<u>Project History – Grant Completion Report</u>

Funds from the Institute of New Economic Thinking via the History Project allowed me to complete archival research in London, UK and Chennai, India on hydroelectric development in the erstwhile province of Madras, in colonial India. Funding was to be used for two connected purposes. First, it was to be used to advance the dissertation, where hydroelectricity development was part of a broader question of water and its uses in the twentieth century. Second, funding was also provided to write a paper for the 'Energy and Environment Conference' hosted by the Center for History and Economics at Harvard University in September 2015.

The Archive

Hydroelectric development in the Madras Presidency occurred largely post the First World War, coinciding with an overall push towards new ways of using riverine spaces in the form of Multi-purpose River Valley Projects. In London, I visited the Institute of Engineering and Technology and the India Office archives to pursue research on the subject. The India Office archive formed the basis for writing the dissertation chapter and the conference paper. Important files on the Mettur and Pykara projects, the two key hydroelectric projects built in the 1930s, supplemented by proceedings of the Public Works and Revenue Departments were the backbone of the chapter.

In Madras, archives at the C.P. Ramaswamy Foundation, The Roja Muthiah Library, and the Tamilnadu State Archives yielded rich results. C.P. Ramaswamy Aiyyar, a renowned lawyer in Madras, was the government member for Irrigation in the 1920s and spearheaded the early efforts at electrifying the province. His private papers contained nuggets of information relating to the challenges he faced while attempting to initiate hydropower projects. The Roja Muthiah Library, a private collection of largely Tamil books and journals also proved

invaluable. Here I accessed Tamil journals which, while discussing new improvements in their science sections, had mentions of electric development in the province. Not only did this affirm that a vernacular sphere was engaged in discussing developments in electricity, but also recast these very developments in new light.

Records from the Madras government proceedings of the Public Works Department and Revenue Department proved especially useful. The organizational nature of the archive meant that government files from 1921 were not transferred in their entirety to the India Office. Only files classed as important by the provincial Government made it there. Hence the Tamilnadu State Archives contained a wealth of information on electric development in the Presidency not readily available at the British Library. The archive however rarely speaks in a linear and tunnelled manner. Put simply, it yields material on events and processes that a researcher is not necessarily searching for, and hence much of the material was shelved for other chapters of the dissertation.

The Findings

Taken together, these multiple sets of interrelated archival sources proved extremely revealing. The paper, woven together from these varied sources, looked to trace the history of electric development in the Madras Presidency during the early decades of the twentieth century. Post the First World War, the colonial government of India took a serious interest in producing electricity from various natural resources. As Madras was deficient in coal supplies, harnessing hydropower seemed the realistic alternative in order to aid electric development in the Presidency. Hired by Sir C.P. Ramaswami Aiyyar as chief engineer, Henry Howard, an electrical engineer with vast experience in the Americas, was tasked with spearheading the Department of Hydroelectric Development which was newly formed in 1928.

Set amidst this backdrop, the chapter (in progress) sought to make two broad arguments. First, it looked to trace the genealogy of the multi-purpose river valley project, often seen as a postcolonial artifice, back to its colonial roots. The first multi-purpose project constructed in India was at Mettur, located on the Cauvery River. Construction began in 1924 and the project was inaugurated in 1934. In short, the paper showed how colonial financial interests permeated into electricity development efforts in the colony. Furthermore, it argued that the British Empire used projects such as the one at Mettur to reinvent Imperial interests in the 1930s as the harbinger of 'Development' to the colonies. It suggested simultaneously that politics was an intrinsic part of developing hydroelectric projects which were not merely technological devises deployed on rivers. Instead, when river water at Mettur was diverted towards producing hydroelectricity resulted in changes in irrigation seasons for peasants in the Tanjore Delta region of Madras, peasants rebelled. A combination of powerful landed magnates, middle peasants, and smaller landholders together petitioned the government to prioritize irrigation for agriculture over electric development for a host of reasons ranging from revenue economics to politics. Winning over the Agriculture Department at first, the peasants of Tanjore won their battle with the Electricity Department decisively. The Government decided to retain irrigation seasons as they were, releasing water according to its needs, as opposed to those of producing hydroelectricity.

Second, at a more speculative level, the chapter argued that with electricity emerged the category of the 'economy' as a way of describing economic happenings in a particular spatial configuration. Here the chapter aimed to take forward the work of Timothy Mitchell, who argued that the economy was a descriptive and performative category which emerged only during the twentieth century. By this Mitchell means the objective calculation of 'new forms of consumption, marketing, business management, government planning, financial flows, colonial administration, and statistical work' taken together. Electricity in isolation had little

use. It was its ability to power, improve, and make faster a whole array of economic activity which rendered it productive. In this way, hydroelectric development in Madras began to connect urban growth, agrarian development, middle class unemployment, industrial development, and changing village life. It brought together a whole host of activities which were otherwise seen to be separate spheres by the Government departments in Madras. It is here that Chief Engineer Howard began to employ the category of the 'economy' as an overall abstract indicator to signal the potential of electricity to advance the economic agenda of the Presidency. This lexical shift in the colonial archive, from previously dominant categories such as 'Communication' to the 'Economy' in light of hydroelectric production, is what the chapter attempted to bring forth.