

# INTEGRATED PLAN FOR DEVELOPMENT OF AGRICULTURE IN TRIBAL AREAS OF KOH-E-SULEMAN D.G. KHAN



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## **PREAMBLE**

Koh-e-Suleman Mountain Range is situated in the west of the District D.G. Khan. The localities in this range are termed as Tribal area of the Punjab. Agriculture is almost non-existent in this area due to various factors.

A comprehensive integrated plan was required to be developed and implemented for promotion of Agriculture in this area. I along with the local Officers and Officials of various wings of the Agriculture Department visited this area in the third week of August, 2019. A number of surveys were conducted by various wings of the Agriculture Department and detailed discussions with the inhabitants of this area were held to find out ways for development of agriculture in this area.

The result of this visit and deliberations were presented in the shape of a practicable plan titled as "Integrated Plan for Development of Agriculture in Tribal Areas of Koh-E-Suleman, District D.G. Khan." This plan includes the interventions required from the Extension, Field, On Farm Water Management and Pest Warnings Wings of the Agriculture Department. This plan also includes a farmer specific survey enumerating the collective as well as the individual requirements of the farmers of this area.

This plan was approved by the Provincial Govt in January, 2020 allocating an amount of around Rs 138 million for its execution. It's hoped that this plan would usher a new era of Agriculture in this area.

**Ali Arshad**

Sep, 2019

Additional Secretary (Task Force)

# ABSTRACT

- I. Name of the Project:** INTEGRATED PLAN FOR DEVELOPMENT OF AGRICULTURE IN TRIBAL AREAS OF KOH-E-SULEMAN, D.G. KHA
- II. Location:** 9 Union Councils of Koh-e-Suleman: Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala of Tehsil Koh e Suleman, District DG
- III. Funding** Government of the Punjab, Agriculture Department.
- IV. Executing Authorities:** Director General Agriculture (Ext. & AR) through Director Agri. Extension DG Khan.  
Director General Agriculture Pest Warning & Quality Control through Deputy Director Pest Warning & Quality Control DG Khan.  
Director General Agriculture (Field) through Director Soil Conservation Rawalpindi and Agriculture Engineer DG Khan Division.
- V. Period** Oct 2019 to June 2020

## VI. Capital Cost Estimates:

- i. Date of Estimation of Project Cost:** September, 2019
- ii. Basis of determining the capital cost:** Prevailing Market Rates

### Capital Cost:

S. No	Name of Component	Rs. in Million
1	Agriculture Extension	<b>57.233</b>
2	Agriculture Engineering	<b>8.282</b>
3	On Farm Water Management	<b>31.906</b>
4	Soil Conservation	<b>15.710</b>
	Total:	113.131

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# 1

## LIFE AND AGRICULTURE IN TRIBAL AREA

Tribal area of Koh-e-Suleman, D.G. Khan spreads over 2,500 square miles in mountainous Suleman Range that runs from north-south towards the DG Khan district and touches the boundaries of KPK and Baluchistan provinces. It rises to a height of 10,000 feet (3,000 m) in the north of the district. Its eastern slopes drop very quickly to the Indus River. The Range, and the high plateau to the west of it, helps form a natural barrier against the humid winds that blow from the Indian Ocean, creating arid conditions across southern and central Afghanistan to the west and north. In contrast, the relatively flat and low-lying Indus delta is situated in east and south of the Suleman.



Image 1: Life and agriculture in tribal areas

Tribal area in the Koh-e-Suleman range is divided into 9 Union Councils namely Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala. There are 335 villages in these Union Councils comprising 721777 acres of land. All of this area is mountainous. Out of the total area, only 62833 acres is under cultivation that comes to be around 9% of the total area. **Annex-A**

The life in this Tribal Area doesn't appear to have witnessed and tasted the advent of science and technology in the world. The people here are living in primitive times and so is their agriculture. They are confronted with many hardships and challenges for their mere survival. There is dearth of minimum basic human needs like availability of clean drinking water, enough food to remain healthy, enough clothes to cover the body, basic health facilities for ordinary ailments, sufficient roof for families, and road infrastructure for mobility etc.

Due to geographical and topographical constraints, community with meager financial resources is unable to get benefits from land and water resources in the area. Agriculture in this area is confined only to the cultivation of some cereals with very low yield and a very limited fodders/forages production for household animals. It just fulfills critical and threshold level of needs of food, clothing and shelter only. This situation places the community in a permanent threat of food security.

The situation however can be considerably improved by utilizing the un tapped potential of the area in the fields of Agriculture and Livestock through promoting the much-trumpeted production of ORGANIC FOODS. Some valleys with available land and water resources in the area are best suited for production of cereals and high value crops including fruits and vegetables. Furthermore, some high places in this area keep mild temperature as compared to nearby plain areas of District DG Khan. Proper

planning of sowing time of vegetables and their off-season production can earn good rates for farmers of this area, leading to poverty alleviation.



**Image 2: Aerial view of a small agriculture field**

With a comprehensive intervention of the Agriculture/Livestock Department in these areas the fate of the people can be changed within a short span of time. The people in these areas need to be educated on basics of agriculture; they need to be provided basic information of selection and sowing times of all crops; they need to be given good quality seeds; they need to be imparted knowledge of land preparation and implements use; they need to be given subsidized fertilizers; they need to be provided irrigation infrastructure; they need to be taught good agricultural practices, crop production techniques, plant protection measures, and harvesting techniques etc.



# 2

## INTERVENTIONS BY EXTENSION WING

Extension Wing of the Agriculture Department has to play a lead role in implementation of this plan. The following interventions of this wing are inevitable:

### i. Training of the Farmers

For transfer of technology, regular trainings of farmers during Rabi and Kharif seasons may be conducted. Mega seminars at potential sites and farmer days at each demonstration plot at every stage of crop to showcase the results of technology may also be conducted as per the given detail:

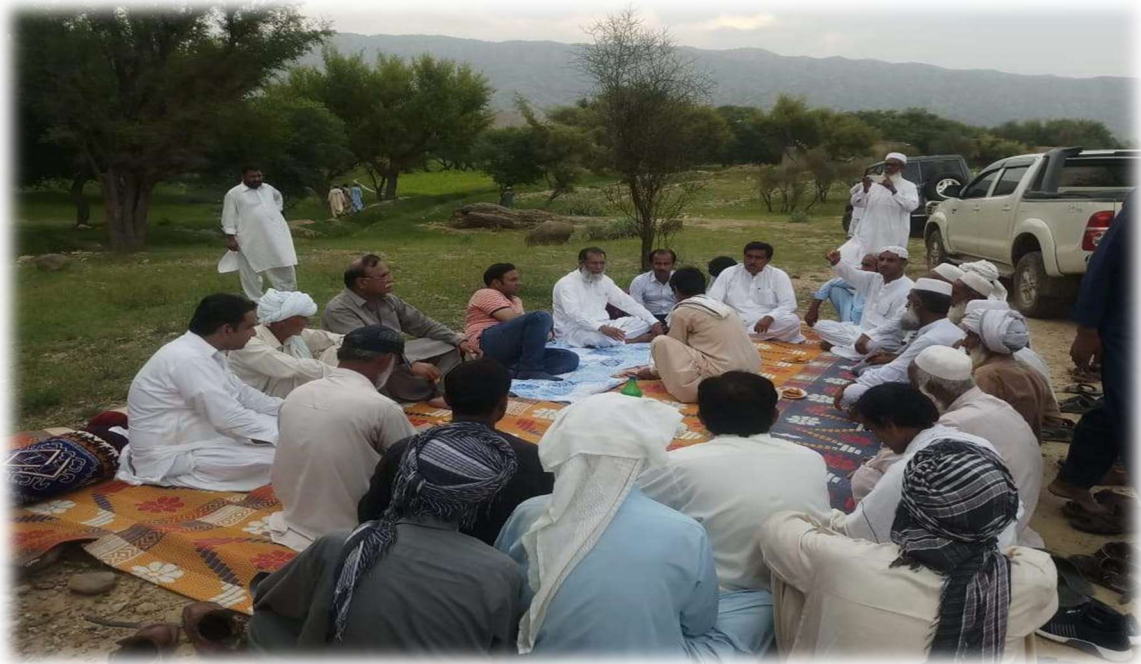


Image 3: A view of farmer gathering in Barthi

**a. Holding of Seminars**

It's proposed that the Extension wing shall hold 18 big seminars, 9 during the Rabi-2020 season and similarly 9 during the Kharif-2020 season (1 in each UC), at the selected sites.

**b. Farmer Days at demonstration Plots**

Total 85 farmer days are proposed at demonstration plots in all UC's of the Tribal Area. 52 farmer days shall be held during Rabi-2020 season and 33 farmer days shall be held during Kharif-2020 season, at the selected sites.

**c. Farmer Trainings**

It is proposed that 90 farmer trainings may be arranged during the Rabi and Kharif-2020 seasons. 45 training sessions may be held in each season at the selected sites.

- **Responsibility of Execution**      **Director Agriculture (Ext.) DG Khan**
- **Place of Execution**              **UC's Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala**
  
- **Period**                                      **1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021**
- **Financial Resources**                  **Financial needs can be met out of Supplementary grant. Total Cost is around Rs. 2.915 million. Annex-B**

## **ii. Provision of Seeds of Drought Tolerant Varieties for Demonstration Plots and Farmers**

Establishment of demonstration plots is a very important tool to promote an intervention in the field because the farming community believes in “seeing is believing”. This idea needs to be implemented in this area for facilitating its adoption at a large scale. Wheat, Bajra, Sorghum, Maize and vegetable demonstration plots may be laid out for diversified and high production. Demonstration plots regarding the inputs i.e. seeds, fertilizers and pesticides compatible with organic farming, bio control agent cards (Chrysoperla and Trichogramma etc) can also be laid out. It will also help establish confidence in farming methods and in the ideas originating from the department. The sites to be selected should be demonstrative and easily accessible to visiting farmers.

The major portion of the area of Koh-e-Suleman is barani and crops are severely affected by drought. Seeds of drought tolerant varieties of wheat, Bajra (YBS-98) and Sorghum (YS-16) may be provided in this area by the Punjab Seed Corporation through Agriculture (Extension) Wing as per detail given below.

### **a. Provision of Wheat Seed**



Image 4: Wheat fields in tribal area

Sr. No.	Name of Union Council	No. of villages	Area (Acres) 2018-19	Requirement of seed (Bags50kg)		
				For Farmers	For Demo Plots	Total
1	Mithwan	35	1730	1700	2	<b>1702</b>
2	Berote Mundwani	42	2415	2000	3	<b>2003</b>
3	Fazla Kachh	24	2221	2000	3	<b>2003</b>
4	Barthi	26	726	700	3	<b>703</b>
5	Thiker	19	1163	1000	2	<b>1002</b>
6	Mubarki	12	2326	2000	3	<b>2003</b>
7	Tuman Khosa	37	188	110	1	<b>111</b>
8	Tuman Leghari Zireen	51	410	400	1	<b>401</b>
9	Tuman Leghari Bala	89	205	180	1	<b>181</b>
	<b>TOTAL</b>	<b>335</b>	<b>11384</b>	<b>10090</b>	<b>19</b>	<b>10109</b>

- **Responsibility of Execution**
- **Place of Execution**
- **Period**
- **Financial Resources**

**Director Agriculture (Ext.) DG Khan**  
**UC's Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala**  
**1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021**  
**Financial needs can be met out of Supplementary grant. Total Cost is around Rs. 28.306 million. Annex-C.**

## b. Provision of Sorghum Seed

Sr. No	Name of Union Council	No. of villages	Area(Acres) 2018-19	Requirement of seed (Bags8kg)		
				For Farmers	For Demo Plots	Total
1	Mithwan	35	14	1	-	1
2	Berote Mundwani	42	460	8	1	9
3	Fazla	24	78	1	1	2
4	Barthi	26	2552	42	3	45
5	Thiker	19	1795	30	1	31
6	Mubarki	12	3590	60	3	63
7	Tuman Khosa	37	497	8	1	9
8	Tuman Leghari Zireen	51	98	2	1	3
9	Tuman Leghari Bala	89	52	1	1	2
	<b>TOTAL</b>	<b>335</b>	<b>9136</b>	<b>153</b>	<b>12</b>	<b>165</b>

- **Responsibility of Execution** Director Agriculture (Ext.) DG Khan
- **Place of Execution** UC's Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala
  
- **Period** 1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021
- **Financial Resources** Financial needs can be met out of Supplementary grant. Total Cost is around Rs. 0.238 million. Annex-D

### c. Provision of Bajra Seed



Image 5: Millet field

Sr. No.	Name of Union Council	No. of villages	Area (Acres) 2018-19	Requirement of seed (Bags 3 kg)		
				For Farmers	For Demo. Plots	Total
1	Mithwan	35	1385	23	1	<b>24</b>
2	Berote Mundwani	42	2559	42	1	<b>43</b>
3	Fazla Kachh	24	6527	109	3	<b>112</b>
4	Barthi	26	6380	106	3	<b>109</b>
5	Thiker	19	1177	19	1	<b>20</b>
6	Mubarki	12	2354	39	1	<b>40</b>
7	Tuman Khosa	37	3469	58	1	<b>59</b>
8	Tuman Leghari Zireen	51	642	11	1	<b>12</b>
9	Tuman Leghari Bala	89	300	5	1	<b>6</b>
	<b>TOTAL</b>	<b>335</b>	<b>24793</b>	<b>412</b>	<b>13</b>	<b>425</b>

- Responsibility of Execution Director Agriculture (Ext.) DG Khan
- Place of Execution UC's Mithwan, Berote Mundwani, Fazla Kachh, Barhi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala
- Period 1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021
- Financial Resources Financial needs can be met out of Supplementary grant. Total Cost is around Rs. 0.191 million. Annex-E

### iii. Provision of Vegetable Seed Kits:

To meet the requirements of vegetables in this area and to dispatch it to other areas, free of cost seed kits for both seasons may be provided. Requirement of the seed kits is detailed below:



Image 6: A scene Distribution of vegetable seed kits



Sr. No.	Name of Union Council	No. of villages	Cultivated Area in Acres	Demand for vegetable seed kits		
				For Farmers	For Demo Plots	Total
1	Mithwan	35	4928	200	3	<b>203</b>
2	Berote Mundwani	42	7191	200	3	<b>203</b>
3	Fazla Kachh	24	8900	250	5	<b>255</b>
4	Barthi	26	8932	300	5	<b>305</b>
5	Thiker	19	9066	200	3	<b>203</b>
6	Mubarki	12	7217	250	5	<b>255</b>
7	Tuman Khosa	37	9097	200	3	<b>203</b>
8	Tuman Leghari Zireen	51	4171	200	3	<b>203</b>
9	Tuman Leghari Bala	89	3110	200	3	<b>203</b>
	<b>TOTAL</b>	<b>335</b>	<b>62612</b>	<b>2000</b>	<b>33</b>	<b>2033</b>

- **Responsibility of Execution**
- **Place of Execution**

**Director Agriculture (Ext.) DG Khan  
UC's Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala**

- **Period**
- **Financial Resources**

**1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021  
Financial needs can be met out of Supplementary grant. Total Cost is around  
Rs. 0.122 million. Annex-F**

#### **iv. Distribution of Fruit Plants**

Fruit plants have a great potential in this area. They can play significant role to meet the dietary needs of the people besides contributing towards poverty alleviation through enhanced employment opportunities. The fruits which can successfully grow in this area are date palm, olive, grapes and peaches etc. Nursery plants of these kinds may be provided free of cost as per following detail:



Images 7,8:Plantation of fruit trees in tribal areas

Sr. No.	Name of Fruit Plants	Requirement of Plants (No.)
1	Date Palm	2000
2	Me Olive	3600
3	Grapes	14520
4	Miscellaneous i.e. Citrus, Pomegranate, Peach etc.	5000
<b>TOTAL</b>		<b>25120</b>

- **Responsibility of Execution** Director Agriculture (Ext.) DG Khan
- **Place of Execution** UC's Mithwan, Berote Mundwani, Fazla Kachh, Barhi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala
  
- **Period** 1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021
- **Financial Resources** Financial needs can be met out of Supplementary grant. Total Cost is around Rs. 6.623 million. Annex-G

## v. Capacity Building of the Agriculture Department

It was learnt that no regular staff has been posted in this area. Majority of the officers and officials are working on Additional charge basis. Moreover, they don't have the basic availability of suitable vehicles to move in the area. No plan would be successful without providing sufficient human resource equipped with the fit tools of movement and transportation. The following minimum requirement may be fulfilled immediately.

Sr. No.	Vehicles	No. of Vehicles	Required for
1.	Toyota Revo Double Cabin	02	01 for ADA (Ext) Koh-e-Suleman and 01 for DDA (Ext) DG Khan.
2.	Jimny Jeeps	02	01 For Agriculture Officer (Ext.) Barthi and 01 for Agriculture Officer (Ext.) Fort Munroe
3.	Motor cycles Honda 125	13	11 for Field Assistants and 02 for Beldars

- **Responsibility of Execution**
- **Place of Execution**

**Director Agriculture (Ext.) DG Khan**  
**UC's Mithwan, Berote Mundwani, Fazla Kachh, Barthi, Thiker, Mubarki, Tuman Khosa, Tuman Leghari Zireen and Tuman Leghari Bala**

- **Period**
- **Financial Resources**

**1<sup>st</sup> January 2020 to 31<sup>st</sup> December 2021**  
**Financial needs can be met out of Supplementary grant. Total Cost is around**  
**Rs. 18.838 million. Annex-H**