

### 3. METHODOLOGY

The methodology for this survey was first agreed in March 1996 after the completion of an initial survey by questionnaire of the proposed sample farms. The methodology is described in more detail in the Annual Report for WUFMAS published in July 1997. There are minor changes to the methodology of data collection as a result of the experience in 1996 and the opinions of the participants. The second edition of the Guidance Notes (on how to fill in the record sheets), the revised codebook and the revised record sheets for 1997-1998 are shown in Appendix 1.

#### 3.1 Selection of Sample Farms

In 1998 due to the budgetary constraint only 24 farms in the five republics were retained for monitoring out of 36 farms selected in 1996. Nevertheless, all retained farms (Table 3.1) reflect the principle of their initial selection in pairs and representativeness for the region. Privatisation of farmland had progressed to variable degrees in the republics and in 1998 in Kazakhstan all state farms were split into smaller private, cooperative or peasants farms, as shown in Table 3.2.

**Table 3.1 Location and Elevation of Sample Farms  
(Monitoring of 1998)**

Farm Code	Farm Name	Republic	Oblast	Rayon	Deg N	Deg E	Elevation (mamsl)
<b>Years 1996 and 1997</b>							
01	Aksharma	Kazakhstan	Kzyl Orda	Terenozek	44°52'	64°16'	118
02	Akumskiy	Kazakhstan	Kzyl Orda	Djalagash	44°55'	64°42'	117
03	Zhambul	Kazakhstan	South Kazakhstan	Makhtaaral	40°52'	68°34'	257
04	Makhtaaral	Kazakhstan	South Kazakhstan	Makhtaaral	40°49'	68°32'	257
07	Rasviet	Kyrgyzstan	Tchu	Sokuluk	42°52'	74°28'	730
08	Expt farm	Kyrgyzstan	Tchu	Sokuluk	42°47'	74°33'	958
09	Sadikov	Kyrgyzstan	Osh	Karasu	40°33'	72°49'	954
10	Cotton Expt	Kyrgyzstan	Osh	Karasu	40°38'	72°54'	873
14	1st May	Tadjikistan	Leninabad	Kanibadam	40°17'	70°23'	300
37	Dusti	Tadjikistan	Leninabad	Kanibadam	40°15'	70°12'	425
17	Teze Durmus	Turkmenistan	Mary	Bayram	37°34'	62°11'	240
18	Murgap	Turkmenistan	Mary	Bayram	37°33'	62°11'	240
21	Berdeyev	Uzbekistan	Surkhandariya	Sherabad	37°38'	66°59'	390
22	Talashkan	Uzbekistan	Surkhandariya	Sherabad	37°38'	66°56'	390
23	G. Guliyam	Uzbekistan	Syrdariya	Sharaf-Rashidov	40°23'	68°23'	280
24	Timur Malik	Uzbekistan	Syrdariya	Sharaf-Rashidov	40°23'	68°23'	280
25	A. Navoi	Uzbekistan	Khorezm	Khanka	41°3'	60°38'	90
26	Pakhtakor	Uzbekistan	Khorezm	Urgench	41°28'	60°40'	90
27	Khalkabad	Uzbekistan	Karakalpakistan	Kegeli	42°42'	59°44'	80
28	Shortanbay	Uzbekistan	Karakalpakistan	Nukus	42°37'	59°32'	75
33	Navoi	Uzbekistan	Fergana	Kuva	40°34'	72°03'	480
34	Yakatut	Uzbekistan	Fergana	Tashlak	40°29'	71°53'	460
35	Bukhara	Uzbekistan	Bukhara	Kagan	39°44'	64°29'	230
36	Gulistan	Uzbekistan	Bukhara	Kagan	39°35'	64°30'	230

**Table 3.2 List of Privatized Farms in Kazakhstan  
(1998)**

Farm Code	Farm Name	Type of Ownership	New Farm Name	Area, ha	New Code
01	PC "Aksharma"	TTO	"Aksharma"	13622.0	
		Peasant Farm	Balapan	20,0	102
		Peasant Farm	Janaoris	23,0	103
		Peasant Farm	Suindyk	47,5	104
		Peasant Farm	Seric	47,0	105
		Peasant Farm	Nurbolat	166,0	106
		Peasant Farm	Makpal	270,0	113
02	PC "Akkumskiy"	Peasant Farm	Jambyl	176,0	201
		Peasant Farm	Shomboget	178,0	203
		Peasant Farm	Akjol	175,0	213
		TTO	"Akkum"	2585,0	02
03	TOO "Zhambul"	Private Farm	Baituganov	110,0	301
		Private Farm	Beknazarov	40,0	302
		Private Farm	Aitureev	79,0	303
		Private Farm	Tosinov	30,0	304
		Private Farm	Jurnabaev	138,0	305
		Private Farm	Akhunbaev	11,0	306
		Private Farm	Kokishev	82,0	307
		Private Farm	Makhambetov	13,0	308
		Private Farm	Kojabekov	9,6	309
		Private Farm	Jamkulov	13,0	310
04	JSC "Makhtaara"	Private Farm	Knychev	70,0	401
		Private Farm	Kurbanov	30,0	402
		Private Farm	Valishev	74,0	403
		Private Farm	Abilov	20,0	404
		Private Farm	Musaev	20,0	405
		Private Farm	Beskemnirov	15,0	406
		Private Farm	Djumabaev	6,3	407
		Private Farm	Jamolov	88,0	408
		Private Farm	Abdikhanov	6,6	409
		Private Farm	Gadjibaev	7,3	410

### 3.2 Training Seminars and Guidance Notes

All members of the National Working Groups and field supervisors were called to a training seminar in Tashkent in February 1997. The agenda included

- restatement of the objectives of WUFMAS,
- review of data collected in 1996,
- problems encountered by field staff and by database staff,
- distribution of and instruction on the use of the field equipment delivered in September 1996, and
- introduction of the revised guidance notes, codebook and record sheets.

It provided the opportunity for the RWG to listen to the views of the field staff, and these were taken into account in revising the procedures before the end of the seminar.

The second edition of the Guidance Notes is presented in Appendix 1. There are few changes to the first edition and these are shown in italics.

In March 1998 another seminar was organized for discussion of quality of collected data, problems with the use of field equipment and further monitoring activities.

### 3.3 Codebook

Some enumerators had trouble in 1996 in identifying the correct codes, particularly for agricultural machinery and crops, and followed the instructions of using their own customised code with a

description. When these new codes were investigated, the majority were found to be unnecessary so that only a very few new codes needed to be added to the original codebook for 1997, as indicated in Appendix 1.

### **3.4 Record Sheets**

From the experience in 1996, a few changes were considered necessary to most of the record sheets. These were issued with new numbers, starting at Form No. 23: the original no. 1 becomes no. 23 in 1997, and so on. The revised forms and new ones, developed in 1998 are shown in Appendix 1.

### **3.5 Soil Survey and Sampling**

The soil survey in the sample fields was completed in the spring of 1998, and during the year, the soil samples returned to the SANIIRI laboratory and a second batch of samples returned by the enumerators, were analysed.