

## **NSQF QUALIFICATION FILE**

### **CONTACT DETAILS OF THE BODY SUBMITTING THE QUALIFICATION FILE**

**Name and address of submitting body:**

Ministry of Environment, Forest & Climate Change (MoEF&CC)  
Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi- 110003

**Name and contact details of individual dealing with the submission**

**Name:** Ms. Urmila

**Position in the organisation:** Joint Director, MoEF&CC

**Address if different from above:**

**Tel number(s):** +91-11-24621961

**E-mail address:** [b.urmila@nic.in](mailto:b.urmila@nic.in)

**List of documents submitted in support of the Qualification File**

- 1. Curriculum with training plan (Annexure-I)**
- 2. Documentary Evidence of Need (Annexure-II)**

## NSQF QUALIFICATION FILE

### SUMMARY

1	<b>Qualification Title</b>	<b>Certificate Course in Bird migration and migration study techniques</b>
2	<b>Qualification Code, if any</b>	-
3	<b>NCO code and occupation</b>	-
4	<b>Nature and purpose of the qualification (Please specify whether qualification is short term or long term)</b>	<p><b>Nature of the qualification:</b> Certificate Course in Bird migration and migration study techniques</p> <p><b>Purpose of qualification:</b> Bird migration is necessary to understand changing trends of birds's arrival in India during migration. Trained staff for this study is inadequate, to fulfil this gap.</p> <p><b>Short Term</b></p>
5	<b>Body/bodies which will award the qualification</b>	MoEF&CC
6	<b>Body which will accredit providers to offer courses leading to the qualification</b>	MoEF&CC
7	<b>Whether accreditation/affiliation norms are already in place or not, if applicable (if yes, attach a copy)</b>	<p>Training programmes would be undertaken as part of the Green Skill Development Programme (GSDP) under the ENVIS Scheme. The courses would be run by the ENVIS Hubs (hosted by the respective State Government /UT Administration) and ENVIS Resource Partners (RPs)- (hosted by environment-related governmental and non-governmental organizations/ institutes of professional excellence) and other institutes. The assessment of the training programmes would be a regular exercise as part of the Memorandum of Cooperation signed with ENVIS Hubs and RPs and Memorandum of Understanding (MoU) between the ENVIS Hubs/RPs and other GSDP Partners. The courses would also be run by the Autonomous Bodies/Institutes under the Ministry for which no MoC is required.</p>
8	<b>Occupation(s) to which the qualification gives access</b>	Bird guide, Future conservationist / Field assistant in biodiversity research organization/institute, Wild bird handler, Banding field assistant, assistance for Biodiversity Management Committee, PBR studies.
9	<b>Job description of the occupation</b>	Bird conservationist / Bird Guide/ Field assistant/Self Employment

## NSQF QUALIFICATION FILE

10	<b>Licensing requirements</b>	Ringing permission from states forest department	
11	<b>Statutory and Regulatory requirement of the relevant sector (documentary evidence to be provided)</b>	-	
12	<b>Level of the qualification in the NSQF</b>	Level 5	
13	<b>Anticipated volume of training/learning required to complete the qualification</b>	186 Hrs (Theory + Practical)	
14	<b>Indicative list of training tools required to deliver this qualification</b>	<ul style="list-style-type: none"> <li>▪ Ringing materials: Rings, color flags, color bands, Ringing pliers, geolocators, weighing balance etc.</li> <li>▪ Binoculars</li> <li>▪ Bird trapping materials: Mist nets, Mesh Nets, Noose traps, Baskets, Bamboo Poles, Carry cases, Bird bags</li> <li>▪ Tally counter</li> </ul>	
15	<b>Entry requirements and/or recommendations and minimum age</b>	Graduation in any discipline.	
16	<b>Progression from the qualification (Please show Professional and academic progression)</b>	Master Trainer	
17	<b>Arrangements for the Recognition of Prior learning (RPL)</b>	There is no arrangement of RPL as of now	
18	<b>International comparability where known (research evidence to be provided)</b>	Can be compared with the preliminary bird migration programme, Europe, Africa, America & nine flyway programmes.	
19	<b>Date of planned review of the qualification.</b>	March 2020	
20	<b>Formal structure of the qualification</b>		
	<b>Mandatory components</b>		
	<b>Title of component and identification code/NOSs/Learning outcomes</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
1	Introduction to bird migration	5	
2	Migratory birds	3	
3	Flyways	5	

## NSQF QUALIFICATION FILE

4	Flyway agreements	3	
5	Bird capture techniques <ul style="list-style-type: none"> <li>• Mist netting</li> <li>• Mesh netting</li> <li>• Noose trapping</li> <li>• Clap trapping</li> </ul> Other trapping techniques	7	
6	Bird handling techniques (according to size)	7	
7	Precautions to be taken while handling wild birds	3	
8	Information obtained from different bird marking techniques <ul style="list-style-type: none"> <li>• Bird ringing</li> <li>• Color flagging, tagging, neck collaring</li> <li>• PTTs</li> <li>• Geo-locators</li> <li>• Mobile based tracking tools</li> </ul> GPS	10	
9	Recoveries, Re-sighting and Reporting of banded birds	2	
10	Morphometry and subspecies	7	
11	Disease monitoring techniques	7	
12	Bird ringing Exercise	7	
13	Field visits <ul style="list-style-type: none"> <li>• Wetlands Vaduvor Karaivetty</li> <li>• Forests Palni hills &amp; Mudumalai</li> </ul>	120	
	<b>Sub Total (A)</b>	<b>186</b>	<b>5</b>
	<b>Optional components</b>		
	<b>Title of component and identification code/NOSs/ Learning outcomes</b>	<b>Estimated size (learning hours)</b>	<b>Level</b>
		NA	NA
		NA	NA

## NSQF QUALIFICATION FILE

	<b>Sub Total (B)</b>	NA	NA
	<b><u>Total (A+B)</u></b>	<b><u>186</u></b>	<b><u>5</u></b>

## NSQF QUALIFICATION FILE

### SECTION 1 ASSESSMENT

21	<b>Body/Bodies which will carry out assessment:</b> The assessments will be carried out by the evaluators of BNHS, Mumbai. These evaluators would be chosen from the panel of experts who are not part of the trainers. Based on the evaluation, certificates will be issued.
22	<b>How will RPL assessment be managed and who will carry it out?</b> No RPL in this programme
23	<b>Describe the overall assessment strategy and specific arrangements which have been put in place to ensure that assessment is always valid, reliable and fair and show that these are in line with the requirements of the NSQF.</b> The assessment will be done through theory, practical and viva exams at the end of the course. Moreover, students will be assessed regularly through questionnaires on every module in the classroom. For practical examination, the trainers as well as course supervisors will constantly keep a vigil on the trainees. Any errors committed by the trainees will be corrected then and there; learning by doing technique will be adopted for practical assessment. In theory, a final examination will be conducted at the end of the course, in which 50% scoring will be considered to be as qualifying marks. The Assessments will be conducted through English/Hindi Questionnaires. The trainers will be involved in the assessment.

### ASSESSMENT EVIDENCE

**Complete a grid for each component as listed in “Formal structure of the the qualification” in the Summary.**

*NOTE: this grid can be replaced by any part of the qualification documentation which shows the same information – ie Learning Outcomes to be assessed, assessment criteria and the means of assessment.*

## NSQF QUALIFICATION FILE

### 24. Assessment evidences

Title of Component:

Outcomes to be assessed/NOSs to be assessed	Assessment criteria for the outcome	
Introduction to bird migration	Trainee will be able to <ul style="list-style-type: none"> <li>• Describe phenomenon of Migration, types of migration and pressures that the species undergoes during migration</li> </ul>	By conducting evaluation test (Theory)
Migratory birds	Trainee will be able to <ul style="list-style-type: none"> <li>• Describe migratory bird species</li> <li>• Describe different patterns of long and short-distance migratory birds.</li> </ul>	By conducting evaluation test (Theory)
Flyways	Trainee will be able to <ul style="list-style-type: none"> <li>• Describe concept of Flyway.</li> <li>• Describe different Flyways passing through India, Central Asian Flyway</li> </ul>	By conducting evaluation test (Theory)
Flyway agreements	Trainee will be able to <ul style="list-style-type: none"> <li>• Describe about International conventions for Migratory species, through an orientation on Central Asian Flyway Action Plan, Ramsar Agreement, Important Bird Area.</li> </ul>	By conducting evaluation test (Theory)
Bird capture techniques <ul style="list-style-type: none"> <li>• Mist netting</li> <li>• Mesh netting</li> <li>• Noose trapping</li> <li>• Clap trapping</li> <li>• Other trapping techniques</li> </ul>	The trainee will be able to <ul style="list-style-type: none"> <li>• Execute different trapping techniques for wild birds.</li> </ul>	By conducting evaluation test (Theory & Practical) & Viva voce
Bird handling techniques (according to size)	Trainee will be able to <ul style="list-style-type: none"> <li>• Handle small-sized,</li> </ul>	By conducting evaluation test (Theory & Practical)

## NSQF QUALIFICATION FILE

	medium sized and large-sized birds with special care.	& Viva voce
Precautions to be taken while handling wild birds	Trainee will be able to <ul style="list-style-type: none"> <li>• Demonstrate &amp; describe all the necessary safety measures for handling birds and take necessary care of the bird.</li> </ul>	By conducting evaluation test (Theory & Practical) & Viva voce
Information obtained from different bird marking techniques <ul style="list-style-type: none"> <li>• Bird ringing</li> <li>• Color flagging, tagging, neck collaring</li> <li>• PTTs</li> <li>• Geo-locators</li> <li>• Mobile based tracking tools</li> <li>• GPS</li> </ul>	Trainee will be able to <ul style="list-style-type: none"> <li>• Describe different Bird marking techniques and their outcomes.</li> <li>• Describe advantages and limitations of each bird marking technique.</li> <li>• Report colour banded or tagged bird</li> <li>• Derive Inference of the data obtained from recovery records.</li> <li>• Participate in bird marking activity.</li> </ul>	By conducting evaluation test (Theory & Practical) & Viva voce
Recoveries, Re-sighting and Reporting of banded birds	The trainee will be able to <ul style="list-style-type: none"> <li>• Trace and process data on recovery and re-sighted bird record</li> </ul>	By conducting evaluation test (Theory & Practical) & Viva voce
Morphometry and subspecies	Trainee will be able to <ul style="list-style-type: none"> <li>• Collect morphometric data of ringed birds</li> <li>• Understand importance of accuracy in collection for determining subspecies.</li> <li>• Collect bird banding data independently.</li> </ul>	By conducting evaluation test (Theory)
Disease monitoring techniques	Trainee will be able to <ul style="list-style-type: none"> <li>• Report in case any situation of avian disease in wild.</li> </ul>	By conducting evaluation test (Theory) & Viva voce
Bird ringing Exercise	Trainee will be able to <ul style="list-style-type: none"> <li>• Carry out bird banding activity</li> </ul>	By conducting evaluation test (Theory & Practical) & Viva voce
<b>Means of assessment 1</b>		
Theory and Practical exam on field and through Viva-voce		



## NSQF QUALIFICATION FILE

### **Means of assessment 2**

Set up of relevant and qualitative questions, Multiple Choice Questions (MCQ) for theory assessment. Conducting practical exams on selective Modules.

### **Pass/Fail**

The pass mark for Theory exam (Multiple Choice Questionnaire) will be 50 out of 100. In Practical, 75 marks for Practical exam and 25 mark for viva-voce. Pass mark will be 50 marks but in Practical exam Trainee should score at least 40 marks out of 75.

## NSQF QUALIFICATION FILE

### SECTION 2

#### 25. EVIDENCE OF LEVEL

##### OPTION A

<b>Title/Name of qualification/component:</b> Certificate Course in Bird migration and migration study techniques			<b>Level: 5</b>
<b>NSQF Domain</b>	<b>Outcomes of the Qualification/Component</b>	<b>How the outcomes relate to the NSQF level descriptors</b>	<b>NSQF Level</b>
Process	The trainees will get an orientation on the concept of Bird Migration. They will understand the different types of migration and the energy and pressures involved in the annual migration. They will understand the need of habitat connectivity and the landscape level conservation activity.	The trainee will have gained baseline knowledge on the concept of migration, flyways and wetland connectivity. He will be able to participate in bird monitoring, census or marching programmes.	5
Professional knowledge	The trainees are able to identify birds, and collect data on arrival and departure pattern, conduct monitoring studies and provide data on habitat and congregation. They will be aware of the species of special concern and the single species action plans to conserve those. They will be aware of the Central Asian Flyway Action Plan and the conservation of migratory birds under CAF.	The detailed base line knowledge on different types of migration patterns, linkage of breeding, staging and wintering sites, bird monitoring protocols, Important Bird Areas and disease surveillance will enable them to carry out independent bird surveys. They will also be able collect habitat assessment parameters. For wetland management activities.	5
Professional skill	The trainees will be able to handle and mark wild bird species under supervision. They will be able to conduct total count and be involved in census.	With the bird identification and monitoring knowledge, the participant will be able to carry out monitoring activities. Under the supervision of an expert, they will be able to execute bird handling and ringing. They will be able to record	5

## NSQF QUALIFICATION FILE

Title/Name of qualification/component: Certificate Course in Bird migration and migration study techniques			Level: 5
NSQF Domain	Outcomes of the Qualification/Component	How the outcomes relate to the NSQF level descriptors	NSQF Level
		and report banded birds, sick and dead birds during surveys.	
Core skill	They will acquire working knowledge of Microsoft Excel and basic GIS mapping Tools	Communication skill will be taught. As handling of birds is involved, the participant will need to have understanding of ethics of safety and handling of birds. The participant will be able to efficiently collect and enter data in Microsoft Excel.	5
Responsibility	The participant will be able to handle and ring birds in a team for any research programme/bird health issues/transportation for zoo purpose. They will be able to participate in Annual Census for estimation of birds. They are trained to conduct bird monitoring studies independently.	The participant can independently carry out Bird Monitoring survey and collect associated ecological parameters. Bird handling and ringing can be carried out under the supervision of an expert. Trainee can enter, extract and assess the data collected during banding activities.	5

**SECTION 3  
EVIDENCE OF NEED**

<p><b>26</b></p>	<p>What evidence is there that the qualification is needed? What is the estimated uptake of this qualification and what is the basis of this estimate?</p> <table border="1" data-bbox="339 434 1334 1279"> <thead> <tr> <th data-bbox="339 434 724 555"><b>Basis</b></th> <th data-bbox="724 434 1334 555"><b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b></th> </tr> </thead> <tbody> <tr> <td data-bbox="339 555 724 913">Need of the qualification</td> <td data-bbox="724 555 1334 913">Bird Identification and Ornithology is a core concept and scientific methodology to study birds, which in turn provides technical inputs to the forestry and wildlife sector. A published paper is attached which endorse and highlights the birds specific and general characters. This will lead to bird habitat conservation and management.</td> </tr> <tr> <td data-bbox="339 913 724 1115">Industry Relevance</td> <td data-bbox="724 913 1334 1115">The curriculum/course syllabus has been prepared by the Scientists/Experts in the BNHS, Mumbai. This is the pioneer institution in the Ornithology sector.</td> </tr> <tr> <td data-bbox="339 1115 724 1216">Usage of the Qualification</td> <td data-bbox="724 1115 1334 1216">The course has been designed under GSDP for the first time.</td> </tr> <tr> <td data-bbox="339 1216 724 1279">Estimated uptake</td> <td data-bbox="724 1216 1334 1279">Uptake 25 students in one batch.</td> </tr> </tbody> </table>	<b>Basis</b>	<b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b>	Need of the qualification	Bird Identification and Ornithology is a core concept and scientific methodology to study birds, which in turn provides technical inputs to the forestry and wildlife sector. A published paper is attached which endorse and highlights the birds specific and general characters. This will lead to bird habitat conservation and management.	Industry Relevance	The curriculum/course syllabus has been prepared by the Scientists/Experts in the BNHS, Mumbai. This is the pioneer institution in the Ornithology sector.	Usage of the Qualification	The course has been designed under GSDP for the first time.	Estimated uptake	Uptake 25 students in one batch.
<b>Basis</b>	<b>In case of other Awarding Bodies (Institutes under Central Ministries and states departments)</b>										
Need of the qualification	Bird Identification and Ornithology is a core concept and scientific methodology to study birds, which in turn provides technical inputs to the forestry and wildlife sector. A published paper is attached which endorse and highlights the birds specific and general characters. This will lead to bird habitat conservation and management.										
Industry Relevance	The curriculum/course syllabus has been prepared by the Scientists/Experts in the BNHS, Mumbai. This is the pioneer institution in the Ornithology sector.										
Usage of the Qualification	The course has been designed under GSDP for the first time.										
Estimated uptake	Uptake 25 students in one batch.										
<p><b>27</b></p>	<p><b>Recommendation from the concerned Line Ministry of the Government/Regulatory Body. To be supported by documentary evidences</b> NA</p>										
<p><b>28</b></p>	<p><b>What steps were taken to ensure that the qualification(s) does (do) not duplicate already existing or planned qualifications in the NSQF?</b></p> <p>National Qualifications Register was searched online to assess if there was any similar qualification and no overlap was found with the existing qualification.</p>										
<p><b>29</b></p>	<p><b>What arrangements are in place to monitor and review the qualification(s)? What data will be used and at what point will the qualification(s) be revised or updated?</b></p> <p>Feedback would be taken from experts, students and teachers regarding the course content, structure and timeline of the programme. Feedback will also be taken from the Centres conducting the course. Changes suggested will be assessed by the Ministry before incorporating them in</p>										

## NSQF QUALIFICATION FILE

	the curriculum. Next review will be done in March 2020.
--	---

### **SECTION 4** **EVIDENCE OF PROGRESSION**

<b>30</b>	<p><b>What steps have been taken in the design of this or other qualifications to ensure that there is a clear path to other qualifications in this sector?</b></p> <p><b><i>Show the career map here to reflect the clear progression</i></b></p> <p>Trainees will be eligible to become trainers through job training in this field. They will be able to assist ground truth verification of various schemes of the Ministry as well as be employed in BNHS as per need. These certificate holders are also free to take up any other training course in the field of bird monitoring &amp; migration, Biodiversity survey, environment protection and conservation that the Ministry plans to conduct in the future.</p> <p>Bird Identifier/Specialist – Job specific training – Master Trainer/Consultant</p>
-----------	--

**Curriculum with training plan**

<b>Sr. No.</b>	<b>Name of the Topics</b>	<b>Number of Hrs</b>
1	Introduction to bird migration	5
2	Migratory birds	3
3	Flyways	5
4	Flyway agreements	3
5	Bird capture techniques <ul style="list-style-type: none"> <li>• Mist netting</li> <li>• Mesh netting</li> <li>• Noose trapping</li> <li>• Clap trapping</li> <li>• Other trapping techniques</li> </ul>	7
6	Bird handling techniques (according to size)	7
7	Precautions to be taken while handling wild birds	3
8	Information obtained from different bird marking techniques <ul style="list-style-type: none"> <li>• Bird ringing</li> <li>• Color flagging, tagging, neck collaring</li> <li>• PTTs</li> <li>• Geo-locators</li> <li>• Mobile based tracking tools</li> <li>• GPS</li> </ul>	10
9	Recoveries, Re-sighting and Reporting of banded birds	2
10	Morphometry and subspecies	7
11	Disease monitoring techniques	7
12	Bird ringing Exercise	7
13	Field visits <ul style="list-style-type: none"> <li>• Wetlands Vaduvor (12) Karaivetty (36)</li> <li>• Forests Palni hills &amp; Mudumalai (72)</li> </ul>	120
	<b>Total</b>	<b>186</b>

- **Distribution of training duration into theory/practical/OJT component**
  - Theory – 56 Hrs
  - Practical – 100 Hrs
  - OJT – 30 Hrs