## My research interests are on Indian botanic gardens, Kew and the development of the natural sciences

From the late 1780s the East India Company botanic gardens, above all the gardens at Samulcottah in Coromandel, at Dapoorie near Poona, at Saharanpur in the Upper Provinces and Sibpur near Calcutta, served as foci for activity in all branches of the natural sciences, including botany, palaeontology and zoology. Initially they were based on the threefold examples (and often the sites) of indigenous Mughal experimental gardens, models developed in the Dutch and French empires and programmes for plant introductions encouraged by the physiocratic devotees of the Royal Society of Arts, which had been founded in 1754. This mixed parentage led guite guickly to the Indian gardens becoming centres of intellectual leadership for the pursuit of most branches of natural history, especially in botany and palaeontology. They also centres for monitoring the rapid environmental became effective changes that were taking place in South Asia and Burma. The gardens were also nascent centres for the promotion of crop introduction, new kinds of plantation species and early forms of agricultural science research. They acted as the starting points from which many, but not all, natural history exploring expeditions set out for little known parts of South Asia before 1857. Much of our research on this topic is thus devoted to exploring aspects of the history of the Indian botanic gardens and the colourful scientific personalities who staffed them, the role of botanic gardens as critics of EIC policy and assessing the power of the Indian gardens within the botanical information and plant exchange networks which characterised the empire. To date their histories are almost entirely unwritten, despite a wealth of archival material in India, England and Scotland. In starting to fill this gap, we will ask how it was possible for the botanic garden establishments to dominate Company environmental policy and how far their agendas were autonomous of the imperial centre in London.

I would like to develop the continuing social role of botanic gardens in combating drought, famine and propagating conservation and environmental ideas by developing the networks between Calcutta, Kew and CWEH, National Museum of National History (Delhi), Natural History Museum in an ongoing partnership that involves exhibitions, museum displays and actively encourages the social role of botanic gardens. Archives:-India NA+Calcutta Botanic Garden Archive+IOL.

I hope to develop a project through the network that will do the following;

1. Analyse colonial natural history data from existing published manuscript and digitised sources between 1790-1870 that include, Roxbourgh (Madras meteorological diary) Wallich collection (Kew, BL, Gibson. NHM and Calcutta). Alexander Hooker's Directors correspondence (Kew), Hookers India letters (Sussex), on extreme events, climate and species which was tracked in terms of recurrent patterns and aspects of interdependent global systems. This will help us understand continuing patterns of recurrence and interdependence in term of climate change and global systems. I hope here to link up with Rob Allan (Met office), G. Adamson, Cambridge Digital Library/CWEH Meta Data project, Wallich digitising project Calcutta/BL/CWEH.

2. Map the history of Samuelcottah, Dapoori and Sibpur gardens, from 1780-1900. The power of Indian botanic gardens the colourful personalities that staffed them who include (Roxborough and Wallich) helped to formulate debates on endemism, extinction, conservation, plant geography and climate change.

3. Examine how botanic gardens were able to dominate EIC company policy and how far they were independent of Kew and its imperial agendas in terms of combating drought and famine going beyond commercial agendas.

4. Develop the continuing environmental and social role of botanic gardens in combating drought, famine and propagating conservation and environmental ideas by developing the networks between Calcutta, Kew and CWEH, National Museum of National History (Delhi), Natural History Museum in a ongoing partnership that involves exhibitions, museum displays and actively encourages the social role of botanic gardens . This theme will generates an active and ongoing network between KEW, Calcutta, NHM and NMNH, CWEH and JNU.