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NATIONAL TRANSPORT RESEARCH CENTRE (NTRC)

RESTRICTED

MINISTRY OF COMMUNICATIONS, GOVERNMENT OF PAKISTAN

THE STUDY  
 ON  
 NATIONAL TRANSPORT PLAN  
 IN  
 THE ISLAMIC REPUBLIC OF  
 PAKISTAN

Final Report  
 Appendices

February 1995

ALMEC CORPORATION  
 CONSULTANTS INTERNATIONAL

NATIONAL TRANSPORT PLAN  
 ISLAMIC REPUBLIC OF PAKISTAN  
 Final Report  
 Appendices

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The exchange rates used in the Study are:

US \$1.00 = Pakistan Rupees 25.960

J.Yen 1.00 = Pakistan Rupees 0.218

Rs. 1.00 = ¥4.59

(Average during 1992-93)

Source: Economic Survey 1993-94

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JAPAN INTERNATIONAL COOPERATION AGENCY (JICA)  
NATIONAL TRANSPORT RESEARCH CENTRE (NTRC)  
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## Abbreviations / Acronyms

AAGR	Average Annual Growth Rate
AC&C	Aeronautical Communication and Control
ACC	Area Control Center
ADP	Annual Development Programme
AFTN	Aeronautical Fixed Telecommunication Network
AIP	Aeronautical Information Publication
ALS	Standard Approach Lighting System
AMSS	Automatic Message Switching System
APL	American President Lines
ASF	Airport Security Force
ATIS	Automatic Terminal Information Service
ATS	Air Traffic System
BOT	Build, Operate and Transfer
C&F	Cost and Freight
C&W	Communications and Works Department
CAA	Civil Aviation Authority
CAS	Central Asian States
CAT	Category
CATI	Civil Aviation Training Institute
CDEP	Central Development Working Committee
CFS	Container Freight Station
CIS	Confederation of Independent States
DEL	Diesel Electric Locomotive
DME	Distance Measuring Equipment
DRF	Depreciation Reserve Fund
DVOR	Doppler VHF Omnidirectional Radio Range
DWT	Dead Weight Ton
ECC	Economic Coordination Committee of the cabinet
ECNEC	Executive Committee of National Economic Council
ECO	Economic Cooperation Organization
EIRR	Economic Internal Rate of Return
EL	Electric Locomotive
FAA	Federal Aviation Agency, USA
FATA	Federal Administrated Tribal Area
FIR	Flight Information Region
FOB	Free on Board
FYP	Five Year Plan
GDP	Gross Domestic Products
GNP	Gross National Products
HAT	Highest Astronomic Tide
HP	Horse Power
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
IFR	Instrument Flight Rules
ILS	Instrument Landing System
IOC	Iron Ore and Coal
IRNS	Indus River Navigation Study
ISB	Islamabad
IWT	Inland Water Transport
JCAB	Japan Civil Aviation Bureau
JICA	Japan International Cooperation Agency
KHI	Karachi
KKH	Karakhoram Highway
KPT	Karachi Port Trust
LDP	Lahore Dry Port
MEAV	Modern Equivalent Asset Value
MHHW	Mean Higher High Water

MHLW	Mean Higher Low Water
MLHW	Mean Lower High Water
MLLW	Mean Lower Low Water
MLS	Microwave Landing System
MOC	Ministry of Communications
MOD	Ministry of Defense
MOR	Ministry of Railway
MSC	Milwa Shipping Company
MSL	Mean Sea Level
NDB	Non-Directional Radio Beacon
NHA	National Highway Authority
NLC	National Logistic Cell
NM	Nautical Mile
NSC	National Shipping Corporation
NTC	National Tanker Company
NTPS	National Transport Plan Study
NTRC	National Transport Research Center
NWFP	North-West Frontier Province
OD	Origin and Destination
OP	Oil Pier
ORE	Other Revenue Expenditure
PAF	Pakistan Air Force
PAPI	Precision Approach Path Indicator
PCWD	Provincial Communications and Works Department
PDD	Planning and Development Division
PERAC	Petroleum Refining and Petrochemical Corporation Ltd.
PIA	Pakistan International Airlines
PISC	Pan Islamic Steamship Corporation
PMC	Pakistan Mercantile Services Ltd.
PMD	Pakistan Meteorological Department
PNSC	Pakistan National Shipping Corporation
POL	Petroleum Products
PPSC	Pakistan Postal Services Corporation
PQA	Port Qasim Authority
PR	Pakistan Railway
PSN	Pakistan Shipping Corporation
PSO	Public Service Obligation
PSR	Primary Surveillance Radars
PSW	Ports and Shipping Wing, MOC
PTA	Provincial Transport Authority
RCD	Regional Cooperation for Development
RCLL	Runway Center Line Lights
REDL	Runway Edge Lights
RENL	Runway End Lights
RFTKs	Revenue Freight Ton-Kilometers
RIV	Rapid Intervention Vehicle
RPKs	Revenue Passenger-Kilometers
RSE	Ray Shipping Enterprises Ltd.
RTA	Regional Transport Authority
RTHL	Runway Threshold Lights
RVR	Runway Visual Range
SAARC	South Asian Association for Regional Cooperation
SALS	Simple Approach Lighting System
SAP	Social Action Programme
SCO	Special Communication Organization
SL	Steam Locomotive
SSR	Secondary Surveillance Radars
TACAN	Tactical Air Navigation System
TCLL	Taxiway Center Line Lights
TEDL	Taxiway Edge Lights



TEU	Twenty-foot Equivalent Unit
TRB	Transport Research Board, USA
TSL	Tristar Shipping Lines Ltd.
UK	United Kingdom
UNCTAD	United Nations Conference for Trade and Development
UNDP	United Nations Development Programme
VOR	VHF Omnidirectional Radio Range
VORTAC	VOR and TACAN
WAPDA	Water and Power Development Authority



APPENDICES for

CHAPTER

1



Appendix 1.1 Scope of Work

SCOPE OF WORK  
FOR  
THE STUDY  
ON  
NATIONAL TRANSPORT PLAN  
IN  
THE ISLAMIC REPUBLIC OF PAKISTAN


AGREED UPON BETWEEN

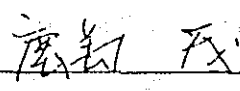
MINISTRY OF COMMUNICATIONS

AND

JAPAN INTERNATIONAL COOPERATION AGENCY

Islamabad, April 24, 1993

  
\_\_\_\_\_  
Mr. Muhammad Sher Khan  
Additional Secretary,  
Ministry of Communications,  
Government of the Islamic  
Republic of Pakistan.

  
\_\_\_\_\_  
Dr. Shigeru Kashima  
Leader of  
the Preparatory Study Team,  
Japan International  
Cooperation Agency.

## I. Introduction

In response to the request of the Government of the Islamic Republic of Pakistan, the Government of Japan has decided to conduct the Study on National Transport Plan in the Islamic Republic of Pakistan (hereinafter referred to as "the Study"), in accordance with the relevant laws and regulations in force in Japan.

Accordingly, the Japan International Cooperation Agency (hereinafter referred to as "JICA"), the official agency responsible for the implementation of the technical cooperation programmes of the Government of Japan, will undertake the Study in close cooperation with the authorities concerned of the Government of the Islamic Republic of Pakistan.

The National Transport Research Center (hereinafter referred to as "NTRC") shall act as a counterpart agency to the Japanese Study Team and also act as a coordinating body in relation with other relevant organizations for the smooth implementation of the Study.

The present document sets forth the scope of work with regard to the Study.

## II. Objectives of the Study

The Study aims at proposing of short term investment plan for incorporation in the Rolling Plan and Annual Development Programmes of the 8th Five Year Plan, keeping in view a long-term perspective.

## III. Scope of the Study

In order to achieve the objectives, the Study shall cover the following items;

## 1. General

- (1) The Study shall cover all transport modes for the whole of Pakistan.
- (2) The Study shall focus mainly on national and international trunk routes and inter-regional transport connected with the trunk routes.

## 2. Review of the National Transport Study

for the 7th Five Year Plan

- (1) Review of implementation of the present Master Plan and Investment Programmes for the 7th Five Year Plan ;
- (2) Data collection and analysis of the present situation of the national transport system in Pakistan ;
- (3) Identification of the problems of the national transport system and the present Master Plan ; and
- (4) Updating of the demand forecast in the previous study.

## 3. Proposal of the new Investment Programmes

- (1) Optimum allocation of traffic between various transport modes ;
- (2) Conduct of an initial environmental examination ;
- (3) Estimation of the fuel consumption ;
- (4) Criteria and selection of priority projects ;
- (5) Cost estimates of the selected projects ;
- (6) Proposal of the Investment Programmes for incorporation in the Rolling Plan ;
- (7) Recommendation of necessary measures for smooth implementation of the programme.

Following items should be considered in above major study items ;

- a) Financing arrangement of the selected projects ;
- b) Induction and role of Private Sector in various modes of Transport ;
- c) Cost recovery measures ;

- d) Necessary R&D ;
- e) Maintenance practices / policies of transport infrastructure and recommendation ;
- f) Road Safety from engineering point of view ; and
- g) Infrastructure and equipment improvement for Multi-modal transport.

#### IV. Study Schedule

The whole work shall be carried out in accordance with the attached tentative study schedule (APPENDIX-1).

#### V. Reports

JICA shall prepare and submit the following reports in English to the Government of the Islamic Republic of Pakistan.

##### 1. Inception Report

Fifty (50) copies

At the beginning of the Study in Pakistan.

##### 2. Interim Report

Fifty (50) copies

Within four (4) months after the submission of the Inception Report.

##### 3. Draft Final Report

Fifty (50) copies

Within five (5) months after the submission of the Interim Report

The Government of the Islamic Republic of Pakistan will provide JICA with its comments within one (1) month after the receipt of the Draft Final Report.

↓



#### 4. Final Report

One hundred fifty (150) copies

Within two (2) months after the receipt of the comments on the Draft Final Report.

#### VI. Undertaking of the Government

##### of the Islamic Republic of Pakistan

1. To facilitate smooth conduct of the Study, the Government of the Islamic Republic of Pakistan shall take necessary measures:

- (1) To secure the safety of the Japanese study team.
- (2) To permit the members of the Team to enter, leave and sojourn in Pakistan for the duration of their assignment therein, and exempt them from alien registration requirements and consular fees;
- (3) To exempt the members of the Team from taxes, duties and other charges on equipment, machinery and other materials brought into and out of Pakistan for the conduct of the Study;
- (4) To exempt the members of the Team from income taxes and other charges of any kind imposed on or in connection with any emoluments or allowances paid to the members of the Team for their services in connection with the conduct of the Study;
- (5) To provide the necessary facilities to the Team for remittances as well as utilization of fund introduced into Pakistan from Japan in connection with the conduct of the Study;
- (6) To provide medical services as needed and its expenses will be chargeable on the members of the Team;
- (7) To secure permission for entry into private properties or restricted areas for implementation of the Study; and
- (8) To secure permission for the Team to take all data and documents (including photographs) related to the Study out of Pakistan to Japan by the Team.

2. The Government of the Islamic Republic of Pakistan shall bear claims, if any arises against the members of the Team resulting from, occurring in the course of, or otherwise connected with the discharge of their duties in the conduct of the Study, except when such claims arise from gross negligence or wilful misconduct on the part of the members of the Team.

3. NTRC shall, at its own expense, provide the Team with the following, in cooperation with other relevant organization:

- (1) Available data and information, related to the Study including aerial photographs and maps;
- (2) Counterpart personnel;
- (3) Suitable office space in Islamabad
- (4) Credentials or identification cards; and
- (5) Appropriate number of drivers.

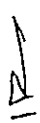
#### VII. Undertaking of JICA

For the implementation of the Study, JICA shall take the following measures:

- (1) To dispatch, at its own expense, the Japanese Study Team to the Islamic Republic of Pakistan; and
- (2) To pursue technology transfer to the Pakistani counterpart personnel in the course of the Study.

#### VIII. Others

JICA and NTRC shall consult with each other in respect of any matter that may arise from or in connection with the Study.

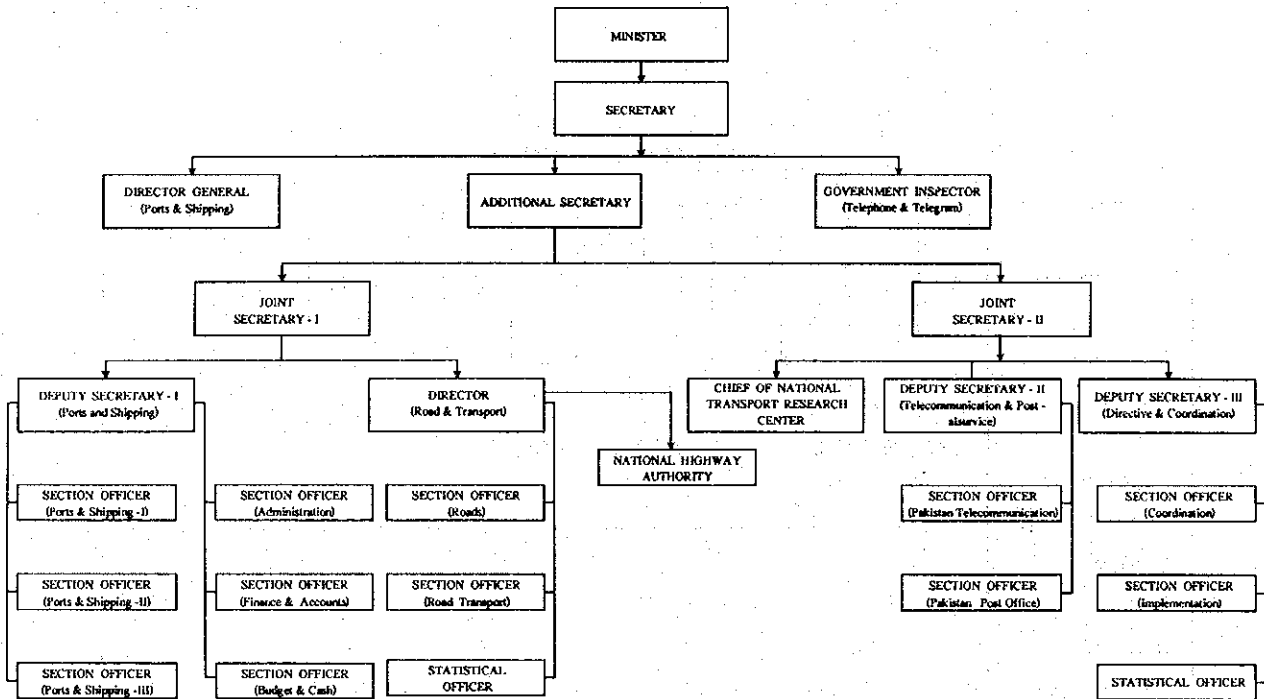


TENTATIVE SCHEDULE

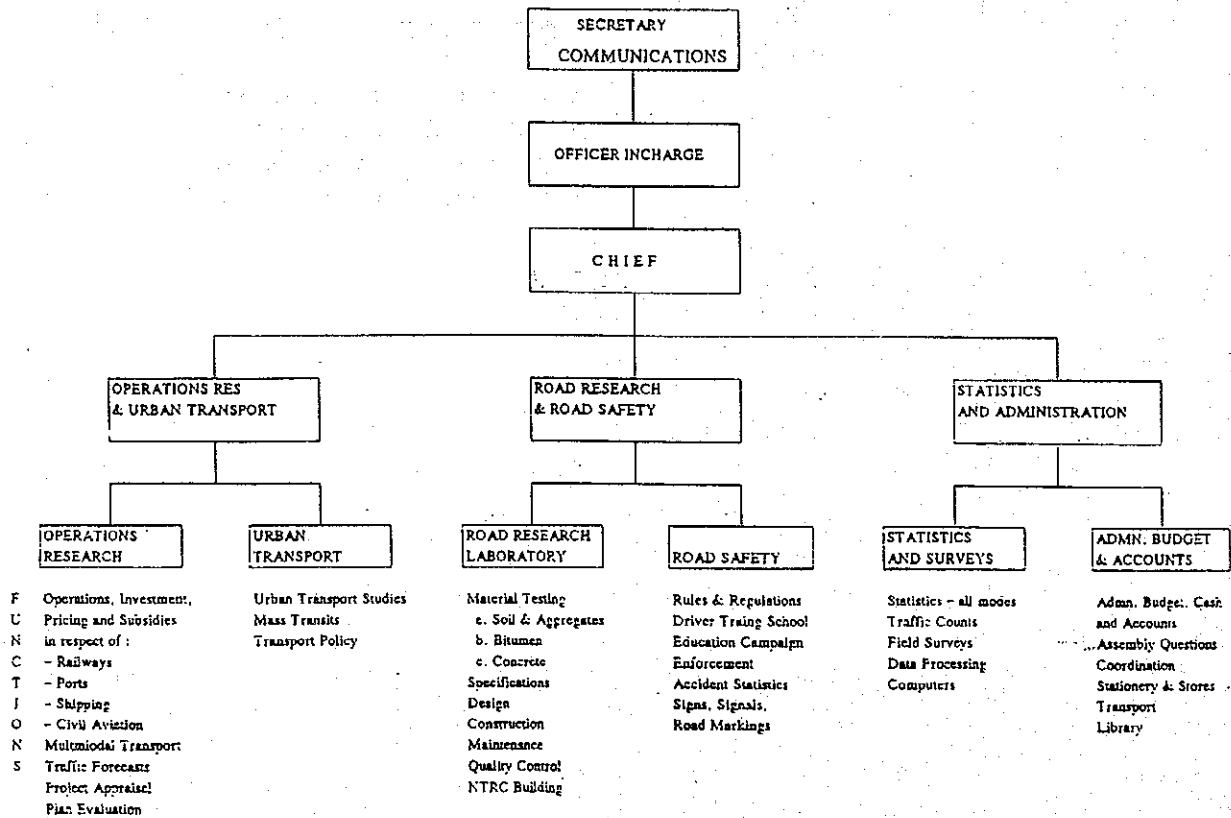
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IC/R : Inception Report  
 IT/R : Interim Report  
 DF/R : Draft Final Report  
 F/R : Final Report

## Appendix 1.2 Organization Chart, Ministry of Communications



## Appendix 1.3 Organization Chart, National Transport Research Centre



APPENDICES for

CHAPTER

**2**



Appendix Table 2.1.3.1 (1) Working Population by District - 1981 (Census)

(000)

District Code	Agriculture	Mining/Quarrying	Manufacturing	Electricity/Gas	Construction	Wholesale/Retail	Transport/Comm.	Banking/Insure.	Pub. Ad./Service	TOTAL
311	158	1	18	3	20	25	15	1	39	279
312	144	2	43	4	32	61	29	6	147	468
611	16	0	9	2	5	6	6	3	34	83
313	118	12	24	1	20	24	10	3	45	258
314	277	1	79	4	30	50	25	4	88	557
321	235	3	26	2	16	25	15	2	46	368
322	363	12	60	4	30	76	30	5	114	694
323	542	1	260	10	60	151	50	8	194	1,276
324	383	1	41	3	21	41	20	2	76	588
331	302	1	151	4	37	74	31	5	98	703
332	288	1	148	3	33	87	36	6	109	710
333	291	1	112	2	30	55	26	3	93	618
334	103	2	161	17	76	178	86	19	239	882
335	224	0	52	2	16	40	15	2	60	412
341	309	1	19	1	13	32	12	2	47	435
342	412	1	38	1	28	42	15	2	66	605
343	609	1	115	4	49	120	53	10	146	1,107
344	237	0	27	1	15	33	13	2	39	368
345	673	1	88	4	35	97	35	9	139	1,081
351	245	0	27	2	20	35	15	2	64	410
352	289	0	28	1	12	34	10	1	47	421
353	344	1	34	2	17	34	14	2	65	513
411	243	0	3	0	6	13	4	1	18	288
412	180	0	19	1	22	29	20	1	36	309
413	131	0	5	1	6	11	5	1	15	176
414	235	0	6	1	10	24	9	1	30	315
415	328	0	9	3	12	23	9	2	40	425
416	197	0	6	2	7	21	4	2	23	262
421	233	9	19	1	7	20	8	1	30	328
422	274	2	51	6	33	70	20	5	76	537
423	192	0	7	0	2	7	3	0	20	232
424	214	0	10	1	5	16	5	1	18	269
425	332	0	13	1	6	27	8	1	36	424
426	182	0	5	1	6	14	3	0	16	229
431	73	5	300	14	74	298	157	44	334	1,299
111	51	0	1	0	1	4	1	0	5	63
112	150	1	4	1	7	8	5	1	13	189
113	256	1	6	1	7	16	8	1	28	324
114	32	0	2	1	3	7	3	0	9	57
121	163	0	0	0	0	0	0	0	1	165
122	208	0	2	1	4	11	7	1	23	258
123	143	0	13	5	17	28	21	2	62	293
131	277	2	15	7	18	27	15	2	36	399
132	266	1	31	6	29	74	33	6	138	583
133	73	1	7	1	15	15	9	1	34	157
141	112	0	3	1	5	19	5	1	28	173
142	105	0	3	1	8	16	5	1	39	178
511	10	3	6	2	4	22	9	1	26	83
512	37	1	1	0	2	22	4	0	5	72
513	99	2	0	0	1	4	2	0	6	115
514	75	5	1	0	4	6	2	0	4	98
515	15	3	0	0	4	2	2	0	2	28
521	23	1	2	0	1	3	2	0	3	36
522	113	0	1	0	2	2	1	0	4	124
523	75	4	1	0	1	2	2	0	4	89
524	48	1	0	0	0	0	0	0	1	51
531	81	5	0	0	0	3	2	0	5	95
532	80	0	1	0	3	3	1	0	4	92
533	32	0	0	0	1	1	0	0	2	36
534	54	1	1	0	1	2	1	0	2	62
541	81	0	1	0	12	3	8	0	2	108
542	22	0	1	0	2	2	1	0	2	32
543	29	0	1	0	4	1	1	0	2	38
211	62	0	1	0	2	3	1	0	5	75
212	60	0	1	0	1	3	1	0	5	73
213	62	0	1	0	2	3	1	0	6	75
214	35	0	1	0	1	2	1	0	3	42
215	51	0	1	0	1	2	1	0	4	61
216	76	0	1	0	2	4	2	0	7	92
217	65	0	1	0	2	3	2	0	6	79
218	17	0	0	0	0	1	0	0	1	20
219	18	0	0	0	0	1	0	0	2	22
220	12	0	0	0	0	1	0	0	1	15
221	8	0	0	0	0	0	0	0	1	9
Total	12,552	92	2,129	142	979	2,216	977	179	3,219	22,489

Appendix Table 2.1.3.1 (2) Working Population by District - 1992 - 93 (Census)

(000)

District Code	Agriculture	Mining/Quarrying	Manufacturing	Electricity/Gas	Construction	Wholesale/Retail	Transport/Comm.	Banking/Insure.	Pub. Ad./Service	TOTAL
311	195	1	22	3	24	30	19	2	48	345
312	189	3	56	6	42	80	38	8	192	613
611	28	0	16	3	9	11	11	6	59	142
313	137	14	28	1	23	27	12	4	53	298
314	353	1	100	6	38	63	32	5	112	708
321	321	4	36	3	22	34	20	3	62	504
322	475	15	79	5	39	100	39	6	149	908
323	621	1	298	12	69	172	57	9	222	1,462
324	531	1	56	4	29	57	28	3	106	815
331	368	1	184	5	44	91	38	6	119	855
332	412	1	213	4	48	124	52	8	156	1,017
333	406	2	156	3	41	76	36	4	130	854
334	159	3	249	26	117	274	133	30	368	1,358
335	317	1	74	3	23	56	21	2	85	582
341	485	1	29	2	20	50	18	3	74	683
342	644	1	60	2	44	65	23	4	103	946
343	876	2	166	6	70	172	76	14	210	1,592
344	338	1	39	2	21	47	18	3	56	524
345	1,015	2	132	7	52	147	52	13	210	1,629
351	373	1	42	3	31	53	23	3	97	625
352	406	1	39	2	17	47	14	1	66	592
353	503	1	50	2	25	50	21	3	95	751
411	393	0	5	0	10	21	7	1	29	468
412	259	0	28	2	32	41	29	2	51	445
413	154	0	6	1	8	13	6	1	18	206
414	311	0	8	2	13	31	12	1	40	418
415	426	0	11	4	15	29	11	2	52	551
416	297	0	9	2	10	32	6	2	34	394
421	343	13	28	2	10	30	12	2	44	484
422	363	3	68	9	44	94	26	7	101	714
423	266	0	10	0	3	10	4	1	27	321
424	314	0	14	1	7	24	7	1	26	394
425	563	0	22	1	10	45	14	2	60	719
426	212	0	6	1	7	17	3	1	19	266
431	124	9	510	24	126	506	267	75	568	2,208
111	72	0	1	0	1	6	1	0	7	89
112	244	1	6	1	12	13	7	1	22	308
113	391	2	10	1	11	24	12	2	43	496
114	50	0	3	2	5	10	4	0	14	88
121	458	0	0	0	0	1	0	0	3	463
122	240	0	3	1	5	13	8	1	27	297
123	164	0	15	6	20	32	25	3	71	336
131	378	3	21	9	25	36	21	3	48	544
132	390	1	45	9	43	108	48	9	201	853
133	106	2	10	1	22	22	14	2	49	227
141	151	0	5	2	6	25	6	1	38	234
142	157	0	5	2	11	24	8	1	58	266
511	16	5	10	3	7	37	15	2	44	140
512	62	2	1	0	4	37	7	0	8	123
513	210	4	1	0	2	9	4	0	12	242
514	161	10	2	0	8	14	5	0	9	209
515	28	5	0	0	7	3	5	0	5	54
521	29	2	3	0	1	4	2	0	4	46
522	202	0	2	0	4	4	2	0	8	222
523	113	6	1	0	1	3	2	0	6	133
524	81	2	0	0	0	1	0	0	1	85
531	190	11	0	0	1	6	4	0	12	224
532	166	0	2	0	7	6	2	0	8	192
533	60	0	0	0	2	1	1	0	3	67
534	93	1	2	0	2	3	2	0	4	106
541	209	0	2	0	32	9	21	0	6	280
542	32	0	2	0	3	3	2	0	3	45
543	80	0	2	0	11	4	4	0	5	105
211	40	0	1	0	1	2	1	0	4	49
212	37	0	1	0	1	2	1	0	3	45
213	60	0	1	0	1	3	1	0	5	73
214	10	0	0	0	0	0	0	0	1	12
215	43	0	1	0	1	2	1	0	4	52
216	96	0	2	1	2	5	2	0	9	117
217	60	0	1	0	1	3	1	0	5	73
218	21	0	0	0	1	1	0	0	2	25
219	19	0	0	0	0	1	0	0	2	24
220	16	0	0	0	0	1	0	0	1	19
221	4	0	0	0	0	0	0	0	0	4
<b>Total</b>	<b>18,116</b>	<b>140</b>	<b>3,009</b>	<b>201</b>	<b>1,407</b>	<b>3,198</b>	<b>1,426</b>	<b>265</b>	<b>4,598</b>	<b>32,360</b>



Appendix Table 2.1.3.1 (3) Working Population by District - 1997 - 98 (Census)

(000)

District Code	Agriculture	Mining/Quarrying	Manufacturing	Electricity/Gas	Construction	Wholesale/Retail	Transport/Comm.	Banking/Insure.	Pub. Ad./Service	TOTAL
311	214	1	24	3	27	33	20	2	53	377
312	211	3	62	6	47	89	43	9	215	686
611	36	1	20	4	12	14	14	7	76	184
313	145	15	30	1	24	29	13	4	56	317
314	390	1	110	6	41	70	35	5	124	783
321	366	4	41	3	25	38	23	3	71	574
322	531	17	88	6	44	112	44	7	166	1,015
323	656	2	315	12	73	182	60	9	235	1,544
324	608	1	64	5	34	65	32	4	121	934
331	396	1	198	6	48	98	41	6	128	922
332	476	1	246	5	55	143	60	9	180	1,175
333	463	2	178	3	47	87	41	5	148	975
334	189	3	296	31	139	327	159	36	438	1,618
335	364	1	85	4	26	65	24	3	98	669
341	584	2	35	2	25	60	22	3	89	822
342	775	1	72	2	53	78	27	5	124	1,138
343	1,016	2	192	7	81	199	89	17	244	1,847
344	391	1	45	2	24	54	21	4	65	605
345	1,201	2	156	8	62	173	62	15	249	1,927
351	444	1	50	4	36	63	28	3	115	744
352	466	1	45	2	19	54	16	1	76	680
353	588	1	59	3	29	59	25	4	112	878
411	475	0	6	1	12	25	8	2	35	565
412	298	1	32	2	37	48	34	2	59	511
413	162	0	6	1	8	13	7	1	19	217
414	345	0	9	2	14	35	13	1	44	463
415	468	0	12	5	17	32	12	2	58	606
416	348	0	11	3	12	38	7	3	40	462
421	398	15	33	2	11	35	14	2	50	561
422	403	3	75	10	48	104	29	8	112	793
423	300	0	12	0	4	11	4	1	31	362
424	363	0	16	1	8	27	8	1	31	455
425	693	0	27	2	12	56	18	3	74	884
426	222	0	6	1	8	18	3	1	20	278
431	152	11	626	30	155	621	328	92	697	2,711
111	81	0	1	0	2	7	1	0	8	100
112	292	1	8	1	14	15	9	1	26	368
113	456	2	12	1	13	28	14	2	50	578
114	58	0	3	2	5	12	5	1	16	102
121	670	0	0	0	0	2	0	1	5	678
122	241	0	3	1	5	13	8	1	27	298
123	164	0	15	6	20	32	25	3	71	337
131	426	3	23	10	28	41	23	3	55	614
132	454	1	53	10	50	126	56	10	234	993
133	122	2	12	2	25	25	16	2	57	263
141	171	0	5	2	7	28	7	1	43	265
142	184	0	5	2	13	28	9	1	68	312
511	19	6	12	3	8	43	18	2	52	163
512	73	3	1	0	4	43	8	0	10	143
513	268	5	1	1	2	11	5	0	15	309
514	206	13	2	1	11	17	6	0	12	268
515	35	7	1	0	9	4	6	0	6	67
521	30	2	3	0	1	4	2	0	4	47
522	237	0	2	0	4	5	2	0	9	260
523	123	6	1	0	1	3	3	0	7	144
524	92	3	0	0	0	1	0	0	1	98
531	252	14	1	0	1	8	5	0	15	298
532	208	0	3	0	9	7	2	0	10	241
533	72	0	0	0	2	2	1	0	3	80
534	108	1	2	0	2	3	2	0	4	124
541	287	0	3	0	44	12	29	0	8	383
542	34	0	2	0	3	3	2	0	3	48
543	113	0	2	0	15	5	5	0	6	148
211	34	0	1	0	1	2	1	0	3	41
212	30	0	1	0	1	1	1	0	3	36
213	60	0	1	0	1	3	1	0	5	73
214	5	0	0	0	0	0	0	0	0	7
215	40	0	1	0	1	2	1	0	4	49
216	106	0	2	1	3	5	3	0	9	128
217	58	0	1	0	1	3	1	0	5	70
218	22	0	0	0	1	1	1	0	2	27
219	20	0	0	0	0	1	0	0	2	24
220	18	0	0	0	0	1	0	0	2	22
221	3	0	0	0	0	0	0	0	0	3
<b>Total</b>	<b>21,010</b>	<b>164</b>	<b>3,467</b>	<b>231</b>	<b>1,629</b>	<b>3,707</b>	<b>1,660</b>	<b>311</b>	<b>5,314</b>	<b>37,492</b>

Appendix Table 2.1.3.1 (4) Working Population by District - 2005 - 06 (Census)

(000)

District Code	Agriculture	Mining/Quarrying	Manufacturing	Electricity/Gas	Construction	Wholesale/Retail	Transport/Comm.	Banking/Insure.	Pub. Ad./Service	TOTAL
311	241	1	27	4	30	37	23	2	60	425
312	248	4	73	7	55	105	50	10	252	805
611	55	1	31	6	18	21	22	11	118	281
313	157	16	32	1	26	31	14	4	60	342
314	448	1	127	7	48	80	40	6	142	899
321	442	5	49	3	30	46	28	3	86	692
322	619	20	103	7	51	130	51	8	194	1,184
323	700	2	336	13	77	194	64	10	250	1,647
324	737	1	78	6	41	79	38	5	147	1,132
331	441	1	220	6	53	109	45	7	143	1,025
332	591	1	305	6	69	178	74	12	223	1,459
333	564	2	217	4	57	106	50	6	180	1,187
334	247	4	386	40	182	426	207	46	572	2,111
335	448	1	105	5	32	80	30	3	120	824
341	752	2	46	3	32	77	29	4	114	1,059
342	997	1	92	3	69	101	35	6	160	1,464
343	1,235	2	234	9	99	242	108	20	296	2,245
344	472	1	54	3	29	65	25	4	78	732
345	1,506	2	196	10	77	218	77	19	312	2,418
351	579	1	65	5	48	82	36	4	150	970
352	575	1	55	3	24	67	19	2	94	839
353	746	1	75	3	37	75	31	4	141	1,113
411	621	0	8	1	16	33	11	2	46	739
412	359	1	39	2	44	57	41	2	71	616
413	171	0	6	1	8	14	7	1	20	229
414	394	0	10	2	16	40	15	2	50	528
415	526	0	14	5	19	36	14	3	65	681
416	432	0	13	3	15	47	9	3	50	574
421	486	18	40	3	14	42	17	3	62	685
422	459	4	86	11	55	118	33	9	127	903
423	351	0	14	0	4	13	5	1	36	424
424	441	0	20	1	10	33	9	2	37	554
425	932	0	36	2	17	75	24	4	100	1,188
426	230	0	6	1	8	18	3	1	21	289
431	204	15	843	40	208	835	441	124	937	3,648
111	96	0	1	0	2	8	1	0	10	118
112	382	2	10	1	19	20	12	1	34	481
113	570	3	14	1	17	35	17	3	62	722
114	72	1	4	2	7	15	6	1	20	128
121	1,102	0	0	0	0	3	0	1	8	1,114
122	217	0	2	1	5	12	8	1	24	269
123	147	0	14	5	18	29	22	2	64	302
131	498	4	27	12	33	48	27	4	64	716
132	556	1	64	12	61	155	68	12	287	1,217
133	149	3	14	2	30	30	19	3	69	319
141	199	0	6	2	8	33	8	1	50	309
142	229	0	7	2	17	35	12	2	85	389
511	23	7	14	4	10	53	22	3	63	200
512	89	4	1	1	5	53	10	0	12	175
513	383	8	2	1	4	16	7	0	22	441
514	296	19	3	1	15	25	8	0	17	385
515	47	9	1	0	12	5	8	0	8	90
521	29	2	3	0	1	4	2	0	4	46
522	296	0	3	0	6	6	2	0	11	324
523	135	7	1	0	2	4	3	0	7	159
524	111	3	0	0	0	1	0	0	2	117
531	366	21	1	0	2	12	7	0	22	432
532	278	0	4	0	12	10	3	0	14	322
533	89	0	0	0	3	2	1	0	4	100
534	128	1	2	0	2	4	2	0	5	146
541	433	0	5	0	66	18	44	1	13	579
542	34	0	2	0	3	3	2	0	3	48
543	179	1	4	0	24	9	8	0	10	235
211	26	0	0	0	1	1	1	0	2	31
212	22	0	0	0	1	1	1	0	2	26
213	59	0	1	0	1	3	1	0	5	72
214	3	0	0	0	0	0	0	0	0	3
215	36	0	1	0	1	2	1	0	3	44
216	125	0	2	1	3	6	3	0	11	152
217	55	0	1	0	1	3	1	0	5	66
218	26	0	0	0	1	1	1	0	2	32
219	21	0	0	0	1	1	1	0	2	26
220	22	0	0	0	1	1	1	0	2	26
221	1	0	0	0	0	0	0	0	0	2
Total	25,933	205	4,259	281	2,010	4,581	2,067	392	6,545	46,274

Appendix Table 2.2.4.1 Projection of Agricultural Production and Consumption of Wheat (000 tons)

Year	Major					
	Wheat Production	Wheat Seed Rsrve 10%	Wheat I/E	Wheat Consumption	Population	Wheat Consum/cap.
6th FYP	3.9			4.5		
1983/84	10,883	1,088	-291	10,086	91,880	109.8
1984/85	11,703	1,170	-980	11,513	94,730	121.5
1985/86	13,923	1,392	-1,909	14,440	97,670	147.8
1986/87	12,014	1,201	-378	11,191	10,070	111.1
1987/88	12,675	1,268	-601	12,009	103,820	115.7
					Ave.	121.2
7th FYP	2.9			3.5		
1988/89	14,420	1,442	-2,171	15,149	107,040	141.5
1989/90	14,315	1,432	-2,047	14,931	110,360	135.3
1990/91	14,564	1,456	-972	14,080	113,780	123.7
1991/92	15,684	1,568	-2,018	16,134	117,320	137.5
1992/93	16,157	1,616	-2,868	17,409	120,840	144.1
					Ave.	136.4
8th FYP	2.5			3.2	3.0	2.0
1993/94	16,561	1,656	-2,110	17,015	124,465	136.7
1994/95	16,975	1,697	-2,283	17,560	128,199	137.0
1995/96	17,399	1,740	-2,464	18,123	132,045	137.2
1996/97	17,834	1,783	-2,653	18,704	136,006	137.5
1997/98	18,280	1,828	-2,852	19,304	140,087	137.8
9th FYP	3.0			3.1	2.6	5.0
1998/99	18,829	1,883	-2,959	19,905	143,729	138.5
1999/00	19,393	1,939	-3,070	20,524	147,466	139.2
2000/01	19,975	1,998	-3,186	21,163	151,300	139.9
2001/02	20,574	2,057	-3,305	21,822	155,234	140.6
2002/03	21,192	2,119	-3,429	22,501	159,270	141.3
10th FYP	3.0			2.9	2.6	4.0
2003/04	21,827	2,183	-3,534	23,179	163,411	141.8
2004/05	22,482	2,248	-3,547	23,781	167,660	141.8
2005/06	23,157	2,316	-3,656	24,497	172,019	142.4
2006/07	23,851	2,385	-3,769	25,235	176,491	143.0
2007/08	24,567	2,457	-3,884	25,995	181,080	143.6

Notes:

- (1) Per capita consumption of each commodity for each FYP period are assumed to be increased per annum by 0.2 %, 0.5 % and 0.4 % in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve for wheat is assumed to be 23 % of total production taking into account of strategic reserve to secure self-sufficiency of wheat as a major staple food as well as price stabilization in the market.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.2 Projection of Agricultural Production and Consumption of Rice (000 tons)

Year	Major					
	Rice Production	Rice Seed Rsrve 10%	Rice I/E	Rice Consumption	Population	Rice Consum/cap.
6th FYP	-0.8			-0.5		6th FYP
1983/84	3,340	334	1,265	1,741	91,880	18.9
1984/85	3,316	332	719	2,265	94,730	23.9
1985/86	2,919	292	1,316	1,311	97,670	13.4
1986/87	3,487	349	1,240	1,898	10,070	18.9
1987/88	3,240	324	1,210	1,706	103,820	16.4
					Ave.	18.3
7th FYP	-0.6			-3.1		7th FYP
1988/89	3,198	320	864	2,014	107,040	18.8
1989/90	3,220	322	744	2,154	110,360	19.5
1990/91	3,260	326	1,205	1,729	113,780	15.2
1991/92	3,243	324	1,512	1,407	117,320	12.0
1992/93	3,116	312	1,032	1,772	120,840	14.7
					Ave.	16.0
8th FYP	6.4			3.2	3.0	2.0
1993/94	3,315	332	984	2,000	124,465	16.1
1994/95	3,528	353	1,111	2,064	128,199	16.1
1995/96	3,753	375	1,248	2,130	132,045	16.1
1996/97	3,994	399	1,395	2,199	136,006	16.2
1997/98	4,249	425	1,555	2,269	140,087	16.2
9th FYP	3.8			3.1	2.6	5.0
1998/99	4,411	441	1,630	2,340	143,729	16.3
1999/00	4,578	458	1,708	2,413	147,466	16.4
2000/01	4,752	475	1,789	2,488	151,300	16.4
2001/02	4,933	493	1,874	2,565	155,234	16.5
2002/03	5,120	512	1,963	2,645	159,270	16.6
10th FYP	3.0			2.9	2.6	4.0
2003/04	5,274	527	2,022	2,725	163,411	16.7
2004/05	5,432	543	2,093	2,796	167,660	16.7
2005/06	5,595	560	2,156	2,880	172,019	16.7
2006/07	5,763	576	2,220	2,966	176,491	16.8
2007/08	5,936	594	2,286	3,056	181,080	16.9

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.3 Projection of Agricultural Production and Consumption of Gram (000 tons)

Year	Major					
	Gram Production	Gram Seed Rsrve	Gram I/E	Gram Consumption	Population	Gram Consum/cap.
6th FYP	-8.1	5%		-8.1		
1983/84	522	52	0	470	91,880	5.1
1984/85	524	52	0	472	94,730	5.0
1985/86	586	59	0	527	97,670	5.4
1986/87	583	58	0	525	10,070	5.2
1987/88	373	37	0	336	103,820	3.2
					Ave.	4.8
7th FYP	3.3			3.3		
1988/89	456	46	0	410	107,040	3.8
1989/90	562	56	0	506	110,360	4.6
1990/91	531	53	0	478	113,780	4.2
1991/92	513	51	0	462	117,320	3.9
1992/93	520	52	0	468	120,840	3.9
					Ave.	4.1
8th FYP	3.5			3.2	3.0	2.0
1993/94	538	27	2	509	124,465	4.1
1994/95	557	28	3	526	128,199	4.1
1995/96	577	29	5	543	132,045	4.1
1996/97	597	30	7	560	136,006	4.1
1997/98	618	31	9	578	140,087	4.1
9th FYP	3.0			3.1	2.6	5.0
1998/99	636	32	8	596	143,729	4.1
1999/00	655	33	8	615	147,466	4.2
2000/01	675	34	7	634	151,300	4.2
2001/02	695	35	7	653	155,234	4.2
2002/03	716	36	6	674	159,270	4.2
10th FYP	3.0			3.0	2.6	4.0
2003/04	737	37	7	694	163,411	4.2
2004/05	760	38	7	715	167,660	4.3
2005/06	782	39	7	736	172,019	4.3
2006/07	806	40	7	759	176,491	4.3
2007/08	830	41	7	781	181,080	4.3

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.4 Projection of Agricultural Production and Consumption of Maize (000 tons)

Year	Major					
	Maiz Production	Maiz Seed Rsrve 10%	Maiz I/E	Maiz Consumption	Population	Maiz Consum/cap.
6th FYP	2.7			2.7		
1983/84	1,014	101	0	913	91,880	9.9
1984/85	1,027	103	0	924	94,730	9.8
1985/86	1,010	101	0	909	97,670	9.3
1986/87	1,111	111	0	1,000	10,070	9.9
1987/88	1,127	113	0	1,014	103,820	9.8
					Ave.	9.7
7th FYP	-0.5			-0.5		
1988/89	1,204	120	0	1,084	107,040	10.1
1989/90	1,179	118	0	1,061	110,360	9.6
1990/91	1,185	119	0	1,067	113,780	9.4
1991/92	1,203	120	0	1,083	117,320	9.2
1992/93	1,178	118	0	1,060	120,840	8.8
					Ave.	9.4
8th FYP	6.0			3.8	3.0	2.0
1993/94	1,249	125	-51	1,175	124,465	9.4
1994/95	1,324	132	-22	1,213	128,199	9.5
1995/96	1,403	140	2	1,261	132,045	9.5
1996/97	1,487	149	27	1,311	136,006	9.6
1997/98	1,576	158	55	1,363	140,087	9.7
9th FYP	6.0			7.7	2.6	5.0
1998/99	1,671	167	35	1,469	143,729	10.2
1999/00	1,771	177	12	1,582	147,466	10.7
2000/01	1,878	188	-15	1,705	151,300	11.3
2001/02	1,990	199	-45	1,836	155,234	11.8
2002/03	2,110	211	-80	1,978	159,270	12.4
10th FYP	6.0			5.7	2.6	4.0
2003/04	2,236	224	-17	2,030	163,411	12.4
2004/05	2,370	237	-32	2,166	167,660	12.9
2005/06	2,513	251	-50	2,311	172,019	13.4
2006/07	2,663	266	-69	2,466	176,491	14.0
2007/08	2,823	282	11	2,530	181,080	14.0

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.5: Projection of Agricultural Production and Consumption of Cotton (000 tons)

Year	Major					
	Cotton Production	Cotton Rsrve 0%	Cotton I/E	Cotton Consumption	Population	Cotton Consum/cap.
6th FYP	31.3			25.1		
1983/84	503	0	98	405	91,880	4.4
1984/85	1,026	0	263	763	94,730	8.1
1985/86	1,238	0	639	599	97,670	6.1
1986/87	1,343	0	641	702	10,070	7.0
1987/88	1,494	0	502	992	103,820	9.6
					Ave.	7.0
7th FYP	1.5			20.2		
1988/89	1,451	0	840	611	107,040	5.7
1989/90	1,481	0	295	1,186	110,360	10.7
1990/91	1,666	0	282	1,384	113,780	12.2
1991/92	2,218	0	455	1,763	117,320	15.0
1992/93	1,540	0	263	1,277	120,840	10.6
					Ave.	10.8
8th FYP	6.5			3.9	3.0	2.0
1993/94	1,640	0	276	1,364	124,465	11.0
1994/95	1,747	0	339	1,408	128,199	11.0
1995/96	1,860	0	395	1,466	132,045	11.1
1996/97	1,981	0	455	1,526	136,006	11.2
1997/98	2,110	0	521	1,589	140,087	11.3
9th FYP	6.5			3.4	2.6	5.0
1998/99	2,247	0	598	1,649	143,729	11.5
1999/00	2,393	0	693	1,701	147,466	11.5
2000/01	2,549	0	784	1,765	151,300	11.7
2001/02	2,714	0	883	1,832	155,234	11.8
2002/03	2,891	0	1,002	1,889	159,270	11.9
10th FYP	6.0			3.6	2.6	4.0
2003/04	3,064	0	1,104	1,961	163,411	12.0
2004/05	3,248	0	1,228	2,020	167,660	12.0
2005/06	3,443	0	1,346	2,097	172,019	12.2
2006/07	3,650	0	1,472	2,178	176,491	12.3
2007/08	3,869	0	1,607	2,261	181,080	12.5

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.6 Projection of Agricultural Production and Consumption of Sugar (000 tons)

Year	Industry					
	Sugar Production	Sugar Reserve 0%	Sugar I/E	Sugar Consumption	Population	Sugar Consum/cap.
6th FYP	11.6			15.3		
1983/84	1,149	0	0	1,149	91,880	12.5
1984/85	1,313	0	0	1,313	94,730	13.9
1985/86	1,116	0	-258	1,374	97,670	14.1
1986/87	1,283	0	-750	2,033	10,070	20.2
1987/88	1,781	0	-251	2,032	103,820	19.6
					Ave.	16.0
7th FYP	2.8			3.1		
1988/89	1,850	0	-43	1,893	107,040	17.7
1989/90	1,855	0	-209	2,064	110,360	18.7
1990/91	1,932	0	-435	2,367	113,780	20.8
1991/92	2,086	0	-110	2,196	117,320	18.7
1992/93	2,070	0	-67	2,137	120,840	17.7
					Ave.	18.7
8th FYP	6.0			6.5	3.0	2.0
1993/94	2,194	0	-11	2,206	124,465	17.7
1994/95	2,326	0	-23	2,349	128,199	18.0
1995/96	2,465	0	-36	2,502	132,045	18.4
1996/97	2,613	0	-51	2,664	136,006	18.7
1997/98	2,770	0	-67	2,837	140,087	19.0
9th FYP	5.5			5.5	2.6	5.0
1998/99	2,922	0	-71	2,993	143,729	19.1
1999/00	3,083	0	-75	3,158	147,466	19.5
2000/01	3,253	0	-79	3,332	151,300	19.9
2001/02	3,432	0	-83	3,515	155,234	20.3
2002/03	3,620	0	-88	3,708	159,270	20.4
10th FYP	5.5			5.0	2.6	4.0
2003/04	3,820	0	-74	3,894	163,411	20.5
2004/05	4,030	0	-59	4,088	167,660	20.9
2005/06	4,251	0	-41	4,293	172,019	21.3
2006/07	4,485	0	-22	4,507	176,491	21.8
2007/08	4,732	0	-1	4,733	181,080	22.3

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA



Appendix Table 2.2.4.7 Projection of Agricultural Production and Consumption of Sugar Cane (000 tons)

Year	Major					
	Sugar Cane Production	Sugar Cane Reserve	Sugar Cane I/E	Sugar Cane Consumption	Population	Sugar Cane Consum/cap.
6th FYP	-0.9	0%		-0.9		
1983/84	34,287	0	0	34,287	91,880	373.2
1984/85	32,139	0	0	32,139	94,730	339.3
1985/86	27,856	0	0	27,856	97,670	285.2
1986/87	29,926	0	0	29,926	10,070	297.2
1987/88	33,029	0	0	33,029	103,820	318.1
					Ave.	322.6
7th FYP	0.7			0.7		
1988/89	36,976	0	0	36,976	107,040	345.4
1989/90	35,493	0	0	35,493	110,360	321.6
1990/91	35,988	0	0	35,988	113,780	316.3
1991/92	38,865	0	0	38,865	117,320	331.3
1992/93	38,059	0	0	38,059	120,840	315.0
					Ave.	325.9
8th FYP	3.9			3.9	3.0	2.0
1993/94	39,543	0	0	39,543	124,465	317.7
1994/95	41,085	0	0	41,085	128,199	320.5
1995/96	42,688	0	0	42,688	132,045	323.3
1996/97	44,353	0	0	44,353	136,006	326.1
1997/98	46,082	0	0	46,082	140,087	329.0
9th FYP	4.0			4.0	2.6	5.0
1998/99	47,926	0	0	47,926	143,729	333.4
1999/00	49,843	0	0	49,843	147,466	338.0
2000/01	51,836	0	0	51,836	151,300	342.6
2001/02	53,910	0	0	53,910	155,234	347.3
2002/03	56,066	0	0	56,066	159,270	352.0
10th FYP	4.0			4.0	2.6	4.0
2003/04	58,309	0	0	58,309	163,411	356.8
2004/05	60,641	0	0	60,641	167,660	361.7
2005/06	63,067	0	0	63,067	172,019	366.6
2006/07	65,590	0	0	65,590	176,491	371.6
2007/08	68,213	0	0	68,213	181,080	376.7

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.8 Projection of Agricultural Production and Consumption of Other Major Crops (000 tons)

Year	Major					
	Major Others	Others Reserve	Others I/E	Others Consumption	Population	Others Consum/cap.
6th FYP	-5.9	0%		-8.3		
1983/84	710	0	71	639	91,880	7.0
1984/85	725	0	66	659	94,730	7.0
1985/86	797	0	96	701	97,670	7.2
1986/87	791	0	104	687	10,070	6.8
1987/88	556	0	104	452	103,820	4.4
					Ave.	6.5
7th FYP	2.1			3.0		
1988/89	643	0	96	547	107,040	5.1
1989/90	769	0	101	668	110,360	6.1
1990/91	732	0	112	620	113,780	5.4
1991/92	710	0	125	585	117,320	5.0
1992/93	700	0	84	616	120,840	5.1
					Ave.	5.3
8th FYP	1.8			3.0	3.0	0.0
1993/94	713	0	53	660	124,465	5.3
1994/95	725	0	46	679	128,199	5.3
1995/96	738	0	35	704	132,045	5.3
1996/97	752	0	31	721	136,006	5.3
1997/98	765	0	23	742	140,087	5.3
9th FYP	3.0				2.6	0.0
1998/99	788	0	22	766	143,729	5.3
1999/00	812	0	26	786	147,466	5.3
2000/01	836	0	34	802	151,300	5.3
2001/02	861	0	39	823	155,234	5.3
2002/03	887	0	43	844	159,270	5.3
10th FYP	3.0				2.6	2.0
2003/04	914	0	43	871	163,411	5.3
2004/05	941	0	46	895	167,660	5.3
2005/06	969	0	46	923	172,019	5.4
2006/07	999	0	46	952	176,491	5.4
2007/08	1,029	0	46	982	181,080	5.4

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.9 Projection of Agricultural Production and Consumption of Major Crops Total (000 tons)

Year	Major					
	Total Production	Total Seed Rsrve	Total I/E	Total Consumption	Population	Total Consum/cap.
6th FYP	0.6					
1983/84	51,259	1,576	1,143	48,540	91,880	528.3
1984/85	50,460	1,657	68	48,735	94,730	514.5
1985/86	48,329	1,844	-116	46,343	97,670	474.5
1986/87	49,255	1,720	857	45,929	10,070	456.1
1987/88	52,494	1,742	964	49,538	103,820	477.1
7th FYP	1.2					
1988/89	58,348	1,928	-414	56,791	107,040	530.6
1989/90	57,019	1,928	-1,116	55,998	110,360	507.4
1990/91	57,926	1,954	192	55,345	113,780	486.4
1991/92	62,436	2,064	-36	60,298	117,320	514.0
1992/93	61,270	2,097	-1,556	60,662	120,840	502.0
8th FYP	3.8			3.0	3.0	
1993/94	63,559	2,139	-846	63,808	124,465	500.3
1994/95	65,941	2,210	-805	64,536	128,199	503.4
1995/96	68,419	2,284	-780	66,914	132,045	506.8
1996/97	70,997	2,361	-738	69,374	136,006	510.1
1997/98	73,681	2,441	-689	71,929	140,087	513.5
9th FYP	3.8			3.8	2.6	
1998/99	76,507	2,523	-666	74,650	143,729	519.4
1999/00	79,446	2,607	-624	77,463	147,466	525.3
2000/01	82,501	2,694	-586	80,393	151,300	531.3
2001/02	85,678	2,785	-548	83,441	155,234	537.5
2002/03	88,982	2,878	-494	86,598	159,270	543.7
10th FYP	3.8			3.7	2.6	
2003/04	92,362	2,971	-376	89,768	163,411	549.3
2004/05	95,875	3,066	-205	93,014	167,660	554.8
2005/06	99,526	3,166	-151	96,512	172,019	561.1
2006/07	103,321	3,268	-92	100,145	176,491	567.4
2007/08	107,266	3,374	73	103,819	181,080	573.3

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th; 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.10 Projection of Agricultural Production and Consumption of Fruits (000 tons)

Year	Minor					
	Fruits Production	Fruits Reserve 0%	Fruits I/E	Fruits Consumption	Population	Fruits Consum/cap.
6th FYP	2.3			2.0		
1983/84	3,268	0	142	3,126	91,880	34.0
1984/85	3,409	0	132	3,277	94,730	34.6
1985/86	3,610	0	192	3,418	97,670	35.0
1986/87	3,640	0	208	3,432	10,070	34.1
1987/88	3,586	0	208	3,378	103,820	32.5
					Ave.	34.0
7th FYP	2.0			1.7		
1988/89	3,792	0	192	3,600	107,040	33.6
1989/90	3,882	0	202	3,680	110,360	33.3
1990/91	3,995	0	224	3,771	113,780	33.1
1991/92	4,000	0	250	3,750	117,320	32.0
1992/93	4,112	0	263	3,849	120,840	31.9
					Ave.	32.8
8th FYP	4.5			5.1	3.0	2.0
1993/94	4,297	0	135	4,162	124,465	33.4
1994/95	4,490	0	117	4,373	128,199	34.1
1995/96	4,692	0	98	4,594	132,045	34.8
1996/97	4,904	0	77	4,827	136,006	35.5
1997/98	5,124	0	53	5,071	140,087	36.2
9th FYP	4.5			3.1	2.6	5.0
1998/99	5,355	0	126	5,229	143,729	36.4
1999/00	5,596	0	204	5,392	147,466	36.6
2000/01	5,848	0	288	5,560	151,300	36.7
2001/02	6,111	0	378	5,733	155,234	36.9
2002/03	6,386	0	475	5,911	159,270	37.1
10th FYP	4.5			3.0	2.6	4.0
2003/04	6,673	0	584	6,089	163,411	37.3
2004/05	6,973	0	701	6,272	167,660	37.4
2005/06	7,287	0	826	6,461	172,019	37.6
2006/07	7,615	0	959	6,656	176,491	37.7
2007/08	7,958	0	1,102	6,856	181,080	37.9

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.11 Projection of Agricultural Production and Consumption of Vegetables (000 tons)

Year	Minor					
	Vegetables Production	Vegetables Reserve	Vegetables I/E	Vegetables Consumption	Population	Vegetables Consum/cap.
6th FYP	7.1	0%		6.8		
1983/84	1,917	0	142	1,775	91,880	19.3
1984/85	1,906	0	132	1,774	94,730	18.7
1985/86	2,066	0	192	1,874	97,670	19.2
1986/87	2,453	0	208	2,245	10,070	22.3
1987/88	2,519	0	208	2,311	103,820	22.3
					Ave.	20.4
7th FYP	3.5			3.1		
1988/89	2,626	0	192	2,434	107,040	22.7
1989/90	2,751	0	202	2,549	110,360	23.1
1990/91	2,759	0	224	2,535	113,780	22.3
1991/92	2,800	0	250	2,550	117,320	21.7
1992/93	3,018	0	263	2,755	120,840	22.8
					Ave.	22.5
8th FYP	3.3			5.1	3.0	2.0
1993/94	3,118	0	257	2,860	124,465	23.0
1994/95	3,220	0	215	3,005	128,199	23.4
1995/96	3,327	0	170	3,157	132,045	23.9
1996/97	3,437	0	120	3,317	136,006	24.4
1997/98	3,550	0	65	3,485	140,087	24.9
9th FYP	3.0			3.1	2.6	5.0
1998/99	3,656	0	63	3,593	143,729	25.0
1999/00	3,766	0	61	3,705	147,466	25.1
2000/01	3,879	0	59	3,820	151,300	25.3
2001/02	3,995	0	56	3,939	155,234	25.4
2002/03	4,115	0	53	4,062	159,270	25.5
10th FYP	3.0			3.0	2.6	4.0
2003/04	4,239	0	55	4,184	163,411	25.6
2004/05	4,366	0	56	4,310	167,660	25.7
2005/06	4,497	0	57	4,440	172,019	25.8
2006/07	4,632	0	58	4,574	176,491	25.9
2007/08	4,771	0	60	4,711	181,080	26.0

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.12 Projection of Agricultural Production and Consumption of Fruits and Vegetables (000 tons)

Year	Minor					
	F&V Production	F&V Reserve 0%	F&V I/E	F&V Consumption	Population	F&V Consum/cap.
6th FYP				3.8		
1983/84	5,185	0	284	4,901	91,880	53.3
1984/85	5,315	0	264	5,051	94,730	53.3
1985/86	5,676	0	384	5,292	97,670	54.2
1986/87	6,093	0	416	5,677	10,070	56.4
1987/88	6,105	0	416	5,689	103,820	54.8
					Ave.	54.4
7th FYP				2.3		
1988/89	6,418	0	384	6,034	107,040	56.4
1989/90	6,633	0	404	6,229	110,360	56.4
1990/91	6,754	0	448	6,306	113,780	55.4
1991/92	6,800	0	500	6,300	117,320	53.7
1992/93	7,130	0	526	6,604	120,840	54.7
					Ave.	55.3
8th FYP				5.1	3.0	2.0
1993/94	7,415	0	392	7,023	124,465	56.4
1994/95	7,711	0	333	7,378	128,199	57.6
1995/96	8,019	0	268	7,751	132,045	58.7
1996/97	8,340	0	196	8,144	136,006	59.9
1997/98	8,674	0	118	8,556	140,087	61.1
9th FYP				3.1	2.6	
1998/99	9,011	0	189	8,822	143,729	61.4
1999/00	9,362	0	265	9,097	147,466	61.7
2000/01	9,727	0	347	9,380	151,300	62.0
2001/02	10,106	0	434	9,672	155,234	62.3
2002/03	10,501	0	528	9,973	159,270	62.6
10th FYP				3.0	2.6	
2003/04	10,912	0	639	10,273	163,411	62.9
2004/05	11,339	0	757	10,583	167,660	63.1
2005/06	11,784	0	883	10,901	172,019	63.4
2006/07	12,247	0	1,018	11,229	176,491	63.6
2007/08	12,729	0	1,161	11,567	181,080	63.9

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.13 Projection of Agricultural Production and Consumption of Other Minor Crops (000 tons)

Year	Minor					
	Others Production	Others Seed Rsrve 0%	Others I/E	Others Consumption	Population	Others Consum/cap.
6th FYP	2.5			1.1		
1983/84	510	0	71	439	91,880	4.8
1984/85	543	0	66	477	94,730	5.0
1985/86	619	0	96	523	97,670	5.4
1986/87	595	0	104	491	10,070	4.9
1987/88	562	0	104	458	103,820	4.4
					Ave.	4.9
7th FYP	5.2			4.3		
1988/89	646	0	96	550	107,040	5.1
1989/90	832	0	101	731	110,360	6.6
1990/91	752	0	112	640	113,780	5.6
1991/92	770	0	125	645	117,320	5.5
1992/93	790	0	140	650	120,840	5.4
					Ave.	5.7
8th FYP	4.0			3.5	3.0	2.0
1993/94	822	0	117	705	124,465	5.7
1994/95	854	0	127	728	128,199	5.7
1995/96	889	0	135	754	132,045	5.7
1996/97	924	0	144	781	136,006	5.7
1997/98	961	0	152	809	140,087	5.8
9th FYP	4.0			3.2	2.6	5.0
1998/99	1,000	0	166	834	143,729	5.8
1999/00	1,040	0	180	860	147,466	5.8
2000/01	1,081	0	194	887	151,300	5.9
2001/02	1,124	0	209	916	155,234	5.9
2002/03	1,169	0	225	944	159,270	5.9
10th FYP	3.3			3.2	2.6	4.0
2003/04	1,208	0	235	973	163,411	6.0
2004/05	1,248	0	246	1,002	167,660	6.0
2005/06	1,289	0	255	1,034	172,019	6.0
2006/07	1,332	0	264	1,067	176,491	6.0
2007/08	1,376	0	274	1,102	181,080	6.1

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required; is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.14 Projection of Agricultural Production and Consumption of Minor Crops Total (000 tons)

Year	Minor					
	Total Production	Total Seed Rsrve 10%	Total I/E	Total Consumption	Population	Total Consum/cap.
<b>6th FYP</b>						
	4.0					
1983/84	5,695	0	355	5,340	91,880	38.8
1984/85	5,858	0	330	5,528	94,730	39.6
1985/86	6,295	0	480	5,815	97,670	40.4
1986/87	6,688	0	520	6,168	10,070	39.0
1987/88	6,667	0	520	6,147	103,820	36.9
						38.9
<b>7th FYP</b>						
	2.9					
1988/89	7,064	0	480	6,584	107,040	38.8
1989/90	7,465	0	505	6,960	110,360	40.0
1990/91	7,506	0	560	6,946	113,780	38.8
1991/92	7,570	0	625	6,945	117,320	37.5
1992/93	7,920	0	666	7,254	120,840	37.2
<b>8th FYP</b>						
	4.0			4.8	3.0	
1993/94	8,236	0	508	4,867	124,465	39.1
1994/95	8,565	0	460	5,101	128,199	39.8
1995/96	8,908	0	403	5,348	132,045	40.5
1996/97	9,264	0	340	5,608	136,006	41.2
1997/98	9,635	0	271	5,880	140,087	42.0
<b>9th FYP</b>						
	3.9			3.1	2.6	
1998/99	10,011	0	355	6,063	143,729	42.2
1999/00	10,402	0	445	6,252	147,466	42.4
2000/01	10,808	0	541	6,447	151,300	42.6
2001/02	11,231	0	643	6,648	155,234	42.8
2002/03	11,671	0	753	6,855	159,270	43.0
<b>10th FYP</b>						
	3.9			3.0	2.6	
2003/04	12,120	0	819	7,062	163,411	43.2
2004/05	12,587	0	947	7,274	167,660	43.4
2005/06	13,073	0	1,081	7,495	172,019	43.6
2006/07	13,579	0	1,224	7,723	176,491	43.8
2007/08	14,104	0	1,376	7,958	181,080	43.9

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA



Appendix Table 2.2.4.15 Projection of Agricultural Production and Consumption of Beef (000 tons)

Year	Livestock					
	Beef Production	Beef Reserve	Beef I/E	Beef Consumption	Population	Beef Consum/cap.
6th FYP	7.9	0%		7.9		
1983/84	488	0	0	488	91,880	5.3
1984/85	513	0	0	513	94,730	5.4
1985/86	600	0	0	600	97,670	6.1
1986/87	630	0	0	630	10,070	6.3
1987/88	661	0	0	661	103,820	6.4
					Ave.	5.9
7th FYP	5.0			5.0		
1988/89	694	0	0	694	107,040	6.5
1989/90	729	0	0	729	110,360	6.6
1990/91	765	0	0	765	113,780	6.7
1991/92	803	0	0	803	117,320	6.8
1992/93	844	0	0	844	120,840	7.0
					Ave.	6.7
8th FYP	5.6			6.6	3.0	3.5
1993/94	891	0	25	867	124,465	7.0
1994/95	941	0	17	924	128,199	7.2
1995/96	994	0	9	985	132,045	7.5
1996/97	1,050	0	-1	1,050	136,006	7.7
1997/98	1,108	0	-11	1,119	140,087	8.0
9th FYP	6.6			5.4	2.6	3.5
1998/99	1,181	0	-7	1,189	143,729	8.3
1999/00	1,259	0	-3	1,262	147,466	8.6
2000/01	1,343	0	2	1,341	151,300	8.9
2001/02	1,431	0	51	1,380	155,234	8.9
2002/03	1,526	0	60	1,466	159,270	9.2
10th FYP	4.5			5.3	2.6	3.5
2003/04	1,594	0	38	1,556	163,411	9.5
2004/05	1,666	0	69	1,597	167,660	9.5
2005/06	1,741	0	45	1,696	172,019	9.9
2006/07	1,819	0	19	1,801	176,491	10.2
2007/08	1,901	0	-11	1,912	181,080	10.6

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.16 Projection of Agricultural Production and Consumption of Mutton (000 tons)

Year	Livestock					
	Mutton Production	Mutton Reserve	Mutton I/E	Mutton Consumption	Population	Mutton Consum/cap.
		0%				
6th FYP	1.0			1.0		
1983/84	436	0	0	436	91,880	4.7
1984/85	467	0	0	467	94,730	4.9
1985/86	473	0	0	473	97,670	4.8
1986/87	507	0	0	507	10,070	5.0
1987/88	453	0	0	453	103,820	4.4
					Ave.	4.8
7th FYP	7.1			7.1		
1988/89	581	0	0	581	107,040	5.4
1989/90	621	0	0	621	110,360	5.6
1990/91	665	0	0	665	113,780	5.8
1991/92	713	0	0	713	117,320	6.1
1992/93	763	0	0	763	120,840	6.3
					Ave.	5.9
8th FYP	6.0			4.0	3.0	1.0
1993/94	809	0	72	736	124,465	5.9
1994/95	857	0	91	766	128,199	6.0
1995/96	909	0	112	797	132,045	6.0
1996/97	963	0	134	829	136,006	6.1
1997/98	1,021	0	159	863	140,087	6.2
9th FYP	4.0			3.6	2.6	1.0
1998/99	1,062	0	168	894	143,729	6.2
1999/00	1,104	0	178	926	147,466	6.3
2000/01	1,149	0	189	960	151,300	6.3
2001/02	1,195	0	200	995	155,234	6.4
2002/03	1,242	0	212	1,031	159,270	6.5
10th FYP	2.5			3.4	2.6	1.0
2003/04	1,273	0	205	1,068	163,411	6.5
2004/05	1,305	0	209	1,096	167,660	6.5
2005/06	1,338	0	202	1,136	172,019	6.6
2006/07	1,371	0	195	1,177	176,491	6.7
2007/08	1,406	0	186	1,219	181,080	6.7

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required; is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.17 Projection of Agricultural Production and Consumption of Poultry (000 tons)

Year	Livestock					
	Poultry Production	Poultry Reserve	Poultry I/E	Poultry Consumption	Population	Poultry Consum/cap.
6th FYP	15.7	0%		15.7		
1983/84	86	0	0	86	91,880	0.9
1984/85	99	0	0	99	94,730	1.0
1985/86	126	0	0	126	97,670	1.3
1986/87	134	0	0	134	10,070	1.3
1987/88	154	0	0	154	103,820	1.5
					Ave.	1.2
7th FYP	-2.4			-2.4		
1988/89	172	0	0	172	107,040	1.6
1989/90	157	0	0	157	110,360	1.4
1990/91	151	0	0	151	113,780	1.3
1991/92	156	0	0	156	117,320	1.3
1992/93	156	0	0	156	120,840	1.3
					Ave.	1.4
8th FYP	8.0			5.1	3.0	2.0
1993/94	168	0	-9	177	124,465	1.4
1994/95	182	0	-4	186	128,199	1.5
1995/96	197	0	1	196	132,045	1.5
1996/97	212	0	7	205	136,006	1.5
1997/98	229	0	13	216	140,087	1.5
9th FYP	6.0			6.2	2.6	3.5
1998/99	243	0	14	229	143,729	1.6
1999/00	258	0	14	243	147,466	1.7
2000/01	273	0	15	258	151,300	1.7
2001/02	289	0	15	274	155,234	1.8
2002/03	307	0	15	291	159,270	1.8
10th FYP	4.0			4.4	2.6	3.5
2003/04	319	0	10	309	163,411	1.9
2004/05	332	0	14	318	167,660	1.9
2005/06	345	0	19	326	172,019	1.9
2006/07	359	0	13	346	176,491	2.0
2007/08	373	0	6	367	181,080	2.0

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.18 Projection of Agricultural Production and Consumption of Meat (000 tons)

Year	Livestock					
	Meat Production	Meat Reserve	Meat I/E	Meat Consumption	Population	Meat Consum/cap.
6th FYP	5.9	0%		5.9		
1983/84	1,010	0	0	1,010	91,880	11.0
1984/85	1,079	0	0	1,079	94,730	11.4
1985/86	1,199	0	0	1,199	97,670	12.3
1986/87	1,271	0	0	1,271	10,070	12.6
1987/88	1,268	0	0	1,268	103,820	12.2
7th FYP	5.1			5.1		
1988/89	1,447	0	0	1,447	107,040	13.5
1989/90	1,507	0	0	1,507	110,360	13.7
1990/91	1,581	0	0	1,581	113,780	13.9
1991/92	1,672	0	0	1,672	117,320	14.3
1992/93	1,763	0	0	1,763	120,840	14.6
					Ave.	14.0
8th FYP	6.0			5.4	3.0	2.0
1993/94	1,869	0	88	1,780	124,465	14.6
1994/95	1,980	0	104	1,876	128,199	14.7
1995/96	2,099	0	122	1,978	132,045	14.8
1996/97	2,225	0	140	2,085	136,006	14.8
1997/98	2,359	0	161	2,198	140,087	14.9
9th FYP	5.5			4.8	2.6	5.0
1998/99	2,486	0	175	2,312	143,729	15.0
1999/00	2,621	0	189	2,432	147,466	15.2
2000/01	2,764	0	205	2,559	151,300	15.3
2001/02	2,915	0	266	2,649	155,234	15.5
2002/03	3,075	0	287	2,788	159,270	15.6
10th FYP	3.7			4.5	2.6	4.0
2003/04	3,187	0	253	2,934	163,411	15.8
2004/05	3,303	0	293	3,010	167,660	15.8
2005/06	3,424	0	267	3,157	172,019	15.9
2006/07	3,549	0	226	3,323	176,491	16.0
2007/08	3,680	0	181	3,499	181,080	16.1

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.19 Projection of Agricultural Production and Consumption of Egg (000 tons)

Year	Livestock					
	Egg Production	Egg Reserve	Egg I/E	Egg Consumption	Population	Egg Consum/cap.
6th FYP	3.6	0%		3.6		
1983/84	72	0	0	72	91,880	0.8
1984/85	81	0	0	81	94,730	0.9
1985/86	69	0	0	69	97,670	0.7
1986/87	76	0	0	76	10,070	0.8
1987/88	83	0	0	83	103,820	0.8
					Ave.	0.8
7th FYP	5.9			5.9		
1988/89	86	0	0	86	107,040	0.8
1989/90	93	0	0	93	110,360	0.8
1990/91	90	0	0	90	113,780	0.8
1991/92	92	0	0	92	117,320	0.8
1992/93	108	0	0	108	120,840	0.9
					Ave.	0.8
8th FYP	6.0			5.1	3.0	2.0
1993/94	114	0	10	104	124,465	0.8
1994/95	121	0	12	110	128,199	0.9
1995/96	129	0	13	115	132,045	0.9
1996/97	136	0	15	121	136,006	0.9
1997/98	145	0	17	127	140,087	0.9
9th FYP	6.0			4.7	2.6	2.0
1998/99	153	0	20	133	143,729	0.9
1999/00	162	0	23	139	147,466	0.9
2000/01	172	0	26	146	151,300	1.0
2001/02	182	0	30	153	155,234	1.0
2002/03	193	0	34	160	159,270	1.0
10th FYP	4.0			4.1	2.6	2.0
2003/04	201	0	34	167	163,411	1.0
2004/05	209	0	38	172	167,660	1.0
2005/06	218	0	38	180	172,019	1.0
2006/07	226	0	38	188	176,491	1.1
2007/08	235	0	39	197	181,080	1.1

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.20 Projection of Agricultural Production and Consumption of Total Livestock, ex-Milk (000 tons)

Year	Livestock					
	Total Ex-Milk Production	Total Reserve 0%	Total Ex-Milk I/E	Total Ex-Milk Consumption	Population	Total Ex-Milk Consum/cap.
6th FYP	5.7					
1983/84	1,082	0	0	1,082	91,880	11.8
1984/85	1,160	0	0	1,160	94,730	12.2
1985/86	1,268	0	0	1,268	97,670	13.0
1986/87	1,347	0	0	1,347	10,070	13.4
1987/88	1,351	0	0	1,351	103,820	13.0
					Ave.	12.7
7th FYP	5.1					
1988/89	1,533	0	0	1,533	107,040	14.3
1989/90	1,600	0	0	1,600	110,360	14.5
1990/91	1,671	0	0	1,671	113,780	14.7
1991/92	1,764	0	0	1,764	117,320	15.0
1992/93	1,871	0	0	1,871	120,840	15.5
					Ave.	14.8
8th FYP	6.0			5.4	3.0	
1993/94	1,983	0	98	1,885	124,465	15.1
1994/95	2,102	0	116	1,986	128,199	15.5
1995/96	2,228	0	135	2,093	132,045	15.8
1996/97	2,361	0	156	2,206	136,006	16.2
1997/98	2,503	0	178	2,325	140,087	16.6
9th FYP	5.5			4.8	2.6	
1998/99	2,640	0	195	2,445	143,729	17.0
1999/00	2,784	0	212	2,571	147,466	17.4
2000/01	2,936	0	232	2,705	151,300	17.9
2001/02	3,098	0	296	2,802	155,234	18.0
2002/03	3,268	0	321	2,948	159,270	18.5
10th FYP	3.7			4.5	2.6	
2003/04	3,388	0	287	3,101	163,411	19.0
2004/05	3,512	0	330	3,182	167,660	19.0
2005/06	3,641	0	305	3,337	172,019	19.4
2006/07	3,776	0	264	3,511	176,491	19.9
2007/08	3,915	0	220	3,696	181,080	20.4

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.21 Projection of Agricultural Production and Consumption of Milk (000 tons)

Year	Livestock					Milk Consum/cap.
	Milk Production	Milk Reserve 0%	Milk I/E	Milk Consumption	Population	
6th FYP	1.4			1.4		
1983/84	7,844	0	0	7,844	91,880	85.4
1984/85	8,308	0	0	8,308	94,730	87.7
1985/86	9,304	0	0	9,304	97,670	95.3
1986/87	9,776	0	0	9,776	10,070	97.1
1987/88	8,308	0	0	8,308	103,820	80.0
					Ave.	89.1
7th FYP	5.0			5.0		
1988/89	10,797	0	0	10,797	107,040	100.9
1989/90	11,348	0	0	11,348	110,360	102.8
1990/91	11,927	0	0	11,927	113,780	104.8
1991/92	12,542	0	0	12,542	117,320	106.9
1992/93	13,100	0	0	13,100	120,840	108.4
					Ave.	104.8
8th FYP	6.0			5.9	3.0	2.8
1993/94	13,886	0	15	13,871	124,465	111.4
1994/95	14,719	0	32	14,687	128,199	114.6
1995/96	15,602	0	51	15,551	132,045	117.8
1996/97	16,538	0	72	16,466	136,006	121.1
1997/98	17,531	0	96	17,435	140,087	124.5
9th FYP	4.5			4.7	2.6	2.8
1998/99	18,320	0	-70	18,389	143,729	127.9
1999/00	19,144	0	277	18,867	147,466	127.9
2000/01	20,006	0	106	19,900	151,300	131.5
2001/02	20,906	0	-83	20,989	155,234	135.2
2002/03	21,847	0	-291	22,138	159,270	139.0
10th FYP	4.5			4.7	2.6	2.0
2003/04	22,830	0	116	22,713	163,411	139.0
2004/05	23,857	0	87	23,770	167,660	141.8
2005/06	24,930	0	55	24,876	172,019	144.6
2006/07	26,052	0	19	26,033	176,491	147.5
2007/08	27,225	0	-19	27,244	181,080	150.5

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.22 Projection of Agricultural Production and Consumption of Livestock Total (000 tons)

Year	Livestock					
	Total Production	Total Reserve 0%	Total I/E	Total Consumption	Population	Total Consum/cap.
6th FYP	2.0			2.0		
1983/84	8,926	0	0	8,926	91,880	97.1
1984/85	9,468	0	0	9,468	94,730	99.9
1985/86	10,572	0	0	10,572	97,670	108.2
1986/87	11,123	0	0	11,123	10,070	110.5
1987/88	9,659	0	0	9,659	103,820	93.0
7th FYP	5.0			5.0		
1988/89	12,330	0	0	12,330	107,040	115.2
1989/90	12,948	0	0	12,948	110,360	117.3
1990/91	13,598	0	0	13,598	113,780	119.5
1991/92	14,306	0	0	14,306	117,320	121.9
1992/93	14,971	0	0	14,971	120,840	123.9
					Ave.	119.6
8th FYP	6.0			5.8	3.0	2.0
1993/94	15,869	0	113	15,756	124,465	124.4
1994/95	16,821	0	148	16,673	128,199	124.9
1995/96	17,830	0	186	17,644	132,045	125.4
1996/97	18,900	0	228	18,672	136,006	125.9
1997/98	20,034	0	274	19,760	140,087	126.4
9th FYP	4.6			4.8	2.6	5.0
1998/99	20,959	0	125	20,834	143,729	127.7
1999/00	21,928	0	489	21,439	147,466	128.9
2000/01	22,942	0	337	22,605	151,300	130.2
2001/02	24,003	0	212	23,791	155,234	131.5
2002/03	25,115	0	29	25,085	159,270	132.8
10th FYP	4.4			4.6	2.6	4.0
2003/04	26,217	0	403	25,814	163,411	133.9
2004/05	27,369	0	417	26,952	167,660	133.9
2005/06	28,572	0	360	28,212	172,019	135.0
2006/07	29,828	0	284	29,544	176,491	136.0
2007/08	31,140	0	201	30,939	181,080	137.1

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA



Appendix Table 2.2.4.23 Projection of Agricultural Production and Consumption of Inland Fishery (000 tons)

Year	Fishery					
	Inland Production	Inland Reserve 0%	Inland I/E	Inland Consumption	Population	Inland Consum/cap.
6th FYP	10.8			10.8		
1983/84	61	0	0	61	91,880	0.7
1984/85	71	0	0	71	94,730	0.7
1985/86	76	0	0	76	97,670	0.8
1986/87	85	0	0	85	10,070	0.8
1987/88	92	0	0	92	103,820	0.9
					Ave.	0.8
7th FYP	5.5			5.5		
1988/89	97	0	0	97	107,040	0.9
1989/90	106	0	0	106	110,360	1.0
1990/91	113	0	0	113	113,780	1.0
1991/92	116	0	0	116	117,320	1.0
1992/93	120	0	0	120	120,840	1.0
					Ave.	1.0
8th FYP	2.8			3.2	3.0	2.0
1993/94	123	0	3	121	124,465	1.0
1994/95	127	0	2	125	128,199	1.0
1995/96	130	0	2	129	132,045	1.0
1996/97	134	0	1	133	136,006	1.0
1997/98	138	0	1	137	140,087	1.0
9th FYP	4.0			3.1	2.6	5.0
1998/99	143	0	2	141	143,729	1.0
1999/00	149	0	3	146	147,466	1.0
2000/01	155	0	5	150	151,300	1.0
2001/02	161	0	6	155	155,234	1.0
2002/03	168	0	8	160	159,270	1.0
10th FYP	5.0			3.0	2.6	4.0
2003/04	176	0	11	165	163,411	1.0
2004/05	185	0	15	169	167,660	1.0
2005/06	194	0	19	175	172,019	1.0
2006/07	204	0	24	180	176,491	1.0
2007/08	214	0	29	185	181,080	1.0

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.24 Projection of Agricultural Production and Consumption of Marine Fishery (000 tons)

Year	Fishery					
	Marine Production	Marine Reserve	Marine I/E	Marine Consumption	Population	Marine Consum/cap.
6th FYP	4.4	0%		2.3		
1983/84	284	0	71	213	91,880	2.3
1984/85	309	0	66	243	94,730	2.6
1985/86	334	0	96	238	97,670	2.4
1986/87	331	0	104	227	10,070	2.3
1987/88	337	0	104	233	103,820	2.2
					Ave.	2.4
7th FYP	2.2			-0.3		
1988/89	349	0	96	253	107,040	2.4
1989/90	341	0	101	240	110,360	2.2
1990/91	367	0	112	255	113,780	2.2
1991/92	375	0	125	250	117,320	2.1
1992/93	380	0	130	250	120,840	2.1
					Ave.	2.2
8th FYP	2.9			3.2	3.0	2.0
1993/94	391	0	117	274	124,465	2.2
1994/95	402	0	120	283	128,199	2.2
1995/96	414	0	122	292	132,045	2.2
1996/97	426	0	125	301	136,006	2.2
1997/98	438	0	128	311	140,087	2.2
9th FYP	3.2			3.1	2.6	5.0
1998/99	452	0	132	320	143,729	2.2
1999/00	467	0	137	330	147,466	2.2
2000/01	482	0	141	341	151,300	2.3
2001/02	497	0	146	351	155,234	2.3
2002/03	513	0	151	362	159,270	2.3
10th FYP	3.2			3.0	2.6	4.0
2003/04	530	0	157	373	163,411	2.3
2004/05	547	0	162	384	167,660	2.3
2005/06	564	0	168	396	172,019	2.3
2006/07	582	0	174	408	176,491	2.3
2007/08	601	0	181	420	181,080	2.3

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.25 Projection of Agricultural Production and Consumption of Fishery Total (000 tons)

Year	Fishery					
	Fishery Production	Total Reserve 0%	Total I/E	Total Consumption	Population	Consum/cap.
6th FYP						4.4
1983/84	345	0	71	274	91,880	3.0
1984/85	380	0	66	314	94,730	3.3
1985/86	410	0	96	314	97,670	3.2
1986/87	416	0	104	312	10,070	3.1
1987/88	429	0	104	325	103,820	3.1
						Ave.
7th FYP						1.4
1988/89	446	0	96	350	107,040	3.3
1989/90	447	0	101	346	110,360	3.1
1990/91	480	0	112	368	113,780	3.2
1991/92	491	0	125	366	117,320	3.1
1992/93	500	0	130	370	120,840	3.1
						Ave.
8th FYP						2.9
1993/94	514	0	120	395	124,465	3.2
1994/95	529	0	122	407	128,199	3.2
1995/96	544	0	124	420	132,045	3.2
1996/97	560	0	126	434	136,006	3.2
1997/98	576	0	128	448	140,087	3.2
9th FYP						3.4
1998/99	596	0	134	462	143,729	3.2
1999/00	616	0	140	476	147,466	3.2
2000/01	637	0	146	491	151,300	3.2
2001/02	658	0	152	506	155,234	3.3
2002/03	681	0	159	522	159,270	3.3
10th FYP						3.7
2003/04	706	0	168	538	163,411	3.3
2004/05	731	0	178	554	167,660	3.3
2005/06	758	0	188	570	172,019	3.3
2006/07	786	0	198	588	176,491	3.3
2007/08	815	0	209	605	181,080	3.3

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.26 Projection of Agricultural Production and Consumption of Fuelwood (000 tons)

Year	Forestry					
	Fuelwood Production	Fuelwood Reserve	Fuelwood I/E	Fuelwood Consumption	Population	Fuelwood Consum/cap.
		0%				
6th FYP	6.6			6.6		
1983/84	345	0	0	345	91,880	3.8
1984/85	454	0	0	454	94,730	4.8
1985/86	385	0	0	385	97,670	3.9
1986/87	543	0	0	543	10,070	5.4
1987/88	445	0	0	445	103,820	4.3
					Ave.	4.4
7th FYP	18.1			18.1		
1988/89	385	0	0	385	107,040	3.6
1989/90	422	0	0	422	110,360	3.8
1990/91	851	0	0	851	113,780	7.5
1991/92	800	0	0	800	117,320	6.8
1992/93	750	0	0	750	120,840	6.2
					Ave.	5.6
8th FYP	2.9			3.0	3.0	
1993/94	772	0	0	772	124,465	6.2
1994/95	794	0	-1	795	128,199	6.2
1995/96	817	0	-2	819	132,045	6.2
1996/97	841	0	-2	843	136,006	6.2
1997/98	865	0	-3	869	140,087	6.2
9th FYP	2.0			2.6	2.6	
1998/99	883	0	20	862	143,729	6.0
1999/00	900	0	15	885	147,466	6.0
2000/01	918	0	10	908	151,300	6.0
2001/02	937	0	5	931	155,234	6.0
2002/03	955	0	0	956	159,270	6.0
10th FYP	1.5			2.6	2.6	
2003/04	970	0	38	931	163,411	5.7
2004/05	984	0	29	956	167,660	5.7
2005/06	999	0	18	981	172,019	5.7
2006/07	1,014	0	8	1,006	176,491	5.7
2007/08	1,029	0	-3	1,032	181,080	5.7

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.27 Projection of Agricultural Production and Consumption of Timber (000 tons)

Year	Forestry					
	Timber Production	Timber Reserve	Timber I/E	Timber Consumption	Population	Timber Consum/cap.
		0%				
6th FYP	8.9			8.4		
1983/84	261	0	-20	281	91,880	3.1
1984/85	330	0	-15	345	94,730	3.6
1985/86	313	0	-72	385	97,670	3.9
1986/87	407	0	-30	437	10,070	4.3
1987/88	367	0	-21	388	103,820	3.7
					Ave.	3.7
7th FYP	-8.2			-9.1		
1988/89	296	0	-19	315	107,040	2.9
1989/90	255	0	-22	277	110,360	2.5
1990/91	221	0	-12	233	113,780	2.0
1991/92	220	0	-4	224	117,320	1.9
1992/93	210	0	-5	215	120,840	1.8
					Ave.	2.2
8th FYP	2.5			4.0	3.0	
1993/94	215	0	-8	224	124,465	1.8
1994/95	221	0	-12	233	128,199	1.8
1995/96	226	0	-16	242	132,045	1.8
1996/97	232	0	-20	252	136,006	1.8
1997/98	238	0	-24	262	140,087	1.9
9th FYP	3.5			4.0	2.6	
1998/99	246	0	-26	272	143,729	1.9
1999/00	255	0	-28	283	147,466	1.9
2000/01	263	0	-31	294	151,300	1.9
2001/02	273	0	-33	306	155,234	2.0
2002/03	282	0	-36	318	159,270	2.0
10th FYP	3.5			4.0	2.6	
2003/04	292	0	-39	331	163,411	2.0
2004/05	302	0	-42	344	167,660	2.1
2005/06	313	0	-45	358	172,019	2.1
2006/07	324	0	-48	372	176,491	2.1
2007/08	335	0	-52	387	181,080	2.1

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.28 Projection of Agricultural Production and Consumption of Forestry Total (000 tons)

Year	Forestry					
	Total Production	Total Reserve 0%	Total I/E	Total Consumption	Population	Total Consum/cap.
6th FYP	7.6					
1983/84	606	0	-20	626	91,880	6.8
1984/85	784	0	-15	799	94,730	8.4
1985/86	698	0	-72	770	97,670	7.9
1986/87	950	0	-30	980	10,070	9.7
1987/88	812	0	-21	833	103,820	8.0
					Ave.	8.2
7th FYP	9.0					
1988/89	681	0	-19	700	107,040	6.5
1989/90	677	0	-22	699	110,360	6.3
1990/91	1,072	0	-12	1,084	113,780	9.5
1991/92	1,020	0	-4	1,024	117,320	8.7
1992/93	960	0	-5	965	120,840	8.0
					Ave.	7.8
8th FYP	2.8			3.2	3.0	
1993/94	987	0	-8	995	124,465	8.0
1994/95	1,015	0	-13	1,027	128,199	8.0
1995/96	1,043	0	-17	1,061	132,045	8.0
1996/97	1,073	0	-22	1,095	136,006	8.0
1997/98	1,103	0	-27	1,130	140,087	8.1
9th FYP	2.3			2.9	2.6	
1998/99	1,128	0	-6	1,134	143,729	7.9
1999/00	1,155	0	-13	1,168	147,466	7.9
2000/01	1,182	0	-20	1,202	151,300	7.9
2001/02	1,209	0	-28	1,237	155,234	8.0
2002/03	1,237	0	-36	1,274	159,270	8.0
10th FYP	2.0			3.0	2.6	
2003/04	1,262	0	-1	1,262	163,411	7.7
2004/05	1,286	0	-13	1,300	167,660	7.8
2005/06	1,312	0	-27	1,338	172,019	7.8
2006/07	1,338	0	-41	1,378	176,491	7.8
2007/08	1,364	0	-55	1,419	181,080	7.8

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.29 Projection of Total Agricultural Production and Consumption (000 tons)

Year	Agriculture Sector			
	Total Production	Total Reserve	Total I/E	Total Consumption
6th FYP	1.2			1.1
1983/84	66,831	1,576	1,549	63,706
1984/85	66,950	1,657	449	64,844
1985/86	66,304	1,844	388	63,814
1986/87	68,432	1,720	1,451	64,512
1987/88	70,061	1,742	1,567	66,502
7th FYP	2.1			2.3
1988/89	78,869	1,928	143	76,755
1989/90	78,556	1,928	-532	76,951
1990/91	80,582	1,954	852	77,341
1991/92	85,823	2,064	710	82,939
1992/93	85,621	2,097	-765	84,222
8th FYP	4.2			3.7
1993/94	89,166	2,139	-113	85,821
1994/95	92,871	2,210	-88	87,744
1995/96	96,744	2,284	-84	91,387
1996/97	100,794	2,361	-66	95,182
1997/98	105,029	2,441	-43	99,146
9th FYP	4.0			3.9
1998/99	109,202	2,523	-57	103,143
1999/00	113,546	2,607	437	106,797
2000/01	118,069	2,694	418	111,137
2001/02	122,780	2,785	432	115,624
2002/03	127,685	2,878	412	120,334
10th FYP	3.9			3.8
2003/04	132,667	2,971	1,013	124,444
2004/05	137,849	3,066	1,323	129,093
2005/06	143,241	3,166	1,450	134,128
2006/07	148,852	3,268	1,573	139,378
2007/08	154,689	3,374	1,804	144,740

Notes:

- (1) Per capita consumption of each commodity for each FYP period are adjusted to be increased per annum by appropriate rate in 8th, 9th and 10th FYP periods respectively.
- (2) Rate of seed reserve, where such reservation is required, is assumed to be the ratio appeared in the above table to secure self-sufficiency and price stabilization of subject product.

Sources:

- (1) JICA Study Team
- (2) Economic Survey 1993-94, Economic Advisor's Wing, Finance Division
- (3) Agriculture Annual Report 1992, Ministry of Agriculture
- (4) KPT, PQA

Appendix Table 2.2.4.30 Projection of Production and Consumption of Edible Oil (000 tons)

Year	Processed Product			Edible Oil Consumption	Population	Edible Oil Consum/cap.
	Edible Oil Production	Reserve	Edible Oil I/E			
		0%				
<b>6th FYP</b>	<b>4.0</b>			<b>4.2</b>		
1983/84	595	0	-857	1,452	91,880	15.8
1984/85	640	0	-663	1,303	94,730	13.8
1985/86	612	0	-825	1,437	97,670	14.7
1986/87	609	0	-710	1,319	100,070	13.2
1987/88	697	0	-1,013	1,710	103,820	16.5
					Ave.	14.8
<b>7th FYP</b>	<b>-0.4</b>			<b>1.0</b>		
1988/89	684	0	-1,144	1,828	107,040	17.1
1989/90	683	0	-962	1,645	110,360	14.9
1990/91	656	0	-959	1,615	113,780	14.2
1991/92	575	0	-1,045	1,620	117,320	13.8
1992/93	672	0	-1,230	1,902	120,840	15.7
					Ave.	15.1
					Ave. 10 yrs	15.0
<b>8th FYP</b>	<b>5.0</b>			<b>11.0</b>	<b>3.0</b>	<b>2.0</b>
1993/94	706	0	-1,161	1,866	124,465	15.0
1994/95	741	0	-1,331	2,072	128,199	15.2
1995/96	778	0	-1,523	2,301	132,045	15.5
1996/97	817	0	-1,738	2,555	136,006	15.7
1997/98	858	0	-1,980	2,837	140,087	15.9
<b>9th FYP</b>	<b>5.0</b>			<b>5.4</b>	<b>2.6</b>	<b>5.0</b>
1998/99	901	0	-1,401	2,302	143,729	16.0
1999/00	946	0	-1,480	2,425	147,466	16.3
2000/01	993	0	-1,563	2,556	151,300	16.5
2001/02	1,042	0	-1,650	2,693	155,234	16.8
2002/03	1,095	0	-1,743	2,837	159,270	16.9
<b>10th FYP</b>	<b>5.5</b>			<b>0.6</b>	<b>2.6</b>	<b>4.0</b>
2003/04	1,155	0	-1,617	2,772	163,411	17.0
2004/05	1,218	0	-1,570	2,788	167,660	17.2
2005/06	1,285	0	-1,519	2,804	172,019	17.5
2006/07	1,356	0	-1,465	2,821	176,491	17.9
2007/08	1,431	0	-1,407	2,837	181,080	18.2

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) 8th Five Year Plan, Planning Commission
- (3) JICA Study Team



Appendix Table 2.2.4.31 Projection of Production and Consumption of Refined Sugar (000 tons)

Year	Refined Sugar				Sugar Cane as Raw Material				Sugar Cane Consum/cap.			
	Production	Sugar Reserve	Sugar I/E	Sugar Consumption	Population	Sugar Consum/cap.	Production	Sugar Reserve		Sugar Cane I/E	Sugar Cane Consumption	Population
<b>6th FYP</b>	11.6			15.3			-0.9					
1983/84	1,149	0	0	1,149	91,880	12.5	34,287	0	0	34,287	91,880	373.2
1984/85	1,313	0	0	1,313	94,730	13.9	32,139	0	0	32,139	94,730	339.3
1985/86	1,116	0	-258	1,374	97,670	14.1	27,856	0	0	27,856	97,670	285.2
1986/87	1,283	0	-750	2,033	100,070	20.3	29,926	0	0	29,926	100,070	299.1
1987/88	1,781	0	-251	2,032	103,820	19.6	33,029	0	0	33,029	103,820	318.1
					Ave.	16.1					Ave.	323.0
<b>7th FYP</b>	2.8			3.1			0.7					
1988/89	1,850	0	-43	1,893	107,040	17.7	36,976	0	0	36,976	107,040	345.4
1989/90	1,855	0	-209	2,064	110,360	18.7	35,493	0	0	35,493	110,360	321.6
1990/91	1,932	0	-435	2,367	113,780	20.8	35,988	0	0	35,988	113,780	316.3
1991/92	2,086	0	-110	2,196	117,320	18.7	38,865	0	0	38,865	117,320	331.3
1992/93	2,070	0	-67	2,137	120,840	17.7	38,059	0	0	38,059	120,840	315.0
					Ave.	18.7					Ave.	325.9
					Ave. 10 yrs	17.4					Ave. 10 yrs	324.4
<b>8th FYP</b>	6.0			6.5			3.9					
1993/94	2,194	0	-9	2,203	124,465	17.7	39,543	0	0	39,543	124,465	317.7
1994/95	2,376	0	-21	2,347	128,199	18.0	41,085	0	0	41,085	128,199	320.5
1995/96	2,465	0	-35	2,500	132,045	18.3	42,688	0	0	42,688	132,045	323.3
1996/97	2,613	0	-50	2,663	136,006	18.7	44,353	0	0	44,353	136,006	326.1
1997/98	2,770	0	-67	2,837	140,087	19.0	46,082	0	0	46,082	140,087	329.0
					Ave.	19.0					Ave.	329.0
<b>9th FYP</b>	5.5			5.5			4.0					
1998/99	2,922	0	-71	2,993	143,729	19.1	47,926	0	0	47,926	143,729	333.4
1999/00	3,083	0	-75	3,158	147,466	19.5	49,843	0	0	49,843	147,466	338.0
2000/01	3,253	0	-79	3,332	151,300	19.9	51,836	0	0	51,836	151,300	342.6
2001/02	3,432	0	-83	3,515	155,234	20.3	53,910	0	0	53,910	155,234	347.3
2002/03	3,620	0	-88	3,708	159,270	20.4	56,066	0	0	56,066	159,270	352.0
					Ave.	20.4					Ave.	352.0
<b>10th FYP</b>	5.5			5.0			4.0					
2003/04	3,820	0	-74	3,894	163,411	20.4	58,309	0	0	58,309	163,411	356.8
2004/05	4,030	0	-59	4,088	167,660	20.9	60,641	0	0	60,641	167,660	361.7
2005/06	4,251	0	-41	4,293	171,019	21.3	63,067	0	0	63,067	171,019	366.0
2006/07	4,485	0	-22	4,507	176,491	21.7	65,590	0	0	65,590	176,491	371.6
2007/08	4,732	0	-1	4,733	181,080	22.2	68,213	0	0	68,213	181,080	376.7

Source:  
 (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division  
 (2) 8th Five Year Plan, Planning Commission  
 (3) JICA Study Team

Appendix Table 2.2.4.32 Projection of Production and Consumption of Fertilizer (000 tons)

Year	Fertilizer		
	Production	Fertilizer I/E	Consumption
1978/79	938	-400	1,338
1979/80	1,177	-500	1,677
1980/81	1,605	-1,294	2,899
1981/82	1,952	-414	2,366
1982/83	2,775	-692	3,467
<b>5th FYP</b>	<b>31.1</b>	<b>14.7</b>	<b>26.9</b>
1983/84	2,676	-491	3,167
1984/85	2,714	-569	3,283
1985/86	2,734	-456	3,190
1986/87	2,929	-600	3,529
1987/88	2,856	-1,044	3,900
<b>6th FYP</b>	<b>1.6</b>	<b>20.8</b>	<b>5.3</b>
1988/89	2,929	-782	3,711
1989/90	3,038	-1,066	4,104
1990/91	2,956	-1,120	4,076
1991/92	2,795	-831	3,626
1992/93	3,204	-1,153	4,357
<b>7th FYP</b>	<b>2.3</b>	<b>10.2</b>	<b>4.1</b>
<b>8th FYP</b>	<b>5.0</b>		<b>5.7</b>
1993/94	3,364	-1,241	4,605
1994/95	3,532	-1,335	4,868
1995/96	3,709	-1,436	5,145
1996/97	3,894	-1,544	5,439
1997/98	4,089	-1,659	5,749
<b>9th FYP</b>	<b>4.0</b>		<b>2.5</b>
1998/99	4,253	-1,640	5,892
1999/00	4,423	-1,617	6,040
2000/01	4,600	-1,591	6,191
2001/02	4,784	-1,562	6,345
2002/03	4,975	-1,529	6,504
<b>10th FYP</b>	<b>4.0</b>		<b>2.0</b>
2003/04	5,174	-1,460	6,634
2004/05	5,381	-1,386	6,767
2005/06	5,596	-1,306	6,902
2006/07	5,820	-1,220	7,040
2007/08	6,053	-1,128	7,181

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) 8th Five Year Plan
- (3) JICA Study Team

Appendix Table 2.2.4.33 Projection of Production and Consumption of Cement (000 tons)

Year	Cement		
	Production	Cement I/E	Consumption
1978/79	3,023	-630	3,653
1979/80	3,343	-611	3,954
1980/81	3,583	-444	4,027
1981/82	3,657	-1,302	4,959
1982/83	3,938	-647	4,585
<b>5th FYP</b>	<b>6.8</b>	<b>0.7</b>	<b>5.8</b>
1983/84	4,503	-871	5,374
1984/85	4,732	-722	5,454
1985/86	5,773	-217	5,990
1986/87	6,508	-5	6,513
1987/88	7,072	-12	7,084
<b>6th FYP</b>	<b>11.9</b>	<b>-65.7</b>	<b>7.2</b>
1988/89	7,125	-24	7,149
1989/90	7,488	-3	7,491
1990/91	7,762	-19	7,781
1991/92	8,321	-7	8,328
1992/93	8,551	-44	8,595
<b>7th FYP</b>	<b>4.7</b>	<b>16.4</b>	<b>4.7</b>
<b>8th FYP</b>	<b>8.6</b>		<b>9.0</b>
1993/94	9,286	-82	9,369
1994/95	10,085	-127	10,212
1995/96	10,952	-178	11,131
1996/97	11,894	-238	12,133
1997/98	12,917	-307	13,224
<b>9th FYP</b>	<b>6.6</b>		<b>6.0</b>
1998/99	13,770	-248	14,018
1999/00	14,678	-181	14,859
2000/01	15,647	-103	15,751
2001/02	16,680	-16	16,696
2002/03	17,781	84	17,697
<b>10th FYP</b>	<b>4.0</b>		<b>4.0</b>
2003/04	18,492	87	18,405
2004/05	19,232	90	19,141
2005/06	20,001	94	19,907
2006/07	20,801	98	20,703
2007/08	21,633	102	21,532

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) 8th Five Year Plan, Planning Commission
- (3) JICA Study Team

Appendix Table 2.2.4.34 Projection of Production and Consumption of Iron and Steel (000 tons)

Year	Iron and Steel (incl. Scrap)			Mild Steel			Pakistani Steel Pro.			Scrap			Coak		
	Production	Consumption	I/E	Production	I/E	Consumption	Consumption	Production	I/E	Production	Consumption	Production	I/E	Consumption	
1983/84	654	1,237	-583	654	-468	1,122	0	-115	440	0	440	0	440		
1984/85	718	1,303	-585	718	-442	1,160	0	-143	451	0	451	0	451		
1985/86	1,833	2,435	-602	731	-430	1,161	1,102	-172	610	0	610	0	610		
1986/87	1,933	2,817	-884	782	-440	1,222	1,151	-444	637	0	637	0	637		
1987/88	2,071	3,192	-1,121	867	-455	1,322	1,204	-666	642	0	642	0	642		
6th FYP	33.4	26.7	17.8	7.3	-0.7	4.2	4.5	55.1	9.9	0.0	9.9	0.0	9.9		
	1,442	2,197	-755												
1988/89	2,091	2,868	-777	910	-444	1,354	1,181	-333	672	0	672	0	672		
1989/90	2,160	2,745	-585	956	-418	1,374	1,204	-167	699	0	699	0	699		
1990/91	2,231	2,918	-687	1,003	-439	1,442	1,228	-248	727	0	727	0	727		
1991/92	2,305	3,296	-991	1,053	-395	1,448	1,252	-596	756	0	756	0	756		
1992/93	2,382	3,134	-752	1,105	-399	1,504	1,277	-353	786	0	786	0	786		
7th FYP	3.3	2.2	-0.8	5.0	-2.6	2.7	2.0	1.5	4.0	0.0	4.0	0.0	4.0		
	4.5	4.5	4.4	4.0	-2.0	2.6	5.0	1.0	4.0	0	4.0	0	4.0		
1993/94	2,490	3,275	-785	1,149	-391	1,540	1,341	-357	817	0	817	0	817		
1994/95	2,603	3,422	-819	1,195	-383	1,578	1,408	-360	850	0	850	0	850		
1995/96	2,721	3,576	-855	1,243	-376	1,619	1,478	-364	884	0	884	0	884		
1996/97	2,845	3,737	-892	1,293	-368	1,661	1,552	-367	920	0	920	0	920		
1997/98	2,974	3,906	-931	1,344	-361	1,705	1,630	-371	956	0	956	0	956		
9th FYP	4.7	7.0	12.9	5.0	-4.0	3.4	4.5	2.0	9.0	0	9.0	0	9.0		
1998/99	3,115	4,179	-1,064	1,412	-346	1,758	1,703	-378	1,042	0	1,042	0	1,042		
1999/00	3,262	4,471	-1,209	1,482	-332	1,815	1,780	-386	1,136	0	1,136	0	1,136		
2000/01	3,416	4,784	-1,368	1,556	-319	1,875	1,860	-394	1,238	0	1,238	0	1,238		
2001/02	3,578	5,119	-1,542	1,634	-306	1,940	1,944	-402	1,350	0	1,350	0	1,350		
2002/03	3,747	5,478	-1,731	1,716	-294	2,010	2,031	-410	1,471	0	1,471	0	1,471		
10th FYP	7.0	6.0	3.7	6.0	-5.0	4.7	3.0	3.0	7.0	0	7.0	0	7.0		
2003/04	4,009	5,806	-1,797	1,819	-279	2,098	2,092	-422	1,574	0	1,574	0	1,574		
2004/05	4,290	6,155	-1,865	1,928	-265	2,193	2,155	-435	1,685	0	1,685	0	1,685		
2005/06	4,590	6,524	-1,934	2,044	-252	2,296	2,219	-448	1,802	0	1,802	0	1,802		
2006/07	4,911	6,915	-2,004	2,166	-240	2,406	2,286	-461	1,929	0	1,929	0	1,929		
2007/08	5,255	7,330	-2,075	2,296	-228	2,524	2,355	-475	2,064	0	2,064	0	2,064		

Source:  
 (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division  
 (2) Pakistan Year Book (Twentieth Edition) 1992/93  
 (3) IICA Study Team

Appendix Table 2.2.4.35 Projection of Production and Consumption of Crude Oil and Petroleum Products (000 tons)

Year	Crude Oil Production		Crude Oil		Crude Oil		Refining		Petroleum Products		Transformation		Consumption
	(bpd)	I/E	(000 Barrel)	I/E	(000 tonne)	I/E	Capacity	Vol after process	I/E	Consumption	Consumption	Consumption	
	(bpd)	(bpd)	(000 Barrel)	(000 Barrel)	(000 tonne)	(000 tonne)	(Crude Oil ton)	(000 tonne)	(000 tonne)	(000 tonne)	(000 tonne)	(000 tonne)	(000 tonne)
1978/79	10,164	72,841	3,710	26,587	498	-3,567	4,065	5,000	3,594	-1,404	4,998	1,107	3,891
1979/80	78,649	3,567	28,707	3,851	479	-3,851	4,330	5,000	4,043	-1,583	5,626	1,475	4,151
1980/81	9,737	82,490	3,554	30,109	477	-3,554	4,516	5,000	3,994	-1,563	5,557	1,257	4,300
1981/82	10,838	89,740	3,956	32,755	531	-4,394	4,925	5,000	4,460	-1,584	6,044	1,197	4,847
1982/83	12,981	83,460	4,738	31,193	636	-4,185	4,820	5,000	4,260	-1,866	6,126	613	5,513
5th FYP	6.3	4.1	6.3	4.1	6.3	4.1	4.4	4.4	1.11	7.4	5.2	-13.7	9.1
Yield (%)								90%					
1983/84	13,378	87,660	4,883	31,996	655	-4,292	4,948	5,000	4,352	-2,155	6,507	408	6,099
1984/85	26,088	82,019	9,522	29,937	1,277	-4,016	5,294	6,000	4,668	-2,290	6,958	345	6,613
1985/86	39,310	80,249	14,348	29,291	1,925	-3,990	5,854	6,000	4,838	-2,450	7,288	233	7,055
1986/87	41,093	73,797	14,999	27,666	2,012	-3,712	5,724	6,000	4,956	-3,169	8,125	397	7,728
1987/88	44,685	77,534	16,310	28,300	2,188	-3,797	5,985	6,000	5,671	-3,759	9,430	903	8,527
6th FYP	35.2	-3.0	35.2	-3.0	35.2	-3.0	4.9	88%	1.16	14.9	9.7	22.0	8.7
Yield (%)													
1988/89	46,764	73,682	17,069	26,894	2,290	-3,608	5,898	6,330	5,416	-4,301	9,717	660	9,057
1989/90	53,479	71,408	19,520	26,064	2,619	-3,497	6,115	6,330	5,577	-4,528	10,105	133	9,972
1990/91	64,342	77,200	23,485	28,178	3,151	-3,780	6,931	7,000	6,437	-4,310	10,747	787	9,960
1991/92	61,559	82,236	22,469	30,016	3,014	-4,027	7,041	7,000	6,360	-5,275	11,635	652	10,983
1992/93	59,986	80,567	21,895	29,407	2,937	-3,945	6,882	7,000	6,180	-6,612	12,792	781	12,011
7th FYP	6.4	2.3	6.4	2.3	6.4	2.3	3.9	91%	3.4	11.4	7.1	4.3	7.3
Yield (%)													
Ave. Yield (%)								90%	1.10	1.06	0.06		
8th FYP	15.5	-13.1	15.5	-13.1	15.5	-13.1	3.4	8.8	3.4	12.9	8.8	8.8	8.8
1993/94	69,284	77,087	25,289	28,137	3,393	-3,775	7,167	7,470	6,390	-7,416	13,807	756	13,050
1994/95	80,023	71,324	29,208	26,033	3,918	-3,493	7,431	7,470	6,607	-8,402	15,010	822	14,188
1995/96	92,427	64,067	33,736	23,384	4,526	-3,137	7,663	7,640	6,832	-9,495	16,327	895	15,433
1996/97	106,753	55,061	38,965	20,097	5,227	-2,696	7,924	7,940	7,064	-10,706	17,770	974	16,797
1997/98	123,300	44,016	45,004	16,066	6,038	-2,155	8,193	9,540	7,305	-12,047	19,351	1,060	18,291
9th FYP	10.0	35.2	10.0	35.2	10.0	35.2	20.0	20.0	20.0	-7.8	6.7	6.7	6.7
1998/99	135,630	65,150	49,505	23,780	6,641	-3,190	9,832	15,340	8,765	-11,943	20,709	1,135	19,574
1999/00	149,193	91,742	54,455	33,466	7,306	-4,492	11,798	19,840	10,518	-11,649	22,168	1,214	20,953
2000/01	164,112	125,010	59,901	45,629	8,036	-6,121	14,157	19,840	12,622	-11,114	23,736	1,300	22,436
2001/02	180,523	166,423	65,891	60,745	8,840	-8,149	16,989	21,340	15,147	-10,276	25,422	1,393	24,030
2002/03	198,575	217,760	72,480	79,483	9,724	-10,663	20,387	21,340	18,176	-8,623	26,799	1,468	25,330
10th FYP	8.0	-4.1	8.0	-4.1	8.0	-4.1	2.5	2.5	2.5	10.7	5.5	5.5	5.5
2003/04	214,461	212,283	78,278	77,483	10,502	-10,395	20,896	21,340	18,630	-9,626	28,257	1,548	26,709
2004/05	231,618	205,794	84,541	75,115	11,342	-10,077	21,419	22,200	19,096	-10,706	29,802	1,633	28,169
2005/06	250,148	198,200	91,304	72,343	12,249	-9,705	21,954	22,200	19,574	-11,866	31,439	1,722	29,717
2006/07	270,160	189,397	98,608	69,130	13,229	-9,274	22,503	23,100	20,063	-13,113	33,175	1,818	31,358
2007/08	291,772	179,273	106,497	65,455	14,287	-8,778	23,066	23,200	20,564	-14,452	35,016	1,918	33,098

Note:

- (1) One tonne of oil = 7,454 barrels
- (2) Gross Consumption = Net Consumption x 1.1
- (3) Crude oil produced locally is used by refineries to produce petroleum products.
- (4) Residuals is a balance between the volume of crude oil and petroleum products.
- (5) Residuals is assumed to be used by thermal power stations and for other purposes.

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) 8th Five Year Plan
- (3) JICA Study Team

Appendix Table 2.2.4.36 Projection of Production and Consumption of Crude Oil (000 tons)

Year	Net Consumption of Petroleum Products							Crude Oil Consumption
	House Hold	Industry	Agriculture	Transport	Power	Other Government	Consumption	
1978/79	681	203	235	2,224	15	533	3,891	
1979/80	626	228	253	2,292	50	702	4,151	
1980/81	517	173	261	2,487	183	679	4,300	
1981/82	544	304	124	2,745	442	688	4,847	
1982/83	594	391	161	2,890	754	723	5,513	
5th FYP	-3.4	17.8	-9.0	6.8	166.3	7.9	9.1	
1983/84	679	689	173	3,067	766	725	6,099	
1984/85	748	814	218	3,240	944	649	6,613	
1985/86	800	945	243	3,410	1,004	653	7,055	
1986/87	860	1,228	240	3,923	1,181	296	7,728	
1987/88	859	1,224	330	4,186	1,599	329	8,527	
6th FYP	6.1	15.4	17.5	8.1	20.2	-17.9	8.7	
1988/89	971	1,290	293	4,353	1,822	328	9,057	
1989/90	1,117	1,297	286	4,684	2,189	399	9,972	
1990/91	944	1,148	265	4,841	2,434	328	9,960	
1991/92	614	1,370	281	5,620	2,775	323	10,983	
1992/93	622	1,480	287	6,107	3,158	357	12,011	
7th FYP	-10.5	3.5	-0.5	8.8	14.7	2.1	7.3	
8th FYP	4.2	5.0	2.6	9.0	11.7	3.5	8.8	
1993/94	648	1,554	294	6,657	3,527	369	13,050	
1994/95	675	1,632	302	7,256	3,940	382	14,188	
1995/96	704	1,713	310	7,909	4,401	396	15,433	
1996/97	733	1,799	318	8,621	4,916	410	16,797	
1997/98	764	1,889	326	9,396	5,491	424	18,291	
9th FYP	4.0	4.5	2.2	7.0	9.0	2.0	6.7	
1998/99	795	1,974	333	10,054	5,986	432	19,574	
1999/00	826	2,063	341	10,758	6,524	441	20,953	
2000/01	859	2,156	348	11,511	7,111	450	22,436	
2001/02	894	2,253	356	12,317	7,751	459	24,030	
2002/03	921	2,343	363	13,179	8,062	464	25,330	
10th FYP	3.0	4.0	2.0	7.0	4.0	1.0	5.5	
2003/04	948	2,436	370	14,101	8,384	468	26,709	
2004/05	977	2,534	378	15,089	8,719	473	28,169	
2005/06	1,006	2,635	385	16,145	9,068	478	29,717	
2006/07	1,036	2,741	393	17,275	9,431	482	31,358	
2007/08	1,067	2,850	401	18,484	9,808	487	33,098	

Note:

- (1) One tonne of oil = 7,454 barrels
- (2) Gross Consumption = Net Consumption x 1.1
- (3) Crude oil produced locally is used by refineries to produce petroleum products.
- (4) Residuals is a balance between the volume of crude oil and petroleum products.
- (5) Residuals is assumed to be used by thermal power stations and for other purposes.

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) 8th Five Year Plan
- (3) JICA Study Team

Appendix Table 2.2.4.37 Projection of Production and Consumption of Gas (000 tons)

Year	Production				Consumption				Net Consumption (mmcf)				
	Natural Gas Production (mmcf)	Natural Gas Production (TOE)	Production (cu. m)	Natural Gas I/E	House Hold Consumption	Commercial	Conent	Fertilizer		Power	Industry		
1978/79	614	224,088	4,809	6,344	0	6,344	12,110	6,063	24,256	43,749	60,758	49,632	196,568
1979/80	712	259,898	5,578	7,358	0	7,358	14,283	6,543	25,738	46,315	80,431	54,671	227,981
1980/81	827	301,842	6,478	8,546	0	8,546	17,738	7,540	26,085	65,920	84,743	62,748	264,774
1981/82	892	325,497	6,985	9,216	0	9,216	24,037	8,337	26,319	77,273	82,087	67,471	285,524
1982/83	939	342,592	7,352	9,700	0	9,700	28,357	8,905	21,222	97,308	74,205	70,522	300,519
5th FYP Share	11.2	11.2	11.2	11.2	0.0	11.2	9.4%	3.0%	7.1%	32.4%	24.7%	23.5%	100.0%
1983/84	940	349,247	7,366	9,718	0	9,718	32,246	9,122	10,305	98,335	77,927	73,159	301,094
1984/85	997	363,806	7,808	10,300	0	10,300	37,372	9,838	8,300	100,083	88,906	74,629	319,128
1985/86	1,054	384,886	8,260	10,897	0	10,897	42,521	7,283	7,283	99,788	103,252	74,852	337,619
1986/87	1,111	405,463	8,702	11,480	0	11,480	45,761	9,878	5,496	103,131	118,098	73,305	355,669
1987/88	1,210	441,557	9,476	12,502	0	12,502	47,443	10,282	5,262	102,853	142,750	78,741	387,331
6th FYP Share	6.5	6.5	6.5	6.5	0.0	6.5	10.1	3.0	-15.5	1.1	16.3	1.9	6.5
							12.2%	2.7%	1.4%	26.6%	36.9%	20.3%	100.0%
1988/89	1,234	450,575	9,670	12,757	0	12,757	51,278	10,829	5,255	104,394	142,064	81,421	395,241
1989/90	1,385	505,386	10,846	14,309	0	14,309	60,140	11,154	7,988	108,582	169,089	86,368	443,321
1990/91	1,453	530,485	11,385	15,019	0	15,019	66,797	12,317	13,020	107,954	176,409	88,841	465,338
1991/92	1,520	554,731	11,905	15,706	0	15,706	70,741	13,057	11,761	101,493	193,893	95,661	486,606
1992/93	1,598	583,104	12,514	16,509	0	16,509	75,783	14,326	11,914	119,628	186,353	102,991	511,495
7th FYP Share	6.7	6.7	6.7	6.7	0.0	6.7	10.3	7.2	22.7	3.5	7.1	6.1	6.7
							14.8%	2.8%	2.3%	23.4%	36.5%	20.1%	100.0%
1993/94	1,746	637,458	13,680	18,048	0	18,048	84,801	15,042	12,510	130,753	205,351	110,715	559,173
1994/95	1,910	697,097	14,959	19,735	0	19,735	94,893	15,794	13,135	142,913	225,681	119,019	611,436
1995/96	2,089	762,357	16,361	21,584	0	21,584	106,185	16,584	13,792	156,204	248,024	127,945	668,734
1996/97	2,285	833,986	17,898	23,612	0	23,612	118,821	17,413	14,482	170,731	272,578	137,541	731,566
1997/98	2,500	912,347	19,584	25,837	0	25,837	132,960	18,284	15,206	186,609	299,563	147,857	800,480
Share	7.4	7.4	7.4	7.4	0.0	7.4	16.2%	2.4%	2.0%	23.3%	37.5%	18.8%	100.0%
1998/99	2,694	983,336	21,103	27,841	0	27,841	146,256	19,015	15,662	196,873	329,520	155,250	862,576
1999/00	2,905	1,060,171	22,752	30,016	0	30,016	160,882	19,776	16,132	207,701	362,472	163,012	929,974
2000/01	3,133	1,143,601	24,543	32,378	0	32,378	176,970	20,567	16,616	219,125	398,719	171,163	1,003,159
2001/02	3,381	1,234,231	26,488	34,944	0	34,944	194,667	21,990	17,114	231,176	438,591	179,721	1,082,659
2002/03	3,588	1,309,796	28,109	37,084	0	37,084	210,241	22,138	17,627	242,735	469,292	186,910	1,148,943
Share	6.2	6.2	6.2	6.2	0.0	6.2	18.0%	2.0%	1.6%	21.4%	40.5%	16.6%	100.0%
10th FYP							8.0	3.5	3.0	5.0	7.0	4.0	6.2
2003/04	3,809	1,390,264	29,836	39,362	0	39,362	227,060	22,913	18,156	254,872	502,142	194,386	1,219,530
2004/05	4,044	1,475,970	31,676	41,789	0	41,789	245,225	23,715	19,701	267,616	537,292	202,162	1,294,710
2005/06	4,294	1,562,269	33,635	44,373	0	44,373	264,843	24,545	19,262	280,996	574,903	210,248	1,374,797
2006/07	4,560	1,664,542	35,725	47,127	0	47,127	286,030	25,404	19,840	295,046	615,146	218,658	1,460,124
2007/08	4,844	1,768,197	37,947	50,062	0	50,062	308,913	26,293	20,435	309,798	638,206	227,404	1,551,050
Share							19.6%	1.7%	1.4%	20.2%	42.1%	15.0%	100.0%

Note:  
 (1) One cubic meter of natural gas = 35.32 cu. ft.  
 (2) Volume of production is equal to (Net Consumption x 1.14) taking into account of waste and loss.

Source:  
 (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division  
 (2) 8th Five Year Plan  
 (3) JICA Study Team

Appendix Table 2.2.4.38 Projection of Production and Consumption of Coal (000 tons)

Year	Production	Coal I/E	Consumption	House Hold	Power	Brick Kiln	Others Government	Steel Mill	Total Consumption
1978/79	1,287	0	1,287	29	28	1,218	12	0	1,287
1979/80	1,569	-98	1,667	26	19	1,512	12	98	1,667
1980/81	1,577	-312	1,889	8	30	1,518	21	312	1,889
1981/82	1,750	-540	2,290	23	2	1,715	10	540	2,290
1982/83	1,609	-520	2,129	22	33	1,546	8	520	2,129
5th FYP Share	5.7	74.4	13.4	-6.7 1.0%	4.2 1.6%	6.1 72.6%	-9.6 0.4%	74.4 24.4%	13.4 100.0%
1983/84	1,869	-491	2,360	22	24	1,810	13	491	2,360
1984/85	2,238	-716	2,954	16	32	2,175	15	716	2,954
1985/86	2,202	-852	3,054	14	26	2,148	14	852	3,054
1986/87	2,261	-919	3,180	6	19	2,221	15	919	3,180
1987/88	2,749	-853	3,602	20	21	2,704	4	853	3,602
6th FYP Share	10.1	14.8	11.1	-2.4 0.6%	-3.3 0.6%	10.6 75.1%	-25.5 0.1%	14.8 23.7%	11.1 100.0%
1988/89	2,536	-1,004	3,540	15	41	2,586	2	896	3,540
1989/90	2,745	-1,298	4,043	7	40	3,096	0	900	4,043
1990/91	3,054	-918	3,972	4	25	3,026	0	917	3,972
1991/92	3,627	-989	4,616	7	44	3,580	0	985	4,616
1992/93	3,266	-1,045	4,311	3	47	3,217	0	1,044	4,311
7th FYP Share	6.5	1.0	5.1	-33.1 0.1%	3.5 1.1%	5.6 74.6%	0.0 0.0%	3.9 24.2%	5.1 100.0%
1993/94	3,772	-749	4,521	2	103	3,330	0	1,086	4,521
1994/95	4,357	-448	4,805	2	227	3,446	0	1,129	4,805
1995/96	5,032	-211	5,243	2	500	3,567	0	1,174	5,243
1996/97	5,812	-203	6,015	1	1,101	3,692	0	1,221	6,015
1997/98	6,713	-801	7,514	1	2,422	3,821	0	1,270	7,514
8th FYP Share	10.0	0.7	9.2	0.0%	18.3%	61.4%	0.0%	20.3%	100.0%
1998/99	7,384	-754	8,138	1	2,907	3,955	0	1,276	8,138
1999/00	8,123	-793	8,916	1	3,488	4,093	0	1,334	8,916
2000/01	8,935	-881	9,817	1	4,186	4,236	0	1,394	9,817
2001/02	9,829	-1,036	10,865	1	5,023	4,384	0	1,456	10,865
2002/03	10,812	-774	11,586	1	5,525	4,538	0	1,522	11,586
9th FYP Share	7.5	-7.3	6.8	0.0%	46.2%	40.4%	0.0%	13.4%	100.0%
2003/04	11,622	-721	12,343	1	6,077	4,697	0	1,568	12,343
2004/05	12,494	-668	13,162	1	6,685	4,861	0	1,615	13,162
2005/06	13,431	-618	14,049	1	7,354	5,031	0	1,663	14,049
2006/07	14,439	-572	15,011	1	8,089	5,207	0	1,713	15,011
2007/08	15,521	-532	16,053	1	8,898	5,390	0	1,764	16,053
10th FYP Share	7.5	-7.3	6.8	0.0%	53.9%	34.7%	0.0%	11.4%	100.0%

Source:  
 (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division  
 (2) 8th Five Year Plan  
 (3) JICA Study Team



Appendix Table 2.2.4.39 Projection of Production and Consumption of Limestone (000 tons)

Year	Limestone		
	Production	Limestone I/E	Consumption
1978/79	3,298	0	3,298
1979/80	2,798	0	2,798
1980/81	3,464	0	3,464
1981/82	3,682	0	3,682
1982/83	4,232	0	4,232
<b>5th FYP</b>	<b>6.4</b>	<b>0.0</b>	<b>6.4</b>
1983/84	4,696	0	4,696
1984/85	4,634	0	4,634
1985/86	6,313	0	6,313
1986/87	6,885	0	6,885
1987/88	7,610	0	7,610
<b>6th FYP</b>	<b>12.8</b>	<b>0.0</b>	<b>12.8</b>
1988/89	7,249	0	7,249
1989/90	7,736	0	7,736
1990/91	9,009	0	9,009
1991/92	8,528	0	8,528
1992/93	9,015	0	9,015
<b>7th FYP</b>	<b>5.6</b>	<b>0.0</b>	<b>5.6</b>
<b>8th FYP</b>	<b>8.5</b>		<b>8.5</b>
1993/94	9,781	0	9,781
1994/95	10,613	0	10,613
1995/96	11,515	0	11,515
1996/97	12,494	0	12,494
1997/98	13,555	0	13,555
<b>9th FYP</b>	<b>6.5</b>		<b>6.5</b>
1998/99	14,437	0	14,437
1999/00	15,375	0	15,375
2000/01	16,374	0	16,374
2001/02	17,439	0	17,439
2002/03	18,572	0	18,572
<b>10th FYP</b>	<b>4.0</b>		<b>4.0</b>
2003/04	19,315	0	19,315
2004/05	20,088	0	20,088
2005/06	20,891	0	20,891
2006/07	21,727	0	21,727
2007/08	22,596	0	22,596

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) JICA Study Team

Appendix Table 2.2.4.40 Projection of Production and Consumption of Iron Ore (000 tons)

Year	Iron Ore		
	Production	Iron Ore I/E	Consumption
1983/84	0	-817	817
1984/85	0	-1,205	1,205
1985/86	4,860	-1,377	6,237
1986/87	5,406	-1,438	6,844
1987/88	5,845	-1,505	7,350
<b>6th FYP</b>	<b>9.7</b>	<b>0.0</b>	<b>8.6</b>
1988/89	5,500	-1,397	6,897
1989/90	4,263	-1,547	5,810
1990/91	318	-1,501	1,819
1991/92	937	-1,623	2,560
1992/93	1,922	-1,701	3,623
<b>7th FYP</b>	<b>-23.1</b>	<b>0.0</b>	<b>-14.9</b>
<b>8th FYP</b>	<b>5.0</b>	<b>5.0</b>	<b>5.0</b>
1993/94	2,018	-1,783	3,801
1994/95	2,119	-1,972	4,091
1995/96	2,225	-1,966	4,191
1996/97	2,336	-2,064	4,400
1997/98	2,453	-2,168	4,621
<b>9th FYP</b>	<b>3.0</b>	<b>4.5</b>	<b>3.7</b>
1998/99	2,527	-2,265	4,792
1999/00	2,602	-2,367	4,969
2000/01	2,680	-2,474	5,154
2001/02	2,761	-2,585	5,346
2002/03	2,844	-2,701	5,545
<b>10th FYP</b>	<b>3.0</b>	<b>3.0</b>	<b>3.0</b>
2003/04	2,929	-2,782	5,711
2004/05	3,017	-2,866	5,883
2005/06	3,107	-2,952	6,059
2006/07	3,201	-3,040	6,241
2007/08	3,297	-3,132	6,429

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) Pakistan Year Book (Twentieth Edition) 1992/93
- (3) JICA Study Team

Appendix Table 2.2.4.41 Projection of Production and Required Materials of Pakistan Steel Mill (000 tons)

Year	Pakistan Steel		Required Materials		
	(A) Steel Production	(B) Coal Imports	(C) (B)/(A)	(D) Iron Ore Imports	(E) (D)/(A)
1983/84	654	439	0.67	817	1.25
1984/85	965	648	0.67	1,205	1.25
1985/86	1,102	740	0.67	1,377	1.25
1986/87	1,151	773	0.67	1,438	1.25
1987/88	1,204	809	0.67	1,504	1.25
<b>6th FYP</b>	<b>16.5</b>	<b>16.5</b>	<b>0.67</b>	<b>16.5</b>	<b>1.25</b>
1988/89	1,181	910	0.77	1,396	1.18
1989/90	1,204	1,023	0.85	1,547	1.28
1990/91	1,228	979	0.80	1,501	1.22
1991/92	1,252	985	0.79	1,622	1.30
1992/93	1,277	1,044	0.82	1,701	1.33
<b>7th FYP</b>	<b>2.0</b>	<b>3.5</b>	<b>0.80</b>	<b>5.1</b>	<b>1.26</b>
<b>8th FYP</b>	<b>5.0</b>	<b>5.0</b>		<b>5.0</b>	
1993/94	1,341	1,073	0.80	1,783	1.33
1994/95	1,408	1,126	0.80	1,872	1.33
1995/96	1,478	1,183	0.80	1,966	1.33
1996/97	1,552	1,242	0.80	2,064	1.33
1997/98	1,630	1,304	0.80	2,168	1.33
<b>9th FYP</b>	<b>4.5</b>	<b>4.5</b>		<b>4.5</b>	
1998/99	1,703	1,363	0.80	2,265	1.33
1999/00	1,780	1,424	0.80	2,367	1.33
2000/01	1,860	1,488	0.80	2,474	1.33
2001/02	1,944	1,555	0.80	2,585	1.33
2002/03	2,031	1,625	0.80	2,701	1.33
<b>10th FYP</b>	<b>3.0</b>	<b>7.0</b>		<b>3.0</b>	
2003/04	2,092	1,674	0.80	2,782	1.33
2004/05	2,155	1,724	0.80	2,866	1.33
2005/06	2,219	1,775	0.80	2,952	1.33
2006/07	2,286	1,829	0.80	3,040	1.33
2007/08	2,355	1,884	0.80	3,132	1.33

Source:

- (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division
- (2) Pakistan Year Book (Twentieth Edition) 1992/93
- (3) JICA Study Team

Appendix Table 2.2.4.42 Projection of Production and Consumption of Other Minerals (000 tons)

Year	Other Minerals		Antimony	Marble	China Clay	Chromite	Dolomite	Fire Clay	Gypsum	Rock Salt	Silica Sand	Soap Stone	Barayte	Others
	Production	Consumption												
1978/79	1,445	0	69	119	16	5	15	52	234	486	84	33	32	300
1979/80	1,551	0	50	92	15	4	16	57	368	495	104	31	19	300
1980/81	1,779	0	39	114	40	1	24	60	554	514	84	28	21	300
1981/82	1,640	0	51	95	41	3	93	68	303	534	99	23	30	300
1982/83	1,728	0	40	121	24	5	100	69	341	548	141	19	20	300
5th FYP	4.6	0.0	-12.7	0.4	10.7	0.0	60.7	7.3	9.9	3.0	13.8	-12.9	-11.1	0.0
1983/84	1,713	0	1,713	101	21	4	82	84	339	581	99	16	36	350
1984/85	1,631	0	1,631	53	0	3	120	77	300	573	111	17	21	350
1985/86	1,983	0	1,983	122	21	10	127	73	381	619	193	21	42	350
1986/87	1,976	0	1,976	203	33	7	151	100	412	503	127	25	20	350
1987/88	2,002	40	1,962	216	43	9	134	134	404	502	164	33	13	350
6th FYP	4.0	0.0	3.5	20.9	19.6	22.5	13.1	12.4	4.5	-3.6	13.4	19.8	-22.5	0.0
1988/89	2,195	40	2,155	223	38	12	100	118	426	620	165	38	30	400
1989/90	2,410	33	2,377	267	30	33	105	131	491	735	136	31	25	400
1990/91	2,556	43	2,513	281	44	24	154	120	468	736	143	32	26	400
1991/92	2,613	42	2,571	321	42	28	180	139	471	833	132	37	30	400
1992/93	2,865	44	2,821	388	37	23	220	132	533	895	158	48	26	400
7th FYP	6.9	0.0	-33.1	14.9	-0.7	17.7	21.8	2.8	5.8	9.6	-1.1	6.0	-3.5	0.0
1993/94	10.0	53	9.0	15.0	16.0	10.0	7.0	4.0	13.5	3.0	23.0	16.0	3.0	8.0
1994/95	3,128	73	3,055	446	43	25	235	137	605	922	194	56	27	432
1995/96	3,425	108	3,317	513	50	28	252	143	687	950	239	65	28	467
1996/97	3,761	160	3,603	590	58	31	270	148	779	978	294	75	28	504
1997/98	4,142	235	3,907	679	67	34	288	154	885	1,007	362	87	29	544
8th FYP	4.576	2.35	4.340	7.80	7.8	37	30.9	16.1	10.04	10.38	44.5	10.1	3.0	5.88
1998/99	5.7	204	6.5	8.0	7.0	6.0	5.0	2.5	5.0	2.0	12.0	12.0	3.0	4.0
1999/00	4,826	172	4,654	843	83	39	324	165	1,054	1,058	498	113	31	611
2000/01	5,095	141	4,954	910	89	42	340	169	1,107	1,079	588	126	32	636
2001/02	5,384	110	5,274	983	95	44	357	173	1,162	1,101	625	142	33	661
2002/03	5,694	81	5,613	1,062	102	47	375	177	1,220	1,123	700	159	34	688
9th FYP	6.027	81	5.947	1.147	109	50	394	182	1.281	1.146	784	178	35	715
10th FYP	5.5	106	5.0	6.0	5.0	5.0	2.5	2.5	5.0	2.8	10.0	10.0	2.5	4.0
2004/05	6,350	138	6,212	1,215	114	52	414	186	1,345	1,178	862	195	36	744
2005/06	6,694	176	6,518	1,288	120	55	434	191	1,413	1,211	949	215	37	773
2006/07	7,060	221	6,839	1,366	126	57	456	196	1,483	1,244	1,043	236	38	804
2007/08	7,449	274	7,175	1,448	132	60	479	201	1,557	1,279	1,148	260	39	837
2008/09	7,864	339	7,525	1,535	139	63	503	206	1,635	1,315	1,263	286	40	870

Source: (1) Economic Survey 1993/94, Economic Advisor's Wing, Financial Division  
 (2) 8th Five Year Plan, Planning Commission  
 (3) JICA Study Team

Appendix Table 2.2.4.43 Projection of Additional Power Supply

Private C.C.	Oil-fired		Oil-fired		Oil-fired		C.C.		C.C.		C.C.		C.C.		Others		Total		Grand Total		Over-all Grand Total		
	C.C.	Oil-fired	Oil-fired	Oil-fired	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	C.C.	Thermal Power Installed Capacity	Private Owned Installed Capacity	Total Hydel Power Installed Capacity	Grand Total Nuclear Power Installed Capacity	Over-all Grand Total		
Hub River	Kabirwal Power Plant	Lasbera district Power Plant	Jamsholo Power Plant	Tawakkal Kohinoor Uch Power Plant	Uch Power Plant	Based on Sui Gas (Quetta)	Based on SPECO gas (Quetta)	Sahiwal or Ghodki															
1,900	147	350	420	109	120	1,800	104	125	600	9,800	15,475	15,475	2,089	17,876	300						20,265		
8th FYP																							
1993/94	0	0	0	0	0	0	0	0	0	0	286	286	0	1,131	0	0	0	0	0	0	1,131	0	1,131
1994/95	0	0	0	0	0	0	0	0	0	139	139	1,096	0	2,477	0	0	0	0	0	0	2,477	0	2,477
1995/96	323	147	350	137	0	0	0	0	0	139	1,096	1,096	0	3,287	0	0	0	0	0	0	3,287	0	3,287
1996/97	1,292	147	350	420	109	120	1,040	0	0	139	2,577	2,577	0	4,978	0	0	0	0	0	0	4,978	0	4,978
1997/98	1,292	147	350	420	109	120	1,040	0	0	139	3,617	3,617	0	6,018	0	0	0	0	0	0	6,018	0	6,018
9th FYP																							
1998/99	1,292	147	350	420	109	120	1,100	104	125	600	4,767	4,767	184	7,168	0	0	0	0	0	0	7,168	0	7,352
1999/00	1,292	147	350	420	109	120	1,100	104	125	600	4,767	4,767	469	7,168	300	0	0	0	0	0	7,168	300	7,937
2000/01	1,292	147	350	420	109	120	1,100	104	125	600	8,267	8,267	1,609	10,668	300	0	0	0	0	0	10,668	300	12,577
2001/02	1,292	147	350	420	109	120	1,100	104	125	600	8,267	8,267	1,609	10,668	300	0	0	0	0	0	10,668	300	12,577
2002/03	1,292	147	350	420	109	120	1,100	104	125	600	8,267	8,267	1,969	10,668	300	0	0	0	0	0	10,668	300	12,937
10th FYP																							
2003/04	1,292	147	350	420	109	120	1,100	104	125	600	8,267	8,267	2,089	10,668	300	0	0	0	0	0	10,668	300	13,057
2004/05	1,292	147	350	420	109	120	1,100	104	125	600	8,267	8,267	2,089	10,668	300	0	0	0	0	0	10,668	300	13,057
2005/06	1,900	147	350	420	109	120	1,800	104	125	600	15,475	15,475	2,089	17,876	300	0	0	0	0	0	17,876	300	20,265
2006/07	1,900	147	350	420	109	120	1,800	104	125	600	15,475	15,475	2,089	17,876	300	0	0	0	0	0	17,876	300	20,265
2007/08	1,900	147	350	420	109	120	1,800	104	125	600	15,475	15,475	2,089	17,876	300	0	0	0	0	0	17,876	300	20,265

Note:

(1) C.C. means gas and oil combined cycle power generation type.

Source:

(1) 8th Five Year Plan, Planning Commission

(2) JICA Study Team

Projection of Additional Power Supply

	Government										Thermal Power Total Installed Capacity	Total Government Owned Installed Capacity				
	Hydel Power	Hydel Power	Hydel Power	Nuclear Power	Nuclear Power	Nuclear Power	C.C.	C.C.	C.C.	F.D.			C.C.	C.C.	C.C.	
	Hydel Power	Hydel Power	Hydel Power	Total Installed Capacity	Total Installed Capacity	Total Installed Capacity	Guddu	Mangula	Faisalabad	Lakhra	Muzaffargarh	Kot Addu	Bin Qasim			
Final Capa	1,450	480	184	2,089	300	300	145	100	40	150	1,120	40	596	210	2,401	4,790
8th FYP																
1993/94	0	0	0	0	0	0	145	100	40	150	392	40	264	0	1,131	1,131
1994/95	0	0	0	0	0	0	145	100	40	150	1,120	40	596	0	2,191	2,191
1995/96	0	0	0	0	0	0	145	100	40	150	1,120	40	596	0	2,191	2,191
1996/97	0	0	0	0	0	0	145	100	40	150	1,120	40	596	210	2,401	2,401
1997/98	0	0	0	0	0	0	145	100	40	150	1,120	40	596	210	2,401	2,401
9th FYP																
1998/99	0	0	184	184	0	0	145	100	40	150	1,120	40	596	210	2,401	2,585
1999/00	285	0	184	469	300	300	145	100	40	150	1,120	40	596	210	2,401	3,170
2000/01	1,425	0	184	1,609	300	300	145	100	40	150	1,120	40	596	210	2,401	4,310
2001/02	1,425	0	184	1,609	300	300	145	100	40	150	1,120	40	596	210	2,401	4,310
2002/03	1,425	360	184	1,969	300	300	145	100	40	150	1,120	40	596	210	2,401	4,670
10th FYP																
2003/04	1,425	480	184	2,089	300	300	145	100	40	150	1,120	40	596	210	2,401	4,790
2004/05	1,425	480	184	2,089	300	300	145	100	40	150	1,120	40	596	210	2,401	4,790
2005/06	1,425	480	184	2,089	300	300	145	100	40	150	1,120	40	596	210	2,401	4,790
2006/07	1,425	480	184	2,089	300	300	145	100	40	150	1,120	40	596	210	2,401	4,790
2007/08	1,425	480	184	2,089	300	300	145	100	40	150	1,120	40	596	210	2,401	4,790

Note:  
(1) C.C. means gas and oil combined cycle power generation type.

Source:  
(1) 8th Five Year Plan, Planning Commission  
(2) JICA Study Team

Appendix Table 2.3.5.1 Progress of Transport Sector in the 7th FYP

Sl. No.	Road, Bridge and Highway	Year	1st		2nd		3rd		4th		5th		6th		7th FYP		Rate of progress on expenditure	
			1987/88	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	Total Expenditure		Total Expenditure
<b>PUNJAB</b>																		
1	Dual Cartageway 4.6m 1894 to 2021		284,021	FEC	3,000	145,417	74,596	18,000	45,844	2,165	0	0	0	0	0	48,009	286,022	100.0%
2	Coast of Tallwala Bridge		303,000		0	40,158	40,000	60,000	54,218	75,500	0	0	0	0	0	129,718	772,876	82.7%
3	Rahab of Gyanwala - Lalwala		80,700		0	5,000	5,000	21,700	20,000	20,000	0	0	0	0	0	62,000	88,700	100.0%
4	Rahab of Sakhal - Chakrasal		82,133		0	4,137	10,000	10,800	20,000	20,000	1,037	0	0	0	0	57,046	82,133	100.0%
5	Additional cartageway N-5 Laban - Sakhal		1,157,000		0	0	0	0	34,953	5,000	0	0	0	0	0	45,053	1,157,000	3.9%
6	Rahab of damaged road, Coast Yaseen Kohala		29,347		0	0	0	0	0	0	0	0	0	0	0	11,877	11,877	40.4%
7	Revolving of Kalaab Bug, mile 217 N-5		1,398		0	0	0	0	0	0	0	0	0	0	0	1,398	1,398	100.0%
8	Labor by-pass		660,650		0	0	0	14,638	0	34,896	0	0	0	0	0	34,896	49,534	7.5%
9	Rahab of NH km 417 - 425, 630 - 644		14,458		0	0	1,500	5,708	5,000	5,000	0	0	0	0	0	10,708	13,708	94.8%
10	Rahab of NH km 474 - 480, 723 - 733		12,159		0	2,000	2,000	2,000	3,159	3,000	0	0	0	0	0	6,159	12,159	100.0%
11	Overlay on N-5 mile 208 - 209, 214 - 221		9,602		0	1,312	5,000	2,782	500	500	0	0	0	0	0	1,000	8,282	85.9%
12	Imp. of NH N-5 mile 604 - 643 (in Malin)		5,530		0	1,115	2,000	2,817	230	230	0	0	0	0	0	460	9,289	99.9%
13	Revolving of Old Damaged Bridge		9,970		0	0	2,880	2,880	0	0	0	0	0	0	0	530	5,530	100.0%
14	Realigning of NH N-5 km 1479 Sakhal		6,135		0	0	1,162	1,162	0	0	0	0	0	0	0	2,880	9,970	100.0%
15	Revolving of NH N-5 mile 327 - 331		4,800		0	0	2,628	2,628	0	0	0	0	0	0	0	1,162	6,135	100.0%
16	Imp. of L.M.C. Road mile 217 - 219		1,678		0	3,300	2,000	2,000	1,778	0	0	0	0	0	0	4,800	8,400	100.0%
17	Coast of Old Road Bridge mile 94, N-5, Ogira		1,167,000	FEC	72,154	0	0	0	106,207	0	0	0	0	0	0	106,207	1,167,000	9.1%
18	Additional cartageway, N-5 Laban - Sakhal		1,870		0	1,345	0	300	135	0	0	0	0	0	0	155	1,820	100.0%
19	Imp. of NH N-5 mile 196 - 197, Rawalpindi		2,861		0	0	0	0	2,861	0	0	0	0	0	0	2,861	2,861	100.0%
20	Rahab and repair N-5, km 898 - 899		4,579		0	0	0	0	0	2,000	0	0	0	0	0	4,579	4,579	100.0%
21	Rahab of N-5 mile 485 - 486		798		0	0	0	0	798	0	0	0	0	0	0	798	798	100.0%
22	Reducting of damaged bridge, N-5 mile 70		18,330		0	11,117	0	500	0	1,787	4,916	0	0	0	0	6,703	18,330	100.0%
23	Recoat of 2 old Arch Bridge, N-5 km 1477		1,820		0	0	0	0	0	0	0	0	0	0	0	1,820	1,820	100.0%
24	Imp. of NH N-5 mile 196 - 197, Rawalpindi Dist.		2,861		0	0	0	0	0	2,861	0	0	0	0	0	2,861	2,861	100.0%
25	Raising and repair of N-5 km 898 - 899		19,500		0	0	0	0	0	0	10,000	0	0	0	0	10,000	19,500	51.3%
26	Recoat of N-5 km 1366 - 1379 Laban - Kala		1,579		0	0	0	0	0	0	0	0	0	0	0	1,579	1,579	100.0%
27	Repairing of Kalaab Bridge N-5 mile 217		3,997,432		72,154	214,591	153,814	143,257	310,362	173,557	70,014	1,439	0	0	0	553,572	1,067,034	27.1%
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1st 2nd 3rd 4th 5th  
 8889 8990 9091 9192 9293  
 Sums Sums Sums Sums Sums

Year Total Cost FEC

Amount of Foreign Aid

1st 2nd 3rd 4th 5th  
 198789 198990 199091 199192 199293  
 Expenditure Expenditure Expenditure Expenditure Expenditure

7th FYP Total Expenditure

198693 Total Expenditure

Rate of progress on expenditures

Sub-sector	Year					Amount of Foreign Aid	1986-87					1987-88	1987-89					7th FYP Total Expenditure	1986-93 Total Expenditure	Rate of progress on expenditures
	1st	2nd	3rd	4th	5th		1st	2nd	3rd	4th	5th		1st	2nd	3rd	4th	5th			
AVIATION DIVISION																				
AIRPORT SECURITY FORCE																				
1 Construction for barracks for 124 para, KH																				
2 Const. of accommodations at 5 small airports I																				
3 Const. of accommodations at 5 small airports II																				
PAK METEOROLOGICAL DEPARTMENT																				
4 Const. of airport, sea & Bazaar airport																				
5 Upper wind observation, Hyderabad																				
6 Reinforced observation, Lahore																				
CIVIL AVIATION AUTHORITY																				
7 Special initial equipment																				
8 Provision of radio trainer																				
9 Upgradation of computer system in MRS																				
10 Provision of ambulances for 15 airports																				
11 Medical and disaster kit for 5 airports																				
12 Procurement of computer for MRS																				
13 Transportable aids																				
14 110,000 sq ft for Annexment Approach I																				
15 110,000 sq ft for Annexment Approach II																				
16 110,000 sq ft for Annexment Approach III																				
17 110,000 sq ft for Annexment Approach IV																				
18 Aeronautical Commission & Control TV																				
19 New Terminal associated facilities																				
20 Const. of New Terminal Complex I																				
21 Const. of New Terminal Complex II																				
22 Project management cost paid to Bachi																				
23 Alliances with technical maintenance facilities																				
24 New PCR building																				
25 New ATC tower building																				
26 Const. of New Runway & 2 aprons for wide body																				
27 Imp. of radio communication facilities (Dhang)																				
28 Provision of Public Address System																				
29 Provision of UHF link																				
30 D. C. Paving System (GAP, HQCAA)																				
31 Provision of RT Emission/RT for air traffic control																				
32 Procurement of Fire Fighting Equipment																				
33 Procurement of Air Conditioners																				
34 Procurement of miscellaneous electromechanical sp																				
35 Procurement of Water Cooler and Refrigerator																				
36 Procurement of Honecultural, Sanitary repair																				
37 Procurement of Polishing and Floor Cleaning Equip																				
38 Provision of Voltage Stabilizers																				
39 Provision of additional Trolleys for Passenger																				
40 Provision of FDIs for Quetta and Peshawar																				
41 Procurement of Auxiliary Battery Equipment																				
42 Procurement of Test Equipment for FIDY																				
43 Procurement of Crank, Fire, Rescue Vehicle																				
44 Provision of Movable Flood Lights																				
45 Replacement of special use vehicle I																				
46 Replacement of special use vehicle II																				
47 Procurement of omnibus use vehicle																				
48 Replacement of oil NDIBs																				
49 Procurement of runway rubber deposit removal																				
50 Provision of 200 pair telephone cable for ACC																				
51 Provision of 200 pair telephone cable for ACC																				
52 Provision of UPS for TR six new Radar																				
53 Provision of VOR/DME																				
54 Procurement of Electric/Motors at Fieder Svc																				
55 Provision of Communications & NAVAID																				
56 Generator 25 KVA																				
57 Procurement of Water Barrels																				
58 Laying of Underground Table																				
59 Provision of TVOR																				
60 Imp. of Airside Facilities at Ayala, TFW																				
61 Installation of Taberwell and Overhead Tank																				
62 Imp. of Existing Facilities																				
63 General works																				
64 Const. of ID Type: Flare (One neck)																				
65 Const. of Aprons																				
66 Const. of Electrical Junction of Ganges																				
67 Imp. of Runway for F-27 operations																				
68 Const. of New Terminal and Allied Facilities																				
69 Imp. of Existing Aeronautical Facilities																				
70 Const. of New Terminal and Allied Facilities																				
71 Const. of Perimeter Wall Around the Airport																				
72 Acquisition of Land for Approach Light ILS																				
73 Expansion of Arrival Lounge																				
74 Additional V.I.P. Lounge incl. Aircrafttoaster																				



