

**FINDING OF REVIEW STUDY ON
AGRICULTURE AND LIVESTOCK
FARMING IN ROD KOHI, D.I.KHAN**

DRAFT REPORT



SUBMITTED TO

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List of Contents

		Page
1	INTRODUCTION	1
1.1	Background to the study	1
1.2	About the target area	1
1.3	The background study	1
1.4	Objectives and terms of reference	2
2	Methodology	3
2.1	Review study	3
3	FINDINGS OF THE REVIEW STUDY	4
3.1	Land holding and farm size	4
3.2	Land utilization and cropping pattern	7
3.2.1	Choice of crops	11
3.3	Agronomic practices	12
3.3.1	Field capacity and water for irrigation	13
3.3.2	Seedbed preparation	17
3.3.3	Fertilizer and farm yard manure application	21
3.3.4	Sowing method, seed rate & source, sowing time and variety	21
3.3.5	Weeding and crop protection measures	24
3.3.6	Yield estimation and utilization	25
3.3.7	Post harvest information	29
4	Livestock production and management	31
4.1	Livestock number and species distribution	30
4.2	Relationship of livestock population with land holding and land ownership	30 32
4.3	Present livestock performance and breed potential	33
4.4	Availability and utilization of feed resources	35
4.4.1	Fodder	35
4.4.2	Crop residue	37
4.4.3	Upgrading feeding values of crop residue	38
4.4.4	Grazing	38
4.4.5	Concentrates	38
4.5	Migration of livestock farmers	
4.6	Prevalent diseases	
4.7	Accessibility of farmers to veterinary institutions	
4.8	Economic losses of livestock disease and control	
4.9	Animal housing and management	
4.10	Marketing of animal and animal's products	
4.9	Gender base division of labor	

1 INTRODUCTION

1.1 Background to the study

Since 1997, In Pakistan Inter-Cooperation (IC) has been mandated by Swiss Development Cooperation (SDC) to implement, on its behalf, the so-called Sustainable Land Use Mandate. Preparations are on the way to the transformation from the SDC concept for Sustainable Land Use (SLU) in the mountain area of northern Pakistan (1996) to a more comprehensive 'SDC concept for the management of Renewable Natural Resources'. The geographical focus of the present SDC-SLU concept comprises whole of NWFP, Azad Jamu and Kashmir and the northern areas. The majority of the field activities, under SDC, are in progress in northern parts of the province. Presently, the SDC extended its cooperation to southern part of the NWFP.

1.2 About the target area

Dera Ismail Khan (D.I.Khan) is the southern most Division of the North West Frontier Province (NWFP) comprising of districts D.I.Khan and Tank. The District D.I.Khan spread over 9,005 square km area and has a height of 255 m from sea level. There are three tehsils in D.I.Khan, viz. D.I.Khan, Paharpur and Kulachi. Previously, Tank was a tehsil of D.I.Khan but now declared as a separate district. Major part of the district D.I.Khan is level plain, has its boundaries with Bannu on north, Punjab on east and south and tribal areas on west. River Indus is situated on the eastern side that delineates Punjab and NWFP. The area is relatively dry with limited potential for increased productivity. Inefficient and sub-optimal use of rainwater has proved to be the limiting factors for the small farmers that intercepted hill torrents during Monsoon bringing down water along with silt particles under a system called Rod-kohi. These torrents are usually uncontrolled and mostly unpredictable, causing losses to human, property, crops, and livestock.

1.3 The background study

An orientation to D.I.Khan, Tank and North Waziristan was done in June 2000. The report pointed out a number of issues related to farming system as well as soil and water management. The same was followed by a fact-finding mission in October-November 2000 with the objectives to identify and analyze problems and potentials of the farming

systems, water and soil management, as well as to develop hypothesis to be tested out through possible interventions in subsequent studies. A poverty study was conducted by SDC-IC in August-September 2001. It confirmed an extreme level of poverty attributed to natural, social and political factors.

Description and presentation of the social and relatively speaking, political dimensions were studied in previous studies conducted by the SDC-IC in 2000 and 2001. A need was felt to study technical aspects addressed rain-fed agriculture in order to provide basis for a comprehensive project proposal in future. This brought the SDC-IC to a conclusion that information needed to be collected:

- (a) through conducting review survey in region collecting base-line information from growers on the existing rain-fed agricultural practices and livestock management
- (b) through conducting experiments at farmers' field in region for knowing potentials of modern practices over tradition with improvement in crops and livestock production

1.4 Objectives and terms of reference

Keeping in view, the above mentioned background and rationale, the objectives of the study were set: to collect base-line information from growers of the region regarding practices adopting for crops and livestock production, to observe performance of the different improved lines/varieties of crops and trees for food and food supply under drought and to improve existing feed intake of the existing material. Detail terms of reference of the study are given below.

- A. To investigate the success rate of updated production practices in crop growth and livestock management for future adoption in the Rod-Kohi, D.I.Khan. This will include:

... practices in kharif crops for increasing productivity
... trials for the drought tolerant fodder species
... testing of the appropriate interventions for upgrading the feeding
... crops residues in livestock feeding

Accor... existing situation of crop production and livestock management in
of the fac... of D.I.Khan so as to identify and analyze the problems of low
... suggest solutions. This will include:

- (i) Farm size, cropping intensity and livestock herd dynamics of the regions
- (ii) Existing practices in technology in crop production and livestock management
- (iii) Estimates per unit farm out put (Crop and Livestock) and its utilization
- (iv) Estimate availability of values of by-products of local Oil extraction plants and Chishma sugar mill D.I.Khan for feeding.

C. Suggest recommendations for future intervention to enhance production of the crops and livestock in Rod-kohi area of D.I.Khan.

2 Methodology

Based on information reflected in objectives of the study, a detailed questionnaire in consultation with SDC-IC was designed. Sample of the questionnaire is appended (Annex-I). To extract the required information from farmers, three teams were designated each for upper, middle and lower streams of the sector. Each team consisted of a graduate student from Faculty of Crop Production Sciences, NWFP Agricultural University Peshawar, a female Livestock Assistant from the Department of Livestock and Dairy Development NWFP, Peshawar and a local activist from the target region.

Area map was studied and decided to sample all most all villages of the Draban Zam i.e. upper, middle and lower streams of the sector through a random sampling of 5% households per village with a maximum of 20 households per village. One-ay workshop was organized by the SDC-IC on January 08, 2002 to explain study's objectives, selection of villages and households of the area, adoption of methodology for extracting information on the pre-defined questionnaire and structuring teams' coordination for finalizing the task.

2.1 Review study

A pre test survey was organized on January 13-15, 2002, the information was discussed in a meeting on 15.01.2002 and 21.01.2002. The questionnaire was re-structured as per suggestion of groups inserting Urdu translation on questions. Time frame of the survey was scheduled in two phases i.e. first in mid February and second in early March 2002 and villagers were informed accordingly for comparison of their problems regarding crops and livestock production. The designated teams visited each individual household

