

Contribution of Shelterbelts in Employment Generation in Arid Zone of Western Rajasthan

B.L. Gajja*, Rajendra Prasad¹, R.S. Mertia² and J.S. Samra³

¹ ICAR-Centre Agroforestry Research Institute, Jhansi 284 003, India

² RRS, ICAR-Central Arid Zone Research Institute, Jaisalmer 345 001, India

³ ICAR, Krishi Bhavan, New Delhi 110 001, India

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Abstract: An attempt has been made in this paper to document the impact of shelterbelt on net profit. The land allotment in IGNP was made on the basis of 'murba' (which is equivalent to 5 ha). The primary data were collected from 40 farmers with shelterbelt and 40 from non-shelterbelt farms selected randomly in each area of tube well and canal command area of IGNP Phase-II in Mohangarh. The labor decomposition model was used to define the contribution of shelterbelt in employment generation and also increase in complementary inputs. The new technology (shelterbelt) is supposed to increase economic activities by increasing productivity, efficiency and profitability. The results indicated that total additional employment generated by shelterbelt technology was 106.4%, of this 76.5% employment was generated by shelterbelt alone and remaining 29.9% by complementary inputs. Therefore, it is concluded that by adoption of shelterbelt technology employment opportunity can be increased.

Key words: Adoption, complementary inputs, employments, shelterbelt.

Millions of people in India are estimated to be unemployed and/or under-employed, more so in the agricultural sector. Efforts have been made to promote development activities. One of the important considerations for development activities in rural sector was introduction of modern technologies in agricultural sector, which promote agricultural production and open more employment opportunities. The agricultural developments were associated with rapid mechanization, increased use of fertilizers and pesticides, assured irrigation facilities, infrastructures and post harvest technologies. The introduction of labor-saving technologies enhanced the farmers income (Bhalla, 1987), but total labor absorption has been either stagnant or might have fallen in absolute terms for individual crops in most of the advanced states. Vaidyanathan (1978) explained inter-regional variation by arguing that (1) biochemical technology and soil moisture were the intrinsic to raise land yields, (2) physical, including human energy, inputs contributed to yields, not directly, but through bio-technology application, and (3) human labor was governed by land productivity and

relative prices of different inputs. Billings and Singh (1971), Bisaliah (1978), Raj Krishna (1976) and Singh (1976) have argued that the process of modernization if associated with increase in assured irrigated area along with increase in cropping intensity, would increase employment opportunity in agricultural sector. On the contrary, Raj Krishna's (1978) study carried out in Punjab state showed that the direct effect of modern technology on employment was negative due to mechanization.

The arid zone of Rajasthan is characterized by low temperature during rabi season, and high wind velocity and temperature, poor soil fertility with moisture stress due to erratic rainfall during kharif season. These factors lead to low unstable crop yields.

The shelterbelt is considered to be the most important technology to minimize erosion hazards and optimize agricultural production. The introduction of Indira Gandhi Nahar Pariyojana (IGNP) and development of the tube well covering 50,000 ha in Lathi series prospected to provide assured irrigation facilities, the activities have increased manifold. The higher agricultural production can be obtained only through shelterbelt technology. The shelterbelt technology increased the use of

*E-mail: gajja.bl@gmail.com

Present address: A-32, Rameshwar Nagar, Basni Phase 1, Jodhpur 342 005