



Book of Program

3rd International Conference Planning In The Era of Uncertainty

Sustainable Nation

Malang, 6th – 7th March, 2017

ICPEU 3 2017

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3rd ICPEU 2017 PROGRAM

Monday, 6th March, 2017

Time	Agenda	Remarks
07.30-09.00	Registration	
09.00-10.00	OPENING SESSION:	
	Art Performance (Topeng Dance)	
	Opening	
	Pray	
	National Anthem "Indonesia Raya"	PSM Teknik
	Welcoming speech from Head of Urban and Regional Planning Department	Dr. Ir. Abdul Wahid Hasyim MSP.
	Welcoming Speech from Dean of Engineering Faculty	Dr. Ir. Pitojo Tri Juwono, MT.
	Opening Speech from Rector of University of Brawijaya	Prof. Dr. Ir. Mohammad Bisri, M.S.
	Photo Session	
	Coffee break	Committee
10.30-13.30	PLENARY SESSION 1:	Moderator: Ir. Ismu Rini Dwi Ari, MT., Ph.D
	Keynote speech 1	Keynote Speaker: DR. (HC) Ir. Tri Rismaharini MT.
	Keynote Speech 2 "Evacuation Orders and Unforeseen Risks in Volcanic Disasters"	Keynote Speaker: Prof. Kiyoshi Kobayashi
	Keynote speech 3 "Urban Rural Relations in The Post-Urban World"	Keynote Speaker: Prof. Hans Westlund
	Discussion	
	Delivery of Keynote Speakers and Moderator Certificate	
13.30-14.30	Lunch Break and Dzuhur praying	
14.30-17.10	PARALLEL SESSION I	
15.30-16.00	Coffee Break	
17.00-17.10	Closing By Moderator in Each Class	

3rd ICPEU 2017 PROGRAM

Tuesday, 7th March, 2017

Time	Agenda	Remarks
07.30-09.00	Registration and coffee break	
09.00-09.15	Opening	
	Art Performance: Saman Dance	
09.15-12.40	PLENARY SESSION 2	Moderator: Dadang Meru Utomo, ST., MURP.
	Keynote Speech 4	Keynote Speaker: Dr. Emil Elestianto Dardak M.Sc
	Keynote Speech 5 "Politics of ICT in Southeast Asia"	Keynote Speaker: Prof. Masaaki Okamoto
	Keynote Speech 6 "Kyoto University Program for ASEAN"	Keynote speaker: Oda Masaharu
	Keynote Speech 7 "Lessons Learnt from and Sustainability Assessment of Indonesian Urban Kampung"	Keynote Speaker: Dr. Ir. Surjono MTP.
	Discussion	
	Delivery of Keynote Speaker and moderator's Certificate	
12.40-13.40	Lunch break and dzuhur praying	
13.40-14.40	PARALLEL SESSION II	
15.10-15.30	Coffee Break	
15.30-16.20	CLOSING CEREMONY	
	Opening closing ceremony	
	Art Performance: Contemporary Dance	
	Announcement of Best Presenter	
	Art Performance: Keroncong	
	Closing Speech By Conference Coordinator	Aris Subagiyo ST., MT.
00.00-end	Field Trip To Bromo	

PARALLEL SESSION A (ENVIRONMENT, INFRASTRUCTURE, AND INFORMATION SYSTEM) SCHEDULE (Monday, 6th March 2017)

Time	Author	Moderator
14.30-15.00	Baiq Harly W. "Effectiveness of Waste Management in Mataram City"	Dr. techn. Christia Meidiana, ST., M.Eng
	Erwin Bahar "Sustainability Study of Domestic Wastewater Treatment Communal in Surabaya City"	
	Naema Siahaan "SWOT Analysis: Water Hyacinth Management Plan at Lake Toba, Samosir Regency"	
15.00-15.30	Sri Sulistyowati "Enhancing Environmental Management Through FSC Certification in Perum Perhutani KPH Kendal"	
	Syauqi Asyraf Faiz "Rice Production Model Based on the Concept of Ecological Footprint"	
	Alexander Melat Aryasa "The Study of Environmental Carrying Capacity for Sustainable Tourism in Telaga Warna Telaga Pengilon Nature Park, Dieng Plateu, Central Java"	
16.00-16.30	Cita Adiningrum "Reliability Analysis for Determining Performance of Barrage based on Gates Operation"	
	Destha Aji Kesuma "Factor Weighting in DRASTIC Modeling to Evaluate Aquifer Vulnerability in Salatiga Groundwater Basin, Central Java Province"	
	Elia Sawitri "The Difference in the Level of CO2 Emission from The Transport Sector on Weekdays and Weekends on The City Center of Pematang"	
16.30-17.00	Muchsini Nur Wachid "Mangrove Canopy Density Analysis using Sentinel-2A Imagery Satellite Data"	
	Haryono Huboyo "Potential Air Pollutant Emission From Private Vehicles Based on Vehicle Route"	
	Syahri Ramadhan Ahmad "Assessment of Environmental Carrying Capacity Tambaklekok Village"	

PARALLEL SESSION B (ENVIRONMENT, INFRASTRUCTURE, AND INFORMATION SYSTEM) SCHEDULE (Monday, 6th March 2017)

Time	Author	Moderator
14.30-15.00	Agista Aristia "Identification Open Space Publik based on Children Perception (Case Study: Alun-Alun Merdeka Malang)"	Imma Widyawati Agustin, ST., MT., Ph.D
	Tomi Eriawan "Characteristics Utilization of Public Space in Padang City Based on Good Public Space Index"	
	Rizal Priadaniswari The Perception of Visitors towards The Level of Satisfaction on Park (Case Study: Singha Merjosari Park Malang)	
15.00-15.30	Dwi Prio Soetrisno "The Relationship Between The Availability Of The Supporting Elements Of The Pedestrian With Pedestrian Crossing Facility Usage Based On User Preferences (Case Study Corridor of Sumbersari Street, Gajayana Street, MT. Haryono Street, Malang City)"	
	Mutiasari Kurnia Devi "Potential to Increase Active Commuting Level in University Area (Case Study: Universitas Gadjah Mada)"	
	Verenita Bella Cosalia "Pedestrian Visual Recommendation in Kertanegara - Semeru Corridor"	
16.00-16.30	Dhea Permatasari "Customer Satisfaction Against The Quality of The Railway Services Tawang Alun Malang-Banyuwangi"	
	Muhammad Syahbandi "The Modal Transfer Analysis by Adding Transport Costs Case Study: The Use of Bus and Vehicle Private Student Institute of Technology Sumatera"	
	Rahmat Muallim "Green Sustainable Transportation Mode into Manage Natural Resources Infrastructure Plan on Sulawesi Rail Road Project Case study: Makassar – Pare-Pare Rail Road Project of South Sulawesi Indonesia"	
16.30-17.00	Muhammad Ridha Kasim "The Integration level of Public Transportation in Makassar City"	
	Leonardus F. Dhari "The Servition of Dokar Transportation in Supporting Tourism in Kota Batu"	
	Dedi M. Buamona "Publik Perception against the mode of transportation based online (G0-jek) in Malang"	

PARALLEL SESSION C (REGIONAL PLANNING AND PUBLIC POLICY)
SCHEDULE
(Monday, 6th March 2017)

Time	Author	Moderator
14.30-15.00	Catharina Dwi Astuti Depari "Sustainability and Vulnerability: Understanding the Anomaly from Disaster Perspectives Case Study: Glagaharjo Village in Mount Merapi"	Dr. Eng Turniningtyas Ayu R, ST., MT.
	Dwi Rahmawati "Disaster Risk Mapping of Kelud Eruption, Case Study: Kasembon, Malang Regency"	
	Lusi Utama "Mitigasi Disaster at Drainage Basin of Kuranji Padang City"	
15.00-15.30	Aria Mariany "The Integration of Disaster Risk Analysis into Spatial Planning In Indonesia: A Review from Indonesia Practice"	
	Jili Anggraita Sari "Traveller Preparedness in Disaster-Prone Tourist Sites"	
	Maya Damayanti "Infrastructure as a Shared Resource of Tourist and Non-Tourist Activities in a Disaster Prone Area"	
16.00-16.30	Artiningsih "Building Transformative Adaptation: Comparing Pekalongan Municipal Government's and Community's Initiatives on Minimizing The Risk of Coastal Inundation"	
	Rozina Khanam "Community-Based Livelihood Management in Relations to Natural Disaster—A Study on Teknaf (coastal) area of Bangladesh"	
	Sariffuddin "The Role Local Initiatives in Community Based Disaster Risk Management in Kemijen, Semarang City"	
16.30-17.00	Nimas Maninggar "Innovation System and Regional Development: The role of Inter-actor Collaboration in creating low tech Industrial Innovation"	
	Amalia Sharfina Sarnyoto "Planning of Dairy Farm and Dairy Plant Based on Ecotourism"	
	M. Riza Ali Muzaqqi "Assessment of Land Allotment Support Power Industry In Grati, Pasuruan Regency"	

PARALLEL SESSION D (REGIONAL PLANNING AND PUBLIC POLICY)
SCHEDULE
(Monday, 6th March 2017)

Time	Author	Moderator
14.30-15.00	Ayunda Gading Mahayu "Perception Study About Visitors Related To Development Of Rowo Bayu Attractions in Kecamatan Songgon Banyuwangi"	Gunawan Prayitno, SP., MT., Ph.D
	I Nyoman Sudiarta "Bali as Ecotourism Destination: Alternative Strategy in Marketing of Tourism Destination"	
	Retnayu Prasetyanti "Channeling City Development to Pro-Poor Tourism (PPT) in Indonesia: Experiencing Slum Kampong-Tour Development from Malang (East Java) to Jakarta"	
15.00-15.30	Indhar Wahyu Wiraharjo "Scaling Up Social Capital: A Model of Rural Community Empowerment"	
	Resmi Amalia "Study of Government Policy to Improve Rural Infrastructure Development"	
	Bayu Purnomo "Analysis of Perception and Community Participation in Forest Management at KPHP Model Unit VII-Hulu Sarolangun, Jambi Province"	
16.00-16.30	Annisa Nurul Hakim "Measuring the Community Satisfaction Index of Population and Civil Registration in Malang Municipal"	
	Baiq Ismi Rakhmah "The Analysis of Occupant Satisfaction on Service Quality of the Manager (Official-Based Technical Managing Unit) of Mandalika Public Mansion in Mataram City"	
	Fadhilatus Shoimah "Development Strategy of SME Sectors Case Study: South Hulu Sungai Regency, South Borneo Province"	
16.30-17.00	Putu Giana Eka Suardi "Spatial Potential Analysis of Coconut Farm as A New Ecotourism Attraction in Subagan Village Using GIS"	
	Putri Mulyo Mawarsari "Minapolitan Region Development Analysis at Penajam Paser Utara using Blue Economy Concept"	

PARALLEL SESSION A (URBAN STUDIES) SCHEDULE
(Tuesday, 7th March 2017)

Time	Author	Moderator
13.40-14.10	Akbar Muammar Syarif "Cellular Automata Algorithm for Spatial Modeling of Urban Physical Development in Dubai, United Arab Emirates"	Chairul Maulidi, ST., MT.
	Erie Sadewo "The Centrifugal and Centripetal Force Influence on Spatial Competition of Agricultural Land in Bandung Metropolitan Area"	
	M. Fahmiriyan Nur Arifin "Determination Of Alternative Incentives And Disincentives In The Utilization Of Space At Priority Areas – Case Study: Village Tunggulwulung & Tasikmadu Malang"	
14.10-14.40	Gloria Andida Cahya "Malioboro as Value of Special District of Yogyakarta City"	
	Hafiz Firjatullah "Wayfinding Concept in University of Brawijaya"	
	Wahyu Ramadhan "Patterns of Social Networks Senior High Students (SMA Negeri 8 Malang) in the selection Mode"	
14.40-15.10	Isma Adila "Disaster Mitigation Action Plan: Digital Media on Improving Accountability and Mending Community Relationships"	
	Viesda Desi Pithaloka "Collaborating Privates and Communities as Place Making Tactical Strategy: A Case Study of Public Space in Bandung"	

PARALLEL SESSION B (URBAN STUDIES) SCHEDULE
(Tuesday, 7th March 2017)

Time	Author	Moderator
13.40-14.10	Harfa Iskandaria "Human Settlement Improvements In Kota Tua With Green And Clean Approach"	Wulan Dwi Purnamasari, ST., MT.
	Prilly Esterina D. Saudale "Handling Priority Regions and Colonial Buildings of Malang (Case Study : Klojen)"	
	Ummu sahdiah sahlani "Influence Of Baubau City's Development To The Image Of Buton Palace Fortress"	
14.10-14.40	Zya Dyena Meutia "Built Urban Heritage Conservation in Islamic Communities: Study Case in Banda Aceh, Indonesia"	
	Oktavia Altika Dewi "The Approach Methods of Visual Absorption Capability For Conservation Ancient Buildings Area In Pasuruan City"	

PARALLEL SESSION C (URBAN STUDIES) SCHEDULE
(Tuesday, 7th March 2017)

Time	Author	Moderator
13.40-14.10	Novi Maulida Ni'mah "Urban Greenspace for Resilient City in the Future: Case Study of Yogyakarta City"	Dr.Eng I Nyoman Suluh Wijaya, ST., MT.
	Yan Akhbar Pamungkas "City Prosperity Index of Malang City"	
	Yunita Arafah "Re-defining Smart City Concept in The Uncertainty Era with Resillience Approach"	
14.10-14.40	Ir. Miming Miharja, Msc. Eng., PhD "Urban Development Control Based on Transportation Carrying Capacity"	
	Sri Tuntung Pandangwati "Bus network redesign for inner southeast suburbs of Melbourne, Australia"	
	Supriatna Adhisuwignjo "Development of A Solar-Powered Electric Bicycle In Bikesharing Transportation System"	
14.40-15.10	Ima Rahmawati Sushanti "Implications of Craft Industry Cluster Pearl, Gold, Silver (PGS) Towards Settlements Region in Karang Pule Village, Sekarbela District of Mataram City"	
	Sharina Fariyah Hasan "Remittances and Expenditures of Foreign Labours In The Malaysian Construction Industry"	
	AR Rohman Taufiq Hidayat "Creative Industry in Supporting Economy Growth in Indonesia: Perspective of Regional Innovation System"	

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3.	Prof. Hans Westlund	Urban Rural Relations in The Post-Urban World
4.	Dr. Emil Elestianto Dardak M.Sc	*tba
5.	Prof. Masaaki Okamoto	Politics of ICT in Southeast Asia
6.	Oda Masaharu	Kyoto University Program for ASEAN
7.	Dr. Ir. Surjono MTP.	Lessons Learnt from and Sustainability Assessment of Indonesian Urban Kampung

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In recognition for his/her valuable contribution

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Planning in The Era of Uncertainty:
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6-7 March 2017
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Organizing Committee
3rd ICPEU 2017

Anandabagiyo, ST., MT

Head of
Regional and Urban Planning Department

Dr. Ir. A. Wahid Hasyim, MSP

Dean of Engineering Faculty
Universitas Brawijaya

Dr. Ir. Pitojo Tri Juwono, MT



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Mitigasi Disaster at Drainage Basin of Kuranji Padang City

Lusi Utama^a, Amrizal Saidi, Isril Berd, Zuherna Mizwar

^aFirst affiliation, Address, City and Postcode, Country

Abstract

Floods is flooding of effect of exit water groove river because big river debit sudden its accomodation energy, happened swi ftly knock over areas which is debasement, in river basin and hollow. Flow debris or which is recognized with galodo have knock over river of Kuranji year 2012 in Padang city . Area is floods disaster are: 19 Sub-District in 7 district, and hard that is district of Pauh and district of Nanggalo. Governmental claim tired loss of Rp 263,9 Billion while Government of Provinsi West Sumatera appraise loss estimated by Fourty Billion Rupiah (Padang Ekspres 28 July 2012), with detail of damage house counted 878 unit, damage religious service house 15 unit, damage irrigation 12 unit, damage bridge 6 unit, damage school 2 unit, damage health post 1 unit. Result of calculation, by using rainfall of year 2003 until year 2015 with method Gumbel, Hasper and Wedwen, got high rainfall 1 plan is 310,00 mm, and method Melchior and Hasper floods is 1125,86 m³ / second. From result of study analyse at Citra map of correlation and image to parameters cause of floods, and use software Watershed Modelling System (WMS) this region have two class that is middle susceptance and low susceptance. Middle susceptance area is there are in middle river and downstream river, with inclination level off. Low susceptance area there is middle river. Area which have potency result the happening of flo ods is headwaters, because having keen ramp storey level (45 - 55%) and is hilly. For the mitigasi of floods disaster determined by three area evacuate that are : Sub-District Of Kelurahan Limau Manis District Of Pauh, Sub-District Of Surau Gadang District Of Nanggalo, and Sub-District Of Lambung Bukik District of Pauh, in the form of map

Keywords: floods; susceptance, mitigasi

1. Introduction

Flood due to water runoff that flow out of the river because the river discharge was suddenly enlarged beyond capacity, it happens quickly struck areas of humility and in the Valley of the rivers. With the increase of population that is increasingly rapidly brings impact to the increased needs of land and demand fulfilment services and urban infrastructure that can impact declining environmental quality such as environmental degradation and natural disasters. Of the review of the field is done, damages Watersheds (WATERSHED) at Kuranji river due to the occurrence of change of the function of a natural dam, the collapse of land and waterways. We know that the upstream is a functioning conservation areas set up stream to the middle and lower reaches of the river. Downstream, is a densely populated residential area. From some of the research that has been done for the determination of areas of vulnerability to flooding, flood occurrence parameter are: lack of infiltrasi water based soil type, slope, magnitude as a function of land, high intensity, high somewhere and nearby settlements were built from the banks of the river (the buffer). Flash floods or known as galodo have plagued Kuranji on 24 July 2012 and 12 September 2012 which has ravaged houses and equipment. The Government claimed the loss due to the deluge of Rp 263.9 billion. Daily rainfall average of 15 – 25 mm, being at the time of the occurrence of the flash floods of daily rainfall that is 54 mm. Slope of the average in the upper reaches between 45% to 55% (source Kuranji numbers in 2012). DAS area 202.70 km². Kuranji had the small river in upstream, namely Belimbing river with DAS 62.64 km² and length of 17.08 km, Limau Manis with DAS 31.93 km² and length of 16.42 km. In the middle area there is river Sungkai area DAS 6 km² and a length of 3.63 km, Janiah Karuah with an area of 82.26 km² and a length of DAS 18.86 km. population census by 201 4 is 145,844 people. The upper area at altitude 150 – 175 m, the middle at an altitude of 125 – 150 m, downstream altitude of 1 – 12 m. High differences resulting from this enormous, resulting in if upstream happens rain intensity is high, the middle and lower area becomes flooded. For it in order for losses that occur mainly casualties inevitable, need for mitigation to reduce losses due to flooding by making the evacuation line in order to rescue for the community, and the normalization of the river.

* Corresponding author..

E-mail address: lusi_utamaindo115@yahoo.co.id

1.1 Strengthening Regulatory Legislation

In April 2007, two laws have been passed by the legislature, namely: ACT on disaster relief (Act No. 2/2007) and the ACT on Spatial (Act No. 2/2007) which is a revision of the previous ACT No. 24/1992. Laws and regulations are made given the vacuum of legal framework and laws and regulations pertaining to the handling of disaster risk must be paid dearly with the fall of casualties and enormous material losses

1.2 Public participation

Public participation is a process provided an opportunity for technical and broader authority to the community, so that the community is able to solve problems together. The Division of authority was conducted based on the level of community participation in such activities. Community participation (local wisdom) aims to find solutions to problems in a community, by opening up more opportunities for the public to contribute so that the implementation of activities running more effective, efficient, and sustainable.

1.3 Flood mitigation Stakeholders

Stakeholder response to flooding is generally classified into three, namely: (a) a society gets the impact directly or indirectly due to flooding; (b) community groups or individuals who may give consideration or facilitation in flood mitigation, such as: consultants, experts, NGOs, and professionals in the field of flood; (c) decision/policy makers/decision makers, institutions/institutional authorities make decisions and legal basis, such as government agencies and water resources Council.

1.4 Solving the flood with the approach of non flood disaster mitigation in non fisik/non structural

can be: spatial arrangement (land use arrangement) due to the occurrence of conversion of land into urban areas, intensive and continuous outreach involving community, NGOs. Making flood plain zoning, zoning-zoning arrangements, namely the utilization of space is differentiated according to the threat level because of the flood. So the flood plain zoning is effective instruments to avoid the occurrence in areas not yet awakened to the brakes on the occurrence of a change of function of the land according to law No. 25/2007 on Spatial and Act No. 7/2004 about Water Resources

1.5 Soil type

Alluvial soil is formed from the mud of the river that settles in the lowlands, it has fertile soil and is suitable for agricultural land. The soil is alluvial young who came from the results of the deposition. Alluvial soil at Kuranji has widely 5,445.90 ha b. an area of 12,921.16 ha. Because suitable as agricultural land, then this soil type will cause the occurrence of floods.

1.6 Environmental change

With the ever increasing human population has led to increasingly sensitive environmental conditions. Change the function of the land very large influence on environmental changes that result in a decline in land cover. The longer the amount of vegetation on the wane, particularly in urban areas. From the results of the inverstigasi BPN Padang city, that of the years 2009 – 2012 land use changes such as table in the following:

Table.1 Land use Change

No	Land use	Area Land (Ha)		Land Use Change (Ha)
		2009	2012	
1	Residential	176,84	327,55	150,71
2	Area Rain Waters	399,55	289,74	109,81
3	Gardens Mixed	972,06	1005,29	33,23
4	Moor Forest	2,50	3,65	1,15
5	Shrubs	75,52	58,27	17,25

No	Land use	Area Land (Ha)		Land Use Change (Ha)
		2009	2012	
6	Similar	7,62	6,87	0,75
7	The Others	116,78	59,5	57,28
	Amount	1.750,87	1.750,87	378,18

Are land cover vegetation that grows above the Earth's surface will cause the increasing surface flow (run off). Surface flow occurs when rainfall has exceeded infiltration rate of the soil. According to Castro (1959) the level of surface flow in the forest is of 2.5%, 3%, coffee plant grass 18%, while the ground is about 60%. While based on research in Onrizal (2005) DAS Ciwulan, deforestation led to the increase in surface flow of 624 mm/th. It's the new calculation performed on the area of forest is cut down where there are still lucrative land who could infiltrasi. Research of Lusi Utama, 2014, with the use of a map Image and the correlation with the parameter causes flood ing, gained the flash flooding potential at Kuranji WATERSHED. Based on the results of the analysis of the parameters of the flood areas there are Kuranji Rods obtained two (2) classes of vulnerabilities and vulnerabilities middle are vulnerabilities that is low. There is a flood-prone area in the middle and downstream areas, with the slope of the slopes. Are areas that could potentially lead to the occurrence of floods is upstream, because it had a sharp level and hilly. The vast pool of skoring value based and the level of insecurity area turns Kuranji flood is an area in the vulnerabilities middle. Of the 15 villages there are three wards that low levels of vulnerabilities which means it is safe from the dangers of flooding, Gunung Sarik in the middle, Kapalo Koto (upstream) and Limau Manis (upstream), but easily the occurrence of landslides, since the slope a sharp slope. 12 the village is an area of vulnerability middle, that means the sloped area is relatively flat, sharp, and altitude as a function of the land.

The Purpose and Benefits of the Research

The research aims are as follows:

- 1 Perform flood mitigation in the form of the creation of a map of the evacuation line.
- 2 Determine the place of evacuation
- 3 Normalization of the River in order to be able to accommodate the river discharge in the circumstances of the discharge maximum

Benefits of research:

- 1 There is a map/evacuation line for area/flood-prone neighborhoods.
- 2 There is a temporary shelter for the community when the flood occurred. This can reduce the disaster victims.

2. Methods

Using a map image and map study of vulnerability to flooding along the Kuranji ARGIS x. 1, is expected to come by the evacuation line and place the temporary shelter. A temporary shelter was planned in areas closer to the location of the floods, but have height, so that people can be evacuated. Besides conducting cooperation between communities and Government in reducing the risk of flooding. These activities are based on the parameters of the cause of the flooding is like making a well infiltrasi, normalization of river rock material, giving the building permission by the rules. In addition need to flood control planning buildings such as making buildings and building control sediments

3. Results

Map of Routes for Evacuation and shelters



Figure 1: Map of Routes for Evacuation and Shelter Limau Manis



Figure 2: Map of Routes for Evacuation and Shelter Surau Gadang

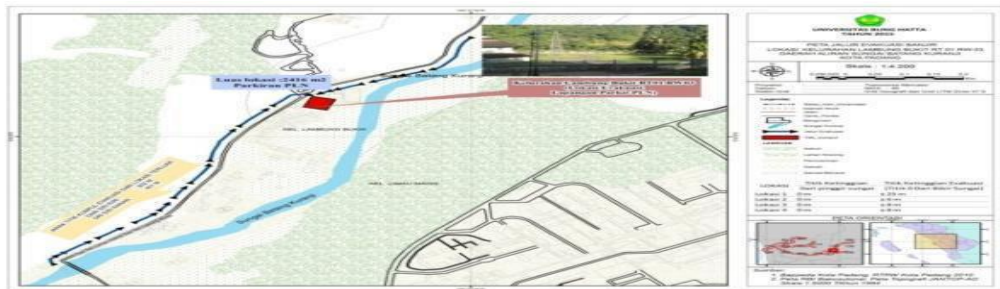


Figure 3: Map of Routes for Evacuation and Shelter Lambung Bukik



Figure 4 : Pocket Book: Ready to Accept Floods

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