Appendix 3. Concept relationships frequency chart

Concept/Idea Category	Relation	Concept/Idea Category	+/+	+/-	-/+	-/-	Total	Туре
Uncontrolled/Unpredicted/Unaltered Natural Phenomena		Uncontrolled/Unpredicted/Unaltered Natural Phenomena	15	3			18	Natural Phenomena
Ivaturar i nenomena		ivaturar i nenomena	13	,	-	:	10	Natural I henomena
Uncontrolled/Unpredicted/Unaltered		Inter-regional/International Institutional						
Natural Phenomena		Coordination / Effective Basin Mgmt		4	3	<u>. </u>	7	Institutions
Uncontrolled/Unpredicted/Unaltered Natural Phenomena		Knowledge Capacity, Institions, Resources, or Networks		1			1	Institutions
Ivaturar i nenomena		Infrastructure for Managing Natural	}	1	}	: 	1	mstitutions
Uncontrolled/Unpredicted/Unaltered		Phenomena/Controlled Natural				•		
Natural Phenomena		Phenomena	1		<u> </u>	<u> </u>	1	Infrastructure
Uncontrolled/Unpredicted/Unaltered Natural Phenomena		Agriculture, Livestock, Forestry, Fishing, and Hunting Practices	2		1		3	Human Process
inaturai Frienomena		and Hunting Fractices			1	<u>: </u>	3	Human Process
Uncontrolled/Unpredicted/Unaltered		Sustainable Use of Water/Exploitation of						
Natural Phenomena		Natural Resources			1		1	Human Process
**						:		
Uncontrolled/Unpredicted/Unaltered Natural Phenomena		Habitat/Biodiversity		6	1	1	8	Egglagical Haalth
Naturai Phenomena		Habitat/Biodiversity	1	0	1	1	٥	Ecological Health
Uncontrolled/Unpredicted/Unaltered		Surface Water, Sediment, Soils, and/or						
Natural Phenomena		Crop Quality	3	3	1	2	9	Ecological Health
		Uprooting, and						
Uncontrolled/Unpredicted/Unaltered		Displacement/Maintenance of Cultural					_	G : 1 W 10
Natural Phenomena		and Traditional Practices Availability of Water, Soils, and		2	}	<u>: </u>	2	Social Welfare
Uncontrolled/Unpredicted/Unaltered		Land/Resource sufficient for consumption				į		
Natural Phenomena		and preservation of the environment	6	8	1		15	Social Welfare
						•		
Uncontrolled/Unpredicted/Unaltered						•		
Natural Phenomena		Economic Productivity or Development	<u> </u>	1	<u> </u>	<u>: </u>	1	Social Welfare
Uncontrolled/Unpredicted/Unaltered		Economic Activities, Infrastructure, and/or Equipment from Natural						
Natural Phenomena		Phenomena	5			1	6	Social Welfare
Turken manifest all/Turkenmankin mal		3	}	}	ş	:	ş	
Inter-regional/International Institutional Coordination / Effective		Uncontrolled/Unpredicted/Unaltered						
Basin Mgmt		Natural Phenomena			3		3	Natural Phenomena
Inter-regional/International								
Institutional Coordination / Effective		Inter-regional/International Institutional						
Basin Mgmt		Coordination / Effective Basin Mgmt	1	}	<u> </u>	5	6	Institutions
Inter-regional/International Institutional Coordination / Effective		Knowledge Capacity, Institions,						
Basin Mgmt		Resources, or Networks				2	2	Institutions
Inter-regional/International			}					
Institutional Coordination / Effective		Sustainable Use of Water/Exploitation of	\$	3				
Basin Mgmt		Natural Resources	1			<u>: </u>	1	Human Process
Inter-regional/International Institutional Coordination / Effective		Distribution of Wealth/Lack of						
Basin Mgmt	İ	Impoverishment/Quality of Life				1	1	Social Welfare
Inter-regional/International		Availability of Water, Soils, and						
Institutional Coordination / Effective		Land/Resource sufficient for consumption		3		•		
Basin Mgmt	<u> </u>	and preservation of the environment	2	<u> </u>		<u>:</u>	2	Social Welfare
Inter-regional/International		Economic Activities, Infrastructure,						
Institutional Coordination / Effective		and/or Equipment from Natural	1		1		1	Social Wolfers
Basin Mgmt	<u>:</u>	Phenomena	3	<u> </u>	1	<u>: </u>	1	Social Welfare

	1		5	<u> </u>			<u> </u>
Knowledge Capacity, Institions,	Uncontrolled/Unpredicted/Unaltered						
Resources, or Networks	Natural Phenomena			1		1	Natural Phenomena
,							
Knowledge Capacity, Institions,	Inter-regional/International Institituional						
Resources, or Networks	Coordination / Effective Basin Mgmt	4			5	9	Institutions
Knowledge Capacity, Institions,	Knowledge Capacity, Institions,						
Resources, or Networks	Resources, or Networks				2	2	Institutions
	Regional Insititutional Capacity,						
Knowledge Capacity, Institions,	Prioritization of Env. Problems, or						
Resources, or Networks	Enforcement				5	5	Institutions
Knowledge Capacity, Institions,							
Resources, or Networks	Legal, Policy, or Regulatory Frameworks				1	1	Institutions
	Economic Activities, Infrastructure,						
Knowledge Capacity, Institions,	and/or Equipment from Natural						
Resources, or Networks	Phenomena			1		1	Ecological Health
Knowledge Capacity, Institions,	Surface Water, Sediment, Soils, and/or						
Resources, or Networks	Crop Quality				1	1	Ecological Health
	Availability of Water, Soils, and	_					
Knowledge Capacity, Institions,	Land/Resource sufficient for consumption						
Resources, or Networks	and preservation of the environment	1				1	Social Welfare
D : 11 ::: 10 ::	Į :		} :	:			<u> </u>
Regional Institutional Capacity,	T. 4						
Prioritization of Env. Problems, or Enforcement	Inter-regional/International Institituional Coordination / Effective Basin Mgmt				1	1	Institutions
(}		1	1	IIISTITUTIONS
Regional Institutional Capacity,	Regional Institutional Capacity,						
Prioritization of Env. Problems, or Enforcement	Prioritization of Env. Problems, or Enforcement				1	1	Institutions
Regional Institutional Capacity,	Overuse, Accidental, Non-compliant, or				1	1	Histitutions
Prioritization of Env. Problems, or	Unregulated release of environmental						
Enforcement	contaminants			2		2	Human Process
Regional Insititutional Capacity,	Contaminants						11umun 1100033
Prioritization of Env. Problems, or	Surface Water, Sediment, Soils, and/or						
Enforcement	Crop Quality				1	1	Ecological Health
Regional Insititutional Capacity,	Economic Activities, Infrastructure,					-	Deological Health
Prioritization of Env. Problems, or	and/or Equipment from Natural						
Enforcement	Phenomena			1		1	Social Welfare
,							
	Regional Insititutional Capacity,						
Legal, Policy, or Regulatory	Prioritization of Env. Problems, or						
Frameworks	Enforcement		{		2	2	Institutions
Legal, Policy, or Regulatory Frameworks	Sustainable Use of Water/Exploitation of	1				1	Iliuman Dui
Frameworks	Natural Resources	1	}			1	Human Process
Level Deliver on Develop	Conform Water C. F. 4 C. T. 17						
Legal, Policy, or Regulatory Frameworks	Surface Water, Sediment, Soils, and/or				1	1	Englacies H14
Frameworks	Crop Quality			:	1	1	Ecological Health
I I D I' D I I	D: ('1 (' CW 14 / T 1 C						
Legal, Policy, or Regulatory	Distribution of Wealth/Lack of		1			1	Social Wolfers
Frameworks	Impoverishment/Quality of Life		1			1	Social Welfare
Logal Policy or Populator	Uprooting, and Displacement/Maintenance of Cultural						
Legal, Policy, or Regulatory Frameworks	and Traditional Practices		1			1	Social Welfare
1 Idilie WOIKS	Availability of Water, Soils, and		1			1	Social Wellate
Legal, Policy, or Regulatory	Availability of Water, Soils, and Land/Resource sufficient for consumption						
Frameworks	and preservation of the environment	1				1	Social Welfare
1 I IIII WOIKS	Economic Activities, Infrastructure,	1				1	Boolai Wellait
Legal, Policy, or Regulatory	and/or Equipment from Natural						
Frameworks	Phenomena		1			1	Social Welfare
1 Idilloworks	і попошона		1	: :		1	Boolar Wellare

Infrastructure for Managing Natural							
Phenomena/Controlled Natural	Uncontrolled/Unpredicted/Unaltered						
Phenomena	Natural Phenomena	3	2	2		7	Natural Phenomena
Infrastructure for Managing Natural							
Phenomena/Controlled Natural							
Phenomena	Biological Cycles/Ecosystems	2				2	Natural Phenomena
Infrastructure for Managing Natural							
Phenomena/Controlled Natural	Inter-regional/International Institituional						
Phenomena	Coordination / Effective Basin Mgmt	1				1	Institutions
Infrastructure for Managing Natural	Coordination / Effective Busin Wight	-				1	motitutions
Phenomena/Controlled Natural							
Phenomena	Habitat/Diadinamita		2			2	Eaglaciael Haelth
	Habitat/Biodiversity	- 3	2				Ecological Health
nfrastructure for Managing Natural							
Phenomena/Controlled Natural	Surface Water, Sediment, Soils, and/or						
Phenomena	Crop Quality	2				2	Ecological Health
nfrastructure for Managing Natural	Availability of Water, Soils, and						
Phenomena/Controlled Natural	Land/Resource sufficient for consumption						
Phenomena	and preservation of the environment	2	1		<u> </u>	3	Social Welfare
	,	- 1			:		<u> </u>
in Great mark and / Dura Gree D. 11 C.	In fine of the set of 10 to 10						
Infrastructure/Processes for Pollution	Infrastructure/Processes for Pollution						T C
Discharge Control and/or Remediation	Discharge Control and/or Remediation			<u> </u>	1	1	Infrastructure
	Overuse, Accidental, Non-compliant, or						
Infrastructure/Processes for Pollution	Unregulated release of environmental	3					
Discharge Control and/or Remediation	contaminants		1	6		7	Human Process
Infrastructure/Processes for Pollution							
Discharge Control and/or Remediation	Habitat/Biodiversity	1				1	Ecological Health
Infrastructure/Processes for Pollution	Surface Water, Sediment, Soils, and/or						
Discharge Control and/or Remediation	Crop Quality	1				1	Ecological Health
	1)						<u> </u>
Infrastructure/Processes for Pollution	Distribution of Wealth/Lack of						
Discharge Control and/or Remediation	Impoverishment/Quality of Life	1				1	Social Welfare
Discharge Control and of Remediation	impoverishment Quarty of Elic	2				1	Boolar Wellare
Overuse, Accidental, Non-compliant,							
or Unregulated release of	Inter-regional/International Institituional						
environmental contaminants	Coordination / Effective Basin Mgmt			1		1	Institutions
Overuse, Accidental, Non-compliant,	Overuse, Accidental, Non-compliant, or						
or Unregulated release of	Unregulated release of environmental						
environmental contaminants	contaminants	3				3	Human Process
Overuse, Accidental, Non-compliant,							
or Unregulated release of	Surface Water, Sediment, Soils, and/or						
environmental contaminants	Crop Quality		8			8	Ecological Health
invironmental contaminants	Crop Quanty		0			0	Ecological Ticatui
Agriculture, Livestock, Forestry,	Uncontrolled/Unpredicted/Unaltered						
Fishing, and Hunting Practices	Natural Phenomena		1			1	Natural Phenomena
]			
Agriculture, Livestock, Forestry,							
Fishing, and Hunting Practices	Biological Cycles/Ecosystems	1				1	Natural Phenomena
<u> </u>	,						
Agriculture, Livestock, Forestry,	Inter-regional/International Institituional						
Fishing, and Hunting Practices	Coordination / Effective Basin Mgmt	3			3	6	Institutions
isning, and fruitting fractices	Coordination / Effective Dasin ivigint	3			3	U	montunons
Agricultura Liverteels Farester	Appioulture Liverteel Femantic Fishing			}			
Agriculture, Livestock, Forestry,	Agriculture, Livestock, Forestry, Fishing,	^	1		•	2	Hames Bur
Fishing, and Hunting Practices	and Hunting Practices	2	1		<u> </u>	3	Human Process
Agriculture, Livestock, Forestry,	Sustainable Use of Water/Exploitation of						
Fishing, and Hunting Practices	Natural Resources	3			3	3	Human Process

				:	}		
Agriculture, Livestock, Forestry,					3		
Fishing, and Hunting Practices	Habitat/Biodiversity	1	8		8	17	Ecological Health
Agriculture, Livestock, Forestry,	Surface Water, Sediment, Soils, and/or				3		
Fishing, and Hunting Practices	Crop Quality		6		1	7	Ecological Health
	Uprooting, and						
Agriculture, Livestock, Forestry,	Displacement/Maintenance of Cultural				3		G : 1 W 10
Fishing, and Hunting Practices	and Traditional Practices	1			3	1	Social Welfare
A amigustaring Livegete als Equation	Availability of Water, Soils, and Land/Resource sufficient for consumption				3		
Agriculture, Livestock, Forestry, Fishing, and Hunting Practices	and preservation of the environment		1			1	Social Welfare
rishing, and righting fractices	und preservation of the environment		1			1	Social Wellare
					3		
Sustainable Use of Water/Exploitation	Uncontrolled/Unpredicted/Unaltered						
of Natural Resources	Natural Phenomena	1			- }	1	Natural Phenomena
G and the GW at 75 and the					3		
Sustainable Use of Water/Exploitation of Natural Resources	Inter-regional/International Institituional Coordination / Effective Basin Mgmt	4			3	4	Tu otituti ou o
of Natural Resources	Coordination / Effective Basin Mgmt	4			- 3	4	Institutions
Sustainable Use of Water/Exploitation	Agriculture, Livestock, Forestry, Fishing,						
Sustainable Use of Water/Exploitation of Natural Resources	and Hunting Practices				5	5	Human Process
of Natural Resources	and Hunting Hactices				,	J	Truman riocess
Sustainable Use of Water/Exploitation	Sustainable Use of Water/Exploitation of				3		
of Natural Resources	Natural Resources	2			3	2	Human Process
Sustainable Use of Water/Exploitation							
of Natural Resources	Habitat/Biodiversity	1			1	2	Ecological Health
Sustainable Use of Water/Exploitation	Surface Water, Sediment, Soils, and/or				3		
of Natural Resources	Crop Quality	2				2	Ecological Health
Sustainable Use of Water/Exploitation	Distribution of Wealth/Lack of				3		
of Natural Resources	Impoverishment/Quality of Life	1			- }	1	Social Welfare
C	Uprooting, and				3		
Sustainable Use of Water/Exploitation of Natural Resources	Displacement/Maintenance of Cultural and Traditional Practices	1			3	1	Casial Walfors
of Natural Resources	and Traditional Practices	1		:		1	Social Welfare
Population, Economic Activities,							
Infrastructure, and/or Equipment from	Agriculture, Livestock, Forestry, Fishing,				3		
Natural Phenomena	and Hunting Practices			1		1	Human Process
Population, Economic Activities,							
Infrastructure, and/or Equipment from	Sustainable Use of Water/Exploitation of				3		
Natural Phenomena	Natural Resources			1	3	1	Human Process
Population, Economic Activities,							
Infrastructure, and/or Equipment from Natural Phenomena	Habitat/Biodiversity			1		1	Ecological Health
Population, Economic Activities,	Habitat/Biodiversity			1	- 1	1	Ecological riealiii
Infrastructure, and/or Equipment from	Distribution of Wealth/Lack of				3		
Natural Phenomena	Impoverishment/Quality of Life		1	1	3	2	Social Welfare
Population, Economic Activities,	Uprooting, and		_		3	-	
Infrastructure, and/or Equipment from	Displacement/Maintenance of Cultural				3		
Natural Phenomena	and Traditional Practices			1	_	1	Social Welfare
Population, Economic Activities,							
Infrastructure, and/or Equipment from							
Natural Phenomena	Economic Productivity or Development		1		3	1	Social Welfare
Population, Economic Activities,	Economic Activities, Infrastructure,				9		
Infrastructure, and/or Equipment from	and/or Equipment from Natural				3		
Natural Phenomena	Phenomena	3	; ;			3	Social Welfare

Habitat/Biodiversity	Uncontrolled/Unpredicted/Unaltered Natural Phenomena				1 :	ı	Natural Phenomena
Habitat/Biodiversity	Agriculture, Livestock, Forestry, Fishing, and Hunting Practices			1	-	l	Human Process
Habitat/Biodiversity	Sustainable Use of Water/Exploitation of Natural Resources				1 :	l	Human Process
Habitat/Biodiversity	Habitat/Biodiversity	1		1	7 1	8	Ecological Health
Habitat/Biodiversity	Surface Water, Sediment, Soils, and/or Crop Quality			1	0 1	0	Ecological Health
Habitat/Biodiversity	Distribution of Wealth/Lack of Impoverishment/Quality of Life	1			1 2	2	Social Welfare
Habitat/Biodiversity	Uprooting, and Displacement/Maintenance of Cultural and Traditional Practices				8 8	3	Social Welfare
Habitat/Biodiversity	Human health, life expectancy, environment, livelihoods, and food security				3 3	3	Social Welfare
Habitat/Biodiversity	Availability of Water, Soils, and Land/Resource sufficient for consumption and preservation of the environment				2 2	2	Social Welfare
Habitat/Biodiversity	Economic Productivity or Development				1	ı	Social Welfare
Surface Water, Sediment, Soils, and/or Crop Quality	Uncontrolled/Unpredicted/Unaltered Natural Phenomena		3			3	Natural Phenomena
Surface Water, Sediment, Soils, and/or Crop Quality	Inter-regional/International Institituional Coordination / Effective Basin Mgmt				3	3	Institutions
Surface Water, Sediment, Soils, and/or Crop Quality	Knowledge Capacity, Institions, Resources, or Networks	3			3 (5	Institutions
Surface Water, Sediment, Soils, and/or Crop Quality	Agriculture, Livestock, Forestry, Fishing, and Hunting Practices	4			4 8	3	Human Process
Surface Water, Sediment, Soils, and/or Crop Quality	Sustainable Use of Water/Exploitation of Natural Resources	4			4	1	Human Process
Surface Water, Sediment, Soils, and/or Crop Quality	Habitat/Biodiversity	3		1	0 1	3	Ecological Health
Surface Water, Sediment, Soils, and/or Crop Quality	Surface Water, Sediment, Soils, and/or Crop Quality	1		1	8 1	9	Ecological Health
Surface Water, Sediment, Soils, and/or Crop Quality	Distribution of Wealth/Lack of Impoverishment/Quality of Life	1			-	l	Social Welfare
Surface Water, Sediment, Soils, and/or Crop Quality	Uprooting, and Displacement/Maintenance of Cultural and Traditional Practices				3 3	3	Social Welfare
Surface Water, Sediment, Soils, and/or Crop Quality	Human health, life expectancy, environment, livelihoods, and food security	3			9 1	2	Social Welfare

<u> </u>	3. 4.44. 0 0		3	-:-	3	: :
Conford Water Codiment Cails and/or	Availability of Water, Soils, and	3				
Surface Water, Sediment, Soils, and/or	Land/Resource sufficient for consumption and preservation of the environment			2	2	Social Welfare
Crop Quality	and preservation of the environment		- 1			Social Wellare
Surface Water, Sediment, Soils, and/or						
Crop Quality	Economic Productivity or Development			2	2	Social Welfare
Crop Quanty	Economic Froductivity of Development	3	- 3	<u>:</u> 2	Z	Social Wellale
Distribution of Wealth/Lack of	Surface Water, Sediment, Soils, and/or					
Impoverishment/Quality of Life	Crop Quality			3	3	Ecological Health
Distribution of Wealth/Lack of	Distribution of Wealth/Lack of					
Impoverishment/Quality of Life	Impoverishment/Quality of Life	1		1	2	Social Welfare
	Uprooting, and			•		
Distribution of Wealth/Lack of	Displacement/Maintenance of Cultural					
Impoverishment/Quality of Life	and Traditional Practices	1		2	3	Social Welfare
	Human health, life expectancy,					
Distribution of Wealth/Lack of	environment, livelihoods, and food					
Impoverishment/Quality of Life	security	1	_	-	1	Social Welfare
					1	
Distribution of Wealth/Lack of						
Impoverishment/Quality of Life	Economic Productivity or Development	3	- 1	3	6	Social Welfare
	Economic Activities, Infrastructure,			i		
Distribution of Wealth/Lack of	and/or Equipment from Natural			1		0 1 1 777 10
Impoverishment/Quality of Life	Phenomena	1	- 3	1	1	Social Welfare
Migration, Uprooting, and		-	- 1	•		
Displacement/Maintenance of Cultural	Distribution of Wealth/Lack of			•		
and Traditional Practices	Impoverishment/Quality of Life	1		1	2	Social Welfare
Migration, Uprooting, and	Uprooting, and					
Displacement/Maintenance of Cultural	Displacement/Maintenance of Cultural					
and Traditional Practices	and Traditional Practices			4	4	Social Welfare
Migration, Uprooting, and	Human health, life expectancy,					
Displacement/Maintenance of Cultural	environment, livelihoods, and food			į		
and Traditional Practices	security			2	2	Social Welfare
)	: {	3	•	3	: :
Human health, life expectancy,						
environment, livelihoods, and food	Inter-regional/International Institutional					
security	Coordination / Effective Basin Mgmt	3	-	3	6	Institutions
Human health, life expectancy,	Human health, life expectancy,					
environment, livelihoods, and food	environment, livelihoods, and food			1	1	C:-1 W -1C
security	security	3	- 1	. 1	1	Social Welfare
Land/Resource sufficient for		}		:		
consumption and preservation of the	Uncontrolled/Unpredicted/Unaltered					
environment	Natural Phenomena			1	1	Natural Phenomena
Land/Resource sufficient for				i		
consumption and preservation of the				i		
environment	Biological Cycles/Ecosystems	1			1	Natural Phenomena
Land/Resource sufficient for						
consumption and preservation of the	Inter-regional/International Institituional			i		
environment	Coordination / Effective Basin Mgmt	1		i	1	Institutions
Land/Resource sufficient for						
consumption and preservation of the						
environment	Habitat/Biodiversity			2	2	Ecological Health
Land/Resource sufficient for			3		1	
consumption and preservation of the	Surface Water, Sediment, Soils, and/or					
environment	Crop Quality		1	1	2	Ecological Health
Land/Resource sufficient for	Uprooting, and					
consumption and preservation of the	Displacement/Maintenance of Cultural					
environment	and Traditional Practices		3	2	2	Social Welfare

Land/Resource sufficient for	Human health, life expectancy,						
consumption and preservation of the	environment, livelihoods, and food						
environment	security				2	2	Social Welfare
Land/Resource sufficient for	Availability of Water, Soils, and						
consumption and preservation of the	Land/Resource sufficient for consumption						
environment	and preservation of the environment	3			2	5	Social Welfare
Land/Resource sufficient for							
consumption and preservation of the							
environment	Economic Productivity or Development				3	3	Social Welfare
Land/Resource sufficient for	Economic Activities, Infrastructure,						
consumption and preservation of the	and/or Equipment from Natural						
environment	Phenomena			1		1	Social Welfare
							: ;
Economic Productivity or	Uncontrolled/Unpredicted/Unaltered						
Development	Natural Phenomena		3	_		3	Natural Phenomena
Economic Productivity or	Knowledge Capacity, Institions,						
Development	Resources, or Networks	3			3	6	Institutions
Economic Productivity or	Agriculture, Livestock, Forestry, Fishing,						
Development	and Hunting Practices	3			3	6	Human Process
Economic Productivity or	Sustainable Use of Water/Exploitation of						
Development	Natural Resources	3				3	Human Process
Economic Productivity or	Surface Water, Sediment, Soils, and/or						
Development	Crop Quality		2		3	5	Ecological Health
Economic Productivity or	Distribution of Wealth/Lack of						
Development	Impoverishment/Quality of Life		1		2	3	Social Welfare
	Human health, life expectancy,						
Economic Productivity or	environment, livelihoods, and food						
Development	security	3			3	6	Social Welfare