Terminal Report
on the (FAO/UNHCR/WHO) Mission
to Paktia province of Afghanistan

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Submitted to:
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Paktia province has a cold winter with snowfall and the altitude is different from 1700-2200 m and in winter all the province is covered with snow 2-3 months every year. FAO, UNHCR and WHO had a mission to Paktia province from 11-17 July 1990.

I was accompanying Mr. A. R. Fitzherbert FAO Programme Coordinator Afghan Agri. Rehabilitation on this mission. FAO has sent about 575 MT wheat seeds of PAK-81 and PS-85 and 575 MT DAP, 1150 MT Urea through I.R.C. (R.P.A) to Paktia. FAO has also sent 38.75 MT Shaheen maize seed for distribution and 520 kg of six other maize seed varieties for observation trials to Paktia.

I.R.C. have distributed that inputs in six districts of Paktia, Danda Patan, Jani Khel, Mosa Khel, Laja Mangal, Ahmad Khel and Ali Khel.

UNHCR have sent 12 MT wheat seed of Blue Silver variety with 12 MT of DAP and 24 MT of Urea fertilizer to Paktia through I.R.C. (RPA).

I.R.C. has also distributed their 10 MT wheat seed of Khyber-87 with 10 MT of DAP and 20 MT of Urea fertilizer in this province.

Generally the growth and yield of PS-85 and PAK-81 wheat seeds was good in this province and most of the growers told their wheat yield was 2-3 times more this year than local variety.

1. **Danda Patan district:**

On 11.7.90 we visited this district and most of the farmers were busy in threshing of their wheats. We questioned some of them about the yields of improved wheat seeds and they told us that they got 2-3 times high yield from our improved wheat seeds (PS-85, PAK-81) than local variety in some places. Blue Silver also given good yield under dry conditions but on the irrigated land result of Blue Silver was not good. I had collected some samples per square meter of that improved varieties to check yield. The grain yield of those varieties was as follows:

<table>
<thead>
<tr>
<th>Variety</th>
<th>Yield</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS-85</td>
<td>510 gr/M2 or 1020 kg/Jerib</td>
</tr>
<tr>
<td>PAK-81</td>
<td>423 gr/M2 or 847 kg/ Jerib</td>
</tr>
<tr>
<td>Blue Silver</td>
<td>397 gr/M2 or 793 kg/ Jerib</td>
</tr>
<tr>
<td>Khyber-87</td>
<td>367 gr/M2 or 734 kg/ Jerib</td>
</tr>
<tr>
<td>Local</td>
<td>190 gr/M2 or 380 kg/ Jerib</td>
</tr>
</tbody>
</table>

In Sergay village of this district the altitude was 1950 m and most of the farmers had planted wheat seeds in November 1989 and they harvested during 10-30 June 1990. We also observed varietal trial, fertilizer trial, seed rate trial, intercropping trial of maize seeds which were planted on first week of July 1990. The growth of maize crop in this district was good and also some of the farmers have planted rice and mongbeen.
I.R.C. has distributed wheat seeds and maize seeds in 43 villages of Danda Patan district as follow:

<table>
<thead>
<tr>
<th>Seed Type</th>
<th>Quantity (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS-85</td>
<td>30.00</td>
</tr>
<tr>
<td>PAK-81</td>
<td>80.00</td>
</tr>
<tr>
<td>Khyber-87</td>
<td>2.50</td>
</tr>
<tr>
<td>Blue Silver</td>
<td>4.00</td>
</tr>
<tr>
<td>DAP</td>
<td>116.50</td>
</tr>
<tr>
<td>Urea</td>
<td>233.00</td>
</tr>
<tr>
<td>Shaheen Maize</td>
<td>5.15</td>
</tr>
<tr>
<td>Shaheen Maize</td>
<td>0.60</td>
</tr>
</tbody>
</table>

II. Janikhel District:

On 12.7.90 we visited most area of this district. From Danda Patan to Janikhel both sides of the road, the lands were covered with rice and maize crops. In this district the result of PAK-81 wheat variety was good as compared to the other varieties and most of the wheat fields were harvested from 20 June to the first week of July. The altitude of this district was different from 1800-2000 m.

On Lador Khola village the I.R.C. field workers planted some maize trials on 6th June for test of varietal trial, seed rate, distance, intercropping and planting methods.

In Kotki village maize crop planted in mid-June and plant height was upto 40 cm.

FAO seeds and fertilizer distributed by I.R.C. in 25 villages of this district as follow:

<table>
<thead>
<tr>
<th>Seed Type</th>
<th>Quantity (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>PS-85</td>
<td>14.95</td>
</tr>
<tr>
<td>PAK-81</td>
<td>65.00</td>
</tr>
<tr>
<td>Khyber-87</td>
<td>1.50</td>
</tr>
<tr>
<td>Blue Silver</td>
<td>4.00</td>
</tr>
<tr>
<td>DAP</td>
<td>85.50</td>
</tr>
<tr>
<td>Urea</td>
<td>170.90</td>
</tr>
<tr>
<td>Shaheen Maize</td>
<td>6.00</td>
</tr>
<tr>
<td>Shaheen Maize</td>
<td>0.60</td>
</tr>
</tbody>
</table>

III. Mosakhel District:

On 13.7.90 we started our visit from Janikhel to Mosakhel, along the road on Buchikot village still the wheat crop was standing on the fields and some of the growers' just started the harvest of wheat crop. The altitude of this village was 2100 m with cold weather.
All growers were very happy with these improved wheat seeds. The results of PS-85 and PAK-81 were higher than other varieties but we found field of Khyber-87 which had higher yield. I also collected some wheat samples from per square meter of the fields to find out the yield as follow:

1. Khyber-87 813 gr/m² or 1626.6 kg/Jerib
2. PS-85 753 gr/m² or 1506.6 kg/Jerib
3. PAK-81 776 gr/m² or 1552 kg/Jerib
4. Local Variety 327 gr/m² or 654 kg/Jerib
5. Blue Silver 233 gr/m² or 466 kg/Jerib

I.R.C. has distributed in 122 villages of this district FAO wheat seeds, fertilizers and maize seeds to the farmers as follow:

1. PS-85 39.95 MT
2. PAK-81 144.30 MT
3. Khyber-87 1.50 MT
4. Blue Silver 4.00 MT
5. DAP 190.50 MT
6. Urea 381.00 MT
7. Shaheen Maize 9.30 MT (for distribution)
8. Shaheen Maize 0.60 MT (for multiplication)

IV. Laja Mangal district:

On 14.7.90 we visited some wheat and Shaheen Maize trials in this district.

In Kharky village of this district PS-85 variety of wheat seed were planted in first week of November 1989 and harvested during first week of July 1990. The yield of this variety was good and most of the growers were happy with the variety of PS-85.

Laja Khola village is at the altitude of 1700 m and maize crop planted on 5th of June but most of the area has waterlogging problem so the growth of maize was not good. On some fields the growers planted rice crop.

The distribution of FAO inputs in Laja Mangal district was as follows:

1. PS-85 10.00 MT
2. PAK-81 40.00 MT
3. Khyber-87 1.50 MT
4. DAP 51.50 MT
5. Urea 103.00 MT
6. Shaheen Maize 3.40 MT (for distribution)
7. Shaheen Maize 0.60 MT (for multiplication)
V. Ahmadkhel district:

On 15.7.90 we went from Lajamangal to this district. Mushka village altitude was 1780 m and most of area has waterlogging problem. The fields were planted with rice cro. On 15 June some maize trials were planted by I.R.C. Agronomist on Sekandarkhel village at the altitude of 1900 m and wheat seeds had been planted vry late. Still they were green and yield of that wheat was not good. The cultivation system of this area was very poor.

The distribution of inputs in this district was as follows:

1. PS-85 10.00 MT
2. PAK-81 40.00 MT
3. Khyber-87 1.50 MT
4. DAP 51.50 MT
5. Urea 103.00 MT
6. Shaheen Maize 4.60 MT (for distribution)
7. Shaheen Maize 0.60 MT (for multiplication)

VI. Alikhel District:

On 16.7.90 we visited this district. Kharmana village is at the altitude of 1950 m and wheat seeds had been planted very late and still they were green. Just on some fields the farmers started the harvest of wheat, but the result was not good.

In some other fields Shaheen Maize seed was planted on 15 June and plant height was 30-40 cm and growth was good.

In Kodky and Chorgan villages wheat seeds planted late so the result was not good.

The distribution of FAO inputs in this district was as follows:

1. PS-85 40.00 MT
2. PAK-81 60.00 MT
3. Khyber-87 1.50 MT
4. DAP 101.50 MT
5. Urea 203.00 MT
6. Shaheen Maize 6.70 MT (for distribution)
7. Shaheen Maize 0.60 MT (for multiplication)

Suggestion:

1. Generally in Paktia province PS-85 and PAK-81 wheat varieties have given high yield. I suggest that to increase these varieties in Paktia and some other parts of Afghanistan which has high altitude from 1700 to 2200 m. The result would be same like Pakdite.
2. In Ahmadkhel and Alikhel districts of Paktia the farmers received our wheat seeds late than normal sowing time. So the result was not good. Also they do not have improved seeds for coming season. FAO should send fresh seeds for those districts by R.P.A.

3. During last season R.P.A. staff distributed equal to FAO inputs in all parts of the Paktia and the farmers were happy over the good work. I have appreciated and requested them to carry FAO inputs a month early than normal sowing time to plant on time.

4. In some fields the farmers planted mongbeen and kidneybeen. If possible in future we should have a plane to send some improved legume crop seeds to this province and some other parts of Afghanistan.

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