

## Abstract

# **Technical Education, *Swadeshi* and Development in Bengal: The Story of Engineering in the Global Context of the Early Twentieth Century**

**Arun Bandopadhyay**

**ICSSR Senior Fellow at the Institute of Development Studies Kolkata &**

**Historical and Archaeological Secretary, The Asiatic Society, and**

**(Retired) Nurul Hasan Professor of History,**

**University of Calcutta.**

The present paper is a preliminary presentation of a part of an ongoing research project in understanding the many meanings and legacies of technical education in Bengal (India) in a global context. The paper uses three key concepts which have to be clarified for their simultaneous understanding both in their local and global connotations in the very beginning: technical education, *Swadeshi* and development. Each of the words was a contested domain in Bengal in the early twentieth century in more than one sense: technical education as it was introduced from above and technical education as it was demanded from below; a national regeneration movement or *Swadeshi*, where the political, social and economic elements were placed in a complex relation along with the technical developments; and the idea of development as a differently understood paradigm of change. The concepts, though specifically applied to assessing change in the engineering world of colonial Bengal, had significant global and emphatically Asian connection in the early twentieth century.

The paper has three component parts. In the first part, the late nineteenth background of the introduction of technical education in India is revisited with special reference to the establishment and operation of the Bengal Engineering College (hereafter B.E.College) since 1856 and the responses of the Indians to it, with the twin intention of measuring both the international connectivity and the national contradictions in this crucial area of modern development. Second, the implications of the *Swadeshi* or national regeneration as a socio-political and economic ideology, leading to the growing

demand of technical education and the establishment of the alternative institutes of B.E. College, such as the Bengal Technical Institute (BTI) in the early twentieth century. In this, more than often, the German or the Japanese path served as a model to follow. Finally, the changing atmosphere of 'economic development' in the wake of the First World War, when few of the experiments of the Swadeshi industries had already been done and some limited opening of Indian industries also began, is highlighted to have a deeper look in the engineering world with its multiple branches, connections, motivations and directions, in the global and more specifically Asian contexts.

If these are the pronounced features of the paper, the other thing that deserves special mention is the role of colonialism. Whether it should be taken as an 'experimental site' (U. Kalpagam), 'halted' or 'starved' progress, 'too little, too late' (Satpal Sangwan), or 'the illusion of making a policy' (Padmini Swaminathan) or more generally what Andre Gunder Frank stated as 'development of underdevelopment', there is no denying the fact that some of the features of the meta narrative were quite active throughout the period. What is, however, often ignored is the search for an alternative path of development in this predominantly colonial world, from the generally Western, specifically British ideas to the generally Asian, specifically Japanese ideas. In this connection, the paper makes a specific evaluation of the relevant work of Binay Kumar Sarkar, a pioneer sociologist and political thinker of Bengal, who extensively wrote, deeply influenced by his personal experience of Japanese development, on technical education, industrial reconstruction and sociology of development in the early nineteenth century Bengal.

The paper finally tends to argue that the change in the engineering education in Bengal in the early twentieth century is a complex phenomenon, with local, regional, national and global ramifications. It is also intricately connected with alternative views of industrial reconstruction and national regeneration, differently perceived by different countries in different historical times, but sometimes influencing each other. The perceptions have even theoretical implications as in the construction of 'sociology of development' in historical perspective. Thus a combination of three crucial perspectives is visible from the simultaneously local and global account of technical education in Bengal in the early twentieth century: perspective of the contemporaries, perspective of a longer historical past and perspective of the present. But in any case, the national and international connectivity is not to be ignored.