

J-3 Estimation of Required Equipment in North-Eastern Zone
 J-3 地域別必要機械数量算定表 (NORTH-EASTERN ZONE)

Implementation Schedule (year)		93/94	94/95	95/96	96/97	MAX. REQUIRED								
Intake Type		Weir	Weir	Weir	-									
Irrigation Area (ha)		385	280	300	0	385								
Construction Unit		2	3	1	0	3								
Item	Equipment	Unit of Total Quantity	Capacity per day	Capacity per year	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units			
Earth Works	Bulldozer	m ³	467	126,090	349,240	2.8	253,993	2.0	272,135	2.2	0	0.0	349,240	3
	Wheel Loader	m ³	380	102,600	166,964	1.6	121,428	1.2	130,102	1.3	0	0.0	166,964	2
	Backhoe Loader	m ³	216	58,320	50,474	0.9	36,708	0.6	39,330	0.7	0	0.0	50,474	1
	Vibro Compactor	Units*Dam Works	0.25	0.25	0	0.0	0	0.0	0	0.0	0	0.0	0	0
	Motor Grater	m/day	494	133,380	273,728	2.1	199,075	1.5	213,295	1.6	0	0.0	273,728	2
	Dump Truck	m ³ /day	53	17,010	194,892	11.5	141,740	8.3	151,864	8.9	0	0.0	194,892	11
	Motor Scraper	m ³ /day	330	105,300	0	0.0	0	0.0	0	0.0	0	0.0	0	0
	Water Brewer	Units*Cons. Works	2	2	2	1.0	3	1.5	1	0.5	0	0.0	3	2
	Work Roller	Units*Cons. Works	1	1	2	2.0	3	3.0	1	1.0	0	0.0	3	3
On-farm	Tractor	ha/day	2	540	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Support Works	Trailer	Units / Machine	4	4	7	1.8	7	1.7	5	1.3	0	0.0	7	2
	Truck	Units / Machine	12	12	7	0.6	7	0.6	5	0.4	0	0.0	7	1
	Mobil Workshop	Units / Machine	8	8	7	0.9	7	0.9	5	0.6	0	0.0	7	1
	Mobil Greasing	Units / Machine	29	29	7	0.3	7	0.2	5	0.2	0	0.0	7	0
	Motor Cycle	Units / Machine	1	1	2	2.0	3	3.0	1	1.0	0	0.0	3	3
	Crane	Units / Machine	20	20	7	0.4	7	0.3	5	0.3	0	0.0	7	0
	Station Wagon	Units*Cons. Works	2	2	2	4.0	3	6.0	1	2.0	0	0.0	3	6
	Pick-up	Units*Cons. Works	1	1	2	2.0	3	3.0	1	1.0	0	0.0	3	3
Inspection	Drilling Machine	Units*Dam Works	2	2	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Temporary	Generator	Units*Cons. Works	1	1	2	2.0	3	3.0	1	1.0	0	0.0	3	3
Concrete Works	Stone Crusher	m ³ /day	43	11,610	36,347	3.1	26,434	2.3	28,323	2.4	0	0.0	36,347	3
	Concrete Mixer	m ³ /day	43	11,610	36,347	3.1	26,434	2.3	28,323	2.4	0	0.0	36,347	3

J - 4 Estimation of Required Equipment in North-Western Zone
 J - 4 地域別必要機械数量算定表 (NORTH-WESTERN ZONE)

Implementation Schedule (year)										93/94		94/95		95/96		96/97		MAXIMUM REQUIRED		
Item	Equipment	Unit of Total Quantity	Capa. per day	Capacity per year	Weir		Dam		Total		Weir		Weir		Weir		Total Quantity	No. of Units	Total Quantity	No. of Units
					Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units				
Intake Type					500		50		550		1,140		795		1,140					
Irrigation Area (ha)					3		1		4		8		5		8					
Construction Unit																				
Earth Works	Bulldozer	m ³	467	126,090	453,559	3.6	85,021	0.7	538,580	4.3	1,034,114	8.2	721,159	5.7	682,153	5.4	1,034,114	8		
	Wheel Loader	m ³	380	102,600	215,836	2.1	52,794	0.5	269,630	2.6	494,386	4.8	344,769	3.4	326,121	3.2	494,386	5		
	Backhoe Loader	m ³	216	58,320	65,550	1.1	6,964	0.1	72,514	1.2	149,455	2.6	104,225	1.8	98,588	1.7	149,455	3		
	Vibro Compactor	Units*Dam Works	0.25	0.25	0	0.0	1	4.0	1	4.0	0	0.0	0	0.0	0	0.0		4		
	Motor Grater	m/day	494	133,380	355,492	2.7	21,013	0.2	376,505	2.8	810,521	6.1	565,232	4.2	534,659	4.0	810,521	6		
	Dump Truck	m ³ /day	63	17,010	253,107	14.9	56,478	3.3	309,585	18.2	577,084	33.9	402,440	23.7	380,673	22.4	577,084	34		
	Motor Scraper	m ³ /day	390	105,300	0	0.0	27,699	0.3	27,699	0.3	0	0.0	0	0.0	0	0.0	27,699	0		
	Water Brewer	Units*Cons. Works	2	2	3	1.5	1	0.5	4	2.0	8	4.0	5	2.5	8	4.0	8	4		
	Work Roller	Units*Cons. Works	1	1	3	3.0	1	1.0	4	4.0	8	8.0	5	5.0	8	8.0	8	8		
On-farm	Tractor	ha/day	2	540	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0		
Support Works	Tractor	Units / Machine	4	4	10	2.5	7	1.6	16	4.1	24	5.9	16	4.0	18	4.6	24	6		
	Truck	Units / Machine	12	12	10	0.8	7	0.5	16	1.4	24	2.0	16	1.3	18	1.5	24	2		
	Mobil Workshop	Units / Machine	8	8	10	1.2	7	0.8	16	2.1	24	2.9	16	2.0	18	2.3	24	3		
	Mobil Greasing	Units / Machine	29	29	10	0.3	7	0.2	16	0.6	24	0.8	16	0.5	18	0.6	24	1		
	Motor Cycle	Units / Machine	1	1	3	3.0	1	1.0	4	4.0	8	8.0	5	5.0	8	8.0	8	8		
	Crane	Units / Machine	20	20	10	0.5	7	0.3	16	0.8	24	1.2	16	0.8	18	0.9	24	1		
	Station Wagon	Units*Cons. Works	2	2	3	6.0	1	2.0	4	8.0	8	16.0	5	10.0	8	16.0	8	16		
	Pick-up	Units*Cons. Works	1	1	3	3.0	1	1.0	4	4.0	8	8.0	5	5.0	8	8.0	8	8		
Inspection	Drilling Machine	Units*Dam Works	2	2	0	0.0	1	1	0	0	0	0.0	0	0	0	0.0	0	1		
Temporary	Generator	Units*Cons. Works	1	1	3	3.0	1	1.0	4	4.0	8	8.0	5	5.0	8	8.0	8	8		
Concrete Works	Stone Crusher	m ³ /day	43	11,610	47,204	4.1	2,387	0.2	49,591	4.3	107,626	9.3	75,055	6.5	70,995	6.1	107,626	9		
	Concrete Mixer	m ³ /day	43	11,610	47,204	4.1	2,387	0.2	49,591	4.3	107,626	9.3	75,055	6.5	70,995	6.1	107,626	9		

J - 5 Estimation of Required Equipment in Western Zone
 J - 5 地域別必要機械数量算定表 (WESTERN ZONE)

Implementation Schedule (year)		93/94		94/95		95/96		96/97		MAX. REQUIRED	
Intake Type		Weir		Weir		Weir		Weir			
Irrigation Area (ha)		210		140		255		580		580	
Construction Unit		3		1		2		3		3	
Item	Equipment	Unit of Total Quantity	Capacity per day	Capacity per year	Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity	No. of Units	Total Quantity
Earth Works	Bulldozer	m ³	467	126,090	190,495	1.5	126,996	1.0	291,315	1.8	526,128
	Wheel Loader	m ³	380	102,600	91,071	0.9	60,714	0.6	110,586	1.1	251,530
	Backhoe Loader	m ³	216	58,320	27,531	0.5	18,354	0.3	33,431	0.6	76,039
	Vibro Compactor	Units*Dam Works	0.25	0.25	0	0.0	0	0.0	0	0.0	0
	Motor Grader	m/day	494	133,380	149,305	1.1	99,538	0.7	181,301	1.4	412,370
	Dump Truck	m ³ /day	63	17,010	106,305	6.2	70,870	4.2	129,085	7.6	293,604
	Motor Scraper	m ³ /day	390	105,800	0	0.0	0	0.0	0	0.0	0
	Water Broyer	Units*Cons.Works	2	2	3	6.0	1	2.0	2	4.0	3
	Wark Roller	Units*Cons.Works	1	1	3	3.0	1	1.0	2	2.0	3
On-farm	Tractor	ha/day	2	540	0	0.0	0	0.0	0	0.0	0
Support Works	Tractor	Units / Machine	4	4	6	1.5	3	0.7	5	1.4	11
	Truck	Units / Machine	12	12	6	0.5	3	0.2	5	0.5	11
	Mobil Workshop	Units / Machine	8	8	6	0.7	3	0.4	5	0.7	11
	Mobil Grasing	Units / Machine	29	29	6	0.2	3	0.1	5	0.2	11
	Motor Cycle	Units / Machine	1	1	3	3.0	1	1.0	2	2.0	3
	Crane	Units / Machine	20	20	6	0.3	3	0.1	5	0.3	11
	Station Wagon	Units*Cons.Works	2	2	3	6.0	1	2.0	2	4.0	3
	Pick-up	Units*Cons.Works	1	1	3	3.0	1	1.0	2	2.0	3
Inspection	Drilling Machine	Units*Dam Works	2	2	0	0.0	0	0.0	0	0.0	0
Temporary	Generator	Units*Cons.Works	1	1	3	3.0	1	1.0	2	2.0	3
Concrete Works	Stone Crusher	m ³ /day	43	11,610	19,826	1.7	13,217	1.1	24,074	2.1	54,757
	Concrete Mixer	m ³ /day	43	11,610	19,826	1.7	13,217	1.1	24,074	2.1	54,757

J - 6 Estimation of Required Equipment in South-Western Zone
 J - 6 地域別必要機械數量算定表 (SOUTH-WESTERN ZONE)

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Implementation Schedule (year)		93/94	94/95	95/96	96/97	MAX. REQUIRED								
Intake Type		Weir	Weir	Weir	Weir									
Irrigation Area (ha)		175	715	310	0	715								
Construction Unit		1	4	2	0	4								
Item	Equipment	Unit of Total Quantity	Capacity per day	Capacity per year	No. of Units	Total No. of Units	No. of Units							
Earth Works	Bulldozer	m3	467	126,090	158,746	1.3	648,589	5.1	281,207	2.2	0	0.0	648,589	5
	Wheel Loader	m3	380	102,600	75,893	0.7	310,076	3.0	134,438	1.3	0	0.0	310,076	3
	Backhoe Loader	m3	216	58,320	22,943	0.4	93,737	1.6	40,641	0.7	0	0.0	93,737	2
	Vibro Compactor	Units*Dam Works	0.25	0.25	0	0.0	0	0.0	0	0.0	0	0.0	0	0
	Motor Grادر	m/day	494	133,380	124,422	0.9	508,353	3.8	220,405	1.7	0	0.0	508,353	4
	Dump Truck	m3/day	63	17,010	88,587	5.2	361,943	21.3	156,926	9.2	0	0.0	361,943	21
	Motor Scraper	m3/day	390	105,300	0	0.0	0	0.0	0	0.0	0	0.0	0	0
	Water Brewer	Units*Cons. Works	2	2	1	2.0	4	3.0	2	4.0	0	0.0	4	8
	Work Roller	Units*Cons. Works	1	1	1	1.0	4	4.0	2	2.0	0	0.0	4	4
On-farm	Tractor	ha/day	2	540	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Support Works	Tractor	Units / Machine	4	4	3	0.8	14	3.4	6	1.6	0	0.0	14	3
	Truck	Units / Machine	12	12	3	0.3	14	1.1	6	0.5	0	0.0	14	1
	Mobil Workshop	Units / Machine	8	8	3	0.4	14	1.7	6	0.8	0	0.0	14	2
	Mobil Greasing	Units / Machine	29	29	3	0.1	14	0.5	6	0.2	0	0.0	14	0
	Motor Cycle	Units / Machine	1	1	1	1.0	4	4.0	2	2.0	0	0.0	4	4
	Crane	Units / Machine	20	20	3	0.2	14	0.7	6	0.3	0	0.0	14	1
	Station Wagon	Units*Cons. Works	2	2	1	2.0	4	8.0	2	4.0	0	0.0	4	8
	Pick-up	Units*Cons. Works	1	1	1	1.0	4	4.0	2	2.0	0	0.0	4	4
Inspection	Drilling Machine	Units*Dam Works	2	2	0	0.0	0	0.0	0	0.0	0	0.0	0	0
Temporary	Generator	Units*Cons. Works	1	1	1	1.0	4	4.0	2	2.0	0	0.0	4	4
Concrete Works	Stone Crusher	m3/day	43	11,610	16,521	1.4	67,502	5.8	29,267	2.5	0	0.0	67,502	5
	Concrete Mixer	m3/day	43	11,610	16,521	1.4	67,502	5.8	29,267	2.5	0	0.0	67,502	6

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