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Status of small holder farming systems and strategies for their improvement in India

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Production performance of small holder farms in India is always better due to the strong advantage in higher land productivity compared to larger holdings. However, their per capita income is very low. It is mainly due to the wider land-manpower ratio. Profitable employment opportunities within the farms need to be created to improve the per capita income of small holders. Analysis of benchmark data of 732 marginal households across the 30 NARP zones indicates existence of 38 types of farming systems. Out of this, 47 % of households have the integration of crop+dairy, 11 % have crop+dairy + goat, 9 % households have crop+dairy+poultry systems and 6 % households have only crop component. In terms of number of components integrated, 52 % households are practicing only two components while 7 % have only one component. Scope exists in the 59 % of marginal households for intentional integration of allied enterprises for improving the per capita income. Though, the mean holding and family size of marginal households having up to 2 components and more than 2 components remains almost same, the mean income level is much higher (Rs 1.61 lakhs) in the farms having more than 2 components (e.g. crop+dairy+goat etc.) than with farms having 2 or less components (Rs 0.57 lakhs only in crop alone, dairy alone, crop+dairy, crop+goat etc.). Diversification of one and two component systems (crop alone, crop+dairy etc) in the 59 % marginal households will augment the percapita income. On-farm participatory intentional integration of components in the existing farming system indicates improvement in income (3-4 times) and nutritional intake (in terms of calories). The approaches of alternative efficient diversified cropping/livestock systems and small scale secondary agriculture can play a vital role in improving the percapita income. Market driven and family perceptive diversification is essential to ensure the round the year income and employment which will enhance the livelihood.

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Generation and Transfer of Livestock Technologies: A Multi-stakeholder Analysis

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The shaping of agriculture and allied sectors is possible as a result of research and development (R&D) efforts by offering new ideas, innovations, products and technologies. However, it is also observed that, majority of the technologies developed by scientists are irrelevant and inappropriate for field conditions leading to poor diffusion and adoption. This issue is also aggravated by the fact that there is poor linkage of research-extension and farmers. With this theoretical background, an attempt was made to assess the status of livestock technologies generation and transfer in India. The study included 90 farmers each from four states of North India (Total 360 farmers), 20 research scientists each from four Veterinary universities (Total 80) and 10 Extensionists each from four Veterinary universities (Total 40) making a sample size of 480 respondents. The primary data was collected by both qualitative and quantitative methods using interview schedule, questionnaire, Focus Group Discussion and observation method. The authors have analyzed the attitude of all the three stakeholders towards livestock technologies developed by scientists using an attitude scale of Ogunsumi and Omobolanle (2011) with suitable modifications. Further, the basis for generation of particular livestock technologies was studied for the researchers and the extensionists. It was observed that attitude of scientists and extensionists were more favorable while the attitude of farmers was less favourable towards the livestock technologies developed by the scientists. The study also indicates that review of literature and personal field experience were the basic source of research idea for scientists and extensionists respectively to generate livestock technologies. The authors concluded that a strategy in the form of Livestock Innovation System can be a solution for effective generation and transfer of technologies leading to improved quality and productivity in livestock sector.

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Constraint perceived in adoption of improved pulse production technologies by the farmer in Bundelkhand region

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The Bundelkhand region is the hub of pulses production. The economy of farmers depends on agriculture and particularly on pulses production. The study was conducted to know the extent of adoption of improved pulse production practices and constraints perceived by the farmers in cultivation of the pulses in Bundelkhand region. A sample of 650 farmers was drawn from the 13 districts of Bundelkhand region. All the sampled farmers of Hamirpur district used improved seed of pulses whereas fertilizer was applied by all the farmers of Chitrakut district. The plant protection measures are used by all the farmers of Chitrakut, Jalaun and Mahoba districts. Processing is no where done except dal making. In Madhya Pradesh, about 90% farmers of Sagar and Tikamgarh district were using improved seed of pulses, application of DAP and pest management done by all the farmers. About 70% farmers of Jhansi and Mahoba in Uttar Pradesh faced the problem in arranging quality seed. All the farmers of Lalitpur informed that non - availability of fertilizer, yellow mosaic and poor effect of fungicide were the main constraints in pulse production. The constraints faced by farmers of Madhya Pradesh were lack of knowledge about quality seed, non availability of fertilizers in Tikamgarh district, problem in lentil reported by 70% farmers of Shivpuri, problem of weed management reported by 60-80% farmers of all the district of M. P.