

# BIBLIOGRAPHY

- All-India Power Engineers' Conference. Proceedings.  
New Delhi, 1957.
- Apte, D.P. and Mulla, G.R. "Comparative Costs of Lifting Water,  
A Case Study of Banana Cultivation. Artha Vijnana, Vol.15,  
No.4, December, 1963.
- Balogh, T. Some aspects of Economic Growth of underdeveloped  
areas. National Council of Applied Economic Research,  
New Delhi, 1961.
- Beekwith, B.P. Marginal-cost price - output control.  
Columbia University Press, New York, 1955.
- Bharatananda. "Orientation through power". Khadi Gramodyoga,  
Vol.6, No.8, May, 1960.
- Bombay Electricity Board. Annual Administration report, 1954-55.
- Bombay State Electricity Board. Annual Administration reports,  
1955-56 to 1959-60. BSEB, Bombay.
- Clemens, E.W. Economics and public utilities appleton.  
Century crafts, New York, 1950.
- Commerce Research Bureau, Bombay. Fifty major countries of the  
world - selected statistics. Dec. 1977.
- C.W.P.C. Rural Line Standards. Construction Manual,  
Central Water & Power Commission, Govt. of India, New  
Delhi, 1958.

- Dantwala, M.L. "The case for village and small-scale industries".  
Indian Economic Journal, Vol.3, 1955-56.
- Davidson, Ralph Kirby. Price discrimination in selling gas and electricity. John Hopkins Press, Baltimore, 1955.
- Dhar, P.N. Small-scale industries in Delhi : A study in investments output and employment aspects. Bombay, 1958.
- Digby, M. World cooperative movement. Hutchinson's University Library, London, 1948.
- Dobb, M. Soviet Economic Development since 1917. Routledge & Kegan Paul, London, 1947.
- Dutta, M. "Electricity in countryside India". Indian Journal of Power & River Valley Development, Vol.6, No.12, 1956.
- Eckans, R.S. "Choice of technology". Economic Weekly, February 4, 1962.
- Economic Commission for Asia & Far East (ECAFE). "Rural electric demonstration". Indian Journal of Power & Development, River Valley/ Vol.6, No.3, March 1956.
- Finer, H. The T.V.A. lessons for international application. I.L.O. Montreal, 1944.
- Gadgil, D.R. Economic effects of irrigation. Gokhale Institute of Politics & Economics, Poona, 1948.
- "Some aspects of Japanese Economy". Economic Weekly, Special Number, July 6, 1957.
- Ghosh, D. "Choice of techniques, a clarification".  
Economic Weekly, Jan. 1958.

- Gopaliengar, M.K. "Capital coefficients for some power schemes in India". Indian Journal of Power & River Development Valley, Vol. 9, No.10, October, 1959.
- Government of Bombay. Five year plans : I and II.
- Government of India. Report of the Village & Small-Scale Industries Committee (Karve Committee), New Delhi, 1955.
- Government of India. Study of the problems of minor irrigation. P.E.O. Publication No.40, New Delhi, 1961.
- Government of India. Planning Commission. Five year Plans : I to VI.
- Government of India. Planning Commission. Programme Evaluation Organisation. Evaluation of Rural Electrification Programme, New Delhi, 1965.
- Government of India. Planning Commission. Third Five Year Plan, Draft Outline, New Delhi, 1960.
- Government of Israel. Facts about Israel. Tel Aviv. 1961.
- Government of Maharashtra. Five year plans: III to VI. Bombay.
- Government of Maharashtra. Planning Department. Report of an Evaluation Enquiry of Rural Electrification Scheme. 1966.
- Government of Punjab. Board of Economic Inquiry. Study of the Effects of Electricity on village Economy. Chandigarh, 1954.
- Hanley, Julian. On living in a revolution. London, 1944.
- Hayath, M. and Raghavan, V.R. "Experience of planned power development". Bhagiratha, Vol.4, No.1, June, 1957.

- Hirschman & Sirkin. "Investment criteria and capital intensity once again. Quarterly Journal of Economics, 1958.
- Hitchcock, J.T. "Centrally planned rural development of India". Economic Weekly, Vol.13, No.10.
- Karant, K.V. "Power supply - problems relating to resale. Development Indian Journal of Power & River Valley. Jan. 1954.
- Karant, S.K. The problems of rural electrification in Mysore State. Unpublished Doctoral Thesis, Bombay University. 1959.
- Khadi & Village Industries Commission. Report of the Village Industries. Evaluation Committee, Bombay, 1959.
- Kothari, V.N. and Dadi, M.M. : Economic Benefits of rural electrification in Gujarat, M.S. University of Baroda Press, Baroda, 1977.
- Kumar, S.S. and Seethapathy. "Role of Central Water and Power Commission in the programme of rural electrification. Indian Journal of Power & River Valley Development, Vol.9, No.9, Sept.1959.
- Maharashtra State Electricity Board. Annual administration reports, 1960-61 to 1977-78. MSEB, Bombay.
- Merill, K.E. Kansas rural electric cooperatives - 20 year with REA. Center for Research Business, University of Kansas, 1960.
- Morgan, A.E. "Present and new industrial culture." Indian Journal of Power & River Valley Development, Vol.6, No.8, Aug.1956.

National Council of Applied Economic Research. Criteria for fixation of water rates and selection of irrigation project, N.C.A.E.R., New Delhi, 1959.

-----, Demand for Energy in India. N.C.A.E.R., New Delhi, 1960.

-----, Market towns and spatial development in India. N.C.A.E.R., New Delhi, 1965.

-----, Rural electrification in Kerala, N.C.A.E.R., New Delhi, 1970.

-----, Rural electrification in Punjab. N.C.A.E.R., New Delhi, 1967.

-----, Survey of Handloom Weaving Industry in Karnataka and Sholapur, N.C.A.E.R., New Delhi. 1959.

-----, Technoeconomic survey of Panjab. N.C.A.E.R., New Delhi, 1961.

-----, Technoeconomic survey of Madras, N.C.A.E.R., New Delhi, 1962.

National Institute of Bank Management. Appraisal of rural development project through system analysis, a case study of rural electrification, N.I.B.M., Bombay, 1976.

-----, Financial aspects of rural electrification, N.I.B.M., Bombay, 1977.

Pakistan Academy for Rural Development (U.S. AID). Comilla Pilot Project; Irrigation & Rural Electrification, 1963.

Patel, Jhaverbhai. The village oil industry, Khadi and Village Industries Commission, Bombay, 1958.

- Patel, S.M. and Patel, K.V. Studies on Economic Rural Electrification and Irrigation (Gujarat State), Indian Institute of Management, Ahmedabad, 1969.
- Salter, W.E.G. Productivity and technological change. Cambridge University Press, 1960.
- Sarkar, S.S. "Use of power in village industries: prospects in India. Khadi Gramodyog, Special Number, 1961.
- Schaenzer, B.S. Rural electrification. Bruce Publishing Co., Milwaukee (USA), 1949.
- Sen, A.K. Choice of techniques: an aspect of the theory of planned economic development. Oxford, 1960.
- Sen, A.K. "Man, machine and growth". Economic Weekly, March, 1957.
- Singh, Tarlok. "Urban rural trends in India". Khadi Gramodyog, Vol.6, No.8, March, 1966.
- Sovani, N.V. and Rath, N. Economics of multi-purpose river dam. Gokhale Institute of Politics & Economics, Poona, 1960.
- United Arab Republic, Govt. of - Electrification of Aswan High dam, Cairo, 1956.
- United Nations. Commission for Europe. Rural electrification. Vols.I, II, III. 1956-1958.
- U.N. Economic Commission for Asia and Far East (ECAFE). Economic survey of Asia and Far East, 1958.
- , Electric Power Bulletin, 1961.
- , Rural Electrification, Bangkok, Thailand, 1954.

United Nations Organisation (UNO). Formulation and Economic appraisal of developing projects. New York.

-----, Measures for the Economic Development of under-developed areas, New York, 1951.

-----, World Energy supplies, 1971-75. Series J20. UNO. Dept. of Economic & Social Affairs, New York, 1977.

United States. Sub-Committee on Evaluation Standards.

Proposed practices for economic analysis of river basin projects. Washington, d.c. May 1950.

Villard, H.H. "Investment criteria: productivity and economic development". Quarterly Journal of Economics, 1957.

Visvesvaraiya, M. Rural industrialization scheme. Government Mysore, Bangalore, 1955.

World Bank : Rural Electrification, A World Bank Paper, October, 1975.

Approved by:  
 Date: \_\_\_\_\_

# 3 HORSE POWER ELECTRIC MOTOR

DOUBLE LOG. FUNCTION:

$$\log y = 5.0431 - 0.8063 \log x$$

Represented in the form of

$$y = 162.8553x^{-0.8063}$$

X- Axis:  $t = 100$  Hours

Y- Axis:  $R = 0.50$  Up to  $R_{525}$

$t^* = R_{5/}$  beyond  $R_{20/}$

Note: Scale reduced to nearly half of that indicated above while xeroxing.

CUT PER HOUR OF OPERATION

HOURS OF OPERATION DURING 1965-66

3500  
3000  
2500  
2000  
1500  
1000  
500  
0

0 50 100 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1000 1050 1100 1150 1200 1250 1300 1350 1400 1450 1500 1550 1600 1650 1700 1750 1800 1850 1900 1950 2000 2050 2100 2150 2200 2250 2300 2350 2400 2450 2500

Appendix 1D-1

Graph - 2



Amesbury 13  
 Encl. 3

# 5 HORSE POWER OIL ENGINE

DOUBLE LOG FUNCTION

$$\log y = 2.9297 - 0.536 \log x$$

Represented in the form of

$$y = 50.686x^{-0.536}$$

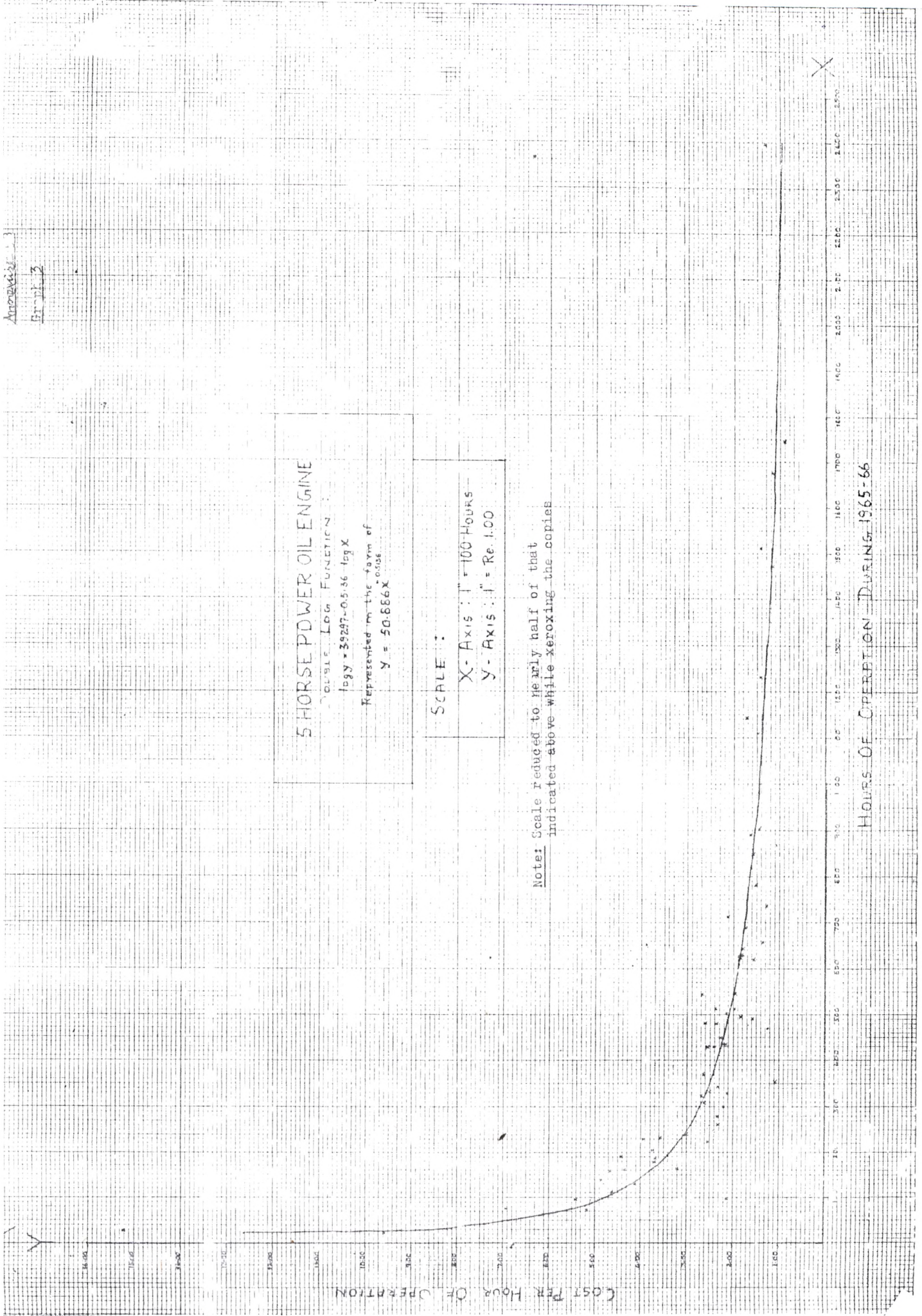
SCALE:

X-Axis: 1" = 100 Hours

Y-Axis: 1" = Re 1.00

Note: Scale reduced to nearly half of that indicated above while xeroxing the copies

HOURS OF OPERATION DURING 1965-66



Donexville 68:

Graph 1

# BULLOCK OPERATED LIFT

DOUBLE LOG FUNCTION:

$$\log Y = 1.5455 - 0.2086 \log X$$

Represented in the form of

$$Y = 46220 X^{-0.2086}$$

SCALE

X-AXIS: 100 HOURS

Y-AXIS: 1 Re. 0.20

Note: Scale red used to nearly half of that indicated above while xeroxing the copies.

COST PER HOUR OF OPERATION

PAIR HOURS OF OPERATION DURING 1965-66

Annexure 7E :

Graph 5

## COMPARISON OF COSTS OF IRRIGATION BY DIFFERENT MODES

### SCALE

X-AXIS : 5 H.P. ELE. MOTOR HOURS : 1" = 100 HOURS

Y-AXIS : COST PER HOUR OF OPERATION 1" = Rs. 2/-

Note: Scale reduced to nearly half of that indicated above while xeroxing the copies.

COST FUNCTION : 3 H.P. ELE. MOTOR

COST FUNCTION : BULLOCK LIFT

COST FUNCTION : 5 H.P. ELE. MOTOR

COST FUNCTION : OIL ENGINE

5 H.P. ELECTRIC MOTOR HOURS

100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2400 2500