



Darwin Fellowship - Interim Report

Due within one month of the half way point of your Fellowship, *maximum 3 pages*)

Darwin Fellowship Ref No.	EIDPS043
Name of Darwin Fellow	Dr Parthiba Basu
Host organisation	Centre for Agroecology, Water & Resilience, Coventry University
Fellow's organisation(s)	Centre for Pollination Studies, University of Calcutta
Fellow's role within the organisation (prior to Fellowship)	Associate Professor & Director, Centre for Pollination Studies
Start/end date of Fellowship	September, 2015 to September, 2016
Location of Fellowship	Coventry University
Darwin Fellowship grant value (£)	
Type of work (e.g., research, training, if other please specify)	Research and Training
Main contact in Host organisation	Dr Barbara Smith
Author(s) and date	Dr Parthiba Basu. 7 th March, 2016

1. Background

I was involved as the host country (India) Coordinator in a past Darwin Initiative project titled 'Enhancing relationship between people and pollinators in Eastern India' (19-024). I was involved in designing and implementing the project in two Eastern Indian states – Odisha and Tripura and led a team of researchers and field staff in association with the Project Leader Dr. Barbara Smith. As part of the project I also facilitated the process of establishing the Centre for Pollination Studies at the University of Calcutta and has been serving as its Director along with Dr. Barbara Smith as its Joint Director. The Centre continues to function even after the completion of the project.

- Describe the aim and objectives of the Fellowship, and the programme of work.

During implementation of the Darwin Initiative project (19-024) mentioned above and that focused on the conservation of insect pollinators in Eastern India it was revealed that conservation of pollinators is likely to be compromised by chemical pesticide use and that this understanding is shared by the farming community. Due to the absence of any effective alternative solution, those conserving non-target invertebrates are unable to advise farmers to abandon pesticides. There is an urgent need to develop methodologies of ecologically prudent pest regulation. Addressing this need is our principle aim. However, we acknowledge that across the globe there have been efforts to develop sustainable approaches to ecosystem service provision but these have not been collated and integrated, Furthermore there is a division in approaches between 'north and south'. There would be real benefit in integrating research and understanding to inform policy.

The aim of the Fellowship is to twofold:

- 1.) to develop capacity in the Centre for Pollination Studies, Calcutta University to design and implement research and policy development for natural pest regulation in the subsistence farming context thereby protecting ecosystem service delivery;
- 2) to deliver a review of North / South efforts to conserve ecosystem services and produce a policy document which will in combination with 1) inform Indian state governments on best practice for policy development.

Five objectives have been designed to achieve these aims:

Objective 1.1: Build capacity via training with partners whose expertise lies in natural pest regulation

Objective 1.2: Develop methodologies in natural pest regulation for the Indian subsistence farming context

Objective 1.3: Develop a participatory research programme to test pest regulation methodologies

Objective 2.1: Build capacity in review techniques and review North / South advances in ecosystem service provision.

Objective 2.2: Develop a shared understanding of the respective advances in agro-ecology and produce a working policy document to advise state governments in India

Centre for Agroecology, Water and Resilience (CAWR), Coventry University is hosting me. CAWR is facilitating my training and interaction with Fellowship partners regarding the natural pest regulation under the supervision of Dr Barbara Smith. CAWR is also facilitating my interaction with agro-ecologists at the centre regarding the assessment of the North – South perspectives in agroecology. The Centre for Pollination Studies, my institution, is in the process of setting up field experiments on natural pest regulation in India involving multiple partners based on inputs I received from the host institution and other partners.

2. Progress

During the first three months' of my stay at CAWR (November, 2015 – February, 2016) I have had very fruitful discussions with Dr Mark Ramsden a researcher in natural pest regulation from ADAS UK Ltd. (www.adas.uk), a leading environmental consultancy organization in UK. Based on the discussion I have initiated a systematic review of the information on natural pest regulation in India involving my doctoral student at the University of Calcutta. We are to set up field experiments on natural pest regulation in the post monsoon season (September onwards). I also met Dr. John Holland at GWCT. When contacted Dr Toby Bruce of Rothamsted Research and Dr Stephanie Williamson of the Pesticide Action Network (PAN) suggested interactions and sharing of novel pest control methodologies during the next phase of my stay that starts in April, 2016.

I have also made significant progress in developing perceptions on the growth of agro-ecological thinking in UK and other major European countries through studying various literatures and a series of discussions with the researchers in CAWR. I intend to have a number of discussions with other researchers at CAWR and also agro-ecologists in other parts of UK upon my return. I have started to work on a manuscript based on my ongoing learning tentatively titled as 'Agro-ecology: divergent paths and shared dream'.

During my stay I also contributed to developing and submission of a project proposal involving CAWR and CPS in association with Dr. Barbara Smith.

- Provide an account of any problems encountered and how you have or are planning to overcome them.

Dr Barbara Smith changed her earlier organization and joined Coventry University in June, 2015- a few months before start of the fellowship. This caused some difficulty for her to arrange administrative logistics in her new workplace for me leading to a late start. However, the initial problems are sorted now and I enjoy a conducive and cordial atmosphere in the host university.

The funding for travel turned out to be inadequate. However, this was lessened by a rental car kindly provided by the host organization.

- Are there any issues you would like to raise?

The stipend of £1000 is proving to be a little inadequate. After meeting the cost of accommodation (£500) there is not much that is left for meeting living expenses and car fuel.

3. Achievements and Outcomes

The main achievement have been a) development of a research strategy on natural pest regulation in India and b) Insights I acquired on the genesis of agroecological perspectives in UK and other major European countries.

4. Next Steps

Forthcoming activities are the following:

Sr.	Activity	Event	Milestone
1	Training on natural pest regulation	Meeting Dr Toby Bruce, Rothamsted Research	Fine tuning research strategy and a draft project proposal
		Meeting Dr Stephanie Williamson of the Pesticide Action Network (PAN)	Fine tuning research strategy and a draft project proposal
2	Review of North / South efforts to conserve ecosystem services	Survey of literature	Draft paper
3	North – South Perspectives in Agro-ecology	Survey of literature and discussions with researchers at CAWR and other parts of UK	Draft manuscript