

# Most Significant Change

## Converting unproductive land into productive Success Story of Barani Area Farmers

Pipe Irrigation Schemes implemented under  
Southern Punjab Poverty Alleviation Project (SPPAP)  
Tehsil Issakhail, District Mianwali

- ✓ More durable and sustainable option of irrigation with less maintenance cost
- ✓ Water efficient mode of irrigation, with no evaporation and conveyance losses, thus farmers of Barani area are getting more benefits
- ✓ Socially harmonious intervention, illegal diversion of water is more difficult than the conventional watercourse system. Resultantly, there is very less likelihood of social conflicts.



"Farmers belonging to Barani areas now have easy and consistent access to water to irrigate their farms. Barren and unproductive land has been cultivable which resulted in improved crop yields. Implementation of pipe irrigation schemes is one of SPPAP's contributions to ensuring sustainable rural development. Results shows that pipe irrigation is a comparatively reliable option in irrigation applications, particularly in the land that solely relies on rainwater (barani) which also has reduced land erosion and damage to land by leaking water. "

Muhammad Saghir (Project Director, PMU SPPAP)

Indicators	CO Malik Mohalla F7	CO Matool Khel-F1
Total length of pipe irrigation scheme	4725 RFT	4610 RFT
Distribution points under the scheme	14	10
Total cost (PKR in million) (including 90% SPPAP and 10% CO share)	1.89	1.83
Farmers benefitted	46	40
Direct	37	36
Additional (Indirect)	9	4
Average land holding size (in acres)	4	3.5
Command area (No. of acres irrigated)	184	140
Direct command area	148	126
Additional (Indirect) command area	36	14

Note: Farmers in barani area have land ownership in Kanals. For analysis purpose, no. of kanals are converted into acres

# Pipe Irrigation Schemes ~Significant Change~



Union Council Vanjari - CO Malik Mohallah F7

Union Council Chapri - CO Matool Khel F1

## Impact on command area irrigation

<b>58%</b>	Increase in cultivable land (command area)	<b>53%</b>
<b>68</b>	Acres irrigated through rainwater "before" pipe irrigation scheme	<b>57</b>
<b>161</b>	Acres irrigated through rainwater "after" pipe irrigation scheme	<b>120</b>
<b>93</b>	More acres come under irrigation & cultivation	<b>63</b>

## Impact on crop yield (wheat)

<b>2</b>	An average increase in acres per farmer which was barren before pipe irrigation	<b>1.5</b>
<b>8 (30%)</b>	Manunds per acre crop yield increased	<b>6 (14%)</b>
<b>19</b>	Manunds per acre crop yield "before" pipe irrigation	<b>36</b>
<b>27</b>	Manunds per acre crop yield "after" pipe irrigation	<b>42</b>

## Savings (in PKR)

<b>4,600</b>	An average cost saved which was incurred on watercourse cleanliness and maintenance in each crop season before pipe irrigation	<b>4,000</b>
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## Land saving (increase in irrigation and land cultivation)

<b>8</b>	Marlas per acre land used in watercourse	<b>8</b>
<b>1.28</b>	Marlas only land used in pipe irrigation scheme	<b>0.92</b>
<b>26.88</b>	Marlas - land saved for one farmer having average landholding of 4 acres	<b>24.78</b>

For barani areas, pipe irrigation is most suitable and economical option. As it goes under the ground surface that results in more land comes under irrigation and cultivation facility, while the same segment of land cannot be utilized for irrigation in case of surface channels (conventional watercourses) which are constructed along the farms' land.