

UNUTILIZED POTENTIAL OF STATE TUBEWELLS IN U.P.

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Introduction

Tubewells are destined to play a vital role in the development of agriculture in India. The recent experience has been that they are the most reliable source of irrigation during drought. For, all other sources, major or minor, are highly vulnerable to deficiency in rainfall. Furthermore, the future irrigation needs have perforce to be met increasingly from deep underground aquifers as the economical surface water resources have already been tapped substantially. The State has to play a major role in this exploitation, first in locating and mapping out underground water resources, and then making necessary investment in installation of tubewells, which is beyond the reach of majority of our farmers.¹

The central objective in this short paper is to assess the magnitude and nature of the underutilization of capacity of State tubewells in U.P., a State which is a pioneer in developing this important source of minor irrigation in the country.² A part of the contribution of the paper, however, lies in the methodology innovated for measuring the unutilized potential — a subject of great conceptual fascination and practical importance but operationally difficult to tackle. The need for departing from the conventional approach to the problem is briefly discussed in Section I. Then the new approach and the results flowing from it are spelt out in the following Section II of the paper.

The basic data for the paper were furnished by the Office of the Chief Engineer, Irrigation Department, U.P., for which the author is grateful to the said Department.³

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It is argued here that the basic data in respect of irrigation potential as well as area irrigated are unsatisfactory for assessing the unutilized potential of the State tubewells. If one were to employ the

¹ The estimated cost of a State tubewell in U.P. is about Rs. 1 lakh.

² The development dates back to the mid thirties.

³ The data were collected for my larger study entitled *Underutilization of Minor Irrigation Works: A Case Study of State-owned Tubewells in U.P.*, prepared at the Institute of Economic Growth, Delhi in 1969 (mimeographed).