

UNITED NATIONS PLAN OF OPERATION  
FOR  
HELMAND PROVINCE IN 1991-1992  
( PHASE II )

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## INTRODUCTION

UNITED NATIONS PRESENCE IN HELMAND PROVINCE WAS MOTIVATED BY THE FLOOD DISASTER WHICH OCCURRED IN FEBRUARY 1991 WITH A RECORD FLOW RATE OF 5,800 CM/SEC. FROM DIRECT ASSISTANCE TO FLOOD VICTIMS, THE OPERATIONAL CONCEPT WAS CHANGED TO REGIONAL EMERGENCY REPAIRS BECAUSE OF THE EXTENT OF THE DESTRUCTION CAUSED BY THE FLOOD ON THE MAIN HELMAND VALLEY IRRIGATION SCHEME, WITH AN OBJECTIVE TO MAKE WATER AVAILABLE FOR THE FIRST AND SECOND CROPPING. DOMESTIC USE AND MEASURES TO PREVENT THE SCHEME FROM FURTHER DETERIORATION IN CRUCIAL AREAS OF FLOOD DESTRUCTION.

WITH THE EXPERIENCE GAINED DURING THE EMERGENCY REPAIRS; A DISASTER MITIGATION PROGRAM AND CONTINUATION OF CRUCIAL REPAIRS ON THE MAIN HELMAND IRRIGATION SCHEME WAS ANALYZED AS THE ONLY SOLUTION TO PREVENT THE HELMAND VALLEY IRRIGATION SCHEME FROM FURTHER DEGRADATION AND DETERIORATION THROUGH FLOOD HAZARD.

WITH THE INPUT OF ENGINEER TAWAB, CONSULTANT UNOCA/USAID, THE USE OF APPROPRIATE TECHNOLOGIES LIKE USE OF GABIONS IN flood PROTECTION AND CONTINUATION OF CRUCIAL REPAIRS THROUGH A COMMUNITY BASED PARTICIPATORY APPROACH AND UTILIZATION OF COMMITMENTS MADE BY WFP, UNDRP AND UNOCA, MADE THE IDEA OF FLOOD PROTECTION AND REPAIR ON THE SCHEME COST EFFECTIVE, FEASIBLE AND MORE PRACTICAL.

REVIEWING THE ECONOMIC POTENTIAL OF THE HELMAND VALLEY IRRIGATION SCHEME, FLOOD PROTECTION AND CONTINUATION OF CRUCIAL REPAIRS ON THE SCHEME necessitates UN ASSISTANCE. NOT FORGETTING THE INDIRECT EFFECT <sup>it</sup> WOULD HAVE ON REDUCING POPPY CULTIVATION, AND INFLUENCING VOLUNTARY REPATRIATION.

## BACKGROUND

HELMAND PROVINCE IN THE SOUTH-WEST OF AFGHANISTAN IS ONE OF THE MAIN BREAD BASKET OF AFGHANISTAN. AS A RESULT OF THE INVESTMENT OF THE AMERICANS AND THE GOVERNMENT OF AFGHANISTAN IN THE DEVELOPMENT OF THE HELMAND VALLEY IRRIGATION SCHEME. FORMERLY KNOWN AS AMERICA IN AFGHANISTAN, HELMAND PROVINCE HAS AN ESTIMATED SETTLED POPULATION OF 410,827 INHABITANTS AND AN ESTIMATED REFUGEE POPULATION OF 229,336 INHABITANTS RESIDING IN PAKISTAN AND IRAN.

INVESTMENT IN THE DEVELOPMENT OF THE HELMAND VALLEY IRRIGATION SCHEMES CAN BE TRACED BACK TO THE 1930s WITH A TOTAL INVESTMENT OF AROUND 150 MILLION USD. THIS INVESTMENT LED TO THE DEVELOPMENT OF THE HELMAND VALLEY IRRIGATION SCHEME COVERING 3/4 OF THE HELMAND PROVINCE, WITH PRODUCTION CENTERS LOCATED ALONG THE BOGHRA AND DARWESHAN CANALS. THE TOTAL LENGTH OF THE HELMAND VALLEY IRRIGATION SCHEME COVERING THE ABOVE PRODUCTION CENTRES IS 189 KM WITH A TOTAL IRRIGABLE LAND OF 113,000 HA:

|                 |             |              |
|-----------------|-------------|--------------|
| BOGHRA CANAL    | - 66,000 HA | LENGTH 74 KM |
| SHAMALAN CANAL  | - 20,000 HA | LENGTH 65 KM |
| DARWESHAN CANAL | - 27,000 HA | LENGTH 50 KM |

PRODUCTIVITY OF THE SCHEME BEFORE AND DURING THE WAR CAN BE SUMMARISED AS THUS:

| C R O P    | 1 9 7 7 |           | 1 9 9 0 |            | % REDUCTION<br>IN<br>PRODUCTION |
|------------|---------|-----------|---------|------------|---------------------------------|
|            | area/ha | produced  | area/ha | produced   |                                 |
| wheat      | 57,700  | 160,000mt | 53,200  | 110,000 mt | 31.25                           |
| cotton     | 23,600  | 31,300mt  | 2,600   | 2,200 mt   | 93                              |
| corn       | 13,500  | 41,200mt  | 1,000   | 18,100 mt  | 56                              |
| fruits     | 1,870   | 24,700mt  | 1,800   | 11,000 mt  | 55.46                           |
| vegetables | 2,400   | 15,000mt  | 5,100   | 7,000 mt   | 53                              |

TOTAL COST IN AFS (AT 1 USD = 790 Afs) = 464,585,000.00

commodity = 229,495,000.00  
ITSH = 135,090,000.00

TOTAL COST IN USD = (290,500.00 + 171,000.00) = 461,500.00

FUNDING AGENCIES:

UNOCA AFGHANISTAN (committed)  
WFP AFG, WFP CROSS-BORDER (committed)  
UNDCP (potential contributor for gabions)  
UNHCR (committed)  
UNDP/OPS (committed to cover all uncovered expenses)

SUMMARY SHEET

TITLE: UNITED NATIONS PLAN OF OPERATION IN HELMAND  
(PHASE II)

DURATION: SEPTEMBER 1991-1992

PREPARED BY: WFP, UNOCA, UNDP/OPS, UNDCP, UNHCR, WHO

OBJECTIVES:

- 1) To protect the Helmand valley irrigation scheme from further deterioration through flood disaster,
- 2) To improve the efficiency of the main canals of the Helmand valley irrigation scheme,
- 3) To promote the voluntary repatriation of refugees and increase the labour power in the area,
- 4) To reduce and prevent where feasible, poppy cultivation along the Helmand valley irrigation scheme,
- 5) To increase in food production and improvement of the nutritional status of farm families residing along the Helmand valley scheme.

BENEFICIARIES:

- 1) 58,689 Farm families residing along the scheme.
- 2) 32,768 refugee farm families owing land along the scheme residing in Pakistan and Iran.

BUDGET:

Cash component:     in Afs = 453,897,990  
                          in USD = 589,477.91 (at 770 Afs/USD)

FOOD COMPONENT: (Assuming wheat from cross-border and oil and sugar from Afghanistan)

| commodity        | qty-mt | unit cost(USD) |         | total cost (USD)  |                   |
|------------------|--------|----------------|---------|-------------------|-------------------|
|                  |        | /mt            | ITSH/mt | commodity         | ITSH              |
| Wheat            | 1,300  | 160            | 120     | 208,000.00        | 156,000.00        |
| Sugar            | 100    | 400            | 100     | 40,000.00         | 10,000.00         |
| Oil              | 50     | 850            | 100     | 42,500.00         | 5,000.00          |
| <b>T O T A L</b> |        |                |         | <b>290,500.00</b> | <b>171,000.00</b> |

## PROBLEM ANALYSIS:

THE VULNERABILITY OF THE HELMAND VALLEY IRRIGATION SCHEME TO FLOOD HAZARDS CAN BE ATTRIBUTED TO:

- a) Neglect and lack of maintenance;
- b) Reduced efficiency of the Kajaki dam;
- c) Uncontrolled flooding from the Musa Qala river;
- d) War damages inflicted on the scheme;
- e) Flood damages.

The interplay of the above forces have caused Helmand river to change its course like 'a moving snake hit in the tail' eroding its banks and thereby putting at risk the intakes and canals not yet damaged. This development have rendered the scheme prone to further degradation if measures to prevent the scheme from further deterioration are not implemented. The reduced efficiency of the Kajaki dam is mainly due to heavy bombing during the war and destruction of the valves of the subsidiary dykes and main dykes. as a result of this the storage capacity of the dam have been reduced leading to frequent spills. Coupled with the uncontrolled flooding from the Musa Qala river, the volume of water reaching the Helmand valley irrigation scheme with the existing war damages have subdued the system to further deterioration.

The following war damages inflicted on the scheme made it strategic for flood disaster:

### 1. BOGHRA CANAL:

- 1.1 Destruction of the main control gates and diversion gates
- 1.2 Damage to the concrete structure at the intake

### 2. SHAMALAN CANAL:

- 2.1 Destruction of the main control gates

### 3. DARWESHAN CANAL

- 3.1 Destruction of the main control gates

With the existing war damages, the scheme was made vulnerable to flood hazards with the following disaster:

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### 1. BOGHRA CANAL

- 1.1 Change in the course of the river bed at the intake
  - 1.2 Heavy silting at the intake - 100,000 cum silt deposit
  - 1.3 Erosion of canal embankment - 40,000 cum
  - 1.4 Destruction of the main dyke at the intake - 10,000 cum
  - 1.5 Silting of the main Boghra canal - 800,000 cum
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## 2. SHAMALAN CANAL

- 2.1 Heavy silting at the Shamalan intake - 20,000 cum
- 2.2 Erosion of canal embankment - 8,000 cum
- 2.3 Change in the course of the river bed along the Shamalan canal in Lashkergah - 15,000 cum earth movement - 1,700 cum gabion work ?
- 2.4 Destruction of the waste way bridge
- 2.5 Silting of canal - 100,000 cum
- 2.6 Silting of drains

## 3. DARWESHAN CANAL

- 3.1 Change in the course of the river-bed along the intake
- 3.2 Heavy silting at the intake - 50,000 cum
- 3.3 Erosion of canal embankment at the intake - 30,000 cum
- 3.4 Silting of the main canal - 96,000 cum

THE ABOVE DAMAGES INFLICTED ON THE HELMAND VALLEY IRRIGATION SCHEME BY 55% AT THE BOGHRA CANAL, 60% AT THE SHAMALAN CANAL AND 40% AT THE DARWESHAN CANAL.

## JUSTIFICATION

Prevention is a central context is disaster mitigation. The extent of the destruction caused by the flood with a record flow rate of 5,300 cm/sec. necessitates disaster mitigation measures and continuation of crucial repairs on the scheme to prevent it from further deterioration through flood hazards. Although the rehabilitation of Helmand valley irrigation scheme cannot be supported entirely by the United Nations bearing in mind the massive investment required.

The United Nations can support the utilization of appropriate technologies like use of gabions in flood protection and continuation of crucial repairs on the scheme through a community based participatory approach and utilization of commitments made by different UN agencies and partner implementing institution HVA/HACC.

The emergency repairs on the Boghra and Shamalan canal are ongoing with the following expected outputs:

1. Desilting of 1 km of the Boghra canal from the intake - 23,870 cum - completed.
2. Repair of 300m washed embankment at the Boghra canal from the intake - 23,800 cum - earthwork ongoing.
3. Excavation of the river bed at the intake - 100,000 cum - ongoing
4. Repair of washed embankment of the Shamalan canal - 32,000 cum earth back filling - ongoing

The project technically appropriate, administratively workable while conforming to the economic priorities and overall development objectives because of the following facts

1. Utilization of appropriate technologies like use of gabions in flood protection and continuation of repairs on the scheme through a community based participatory approach while utilizing commitments by different UN agencies.
2. Existence of a partner implementing institution (Helmand Valley Authority - HVA) and Helmand Valley Construction Company Hall with some machinery, civil engineers, mechanics and machine operators.
3. Commitment by UNDRO (Kabul)
  - a) USD 127,000.00 (procurement of spare parts for 3 Kamatsu bulldozers owned by HVA/HALL)
  - b) USD 150,000.00 disaster mitigation programme
  - c) USD 45,000.00 cash balance of the emergency programme



4. Commitment by UNOCA (Kabul)

- a) provision of 5 D-75 bulldozers (3 at base already)
- b) provision of an office and guest-house in Lashkergah
- c) provision of Afs 80,000,000,00 as support for FFW
- d) provision of 2 T-117 bulldozers and one grader whenever available.

5. UNDP Kabul is a likely contributor since it fits into its mandate of development projects.

6. UNHCR is highly interested as a test case to prove the "pull factor" for refugees.

7. UNDCP expressed its willingness to participate in the project by contributing 250,000.00 to 300,000.00 USD, subject to approval by Vienna.

8. WFP Afghanistan and WFP cross-border has committed the following for a start:

- wheat 500 mt and ITSH \*
- sugar 100 mt and ITSH
- oil 25-30 mt and ITSH

\* additional wheat is available at a later stage

9. Commitment by UNOCA Islamabad

- 200 wheel barrow
- 500 pick axes
- 1000 shovels
- 500 hoes
- 1000 buckets
- 50,000 sand bags
- 1 motor boat
- 50 mt cement
- 1 mt tea

10. Economically the area being one of the main bread baskets of Afghanistan with 113,000 ha of irrigable land, investment by UN will lead to an increase in crop production by making water available for ~~two~~ to three crops per year at the same time reducing the rate of salinization while maintaining the water supply and the scheme.

### EXPECTED INCREASE IN CROP PRODUCTION

|        | 1 9 9 0  |             | 1 9 9 2  |            | % increase |
|--------|----------|-------------|----------|------------|------------|
|        | area(ha) | produced mt | area(ha) | produce mt |            |
| wheat  | 53,200   | 110,000     | 66,500   | 137,500    | 25         |
| cotton | 2,600    | 2,200       | 10,400   | 8,800      | 400        |
| corn   | 1,000    | 18,100      | 1,300    | 23,530     | 30         |
| veget. | 5,100    | 7,000       | 7,140    | 9,800      | 40         |

11. Irrespective of the strategic importance of Helmand province to the total macro economy for the nation, it is a good example for the UN as a good example of cross-line and cross border operation promoting the potentials for cooperation between the mujahedeen and government.
12. Besides the direct effects, the project will make the flow of information on work on the scheme will attract a lot of Afghans to their land for cultivation. Consequently, the availability of water for two or three crops per annum will influence reduction in the expansion of poppy production along the scheme (Poppy *clause* becoming feasible).

### BENEFICIARIES

1. Direct:

58,689 farm families residing along the scheme

2. Indirect:

32,768 refugees farm families owing land along the scheme currently residing in Pakistan and Iran.

### DEVELOPMENT OBJECTIVES

-increase in food production and improvement of the nutritional status of farm families residing along the scheme.

## IMMEDIATE OBJECTIVES

- a) to protect the Helmand valley irrigation scheme from further deterioration by flood disaster;
- b) to improve the efficiency of the main canals of the Helmand valley irrigation scheme;
- c) to attract potential donors for investment in the rehabilitation of hydro-technical structures along the Helmand valley irrigation scheme; and
- d) to reduce the expansion of poppy production along the Helmand valley irrigation scheme.

## EXPECTED OUTPUTS

### 1. BOGHRA CANAL:

- a) desilting & redirection of the river -bed at the intakes;
- b) rehabilitation of the eroded portion of the main dyke with gabions;
- c) rehabilitation of 300 m of canal embankment from the intake;
- d) construction of concrete rip-rap 30 m on the canal bank from the intake;
- e) rehabilitation of station 5+600 and 11+000;
- f) desilting of 11 km of the canal at heavy silting points;
- g) cleaning of 40 km of the main drains; and
- h) cleaning of 40 km of main canal embankment.

### 2. SHAMALAN CANAL

- a) construction of a protection dyke on the river-bed in Lashkergah along the Shamalan intake;
- b) construction of Shamalan intake;
- c) desilting of Shamalan intake;
- d) desilting of 15 km of the main Shamalan canal at heavy silting points;
- e) cleaning of 30 km of the main drains;
- f) cleaning of 30 km of the main canal embankment.

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### 3. DARWESHAN CANAL

- a) redirection of the river-bed at the intake;
  - b) desilting of the intake;
  - c) repair of canal embankment from the intake;
  - d) desilting of 13 km of the main canal at heavy silting points;
  - e) cleaning of 10 km of the main drain.
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## MAIN ACTIVITIES

### 1. BOGHRA CANAL

- a) excavation of the river-bed at the intake and construction of three auxiliary dykes protected by gabions - 100,000 cum silt to be removed. gabion work 16000 cum;
- b) rehabilitation of the eroded portion of the main dyke with gabions - 10,000 cum gabions work;
- c) repair of 300 m canal embankment from the intake by backfilling;
- d) construction of a concrete rip-rap 30 m from the intake;
- e) repair of station 5+600 and 11+00 - backfilling and compaction - 2,000 cum earth work.
- f) repair of concrete structure at station 5+600 - 8 cum cement work;
- g) installation of 18 pieces of pipes at station 5+600;
- h) desilting of 11 km of the main drains of grasses - 80,000 sq.m.;
- i) cleaning of 40 km of the main drains of grasses - 80,000 sq.m. and
- j) cleaning of 40 km of the canal embankment of grass - 80,000 sq.m.

### 2. SHAMALAN CANAL

- a) construction of the Shamalan intake;
- b) excavation of Shamalan intake - 20,000 cum silt to be removed;
- c) construction of a protection dyke on the river-bed along the Shamalan canal in Lashkergah - earth movement 15,000 cum , gabion work 1,700 cum;
- d) repair of 100 m of the Shamalan canal embankment in Lashkergah - backfilling - 8,000 cum;
- e) desilting of 15 km of the main canal at heavy silting points - 180,000 cum (15km x 10m x 1.2m);
- f) cleaning of 30 km of the main drains of grass - 60,000 sq.m.; and
- g) cleaning of 30 km of the main canal embankment of grass -60,000 sq.m.

### 3. DARWESHAN CANAL

- a) excavation of the river-bed at the intake - 50,000 cum;
- b) protection of canal bank on the river side with gabions;
- c) repair of canal embankment at the intake - backfilling and leveling - 30,000 cum;

- d) desilting of 13 km the main canal at heavy silting points  
- 93,600 cum - (13m x 6m x 1.2m); and
- e) cleaning of 10km of the main drains of grass -10,000 sq.m.

## INPUTS REQUIRED

### 1. PERSONNEL

- a) project officer, - international staff;
- b) 2 civil engineers - national staff
- c) 1 accountant/admin officer "
- d) 1 self-help promotion officer "
- e) 1 mechanic engineer "
- f) 1 asst. logistics officer "
- g) 1 secretary "
- h) 2 drivers "
- i) 2 watchmen "
- j) 5 machine operators (loan from HVA/HACC)
- k) 5 mechanics (loan from HVA/HACC)
- l) 5 dump truck drivers (loan from HVA/HACC)
- m) 1 draftsman (loan from HVA/HACC)
- n) 2 surveyors (loan from HVA/HACC)

### 2. MACHINERY

- a) 3 Kamatsu bulldozers (owned by HVA)
- b) 2 excavators (owned by HVA, in working condition)
- c) 5 D-75 bulldozers (committed by UNOCA)
- d) 2 T-117 bulldozers (committed by UNOCA)
- e) 1 grader (committed by UNOCA)
- f) 5 dump trucks (owned by HVA, in working conditions)
- g) 2 loaders (owned by HVA.HALL, needs minor repair)
- h) 1 welding machine

### 3. MATERIALS

- a) Gabions - 11,600 pcs - dimension 2m x 1m x 1m.
- b) "Tripod qala" - 800 pcs (9m x 2.8m)
- c) Shovels - 800 pcs with handles
- d) Grass cutting knives - 800 pcs with handles
- e) Pickaxes - 200 pcs with handles
- f) Cement - 27 mt - procured by FAO - remains from emergency repairs
- g) Wheel barrows - remaining UNDR0 procurement.

#### 4. OFFICE EQUIPMENT

##### NON - EXPANDABLE

- a) 2 4x4 landcruisers
- b) 1 Toyota HILUX 4x4 pick-up.
- c) 2 Gaz-66 trucks.
- d) 1 Toshiba lap top (1200xe)
- e) 1 Epson printer
- f) 1 Type writer (manual)
- g) 1 Photo copy machine. †

##### EXPANDABLE

- a) Office supplies
- b) Running cost for office vehicles.

#### 5. FOOD COMPONENT (WFP)

- a) Assuming the 3 rations - wheat, sugar and oil - are available at a ration scale of 3 kg wheat, 200 gr sugar and 150 gr oil per manday, the total food requirement is:
    - wheat 1,300 mt
    - sugar 100 mt
    - oil 50 mt
  
  - b) Assuming only wheat and sugar is available at a ration scale of 5 kg wheat and 200 gr sugar per manday, the total food requirement is:
    - wheat 1,600 mt
    - sugar 100 mt
  
  - c) Assuming only wheat is available at a ration scale of 7 kg per manday the total food required is:
    - wheat 2,240 mt.
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## BUDGET

1. Running cost of machinery to be deployed in the project for 6 months in active operation with a maximum period of 4-5 hrs/day:

| machinery              | Qty         | fuel<br>ltr/hr   | total fuel<br>for 6 months | Total cost<br>Afs 200-300/ltr |
|------------------------|-------------|------------------|----------------------------|-------------------------------|
| bulldozer<br>(Kamatsu) | 3           | 40-45            | 97,000 ltr                 | 29,160.000.00                 |
| bulldozer<br>(D-75)    | 5           | 15-20            | 28,800 ltr                 | 8,690.000.00                  |
| bulldozer<br>(T-117)   | 2           | 20-25            | 36,000 ltr                 | 10,800.000.00                 |
| excavators             | 2           | 15-20            | 28,000 ltr                 | 8,640.000.00                  |
| grader                 | 1           | 20-25            | 36,000 ltr                 | 10,800.000.00                 |
| loaders                | 2           | 15-20            | 28,800 ltr                 | 8,640.000.00                  |
| dump truck             | 5           | -                | 16,667 ltr                 | 5,000.000.00                  |
| Hydraulic              | 24 barrels, | Afs 125,000.00/b |                            | 3,000.000.00                  |
| Gear oil               | 24 barrels, | Afs 120,000.00/b |                            | 2,880.000.00                  |
| Grease                 | 20 barrels, | Afs 130,000.00/b |                            | 2,600.000.00                  |
| Mobil oil              | 600 gallons | Afs 9,500/gr     |                            | 6,700.000.00                  |
| T O T A L              |             |                  |                            | 95,860.000.00                 |

**2. MATERIALS AND TOOLS**

| Item                            | Qty    | cost/piece   | Total- (Afs)   |
|---------------------------------|--------|--------------|----------------|
| Gabion                          | 11,600 |              | 308,000.000.00 |
| Tripod/Qala                     | 800    | 4,500.00 Afs | 3,600.000.00   |
| Shovels                         | 800    | 2,500.00 Afs | 2,000.000.00   |
| Knifes (cutting)                | 800    | 2,000.00 Afs | 1,600.000.00   |
| Pickaxes                        | 800    | 4,500.00 Afs | 900.000.00     |
| Wheel Barrows (Leftover, UNDRO) |        |              |                |
| S U B T O T A L                 |        |              | 316,100.000.00 |

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### 3. PERSONNEL

| Personnel                                 | Salary range in Afs   | Total cost in Afs for 16 months |
|---|-----------------------|---------------------------------|
| Project officer                           | -----                 | (int'l staff)                   |
| 2 civil engineer                          | 200-300,000.00        | 4,800.000.00                    |
| 1 logistics officer                       | 150-200,000.00        | 3,200.000.00                    |
| 1 admin officer                           | 150-200,000.00        | 3,200.000.00                    |
| 1 self-help promotion officer             | 200-300,000.00        | 4,800.000.00                    |
| 1 mechanic engineer                       | 150-200,000.00        | 3,200.000.00                    |
| 1 secretary                               | 50-70,000.00          | 1,120.000.00                    |
| 2 drivers                                 | 50-80,000.00          | 1,280.000.00                    |
| 5 machine operators (loan from HVA/HACC)  | overtime<br>20,000.00 | 1,600.000.00                    |
| 4 mechanics (loan from HVA/HALL)          | overtime<br>20,000.00 | 1,280.000.00                    |
| 5 dump truck drivers (loan from HVA/HALL) | overtime<br>20,000.00 | 1,600.000.00                    |
| 1 draftsman (loan from HVA/HALL)          | overtime<br>15,000.00 | 240,000.00                      |
| 2 surveyors (loan from HVA/HALL)          | overtime<br>15,000.00 | 450,000.00                      |
| 2 watchmen                                | 30-40,000.00          | 1,280.000.00                    |
| S U B T O T A L                           |                       | 28,050.000.00                   |

1 monitoring  
eval. officer  
(UNV; UNDC  
funded)

### CONSULTANTS

1. Irrigation engineer (may be engineer Tawab Assifi)
2. 2 gabion specialists (Afs 200-300,000.00/month for 3 months) Total = 1,800.000.00 Afs

**4. OFFICE EQUIPMENTS**

**1. EXPANDABLE**

|     |                                 |                  |
|-----|---------------------------------|------------------|
| 1.1 | Office supplies                 | 2,400.000.00 Afs |
| 1.2 | Running cost of office vehicles | 4,000.000.00 Afs |

**2. NON-EXPANDABLE**

|     |                             |                      |
|-----|-----------------------------|----------------------|
| 2.1 | 2 Toyota 4x4 L/C with winch | (committed by UNOCA) |
| 2.2 | 1 Toyota Hilux 4x4 pick-up  | (provided by UNOCA)  |
| 2.3 | 2 Gaz-66 trucks             | (committed by UNOCA) |
| 2.4 | 1 Toshiba Laptop (T1200 xe) | 2,370.000.00 Afs     |
| 2.5 | 1 Epson printer             | 948.000.00 Afs       |
| 2.6 | 1 Typewriter (manual)       | 395.000.00 Afs       |
| 2.7 | 1 Photo copy machine        | 1,975.000.00 Afs     |

S U B T O T A L (1+2) **12,088.000.00 Afs**

**5. FOOD COMPONENT (WFP AFGHANISTAN/WFP CROSS BORDER)**

| Item                 | Qty<br>MT | Cost/MT<br>in USD | Total cost<br>in USD | Total cost<br>in Afs |
|----------------------|-----------|-------------------|----------------------|----------------------|
| Wheat                | 1,300     | 160               | 208,000.00           | 164,320.000.00       |
| Sugar                | 100       | 400               | 40,000.00            | 31,600.000.00        |
| Oil                  | 50        | 850               | 42,500.00            | 33,575.000.00        |
| S U B T O T A L      |           |                   | 290,500.00           | 229,495.000.00       |
| 1 USD (\$) = 790 Afs |           |                   |                      |                      |

**6. INTERNAL TRANSPORTATION AND HANDLING COST (ITSH)**

| Item            | Qty-MT | ITSH rate               | cost (\$)  | cost (Afs)     |
|-----------------|--------|-------------------------|------------|----------------|
| Wheat           | 1,300  | Pak-Helmand<br>\$120/mt | 156,000.00 | 123,240.000.00 |
| Sugar           | 100    | Afghanistan<br>\$100/MT | 10,000.00  | 7,900.000.00   |
| Oil             | 50     | Afghanistan<br>\$100/MT | 5,000.00   | 3,950.000.00   |
| S U B T O T A L |        |                         | 171,000.00 | 135,090.000.00 |

## IMPLEMENTING STRATEGY

1. The project is a continuation of the emergency repairs on a slightly larger scale to provide for flood protection while continuing repairs on the Helmand valley irrigation scheme to prevent it from further deterioration.
2. Cooperation with the Helmand valley authority in implementing the emergency repairs has been good. With the investment by UNDRO to procure spare parts for the Kamatsu Bulldozers and the commitment by UNOCA to provide more machinery, HVA/HACC should be a major implementing partner guided by a written memorandum of understanding endorsed by the Ministry of Water and Power noting the following points:
  - 2.1. Modalities on the use of the 3 Kamatsu Bulldozers when repaired by the UN.
  - 2.2. The expected operational norms between UN personnel responsible for UN contribution and Helmand valley authority/Helmand construction company.
  - 2.3. Outline of personnel to be loaned from HVA/HACC for the implementation of the project. Commitment of the UN to HVA staff seconded to the project and the expected commitment from the Government.
  - 2.4. Guidelines on the utilization of HVA facilities - mechanics work shop and other machinery to be deployed in the project - dump trucks and loader etc.
3. The input of engineer Tawab in shaping the implementation strategies of the project should be exploited fully. In this regard it will be appropriate to have him as a short term consultant in 1992 to review the project and come up with recommendations.
4. Appropriate techniques like use of Gabions requires the service of a Gabion specialist. To train workers how to use Gabions. Two national short term consultants in using Gabions should be deployed in the project for 3 months.
5. With the understanding established between the cross line and cross border operation in Helmand and Nimroz should be supported by both sides. When implementation takes off possibly to link Kandahar from Lashkargah and Quetta should be explored to come up with a programme for the South of Afghanistan by the end of 1992.

6. The role of the UN recruited staff for the project should be management of UN contribution and overall supervision of the work.

7. With regards to poppy production. Agreement between the UN personnel and the Shuras/Commanders in any area should be reached before any programme is implemented on the canals reaching their area - expert service required. *Poppy clause allegiance.*

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