Proceedings of the training on basic photography

Bangladesh Forest Department

27 July 2016

USAID FROM THE AMERICAN PEOPLE

Food and Agriculture Organization of the United Nations

The Forest Department of Bangladesh leads actions to improve forest management and conservation, adopting forward thinking, innovative approaches in its management of approximately 1.5 million hectares of land across the country.

In 2015, the Forest Department began a process to establish a National Forest Inventory and Satellite Land Monitoring System for improved forest and natural resource management. The process addresses domestic information needs and supports national policy processes related to forests and the multitude of interconnected human and environmental systems that forests support. The process also supports climate change mitigation and implementation of REDD+.

The Bangladesh Forest inventory, led by the Forest Department, is a constant and comprehensive process that assesses, evaluates, interprets and reports on the status of trees and forest resources nationally. The activities implemented under the Bangladesh Forest Inventory process are implemented in collaboration between several national and international institutions and stakeholders. National partners from multiple government departments and agencies assist in providing a nationally coordinated approach to land management. International partners, including the United Stated Agency for International Development (USAID), the Food and Agriculture Organization of the United Nations (FAO) and SilvaCarbon are supporting the development of technical and financial resources that will assist in institutionalizing the process.

The results will allow the Forest Department to provide regular, updated information about the status of trees and forests for a multitude of purposes including for assessment of role of trees for firewood, medicines, timber, and climate change mitigation.

CONTACTS:

Md. Zaheer Iqbal
National Project Coordinator
Bangladesh Forest Department
Email: z.iqbal60@gmail.com

Matieu Henry
Chief Technical Advisor
Food & Agriculture Organization of the United Nations
Email: matieu.henry@fao.org

Suggested Citation: **Jonayed, SA.** 2016. Proceedings of the Training on Basic Photography. 27 July 2016, Dhaka, Bangladesh Forest Department, Food and Agriculture Organization of the United Nations.

Disclaimer

This report is designed to reflect the activities and progress related to the project GCP/BGD/058/USAID "Strengthening National Forest Inventory and Satellite Land Monitoring System in support of REDD+ in Bangladesh". This report is not authoritative information sources – it does not reflect the official position of the supporting international agencies including USAID, FAO or SilvaCarbon and should not be used for official purposes. Should readers find any errors or inconsistency in the document or would like to provide comments for improving quality they are encouraged to contact one of above contacts.

Executive Summary

Bangladesh National Herbarium is engaged with National Forest Inventory for preparation of data base of tree species of the country. While prepare the tree database, to document the special features of different species and identify appropriate species, photography of various parts of tree is essential element. Therefore to strengthen the capacity of the professionals of BHN, a basic photography training was arranged on 27th of July, 2016 at BNH auditorium located at Mirpur, Dhaka.

The half day training consisted of theoretical sessions and hands on training at BNH premises. The technical session consist of camera and camera technique; image enhancement, how to use light, photography of tree (Macro Photography). Later the one hour hands on training took place in the courtyard of the BNH where the participant exercised with DSLR cameras with guidance from the trainer.

In total, 09 participants (Male-7, Female-2) took part in the photography training from BNH and FAO. The online based post evaluation that was rolled over the trainees found that 75% of the respondents agreed that the learning resources were adequate while 25% strongly agreed on the same issues. Moreover, 100% of respondents in their online evaluation reported that they could able to perform the training.

Table of Contents

Acronyms

FAO	Food and Agriculture Organization of the United Nations
FD	Forest Department
DSLR	Digital Single Lens Reflex
BNH	Bangladesh National Herbarium

1. Introduction

BNH has engaged with NFI projects to develop a national data base of tree species. As a part of preparation of national data base, taking photography of tree and their different parts is essential for proper species identification. Thus, to ease the process of tree species data base development, BNH is provided with one DSLR camera (Nikon D3300) and therefore, a basic training on DSLR is a requirement for the efficient use of the camera for development of national data base development for Tree Species. To serve this purpose, a half day training was arranged in BNH auditorium to build the capacity of the BNH scientific professionals.

2. Inauguration Session

Before the training, small inauguration session held at BNH auditorium where Liam Costello, project officer of NFI project made a small speech on the purpose and importance of the training in the context of role of photography in tree species database development. Later the director of the BNH and the FAO staffs officially inaugurated the training session.

3. Schedule of the Training Session

Time	**Topic**	**Medium of Instruction**
10.00 -10:15 am	Session-1: Introduction	PPT
10:15-11.00am	Session-2: Camera and camera technique	PPT and Demonstration using Camera
11.00-11.30am	Session-3: Image enhancement	PPT and Demonstration using Camera
11.30am-12.00pm	Session-4: How to use light to your advantage	PPT and Demonstration using Camera
12.00pm- 01.00pm	Session-5: Photography of tree and land scape	PPT and Demonstration using Camera
01.00pm-02.00pm	Session-6: Hands on training	Practice in the field

3.1. Theoretical Sessions

3.1.1. Introduction and Camera and Camera Techniques:

During these sessions, the trainer made the participants familiar with different options and functions of DSLR cameras and lens. These sessions individually introduced the trainees with every function of the cameras and lens through power point presentation and later exercised with DSLR cameras.

3.1.2. Image enhancement and use of light

Characteristics of a good photo

Shape

Tends to be noticed first, before texture and pattern
Easiest and most recognizable composition tool
Shape helps create a mood/character for the picture
Search for the unconventional or surprise shape in objects
Common– use backlighting to create a silhouette
Uncommon– side lighting with simple background, underexpose to focus on shape vs. color or texture

Line

Lines into the horizon show depth and perspective for the viewer
Vanishing point– Point at which lines converge and vanish in to the horizon– Place off-center
Close-ups decrease perspective while wide angles can exaggerate it

Pattern

Orderly combination of shape, line, or color
Pattern can help echo the character of a photo
Catching attention – Random patterns – Slight variation in a pattern – Pattern in common places

Texture

Adds realism (sense of touch) to a photo
Sharp (hard) light highlights texture
Especially important for close-up and b/w shots
Side lighting highlights texture
Most portraits use front lighting to decrease texture on skin
Sometimes hard light is inappropriate for illustrating shape and depth
Soft side lighting can give a sense of shape and depth without high contrast Portraits or Still life, When shape/depth is more important than texture

Size and space

2D pictures distort depth, relative size, and distances Include reference item, parts of the fore- or background, Use a frame, Be creative—maybe you want to distort

Giving perspective

Linear—Lines which converge into the distance
Diminishing size—objects further away are smaller
Aerial perspective—atmosphere creates haze, which lightens objects farther away

Depth and perspective
Overlapping forms—overlapping objects in a picture create depth and distance
Selective focusing—focusing on the foreground and blurring the background
Have a strong center of interest
• Take pictures at different angles with different compositions
• Work around the rule of thirds

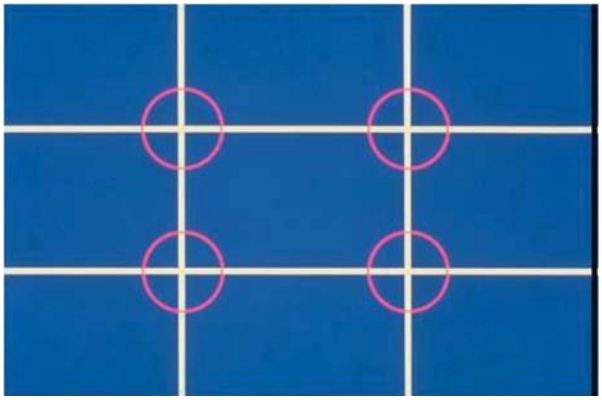

Figure: Focus on the centre

Simplicity
One strong center of interest
Foreground or background should be simple or complimentary to center of interest
Include foreground or background for sense ofisolation, distance, depth, etc.
Avoid mergers

Cut offs
• Avoiding cutting out parts or wholes of people or main subjects
• Avoiding cutting out the path of a moving object

Framing
Adds depth
Should fit theme
Helps subject fill the frame
Can block unwanted subjects from view
Watch focus on foreground
Focus on foreground in landscape
Focus on subject in portraits
Auto-focus should be centered on main topic
Overall— Depends on Camera

Balance

• Balance color and weight in a picture
• Formal and informal
• Symmetrical and asymmetrical

Fill the frame

• Would this picture look better if I was closer?
– Focus on subject
– Detail
• Start far and move closer
• Fill the frame with objects that "fit"
• Long range shots provide depth and
Perspective

Resolution

• Quality of the pictures on a screen, print, or file
– DPI = dots per inch (printer)
– PPI = pixels per inch (screen)
• More resolution means higher file size
• Different file types contain more or less information (resolution)

Tagged Image File Format

• Very flexible and can be opened by most programs
• Saves as pixels
• Scan as a .tiff or as a native file format if possible

Understanding resolution

• Resolved to our eyes = realism and accuracy
• Printer = DPI
• Monitor = bit depth (colors displayable) – 72 ppi is good enough for electronic photos

Understanding pixels

• Picture elements (dots) per inch
• Standard monitor displays 640 by 480 pixels
– 640 by 480
– 1024 by 768
• More pixels requires more RAM, which may mean lower bit depth

3.2.3. Macro Photography

Definition: Macro photography and sometimes macrophotography, is extreme close-up photography, usually of very small subjects, in which the size of the subject in the photograph is greater than life size

(though macrophotography technically refers to the art of making very large photographs). By some definitions, a macro photograph is one in which the size of the subject on the negative or image sensor is life size or greater. However, in other uses it refers to a finished photograph of a subject at greater than life size.

Figure: Example of Macro photography (collected from Wiki)

Equipment: "Macro" lenses specifically designed for close-up work, with a long barrel for close focusing and optimized for high reproduction ratios, are one of the most common tools for macro photography. (Unlike most other lens makers, Nikon designates its macro lenses as "Micro" because of their original use in making microform.) Most modern macro lenses can focus continuously to infinity as well and can provide excellent optical quality for normal photography. True macro lenses, such as the Canon MP-E 65 mm f/2.8 or Minolta AF 3x-1x 1.7-2.8 Macro, can achieve higher magnification than life size, enabling photography of the structure of small insect eyes, snowflakes, and other minuscule objects. Others, such as the Infinity Photo-Optical's TS-160 can achieve magnifications from 0-18x on sensor, focusing from infinity down to 18 mm from the object.

Figure: Macro Photographic lens (Collected from Wiki)

Macro lenses of different focal lengths find different uses:

Continuously-variable focal length – suitable for virtually all macro subjects
45–65 mm – product photography, small objects that can be approached closely without causing undesirable influence, and scenes requiring natural background perspective
90–105 mm – insects, flowers, and small objects from a comfortable distance
150–200 mm – insects and other small animals where additional working distance is required

3.2. Hands on training in BNH premises

The participants went to hands on training after completing the theoretical session. In the field practice, they took photos considering the tips and techniques (aperture, shutter speed and ISO), they learnt in the class room. Moreover, the participants took snap of leaves, twigs and insects using macro lens. Later the trainer reviewed all the photographs taken by the trainers and explained the errors and showed the ways of the improvements.

Figure: Hands on training in outdoors

Figure: Macro Photography

Figure: Macro Photography

4. Conclusion:

The training on Basis Photography provided a basic but effective exposure about the application of photography on tree database development. Especially this training provides an opportunity for the BNH professionals to introduce with the application of the Macro lens for tree species identification. However, the participants suggested for a day long training with more practical exercise in future events for ensuring better output from this kind of hands on training.

Appendix1: Participants List

Sl	Name	Gender	Designation	Organization	Email	Mobile
1	Naimur Rahman	M	Scientific Officer	BNH	naimur_durjoy@yahoo.com	01913231675
2	Kamrul Islam	M	Scientific Officer	BNH	orchidcu.islam@gmail.com	01718257045
3	Ahsan Habib	M	Senior Herbarium Technichian	BNH	bnhahsan.habib@gmail.com	01716591352
4	Shuhala Ahasan	F	Programme Assistant	FAO	shuhala.ahasan@fao.org	01726490944
5	Nandini Sarker	F	IT Assistant	FAO	nandini.sarker@fao.org	01776093788
6	Kamrul Islam	M	Support Staff	FAO		01965786898
7	Sk Abdullah Jonayed	M	M&E Consultant	FAO	Sk.Jonayed@fao.org	01680660063
8	Fahad Kaizer	M	Photographer	UNB	kaizer86@gmail.com	01760556930
9	David Khan	M	Program Assistant	FAO	david.khan@fao.org	
10	Abdul Halim	M	IT Assistant	FAO	abdul.halim@fao.org	

Appendix2: Evaluation the Training on Basic Photography

	Total 4 (Male-4, Female-0)		
	Male	4	100%
	Female	0	0%
1	How often do you participate in training related to forest monitoring?		
	First time	4	100%
	1-3 every year	0	0%
	More than 3 per year	0	0%
	Regularly (approximately one per month)	0	0%
2	I would describe myself as?		
	A professor/academic	0	0%
	A student	0	0%
	Forest Department staff	0	0%
	Government staff (outside Forest Department)	3	75%
	NGO staff	0	0%
	Private consultant	1	25%
	Other	0	0%
			0%
3	My professional background relates most closely to:		
		TRUE	
	Forester	3	75%
	GIS/RS	0	0%
	Statistics	0	0%
	Social survey/assessment	0	0%
	Economics	0	0%
	Natural Resource Management	0	0%
	Ecology	1	25%
	other	1	25%
4	My years of relevant experience is:		
	1-2 years	2	50%
	3-5 years	0	0%
	5-7 years	0	0%
	8-10 years	0	0%
	More than 10 years	2	50%

5	The training was relevant to my daily work		
	Strongly agree	1	25%
	Agree	3	75%
	Neutral	0	0%
	Disagree	0	0%
	Strongly disagree	0	0%
6	I had enough previous knowledge to understand the content of the event		
	Strongly agree	0	0%
	Agree	2	50%
	Neutral	2	50%
	Disagree	0	0%
	Strongly disagree	0	0%
7	The training met my expectations in terms of the content and learning outcomes		
	Strongly agree	1	25%
	Agree	3	75%
	Neutral	0	0%
	Disagree	0	0%
	Strongly disagree	0	0%
8	The learning resources provided were adequate and useful		
	Strongly agree	1	25%
	Agree	3	75%
	Neutral	0	0%
	Disagree	0	0%
	Strongly disagree	0	0%
9	The resource person presented information in a way that i could understand and was easy to follow		
	Strongly agree	2	50%
	Agree	2	50%
	Neutral	0	0%
	Disagree	0	0%
	Strongly disagree	0	0%
10	I feel confident to be able to carry out the tasks described in the training without supervision.		
	Strongly agree	0	0%
	Agree	4	100%

	Neutral	0	0%
	Disagree	0	0%
	Strongly disagree	0	0%
11	I was pleased with the venue/meeting room/snacks etc.		
	Strongly agree	2	50%
	Agree	2	50%
	Neutral	0	0%
	Disagree	0	0%
	Strongly disagree	0	0%
12	Are there other people/agencies/organizations that you think should have been included in the training?		
	At least one people can include from every forest related organizations		
13	Any other comments?		
	training materials and content was so good but duration of training was too short to learning about basic statistic		
	Practical hand on session should consist of 2 hours at least.		
	Such kind of training is better if it is continue at least 03 days courses.		