

ANNEX

Annex F3.3.1 List of Attendants for Pre-PCM in Lower Area

No.	Name	Institution	District/Municipality
1	Ir. Rachmat Lubis	Office of Fishery	Banyuasin
2	Ir. Ali Imron Bamin, MSi	Office of Estate and Forestry	Banyuasin
3	Robiyanto H Susanto	Steering Committee	Sriwidjaja Univ.
4	H. Fahmi Jana	Office of Water Resource	Banyuasin
5	Kuswari Marzah	Drinking Water Company	MUBA
6	Erawan Afrizal, SP	Office of Agriculture and Animal Husbandry	MUBA
7	M. Daud	Office of Tourism	MUBA
8	Armanuddin, SP	Office of Agriculture and Animal Husbandry	MUBA
9	Rismawati Gathmyr	Office of Public Works	MUBA
10	Aliyuddin Tjikmat	District Planning Office	Banyuasin
11	Desipial, S Sos	NGO for Women	Palembang
12	Mrs. Nurhayati	NGO Puskokatara	MUBA
13	Alisudin, SP	NGO Kebersamaan	Palembang
14	Rusjdi Usman	Independent Committee for Regional Autonomy	Palembang
15	Azhari Harun	Office of Transportation	MUBA
16	Sayuti	Drinking Water Company	
17	Bachrowi	Office of Water Resource	MUBA
18	Syahrin	Office of Fishery	MUBA
19	Ir. Nurfirman	Office of Marine & Fishery	OKI
20	Yusuf Senen	NGO MPM	MUBA
21	Zailani	Environmental Control Agency	Palembang
22	Suryadi Salam	Office of Settlement and Regional Infrastructures	Palembang
23	Erminton S	Office of Settlement and Regional Infrastructures	Palembang
24	Bachtiar Effendi	Office of Settlement and Regional Infrastructures	Palembang
25	Taufik Harun	District Planning Office	OKI
26	Yeni	NGO for Women	OKI
27	Darul Asdi	Community leader	OKI
28	Rahmadi	NGO	OKI
29	Alfan	Farmer	OKI
30	Z. Effendi	Office of Mining and Energy	MUBA
31	Syamsul Bahri	Office of Environment	MUBA
32	Abu Yasir	Fisherman	OKI
33	Surya Dewanto	Office of Water Resource	Province
34	Rusdi W	Office of Water Resource	Province
35	Anton Budiono	Office of Water Resource	Province

Annex F3.3.2 List of Attendants for Pre-PCM in Middle Area

No.	Name	Institution	District/Municipality
1	Gunaparti , AM	Office of Mining and Energy	Muaraenim
2	A. Zahedi	City Planning Office	Perabumulih
3	Irsan Matondang, SE	NGO Soragama	Perabumulih
4	Sumartha Edison, ST	Office of Environment and Mining	Perabumulih
5	A. Nadjib	Office of Animal Husbandry and Fishery	Muaraenim
6	Joni Ikob	Office of Transportation	Muaraenim
7	A. Jaya	Office of Industry, Trade and Cooperative	Muaraenim
8	Muhono	Office of Forestry	Muaraenim
9	Syarifuddin	Drinking Water Company	OKU
10	Bahawi	Drinking Water Company	OKU
11	Ibrahim Saleh	Office of Water Resource	OKU
12	Syam Hasan	Legislative member	Muaraenim
13	A. Pini	Office of Tourism	
14	Amaluddin Wazir	Office of Estate	
15	Mirza Jaya	Drinking Water Company	
16	Hermana	LSM	Muaraenim
17	Walamiah, SH	NGO for WOmEn	Muaraenim
18	Ana Novianty, AMKL	NGO for WOmEn	Muaraenim
19	A. Mun'im	Farmer	Muaraenim
20	Drs. H. Sulaiman Basyar	Community leader	Muaraenim
21	M. Ardisupratman	City Planning Office	Perabumulih
22	Mustofa	Farmer	OKU
23	Surya Dewanto	Office of Water Resource	Province
24	Anton Budiono	Office of Water Resource	Province
25	Rusdi Wali	Office of Water Resource	Province
26	Yohannes	Provincial Planning Office	Province

Annex F3.3.3 List of Attendants for Pre-PCM in Upper Area

No.	Name	Institution	District/Municipality
1	Ir. Binsar Manurung, MT	Office of Water Resource	Lahat
2	Ir. Wasis Budi Prasetyo, MT	Office of Water Resource	Lahat
3	Zulkarnain, SE	District Planning Office	Lahat
4	Ir. Rias NT	Office of Forestry and Estate	Lahat
5	H. Marzuki Jemair	NGO – Forum KP Masyarakat Lahat	Lahat
6	Aminullah	NGO – Farmers and fishermen group	Pagaralam
7	Nopran Edwin	NGO - Persada	Pagaralam
8	Mismito	Office of Industry and Trade	Lubuklinggau
9	Ir. Nurlizhar, Med. Agr	Office of Agriculture	Lubuklinggau
10	Ir. Subandio Amin	Office of Agriculture	Lubuklinggau
11	Darnawati, SH	NGO - HIPMI	Lubuklinggau
12	Saparudin Yassa	NGO – Simpul Walhi	Musirawas
13	Haryanto	Drinking Water Company	Pagaralam
14	Syafei, SH	Drinking Water Company	Lahat
15	Ir. Hayatun Novrida, MP	Office of Animal Husbandry and Fishery	Musirawas
16	Helmi Usi, SH	District Planning Office	Lubuklinggau
17	Ir. Syapriadi	District Planning Office	Lubuklinggau
18	Sri Oktavianti	Women representative	Lubuklinggau
19	Syahlan Musa	Office of Transportation	Lubuklinggau
20	Zulfikhar	Provincial Forest Office	Sumsel
21	Ir. Umar Dhani	Office of Public Works	Pagaralam
22	Drs. Fauzi	Office of Tourism	Pagaralam
23	Bambang Ekalaya	NGO - LAKPP	Musirawas
24	Agus Supriyo, S Sos	Environmental Division	Musirawas
25	Zainul Karsidi	Office of Industry, Trade and Cooperative	
26	Agustianto	Legislative member	Lahat
27	Murshal Husin	Office of Tourism	Lubuklinggau
28	Gustianto, SE	Drinking Water Company	Musirawas
29	Mefta	Office of Tourism	Musirawas
30	Darwin	Office of Transportation	Musirawas
31	Ir. Yita Arga	Office of City Planning	Lubuklinggau
32	Aliaman, SPd	Public Relation Division	
33	Suherman Saleh, SP	Office of Agriculture	Pagaralam
34	Riswan Sudariswan, S Hut	Office of Forestry	Musirawas
35	Anton Budiono	Office of Water Resource	Province
36	Polly Aguscik	Farmer	Pagaralam
37	Eka	Linggau Post News Agency	Lubuklinggau
38	Hardianto	Farmer	Lubuklinggau
39	Kardiman	Farmer	Pagaralam
40	Suhartini	Women representative	Lahat
41	Rusdi Wahir	Office of Water Resource	Province
42	Surya Dewanto	Office of Water Resource	Province
43	Yohannes	Provincial Planning Office	Province

Annex F3.4.1 List of Attendants for PCM (1) in Lower Area

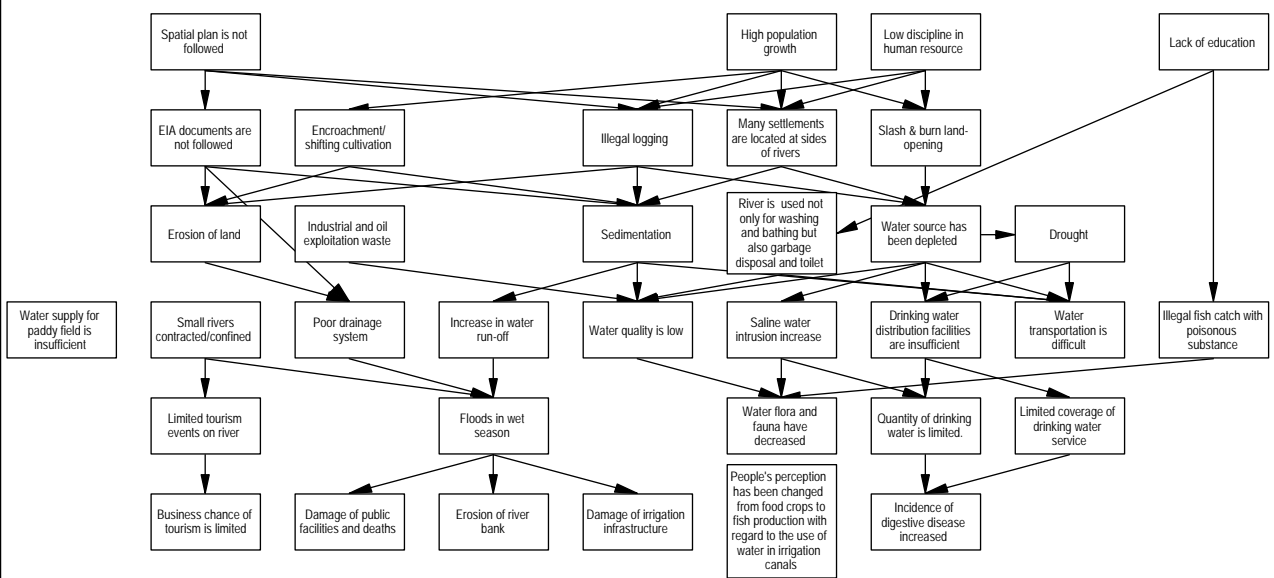
No.	Name	Institution	District/Municipality
1	Aliyuddin Tjikmat	District Planning Board	Banyuasin
2	Yenny Ali		OKI
3	Hanafiah, BA	Office of Mining and Energy	Banyuasin
4	Eliana	Office of Mining and Energy	Banyuasin
5	Zuher Effendi	Office of Mining and Energy	MUBA
6	Tabrani Noer	Office of Public Work	Banyuasin
7	Syaiful	Office of Agriculture	Banyuasin
8	Soegiyono	Office of Agriculture	Banyuasin
9	Taufik Harun	Office of Public Work	OKI
10	Ir. Rachmat Lubis	Office of Fishery & Coastal Area Development	Banyuasin
11	H M Anhar Zulkifli	Drinking Water Company	MUBA
12	Suratinah	Office of Fishery	MUBA
13	Effendi W	Office of Forestry	OKI
14	Rahmadi	NGO Ingo's	OKI
15	Abuyasier	NGO Ingo's	OKI
16	Fahruddin Diah	Legislative member	OKI
17	Syafriyulis	Office of Marine & Fishery	OKI
18	M. Tohir	Community leader	OKI
19	Alfan Suri	Farmer	OKI
20	Suryadi S	Office of Settlement & Regional Infrastructure	Palembang
21	Ifna Nur	District Planning Board	OKI
22	Iskandar	Port Administration	Palembang
23	Juni Alpansuri	Rural resident	OKI
24	Syahnan	Port Administration	Palembang
25	A. Yudha, ST		Palembang
26	Kms. Abubakar	Office of Environment	Palembang

Annex F3.4.2 List of Attendants for PCM (1) in Middle Area

No.	Name	Institution	District/Municipality
1	Mirza Yahya	Drinking Water Company	Muara Enim
2	Hermada R	NGO Gerakan Sriwijaya	Muara Enim
3	Walama, SH	Teacher	Muara Enim
4	Ana	NGO	Muara Enim
5	Said Ali	District Planning Board	Muara Enim
6	Maizar	Office of Fishery & Animal Husbandry	Muara Enim
7	Irsan Matondang, SE	NGO Soragama	Prabumulih
8	Yeye Dencik	Tokoh wanita	Prabumulih
9	Nusa Jaya, SP	Office of Fishery	Prabumulih
10	Zulkifli, ST		Prabumulih
11	M. Ardi Supratman	District Planning Board	Prabumulih
12	Gunaparti , AM	Office of Mining and Energy	Muara Enim
13	Novian As	Office of Public Work	Prabumulih
14	Andi	NGO	Prabumulih

Annex F3.4.3 List of Attendants for PCM (1) in Upper Area

No.	Name	Institution	District/Municipality
1	H. Burhan Djamil	Drinking Water Company	Pagar Alam
2	Haryanto		Pagar Alam
3	H. Bahani	Office of Forestry	
4	Umar Dhani	Office of Public Work	Pagar Alam
5	Winaryo	Office of Forestry and Estate	Pagar Alam
6	Khoiruddin Nasution	Office of Fishery	Muara Enim
7	H. Fadhil Taufik	Office of Water Resources	Musi Rawas
8	Suharsa	Farmer	



THE STUDY ON COMPREHENSIVE WATER MANAGEMENT OF MUSI RIVER BASIN



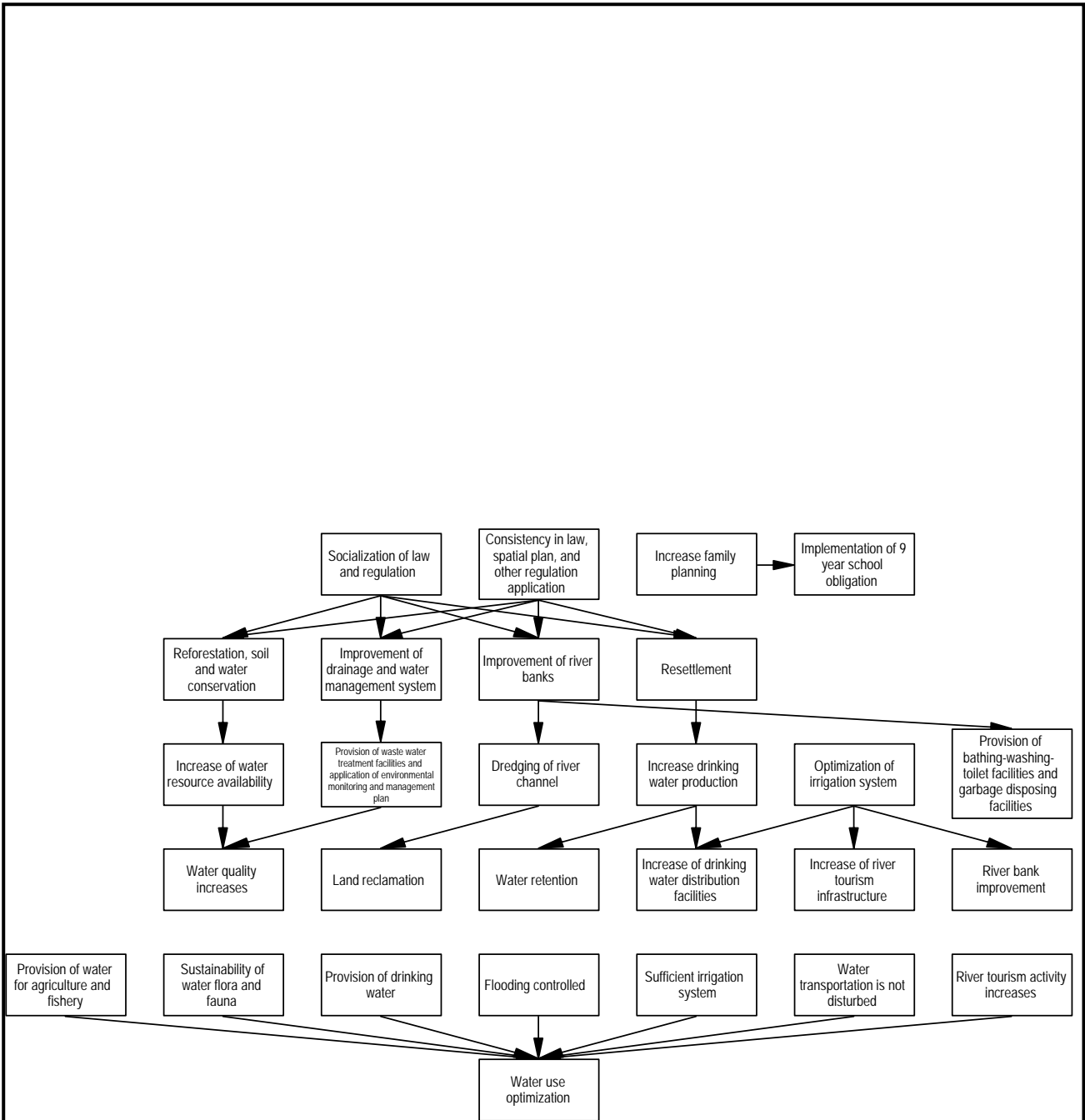
CTI Engineering International Co., Ltd.



NIKKEN Consultants, Inc.

Annex F3.4.4

Cause-Effect Tree of Lower Area Group



THE STUDY ON COMPREHENSIVE WATER MANAGEMENT OF MUSI RIVER BASIN



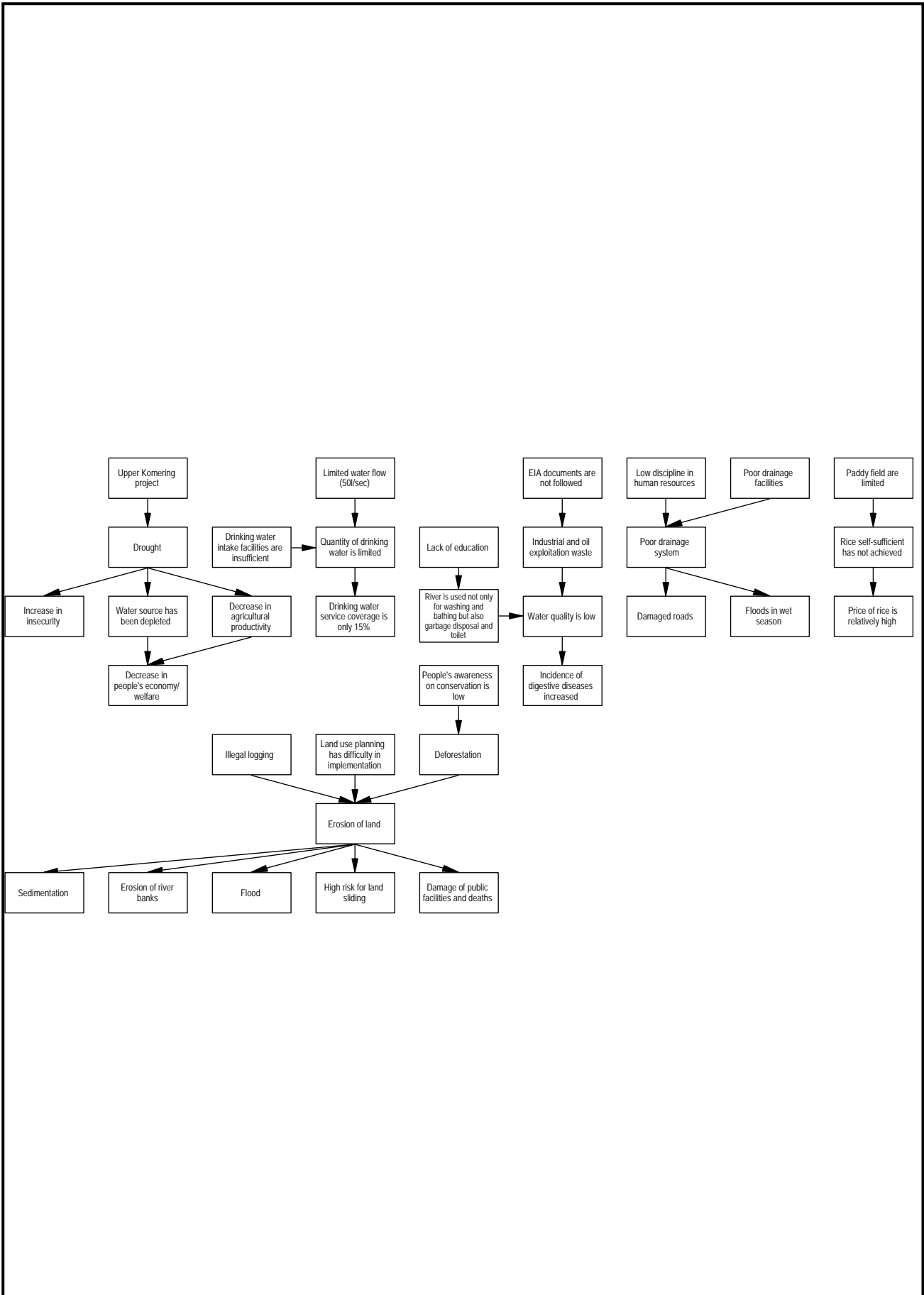
CTI Engineering International Co., Ltd.



NIKKEN Consultants, Inc.

Annex F3.4.5

Objective Tree of Lower Area Group



THE STUDY ON COMPREHENSIVE WATER MANAGEMENT OF MUSI RIVER BASIN



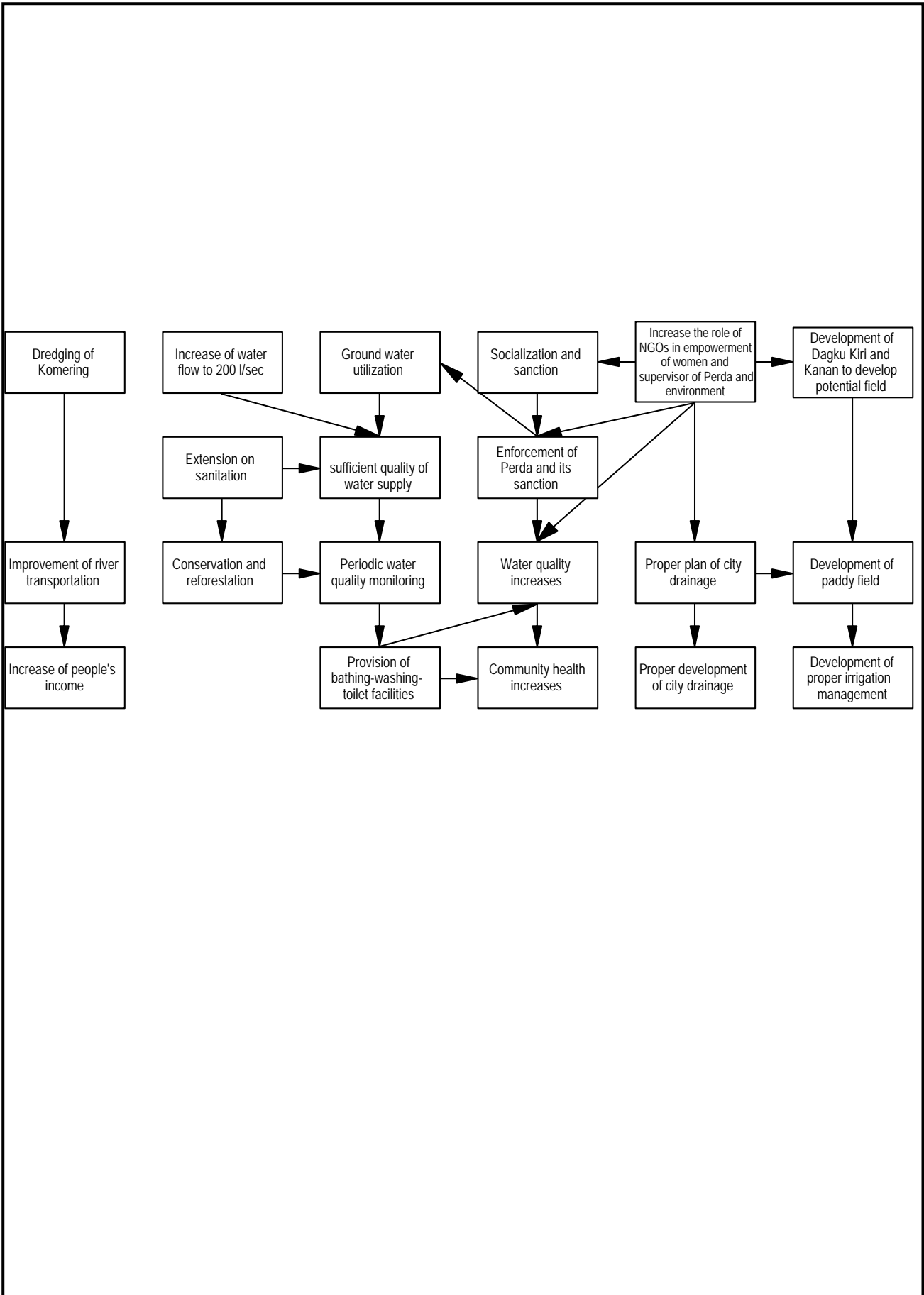
CTI Engineering International Co., Ltd.



NIKKEN Consultants, Inc.

Annex F3.4.6

Cause-Effect Tree of Middle Area Group



THE STUDY ON COMPREHENSIVE WATER MANAGEMENT OF MUSI RIVER BASIN



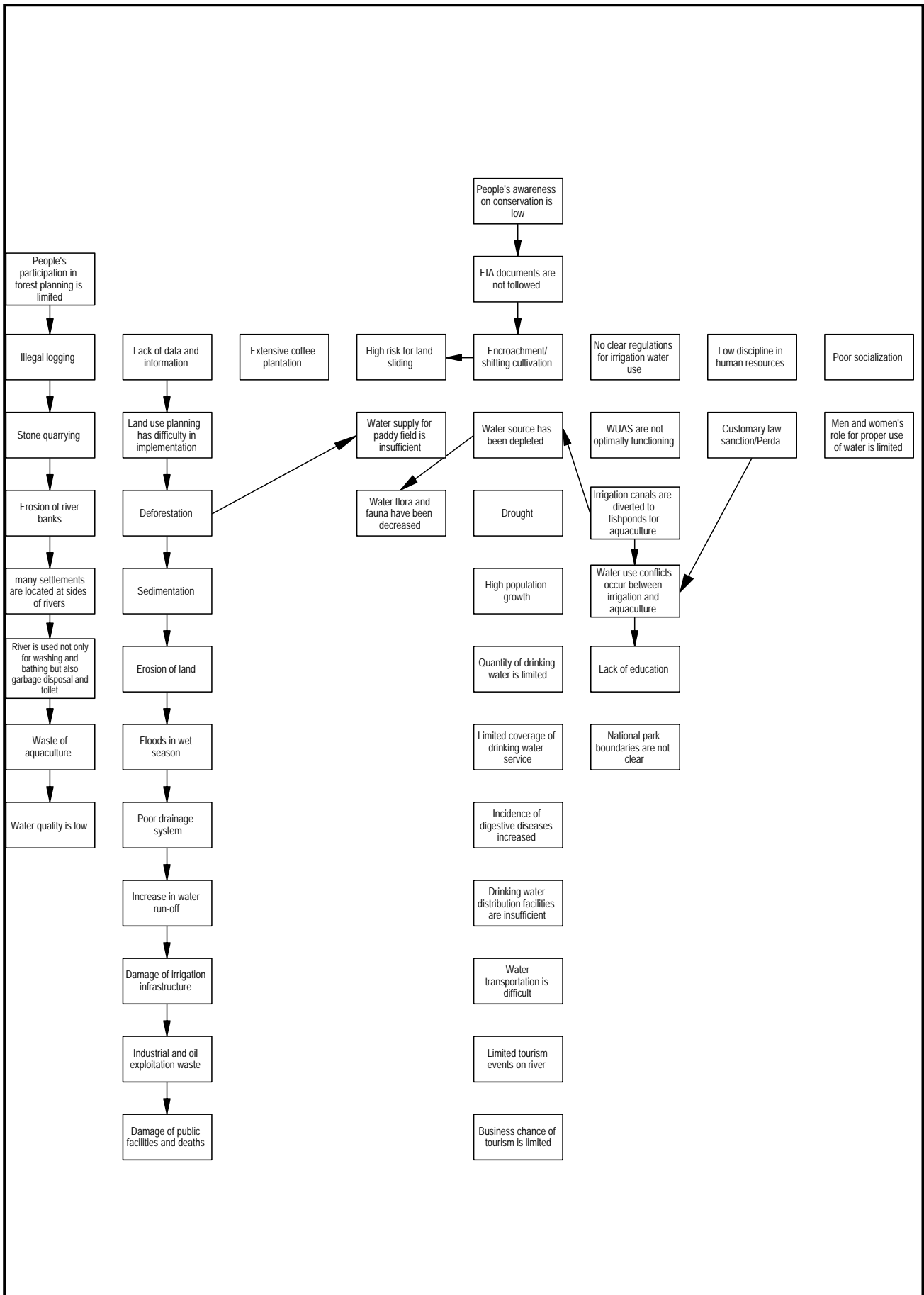
CTI Engineering International Co., Ltd.



NIKKEN Consultants, Inc.

Annex F3.4.7

Objective Tree of Middle Area Group



THE STUDY ON COMPREHENSIVE WATER MANAGEMENT OF MUSI RIVER BASIN



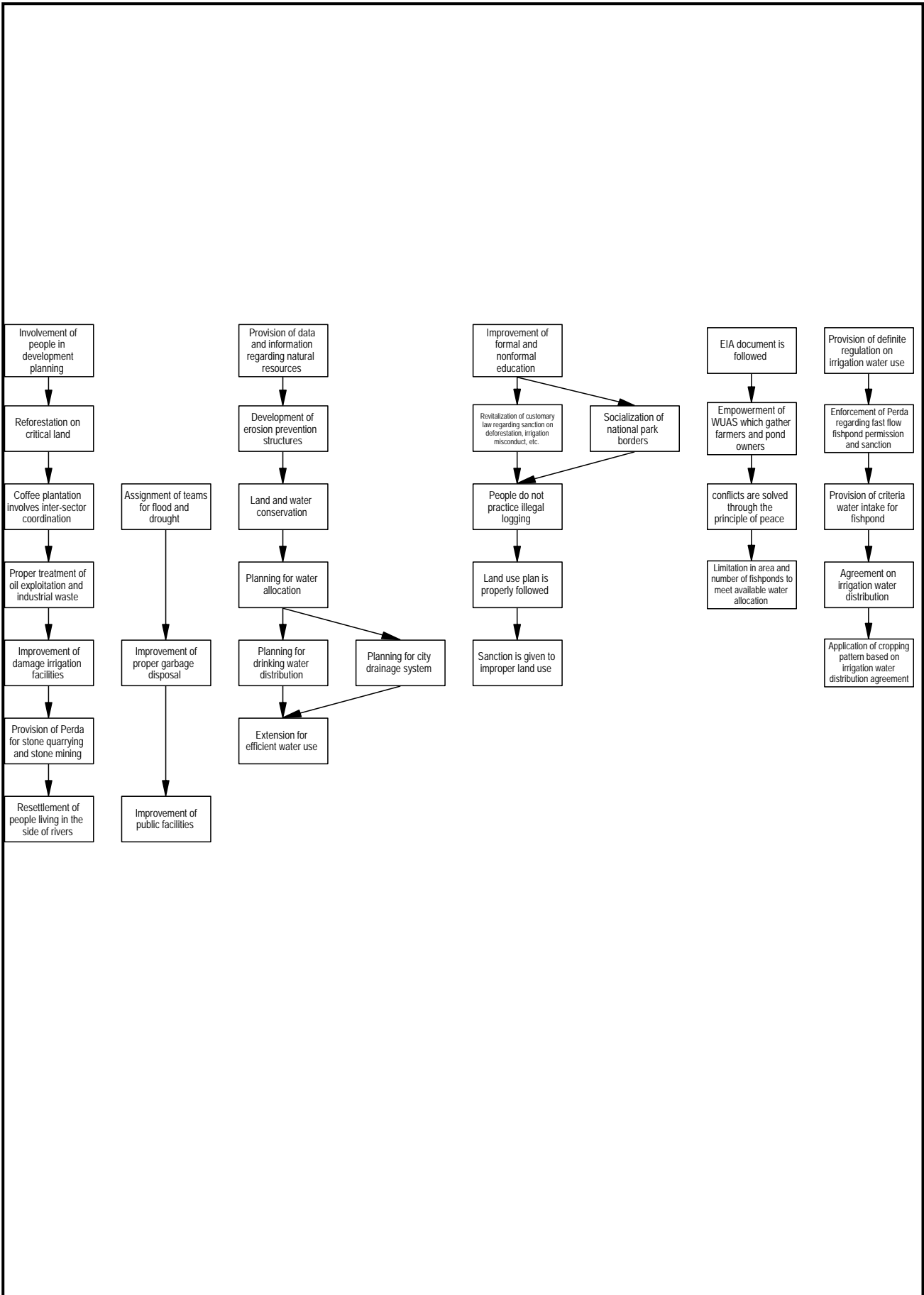
CTI Engineering International Co., Ltd.



NIKKEN Consultants, Inc.

Annex F3.4.8

Cause-Effect Tree of Upper Area Group



THE STUDY ON COMPREHENSIVE WATER MANAGEMENT OF MUSI RIVER BASIN



CTI Engineering International Co., Ltd.



NIKKEN Consultants, Inc.

Annex F3.4.9

Objective Tree of Upper Area Group

Annex F3.5.1 List of Attendants for PCM (2) (1/2)

No	Name	Institution
1	Alvian Ando	Bappeda BA
2	Mirdayani, Amd.	Entrepreneur
3	Thamrin Amak	Public Work Office
4	H. Burlian	PDAM
5	Arlan	Public Work Office
6	Alisudin, SP.	NGO (Kebersamaan)
7	Ari Ralim	Public Work Office
8	Gunawan F.	Forestry Office of Lahat
9	Toni K. Panggarbesi	Bappeda
10	Novian Aswardani, ST	Public Work Office
11	Zunddi Amir	Local Government
12	Syawal Rizal	Bapedalda Office of Palembang
13	Tri Hadi	Public Work Office of Palembang
14	Hanafiah AB	–
15	Hs Ansyori	Local Government (OKI)
16	Darkum	Fishery Office of Mura
17	Diponegoro	Bappeda Prabumulih
18	Trisepember B	Bappeda Prabumulih
19	Hidayat	Dinas Tata Kota Lb. Linggau
20	Soekrasno	Directorate PSDA Jakarta
21	Kowaruddin	Public Work Office
22	Idris Erman Najib	Mining Office (Lahat)
23	Setiyono	Plantation Office
24	Lego Rahmad	PDAM of Prabumulih
25	Edison	NGO (FPPSS Palembang)
26	Aktorian, ST.	Local Government (OKI)
27	Wahyu H.	State Owned Enterprise (Pelindo II)
28	Insani	State Owned Enterprise (OKI)
29	Misnan Hartono, SH.	NGO (KBR Pagar Alam)
30	Rislani Gafar	Public Work of BanyuAsin
31	Rusman Syafriadi	Mining Office of banyuasin
32	Hanafiah AB	Local Government of Banyuasin
33	Djustap	Mining Office of OKU
34	Hanafi	–
35	Syahnan	Port Office of Palembang
36	Herry	Fishery Office
37	Alibudin	Forestry Office of OKI
38	Madlan	Agriculture Office of MUBA
39	Iskandar Tarmijaya	PDAM
40	Yose Rizal	PDAM
41	Azimi Asnawi	Entrepreneur (Prabumulih)
42	M. Yani	NGO (KPP Prabumulih)
43	Nurfirman	Local Government OKI
44	Bandi Hermawan	Bengkulu University
45	Hermen Malik	Bappeda Bengkulu
46	Denny Hayatuddin	NGO (Cahaya Bintang Banyuasin)
47	Asman Asri	Tourism Office Palembang
48	Syafei, SH	PDAM of Lahat
49	Mawardi	Public Work Office
50	Muh. Subiyono	Farmer Association of Mura

Annex F3.5.1 List of Attendants for PCM (2) (2/2)

No	Name	Institution
51	Kusnadi B.	Public Work Office of Muba
52	A. Bakri L.	Informal Leader in Muba
53	A. Wahab Omar	Public Work Office
54	K. Silalahi	Extension Worker
55	Rusdi Wahyu	Public Work Office
56	B. Manurung	Public Work Office
57	Malhasan Adebar	Bapedalda Muba
58	A. Roihan	Chief of Irrigation Division of South Sumatera
59	A. Yassir R.	Community (OKU)
60	Ilyas Panji Alam	Parliament of OKI
61	Epy Hermanto M.	PDAM
62	Nandang Ks.	Forestry Office
63	Sarlan S.	Bappeda Jambi
64	Kgs. Cekmat	Bappeda Jambi
65	Helda Merlianti, SP	Public Prosperity of Municipality Office
66	Drs. H. Barmawi	NGO (FPPSS Muara Enim)
67	Andi Murbayu	Bappeda Kab. Lahat
68	M. Henry E, SH.	NGO (Muara Enim)
69	Arwanda Arya	Foundation (PE Prabumulih)
70	R. Anil Jonson	NGO (Faksi Prabumulih)
71	Iskandar Junaidi	Farmer Leader
72	Umar Dhani	Public Work
73	Winaryo	Forestry Office of Pagar Alam
74	Drs. H. Burmawi HNS	Informal Leader
75	Suhaidah Sofey AN	Woman Organization (GOW Lahat)
76	Rita Septiana	NGO (Sugih Rahayu Palembang)
77	Tizu	Local Government of Palembang
78	Apandi	Agriculture Office of South Sumatera Province
79	Yuwono Aries	Bappeda MUBA
80	Tatsuhi Yasuhara	MLIT (JICA Jakarta)
81	Haviludin	Firm (Sinar Tani)
82	Zainal Arifin	Bappeda Muara Enim
83	Herman	Informal Leader
84	Junaidi, ST	Informal Leader
85	Hermada Rambang	NGO (GSI Muara Enim)
86	M. Kaef, Bsc	NGO (GSI Muara Enim)
87	Ambrul	NGO (GSI Muara Enim)
88	Ana Novianty	Women Empowerment (Muara Enim)
89	Walamah	Women Empowerment (Muara Enim)
90	R. Lubis	Fishery Office of Banyuasin
91	Mirza	PDAM of Muara Enim
92	Rahmadi Djakfar	NGO (BP3O)
93	Yud Vianto	NGO (OKI)
94	Manawinardi	Bappeda OKI
95	A. Lagan	Parliament of Palembang
96	Zulfikhar	Forestry Office
97	Mustofakamil	Bappeda Pagar Alam
98	Syaifulawan	Kimpraswil of Municipality

Annex F3.5.2 Discussion on Priority Programs (1/11)

Component: Water Use

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Sustainable water Supply Management		
Program Description	<ul style="list-style-type: none"> - Provision of additional water treatment - Additional Piping Network 	<ul style="list-style-type: none"> - Increasing of raw water quality, specially in Ogan Komering Ilir Regency - Decreasing water leakage level 	<ul style="list-style-type: none"> - Woman Empowerment towards efficient water use - Increasing the service
Constraints	High cost of piping system	<ul style="list-style-type: none"> - High cost of brackish water installation construction - Ground water contains sand that may damage pump 	Implementation of renovation block
Positive Impact	Low operational cost in level B gravitation system		
Negative impact			
Prerequisite	Fulfilling drinking water requirement for the community		
Rank			

Annex F3.5.2 Discussion on Priority Programs (2/11)

Component: Water Use

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Irrigation Development Program		
Program Description	Construction/Development Rehabilitation and upgrading Pump Installation Land clearing Land Development Rainfed paddy field, fishery	New construction	
Constraint	Basin Sedimentation in up, middle and downstream area		
Positive Impact	Increasing the Production Optimum water utilization Water availability at the sources		
Negative impact	Industrial waste water (?)		
Prerequisite	Comprehensive and detailed study for regional regulation on irrigation		
Rank			

Annex F3.5.2 Discussion on Priority Programs (3/11)

Component: Water Use

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Swamp Development Program		
Program Description	<ul style="list-style-type: none"> - Review in detail on tidal swamp spatial plan - Optimization of tidal swamp area - Optimization of inland swamp - Construction of irrigation infrastructures for shrimp/fishpond 		
Constraints	<ul style="list-style-type: none"> - Limited fund at province/regency/municipality level - Limited human resources at operational level 		
Positive Impact	<ul style="list-style-type: none"> - Increasing of production and productivity of fish cultivation - Increasing water discharge and efficiency - Land and water utilization 		
Negative impact			
Prerequisite	<ul style="list-style-type: none"> - Comprehensive study/ review in detail on tidal swamp spatial plan - Regional regulation on swamp area 		
Rank			

Annex F3.5.2 Discussion on Priority Programs (4/11)

Component: Water Use

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Water supply program in tidal swamp area		
Program Description	<ul style="list-style-type: none"> - Feasibility study of brackish water treatment - Water treatment construction based on appropriate technology 		
Constraints	<ul style="list-style-type: none"> - Water treatment requires high cost - Purchasing power is low 		
Positive Impact	Increasing of public health		
Negative impact			
Prerequisite	Standardized quality of water supply		
Rank			

Annex F3.5.2 Discussion on Priority Programs (5/11)

Component: Water Use (Irrigation)

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Rehabilitation Program and Upgrading		
Program Description	Improvement of infrastructures and operation & maintenance of irrigation system		
Constraints	<ul style="list-style-type: none"> - Functional decrease of irrigation system - Excessive water use 		
Positive Impact	<ul style="list-style-type: none"> - Revitalization of irrigation system - To increase the function of irrigation system - To increase the production 		
Negative impact			
Prerequisite	<ul style="list-style-type: none"> - Detail design - Participatory implementation - Certainty period, example 5-10 years (?) 		
Rank			

Annex F3.5.2 Discussion on Priority Programs (6/11)

Component: Water Use

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Water management for transportation		
Program Description	<ul style="list-style-type: none"> - Dredging of river canal along the year - Survey, investigation and design for long-term river dredging 		
Constraints	Expensive cost for dredging		
Positive Impact	<ul style="list-style-type: none"> - Safety of vessels - Increase of regional economy 		
Negative impact	<ul style="list-style-type: none"> - Dredging location is too long and location of removal is too close to the river, so dredged material return back 	Environmental pollution during dredging	
Prerequisite	Maintenance cost of Musi River canal is accommodated in regional budget		
Rank			

Annex F3.5.2 Discussion on Priority Programs (7/11)

Component: Water Use

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Raw water (river) development		
Program Description	<ul style="list-style-type: none"> - Construction of power plant - Provision of water treatment in tidal swamp area - Development of industrial and housing area 	<ul style="list-style-type: none"> - Raw water quality preservation - Water quality control 	
Constraints	<ul style="list-style-type: none"> - Water requirement data are not available 	<ul style="list-style-type: none"> - Large covering area 	
Positive Impact	<ul style="list-style-type: none"> - Electrical requirement is fulfilled. - Water requirement in tidal swamp area is fulfilled. - Well-planned utilization zoning in swamp area 	Keep to be filled of the resources, such as: <ol style="list-style-type: none"> 1. Animal (?) 2. Concerning vegetable (?) 	
Negative impact	Construction may cause environmental impacts.		
Prerequisite	<ul style="list-style-type: none"> - Sufficient water discharge - Large amount of funds 	Standard parameter for row water quality <ul style="list-style-type: none"> - pH - Turbidity - Discharge, BOD and COD 	
Rank			

Annex F3.5.2 Discussion on Priority Programs (8/11)

Component: Environment

Alternative Program	Proposed Priority Program	Alternative Program 1	Alternative Program 2
Program Title	Enforcement of law regarding environment	Supervision and control of River Pollution	
Program Description	<ul style="list-style-type: none"> - Implementation of environment Impact assessment (AMDAL) - Environmental pollution prevention - Increase of public health 	<ul style="list-style-type: none"> - Law extension - Monitoring & supervision - Law enforcement 	<ul style="list-style-type: none"> - Sanction reinforcement
Constraints	<ul style="list-style-type: none"> - Lack of human resources - Environmental law is not properly socialized. 	<ul style="list-style-type: none"> - Lack of human resources - Law is not properly socialized. 	
Positive Impact		River is well managed	
Negative impact	<ul style="list-style-type: none"> - Social restlessness 		
Prerequisite	<ul style="list-style-type: none"> - Guarantee of society secure condition - People's participation 		
Rank			

Annex F3.5.2 Discussion on Priority Programs (9/11)

Component: Environment (Improvement and rehabilitation of water catchment area)

Alternative Program	Proposed priority Program	Alternative Program 1	Alternative Program 2
Program Title	River Environment management	Supervision & Control of River pollution	
Program Description	<ul style="list-style-type: none"> - Erosion Prevention - Riverbank re-greening - River water quality improvement 	<ul style="list-style-type: none"> - Riverbank re-greening program - Construction of river revetment. 	
Constraints	<ul style="list-style-type: none"> - Deforestation around the river - River sedimentation 	<ul style="list-style-type: none"> - Reforestation (?) - City Forest Program (?) - Dredging (?) 	
Positive Impact	<ul style="list-style-type: none"> - To preserve river environment - To preserve river ecosystem 	<ul style="list-style-type: none"> - Clean River 	
Negative impact	Area surrounding the river can not be utilized freely.		
Prerequisite	People perception supports the implementation of the project		
Rank			

Annex F3.5.2 Discussion on Priority Programs (10/11)

Component: Flood (Flood Plain management)

Alternative Program	Proposed priority Program	Alternative Program 1	Alternative Program 2
Program Title	Optimization/Flood warning System	Reforestation of the upstream areas	Drainage System Improvement
Program Description	<ol style="list-style-type: none"> 1. To balance the distribution of AWLR (Automatic Water Level Recorder) 2. To develop regional communication system 3. To prepare well-trained personnel 	<ol style="list-style-type: none"> 1. Government and JICA as facilitators 2. Reforestation of water catchment area 3. Limitation of land for new settlement 	<ol style="list-style-type: none"> 1. Increasing of canal volume 2. Construction of dikes 3. Routine maintenance
Constraints	<ol style="list-style-type: none"> 1. Lack of facility 2. Flood points zoning 3. Limited budget for operation 	<ol style="list-style-type: none"> 1. Spend much time 2. Need maintenance 	<ol style="list-style-type: none"> 1. High cost in land acquisition
Positive Impact	<ol style="list-style-type: none"> 1. Flood controlling can be more effective. 2. Flood damage can be minimized. 	<ol style="list-style-type: none"> 1. Increase of water absorption 2. Make the environment greener 3. Prevention from erosion 	<ol style="list-style-type: none"> 1. Decrease of flood inundation 2. Better environment 3. Water can be utilized; irrigation, fishpond, etc
Negative impact			
Prerequisite	<ol style="list-style-type: none"> 1. Well-programmed inter-flood points area 2. Routine funding 3. Improvement of community 4. Government/ community coordination 	<ol style="list-style-type: none"> 1. Provision of management authority 2. Availability of funds 3. Government and community control 	<ol style="list-style-type: none"> 1. Availability of funds 2. Well-prepared technical planning. 3. Long-term program. 4. Establishment of coordination.
Rank	1	2	3

Annex F3.5.2 Discussion on Priority Programs (11/11)

Component: Institution

Alternative Program	Proposed priority Program	Alternative Program 1	Alternative Program 2
Program Title	Establishment of PTPA/PPTPA	Conservation Compensation	Data Processing
Program Description	<ul style="list-style-type: none"> - Establishment of non-structural organization - Coordination of structural organization 	Compensation from downstream to upstream	Establishment of data and information unit
Constraints	<ul style="list-style-type: none"> - Difference background - Sectoral Egoism 	Difficulty to determine compensation	<ul style="list-style-type: none"> - Weakness of information sources - Weak of information network - Limited human resources
Positive Impact	Provision of Integrated management	People will keep maintaining upstream area for conservation	Availability of accurate and fast-access data
Negative impact			
Prerequisite	Availability of public concern to achieve the target	Availability of public commitment	<ul style="list-style-type: none"> - Availability of hardware and software - Supporting human resources.
Rank			