

REPORT ON A DUTY TRIP TO PAKISTAN

by M. Mesken, FAO Consultant (TF-REM/31 [IBPGR]) from 3-19 Nov. 1980

I TERMS OF REFERENCE

The purpose of this visit to Pakistan was to discuss and finalize arrangements for a plant collecting expedition in Pakistan in 1981 with colleagues of the Pakistan Agricultural Research Council, Islamabad and Dr Altaf-ur-Rehman Rao, Associate Professor, Dept. of Botany, University of Agriculture, Faisalabad. During briefing by Mr A. de Fauconval and Dr J.T. Williams at HQ and at Islamabad by Mr J.C. Phillips, FAO Representative in Pakistan, the consultant was asked to report also about the 'seed bank'. However, his visit coincided with the visit of Dr J.R. Witcombe, Technical Advisor on Genetic Resources (TF-REM/31). To avoid duplication in reporting, the latter will cover the gene bank work, whereas this report will deal with the arrangements made for plant collecting expeditions in Pakistan.

II SHORT INFORMATION ABOUT P.A.R.C.

In 1978 ARC was reorganized and renamed as the Pakistan Agricultural Research Council, PARC. It is an autonomous performing, planning, coordinating, reviewing, funding and training organization. For organization chart, see Annex 1. The Chairman, Dr Amir Mohammed, is also Secretary for Agricultural Research to the Government of Pakistan. One of the Members of the Council, Dr Anwar Khan, heads the Plant Sciences Research Division and i.a. supervises the National Coordinators for Crops, the National Agricultural Research Centre (NARC) and all germplasm work. NARC is one out of three research institutes of PARC and located near Islamabad. Dr M. Akbar, the National Coordinator for Rice, is Director of this Centre since mid-October 1980. The total land area of the centre is about 560 ha, of which part is already under cultivation and used by different crop departments. Irrigation water comes from Lake Rawal and from wells. Some buildings (offices, genetic resources unit etc.) are already occupied, others are under construction, and it is expected that the main complex will be completed in 1981. Although the cold store is operating, people wished they could have achieved more in genetic resources work. Because of the relatively rapid changes in personnel however, this has been difficult. After Dr M. Tahir, Dr M. Akbar and Dr M. Sharif, Dr N.I. Hashmi is National Coordinator for Plant Genetic Resources and Plant Introduction since mid-October 1980. He is responsible for all plant genetic resources work in Pakistan. Dr N.I. Hashmi and Dr A. Zahoor (SRO), Dr Akbar Shah (SRO), Mr M.S. Bhatti (JRO), Mr M. Rashid (technician), a stenotypist, a clerck, an office assistant and two more research officers to be appointed in the near future do the genetic resources work at PARC.

III PLANT COLLECTING IN PAKISTAN

1. Introduction

Most of the discussions were held with Dr Hashmi and Dr Zahoor of PARC and Dr Rao, Faisalabad. Dr A. Shah (PARC) was present most times and Dr M. Akbar (PARC) was consulted several times. His views were most welcome, as were those of Dr J.R. Witcombe, who took part in the discussions on some days.

2. Previous plant collecting expeditions

Till now the following plant collecting expeditions took place in Pakistan:

- 1926 Russian (Vavilov et al) to Chitral (very short)
- 1935 German (Scheibe et al) i.a. to Chitral-district and Peshawar (many crops)
- 1951 Japanese (Kihara et al) to Quetta (short; just *Ae.squarrosa*)
- 1974 Bangor-Lyallpur (Witcombe and Rao) to Chitral and Gilgit (mainly cereals and food legumes)
- 1976 ARC (Knowles and Rana) to Sind and Punjab (oil seed crops)
- 1976 Netherlands-Pakistan (Mesken et al) to Swat and Chitral (many crops)

Besides, some short trips have been made (e.g. Shakoor and Hashmi to Kashmir in 1975) just for specific crops or their wild relatives.

No collecting work has been done in recent years.

3. Future priority areas

From the short list above it is clear that Baluchistan and the southern part of NWFP have never been explored although these areas are in great danger of genetic erosion. So, it is very logical that Dr Rao proposed to collect in these parts of the country. And as it is impossible to cover large areas in one year, the following priority areas to be visited in consecutive years, have been agreed upon:

- 1981 : Quetta (Baluchistan); area around Quetta and south-west of this city, up to the Iranian border. Crops: cereals, food legumes, forage species.
- 1982 : Waziristan (NWFP); area between Ft. Sandeman and Peshawar, maybe starting from Quetta. Same crops as in Quetta-region.
- 1983 : Coastal region of Baluchistan; a very interesting region especially for wheat and rice.

The Swat and Dir districts are also worth exploring more extensively in the future.

The area east of Islamabad could be covered by short PARC missions.

IV PARC-NETHERLANDS PLANT COLLECTING EXPEDITION TO BALUCHISTAN 1981

It was agreed that the 1981 plant collecting expedition to Baluchistan will be a joint effort of PARC (Islamabad) and the Department of Botany (University of Agriculture, Faisalabad). Financial assistance of IBPGR and participation from SVP (Wageningen) are strongly recommended.

The following arrangements have been made:

1. area

The area around Quetta and south-west of Quetta up to the Iranian border will be covered. See attached map (Annex 2) and also the map sent by Dr Hashmi, which was prepared by the consultant for the project application. This region is hilly and mountainous with altitudes ranging from 1000 to 3000 m. Annual rainfall, mostly in winter and spring, is about 200-300 mm. The mean maximum temperature in July is 34°C.

The crops grown are cereals, vegetables (potato, tomato), food legumes, forage species and fruits (apples, plums, apricots, grapes, almonds, pomegranates).

2. collecting

Seeds of local varieties of wheat, barley and maize, of food legumes (Phaseolus, Vicia, Vigna, Lens, Cicer) and forage crops (grasses, lucerne) will be collected. If possible, also seeds of wild species (e.g. Aegilops) will be sampled. It has been considered to collect cuttings of fruit trees as well, but this is much more difficult and it is probably not the right time to do so during this expedition.

Methods of collecting depend largely on the developmental stage of the crops concerned, but it will be tried to sample from the farmers fields in as many cases as possible.

Samples will be collected in cotton and paper bags and the numbering will link on to the numbers of the 1976 expedition to avoid difficulties in gene banks later on. It will be tried to collect samples large enough to put subsamples in long term storage without prior multiplication.

Collecting forms have been discussed extensively and the form to be used is currently prepared by Dr Witcombe.

It has been agreed that the samples will be divided in two parts; one remains in Pakistan, the other will be sent to the Netherlands.

3. duration

It was thought that 5-6 weeks would be most suitable: not too short (number of samples) and not too long (inconvenience for participants). By splitting the team into two groups, the area covered and hence the number of samples collected will be much larger than if operating as one group.

4. period

The optimal period to be in the field seems to be during May/June. Some crops are harvested by then, some are ripening and some may still be flowering. It is planned to collect from 18 May till 16 June. For details see point 7.

5. participants

Members of the team will be Dr Hashmi and Dr Zahoor (PARC), Dr Rao (Faisalabad), ir L.J.M. van Soest (SVP, Wageningen; temporary at Dutch-German Potato Gene Bank, Braunschweig), a scientist from Quetta and the consultant.

After a long discussion with Dr Witcombe it is recommended that Dr Hashmi be the leader of the team, but as he is only able to participate for about two weeks, Rao and Van Soest will act as leaders in the field, each of a group. Although the consultant is available only for a few weeks, it was by all means felt desirable by the Pakistani participants that he comes with Van Soest to get him acquainted, to help him, to take care of finalizing all the preparations (vehicles, finances, communication, equipment etc.) and join the mission the first week.

6. transport

Two vehicles are needed for this mission. PARC will make available a Landrover plus driver and Dr Hashmi takes care of the good condition of it and buys, if need be, spare parts. The second vehicle will be placed at the team's disposal by the Ministry of Agriculture, Government of Baluchistan. Its driver is supposed to act as a guide and an interpreter.

7. logistics

Because not all members of the team can be transported by one vehicle from Islamabad to Quetta, it is foreseen that the PARC Landrover with Dr Zahoor carries all equipment and that the other members travel by air. If time permits, Dr Zahoor will make collections during this trip.

As was mentioned already under point 3, the team will be split into two groups, each group having its own routes (see Annex 2). The detailed breakdown is given in Annex 3.

Quetta is the central point for this expedition and the Arid Zone Research Institute or the FAO office will be used as a base.

Situations may arise which make it necessary to reschedule parts of this planning, but it is flexible enough to absorb this. Horses and/or porters will be hired if necessary.

8. contacts, communication and permits

Drs Hashmi and Rao will visit Quetta in March/April to establish personal contacts with scientists from the Arid Zone Research Institute. The most important

issues are: the participant from Quetta, vehicle plus driver, use of the station as a base for the mission, information about jeepability of roads, situation near the borders. They will also contact the Deputy Commissioner and police offices about the mission. The local FAO office will be visited as well and Mr Don Slade (Project Manager) asked for his views.

According to Mr Phillips, communication is possible through the FAO office in Quetta via the FAO Representative in Islamabad and to the Netherlands, if necessary.

Because parts of the routes are within the 10-mile zone from the borders, the team needs special clearance for entering these regions. PARC will send a request for permits to the Ministry of Interior. In this context Mr Phillips considered it of great value that Van Soest and Mesken receive an official UN status. The chance for difficulties would then be much smaller.

9. requirements

A rather extensive equipment is needed for collecting, camping and cooking. However, since many pieces of the 1976 expedition can be used again, it is not necessary to procure everything new. It is foreseen that the following equipment, partly used also in Bolivia in 1980, will be re-used: compasses, altimeters, rucksacks, some tents, torches, field flasks, safari-beds etc.

It is recommended that the rest of the equipment be bought partly in Islamabad and partly in the Netherlands.

The suggestion is that in Islamabad be purchased:

- i. equipment : - collecting equipment (pocket knives, maps etc.)
 - camping equipment (sunshade shelters, water containers, tin boxes, pans, utensils etc.)
 - transport equipment (roofrack)
- ii. expendable materials : - collecting material (cotton bags, labels, insecticides etc.)
 - camping material (batteries etc.)
 - food (rice, tea, sugar, oil etc.)

The remaining part has to be procured in the Netherlands:

- i. equipment : - camping equipment (2 tents, tentlighters, stoves, pressure cookers etc.)
- ii. expendable materials : - collecting material (paper bags, note books, films etc.)
 - camping material (repair kits, purifying tablets, insect repellents etc.)
 - food (dehydrated meat, soup, dehydrated vegetables, coffee etc.)

The material bought in the Netherlands will be sent to the Resident Representative of UNDP, Islamabad, who will arrange duty free clearance.

Medical equipment is also necessary and it is hoped that the existing FAO medical kits are sufficient for this kind of travelling.

While completing the list of requirements it has been borne in mind that the team will operate most of the time in two groups.

10. budget

For preparing the budget, estimates of costs have been made in two currencies: in Rs. and in Dfl. See Annex 4. Some remarks have to be made:

i. total budget

In the total budget of US \$ 18 870,-, the vehicles supplied by PARC and the equipment from SVP (+ US \$ 2800,-) are not entered. The contribution from PARC to the DSA of local members and to equipment costs is estimated at Rs 15 000,_. The amount requested of IBPGR is US \$ 17 370,-, of which about US \$ 6000,- have to be spent in the Netherlands, the rest in Pakistan before and during the expedition.

ii. subsistence allowances

Although PARC will pay the DSA for local members, it is suggested that IBPGR supplements their allowances to the lowest level for all UN personnel in Pakistan, as is applicable for the Dutch participants (see Annex 5).

iii. travel costs

These include the flights of Van Soest and Mesken from Amsterdam to Islamabad vv in Dfl and travelling from Islamabad to Quetta vv for the whole team, spare parts for the jeeps, petrol and oil changes in Rs.

iv. equipment and expendable materials

From point 9. it is clear which part is to be purchased in Islamabad and which part in the Netherlands.

v. contingencies

The estimate in Dfl consists mainly of costs for dispatch of material from Amsterdam to Islamabad. Most of the Rs will have to be spent for air fare cargo from Islamabad to Amsterdam, vehicle repairs, guides, porters etc.

vi. payments

Payment to the Netherlands can be made through the bank account of the SVP. To formulate banking instructions for Pakistan was much more complicated. After discussions with Mr Phillips and Dr Witcombe it was decided that the consultant will contact Mr De Fauconval about the best way of authorizing this payment.

The special account should be open to Dr Hashmi, Dr Rao and ir van Soest.

11. follow-up

As was mentioned earlier each sample will be divided into two parts. One part remains in Pakistan for evaluation and research at PARC (base collection) and the University of Agriculture, Faisalabad, and for evaluation and breeding work at other institutes in the provinces (active collections). The other part will be transported to the Netherlands for evaluation and breeding work at the SVP, Wageningen (active collection). Duplicate samples will be deposited in a gene bank in accordance with IBPGR recommendations.

V OTHER INFORMATON

1. Before leaving Islamabad the consultant was welcomed again by:

i. Mr J.C. Phillips

He asked to be kept fully informed about the preparations of the expedition, and he will try to get reassurance that the team will not face problems during the trip.

When starting the expedition in Quetta, he will be there to meet the team and to introduce it to the FAO officials in the region.

ii. Dr Anwar Khan

All discussions held with Dr Hashmi and others were talked over with Dr Khan. Some important points to be mentioned are:

- the costs He stressed the fact that PARC is very short of funds at the time the expedition starts, i.c. at the end of the financial year. Therefore, he asks IBPGR to be very liberal in subsidizing this expedition and let PARC pay the minimum possible. Next time the financial situation will be much better.
- fellowships To get people trained in genetic resources work, it is very important to receive fellowships. He, and also Dr Amir, Dr Akbar and Dr Hashmi, asked for possibilities to train young people 1, 3 or 6 months in West-European research centres in storage, maintenance, seed physiology, evaluation, documentation etc.
- follow-up He is very much in favour of collaboration with the SVP over several years in collecting, evaluating etc. International exchange of material is of great importance.

2. Ample discussions were held with Dr Rao and Mr Latif Shad (PARC) about the material collected in 1976. During two exceptional rust years all wheat samples were lost. Fortunately, these accessions are also maintained in Wageningen and subsamples will be brought back to the country of origin, i.c. sent to PARC.

Further exchange of information will continue.

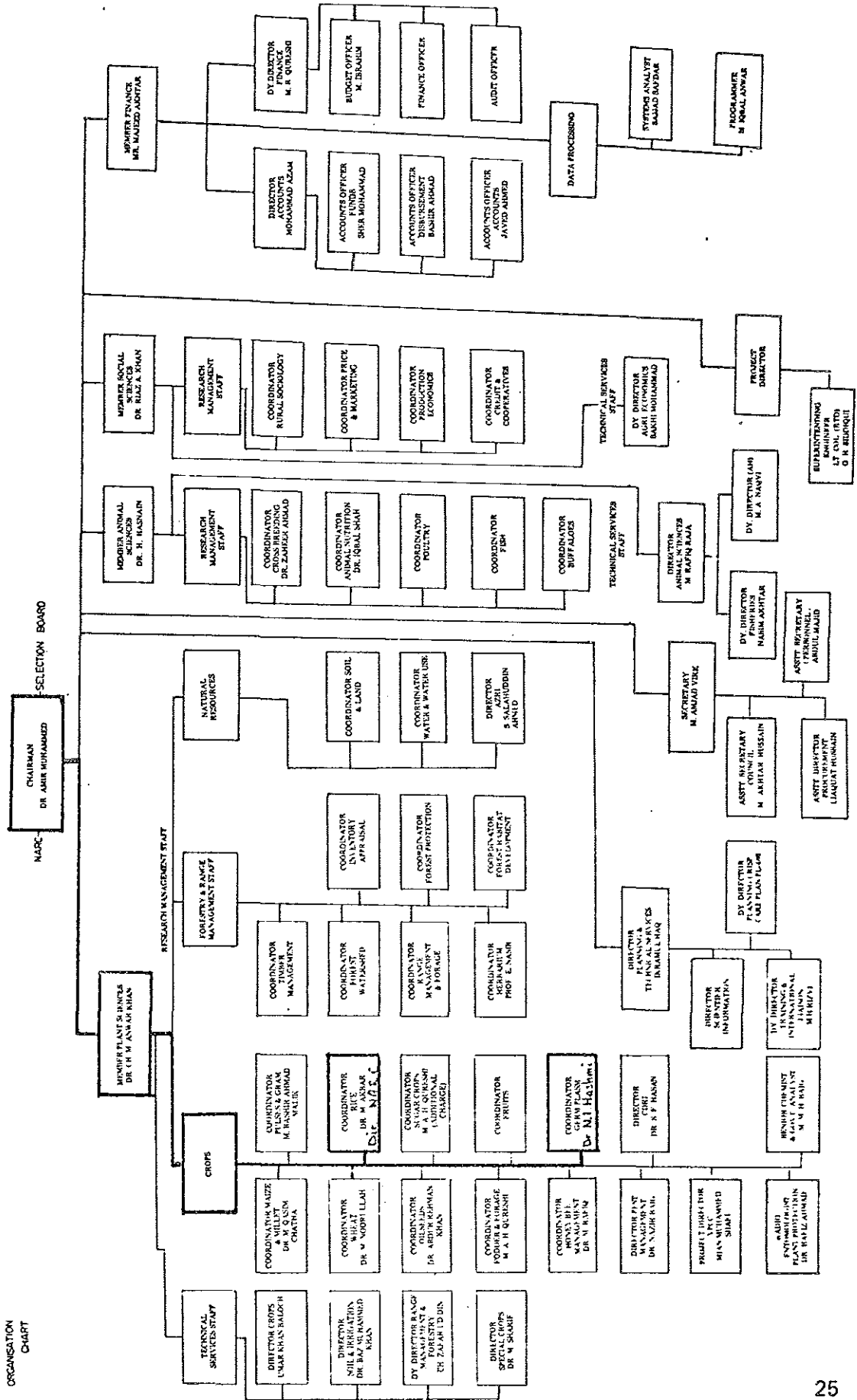
Wageningen, December 1980

PAKISTAN AGRICULTURAL RESEARCH COUNCIL

(PRESIDENT MINISTER FOR FOOD, AGRICULTURE AND COOPERATIVE)

1974-75

ORGANISATION CHART



streams and rivers are shown in blue but this is not to be taken as an indication that they are all perennial.

The names of Kashmir are as depicted, its position being as shown on the map of India published by the Survey of India.

The names of the provinces are as shown on the map of India published by the Survey of India.

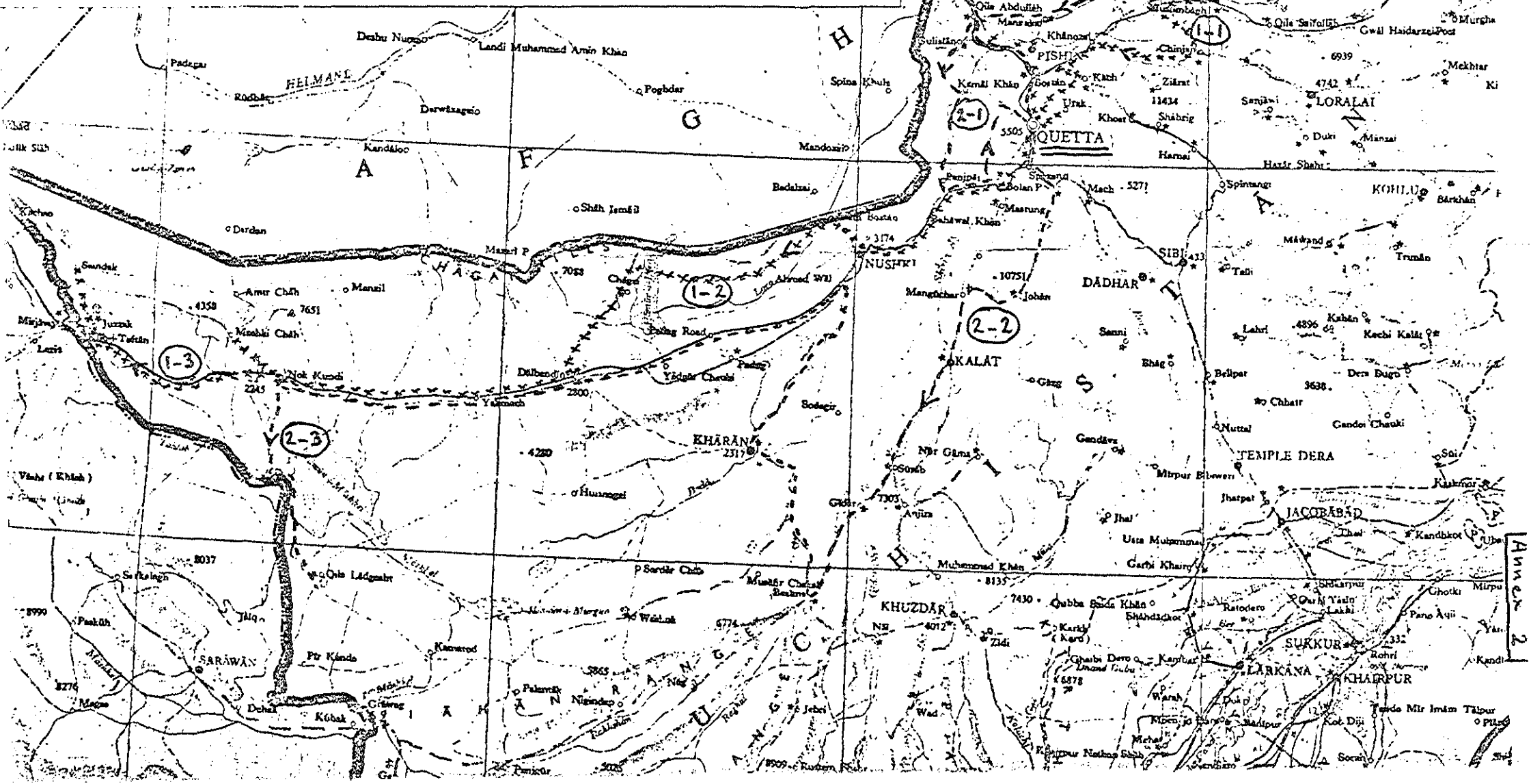
Scale: 1:500,000 (1 inch = 12.5 miles)

GOVERNMENT OF PAKISTAN
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Peshawar	1025	104	99	258	239	773	87	1030	1448
Quetta	920	1072	709	823	252	938	509	590	
Rawalpindi	151	154	135	669	17	926	1344		
Saidu	305	286	820	134	1077	1495			
Sargodha	132	459	171	714	1132				
Sidkot	571	152	828	1246					
Sukkur	686	257	675						
Taxila	943	1361							
Thatta	433								
Turbat									

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Price: — Ten Rupees.



Annex 2

Logistics PARC - Netherlands plant collecting expedition to Baluchistan, 1981.

May	Mon	11	departure Van Soest, Mesken from Amsterdam	
		12	arrival " " in Islamabad	
		13	finalizing preparations	
		14	departure Landrover with Zahoor from Islamabad to Quetta (1000 m)	
		15	briefing Mr. Phillips (FAO), Dr. Anwar Khan (PARC)	
		16	Hashmi, Rao, Van Soest, Mesken from Islamabad to Quetta	
		17	visits PARC Arid Zone Research Institute and FAO, Quetta	
	Mon	18	start collecting trips	
			vehicle 1 trip 1 (400 m)	vehicle 2 trip 1 (330 m)
		19	"	"
		20	"	"
		21	"	"
		22	"	"
		23	Mesken from Quetta via Islamabad to Amsterdam	
		24	"	"
	Mon	25	"	"
		26	"	Quetta
		27	Quetta	"
			Hashmi from Quetta to Islamabad	
		28	vehicle 1 trip 2 (225 m)	vehicle 2 trip 2 (460 m)
		29	"	"
		30	"	"
		31	"	"
June	Mon	1	"	"
		2	Dalbandin	"
		3	vehicle 1 trip 3 (325 m)	"
		4	"	"
		5	"	"
		6	"	Dalbandin
		7	"	vehicle 2 trip 3 (255 m)
	Mon	8	"	"
		9	"	"
		10	"	"
		11	"	"
		12	"	"
		13	Nok Kundi	Nok Kundi
		14	travelling back from Nok Kundi to Quetta (300 m)	

Mon 15 travelling back from Nok Kundi to Quetta (300 m)
end of collecting trips

16 preparing return travel from Quetta to Islamabad

17 departure PARC Landrover with Zahoor to Islamabad (1000 m)
Van Soest and Rao by air to Islamabad

18 debriefing at PARC; FAO Representative

19 " "

20 Landrover and Zahoor back in Islamabad

21 packing and forwarding samples through UNDP to Netherlands

Mon 22 " " "
Van Soest from Islamabad to Amsterdam

Budget for PARC -Netherlands plant collecting expedition to Baluchistan, 1981.

	Rs	currency Dfl	approx. US \$
1. Subsistence allowances			
- Van Soest	16.400		
- Rao	13.600		
- Zahoor	12.000		
- Hashmi	4.070		
- man from Quetta	10.000		
- Mesken	5.300		
- two drivers	5.400		
	<u>66.770</u>		6.670
2. Travel costs	25.260	6.000	5.500
3. Equipment			
- collecting equipm.	342		
- camping "	4.000	1.900	
- transport	1.000		
	<u>5.342</u>	<u>1.900</u>	1.400
4. Expendable materials			
- for collecting	9.225	1.030	
- for camping	92	260	
	<u>9.317</u>	<u>1.290</u>	1.580
5. Contingencies	22.700	2.900	
Total Rs	129.389		
Total Dfl		12.900	
Total approx. US \$			<u>18.870</u>

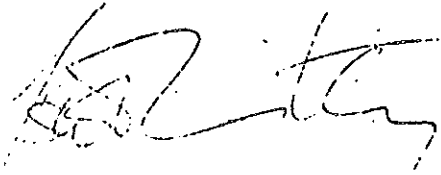
rate : US \$ 1,- ≈ Rs 10,- ≈ Dfl.2,-

Some estimates in US \$ have been rounded off.

7 February 1980

Annex 5

To: ALL UN Personnel in Pakistan

From: Michael J. Priestley
Resident Representative
UNDP, IslamabadSubject: Daily Subsistence Allowance Rates - Pakistan

We have been advised by the Chief, Rates and Allowances, UNDP, New York, that effective 1 February 1980 the following DSA Rates became applicable.

<u>Place</u>	<u>First 60 days</u>	<u>Thereafter</u>
Karachi	RS 624	RS 500
Rawalpindi/Islamabad	RS 624	RS 500
Peshawar	RS 500	RS 370
Lahore	RS 500	RS 370
Elsewhere	RS 307	RS 307

Locally recruited personnel are paid at the approved percentages of the above.

Levels		
1 - 3	30%	
4 - 5	70%	
6 - 7	80%	
8	100%	

All personnel who have had claims already settled for travel undertaken since 1 February 1980 should claim the difference immediately by submission of a Form F-10 referring to the payment voucher number.

cc: Mr. Wolfgang E. Siebeck, Resident Representative, IBRD, Islamabad for information.
Mr. A. Rodiadis, CAO, UNMOGIP, Rawalpindi, for information.

WE/msc
07 02 80