## ANNEX E

COMPREHENSIVE DISASTER PREVENTION

# ANNEX – E COMPREHENSIVE DISASTER PREVIOUS

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T	District	Table E-1 Village	Cause		. Journa		Dama		=444 Y	. DUNI	yaı		ridge	Road	Others
무 요	DISTRICT	Village	Cause	Intoke	Intake dam	Farm		Canal	Canat	Water	Spring		Degree	Road	Others
Ship				dam	(Agri.)	(ha)	(ba)	(km)	Canat	pipe	Spring	140.	(%)	:	
- 1	Gand- bian		F	4	1		20	8							
		Hosein-abad	F	l					1		· · · · · · · · · · · · · · · · · · ·				
		Maamureh	F		-				1						
		Shams-abad	F			ļ. <del></del>	<del>                                     </del>	2	<u> </u>		1				
		Lahdaraze/ Cheshmeh	F	 		-					:				
		Ali Emamoeys	F	<u> </u>		<u> </u>									
- 1		Kanark-olia	F				ļ				·				
Borgen		Moorchegan	F		·	20		ļ			<b> -</b>				
Po [		Nasir-abad	F			20	ļ	<u> </u>							
.		Vastegan	F			80	<del> </del>					10			10 wells
- 1			F		ļ	80					ļ	10			10 wells
-		Chermineh	F			ļ- 		<u> </u>		•••	·				<u> </u>
. [	Borgen	Dehno	F										· · · · · · · · · · · · · · · · · · ·		
		Sefiddasht	F			-	<b> </b>								
.		Faradonbeh	F				-	<u> </u>							
	~.	Naghaneh	F	<u> </u>			<u> </u>				:17	<u> </u>			ļ
	Chogha khor	•	F			12		1			<b> </b>			·	
	<u> </u>				ļ. <u>-</u>	ļ	17				ļ			114	
3.4	Ardal	Behesht-abad Central	F, L F, L				-	ļ			-	15	30~80		Fishpond
		Sheikh-	L	-		<del>                                     </del>			ļ		ļ	13	30~80	between two	<b>}</b>
		mahmood/ Liraby											· .	village	
· ·.		Davazdah-	F									1			
- 1		emam										^			
. [		Когу	L		F							1			
	Dinaran	Nou-tarakee	1								-	. 1			
	1	Aziz-abad	L							2.5					Fishpond
		Heidar-abad/ Chahartaq	F, L											between two village	
ret 1		Kavand- darvishan	F, L											1	
₹.		Gel-sefid	F												Pumping tool
		Sar-rok/ Colcole	F									1		between two village	. 1
1	Mian- kooh	Sarkhun	F							1					
		Sarkhun/ (Center)	I								1	5	:		
	. 1	Dgh-kohneh	F, L												Fishpond
		Melek-shir	F			İ						1		1	
	1	Kaheedan	I .									1			
		Landi/ Chandeh	F	:										between two village	
	·	Shelil		<del></del>			<b></b>						<del></del>		Fishpond

Note: Agri. = Agriculture, Gar. = Garden, F = Flood, L = Landslide

Source: Chabarmahar Province

			(1/2) Flood Damage I			~~~~~	ya Bakh	teyar Pro	ovince		L	L
Date	T/Ship	District	Village	N	o. of Hous	es		Human			Road	
		1,	<u> </u>	70% ~	30-70	0-30	Killed	Lost	Injured	Vil.	Gra.	Pav
987/7/27	Farsan			0			0		0		15	
987/3/10	Farsan			0			0		0		20	
991/12/11	Farsan			0			0		0		20	
991/12/15	Farsan			0			0		0		20	
992/2/3	Farsan											
991/2/22	Farsan			30								
994/11/6	Farsan		Kohrang									
995/5/31	Farsan	T :	Shoorab									
995/8/20	Farsan		Bazeoft									
995/9/18	Farsan	<u> </u>	Bazooft			- · · · · · · · · · · · · · · · · · · ·					·	
995/9/20	Farsan		Bazooft		-			· · · · · · ·				
1996/3/23	Farsan	<del>                                     </del>	Bazoofi	<del>-}</del>					ļ			
998/5/13	Farsan	Bazooft	Dorak sofla- Alaki olia			10	5	3	-			-
986/5/22	Ardel	120000	2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3					<u>`</u>				
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.986/5/28 .995/4/24	Ardel	+	V.:	<del></del>	ļ				<del></del>			<u> </u>
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995/2/24	Ardel	+	Rozmitan		· · · · · ·			ļ		L		L
995/2/24	Ardel		Solgan									ļ
996/4/24	Ardel		Кај									
997/5/31	Ardel	Markazi	Kaj							0		L
998/3/29	Ardel	Dinaran	Notaki-Gardpineh		4	1						
1998/3/29	Ardel	Miankooh	Chooledan-Sarqaleh			25			L			L
998/3/29	Ardel	Markazi	Karim abad	}		10	,		]			
998/3/29	Ardel	Mashaiekh	Darreh yas-Darreh bir	5								
998/3/30	Ardel	Mashaiekh	Dorak anari									
998/5/13	Ardel	Dinaran	Aziz abad									
958/6/1	Borojen	1		3,800			0		46		30	
973/7/22	Borojen	·		3,875			0		48		0	
974/8/21	Borojen	1 .							<del>  "</del>			
974/8/21	Borojen	1										
976/5/22	Borojen	<del> </del>	<del></del>	100		<del></del>	13		0		30	
984/4/5	Borojen		<del></del>	100			13	<b></b>	<u>-</u>		30	
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1989/11/30		+	<del>-</del>									
1989/11/30	Borojen		<del></del>		<u>:</u> _				<u> </u>			
	Borojen											
1995/9/19	Shoorab	ļ	Bazoft				9					· · ·
954/7/25	Shahr-e-kord			600			17		0		30	
1956/6/9	Shahr-e-kord	<b></b>		50			4		0		40	
976/4/23	Shahr-e-kord	ļ		15			0		0		0	
980/3/30	Shahr-e-kord			0			0		0		30	
986/4/22	Shahr-e-kord			10		<u> </u>	5		0		10	
986/5/3	Shahr-e-kord											
.986/4/2	Shahr-e-kord	1				70.0						
987/10/26	Shahr-e-kord	1		0			0		0		5	
987/11/3	Shahr-e-kord	1		. 0			0		0		10	
987/3/10	Shahr-e-kord			0			. 0		0		10	
1991/3/26	Shahr-e-kord	1		50			0		0		5	
991/12/13	Shahr-e-kord	1		0	_		0		. 0		10	<u> </u>
992/1/9	Shahr-e-kord			10		<del></del> ;	,		<u>*</u>		,,,	
992/2/21	Shahr-e-kord	1		1			2		<u> </u>		<del></del>	
1992/2/23	Shahr-e-kord	- <del> </del>	<del> </del>	40						·	<del></del>	
995/3/28	Shahr-e-kord		Savad jan	40					<del>-</del>			-
996/8/30	Shahr-e-kord		Jahan bin	1					<del></del> -			
996/8/31		1		1								
	Shahr-e-kord	-	Shanis abad-Taqanak				ļ .					
992/2/20	Lordegan	1	+				1		<u> </u>			<u> </u>
992/2/24	Lordegan	<del> </del>										
994/11/25	Lordegan	1										
1995/5/17	Lordegan	_										
1995/1/23	Lordegan		Boogar									
1995/3/5	Lordegan		Rdarreh chenar-Piran									
1995/3/5	Lordegan		Воодаг						L			
1998/5/13	Lordegan	Malard	Sefidar-Gandab	9	10	7						
994/4/1	Lordegan	1	Nomad area									
	· · · · · · · · · · · · · · · · · · ·	1	Sum (1954-1996)	8,591	10	7	51	0	94	0	285	
		-	Sum (1997~1998)	7	4		5	3	0	0	0	
	<del>                                     </del>	1	Total	8,598	14			3		0	-	
	I	1	Gra. = Gravel, Pav. = Pavemen			23	30.	3	94	U	285	

	L				(Z/Z) F	ood Da	mage Ke			nanal v		yar Provi		ļ	L
A	gri.			Livestock	·			Infrastru	cture	,	T/ Dam.	Long	itude	J.ati	tude
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	ļ	Ţ	able E-1	3 (1/2)	Flood Da	amage R	tecord is	n Esfaha	an Provi	nce				
Date	T/ Ship	District	Village		lo. of House		-	Human	45 Tu		Road			gri.
1998/3/29	Samirom	Padena sfla	Tangeh	70% ~	30-70	0.30	Killed	Lost	Injured	Vit.	Gra.	Pav.	Gar. 12	Fan
2770/3/27	Оавтоп.	adella 312	khoshk-			1							. 12	
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1998/3/29	Samirom	Padena olia	Padena olia						1		1		10	
1998/3/29	Samuom	Hana	Rahimi	<del></del>										
	<u> </u>		river								7			
1976/6/4	Samirom						4							
1986/5/5	Samirom						6		150					
1956/5/23	Samiron	ļ	ļ	0	J		7				0			
1994/11/19	Samirom			70			·				<u>:</u>			
1995/5/30	Samiron	ļ		<u> </u>					+ 1			<u> : : </u>		
1996/7/9	Samirom	ļ	<u> </u>				2	. :						ļ
Sum (1976~199 Sum (1997~199				70		0	19	0	150	0	0		0	
Total	76)			70		3	0 19		0	0	. 0		22	
1 0:21	Notes	Vil. = Village, G			·		19	0	150	0	0		22	NON
	Note,	VII. = VEHALS, O	ia. = Olavel,	rav. = ravel	nem, Car.	Galden						(Sou	ce; SED,	(נטוא
				1.1		· .								-
		Table E-1-	4 (1/2) FI	ood Dan	nage Rec	cord in l	Kohgilu	yeh va E	loyerahi	nad Prov	ince			1 1
Date	T/Ship	District	Village	. N	o. of House	:S		Human		42	Road	4	A	gri.
			· .	70% ~	30-70	0-30	Killed	Lost	Injured	Vil.	Ста.	Pav.	Gar.	Far
1997/4/24	Yasuj				·	ألبنا				0	1 - ,			
1984/5/11	Yasuj						<u> </u>		1,11					
1986/11/11	Yasuj			<u> </u>			3				0	1 .		<u> </u>
1957/4/27	Yasuj	<u> </u>		· · · · · · · · · · · · · · · · · · ·										<u> </u>
1986/12/6	Yasuj	ļ	ļ	142			. 7	-			207			-
1986/11/30	Yasuj			551		<b></b>	1				1	-		
1981/11/14	Yasuj													
1989/12/13	Yasuj										14 - 2 <sup>1</sup>	· · · · · · · · · · · · · · · · · · ·		
1971/8/28	Yasuj		<del> </del>		<del></del>	<del> </del>	1							
1990/3/15 1990/2/25	Yasuj		<del></del>						1 1					
1990/2/23	Yasuj Yasuj					-								
1988/11/13	Yasuj													
1992/5/7	Yasuj		-				1		i					<u> </u>
1992/5/18	Yasuj													$\vdash$
1992/12/22	Yasuj			-							<del></del>			
1992/12/30	Yasuj			2							7. 7			<del>                                     </del>
1992/1/9	Yasuj												-	
1992/2/7	Yasuj						4		,					
1992/3/10	Yasuj						5		4		74	2 .		
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			Т	able E-1	3 (2/2)	Flood Da	mage R	ecord in	Esfahan P	rovince			<u> </u>
		Livestock		···		Infrastr			T/ Danı.	Long	gtude	Lai	itude
Chicken	Horse	Camel	Sheep	Cow	Canal	Bridge	Well	Ganat	Mil.R	From	То	From	То
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Note;	Vil. = Villa	ge,Gπa.≂G	ravel, Pav. =	Pavement,	Gar. = Gard	en					(So	urce ; SED, l	MOJ)
													<u> </u>
	14.	Tal	∟	(2/2) FI	lood Dat	nage Rec	ord in K		eh va Boye	rahmad	Province		<del>                                     </del>
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		Livestock		* *						-		Int	tude
Chicken	Horra	Livestock	Shaan	Conu	Canal	Infrastr	ucture		T/ Dam.	Long	gitude		itude
Chicken	Horse	Livestock Camel	Sheep	Cow	Canal	Infrastri Bridge		Ganat	T/ Dam. Mil.R	-		Lat From	itude To
Chicken	Horse	· · · · · · · · · · · · · · · · · · ·	Sheep	Cow	Canal 2	Infrastr	ucture		T/ Dam.	Long	gitude		T
	Horse	· · · · · · · · · · · · · · · · · · ·		Cow		Infrastr Bridge 7	ucture		T/ Dam. Mil.R	Long	gtude To		T
	Horse	· · · · · · · · · · · · · · · · · · ·		Cow		Infrastri Bridge	ucture		T/ Dam. Mil.R	Long	gitude		T
	Horse	· · · · · · · · · · · · · · · · · · ·	150	Cow		Infrastr Bridge 7	ucture	Ganat	T/ Dam. Mil.R	Long	gtude To		T
	Horse	· · · · · · · · · · · · · · · · · · ·	150 2,000	Cow		Infrastri Bridge 7	ucture	Ganat 4	T/ Dam. Mil.R	Long	gitude To		T
	Horse	· · · · · · · · · · · · · · · · · · ·	150	Cow		Infrastr Bridge 7	ucture	Ganat	T/ Dam. Mil.R	Long From	To	From	T
		· · · · · · · · · · · · · · · · · · ·	150 2,000	Cow		Infrastri Bridge 7	ucture	Ganat 4	T/ Dam. Mil.R	Long	gitude To		T
		· · · · · · · · · · · · · · · · · · ·	150 2,000 0	Cow		Infrastri Bridge 7	ucture	Ganat 4	T/ Dam. Mil.R	Long From	gitude To	From	T
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		Camel	150 2,000 0	Cow		Infrastri Bridge 7	ucture	Ganat 4	T/ Dam. Mil.R	Long From	gitude To	From	T
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		Camel	150 2,000 0			Infrastri Bridge 7	ucture Well	Ganat 4	T/ Dam. Mil.R	Long From	gitude To	From	T
		Camel	150 2,000 0 400	Cow	2	Infrastri Bridge 7	ucture Well	Ganat 4	T/ Dam. Mil.R 400	Long From	gitude To	From	T
		Camel	150 2,000 0			Infrastri Bridge 7	ucture Well	Ganat 4	T/ Dam. Mil.R	Long From	gitude To	From	T
		Camel	150 2,000 0 400		2	Infrastri Bridge 7	ucture Well	Ganat 4	T/ Dam. Mil.R 400	Long From	gitude To	From	T
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		Camel	150 2,000 0		2	Infrastri Bridge 7	ucture Well	Ganat 4	T/ Dam. Mil.R 400	Long From	gitude To	From	T
		Camel	150 2,000 0		2	Infrastr Bridge 7	ucture Well	Ganat 4	T/ Dam. Mil.R 400	Long From	gitude To	From	T
		Camel	150 2,000 0 400		2	Infrastr Bridge 7	ucture Well	Ganat 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T/ Dam. Mil.R 400	Long	gitude To	From	T
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		Camel	150 2,000 0 400		2	Infrastr Bridge 7	ucture Well	Ganat 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T/ Dam. Mil.R 400  57 2,400 2,000	Long	gitude To	From	
		Camel	150 2,000 0 400		2	Infrastr Bridge 7	ucture Well	Ganat 4 4 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	T/ Dam. Mil.R 400  57  2,400 2,000	Long	gitude To	From	T
		Camel	150 2,000 0 400		2	Infrastri Bridge 7 7 00 153	ucture Weil	Ganat 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	T/ Dam. Mil.R 400  57  2,400 2,000	Long	gitude To	From	T
0	0	Camel	150 2,000 0 400 732		2	Infrastri Bridge 7 7 00 153	ucture Weil	1,500	T/ Dam. Mil.R 400  57  2,400 2,000	Long	gitude To	From	T
	0	Camel	150 2,000 0 400 732		2	Infrastri Bridge 7 7 00 153	ucture Weil	Ganat 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	T/ Dam. Mil.R 400  57  2,400 2,000	Long	gitude To	From	T

	Table E -	1-5 (1/4)	Flood Da	mage R	ecord in	Khuzes	tan Prov	ince	<u> </u>					
Date	17 Ship	District	Village		lo. of Hous			Human			Road (km			ri (ha)
/				70% ~	30-70	0-30	Kill	Lost	Injured	Vi).	Gra.	Pav.	Gar.	Farm
1968/1/24	Abadan			10			7						ļ	10
1975/2/9	Abadan	ļ			ļ		·						ļ	
1977/1/8	Abadan	·		50										
1992/5/8 1992/2/3	Abadan Abadan	-							ļ					
1994/11/7	Abadan	<del> </del>		16	···					<b></b>	<del>-</del>		ļ	
1996/5/11	Abadan			10	<del></del>		2			<u> </u>				ļ. — —
1976/12/11	Aghajari	+			<b> </b>						5		} <del>-</del> -	
1984/12/28	Aghajari	· · · · · · · · · · · · · · · · · · ·		45		1	4		ļ				<del> </del>	
1957/11/8	Izeh			<del></del>		·	··			<del> </del>				
1964/11/12	İzeh			42										50
1964/12/14	Izeh					. "				<del></del>				
1964/1/23	Izeh			108				<del> </del>			-			
1965/11/12	lzeh	1								-	<u> </u>			<del></del>
1977/11/22	İzeh	T		40			16	·				ļ	<u> </u>	
1986/6/18	izeh	-[		<u> </u>			16							
1986/11/8	Izeb	1		60			14	· · · · · · · · · · · · · · · · · · ·	6					
1986/12/20	lzeh			302			23				12			
1989/12/5	lzeb	T		100				-	T	l			T	
1992/2/23	lzeh	T							İ					
1992/3/2	lzeh	Τ												
1998/4/28	Izeh	Dehdez	Soosan		[		1		l	·		20		
1956/11/8	Ahvaz	1									T			
1957/1/29	Ahvaz				L				-					
1958/5/31	Ahvaz													
1960/1/23	Alivaz	1		5,000						· · · · · · ·	0			. 100
1963/5/10	Alivaz			30										100
1968/1/21	Ahvaz			65						F .		•		
1968/1/25	Alivaz			400										
1968/1/27	Ahvaz			1,693			2							Ē
1972/4/24	Ahvaz									L				
1974/3/23	Ahva2			2,000							8			12,000
1974/3/26	Ahvaz			ļ	ļ <u> </u>									1,000
1974/12/21	Ahvaz			25					<u> </u>	<u> </u>	. 5			
1975/4/22	Alivaz		<u> </u>	ļ										
1975/6/7	Ahvaz						·							
1975/12/24	Abvaz	<del></del>		]			ļ		<u> </u>	<u> </u>	5		<b></b>	<u> </u>
1975/1/24	Alivaz	<u> </u>		360			·		· · · · · · · · · · · · · · · · · · ·	L	10			
1975/1/28	Altvaz			50			2		ļ			ļ		
1975/2/11	Alivaz								<u> </u>	ļ	<u> </u>		ļ	
1975/2/14	Altvaz	·		135			· · · · · · · · · · · · · · · · · · ·					ļ		
1976/4/4	Alrvaz		<u> </u>								5			
1976/4/7	Alivaz		<u> </u>	ļ <u>.</u>				. 11		ļ. <b></b>	ļ		ļ <u>.</u>	
1976/4/21	Alivaz	- <del></del>	ļ	0						ļ	ļ:_			
1977/3/22	Ahvaz	1		700			6	<u></u>	<del> </del>	<u> </u>	ļ			
1977/11/15	Altvaz								<u> </u>	ļ <u>-</u>				
1977/12/23	Ahvaz					-			<u>-</u>				ļ	· · · · · · · · · · · · · · · · · · ·
1977/3/13	Abvaz	<del></del>	<del> </del>	<b>]</b>			· · · · · · · · · · · · · · · · · · ·		<b></b>	<b>!</b>	<u> </u>		<u> </u>	
1979/1/16 1979/2/10	Ahvaz Ahvaz			80	-			ļ	ļ	<b>}</b>	ļ	. :	ļ	
1982/11/10	Ahvaz	-		- 0	<b> </b>		22		-	<del> </del>	<u> </u>	<b></b>		5,000
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1984/3/24	Ahvaz	1	<b> </b>	<del>                                     </del>			7	<del> </del>	-	-	<del> </del>		<del> </del> -	<del> </del>
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1986/5/9	Ahvaz		i	220			14			<del> </del>				<del> </del>
1986/3/4	Ahvaz	<del> </del>			i		7				<b>—</b> —		<u> </u>	
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1987/3/12	Altvaz		<del>                                     </del>	ļ					-	<b>—</b>				
1988/11/12	Alivaz	+		<b> </b>	l		<del></del>	L	<del> </del>	<del></del>				<b></b>
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1991/3/2	Ahvaz	+		<b>†</b>					<del> </del>	<del>                                     </del>	<del> </del>		<del> </del>	<del></del>
1993/4/12	Alivaz	+	<del></del>	4	\			h <del></del>	<del>  </del>	<del>                                     </del>	-	<del> </del>		331
1993/2/4	Ahvaz	<del> </del>	<u> </u>	<del> </del>					-	<del>                                     </del>			<del> </del>	3,600
	Ahvaz	<del></del>	<del> </del>	<del> </del>					<del> </del>		<del>                                     </del>		<del></del>	3,000
H993/3/13		+	<del> </del>	560	<del> </del>			ļ	<del></del>		<b></b>	-	<del></del>	34,100
1993/3/13								•						
1994/11/19	Ahvaz				t		<u> </u>	<del></del>	<del></del>				<del>                                     </del>	3,,100
1994/11/19 1997/11/10	Alwaz						- 01	_		0		20		
1994/11/19	Ahvaz			16,174	0					0	33	20		58,231

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	-			70% ~	30-70	0-30	Kill	Lost	Injured	Vil.	Gra.	Pav.	Gar,	Farm
1963/4/9	Khoramshahr			450										100
1963/4/11	Khoramshahr			50							1			100
1964/12/20	Khoramshahr				1		4				<b>———</b>	<u> </u>		T
1968/1/27	Khoramshahr			62			4	<del> </del>			1	1	i	
1972/3/28	Khoramshahr	·   · · · · · · · · · · · · · · · · · ·						·	ļ—			İ	· · · · · · · · · · · · · · · · · · ·	200
1973/3/18	Khoramsbahr								1			1		
1976/12/30	Khoramsbahr			80		T					1	1		1
1979/1/12	Khoramshahr				<b> </b>			<del> </del>				<del>                                     </del>		
1992/3/10	Khoramshahr			10			5		16		1			200
1996/5/9	Khoraroshahr			16				·			<del> </del>			105
1964/1/23	Shooshtar			200		<del></del>					<u> </u>	ļ		<u> </u>
1968/1/24	Shooshtar			200			4		40		<u> </u>	-		
1983/3/20	Shooshtar						9				1	1	·	
1986/5/6	Shooshtar										1	<u> </u>		$\vdash$
1992/12/29	Shooshtar			40										
1992/1/9	Shooshtar			10				1			İ	<del> </del>		
1992/2/23	Shooshtar							<u> </u>			1			
1992/12/29	Gotvand			40				1			<u> </u>	1		
1992/12/18	Gachsaran	{			f	f	<del></del>	t -	ĺ		f	Í		
1992/12/30	Gachsaran			10							<del> </del>			
1968/1/21	Masjad soleiman	1		50				1			T			
1974/2/3	Masjad soleiman	-1		15				1			<del> </del>			
1977/5/23	Masjad soleiman	1									†			
1979/12/14	Masjad soleiman							1		\_	<del> </del>	1	i	T
1982/3/15	Masjad soleiman			ī		_ · · · · ·	4					ļ		
1986/6/18	Masjad soleimao				j		16	1		_	<b></b>		í	
1986/11/8	Masjad soleiman			150			1				1	1	· · · · · · · · · · · · · · · · · · ·	
1989/12/4	Masjad soleiman						13	1			10	····	l	
1992/4/26	Masjad soleiman			T	· · · · ·	<u> </u>		T				1		
1992/1/13	Masjad soleiman	1		310	1						<u> </u>	<u> </u>		
1992/3/6	Masjad soleiman							<b>—</b>			1			· · · · · ·
1994/11/7	Masjad soleiman	~ -~								-	1	T		$\vdash$
1996/4/22	Masjad soleiman	T					3	1			<del> </del>	<b></b>		

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Table E-2-1 Sediment Volume Estimation for Main Check Dam - (Vastegan)

No. of	No. of	Dam Түре	Length	Width	Depth (height)	Empty height	Sediment section	Slope	Length of sediment	Sediments volume
water course	checkdam	Dam Type	(L)	(B)	(D)	(d)	. (A)	(1)	(1)	(V).
			(m)	(m)	(m)	(m)	$(m^2)$	(%)	(m)	(m <sup>3</sup> )
	101	C	48.0	10.0	4.0	3.5	64.4	21.0	33.3	715.6
	102	С	54.0	10.0	3.5	3.0	68.3	4.9	122.4	2,787.8
	103	С	34,5	11.0	5.5	5.0	60.4	5.5	181.8	3,660.6
TM	104	A	51.0	15.0	8.0	6.0	123.8	9.7	123.7	5,105.2
	105	A	60.0	16.0	10.0	7.5	222.8	4.0	375.0	27,850.0
	106	Α	59.0	18,0	8.0	6.5	160.1	4.4	295.5	15,767.4
	991	C	22.0	9.0	5.5	5.0	64.6	15.5	64.5	1,389.2
	111	· C	16,0	9.0	3,0	2.5	28.9	13.4	37.3	359.5
	112	. C	86.0	24.0	3.7	3.0	81.5	15.2	39.5	1,072.4
Ti I	121	С	31.0	7.0	3.0	2.2	46.5	17.7	24.9	385.3
11.	141	С	28,0	7.0	3.5	3.0	29.2	14.8	40.5	394.6
	161	С	33.5	13.0	4.0	3.5	62.1	14.6	47.9	992.5
	181	С	29.0	7.5	3.0	3.7	25.9	24.0	30.8	266.2
	201	C .	20.0	12.0	4.3	3.7	48.6	8.2	90.2	1,462.0
	202	С	45.0	23.0	3.5	3.2	73.3	5.8	110.3	2,696.1
T2	221	С	21.5	8.0	4.0	3.5	36.2	4.2	166.7	2,011.1
1	211	С	42.0	12.0	4.5	4.5	99.5	7.2	125.0	4,145.8
	212	С	43.0	20.0	7.5	7.0	223.3	2.9	482.8	35,933.3
	301	C.	41.0	8.0	6.0	5.5	112.9	33.3	33.0	1,243.1
Т3	302	C	35.0	7.0	6.5	6.0	91.6	14.3	83.9	2,562.2
13	303	:, C	23.0	7.5	3.0	2.5	21.2	11.4	43.9	309.9
	304	С	30.0	8.0	3.5	3.0	40.1	8.2	73.2	978.0
	Total									112,087.8

Table E-2-2 Sediment Volume Estimation for Main Check Dam - (Chaman-Goli Bazoft)

No. of	1010 1.7-2-2	Bounne	Length	Width	Depth (height)	Empty height	Sediment section	Slope	Length of sediment	Sediments Volume
water	No. of checkdam	Dam Type	713	(B)	(D)	(d)	(A)	(1)	(1)	(V)
course	CHOCKUALI		(L)	` '	` '	` '		(%)		
	101	С	(m) 27.0	(m) 7.0	(m) 3.8	(m) 3.2	(m²)	10.6	(m) 60.4	( m <sup>3</sup> ) 575.6
	102			6.0		4.0	28.6	14.4	55.6	
T1		С	29.0		4.5		49.3			913.0
	103	C	30.0	13,0		4.0	55.6	5.7	140.4	2,601.2
	201	С	36.0	26.0	3.5	2.5	26.6	5.6	89.3	791.7
	202	C	36.0	26.0	3.4	2.5	26.6	8.0	62.5	554.2
	203	- C	29.0	16.0	4.0	3.2	39.0	0.8	800.0	10,400.0
	204	В	62.0	22.0	8,0	6.0	139.4	3.3	363.6	16,897.0
	205	E	46.0	32.0	5.0	2.5	71.7	5.1	98.0	2,343.1
	206	E	54.0	32.0	5.0	2.5	55.1	3.6	138.9	2,550.9
	211	С	27.0	8.0	4.0	3.2	28.6	13.9	46.0	438.9
	221	С	27.0	12.0	4.0	2.5	28.6	18.6	26.9	256.3
	231	C	30.0	18.0	3.5	2.5	45.6	20.9	23.9	363.6
T2	241	С	43.0	24.0	4.5	. 3.5	81.9	12.1	57.9	1,579.3
	242	C	43.0	25.0	4.5	3,5	81.9	21.9	32.0	872.6
	243	С	43.0	25.0	4.5	3.5	81.9	6.9	101.4	2,769.6
	244	С	43.0	26.0	4.5	3.5	81.9	11.0	63.6	1,737.3
	251	Α	26.0	10.5	10.0	8.5	138.1	18.5	91.9	4,230.1
	261	C.	27.0	7.0	4.0	3.2	28.6	24.0	26,7	254.2
	271	C ·	14.0	7.0	5.0	3.7	22.1	29.7	24.9	183.5
	281	С	14.0	7.0	5.0	3.7	22.1	29.4	25.2	185.4
	291	С	14.0	7.0	5.0	3.7	22.1	23.6	31.4	231.0
	311	С	32.0	12.0	4.0	3.5	60.5	8.7	80.5	1,622.6
T3	321	: C :	34.0	11.0	4.0	3.5	61.2	37.2	18.8	383.9
1000	341	С	34.0	11.0	4.0	3.5	61.2	32.9	21.3	434.0
T4	401	c	27.0	7.0	4.0	3.2	28.6	20.6	31.1	296.2
T5	501	С	27.0	7.0	4.0	3.2	28.6	17.4	36.8	350.7
	Total				:					53,815.8

Table E-2-3 Sediment Volume Estimation for Main Check Dam - (Sarbaz)

No. of	No. of		Length	Width	Depth	Empty	Sediment	Slope	Length of	Sediments
water	checkdam	Dam Type			(height)	height	section		sediment	volume
course			(L)	(B)	(D)	(d)	(A)	(1)	(1)	(V)
			(m)	(m)	(m)	(m)	(m <sup>2</sup> )	(%)	(m)	(m <sup>3</sup> )
	1001	С	52.0	18.0	6.0	3.7	45.6	4.0	185,0	2,812.0
. '	1002	В	62.0	22.0	8.0	6,0	139.4	4.5	266.7	12,391.1
	1201	С	50.0	14.0	3.5	3.0	72.0	2.3	260.9	6,260.9
	1211	С	28,0	13,0	3.0	2.5	24.3	2.6	192.3	1,557.7
	1221	С	46.0	9.0	3.5	3.0	55.6	33.3	18.0	333.9
	1241	С	38.0	8.0	3.2	2.7	41.3	4.9	110.2	1,517.1
тм	1301	C	42.0	14.0	5.5	4.7	100.3	3.4	276.5	9,243.3
	1302	. C	66.0	32.0	7.0	6.2	283.7	3.6	344.4	32,573.0
	1401	С	28.0	13.0	4.5	4.0	45.8	6.7	119.4	1,822.9
	1402	С	51.0	17.0	2.5	2.0	26.4	4.9	81.6	718.4
	1511	C	34.0	12.0	3.0	2.3	19.1	3.4	135.3	861.4
	1601	С	26.0	10.0	5.5	4.7	51.4	11.9	79.0	1,353.4
	1701	С	38.0	16.0	4.0	3.5	55.1	6.9	101.4	1,863.3
	1801	С	45.0	11.0	4.5	4.0	77.4	11.5	69.6	1,794.8
	101	С	30.0	13.0	5.0	4.5	52.4	33.4	26.9	470.7
	102	С	29.0	10.0	5.5	5.0	54.7	12.0	83.3	1,519,4
	103	С	32.0	13.0	4.0	3.5	44.6	9.1	76.9	1,143.6
	104	С	26.0	15.0	5.5	4.7	53.9	9.1	103.3	1,855.9
Ti	105	С	30.0	13.0	5.0	4.0	57.0	5.7	140.4	2,666.7
,,,	106	С	33.0	13.0	5.0	4.5	66.0	4.7	191.5	4,212.8
	107	. C	65.0	35,0	3.5	3.0	121.9	3.8	157.9	6,415.8
	111	С	27.0	10.0	3.0	2.2	25.5	20.4	21.6	183.3
	121	G -	-30.0	11.0	5.0	4.5	69.5	17.3	52.0	1,205.2
	141	5 · C	32.0	10.0	6.0	5.5	76.7	15.0	73.3	1,874.9
.	201	. C	28.0	7.0	5.5	5.0	64.3	13.8	72.5	1,553.1
	202	С	31.0	6.0	6.5	6.0	71.9	9.8	122,4	2,934.7
	203	C	27.0	9.0	6.5	6.0	82.6	5.2	230.8	6,353.8
T2	204	С	45.0	10,0	6.5	5.7	88.6	3.1	367.7	10,860.6
	211	С	27.0	7.0	7.5	7.0	80.7	9.6	145.8	3,922.9
	221	С	33.0	6.0	5.0	4.5	38.3	12.1	74.4	949.6
	301	C :	38.0	13.0	5.0	4.5	86.8	10.4	86.5	2,503.8
	302	С	48.0	14.0	5.5	4.5	104.4	6.0	150.0	5,220.0
T3	303	C.	26.0	8.0	5.0	4.0	47.0	6.9	115.9	1,816.4
	311	С	44.0	13.0	5.0	4.5	91.9	7.4	121.6	3,725.7
	Total									136,492.1
		L	1							

Table E-2-4 Sediment Volume Estimation for Main Check Dam - (Tangsorkh)

141	(710 T.) T.	DOMINIO	10 10141111	C LStatute	TOIL TOY I	ALGERIC CORC	OW THIS	(1411650114	~~/	
No. of water	No. of checkdam	Down To	Length	Width	Depth (height)	Empty height	Sediment section	Slope	Length of sediment	Sediments volume
course		Dam Type	(L)	(B)	(D)	(d)	(A)	(I)	(1)	(V) .
			(m)	(m)	(m)	(m)	( m <sup>2</sup> )	(%)	(m)	(m <sup>3</sup> )
	1001	В	47.0	15.0	9.5	7.0	172.8	4.4	318.2	18,327.3
	1101	· C	22.5	11.0	5.0	4.5	56.0	17.7	50.8	949.2
	1102	С	40.0	8.0	6.0	5.3	99.1	9,4	112.8	3,725.0
	1103	С	29.5	12.0	3.0	2.5	33.5	6.9	72.5	809.2
TM	1111	С	25.0	6.0	4.5	4.0	49.5	21.9	36.5	602.7
	1121	C	36.0	14.0	5.0	4.2	82.1	7.4	113.5	3,106.5
	1301	С	36.5	10.0	5.0	4.5	87.2	5.8	155.2	4,510.3
	1401	С	37.5	10.0	4.5	4.0	65.7	12.8	62.5	1,368.8
	1201	С	21.0	6.0	5.5	5.0	58.5	5.8	172.4	3,362.1
T1	101	С	18.0	7.0	2.0	1.8	14.0	7.2	50.0	233.3
T2	201	С	42.0	9.0	2.5	2.0	38.6	7,7	51.9	668.4
Т3	301	С	36.0	6.0	4.0	4.0	61.2	3.5	228.6	4,662.9
T4	401	С	16.0	6.0	2.5	2.0	13.7	18.9	21.2	96.6
	501	С	32.0	5.0	4.0	3.5	45.0	6.6	106.1	1,590.9
	502	Ċ	29.0	10.0	3.5	3.0	42.0	6.1	98.4	1,377.0
T5	50	С	27.5	8.0	4.5	4.0	39.1	6.0	133.3	1,737.8
	511	С	26.5	7.0	4.0	3.5	42.4	9.5	73.7	1,041.4
	701	C	48.0	12.0	4.0	3.5	69.1	20.3	34.5	794.3
Т6	601	c .	26.5	5.0	5.0	4.7	59.5	8.7	108.0	2,142.9
10	602	С	34.0	4.0	4.0	3.5	100.8	5.1	137.3	4,611.8
	Total									55,718.3

Table E-2-5 Sediment Volume Estimation for Main Check Dam - (Zeras)

No. of No. of water checkdam		Dam Type	Length	Width	Depth (height)	Empty height	Sediment section	Slope	Length of sediment	Sediments volume
course	. :	Dam Type	(L)	(B)	(D)	(d)	(A)	(I)	(1)	(V)
			(m)	(m)	(m)	(m)	( m <sup>2</sup> )	(%)	(m)	(m <sup>3</sup> )
	101	С	22.0	6,0	4.0	3.5	28.2	12.0	58,3	548.3
	102	C	19.0	6.0	4.0	3.5	20.7	11.1	63.1	435.1
No.	103	С	22.0	9.0	4.0	3,5	33.4	8.8	79.5	885,6
Tı	104	D	19.5	10.0	4.0	3.5	28.4	7.5	93,3	883.6
11	111	С	16.0	6.0	4.5	4.0	28.1	16.9	47.3	443.4
	121	С	14.0	6.0	4.0	3.7	22,1	10.0	74.0	545.1
	122	С	17.0	7.0	4.5	4.0	29.7	1.4	571.4	5,657.1
	123	C	17.0	8.0	4.5	4.0	25.8	9.1	87.9	756.0
	201	С	37.0	7.0	4.0	3.7	30.2	6.2	119.4	1,201.5
T2	211	C.	36.0	7.0	4.5	4.2	46.4	7.0	120,0	1,856.0
12	221	D .	20.0	6.0	5.0	4.5	37.6	24.1	37.3	468.0
	241	D	26.0	6.0	4.5	4.0	23.8	14.4	55,6	440.7
T4	401	D	29.5	6.0	4.5	4.0	29.8	15,3	52.3	519.4
T5	501	С	28.0	12.0	4.0	3.5	32.2	18.5	37.8	406.1
1.5	521	С	20.5	5.0	4.5	4.0	23.1	32.0	25.0	192.5
Т6	601	D	29.5	11.0	4.5	4.0	29.8	13.9	57.6	571.7
	1 144 15				5 + 1					
					4 14 14		1.4		4 J 44 L	
								7		
				11						
	Total								a Table	15,810.4

No.	Table E-2-6 R Structure				Sı	oillway		Elev	ation	River-bec	l Gradient	Section	Remarks
,	Туре	G. Height	T. Height	н			S.Slope	Planned	Existing	Planned		Distance	
26	-			-		*******		2296.029	2296,029				End of Check Da
			4,1					1		1/50	1/14	46.63	
25	Cosoli. Dam	-2.35	2.35	2.0	1.4	20.0	1:1	2295.096	2292,747				
								2293,525					
										1/50	1/583	42,54	
24	Ground Sill	0.00	0.00	2.0	1.4	20.0	1:1	2292.674	2292,674				
·			4							1/50	1/50	37.06	
24-1	Ground Sill	-0.74	0.00	2.0	1.4	20.0	1:1	2291.933	2292,674		<b></b>		
	0 100	0.71								1/50	1/50	37.06	
24-2	Ground Sill	-0.74	0.00	2.0	1.4	20.0	1:1	2291,192	2291.933	1 170			
24-3	Ground Sill	-0.74	0.00	2.0	1.4	20.0	1.1	2200 461	2201 102	1/50	1/50	37.06	
¢ <del>1-</del> 3	Otomia Sili	-0.74	0.00	2.0	1.4	20.0	1:1	2290,451	2291.192	1/50	1/50	37.06	
24-4	Ground Sill	-0.74	0.00	2.0	1.4	20.0	1:1	2289,709	2290.451	1750	1/30	37.00	
	Ground Bin	0.7.	0.00	2.0		20.0		2207,707	2250.451	1/50	1/50	37.06	
23	Cosoli, Dam	-1.77	1.77	2.0	1.4	20.0	1:1	2288.998	2288.998	1150	1,50	- 37.00	
••								2287.229					
1,2 -	1.50					. 4	20.0		4	1/50	1/23	36.93	
23-1	Ground Sill	-0.90	0.00	2.0	1.4	20.0	1:1	2286,491	2287,392		7/		
			ş. î							1/50	1/23	36.93	
22	Drop Chute	-0.79	0.79	2.0	1.4	20.0	1:1	2285.752	2285.752				
	111	1.14	50.0					2284.967					·
					· ·					1/50	1/32	34.64	
22-1	Ground Sill	-0.40	0.00	2.0	1.4	20.0	1:1	2284.274	2284.670	<u> </u>			1 11, 11,
							_	1 2 1		1/50	1/32	34.64	
21	Ground Sill	0.00	0.00	2.0	1.4	20.0	1.1	2283.581	2283,581				
	2 2 2			1				<b> </b>		1/52	1/52	37.76	
21-1	Ground Sill	0.00	0.00	2.0	1.4	20.0	1:1	2282.855	2282.855				
21-2	Ground Sill	0.00	0.00			70.0	1.1	2000 100	2222.122	1/52	1/52	37.76	
21-2	CHOUNG SHI	0.00	0.00	2.0	1.4	20.0	1:1	2282.129	2282.129	1/52	1/52	37.76	
20	Drop Chute	-0.72	0.72	2.0	1.4	20.0	1.1	2281.410	2281.410	1752	1732	37.70	
	210p office		0.72		4-1	20.0		2280.688	2201.410				
	1 1 1 + 14			1	3	7 7			. :	1/50	1/33	35.94	
20-1	Ground Sill	-0.35	0.00	2.0	1.4	20.0	1:1	2279.9688	2280.321				
			100							1/50	1/33	35.94	
	Drop Chute	-0.50	0.50	2.0	1.4	20.0	1:1	2279.250	2279.250				
							1.7	2278.746					
					· 			10.0		1/50	1/30	39.75	
18	Ground Sill	0.00	0.00	2.0	1.4	20.0	1:1	2277.951	2277.951				
					-					1/50	1/50	36.03	
18-1	Ground Sill	0.00	0.00	2.0	1.4	20.0	<del></del>	<del></del>	2277.230				
	<b> </b>		0.00	0.0			2.35	2225 512	0006.510	1/50	1/50	36.03	
18-2	Ground Sill	0.00		2.0	1.4	20.0	1:1	2276.513	2276.510	140		20.02	
	Cosoli. Dam		2.11	2.0	1.4			<del>                                     </del>	2275.792	1/50	1/50	36.03	
*/	Coson. Dain	-2.11	2.11	2.0	1.77	20.0	1	2273.684	ZZ13.17Z		-		
								2275.001	7.7	1/50	1/44	42.08	
	Ground Sill	0.00	0.00		1.4	20.0			2272.842	1750	1/44	42.06	,
						20.0		22.2.0.12	20.2.0.12	1/51	1/51	35.32	
15	_							2274.148	2274.148				Bridge at Vasteg
		11000								1/51	1/14	23.73	
14	Cosoli, Dam	+1.25	2.50	2.0	1.4	20.0	1:1	2273.679	2272.429				
		-1.25	14 1					2271.179					
			e if						12	1/62	1/42	54.01	
14-1	Ground Sill	-0.82	0.00	2.0	1.4	23.3	L	2270.320	2271.143				

Table E-2-6 River Improvement (Channel Work at Vastegan) 2/3

No.		1	Spillway Elevation River-bed Gradier								Costion Damades		
	Type	Structure	m 11.:	77			0.01		<del></del>			1	Remarks
	Туре	G. Height	T. Height	H	<u>h</u> _	Width	S.Slope	Planned	Existing	Planned	Existing		
										1/62	1/42	54.01	
14-2	Ground Sill	-0.41	0.00	2.0	1.4	26.6		2269.4491	2269.857				
										1/62	1/42	54.01	
13	Cosoli. Dam	0,00	0.00	2.0	1.4	30.0	1:1.5	2268,578	2268.578				
							, , ,			1/110	1/471	57,55	
13-1	Ground Sill	-0.40	0.00	2.0	1.4	30.0	1:1.5	2268,055	2268,456	*****		77,33	
	, c. c. c. c. c. c. c. c. c. c. c. c. c.	9.70	0.00	7.0		30.0	3 - 1	2200,000	2200,430	1/110			·
12.0	- 1 - 1									1/110	1/471	57.55	
13-2	Ground Sill	-0.80	0.00	2.0	1.4	30.0	1:1.5	2267.532	2268.334				
	<u> </u>						<b></b>			1/110	1/471	57.55	
13-3	Ground Sill	-1.20	0.00	2.0	1.4	30.0	1:1.5	2267.0085	2268.211				
	1	٠								1/110	1/471	57.55	
13-4	Ground Sill	-1.60	0.00	2.0	1.4	30.0	1:1,5	2266,4853	2268.0893				
									2200.000	1/110	1/471	57.55	
12	Ground Sill	2.00	0.00			30.0	1.1.5	0065060		1/110	1/471	57.55	
12	Ground an	-2.00	0.00	2.0	1.4	30.0	1:1.5	2265.962	2267.967				
·	<del></del>									1/110	1/74	57.64	
12-1	Ground Sill	-1.75	0.00	2.0	1.4	30.0	1:1.5	2265.4381	2267.1881				
								*1		1/110	1/74	57.64	
12-2	Ground Sill	-1.50	0.00	2.0	1.4	30.0	1:1.5	2264.9141	2266,4091				
										1/110	1/7/	57.64	
12-3	Ground Sill	1.24	0.00	2.0	1.4	20.0	1.15	0064 2001	2065 6200	1/110	1/74	57.64	
12-3	Otomic Sin	-1.24	0.00	2.0	1.4	30.0	1:1.5	2264.3901	2265.6302	· · · · · · · · · · · · · · · · · · ·			
									··	1/110	1/74	57.64	
12-4	Ground Sill	-0.99	0.00	2.0	1.4	30.0	1:1.5	2263.866	2264.8513				·
										1/110	1/74	57.64	
12-5	Ground Sill	-0.73	0.00	2.0	1.4	30.0	1:1.5	2263.342	2264.0723	100	::		
										1/110	1/74	57.64	
12-6	Ground Sill	-0.48	0.00	2.0	1.4	30.0	1:1.5	22/2 010	0000 0004	1/110	1174	37.04	
120	Ground om	-0.46	0.00	2.0	1.4	30.0		2202.818	2263.2934				
		<u> </u>					2.5			1/110	1/74	57.64	
12-7	Ground Sill	-0.22	0.00	2.0	1.4	30.0	1:1.5	2262.294	2262.5144				
										1/110	1/74	57.64	7
11	Cosoli, Dam	0.05	2.55	2.0	1.4	30.0	1:1.5	2261.770	2261.723				-
		-2.50						2261.714	:-	1/110	1/44	60.39	
								2259.214			17.1.4	00.57	
11-1	Ground Sill	1.60	0.00	2.0		20.0							
11-1	Ground Sin	-1.69	0.00	2.0	1.4	30.0	1:1,5	2258.665	2260.351				
	·									1/110	1/44	60.39	
11-2	Ground Sill	-0.86	0.00	2.0	1.4	30,0	1:1.5	2258.116	2258.978				
										1/110	1/44	60.39	
11-3	Cosoli. Dam	-0.04	2.50	2.0	1.4	30.0	1:1.5	2257.567	2257.606				
		-2.50						2255.067		1/110	1/44	60.39	
								2253.001			1/77	00.32	
11-4	C 4 6:11	1.70	0.00			20.0						· ·	
11-4	Ground Sill	-1.72	0.00	2.0	1.4	30.0	1:1.5	2254.518	2256.233		-	· ·	·
<u> </u>				ļ	ļ					1/110	1/44	60.39	
11-5	Ground Sill	-0.89	0.00	2.0	1.4	30.0	1:1.5	2253.969	2254.861			1	
L	L							,		1/110	1/44	60.39	
10	Drop Chute	-0.50	0.50	2.0	1.4	30.0	1:1.5	2253.420	2253.420				
· · · · · ·	•							2252.920			<del></del>		
	<u> </u>		<b> </b>					£252.740					
	6				<del>-</del> -			<u> </u>		1/105	1/86	59.23	
10-1	Ground Sill	-0.38	0.00	2.0	1.4	30.0	1:1.5	2252.3559	2252.731				· · · · · ·
										1/105	1/86	59.23	<u>.                                     </u>
10-2	Ground Sill	-0.25	0.00	2.0	1.4	30.0	1:1.5	2251.7917	2252.042			-	
		-								1/105	1/86	59.23	
10-3	Ground Sill	-0.13	0.00	2.0	1.4	30.0	1:1.5	2251.2276	2251.354		2,00	37.23	
<del></del>		0.13	3.00		<u> </u>	23.0	2-22	2421.2210	1.334	1/100	1100		
	<del>                                     </del>									1/105	1/86	59.23	
9	-							2251.228	2250.961			1	
<u> </u>								:	, N	1/105	1/102	59.23	
10-4	Ground Sill	-0.04	0.00	2.0	1.4	30.0	1:1.5	2250.6635	2250,699				
					-					1/105	1/102	59.23	
	0 10'11	-0.02	0.00	2.0	1.4	30.0	1-1-5	2250.0994	2250.119		-, 102	U,	
10-5	Uround Site												
10-5	Ground Sill	-0.02	0.00	2.0		50.0		2230.0334	2230.119	1/105	1/102	59.23	

Table E-2-6 River Improvement (Channel Work at Vastegan) 3/3

No.		Structure		,,,,,		pillway	it (one	<del> </del>	k at Vaste ation	·	Gradient	Section	Remarks
	Туре	G. Height	T. Height	н	ħ		S.Slope	Planned	Existing	Planned	Existing	Distance	}
8	Drop Chute	0.00	0.50	2.0	1.4	30.0	1:1.5		2249.538				
	: '	-0.50				-		2249.038		1/105	1/76	51.12	
8-1	Ground Sill	-0.32	0.00	2.0	1.4	30.0	1:1.5	2248.551	2248.871				
										1/105	1/76	51.12	
7	Cosoli. Dam	-0.13	0.13	2.0	1.4	30.0	1:1.5	2248.064	2248.198				
										1/115	1/102	49.01	
7-1	Ground Sill	-0.08	0.00	2.0	1.4	30.0	1:1.5	2247.6381	2247.713				
										1/115	1/102	49.01	
6	Cosoli. Dam	-0.02	0.02	2.0	1.4	30.0	1:1.5	2247.212	2247.233				
		.:								1/110	1/166	70.87	
6-1	Ground Sill	-0.24	0.00	2.0	1.4	30.0	1:1.5	2246.568	2246.8079				
										1/110	1/166	70.87	
5	Cosoli. Dam	-0.45	0.45	2.0	1.4	30.0	1:1.5	2245.934	2246.381				
										1/100	1/88	55.59	
5-1	Ground Sill	-0.38	0.00	2.0	1.4	30.0	1:1.5	2245,378	2245.754				
			!							1/100	1/88	55,59	
4	Drop Chute	-0.55	0.55	2.0	1.4	30.0	1:1.5	2244.822	2245.122				
. :								2244.571					
										1/100	1/59	75.19	
3	Cosoli. Dam	-0.03	0.03	2.0	1.4	30.0	1:1.5	2243.820	2243.852				
							<u> </u>			1/95	1/205	72.74	
2	Ground Sill	-0.44	0.00	2.0	1.4	30.0	1:1.5	2243.054	2243.498			ļ	
										1/95	1/46	39.70	
1	Drop Chute	-0.17	0.17	2.0	1.4	30.0	1:1.5	2242.636	2242.636				
				-				2242.465					
:		_	<u></u>	·		<u> </u>	L			1/95	1/91	54.09	
1-1	Ground Sill	-0.15	0.00	2.0	1,4	30.0	1:1.5	2241.895	2242.046				
·										1/95	1/91	54.09	
1-2	Ground Sill	-0.13	0.00	2.0	1.4	30.0	1:1.5	2241.326	2241.451				
			[			<u> </u>				1/95	1/91	54.09	
1-3	Ground Sill	-0.10	0.00	2.0	1.4	30.0	1:1.5	2240.757	2240.857			<u> </u>	
								·		1/95	1/91	54.09	
1-4	Ground Sill	-0.08	0.00	2.0	1.4	30.0	1:1.5	2240.187	2240.262				
					<u> </u>	<u> </u>				1/95	1/91	54.09	
1-5	Ground Sill	-0.05	0.00	2.0	1.4	30.0	1:1.5	2239.618	2239.668				
			<u> </u>						<u> </u>	1/95	1/91	54.09	
1-6	Ground Sill	-0.03	0.00	2.0	1.4	30.0	1:1.5	2239.048	2239.073				
<u> </u>						L				1/95	1/91	54.09	
0	-			2.0	1.4	30.0	1:1.5	2238.479	2238.479			<u>                                     </u>	Irrigation Canal

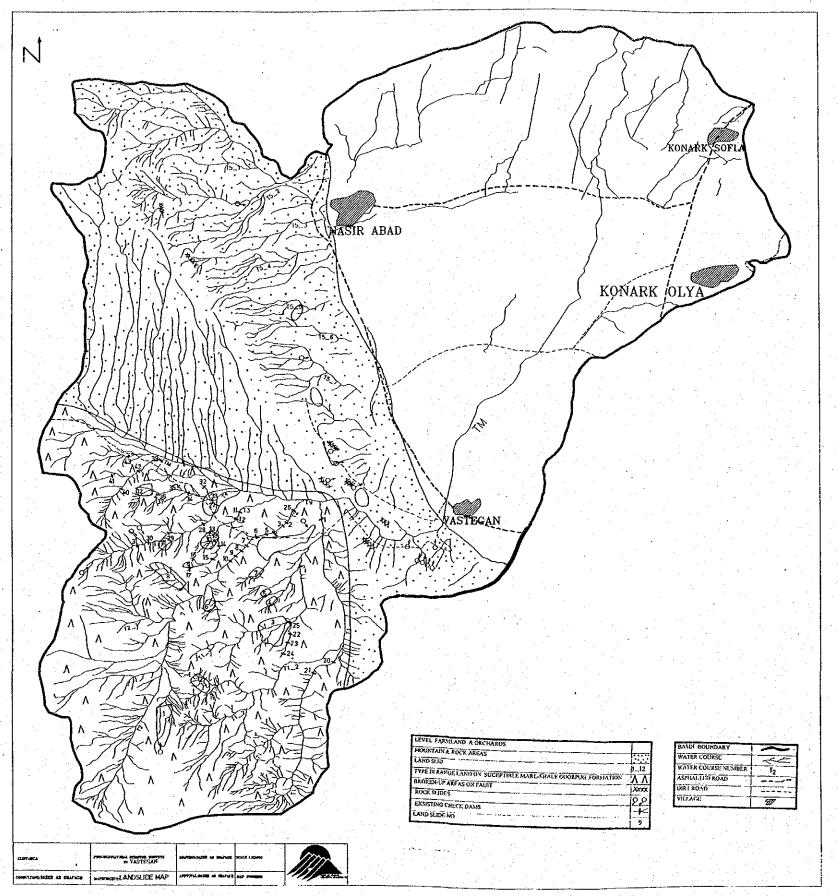


Figure E-2-1 Location Map of Natural Disaster - (Vastegan)

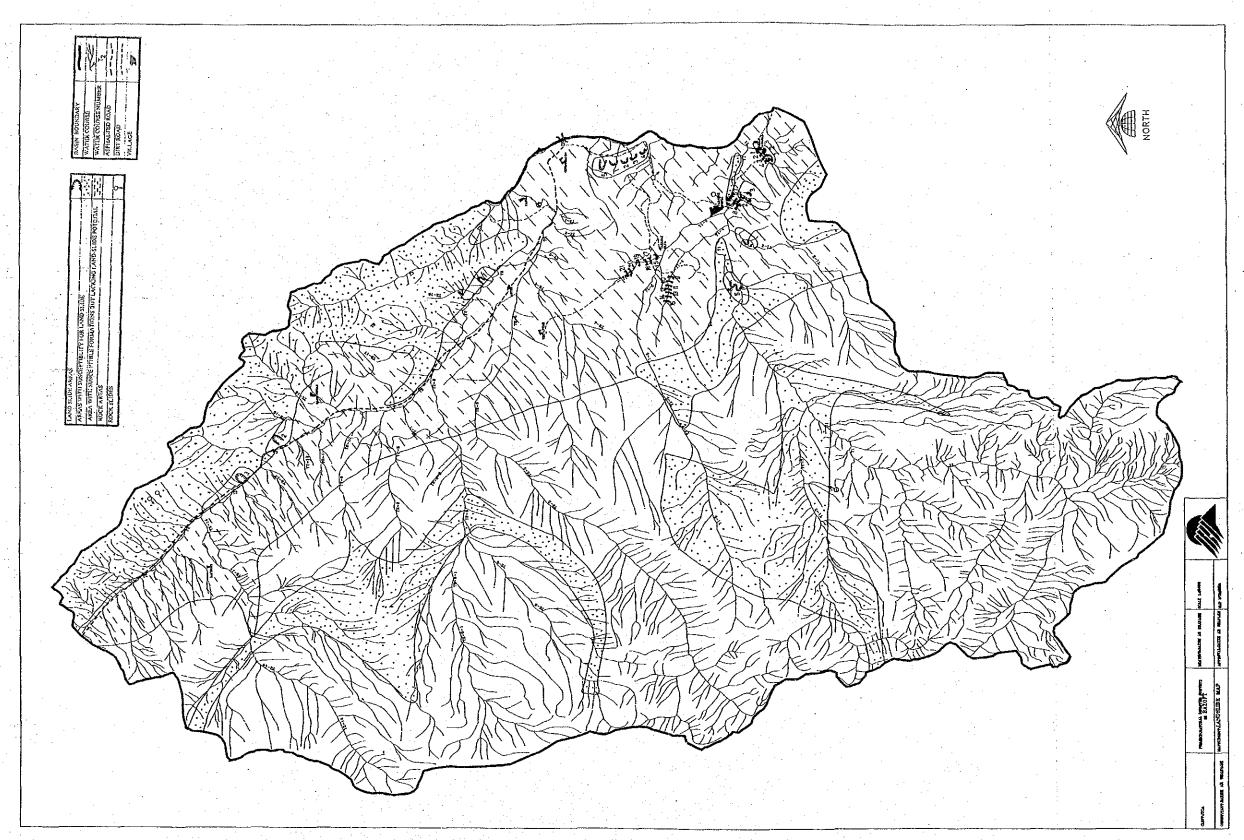


Figure E-2-2 Location Map of Natural Disaster - (Chaman-Goli Bazoft)

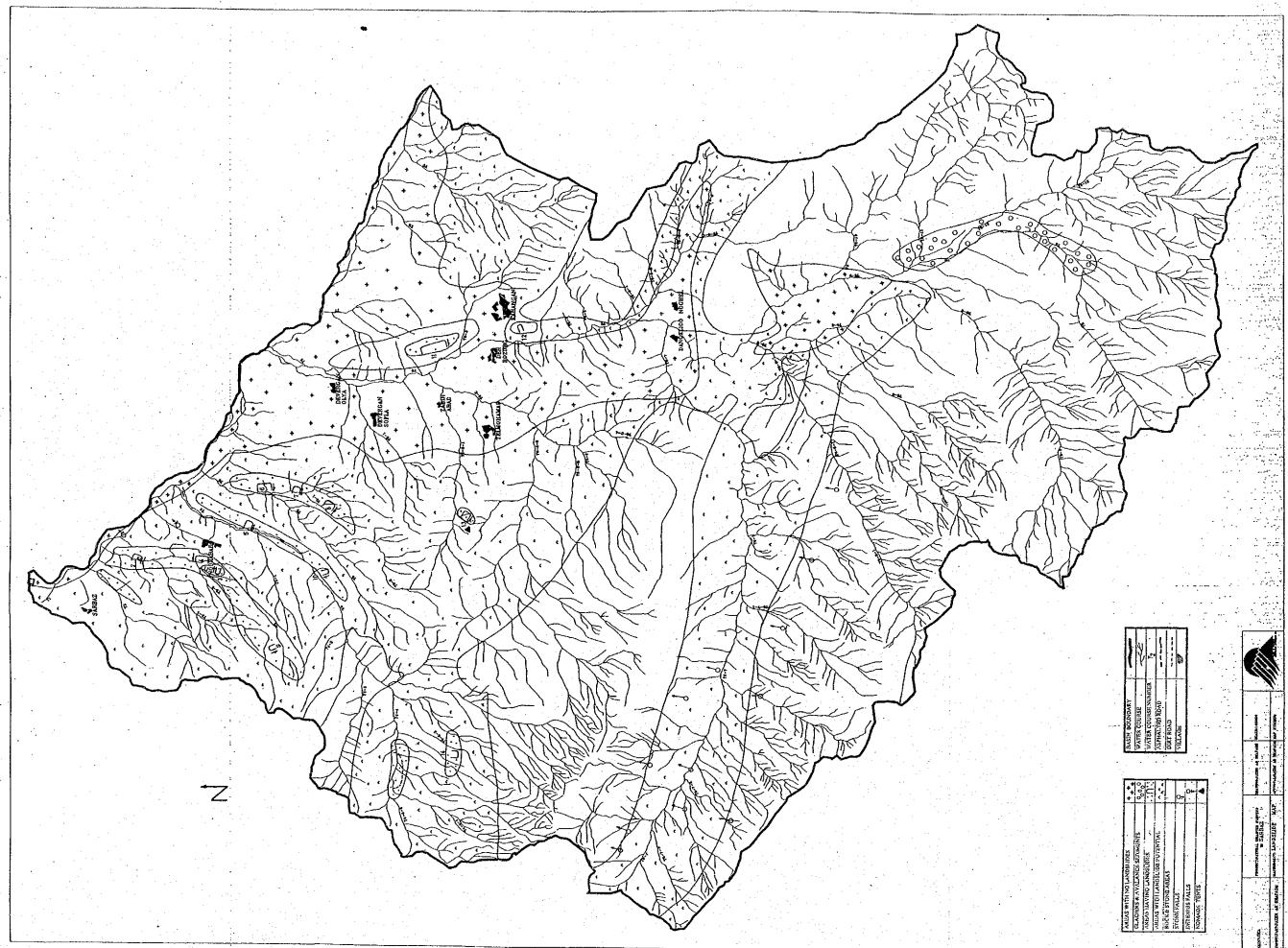


Figure E-2-3 Location Map of Natural Disaster - (Sarbaz)

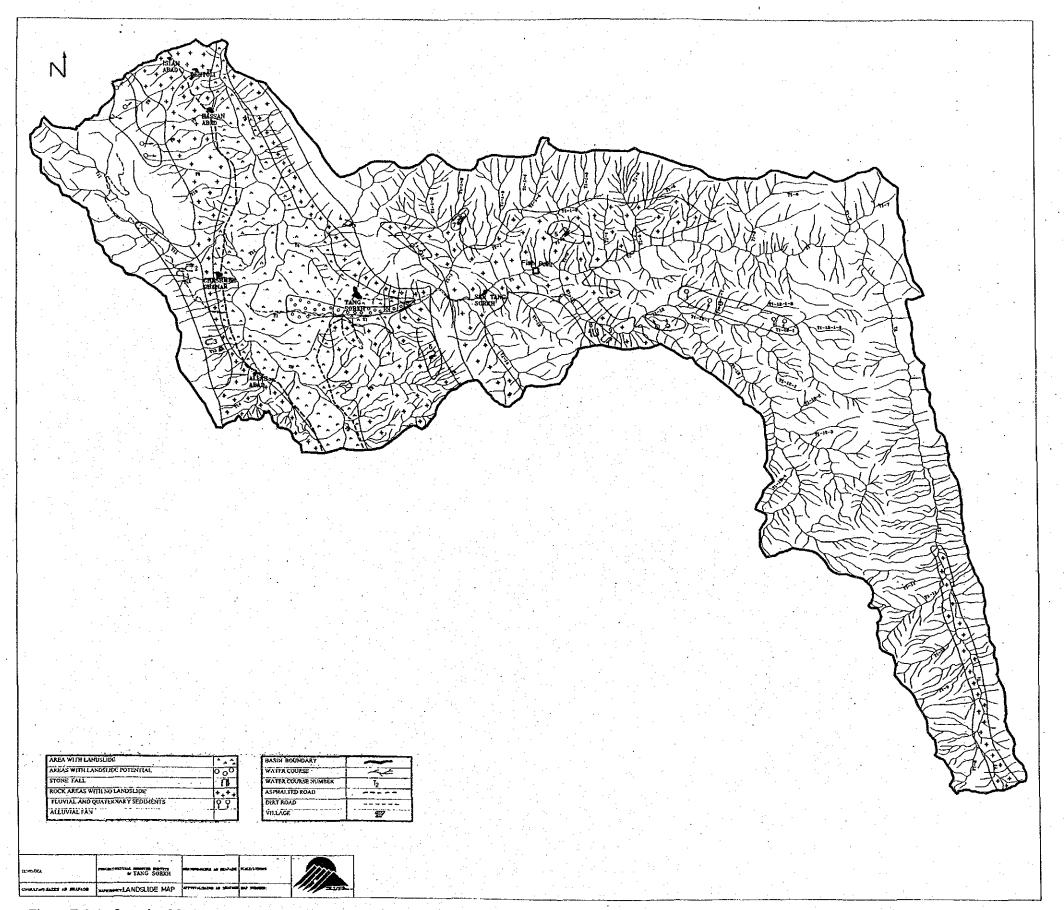


Figure E-2-4 Location Map of Natural Disaster - (Tangsorkh)

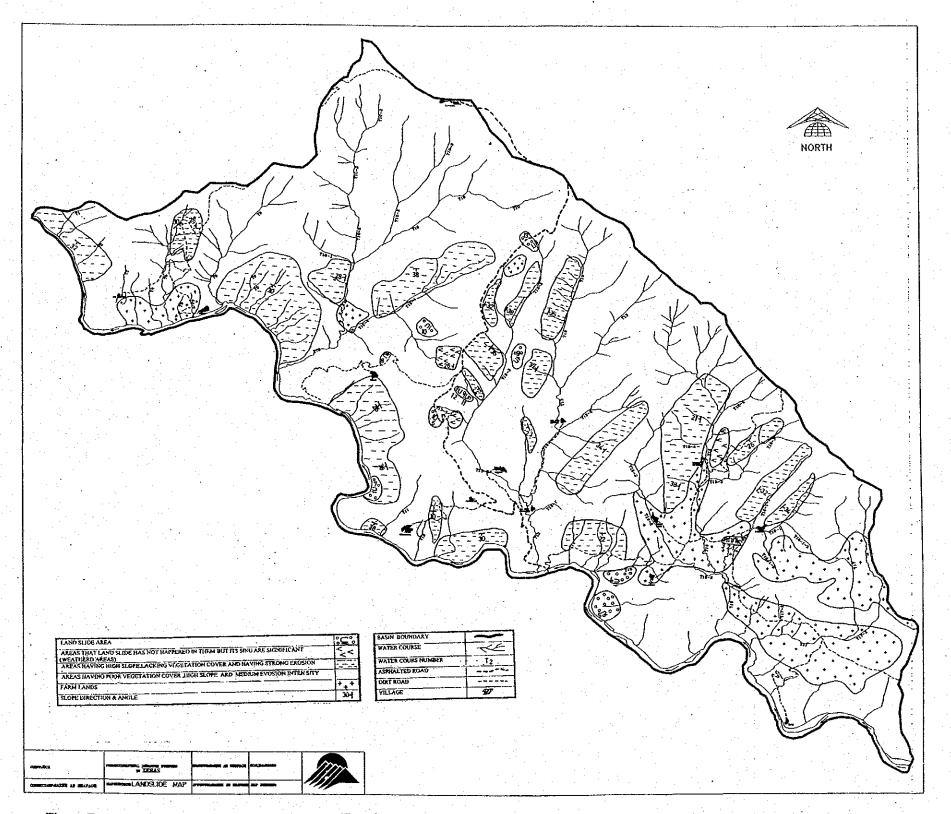


Figure E-2-5 Location Map of Natural Disaster - (Zeras)

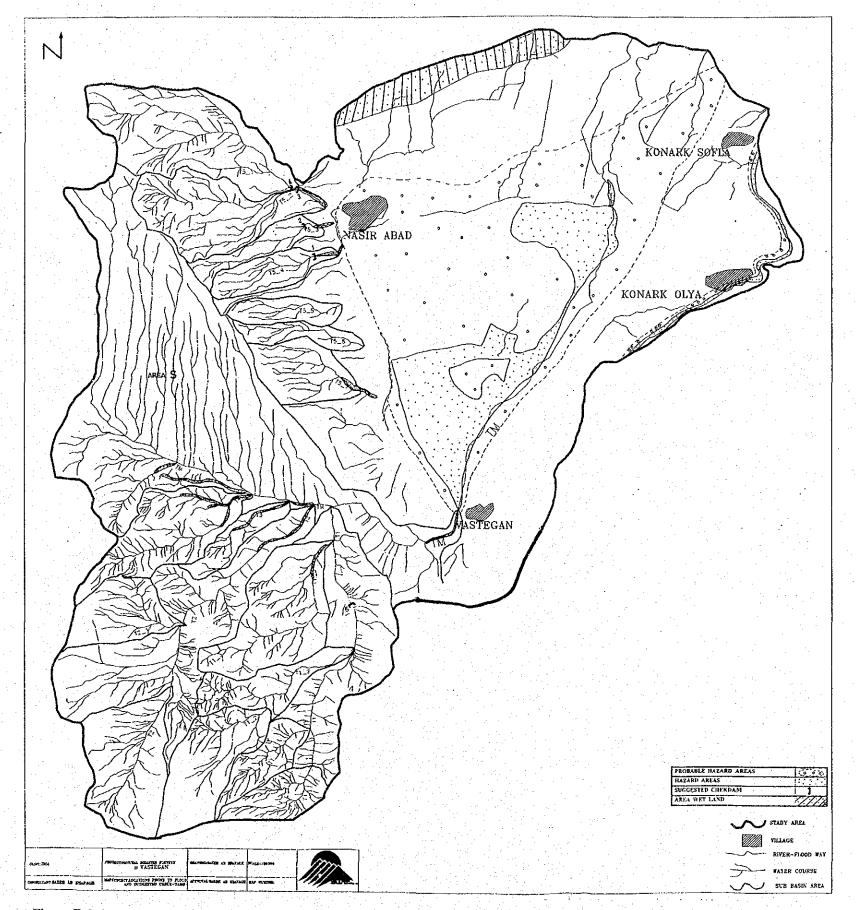


Figure E-2-6 Location Map of Hazard Area - (Vastegan)

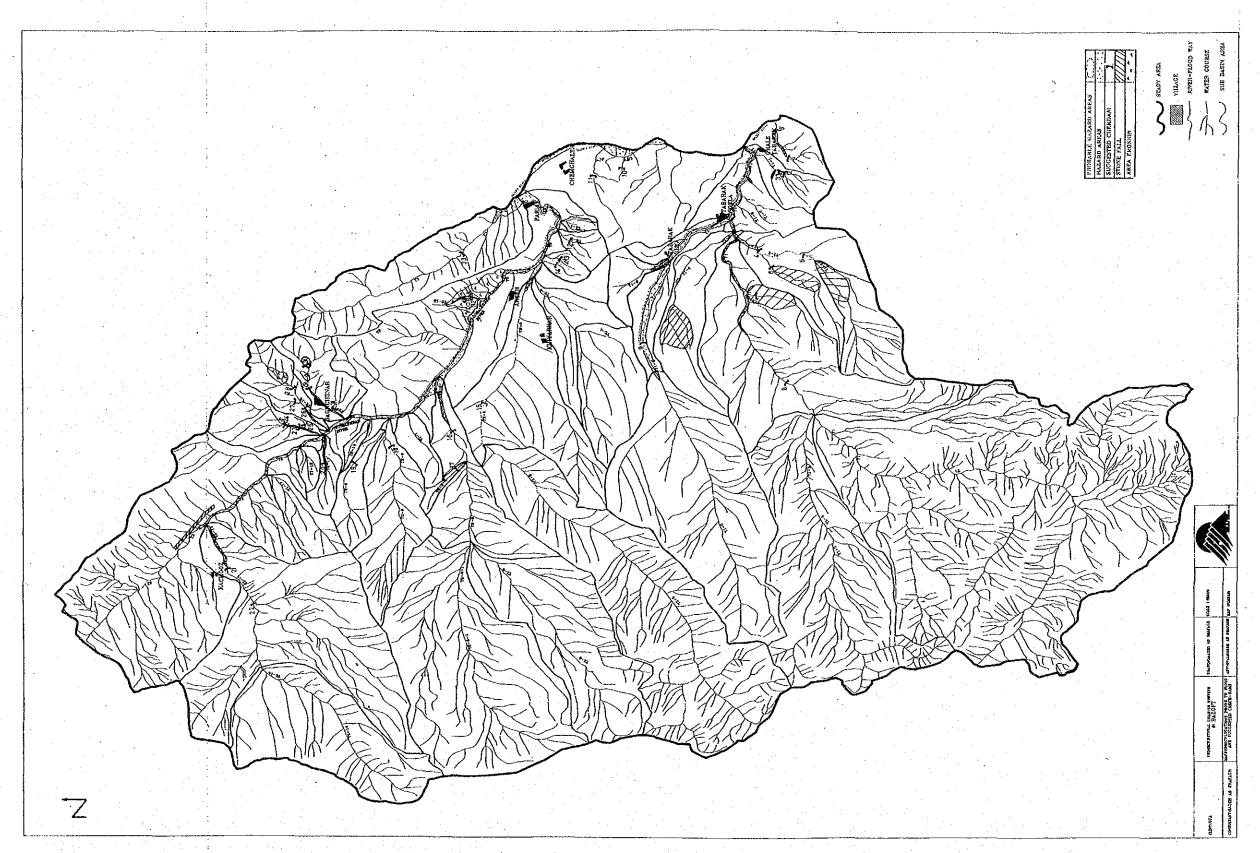


Figure E-2-7 Location Map of Hazard Area - (Chaman-Goli Bazoft)

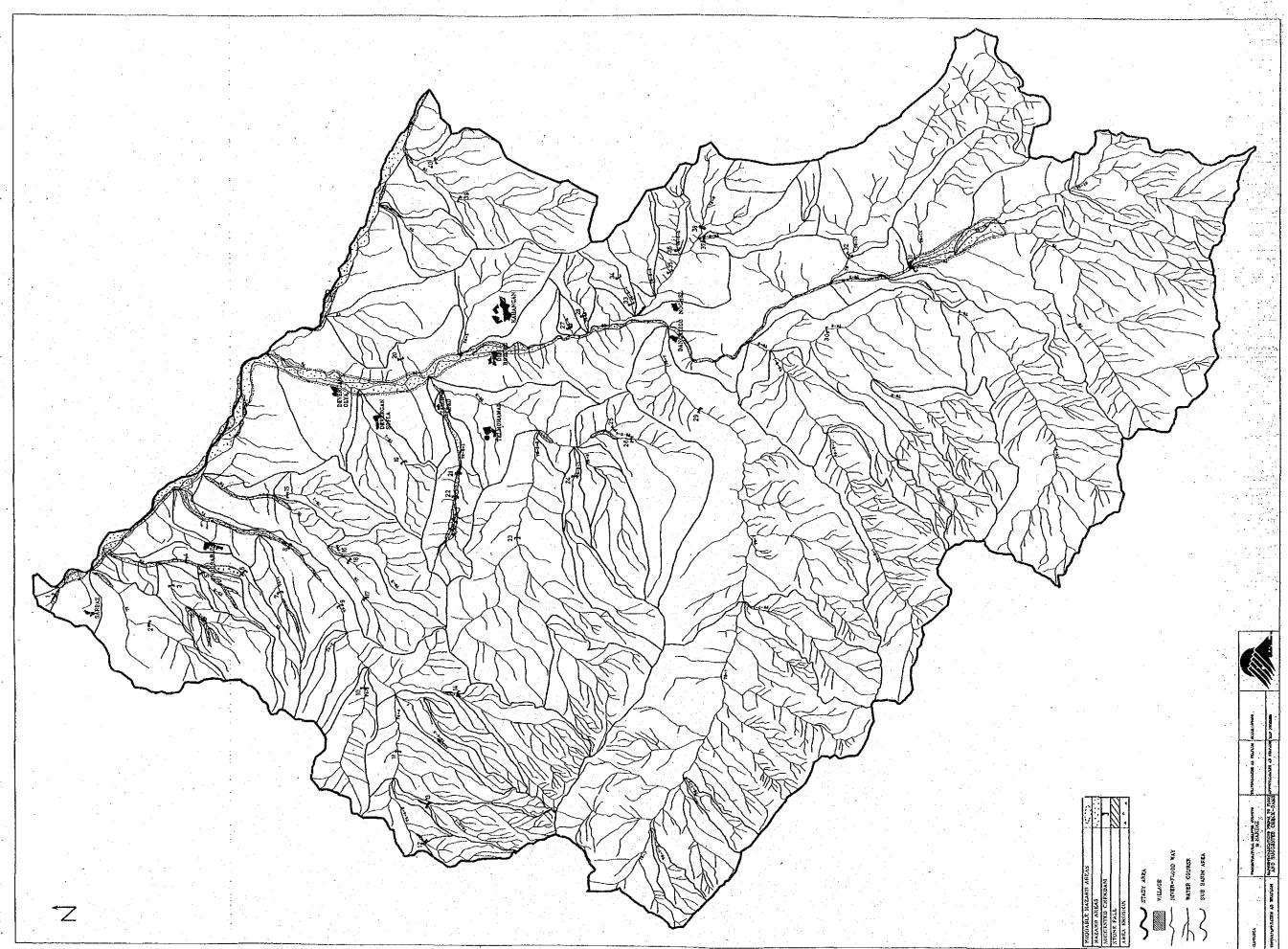


Figure E-2-8 Location Map of Hazard Area - (Sarbaz)

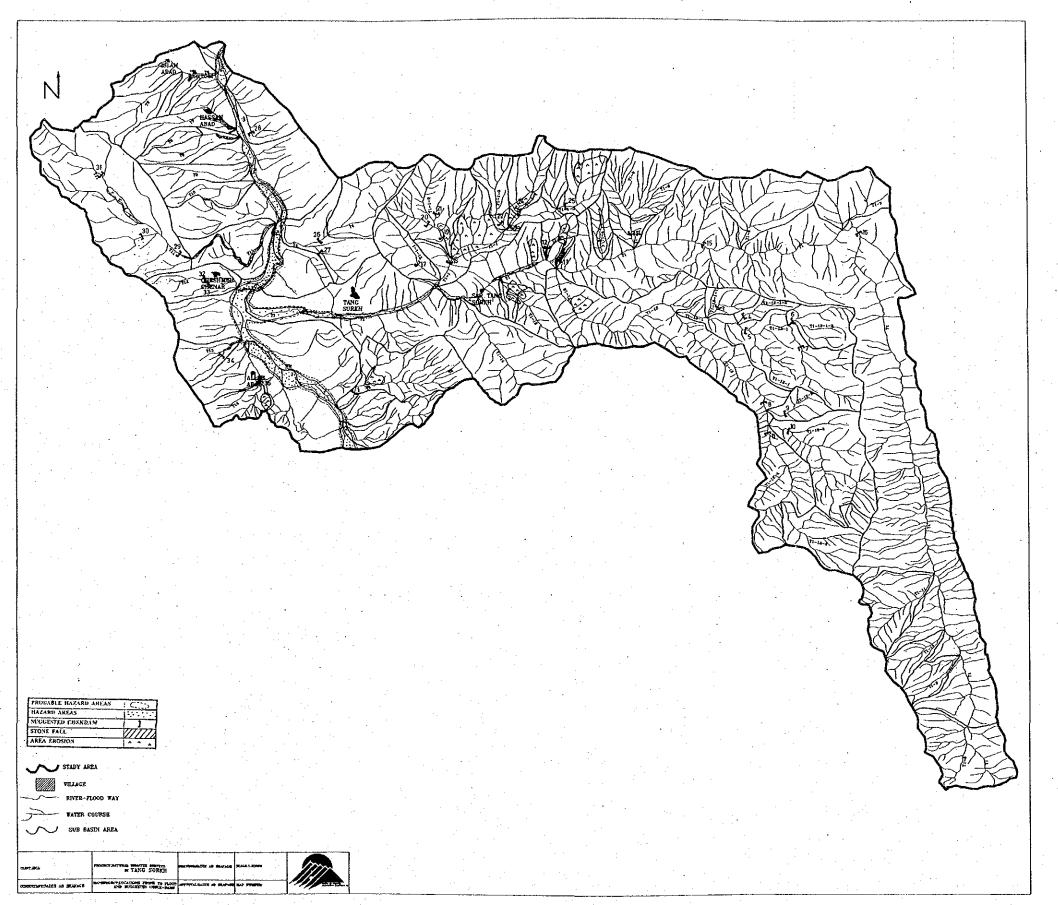


Figure E-2-9 Location Map of Hazard Area - (Tangsorkh)

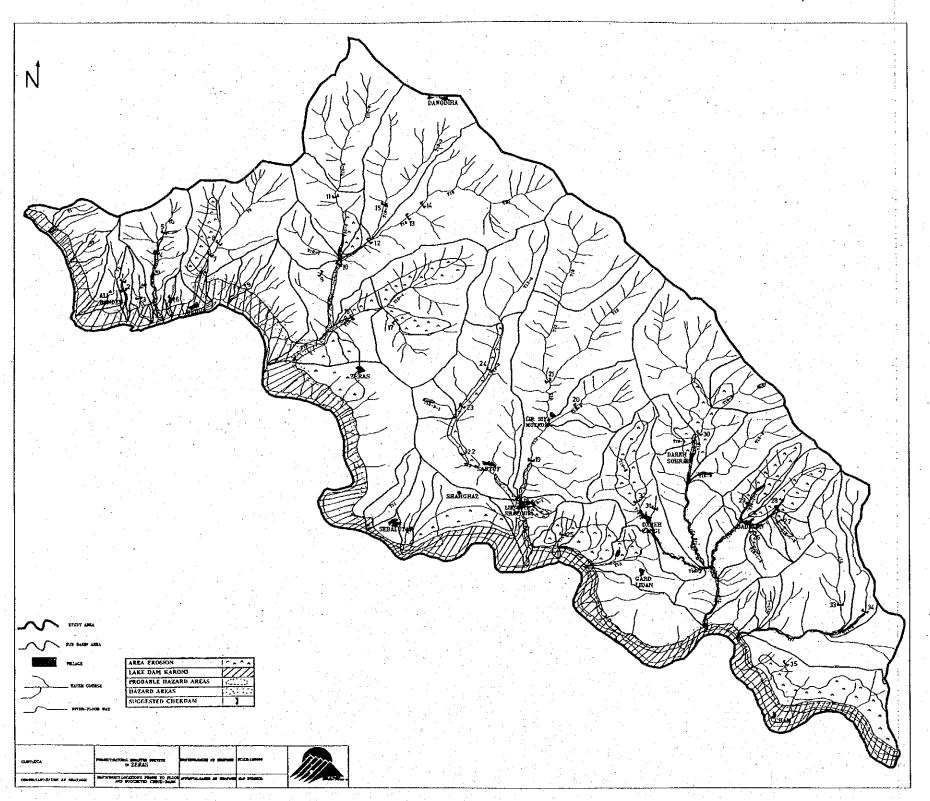
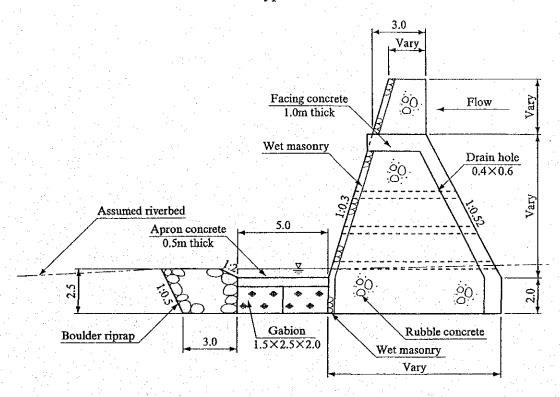


Figure E-2-10 Location Map of Hazard Area - (Zeras)

#### CHECK DAM Type A



Type B

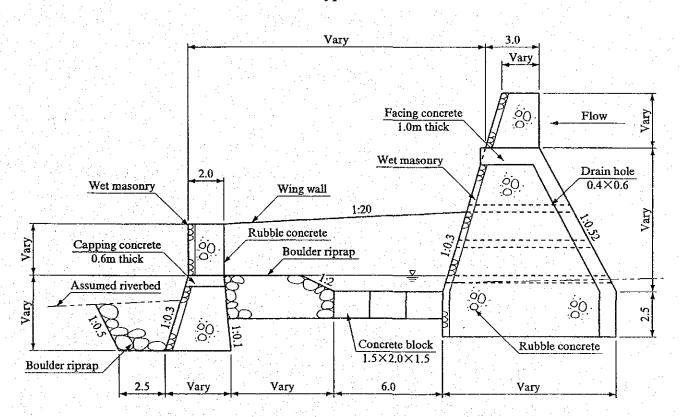
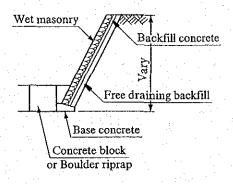
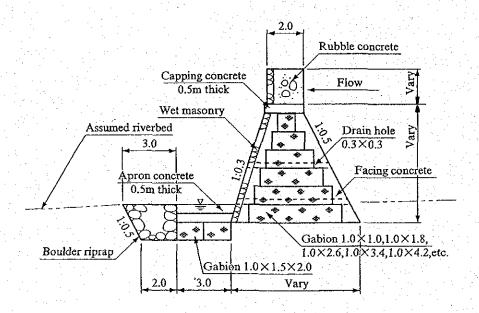


Figure E-2-11 Disaster Prevention Structure - Check Dam (Type A, Type B)

#### Wing wall (cross section)



Type C



Type D

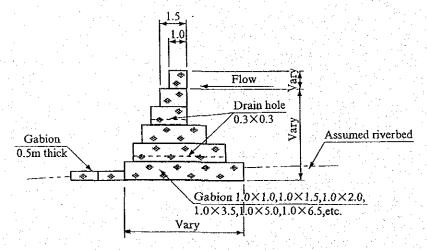
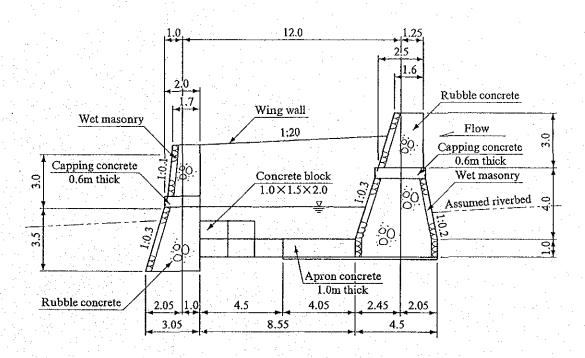


Figure E-2-12 Disaster Prevention Structure - Check Dam (Type C, Type D)

Type E



Wing wall

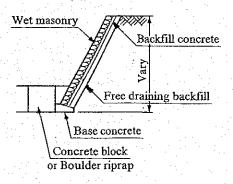
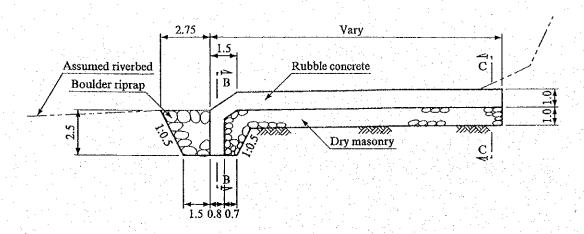
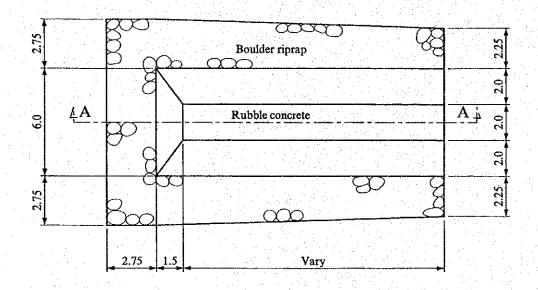


Figure E-2-13 Disaster Prevention Structure - Ground Sill (Type E)

### Bazoft SPUR DYKE SECTION A-A



**PLAN** 





#### SECTION C-C

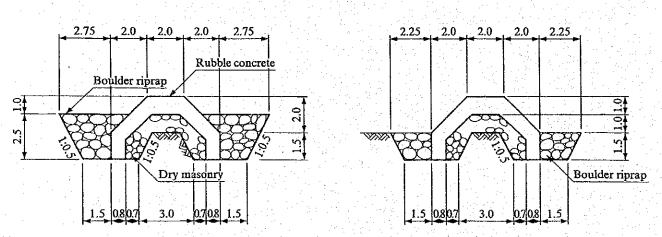
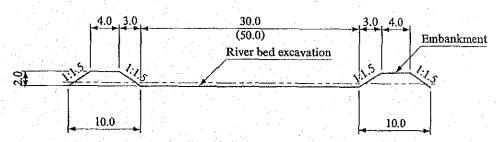


Figure E-2-14 Disaster Prevention Structure - Spur Dike

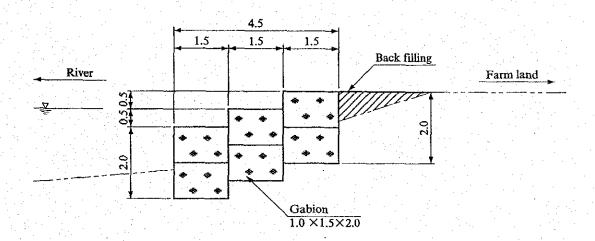
#### River Treatment

#### Vastegan



Note:Figure in ( ) denotes the river width in downstream section

# River Bank Protection Bazoft



#### River Bank Protection Sarbaz

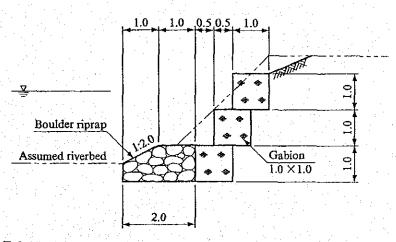
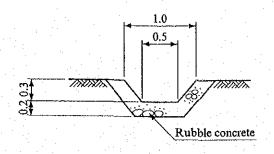


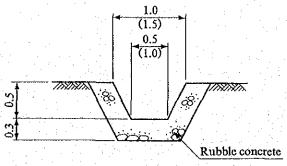
Figure E-2-15 Disaster Prevention Structure-River Treatment / Bank Protection

#### LONDSLIDE PROTECTION

#### Horizontal drain

#### Vertical drain



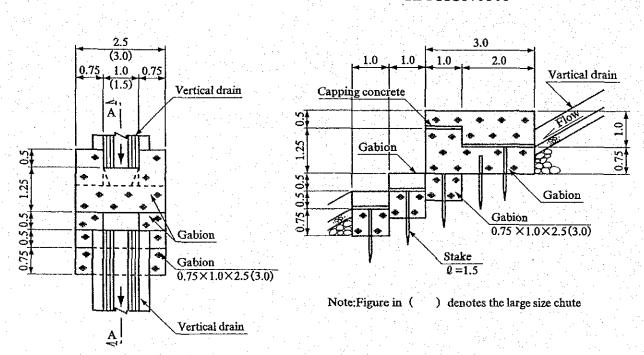


Note: Figure in ( ) denotes the large size drain

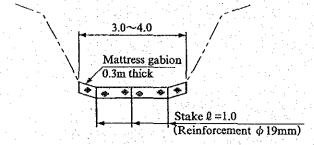
#### Drop check chute

#### Front view

#### SECTION A-A



# GULLY PROTECTION (Cross section)



Note:Drop check ohute is to be installed every 20m on the gully

Figure E-2-16 Disaster Prevention Structure-Landslide Protection

#### ROCKFALL PROTECTION

## Cross section

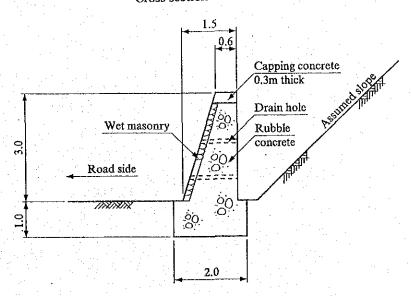
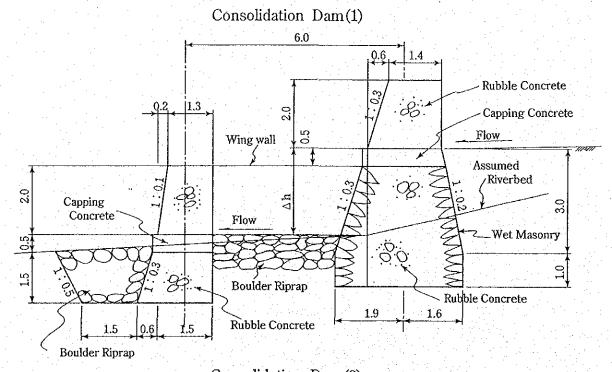
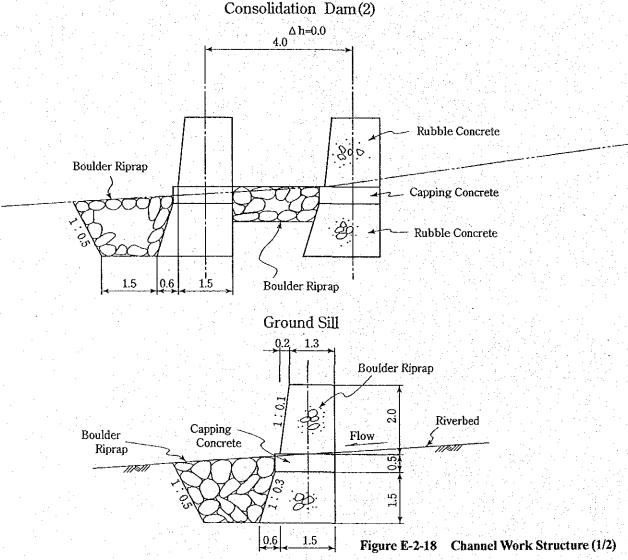
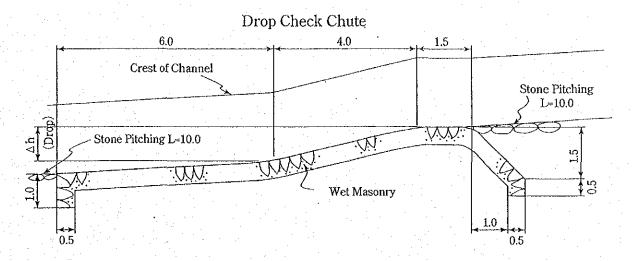


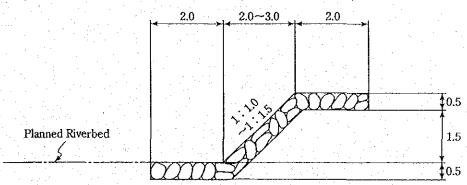
Figure E-2-17 Disaster Prevention Structure- Rockfall Protection



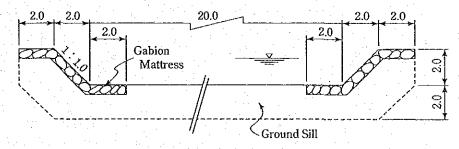


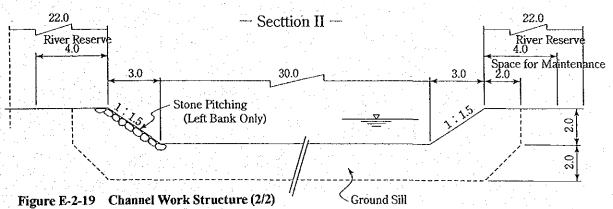


River Bank Protection (Gabion Mattress)



Cross Section of Channel Work
— Secttion I —





Legend

CD(1) = Consolidation Dam(1)

. CD (2) = Consolidation Dam (2)

= Drop Check Chute

= Ground Sill

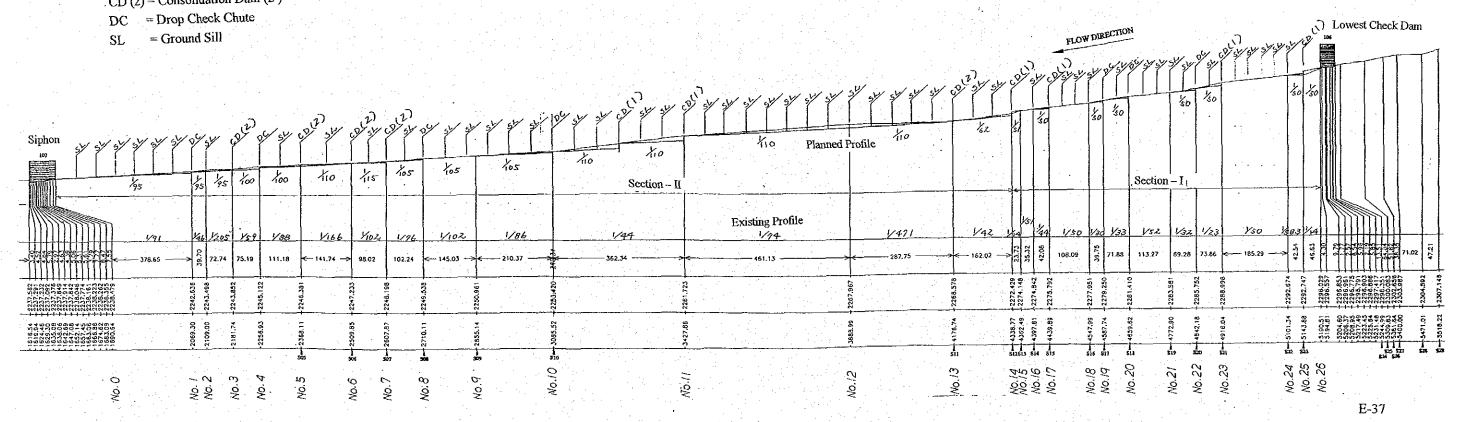


Figure E-2-20 Profile of Channel Work