week training sponsored by MoEP&CC on "Ecotourism in wildlife and habitat management". And also for guiding them in the field on 08-12-2022.

You have provided a wide exposure of various kinds of Grass Species along with the good field practices. Your sharing on "Grassland Development and Management" is appreciated and the participants have got benefited from your views and experience in this field.

We look forward to have you here at CHANDRAMA in future as well.

(Piyush Prasad Jagtap, IFS)
 Additional Director (Training)

To

Dr. Gajanan Dadaraoji Muratkar
 Head, The Botany and Environmental Science Department of the Arts,
 Science and Commerce College at Chikhaldara, Maharashtra State

कायदा विकास - काय विभाग
कुंडल विकास, प्रशासन व व्यवस्थापन प्रबोधिनी (वन)
 गंध व रंग - कुंडल, सांगली - जिल्हा, पाली - जिल्हा - सांगली - ४१७०११ कायदा
GOVERNMENT OF MAHARASHTRA - FOREST DEPARTMENT
KUNDAL ACADEMY OF DEVELOPMENT,
ADMINISTRATION AND MANAGEMENT (FORESTS)
 At & Post - Kundal, Taluka - Palan, District - SANGLI - 416309 Maharashtra
 Tel: 02346 - 279200, 271212 E-mail: kdamahat@mahatforest.gov.in
 Website: www.kundalacademy@mahatforest.gov.in

Forest/10/Star/Tmg/1031/2022-23 Date - 03/10/2022

TO WHOM IT MAY CONCERN

This is to certify that Dr. Gajanan D. Muratkar, Professor, Head of Environmental Science Department, Arts, Commerce and Science College, Chikhaldara, District Amaravati has delivered expert lecturer to the One Week Online Thematic Course for the Frontline Staff for Forester at Kundal Academy of Development, Administration and Management (Forests), Kundal Maharashtra in the Subject of "Habitat Improvement & Management, Grass Seed Collection" on 01st October 2022. His lecture was well appreciated by all trainees. We wish him all the success in his future life.

(Dr.S.B. Jadhav I.F.S.)
 Director
 Kundal Academy of Development,
 Administration and Management
 (Forests)

राज्य वन विभाग
Office of The Deputy Director of Sahayadri Tiger Reserve
 At Karad "Sahayadri Bhawan", Trimburti Colony, Amarnagar,
 Po Malkapur, Tal. Karad, Dist. Solapur - 418000

Karad, Date : 04.11.2022

To

Dr. Gajanan D. Muratkar,
 Grass Ecologist,
 Amaravati. 444807.

Subject: Letter of Appreciation.

To

On behalf of Sahayadri Tiger Reserve, Kolhapur, I place on record our sincere appreciation towards Prof. G. D. Muratkar, for his invaluable contribution towards improvement of grassland management practices in Sahayadri Tiger Reserve. He has conducted field visits and conducted on field training workshops involving forest officials from the cadre of forest guards, beat guards to Deputy director on the grassland management, wild legume identification, grass seed collection and weed eradication on dated 21.11.2022 to 23.11.2022.

This will certainly resulted in visible change in different grasslands spread over this Tiger Reserve and we express our gratitude and acknowledge the services rendered by him, and hope for his continuing technical support and guidance.

(U.S. Sawant)
 Deputy Director
 Sahayadri Tiger Reserve

Municipal Council Chikhaldara
Tehsil: Chikhaldara Distt.: Amravati
Office : 07220-230248, Fax : 07220-230364
Email : Co.Chikhaldara@gmail.Com

No. ChiNpa/Kavi- 109/ 2023-24

Date: 15/05/2023

To,
The Principal
Arts, Science and Commerce College, Chikhaldara.

Sir,

With the initiative of the Department of Chemistry at Arts, Science and Commerce College, Chikhaldara, Municipal Council Chikhaldara has been implementing the plastic eradication campaign for last five years.

In particular, your college has implemented important activities such as public awareness of plastic elimination, street drama, distribution of cloth bags (made of old cloth) among citizens under this campaign.

Certainly, all these projects for the elimination of plastic are a great achievement for this city. Your college always participates in such social events.

We thank you on behalf of the Municipal Council, Chikhaldara.

Sd/-
Chief Officer
Municipal Council Office
Chikhaldara,



M L
PRINCIPAL
Art, Science & Commerce
College, Chikhaldara



रजि. नं. एम.ए.एच. ३९९४/९७ यवतमाळ

संपूर्ण बांबू केंद्र

लवादा (मेळघाट), पो. दुनी, ता. धारणी, जि. अमरावती (महाराष्ट्र)
संपर्क : 9545717614 / 8668588602 / 9422386660

Date: 10/08/2022

To,

The Principal,
Arts, Science and Commerce College, Chikhaldara
District. Amaravati (M.S)

Subject:- Collaboration Between Sampurn Bamboo Kendra, Lawada And EDIIL Cell, Arts Science
and Commerce College, Chikhaldara, District. Amaravati (M.S)

Respected Sir,

Collaboration Details:

We propose the organization of a bamboo craft training program for the students of Arts Science And Commerce College, Chikhaldara, District. Amaravati (M.S) within college premises, facilitated by sampurn bamboo kendra, lawada. This program aims to provide our students and members of the local community with hands-on training in bamboo craftsmanship, leading to skill development, livelihood enhancement, and the promotion of sustainable practices. The program will consist of workshops, demonstrations, and practical sessions conducted by experts from Sampurn Bamboo Kendra.

Responsibilities:

As part of this collaboration, Arts, Science and Commerce College will provide the necessary infrastructure, classroom space, and logistical support required for the training program. We will also promote the program among our students and community members to ensure maximum participation. Sampurn Bamboo Kendra, Lawada will be responsible for designing and delivering the training modules, arranging for skilled trainers, and overseeing the overall execution of the program. They will also contribute their expertise in bamboo craft and sustainable livelihood practices.

Duration: 1 year from date of issuance of this letter.

Regards.

Thank you.

Dr. Nirupama Deshpande
(President)

Sampoorna Bamboo Kendra (SBK)

■ email : sampoornabamboo@gmail.com ■ website : www.sampoornabamboo.org

To,
The principal,
Arts, Science and commerce College,
Chikhaldara.

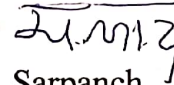
Subject: Appreciation for College Community Initiatives

Dear sir,

The Aladoh local authority extends heartfelt gratitude towards you and the college for organizing impactful activities in our village. Your commitment to address social issues and support in enhancement of the under privileged, especially women, is commendable. Efforts of NSS unit of the college has created a positive impact to foster moral values and ethics among the villagers.

Thank you for being a catalyst for positive changes.

Sincerely,


Sarpanch

Group Grampanchayat Aladoh – Shahapur
Tehsil: Chikhaldara Distt: Amravati (M.S.)

सरपंच
गट नं. १ जहापुर
चिखलदारा तहसील अमरावती





नगर परिषद, चिखलदरा

ता. चिखलदरा, जि. अमरावती.

कार्यालय : (07220) 230248, फॅक्स : (07220) 230364

Email : co.chikhaldara@gmail.com

जावक क्र. :

दिनांक : 10/03/2023

APPRECIATION LETTER

To,
The principal,
Arts, Science and Commerce College,
Chikhaldara, Distt. Amravati.


Subject :- Appreciation for College's Community Initiatives

Dear, Dr. R.S. Jaipurkar,

The Nagar Parishad Chikhaldara authority extends heartfelt gratitude to you department of Geology and the students of the college for organizing impactful activities of Rainwater Harvesting Awareness campaign in this region. Your commitment to addressing Democratic concerns and supporting the enrichment the awareness about save water, especially youth and tribe of the Melghat creditable. Your efforts have made a positive change, development community well being.

Thank you for positive change.

Sincerely,


मुख्याधिकारी
नगर परिषद, चिखलदरा



नगर परिषद चिखलदरा

ता.चिखलदरा, जि.अमरावती

पत्तिका क्र. १०९/२०२३-२४ कला, विज्ञान व वाणिज्य महाविद्यालय, चिखलदरा
Dist. Ch. Amravati

जावक क्र.

दि.....

क्रं.चिनपा/कावि- १०९ /२०२३-२४

दिनांक- १५/०५/२०२३

प्रति,

प्राचार्य,
कला, विज्ञान व वाणिज्य महाविद्यालय,
चिखलदरा.

महोदय,


कला, विज्ञान व वाणिज्य महाविद्यालयाच्या रसायनशास्त्र विभाग यांचे पुढाकाराने, चिखलदरा नगर परिषद प्लॅस्टिक निर्मूलन अभियान गत पाच वर्षा पासून राबवित आहे.

विशेषत्वाने आपल्या महाविद्यालयाने या अभियाना अंतर्गत प्लॅस्टिक निर्मूलनाचे जन जागरण, पथनाटय, जुने कापड वापरून कापडी पिशवीचे नागरीकांमध्ये वाटप इत्यादी महत्त्वपूर्ण उपक्रम राबविलेले आहे.

निश्चितच प्लॅस्टिक निर्मूलना करीता या सर्व आयोजनाचा या नगरी करीता मोठी उपलब्धी आहे. आपण नेहमीच अश्या सामाजिक कार्यक्रमांमध्ये आपला सहभाग असतो.

नगर परिषद, चिखलदराराच्या वतीने आम्ही आपले आभार मानतो.




मुख्याधिकारी
नगर परिषद कार्यालय
चिखलदरा.

विद्या विनयेन शोभते

ज्ञानगंगा गीताई भेले शिक्षण संस्था , करजगाव द्वारा संचालित

समता विद्यालय चमक बु ॥ ता.अचलपुर

शिक्षण मंडळ अम.नं: ०२.१०.०४४

वेतन पथक अम.: ४०५

UDISE CODE: 27070104402

DDO COD: 04610100353

शाळा टॅन नंबर : NGPS03644E

शाळा पॅन नंबर : AAGST 0291P

व्यवसाय कर : Tin No. 27555150491P

व्यवसाय नं : PTRC NO – 4/3/2/219

मा. शेषरावजी तिखिले (अध्यक्ष) शाळा समीती

अरविंद वि. अपाले (मुख्याध्यापक)

7350098211

जावक क्र -274 / 10.4.2024

The principal,

Arts, Science and Commerce College, Chikhaldara.

Subject: Appreciation of the activity Let's Celebrate Examination (2.0)

Dear Sir,

I hereby extend heartfelt appreciation to you and the college for organizing impactful activities in our community. The activity Amravati District Level Online Panel Discussion- 'Let's Celebrate Examination (2.0)' organized by you on 31.01.2023 is found to be very useful for our students. Your efforts have made a positive difference, fostering community well-being.

Thank you for being a catalyst for positive change.

Sincerely,



मुख्याध्यापक

समता विद्यालय, चमक बु ॥
ता. अचलपुर जि. अमरावती

श्री हनुमान व्यायाम प्रसारक मंडळ, अमरावती द्वारा संचालित
गिरीजन विद्यालय व कनिष्ठ महाविद्यालय
चिखलदरा, ता. चिखलदरा, जि. अमरावती
(मेळघाट आदिवासी परिसरातील अग्रगण्य संस्था)

वेतन पथक क्र. : ३६१

शाळा निर्देशांक : ०२-१३-००९, कमवि निर्देशांक : ०२-१३-००९

UDISE CODE - 27070600109

TAN - NGPG01705E

जावक क्र.

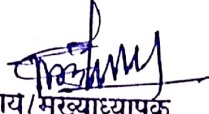
Appreciation Letter दिनांक : 19/04/2023

To,
The Principal,
Arts, Science And Commerce College Chikhaldara.

Subject: - Appreciation for organizing awareness programme of Jagar Vivekacha.

We extend heartfelt appreciation you for organizing awareness programme of "Jagar Vivekacha" in our Junior college through the department of Sociology of ASCC College Chikhaldara. Your commitments of addressing social issues and efforts have made a positive difference. Thanks for the cooperation.

Date:-


प्रिन्सिपल/मुख्याध्यापक
गिरीजन विद्यालय व कनिष्ठ महाविद्यालय
चिखलदरा, जि.अमरावती