

Feature Section: Encouragement of Establishment Large-scale Fai	rming Bodies and Agricultural
Infrastructure Improvement and Rural Developm	nent Project
Encouragement to Establish the Large-scale Agricultural Juridica	al Person through
the Farm-land Consolidation Fujii Mas	sahide and HARA Takatomo·····3
Large-Sized Land Consolidation and Accumulation of Cultivation	Rights through
Regional Agreement	$Y_{AMAJI}Eiji\cdots 7$
The Size of Farm and Plot Re-considered: The Necessity of Bigg	ger Scale for
Rice-paddy Production Sugium	A Mikiko and ISHII Atsushi·····11
Effects of FOEAS for Large-Scale Paddy Farming	
Fukuyo Narufu	mi and Fujimori Shinsaku·····15
Plan Generation for Farm Land Conservation and Improvement	of Agricultural Production
Base in Small and Aging Community	
Tomita Shinji, Tamura Kunimaro, Tsukada Tan	niya and SAKANE Kunihiro·····19
The Appropriate Scale and the Agricultural Significance of Large	e-size Paddy Fields
in Peatland	Kitagawa Iwao·····23
Papers	
Diagnosis on Water Delivery and Hydraulic Functions of Canals	during Non-irrigation Periods
Nakada Toru, Taruya Hiroyuki, Fujiyama S	So and TANAKA Yoshikazu·····27
Issue and Recommendation of Governmental Emergency Food St	upply Based on
the Great East Japan Earthquake Experience	D_{OI} $Kunihiro \cdots 31$
Technical Reports	
An Application of Stump Transplanting Method to Riparian Fore	est Recovery
	HANYUU Tetsuya·····36
Desalinization of Tsunami-hit Farmlands: A Case of Unimproved	Farmlands in Coastal
	i and Sugawara Tsuyoshi·····38
Present Condition of Dry Field Irrigation in the Hokusochuo Tak	idai 4th Division
	$T_{OJIMA} \ Nobuhiro \cdots 40$
Construction and Management of Firefly-friendly Agricultural Di	rainage Canals
	Mochizuki Naohiro·····42
An Approach for Lifetime Extension of Rural Road Bridges	
E	Enoki Y uki and Ohta Koji·····44
Output Enhancement of the Small Hydroelectric Power Station a	
	A Hiroshi and Azuma Junji·····46
Technical Word	
The Easy and Low-cost Subsoil Improvement "Cutting Soiler"	Kitagawa Iwao·····48



Feature Section: Small Hydropower Generation Utilizing Irr	rigation and Drainage Facilities
Introduction of Small Hydropower in the Agricultural and	Rural Development Project
Matsumoto M asao, Shirag	A Hiroyuki and Onodera Akihiro3
Utilization of Agricultural Water Use Facilities Combining	Small-scale Hydropower
Goto Masahiro, Komamiya Hiroo, Uesa	
	MIHIRA Atsushi and HIROSE Yuichi·····7
Economic and Environmental Evaluation on Individually-op	
UEDA Tatsuki, GOTO Masahiro, KIRI Hirohide, NAMIH.	
OBBIT 1 wowin, GOTO Hawaiii o, Hilli Hii oowaa, Hillinii	and Hirose Yuichi·····11
A Case Study on Small Scale Hydropower Generation Usin	
in Gifu and Aichi Prefectures	
Onishi Takeo, Senge Masateru, Hiraman	
Low Head Hydropower of Local Production for Consumption	_
Samura Isao, Takahashi Yukiteru, Nakamu	
	and Ito Takayuki·····19
Small-scale Hydropower Generation by the Stock Corporati	
•	: Masahiro and Shibata Saburou·····23
Small-Scale Hydropower Station of One Component of the S	Smart-Village Vision
Shino Takashi, Tazawa Hiroyuki, Karas.	awa Shoji, Yamamoto Teruyuki
	and Nagata Hiroaki·····27
Paper	
Points to Note for Frost Damage Diagnosis of Reinforced C SATO Satoshi, KANETA Toshikazu, ISHIGAMI Akio, SUT	•
Report	
USAID's Activities for Establishing Water Users' Association	ons in Egypt
	Kitamura Koji·····35
Technical Reports	
Survey on Heavy Snowfall around Iwamizawa City in Wint	ter Season of 2012 and Its Mechanical
Influence on Irrigation Canals and Drains	
	A Naoki and HIDESHIMA Yoshiaki·····44
The Measures of the Vegetative Restoration in the Lake H	
	RA Hideo and TAGAMI Fumiharu·····46
Earthquake Countermeasure of Rectangular Siphon by Box	
	HIZAKI Fumihito and Izumi Akira·····48
Approach of Irrigation Facilities Asset Management in Shi	
	YA Yoshio and NISHIMURA Makoto·····50
The Measure of the Cost Curtailment in the Takazumi Res	
	TA Yoshisuke and NISHIDA Yukio·····52
Agricultural Irrigation Pond Repair Work with Water Bloc	
Agricultural Irrigation Fond Repair Work with Water Dioc	INOUE Mikio and ETO Jin·····54
Technical Word	INOUE WIRTO and E10 Jin34
	MOTORAGIN Hailmann EG
Small Hydropower for an Irrigation Canal	$\it Motohashi~ Hajime \cdots 56$



Feature Section: GIS Practical Use towards	s Revitalization of the Rural Area
The Utilization of 'GIS for Comprehensive	Functional Evaluation' to Local Management of
Agricultural Land KINOSHITA	Takahiro, Shigeoka Tetsushi, Kurita Hideharu,
	Yamashita Yusaku and Yamamoto Tokuji·····3
Design and Technical Support for Recons	truction of Sakae Village, Damaged by the Northern
Nagano Earthquake	Kimura Kazuhiro and Uchikawa Yoshiyuki·····9
Potentials of GIS for Timely and Primary	Survey of Areas Affected by a Large-scale Disaster
HASHIMOTO	Shizuka, Arita Hiroyuki and Yasutaka Tetsuo13
Utilization of the Midori Information Syste	em of the Great East Japan Earthquake Disaster
Assessment C _H	TIDA Hiroshi, SASAKI Kiyomi and INOUE Nobufumi·····17
Study of Land Consolidation Project Plann	ning Method Utilizing the Landscape Visualized Model
T_{AM}	URA Takahiro , KATO Ryo and M ORIYAMA Takumi 21
Applicability of GIS to Support Endogeno	us Farmlands Preservation
N_{AKAJIM}	A Masahiro, HAYASHI Seira and TAKAYAMA Yumi·····25
Papers	
Development of Evaluation System for Pr	edicting Habitat Conditions in Rural Areas
Sawada Masayuki , Nishiji	MA Takashi, NAKAJO Ryuta and HIRONAGA Shigeo·····29
Registration of Clean Development Mecha	nism Project in Viet Nam
	IZUMI Taro, Matsubara Eiji and Iizumi Yoshiko······33
Technical Reports	
Examination for Practical Use of Non-mag	nesium Fertilizer at Grassland Adjustment
	Kawagishi Junji ·····44
Gate Painting Works of Setukinaigawa He	
	Yamada Youichi and Fujiwara Sakari·····46
Example of Low-cost Farmland Consolidate	
	GISHI $Kiyoshi$, T AKEUCHI $Tadashi$ and I NO $Masato \cdots \cdot \cdot 48$
The Management of Soil's Volume about l	Large Land Consolidation in Slight Cultivation Soil
	Kamitani Mitsuhiro·····50
Disaster Management of Ponds in Yamag	
	U R yoichi, W AKIYA K azuhisa and F UJIMOTO T aizo $\cdots\cdots 52$
The Effective Utilization of Ponds for Floo	
	Oya Kouichirou and Tamura Kazuhiko54
Technical Word	
GIS for Disaster Management	Yoshikawa Natsuki·····56



Feature Section : Efficient Use of Agricultural Water as Countermeasure High-temperature Damage of Crops	es against
Effects of Rice Cropping System Intended to Avoid Heat-damage on W	Vater Demand
Fluctuation SAKATA Satoshi, TOMOSHO Tatsumi an	nd UCHIMURA Motomu·····3
Effects of Saturated Irrigation on Soil Environment and Rice Quality	
Fujihara Yoichi, Toriyama Kazu.	nobu and Fujii Hideto·····7
Irrigation Management against Grain Damage during Ripening of Rice	in the Areas of
Kanna-River National Irrigation Project	
Shino Takashi, Karasawa Shoji, Tazawa Hiroyuki ar	nd Yamamoto Kazuo·····11
Field Test of Irrigation with Running Water for Preventing High Tem Rice Grain Ripening in a Leading Producer of YAMADA NISHIKI	
TAKESHITA Shinichi, IKEGAMI Masaru, HIRAKAWA Kaichiro and	TSUCHIDA Toshikazu·····15
"Marudori-method" Mitigating Impacts of Extreme Weather on Satsu	
Shimazaki Masahiko, Kusaba Shin-nosuke, Nesumi Hirohisa and	
Water Temperature Formation in Dual Purpose Canal during Spill-ove	
High Temperature Damage	
Kimura Masaomi, Iida Toshiaki, Mitsuyasu Mari	e and Kubo Naritaka·····23
Water Temperature Change in an Irrigation Basin Including Paddy Fi	
	TANIGUCHI Tomoyuki·····27
Reduction of Water Temperature in Paddy Field and Leaf Temperature	· ·
Irrigation with Running Water during Nighttime	•
Nishida Kazuhiro, Uo Takuya, Yoshida Shuichiro and T	TSUKAGUCHI Tadashi·····31
Actual Proof Examination of Night-time Irrigation by Pipeline System	
	and SAKATA Satoshi·····35
Technical Reports	
An Example of the Drilling Survey System for Waterway Tunnel Con-	struction
Kono Satoshi, Tanaka Aki	
The Measure to a Collapse-type Landslide	
The state of the s	Kogawa Tatsuya·····42
Rehabilitation Method of Agricultural Canal	110011,711 1 0.000,50
	Sato Ryoichi·····44
The Measures toward Establishment of the Prediction Method of Perfe	_
for Irrigation Pipelines	KATO Kohei·····46
Judgment on Formation of Invert at D I Section of Yasunou Tunnel	11111011011011
judgment on 1 ormation of invert at D 1 Section of Tusunou Tunner	Deguchi Yoshihiro48
Selection of Envelope Material for Groundwater Level Control System	DEGCENT TOSHUNO 10
-	and Seki Norimitsu·····50
Technical Word	and SLIII I to time to the
High-Temperature Damage to Grain Ripening in Rice	Nakagawa Hiroshi·····52
man remperature Damage to Oram rupening in ruce	1 1211121021 11/21 11/1/03/00 02



Feature Section: Research of Irrigation, Drainage Institutes	and Rural Engineering in Local Research
Research on Irrigation, Drainage and Rural Engi	neering in Civil Engineering Research
Institute for Cold Region	Nakamura Kazumasa·····3
Irrigaton, Drainage and Rural Engineering Resea	arch in Hokkaido Research Organization
Agricultural Experiment Station	Tsukamoto Yasutaka·····7
Dry Direct-seeding of Rice with Plowing and Cha	inges of Paddy-use in the Future
	KANMURI Hideaki and OTANI Ryuji·····11
Rural Engineering Research in NARO/ARC Hok	uriku Research Center
	Tanimoto Takeshi·····15
Irrigation, Drainage and Rural Engineering Rese	arch of NARO Western Region Agricultural
Research Center Matsuda Shu	h, Inoue Hisayoshi, Hosokawa Masatoshi,
Matsumori Kenji, Shimura Mot	oko, Mochizuki Hidetoshi and Mukai Akie·····19
The Role of the Researcher for the Irrigation, Da	rainage and Rural Engineering in
Kyushu Okinawa Region	Nakano Keiko and Shima Takeo·····23
Roles of Irrigation, Drainage and Rural Engineer	in Livestock and Grassland Science
	Nakao Seiji·····27
Technical Reports	
Deployment of Workshop Activities in the Gover	nment-operated Agricultural Land
Reclamation and Readjustment Project	Miyamoto Harufusa and Unno Chigusa ······38
Current Status and Issues of Measures for Desali	nization of Soils due to the Tsunami of the
East Japan Great Earthquake Disaster	Hosaka Kazuhiro·····40
The Example That Used the Improved Soil of the	e Volcanic Cohesive Soil and Crushed Stone
for the Impervious Zone of Pond	Kenmochi Ryohei and Higuchi Kunihiro·····42
Construction of Rehabilitation of Pipeline in Miya	kawa Canal
	Matsuura Tsukasa ·····44
Estimating the Annual Changes of Snow Depth is	n the Hino River Basin, Tottori Prefecture
Hashimoto Toshiyuki , M	Пічамото Hirofumi and Arimori Masahiro·····46
Taking Care of Rural Environment by People's P	
	Kinoshita Takahiro and Hori Tetsuya48
Technical Word	
Sediment Control Using Grass Strips	S_{HIONO} Tabahiro50





The Role of Kanto Branch Activities on Agricultural Infrastructure Improvement and Rural Development Nakamura Yoshio, Uchikawa Yoshiyuki, Harada Katsutoshi and Fujikawa Tomonori······3
•
Nakamura Yoshio, Uchikawa Yoshiyuki, Harada Katsutoshi and Fujikawa Tomonori·····3
Agriculture Promotion of Tokyo and Situation of Agricultural Infrastructure Improvement
Tomonaga Shinji, Ota Junji, Sekimoto Kenji and Udagawa Tetsuya·····7
Measures of the Farm Land Conservation Developed for the Kanagawa Urban Agriculture
Land Promotion KASAGI Kazuyuki·····11
History and Challenges of JWA's Water Development and Management in Chiba Prefecture
Yoshioka Toshiyuki and Takeuchi Motomu·····15
Renewable Energy Concerned with Agricultural Irrigation Facilities in the Kanto Area
M_{URATA} $Mototsugu \cdots 19$
Technical Reports
Using Organic Fertilizer for Agricultural Infrastructure Improvement Project in Upland
Fields of Hokkaido
Akasaka Hiroshi and Kobayashi Yoshimune·····24
Restoration of Rural Sewerage Improvement Institution Suffered from Liquefaction
Hitomi Yoshikazu·····26
Study of High Embankment Construction in the District Area Yabe Integrated
Upland Field Improvement Project SANO Kumi······28
The Case of Simple Construction of the Environmentally-friendly Institution in Drainage
Channel KAWAMURA Ippei and ISHIKAWA Akiyasu·····30
Adequacy of Surplus Soil Evaluate Prediction for Slurry Shield
WAKABAYASHI Takashi and YAMANE Hiroko·····32
Scarp Slope Protection Measures in the Area of Matsumoto
Sasaki Yuichi·····34
Technical Word
Introduction of Business Continuity Plan in the Aguricultural and Rural Development Project
Ouchi Eishi·····36



Feature Section : Investigation and Countermeasure: An Aspect of Disaster in Tokunoshima, Amami Islanda	
	Goto Mitsuki and Hirose Shin3
Agriculture Damage in Miyazaki Prefecture by the	
January, 2011	Hosokawa Yoshiharu·····7
Analyses of Disaster and Restoration of the Stone V	
	BAN Ichiharu and OKAJIMA Kenji·····11
Investigation of Damaged Ground Anchor Caused b	
	AI Toshinori and TSUNEKAWA Yoshihiro·····15
Effect of Salt Injury on Paddy Rice due to Saline Sa	
	o, Ishida Satoshi, Yoshimoto Shuhei,
	KASUGI Kousuke and HARAGUCHI Noburo·····19
Investigation of Liquefaction on Shinkiba Reclaimed	
off the Pacific Coast of Tohoku Earthquake	Mori Hiroshi·····23
Papers	WORI III/OSht 23
Low-cost Renovation of the Irrigation Canal Using (Saamamhuana in Ethiania
	Geomemorane in Ethiopia YAMANAKA Isamu and Fujimoto Naoya·····27
	The state of the s
Estimation of Hydraulic Parameters in the Freshwa	
	ISHIDA Satoshi and Yoshimoto Shuhei·····33
Technical Reports	
Economic Evaluation of Coastal Environmental Pres	servation Benefit by Contingent
Valuation Method	77 1 1 1 N 1 N 1 1 1 1 00
· · · · · · · · · · · · · · · · · · ·	WA Takakazu and NAKAZATO Yukimasa·····38
A Case Study of Small Hydropower Generation in t	
	Kishima Yasunobu·····40
The Repair Construction Example in the Tomuro T	9
Trunk Irrigation Canal	Yabuta Noriaki·····42
Enforcement of New Functions in Kakogawa Seibu	
	Uchimura Kazuhiko·····44
Measures for Preservation of Culture Heritage in R	
	Anzai Hirokazu and Doi Kouji·····46
Steps toward Opening the Shimanoue Prefectural P	ublic Farm Road
S	HINKAWA Tomohisa and KANEDA Kazuo·····48
Technical Word	
Snow Damage in Agriculture	Kominami Yasuhiro·····50



Feature Section: Rehabilitation and Management of Old Irrigation Dam	
Health Assessment of Damaged Dam Body Using Microtremor Spectral Data	
Suzuki Tetsuya, Ogiwara Ryutaro, Morii Toshihiro and Kawai Takayuki·····	.3
On the Improvement of Simplified Analysis of Flooding due to Breaks of Fill Type Dams	
KAWAMOTO Osamu, Suzuki Hisato, Fukuhara Masato, Yoshisako Hiroshi,	
Inoue Keisuke and Suzuki Tomohiro·····	.7
A Workshop Program of Resident Disaster Prevention Map for Disaster	
Consciousness-making Shigeoka Tetsushi and Yamamoto Tokuji······	13
Estimation for Propagation Response of Seismic Wave in Soil Structures and Its	
Applicability to Monitoring Dynamic Properties	
Kuroda Seiichiro, Masukawa Susumu and Tagashira Hidekazu·····	19
A Policy for Disaster Prevention and Mitigation of Irrigation Pond	
SASAKI Akira, SUZUKI Hiroyuki and KITADA Hiromichi······	23
View of a New Utilization of Abandoned Small Reservoir in the Region of Depopulation	
and Aging Mineta Takuya, Yoshisako Hiroshi and Akaishi Daisuke	27
History of Koi Breeding Ponds Converted from Irrigation Ponds and Future Possibilities	
Sakata Yasuyo	31
Problem and Countermeasures on Rehabilitation of Old Small Reservoirs in Dry Zone	
of Sri Lanka Oka Naoko, Higashimaki Takeru, Koda Kazuhisa and Fujii Hideto	35
Technical Reports	
Examples of Surface Coating for Concrete Aqueduct Bridge	
Katou Daigo, Yasuda Shun-ichi and Saitou Hareo	40
Example of Disaster Rehabilitation Works in Magosawa Pond	
MIKAMI Koji and TIBA Mituru·····	42
A Trial of New Investigation for the Pond and a Developing Sense of the Forerunners	
KASUO Akihiro, ABE Takashi and USUI Takeshi·····	44
Evaluation Technique of the Measures Priority in the Syorenji Water District	
Emergency Procedure NAGASHIMA Shigenori, OKABE Mitsuhiro and INOTANI Koji······	46
Situation Report of 2004 Disaster Recovery—Ooyouchi—	
YANADA Takeshi and WAKABAYASHI Yuuki······	48
Promotion of Flooding Duration in Upland Field Cropping	
HARA Moritoshi, Sugimura Yukiyo and Sei Yuriko	50
Technical Word	
Microtremor Yokol Toshiaki·····	52



Special Section: Promotion of the Plan of Technical Innovation for Rura	al Development
The Plan of Technical Innovation for Rural Development	Minakawa Takeshi·····3
Measure of National Institute for Rural Engineering towards Utilizatio	n of Developmental
Technique	Окиsніма Shuji·····7
Promoting the Spread of Private Business's Technology for Agricultur	al and Rural
Development through the ARIC's Original Technical Information Da	atabase
Maeda Kenji, Obata Akihiro and	Urushibara Takeshi·····11
Feature Section: Water Quality Conservation on Agricultural Water	
	Kuroda Hisao·····15
Spatial and Vertical Distribution of Cs in Ponds Sediment and Particle	
Yoshinaga Ikuo, Shimasaki Masahiko, Tsunesumi Nao	
Elution of Radioactive Cs from Sediments to Pond Water in Contamina	ated Irrigation Pond
Hamada Koji, Yoshinaga Ikuo, Kubota Tomijiro ar	nd Shiratani Eisaku·····23
Efforts for Water Quality Improvement of Agricultural Reservoirs	Iмамото Hiroomi·····27
Papers	
The Necessary Considerations for Installation of Power Tiller to Rice I	Production in Ghana
Naruoka Michio, Kawano Naoyoshi, Hirose Chikako	and Fujimoto Naoya·····31
Analysis of Method of Examination of Check Gate etc for Effective Use	
Resources	YAMASHITA Tadashi·····37
Case Studies on Flushing of Sand Deposition by Operating Gates of Di	version Dams
TAKAI Kazuhi	ko and MIWA Hajime·····43
Technical Reports	•
The Planning of Life-cycle Manegement by the Hokkaido Government	
KAWAMOTO Yasuhiro, Sugai Toori	
The Action That Utilized Midori Information System in Akita Prefection	are
Sasaki Hiroyu	ki and SATO Takeshi·····52
Company Agriculture Entry to the Farm Land Consolidation Area in t	the Foot of
	Koshimizu Hideyuki·····54
Design and Implementation of Rural Development and Farmland Cons	
to the Urbanization Promoting Area	Uryu Takahiro ·····56
Small-Diameter Pipe Thrust Method for Bottom Pipe of the Irrigation	
Improvements in Geisei District	Sasaoka Koushin·····58
Reduction of the Maintenance Administrative Expense by the Photovo	
Generation Introduction NAKAMURA Hatsuo, USHIBORI Takeshi and	
Technical Word	
The Artificial Circulation for Water Quality Improvement	Iмамото Hiroomi·····62



1		WATER,
1	11	LAND AND
ı	1)	ENVIRONMENTAL
	V	ENGINEERING

Feature Section: What Are the Necessary Challenges to Stabilize and Improve Food Production?
Securing Stable Food Supply, Improvement of Productivity and Long-term Plan of Land
Improvement SATO Tomoki······3
The Role of Improving Agricultural Production Base for the Development of Regional
Agriculture and the Sustainable Agricultural Activity
Kitagawa Iwao and Tsukamoto Yasutaka······
Subsurface Water Control System and a Farmland Leveler Using Global Positioning
System for Raising Food-sufficiency Ratio WAKASUGI Kousuke,
Haraguchi Noburo, Zukemura Chika, Kawano Koichi and Fujimori Shinsaku·····13
Present State of Food Production and Issues of Utilization of Sago Palm in a Rural Area,
Indonesia HASADA Katsumi, KIMURA Kenichiro and YAMADA Ryuichi·····17
The Land Consolidation Project for the Internationally Competitive Low-cost Rice
Farming in Japan Ishii Atsushi······21
Land and Water Resources and Prospects of Rice Production in Asia
HATCHO Nobumasa and MATSUNO Yutaka······25
Papers
Official Development Assistance of Emerging Donor Countries
Koso Yukiharu and Naito Kunihiko······31
Various Actors Restoring Abandoned Farmland and Reorganization of Local Community
Koike Satoshi·····37
Conservation of Agricultural Drain Canal Using Steel Sheet Pile-Concrete Composite
Suzuki Tetsuya, Kobayashi Shuichi, Nagasaki Yasuhiro and Sato Kouki······43
Construction of a Rock-fill Dam on Quaternary Deposit Area
MATSUHASHI Kazuhisa and Sunazawa Hitoshi·····47
Technical Reports
Experimental Groundwater Table Rise and Vegetation Transition in Shinotsu Peatland,
Hokkaido Hyodo Hitoshi and Abe Ryouhei·····52
The Execution Example of the Environmental Consideration Canal Extension of Life
Measures Jounal Tsuyoshi54
Restoration of Miyama Dam Which Suffered a Great Deal of Damage by the Great
East Japan Earthquake YAMAMOTO Kazunori·····56
Earth Retaining for Soft Ground at Nakauchi Canal Horii Yasuhiro58
Construction Case of Tunnel Works: a Part of Wide-area Farm Road Improvement
Project at Eastern Bizen District SEGAWA Kunio and FUJIWARA Yukio······60
Technical Features of Cut-off Wall Construction of Nakahara Underground Dam
Kamizato Mamoru, Morimoto Yoshiyuki and Mochida Kenji·····62
Technical Word
Midori Geographic Information System SHIMOKAWA Shouta······64

Feature Section : Main Issues Related to Techniques the Past and Future	for Harmonized with the Rural Environment,
Implication of "Consideration of Harmony with Env	ironment" in Rural Environment Projects WATANABE Tsugihiro3
Remedy for Emasculation of Resident Participation	S
	MURA Takahiro and KINOSHITA Takahiro7
Meaning of Inhabitant's Self Management Construc	
	TAZAWA Daisuke and TSUTSUI Yoshitomi·····11
The Problem and Correspondence Method of the E	
Prefectural Management	
	AZAWA Daisuke and YAMASHITA Yusaku·····15
Coexistence of Wetlands and Agriculture in Sarobe	
	ОКОКАWA Hironobu and Nochi Masaaki·····19
Present Status and Future Subjects of Frogs Fallin	
· ·	Keiji, Mori Atsushi, Koizumi Noriyuki,
	Takeshi and Nishida Kazuya·····23
Consideration about Application of Environmental (
- - -	ke , INADA Aya and AKAGISHI Masamitsu·····29
Paper	,
Proposal on System that Combines Forest Land Combines	viorgian Doculation on Voi Prooding
1 Topodai on Oydicin that Combined I diedt Bana Co	iversion Regulation on Not Differing
Ponds Development and Forest Maintenance Sup	
Ponds Development and Forest Maintenance Sup	
	oort SAKATA Yasuyo······33 ing Water Users' Associations in Egypt
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen	port SAKATA Yasuyo·····33
Ponds Development and Forest Maintenance Sup Report	oort SAKATA Yasuyo·····33 ing Water Users' Associations in Egypt KITAMURA Koji·····37
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation	oort SAKATA Yasuyo·····33 ing Water Users' Associations in Egypt KITAMURA Koji·····37
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention	ing Water Users' Associations in Egypt KITAMURA Koji······37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka······42 The Area Registered as a Wetland HIRANO Yo······44
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42 The Area Registered as a Wetland HIRANO Yo·····44 at Work of the Agricultural Dam
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention Measures for Turbid Water due to the Improvement	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42 The Area Registered as a Wetland HIRANO Yo·····44 At Work of the Agricultural Dam KATO Sadayuki and Ryo Misato·····46
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention Measures for Turbid Water due to the Improvement in Awa-chuou	ing Water Users' Associations in Egypt KITAMURA Koji······37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka······42 The Area Registered as a Wetland HIRANO Yo······44 At Work of the Agricultural Dam KATO Sadayuki and RYO Misato·····46 iculties OSHIMA Hiroyuki·····48
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention Measures for Turbid Water due to the Improvement in Awa-chuou A Rehabilitation Work of a Reserver with Some Diffe	ing Water Users' Associations in Egypt KITAMURA Koji······37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka······42 The Area Registered as a Wetland HIRANO Yo······44 At Work of the Agricultural Dam KATO Sadayuki and RYO Misato·····46 iculties OSHIMA Hiroyuki·····48
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention Measures for Turbid Water due to the Improvement in Awa-chuou A Rehabilitation Work of a Reserver with Some Diffe	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42 The Area Registered as a Wetland HIRANO Yo·····44 at Work of the Agricultural Dam KATO Sadayuki and RYO Misato·····46 iculties OSHIMA Hiroyuki·····48 dorofuru-ike in Matsuyama City SHIRAISHI Isao·····50
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention Measures for Turbid Water due to the Improvement in Awa-chuou A Rehabilitation Work of a Reserver with Some Diff An Example on Draining and Drying of Pond at Mit Renovation Plan of Spillway Gate in Hokuzan Dam	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42 The Area Registered as a Wetland HIRANO Yo·····44 at Work of the Agricultural Dam KATO Sadayuki and RYO Misato·····46 iculties OSHIMA Hiroyuki·····48 dorofuru-ike in Matsuyama City SHIRAISHI Isao·····50
Ponds Development and Forest Maintenance Sup Report Sustainability Evaluation of Projects for Strengthen Technical Reports An Application Example of Vibration Investigation Equipment Diagnosis Actions of the Local Agricultural Reproduction near under the Ramsar Convention Measures for Turbid Water due to the Improvement in Awa-chuou A Rehabilitation Work of a Reserver with Some Diff An Example on Draining and Drying of Pond at Mit Renovation Plan of Spillway Gate in Hokuzan Dam	ing Water Users' Associations in Egypt KITAMURA Koji·····37 Technique for Agricultural Pump VISHIDA Mayumi and MAKANAE Hidetaka·····42 The Area Registered as a Wetland HIRANO Yo·····44 At Work of the Agricultural Dam KATO Sadayuki and RYO Misato·····46 iculties OSHIMA Hiroyuki·····48 dorofuru-ike in Matsuyama City SHIRAISHI Isao·····50 In-Service



Feature Section: My Favorite Simulation Model	
Simulation Models That I Encountered in the Mekong River Commission MINAMI Itaru····	.3
Difficulty and Improvement for Application of SWAT Model to Rice Paddy Watershed	
Kato Tasuku, Watanabe Hirozumi, Julien Boulange, Eguchi Sadao,	
Sakaguchi Atsushi and Somura Hiroaki·····	.7
Application of WEPP Model to Estimate Soil Erosion and Sediment Runoff	
Osawa Kazutoshi, Sakai Kazuhito and Ikeda Syunsuke·····	13
HYDRUS-1D: Software Package for Simulating Water, Heat, and Solutes in Variably-	
saturated Soils SAITO Hirotaka, SAKAI Masaru, TORIDE Nobuo and ŠIMŮNEK Jirka·····	17
Papers	
Condition of Management and Operation of Power Tiller Suitable for Rice Production	
in Ghana NARUOKA Michio and FUJIMOTO Naoya·····	21
Analysis on Effective Rainfall (Limited Intake Water) of Paddy at Intake Weir Site	
Yoshida Masashi, Maruyama Toshisuke, Takase Keiji and Takimoto Hiroshi	27
Functional Diagnosis of Dust Collector in Pipeline System in Touhaku Area of	
Tottori Prefecture	
Hyodo Masahiro, Hayashi Naoki, Shinohara Yoshitaka and Ogata Hidehiko	33
Practical Use of the Photovoltaic Power Plant beside Agricultural Facilities	-
under the Feed-in Tariff	
Shino Takashi, Tazawa Hiroyuki, Karasawa Shoji and Nagata Hiroaki·····	37
Report	
The Construction of Regulation Pond by Vacuum Consolidation Method	
Ozawa Yoshihiro, Miyamori Toshimitsu, Kamada Tomoya, Yoneya Katsuhiro	
and Takeya Kiyoharu·····	43
Technical Reports	
Project for "Information on Maintenance and Preservation of Farmland and Facility"	
Momoi Kenji·····	1 8
Serious Flood Damages and Drainage Reorganization Plan in Western-YOKOTE Area	
Kitagawa Kazuhiko and Saito Fumiaki·····	50
Workshop for Water Quality Conservation Activities Installations	
Koga Hiroyuki and Sawayama Kazuhiko	52
A Consideration of the Cloud Computing Method Introduced into the Water	
Management System Terada Daisuke and Umeda Katsushi	54
Weed Prevention Measures Considering Maintenance Cost Reduction and Canal Landscape	
Improvement	
IMAMURA Hiroshi, ISHIMOTO Tatsunari, YABUTA Kazunari and OCHII Yasuhiro	56
About the Protection Auxiliary Method of the Tubing Repair of Agricultural Irrigation Pond	-
HIROSE Katsuhiko, TAKAI Hiroshi and IKENOUE Takashi	58
Technical Word	_
Open Source Software and R AIZAKI Hideo	3 0