



**PENENTUAN UKURAN GRID TRMM 3B42 TERHADAP KEANDALAN  
PREDIKSI CURAH HUJAN PADA DAS SAMPEAN BARU**

**SKRIPSI**

Oleh  
**SINTA OKTA NANDANI**  
**NIM 131910301064**

**PROGRAM STUDI S1 TEKNIK SIPIL  
JURUSAN TEKNIK SIPIL  
FAKULTAS TEKNIK  
UNIVERSITAS JEMBER  
2017**



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diajukan guna melengkapi tugas akhir dan memenuhi salah satu syarat  
untuk menyelesaikan Program Studi Strata 1 Teknik Sipil  
dan mencapai gelar Sarjana Teknik

Oleh  
**SINTA OKTA NANDANI**  
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## **PERSEMBAHAN**

Skripsi ini saya persembahkan untuk:

1. Allah SWT, yang telah memberikan kesehatan, rahmat, hidayah, rezeki dan semua yang saya butuhkan, Allah SWT sutradara terhebat;
2. Rasulullah Muhammad SAW, kekasihku, pengobat hati, jiwa dan ragaku, yaitu junjunganku sang utusan Allah SWT;
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11. Himpunan Mahasiswa Sipil (HMS) terimakasih, Baja Beton Hidup Sipil!;

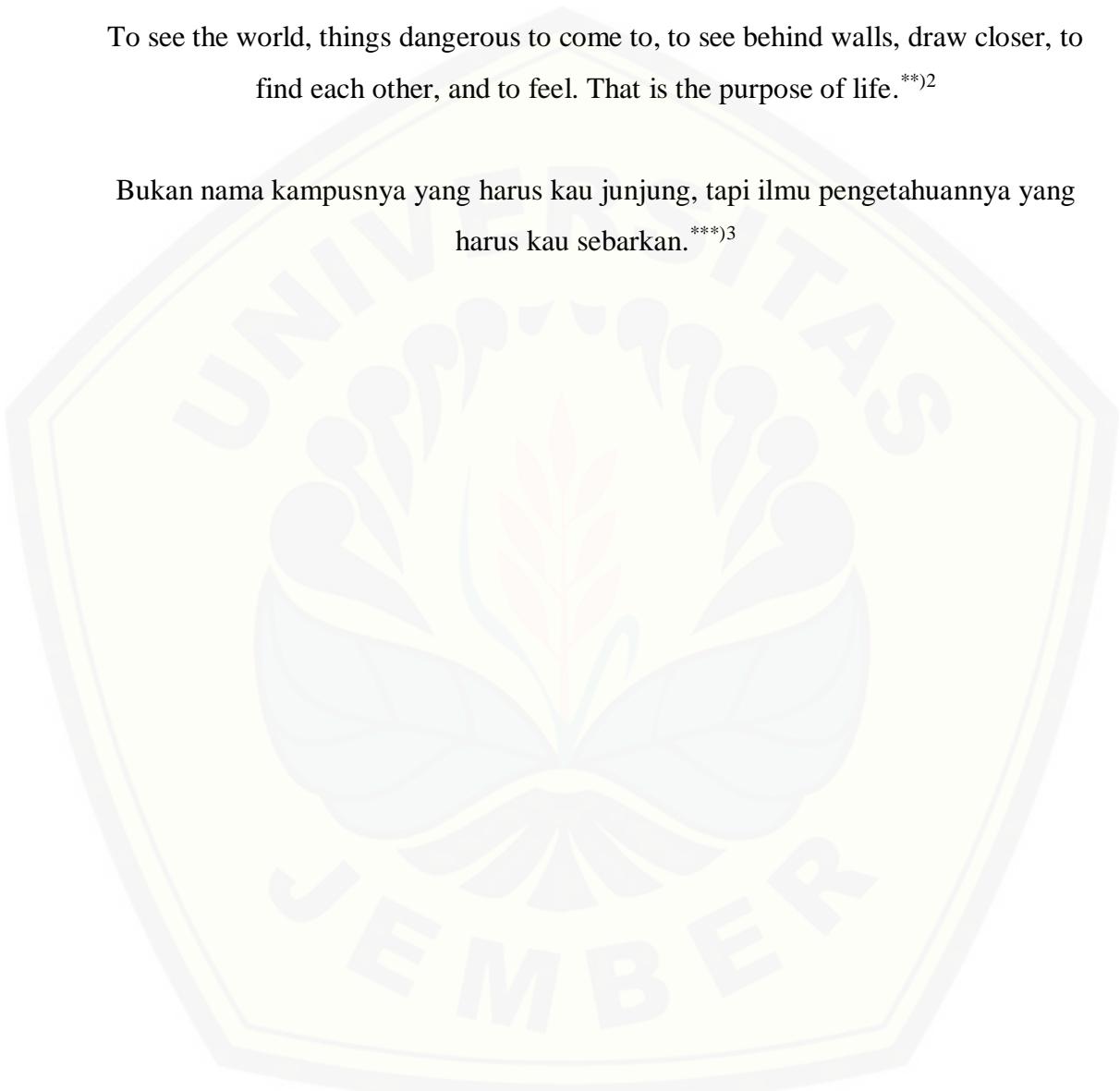
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## MOTTO

I believe in the religion of Islam. I believe in Allah and peace.<sup>\*)1</sup>

To see the world, things dangerous to come to, to see behind walls, draw closer, to find each other, and to feel. That is the purpose of life.<sup>\*\*)2</sup>

Bukan nama kampusnya yang harus kau junjung, tapi ilmu pengetahuannya yang harus kau sebarkan.<sup>\*\*\*)3</sup>



---

<sup>\*)1</sup> Muhammad Ali.

<sup>\*\*)2</sup> James Thurber. 2013. The Secret Life of Walter Mitty.

<sup>\*\*\*)3</sup> Pidi Baiq.

## PERNYATAAN

Saya yang bertanda tangan dibawah ini:

Nama : Sinta Okta Nandani  
NIM : 131910301064

menyatakan dengan sesungguhnya bahwa skripsi yang berjudul “Penentuan Ukuran Grid TRMM 3B42 Terhadap Keandalan Prediksi Curah Hujan Pada DAS Sampean Baru” adalah benar-benar hasil karya sendiri, kecuali kutipan yang sudah saya sebutkan sumbernya, belum pernah diajukan pada institusi mana pun, dan bukan karya jiplakan. Saya bertanggung jawab atas keabsahan dan kebenaran isinya sesuai dengan sikap ilmiah yang harus dijunjung tinggi.

Demikian pernyataan ini saya buat dengan sebenarnya, tanpa ada tekanan dan paksaan dari pihak mana pun serta bersedia mendapat sanksi akademik jika ternyata di kemudian hari pernyataan ini tidak benar.

Jember, 25 Juli 2017

Yang menyatakan,

Sinta Okta Nandani

NIM 131910301064

**SKRIPSI**

**PENENTUAN UKURAN GRID TRMM 3B42 TERHADAP KEANDALAN  
PREDIKSI CURAH HUJAN PADA DAS SAMPEAN BARU**

Oleh

Sinta Okta Nandani

NIM 131910301064

Pembimbing

Dosen Pembimbing Utama : Dr. Gusfan Halik., S.T, M.T.

Dosen Pembimbing Anggota : Sri Wahyuni., S.T, M.T, Ph.D.

**PENGESAHAN**

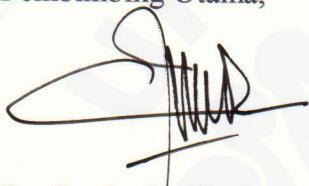
Skripsi berjudul "Penentuan Ukuran Grid TRMM 3B42 Terhadap Keandalan Prediksi Curah Hujan Pada DAS Sampean Baru" karya Sinta Okta Nandani telah diuji dan disahkan pada:

hari, tanggal : Rabu, 12 Juli 2017

tempat : Fakultas Teknik Universitas Jember.

Tim Penguji

Pembimbing Utama,



Dr. Gusfan Halik, S.T., M.T.  
NIP 19710804 199803 1 002

Pembimbing Anggota,



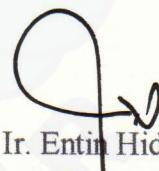
Sri Wahyuni, S.T., M.T., Ph.D.  
NIP 19711209 199803 2 001

Penguji I,



Wiwik Yunarni W, S.T., M.T.  
NIP 19700613 199802 2 001

Penguji II,



Dr. Ir. Entin Hidayah, M.UM.  
NIP 19661215 199503 2 001

Mengesahkan

Dekan,



Dr. Ir. Entin Hidayah, M.UM.  
NIP 19661215 199503 2 001

## RINGKASAN

**Penentuan Ukuran Grid TRMM 3B42 terhadap Keandalan Prediksi Curah Hujan pada DAS Sampean Baru;** Sinta Okta Nandani, 131910301064; 2017: 67 halaman; Jurusan Teknik Sipil, Fakultas Teknik, Universitas Jember.

Data curah hujan sangat dibutuhkan dalam perencanaan teknik terutama dalam perencanaan bangunan air seperti irigasi, bendungan, drainase perkotaan, dermaga, pelabuhan, dan lain-lain. Maka perlu adanya pencatatan data curah hujan suatu daerah secara terus menerus sebagai dasar perhitungan perencanaan yang akan dilakukan.

Data curah hujan di stasiun pengamat hujan sering mengalami kekosongan karena keterbatasan pengukuran. Hilangnya data curah hujan ini dapat terjadi akibat beberapa faktor, misalnya alat pengukur hujan mengalami kerusakan, kelalaian petugas pencatat hujan, data hasil pencatatan curah hujan yang hilang dan sebagainya.

Prediksi menggunakan data curah hujan satelit merupakan alternatif untuk keterbatasan data curah hujan observasi. Prediksi curah hujan menggunakan satelit diawali sekitar tahun 1960 dengan memanfaatkan kanal inframerah serta cahaya tampak atau *visible* (Suseno, 2009). Salah satu satelit yang digunakan untuk pendugaan curah hujan di daerah tropis adalah satelit *Tropical Rainfall Measuring Mission* (TRMM).

Dalam penelitian ini akan dilakukan kajian terhadap penentuan ukuran grid optimal TRMM 3B42 terhadap keandalan prediksi curah hujan pada DAS Sampean Baru. Model regresi yang akan digunakan adalah regresi non linier Jaringan Saraf Tiruan (JST).

Pemodelan JST menunjukkan hasil nilai korelasi antara data hujan satelit TRMM 3B42 dengan data hujan observasi pada DAS Sampean Baru cukup baik, yaitu dengan nilai R *training* = 0,68402 dan nilai R *testing* = 0,68650 dengan nilai *error* yang diperoleh dari uji MSE = 0,000801. Hasil ini diperoleh pada domain *grid* optimal ukuran 2x2.

## SUMMARY

**Determination of Grid TRMM 3B42 Size toward Reliability of Rainfall Prediction at Sampean Baru Watershed;** Sinta Okta Nandani 131910301064; 2017: 67 pages; Department of Civil Engineering, Faculty of Engineering, University of Jember.

Rainfall data is much-needed in technical planning especially for water building planning such as irrigation, dams, urban drainage, pier, port, and others. Therefore, rainfall data recording for a certain area is needed continuously as the basis estimation for the planning that will be undertaken.

Rainfall data at the rain observer station often have unoccupied data because of the gauging limitation. Rainfall data lost occur due to some factors, such as the damaged rain gauge, officer negligence within rain data record, the lost of rainfall record result data and so on.

Satellite usage for rainfall prediction is an alternative for the limitation of observation rainfall data. Satellite usage for rainfall prediction began about 1960 by utilizing infrared channel and visible light (Suseno, 2009). One of the satellite that is used for rainfall prediction in tropic area is Tropical Rainfall Measuring Mission (TRMM) satellite.

In this research will be done study of size determination for optimal grid TRMM 3B42 toward reliability prediction of rainfall at Sampean Baru Watershed. A regression model that will be used is a non linear regression Artificial Neural Network (ANN).

ANN Modeling showed result of value correlation between satellite rainfall data TRMM 3B42 with rain data observation at Sampean Baru Watershed is good enough, i.e. with R training = 0,68402 and R testing = 0,68650 with error value that is obtained from MSE test i.e. = 0,000801. This result is obtained in optimal grid size 2x2.

## PRAKATA

Puji syukur kehadirat Allah SWT, atas segala rahmat dan karunia-Nya sehingga penulis dapat menyelesaikan skripsi yang berjudul “Penentuan Ukuran Grid TRMM 3B42 Terhadap Keandalan Prediksi Curah Hujan Pada DAS Sampean Baru”. Skripsi ini disusun untuk memenuhi salah satu syarat menyelesaikan pendidikan strata 1 (S1) pada Jurusan Teknik Sipil Fakultas Teknik Universitas Jember.

Penyusunan skripsi ini tidak lepas dari bantuan berbagai pihak. Oleh karena itu penulis menyampaikan terima kasih kepada:

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Jember, Juli 2017

Penulis



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## BAB 1. PENDAHULUAN

### 1.1 Latar Belakang

Indonesia terletak pada  $95^{\circ}$  BT –  $141^{\circ}$  BT dan  $6^{\circ}$  LU –  $11^{\circ}$  LS, letak astronomis tersebut menyebabkan Indonesia beriklim tropis dengan ciri-ciri curah hujan yang tinggi. Curah hujan merupakan jumlah atau ketinggian air hujan yang jatuh di permukaan tanah dan terkumpul selama periode waktu tertentu. Pada siklus hidrologi, hujan merupakan faktor penting dalam menentukan kapasitas air yang ada di suatu daerah.

Data curah hujan sangat dibutuhkan dalam perencanaan teknik terutama dalam perencanaan bangunan air seperti irigasi, bendungan, drainase perkotaan, dermaga, pelabuhan, dan lain-lain. Maka perlu adanya pencatatan data curah hujan suatu daerah secara terus menerus sebagai dasar perhitungan perencanaan yang akan dilakukan. Dibutuhkan pencatatan data curah hujan bertahun-tahun untuk memperoleh perhitungan perencanaan yang akurat, apabila data curah hujan yang ada semakin banyak, maka hasil perhitungan yang diperoleh akan semakin akurat (Prawaka dkk., 2016).

Data curah hujan di stasiun pengamat hujan sering mengalami kekosongan karena keterbatasan pengukuran. Perhitungan data hujan yang kosong merupakan permasalahan yang telah lama dalam praktek hidrologi (Wei dkk., 1973). Hilangnya data hujan ini dapat terjadi akibat beberapa faktor, misalnya alat pengukur hujan mengalami kerusakan, kelalaian petugas pencatat curah hujan, data hasil pencatatan hujan yang hilang dan sebagainya.

Prediksi menggunakan data curah hujan satelit merupakan alternatif untuk keterbatasan data curah hujan observasi. Prediksi curah hujan menggunakan satelit diawali sekitar tahun 1960 dengan memanfaatkan kanal inframerah serta cahaya tampak atau *visible* (Suseno, 2009). Salah satu satelit yang digunakan untuk pendugaan curah hujan di daerah tropis adalah satelit *Tropical Rainfall Measuring Mission* (TRMM). TRMM dirancang untuk memenuhi kebutuhan data curah hujan global, dengan rentang pengamatan tersedia mulai Januari 1998 hingga sekarang.

Di Indonesia sudah banyak dilakukan penelitian mengenai evaluasi data hujan satelit terhadap data observasi, beberapa diantaranya adalah pola spasial anomali curah hujan selama Maret 2010 sampai Juni 2010 di Indonesia: komparasi data TRMM *Multisatellite Precipitation Analysis* (TMPA) 3B43 dengan stasiun pengamat hujan dengan nilai korelasi berkisar 0,40 – 0,76 (As-syakur dkk., 2010); pendugaan curah hujan dengan data satelit geostasioner (MTSAT-1R) dan gelombang mikro *imaginer* (TRMM) : studi kasus DAS Citarum dengan nilai korelasi harian 0,18 (Sasmito, 2011); analisis pola dan intensitas curah hujan berdasarkan data observasi dan satelit *Tropical Rainfall Measuring Missions* (TRMM) 3B42 V7 di Makassar dengan hasil analisis korelasi 0,99 (S, Sri Maulidani dkk., 2015). Data curah hujan TRMM masih berskala global, sehingga untuk memperoleh informasi skala lokal atau regional diperlukan model regresi.

Dalam penelitian ini akan dilakukan kajian terhadap penentuan ukuran grid optimal TRMM 3B42 terhadap keandalan prediksi curah hujan pada DAS Sampean Baru. Model regresi yang akan digunakan adalah regresi non linier Jaringan Saraf Tiruan (JST).

## 1.2 Rumusan Masalah

Berdasarkan latar belakang diatas, maka dapat dibuat rumusan masalah sebagai berikut :

1. Bagaimana korelasi antara data hujan satelit TRMM 3B42 dengan data hujan observasi pada DAS Sampean Baru?
2. Berapakah ukuran grid TRMM 3B42 optimal dalam memprediksi curah hujan di DAS Sampean Baru?

## 1.3 Tujuan Penelitian

Tujuan dari penelitian ini adalah sebagai berikut :

1. Mengetahui korelasi antara data hujan satelit TRMM 3B42 dengan data hujan observasi pada DAS Sampean Baru.
2. Mengetahui berapa ukuran grid TRMM 3B42 optimal dalam memprediksi curah hujan di DAS Sampean Baru.

#### **1.4 Manfaat Penelitian**

Manfaat dari penelitian ini adalah sebagai berikut :

1. Solusi keterbatasan data hujan observasi dengan memanfaatkan data hujan dari satelit TRMM 3B42.
2. Dapat digunakan oleh Dinas Pengairan sebagai dasar pengelolaan alokasi air di DAS Sampean Baru.

#### **1.5 Batasan Masalah**

Batasan masalah dalam penelitian ini adalah sebagai berikut :

1. Data curah hujan harian DAS Sampean Baru periode tahun 2007-2016.
2. Data curah hujan satelit TRMM 3B42 *Daily* periode tahun 2007-2016.

## BAB 2. TINJAUAN PUSTAKA

### 1.1 Hujan

Hujan adalah sebuah peristiwa presipitasi (jatuhnya cairan dari atmosfer yang berwujud cair maupun beku ke permukaan bumi) berwujud cairan. Hujan memerlukan keberadaan lapisan atmosfer tebal agar dapat menerapkan suhu di atas titik leleh es di atas permukaan bumi. Di bumi, hujan adalah proses kondensasi (perubahan wujud benda ke wujud yang lebih padat) uap air di atmosfer menjadi butiran air yang cukup berat untuk jatuh dan biasanya tiba di daratan. Dua proses yang mungkin terjadi bersamaan dapat mendorong udara semakin jenuh menjelang hujan, yaitu pendinginan udara atau penambahan uap air ke udara. Butir hujan memiliki ukuran beragam mulai dari butiran besar hingga kecil (Prawaka, 2016).

### 1.2 Curah Hujan

Curah hujan merupakan ketinggian air hujan yang terkumpul dalam tempat yang datar, tidak menguap, dan tidak mengalir. Satuan curah hujan dapat dinyatakan dalam satuan milimeter atau inchi namun untuk di Indonesia satuan curah hujan yang digunakan adalah dalam satuan milimeter (mm). Curah hujan dalam 1 (satu) milimeter memiliki arti dalam luasan satu meter persegi pada tempat datar tertampung air setinggi satu milimeter atau tertampung air sebanyak satu liter (Prawaka, 2016). Derajat dan intensitas curah hujan dapat dilihat pada Tabel 2.1.

Tabel 2.1 Derajat dan Intensitas Curah Hujan

Derajat Hujan	Intensitas Curah Hujan (mm/min)	Kondisi
Hujan sangat lemah	< 0,02	Tanah agak basah atau dibasahi sedikit
Hujan lemah	0,02 - 0,05	Tanah menjadi basah semuanya, namun umumnya tidak menimbulkan genangan air
Hujan normal	0,05 - 0,25	Air dapat tergenang, bunyi curah hujan terdengar
Hujan deras	0,25 - 1	Air tergenang di seluruh permukaan tanah, bunyi hujan terdengar dari genangan
Hujan sangat deras	> 1	Hujan seperti ditumpahkan, saluran drainase meluap

Sumber : Sosrodarsono S., dkk, 1976

### 1.3 Proses Terjadi Hujan

Presipitasi adalah turunnya air dari atmosfer ke permukaan bumi yang bisa berupa hujan, hujan salju, embun, dan hujan es. Di daerah tropis hujan memberikan sumbangannya terbesar sehingga sering kali hujanlah yang dianggap presipitasi (Triatmodjo, 2008). Sedangkan menurut Sosrodarsono (1976), presipitasi adalah sebutan umum dari uap yang mengkondensasi dan jatuh ke tanah dalam rangkaian proses siklus hidrologi, biasanya jumlah selalu dinyatakan dengan dalamnya presipitasi (mm). Jika uap air yang jatuh berbentuk cair disebut hujan (*rainfall*) dan jika berbentuk padat disebut salju (*snow*).

### 1.4 Stasiun Pengamat Curah Hujan

Pengamatan curah hujan dilakukan dengan sebuah alat ukur curah hujan. Salah satu alat pengamat curah hujan adalah alat ukur biasa yang diletakkan di suatu tempat terbuka yang tidak dipengaruhi oleh bangunan atau pepohonan dengan ketelitian pembacaan sampai 1/10 mm. Pengamatan ini dilaksanakan satu kali sehari dan dibaca sebagai curah hujan hari sebelumnya dengan waktu yang sama.

### 2.5 Alat Pengukur Curah Hujan

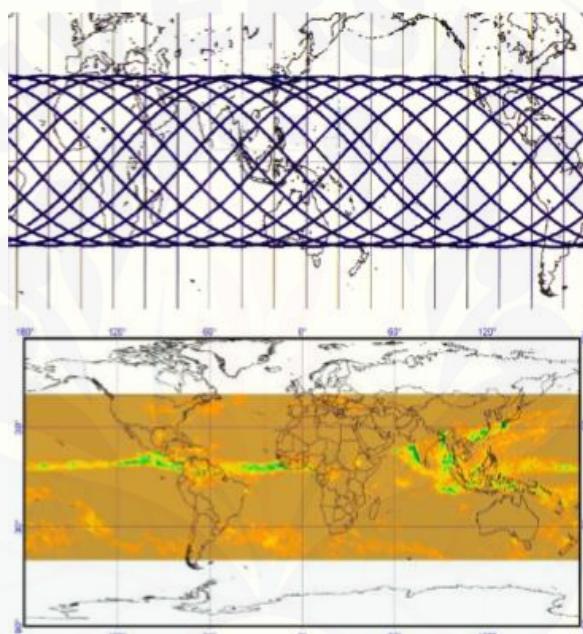
Dari beberapa jenis presipitasi, hujan adalah yang paling bisa diukur. Pengukuran dapat dilakukan secara langsung dengan menampung air hujan yang jatuh, namun tidak dapat dilakukan di seluruh wilayah tangkapan air, akan tetapi hanya dapat dilakukan pada titik-titik yang ditetapkan dengan menggunakan alat pengukur hujan (Triatmodjo, 2008).

### 2.6 Tropical Rainfall Measuring Mission (TRMM)

*Tropical Rainfall Measuring Mission* (TRMM) adalah proyek kerjasama antara badan antariksa Amerika Serikat (*National Aeronautics and Space Administration* : NASA) dan Jepang (*National Space Development Agency of Japan* : NASDA, sekarang berubah menjadi *Japan Aerospace Exploration Agency* : JAXA). Satelit ini diluncurkan pada November 1997 dan dirancang untuk memenuhi kebutuhan data curah hujan global, terutama di wilayah tropis. NASA

(2011) dalam Nadjmuddin (2012) menyatakan bahwa TRMM memiliki 3 (tiga) sensor utama, yaitu sensor *Precipitation Radar* (PR), *TRMM Microwave Imager* (TMI), dan *Visible and Infrared Scanner* (VIRS).

Secara khusus kanal PR dan TMI mempunyai misi dalam estimasi curah hujan. Kedua kanal ini mampu mengobservasi struktur hujan, jumlah dan distribusinya di daerah tropis dan sebagian sub tropis seperti yang ditunjukkan dalam Gambar 2.1 serta berperan penting untuk mengetahui mekanisme perubahan iklim global dan memonitoring variasi lingkungan.



Sumber : <http://trmm.gsfc.nasa.gov>

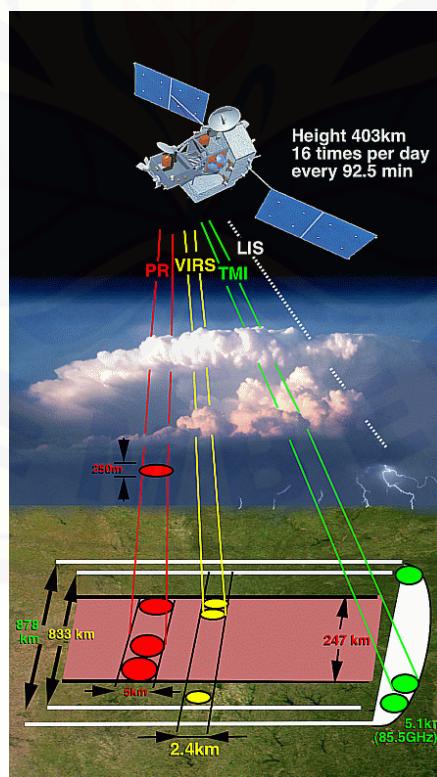
Gambar 2.1 Orbit dan Jangkauan Satelit TRMM

Sensor PR memiliki frekuensi 13,8 GHz dan mampu mengukur distribusi presipitasi secara tiga dimensi pada wilayah daratan maupun lautan. Selain itu sensor ini juga mampu menentukan kedalaman lapisan presipitasi. Pada Sensor TMI, sensor ini bekerja pada 5 frekuensi yaitu 10,65 ; 19,35 ; 37,0 ; dan 85,5 GHz polarisasi ganda dan pada 22,235 GHz polarisasi tunggal. Dari sensor TMI ini dapat diekstraksi data *integrated column precipitation content*, air cair dalam awan (*cloud liquid water*), es dalam awan (*cloud ice*), intensitas hujan dan tipe hujan. Sensor VIRS memiliki 5 kanal pada panjang gelombang 0,63 ; 1,6 ; 3,75, 10,8 dan 12  $\mu\text{m}$ .

Sensor ini digunakan untuk memantau liputan awan, jenis awan dan temperatur puncak awan. Resolusi spasial dari data yang dihasilkan oleh sensor VIRS ini adalah 2,2 km. Sensor lainnya yaitu *Lightning Imaging Sensor* (LIS) dan *Cloud and Earth's Radiant Energy System* (CERES).

Satelite TRMM memiliki resolusi spasial yaitu  $0,25^\circ \times 0,25^\circ$ ;  $0,5^\circ \times 0,5^\circ$ ;  $1,0^\circ \times 1,0^\circ$  dan  $5,0^\circ \times 5,0^\circ$  dengan resolusi temporal dari tiap 3 jam-an (*3-hourly*) dan bulanan (*monthly*). Ketersediaan data ini dimulai dari rentang pengamatan pada 4 Januari 1998 hingga sekarang. Sehingga data TRMM ini sangat baik digunakan untuk mengkaji pola curah hujan di suatu wilayah yang luas baik secara spasial maupun temporal.

TRMM merupakan satelite yang berorbit secara polar, yaitu mengelilingi bumi dengan melewati kedua kutub bumi. Satelite ini berada di ketinggian 403 km di atas permukaan bumi dan mengorbit sebanyak 16 kali setiap harinya dengan menghabiskan waktu rata-rata 92.5 menit untuk satu kali orbit. Secara khusus kanal TMI memiliki resolusi spasial 5.1 km.



Sumber: <http://trmm.gsfc.nasa.gov>

Gambar 2.2 Ilustrasi Cara Kerja Satelite TRMM

Penelitian mengenai evaluasi data hujan satelit terhadap data observasi di Indonesia telah banyak dilakukan, seperti evaluasi data hujan *Climate Prediction Center Morphing Method* (CMORPH) oleh Oktavariani (2008), data hujan *Global Satellite Mapping of Precipitation* (GSMap) dan TRMM oleh Wibowo (2010). Berdasarkan penelitian Wibowo (2010), didapatkan bahwa evaluasi keluaran data hujan TRMM harian pada wilayah Jakarta – Bogor memiliki korelasi lebih dari 60%, sedangkan untuk data bulanan korelasi data TRMM terhadap data curah hujan observasi memiliki korelasi minimum 60%.

Mamenun (2013) juga telah melakukan penelitian mengenai pengembangan model pendugaan hujan bulanan menggunakan satelit TRMM pada tiga pola hujan di Indonesia. Berdasarkan hasil penenlitian tersebut, menyatakan bahwa pada wilayah hujan mosun, secara konsisten pada musim kemarau data satelit TRMM menunjukkan kecenderungan cukup tepat terhadap data observasi, sedangkan pada musim hujan data menunjukkan intensitas overestimate. Pada wilayah equatorial, data TRMM menunjukkan overestimate yang cukup besar pada puncak musim hujan. Sementara pada wilayah local, intensitas hujan satelit TRMM cenderung underestimate pada musim hujan dan cukup dekat dengan data observasi pada musim kemarau.

Data-data hujan yang diperoleh dari satelit TRMM telah diaplikasikan untuk berbagai kepentingan seperti pengamatan iklim/cuaca, analisis iklim, analisis anomali hujan, verifikasi model iklim, dan studi hidrologi. Berbagai produk data dari satelit TRMM dapat diunduh secara gratis melalui website <http://mirador.gsfc.nasa.gov>.

## 2.7 Jaringan Syaraf Tiruan (*Artificial Neural Network*)

Jaringan Syaraf Tiruan (JST) atau neural network merupakan suatu metode komputasi yang meniru sistem jaringan biologis. Metode ini menggunakan elemen perhitungan non-linier dasar yang disebut neuron yang diorganisasikan sebagai jaringan yang saling berhubungan, sehingga mirip dengan jaringan syaraf manusia. Jaringan syaraf tiruan dibentuk untuk memecahkan suatu masalah tertentu seperti pengenalan pola atau klasifikasi karena proses pembelajaran (Yani, 2005).

Layaknya neuron biologi, JST juga merupakan sistem yang bersifat “*fault tolerant*” dalam 2 hal. Pertama, dapat mengenali sinyal input yang agak berbeda dari yang pernah diterima sebelumnya. Kedua, tetap mampu bekerja meskipun beberapa neuronnya tidak mampu bekerja dengan baik. Jika sebuah neuron rusak, neuron lain dapat dilatih untuk menggantikan fungsi neuron yang rusak tersebut.

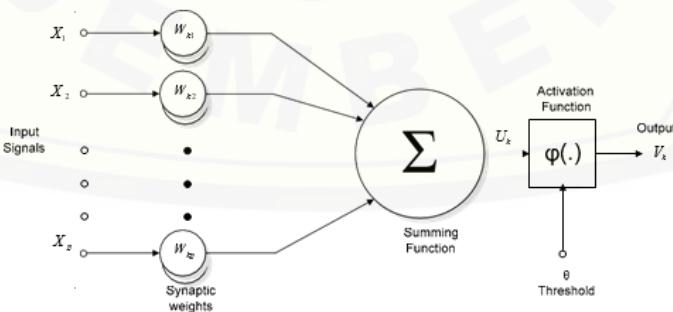
JST seperti manusia, belajar dari suatu contoh karena mempunyai karakteristik yang adaptif, yaitu dapat belajar dari data-data sebelumnya dan mengenal pola data yang selalu berubah. Selain itu, JST merupakan sistem yang tak terprogram, artinya semua keluaran atau kesimpulan yang ditarik oleh jaringan didasarkan pada pengalamannya selama mengikuti proses pembelajaran/pelatihan.

JST ditentukan oleh 3 hal (Siang, 2005) :

1. Pola hubungan antar neuron (disebut arsitektur jaringan).
2. Metode untuk menentukan bobot penghubung (disebut metode *training/learning*).
3. Fungsi aktivasi, yaitu fungsi yang digunakan untuk menentukan keluaran suatu neuron.

### 1.7.1 Model Neuron

Satu sel syaraf terdiri dari tiga bagian, yaitu: fungsi penjumlahan (*summing function*), fungsi aktivasi (*activation function*), dan keluaran (*output*).



Sumber: Siang, Jong Jek, 2005

Gambar 2.3 Model Neuron

Neuron pada JST mirip dengan sel neuron biologis. Informasi (input) akan dikirim ke neuron dengan bobot tertentu. Input ini akan diproses oleh suatu fungsi yang akan menjumlahkan nilai-nilai bobot yang ada. Hasil penjumlahan kemudian akan dibandingkan dengan suatu nilai ambang (*threshold*) tertentu melalui fungsi aktivasi setiap neuron. Apabila input tersebut melewati suatu nilai ambang tertentu, maka neuron tersebut akan diaktifkan, jika tidak, maka neuron tidak akan diaktifkan. Apabila neuron tersebut diaktifkan, maka neuron tersebut akan mengirimkan output melalui bobot-bobot outputnya ke semua neuron yang berhubungan dengannya. Sehingga dapat disimpulkan bahwa neuron terdiri dari 3 elemen pembentuk, yaitu:

1. Himpunan unit-unit yang dihubungkan dengan jalur koneksi. Jalur-jalur tersebut memiliki bobot yang berbeda-beda. Bobot yang bernilai positif akan memperkuat sinyal dan yang bernilai negatif akan memperlemah sinyal yang dibawa. Jumlah, struktur, dan pola hubungan antar unit-unit tersebut akan menentukan arsitektur jaringan.
2. Suatu unit penjumlah yang akan menjumlahkan input-input sinyal yang sudah dikalikan dengan bobotnya.
3. Fungsi aktivasi yang akan menentukan apakah sinyal dari input neuron akan diteruskan ke neuron lain atau tidak.

### 2.7.2 Konsep Dasar Jaringan Syaraf Tiruan

Setiap pola-pola informasi input dan output yang diberikan kedalam JST diproses dalam neuron. Neuron-neuron tersebut terkumpul di dalam lapisan-lapisan yang disebut *neuron layers*. Lapisan-lapisan penyusun JST tersebut dibagi menjadi 3, yaitu (Siang, 2005) :

#### 1. Lapisan Input (*Input Layer*)

Unit-unit di dalam lapisan input disebut unit-unit input. Unit-unit input tersebut menerima pola inputan data dari luar yang menggambarkan suatu permasalahan.

#### 2. Lapisan Tersembunyi (*Hidden Layer*)

Unit-unit di dalam lapisan tersembunyi disebut unit-unit tersembunyi.

Dimana outputnya tidak dapat secara langsung diamati.

### 3. Lapisan Output (*Output Layer*)

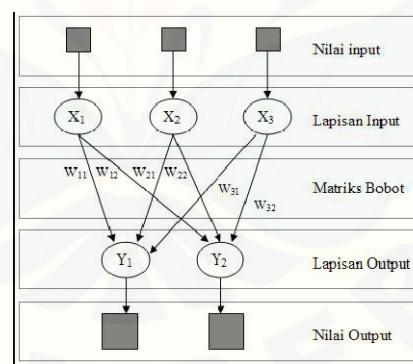
Unit-unit di dalam lapisan output disebut unit-unit output. Output dari lapisan ini merupakan solusi JST terhadap suatu permasalahan.

#### 2.7.3 Arsitektur Jaringan

JST memiliki beberapa arsitektur yang sering digunakan dalam berbagai aplikasi. Arsitektur JST tersebut, antara lain (Kusumadewi 2003) :

##### 1. Jaringan Layar Tunggal (*Single Layer Network*)

Jaringan dengan lapisan tunggal terdiri dari 1 *layer* input dan 1 *layer* output. Setiap neuron/unit yang terdapat di dalam lapisan/*layer* input selalu terhubung dengan setiap neuron yang terdapat pada *layer* output. Jaringan ini hanya menerima input kemudian secara langsung akan mengolahnya menjadi output tanpa harus melalui lapisan tersembunyi. Contoh algoritma JST yang menggunakan metode ini yaitu : ADALINE, Hopfield, Perceptron.

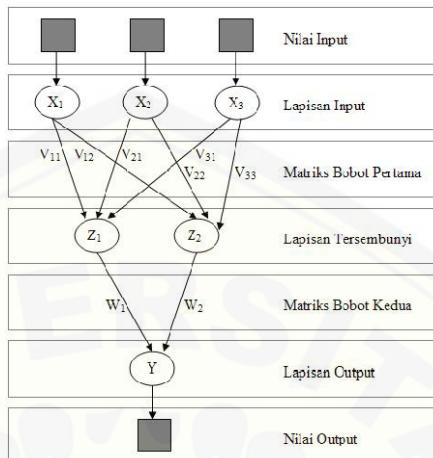


Gambar 2.4 Arsitektur Layar Tunggal

##### 2. Jaringan Layar Jamak (*Multi Layer Network*)

Jaringan dengan lapisan jamak memiliki ciri khas tertentu yaitu memiliki 3 jenis *layer* yakni *layer* input, *layer* output, dan juga *layer* tersembunyi. Jaringan dengan banyak lapisan ini dapat menyelesaikan permasalahan yang lebih kompleks dibandingkan jaringan dengan lapisan tunggal. Namun, proses pelatihan sering membutuhkan waktu

yang cenderung lama. Contoh algoritma JST yang menggunakan metode ini yaitu : MADALINE, *backpropagation*, *Neocognitron*.



Gambar 2.5 Arsitektur Layar Jamak

#### 1.7.4 Fungsi Aktivasi

Fungsi aktivasi dalam JST digunakan untuk menentukan keluaran suatu neuron. Argumen fungsi aktivasi adalah net masukan (kombinasi linier masukan dan bobotnya) (Siang, 2005).

Maka fungsi aktivasinya adalah :

Beberapa fungsi aktivasi yang digunakan adalah :

a) Fungsi *threshold* (batas ambang)

$$f(x) = \begin{cases} 1 & \dots x \geq a \\ 0 & \dots x \leq a \end{cases} \quad (2.3)$$

Fungsi  $threshold(3)$  merupakan fungsi  $threshold biner$ . Untuk kasus bilangan bipolar, maka angka 0 diganti dengan angka -1. Sehingga persamaan (3) diubah menjadi :

$$f(x) = \begin{cases} 1 & \dots x \geq a \\ -1 & \dots x \leq a \end{cases} \quad (2.4)$$

Adakalanya dalam JST ditambahkan suatu unit masukan yang nilainya selalu 1. Unit tersebut dikenal dengan bias. Bias dapat dipandang sebagai sebuah input yang nilainya selalu 1. Bias berfungsi untuk mengubah *threshold* menjadi =0.

b) Fungsi sigmoid

Fungsi ini sering digunakan karena nilai fungsinya yang sangat mudah untuk didiferensiasikan.

c) Fungsi identitas

Digunakan jika keluaran yang dihasilkan oleh JST merupakan sembarang bilangan riil (bukan hanya pada range  $[0,1]$  atau  $[1,-1]$ ).

### **1.7.5 Backpropagation Neural Network**

*Backpropagation* merupakan salah satu dari beberapa metode yang digunakan dalam *neural network* dan yang paling sering digunakan dalam berbagai bidang aplikasi, seperti pengenalan pola, peramalan dan optimisasi. Hal ini dikarenakan metode ini menggunakan pembelajaran yang terbimbing. Pola masukan dan target diberikan sebagai pasangan data. Bobot-bobot awal dilatih dengan melalui tahap maju untuk mendapatkan *error* keluaran yang selanjutnya *error* ini digunakan dengan tahap mundur untuk memperoleh nilai bobot yang sesuai agar dapat memperkecil nilai *error* sehingga target keluaran yang dikehendaki tercapai.

Tujuan dari model ini adalah untuk mendapatkan keseimbangan antara kemampuan jaringan mengenali pola yang digunakan selama proses pelatihan berlangsung serta kemampuan jaringan memberikan respon yang benar terhadap pola masukan yang berbeda dengan pola masukan selama pelatihan. Algoritma *backpropagation* terdiri dari dua bagian antara lain sebagai berikut :

#### a. Algoritma Pelatihan *Backpropagation* (*Training Process*)

Di dalam proses pelatihan *backpropagation* terdapat tiga tahap. Tahap pertama ialah tahap maju (*feed-forward*). Pada tahap ini seluruh proses awal inisialisasi bobot-bobot *input* dilakukan. Pada tahap ini juga ditentukan angka pembelajaran ( $\alpha$ ), nilai toleransi *error* dan jumlah *epoch* (siklus setiap pola pelatihan) yang diperlukan selama proses komputasi berlangsung.

Setelah semua proses inisialisasi dilakukan, maka langkah selanjutnya ialah proses maju. Setiap unit masukan  $x_i$  akan mengirimkan sinyal masukan ke lapisan tersembunyi. Setelah dihitung dengan menggunakan fungsi aktivasi maka keluarannya akan dikirimkan kelapisan di atasnya, yaitu lapisan *output*. Setelah nilai keluaran ( $y_k$ ) diperoleh, maka dibandingkan dengan target keluaran sebenarnya ( $t_k$ ). Selisih  $y_k - t_k$  disebut dengan *error* ( $\delta_k$ ). Jika nilai *error* lebih kecil atau sama dengan dari nilai ambang maka proses iterasi dihentikan, tetapi jika tidak maka nilai *error* tersebut digunakan untuk memodifikasi bobot-bobot untuk mengoreksi kesalahan yang terjadi.

Tahap kedua adalah tahap mundur atau *backpropagation*. Pada tahap ini, nilai *error* ( $\delta_k$ ) yang diperoleh pada lapisan *output* digunakan untuk mengoreksi bobot-bobot yang ada pada lapisan tersembunyi yang berhubungan langsung dengan lapisan *output*. Setelah itu nilai *error* ( $\delta_j$ ) di setiap unit pada lapisan tersembunyi juga dihitung untuk mengoreksi bobot-bobot yang menghubungkan lapisan *input* dengan lapisan tersembunyi. Tahap ketiga adalah tahap pengoreksian bobot. Setelah seluruh bobot pada lapisan *input* dan lapisan tersembunyi dimodifikasi sesuai dengan besar faktor *error*-nya, maka ketiga fase ini diulang secara terus menerus sampai kondisi berhenti dipenuhi. Kondisi berhenti yang dimaksud adalah jika jumlah *epoch* yang ditetapkan tercapai atau jika nilai *error* jaringan telah sama dengan atau lebih kecil dari nilai toleransi *error* yang ditetapkan sebelumnya. Pada tahap pelatihan, jaringan diharapkan dapat melatih seluruh data pelatihan yang diberikan untuk mendapatkan bobot akhir jaringan yang akan digunakan pada tahap pengujian. Struktur algoritma pelatihan *backpropagation* antara lain :

### 1. Inisialisasi bobot-bobot

Mentukan angka pembelajaran ( $\alpha$ ). Tentukan pula nilai toleransi *error* yang diinginkan dan set maksimal *epoch* jika ingin membatasi jumlah *epoch* yang digunakan.

2. Selama kondisi berhenti tidak terpenuhi, lakukan langkah ke-2 sampai 9.
  3. Setiap pasangan pola pelatihan, lakukan langkah ke-3 sampai ke-8.

### *Tahap maju (feedforward)*

4. Tiap-tiap unit *input* ( $x_i, i = 1, 2, 3, \dots, o$ ) menerima sinyal *input* dan meneruskan sinyal tersebut ke tiap-tiap unit pada lapisan tersembunyi.
  5. Tiap-tiap unit di lapisan tersembunyi ( $z_j, j = 1, 2, 3, \dots, p$ ) menjumlahkan sinyal-sinyal *input* yang berbobot, yaitu:

Keterangan : x : input

**z** : lapisan tersembunyi

Fungsi aktivasi untuk menghitung sinyal *output*, yaitu:

dan mengirimkan sinyal tersebut ke semua unit lapisan di atasnya (*lapisan output*).

6. Tiap-tiap unit di lapisan  $output$  ( $y_k, k = 1, 2, 3, \dots, m$ ) menjumlahkan sinyal  $input$  yang berbobot, yaitu:

Fungsi aktivasi untuk menghitung sinyal *output*, yaitu:

Keterangan : x : input

y : output

**z** : lapisan tersembunyi

w : bobot

### *Tahap mundur (Backpropagation)*

7. Tiap-tiap unit *output* k menerima pola target *tk* untuk menghitung error ( $\delta_k$ ), yaitu:

$$\delta_k = (t_k - y_k) f'(y_{net_k}) = (t_k - y_k) y_k (1 - y_k) \dots \quad (2.12)$$

Kemudian menghitung nilai koreksi bobot yang nantinya digunakan untuk memperbaiki nilai bobot antara lapisan tersembunyi dan lapisan *output* ( $w_{jk}$ ), yaitu:

Menghitung juga koreksi bias yang digunakan untuk memperbaiki nilai bias antara lapisan tersembunyi dan lapisan *output* ( $wk0$ ), yaitu:

8. Tiap-tiap unit pada lapisan tersembunyi ( $z_j, j = 1, 2, 3, \dots, p$ ) menjumlahkan sinyal-sinyal *input* dari lapisan *output*, yaitu:

Mengalikan nilai ini dengan fungsi aktivasi untuk menghitung *error* pada lapisan tersembunyi ( $\delta_j$ ), yaitu:

Kemudian hitung koreksi bobot untuk memperbaiki nilai bobot antara lapisan *input* dan lapisan tersembunyi ( $v_{ji}$ ), yaitu:

Kemudian menghitung koreksi bias untuk memperbaiki nilai bobot antara lapisan *input* dan lapisan tersembunyi ( $vj0$ ), yaitu:

## Tahap pengoreksan bobot

9. Tiap unit keluaran ( $y_k$ ,  $k = 1, 2, 3, \dots, m$ ) memperbaiki bobot dan bias, yaitu:

Tiap-tiap unit tersembunyi memperbaiki bobot dan bias, yaitu:

- #### 10. Tes kondisi berhenti

### b. Algoritma Pengujian *Backpropagation* (*Testing Process*)

Setelah proses pelatihan, *backpropagation* dapat digunakan untuk proses pengujian jaringan. Pada proses pengujian, tahap yang dilakukan hanya sampai tahap maju, tidak ada tahap mundur dan tahap modifikasi bobot.

Seluruh bobot *input* diambil dari nilai bobot terakhir yang diperoleh dari proses pelatihan. Pada tahap pengujian ini, jaringan diharapkan dapat mengenali pola berdasarkan data baru yang diberikan (generalisasi).

#### **1.7.6 Algoritma Levenberg-Marquardt**

*Algoritma Levenberg-Marquardt* merupakan pengembangan dari algoritma *error backpropagation*. Algoritma ini dibangun untuk mengatasi beberapa kekurangan yang ada pada algoritma *error backpropagation* dengan memanfaatkan Teknik optimasi numerik standar yaitu menggunakan pendekatan matriks Jacobian. Tujuan dari *Levenberg-Marquardt* adalah meminimalkan total error.

### **1.8 Proses Pengujian**

Pengujian arsitektur jaringan syaraf tiruan digunakan untuk mengetahui apakah arsitektur jaringan yang telah dilatih telah dapat mengenali pola-pola data, selain data latih, dengan baik atau tidak. Untuk menilai kedekatan atau kecocokan data hasil pemodelan dengan data hasil pengamatan, dilakukan uji kecocokan dengan menggunakan fungsi objektif atau fungsi kesalahan yang merupakan persamaan dari perhitungan dan pengamatan. Kesalahan pada keluaran jaringan merupakan selisih antara keluaran sebenarnya (*current output*) dan keluaran yang diinginkan (*desired output*). Selisih yang dihasilkan antara keduanya biasanya ditentukan dengan cara dihitung menggunakan suatu persamaan.

#### a. R (Koefisien Korelasi)

Koefisien korelasi ialah pengukuran statistik kovarian atau asosiasi antara dua variabel. Besarnya koefisien korelasi berkisar antara +1 s/d -1. Koefisien korelasi menunjukkan kekuatan (*strength*) hubungan linier dan arah hubungan dua variabel acak. Jika koefisien korelasi positif, maka kedua variabel mempunyai hubungan searah. Artinya jika nilai variabel X tinggi, maka nilai variabel Y akan tinggi pula. Sebaliknya jika koefisien korelasi negatif, maka

kedua variabel mempunyai hubungan terbalik. Artinya jika nilai X tinggi, maka nilai variabel Y akan menjadi rendah dan berlaku sebaliknya. Untuk memudahkan melakukan interpretasi mengenai kekuatan hubungan antara dua variabel kriterianya ditunjukkan pada Tabel 2.2.

Tabel 2.2 Kriteria dan Batasan Koefisien Korelasi

Rentang	Kriteria
0	Tidak ada korelasi antara dua variabel
>0 - 0,25	Korelasi sangat lemah
>0,25 - 0,5	Korelasi cukup
>0,5 - 0,75	Korelasi kuat
>0,75 - 0,99	Korelasi sangat kuat
1	Korelasi sempurna

Sumber : Sarwono, 2006

$$R = \frac{n\sum XY - (\sum X)(\sum Y)}{\sqrt{(n\sum(X)^2 - (\sum X)^2)(n\sum(Y)^2 - (\sum Y)^2)}} \dots \quad (2.21)$$

Dengan : n = Banyaknya Pasangan data X dan Y

$\Sigma Y$  = Total Jumlah dari Variabel X

$\Sigma Y$  = Total Jumlah dari Variabel Y

$\Sigma X^2$  = Kuadrat dari Total Jumlah Variabel X

$\Sigma Y^2$  = Kuadrat dari Total Jumlah Variabel Y

$\Sigma XY$  = Hasil Perkalian dari Total Jumlah Variabel X dan Variabel Y

b. MSE (*Mean Square Error*)

MSE merupakan rata-rata dari seluruh kesalahan perhitungan dengan mengkuadratkan masing-masing kesalahan pada masing kesalahan pada tiap item. MSE sangat baik dalam memberikan gambaran terhadap seberapa konsisten model yang dibangun. Dengan meminimalkan nilai MSE, berarti meminimalkan varian model.

Dengan :  $y_i(t)$  = penjumlahan output hasil presiksi

$dj(t)$  = output aktual

## BAB 3. METODE PENELITIAN

### 3.1 Lokasi Penelitian

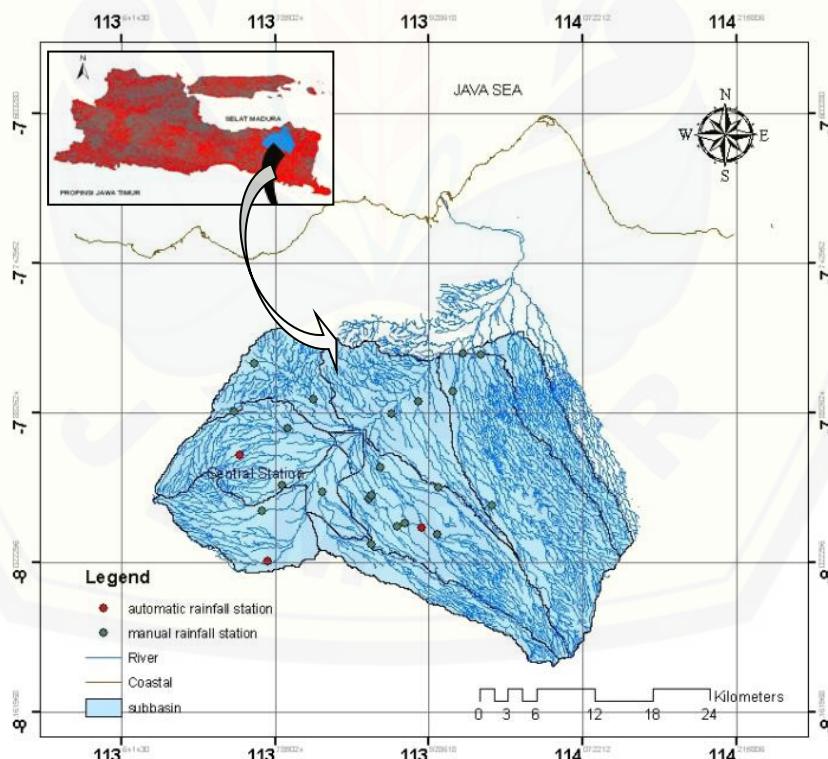
Lokasi penelitian berada di daerah aliran sungai (DAS) Sampean Baru yang terletak di Kabupaten Bondowoso, provinsi Jawa Timur. DAS Sampean Baru memiliki luas wilayah  $1.206 \text{ km}^2$ , secara astronomis berada pada koordinat antara  $7^{\circ}70'10'' - 8^{\circ}00'41'' \text{ LS}$  dan  $113^{\circ}60'10'' - 114^{\circ}12'26'' \text{ BT}$ . Secara administrasi Kabupaten Bondowoso dibatasi oleh :

Sebelah Utara : Kabupaten Situbondo

Sebelah Timur : Kabupaten Situbondo dan Kabupaten Banyuwangi

Sebelah Selatan : Kabupaten Jember

Sebelah Barat : Kabupaten Situbondo dan Kabupaten Probolinggo



Sumber: Hidayah E., dkk, 2010

Gambar 3.1 Peta DAS Sampean Baru

### 3.2 Waktu Penelitian

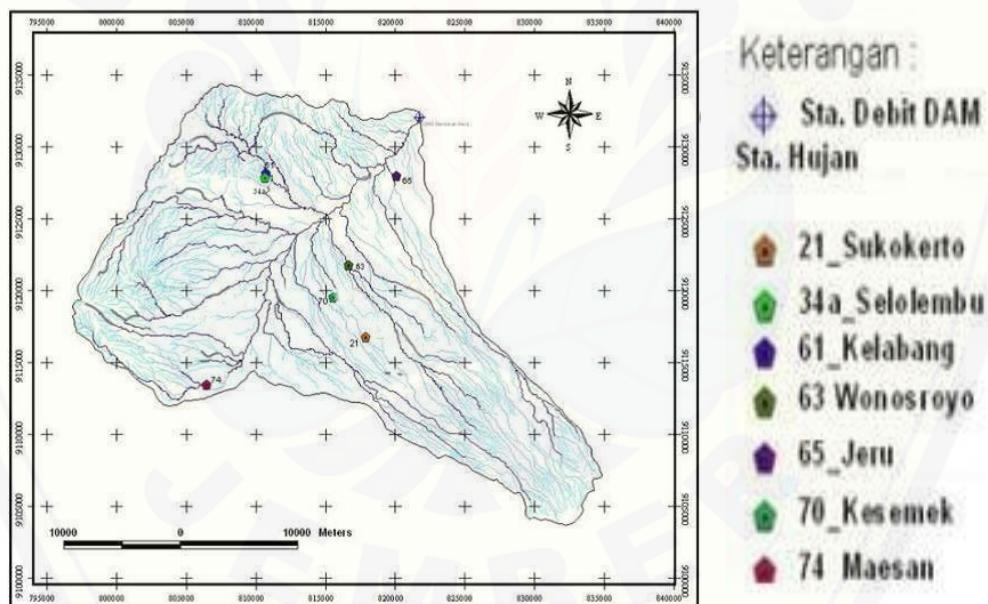
Pelaksanaan penelitian tugas akhir ini dilaksanakan selama 7 bulan (bulan Januari s/d bulan Juli 2017).

### 3.3 Data Penelitian

#### 3.3.1 Data Curah Hujan Observasi

Adapun data yang diperlukan terdiri dari data hujan harian stasiun hujan DAS Sampean Baru tahun 2007-2016.

- |                         |                       |
|-------------------------|-----------------------|
| 1. Sta. Hujan Sukokerto | 5. Sta. Hujan Jeru    |
| 2. Sta. Hujan Selolembu | 6. Sta. Hujan Kesemek |
| 3. Sta. Hujan Kelabang  | 7. Sta. Hujan Maesan  |
| 4. Sta. Hujan Wonosroyo |                       |



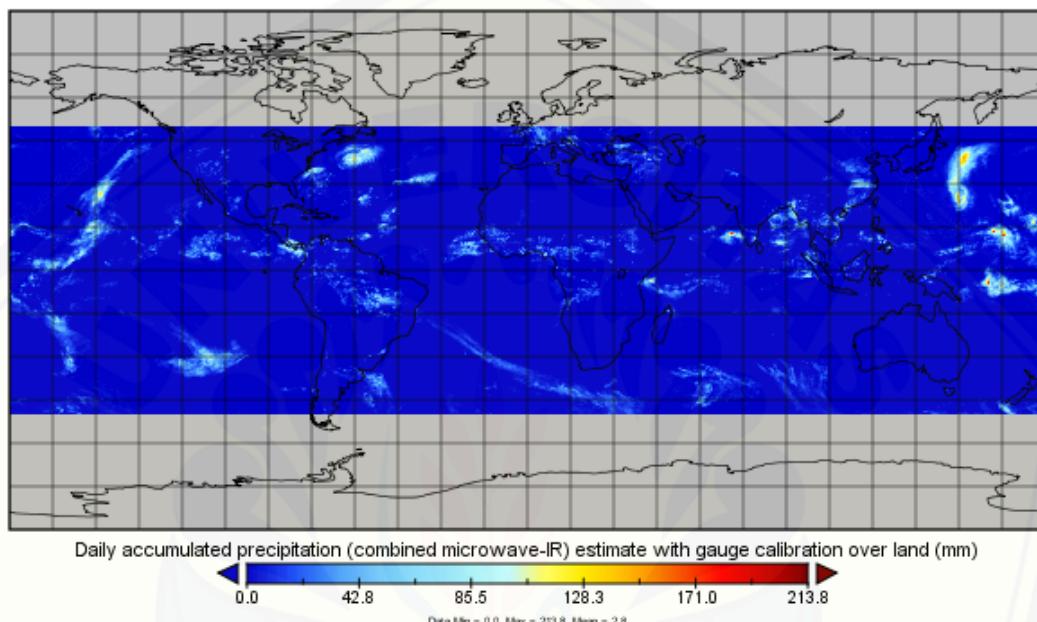
Gambar 3.2 Peta Stasiun Hujan DAS Sampean Baru

Pengambilan data curah hujan observasi hanya dilakukan di 7 (tujuh) stasiun pengamatan. Stasiun hujan yang dipilih berdasarkan jumlah data dan rentan waktu yang lengkap.

### 3.3.2 Data Curah Hujan Satelit TRMM 3B42

Pengambilan data satelit luaran TRMM 3B42 *Daily* berbagai domain *grid* mulai tahun 2007-2016 disesuaikan dengan letak koordinat DAS Sampean Baru, dengan batasan Bujur 113,375 – 114,625 dan Lintang -7.375 – -8,625.

Daily accumulated precipitation (combined microwave-IR) estimate with gauge calibration over land



Sumber : <http://trmm.gsfc.nasa.gov>

Gambar 3.3 Peta Hujan Global Satelit TRMM 3B42

## 3.4 Tahap Penelitian

### 3.4.1 Survei Pendahuluan

Survei pendahuluan dilakukan untuk mengetahui perkembangan pemanfaatan data hujan TRMM 3B42, khususnya yang berhubungan dengan bidang hidrologi. Sumber literatur diperoleh dari : website, jurnal, dan *handbooks*. Dasar kerangka teoritis ini yang digunakan untuk melakukan pengembangan dalam memprediksi curah hujan menggunakan data atmosfer luaran TRMM 3B42 *Daily* yang menggunakan metode Jaringan Syaraf Tiruan (JST).

### 3.4.2 Studi Pustaka

Studi Pustaka merupakan tahapan untuk menambah wawasan dan masukan terhadap permasalahan serta mengidentifikasi seluruh permasalahan yang ada sehingga dapat diambil langkah selanjutnya untuk memecahkan permasalahan yang terjadi.

### 3.4.3 Pengumpulan Data

Data sirkulasi atmosfer diambil dari satelit TRMM 3B42. Periode pengambilan data variabel prediksi yang didapat dari website : [mirador.gsfc.nasa.gov](http://mirador.gsfc.nasa.gov). Sedangkan data curah hujan beberapa stasiun diambil dari Unit Pelaksana Teknis Pengelolaan Sumber Daya Air Bondowoso.

### 3.4.4 Pengolahan Data

#### A. Penentuan Grid TRMM 3B42 (*Cropping* Data)

Penentuan ukuran grid TRMM 3B42 yaitu menentukan letak titik yang sesuai dengan letak koordinat DAS Sampean Baru, kemudian dilakukan *cropping* data untuk memperoleh data hujan TRMM 3B42 sesuai grid yang telah ditentukan yaitu grid persegi (1x1, 2x2, 3x3, 4x4, 5x5) dan persegi panjang (1x2, 2x3, 3x4, 4x5). Selanjutnya hasil *cropping* TRMM 3B42 dipindahkan ke dalam bentuk data *Microsoft Excel* dan mengorelasikannya dengan data stasiun hujan. Contoh hasil *cropping* ditunjukkan pada Gambar 3.4.

		X-Axis: Longitude (degrees_east)							
		113.125	113.375	113.625	113.875	114.125	114.375	114.625	Avg.
Y-Axis: Latitude (degrees_north)	-7.125	2.0	0.0	0.0	0.0	0.0	2.8	5.4	
	-7.375	0.0	0.0	0.0	0.0	0.0	1.8	2.8	
	-7.625	0.0	0.0	0.0	0.0	0.0	0.0	3.3	
	-7.875	0.0	0.0	0.0	0.0	0.0	0.0	1.7	
	-8.125	0.0	0.0	0.0	0.0	1.0	3.3	0.0	
	-8.375	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	-8.625	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	-8.875	0.0	0.0	0.0	0.9	0.0	0.0	0.0	
	-9.125	0.3	0.0	0.0	0.6	0.9	0.0	0.0	5.8
	-9.375	1.6	0.5	0.8	1.2	1.0	0.3	0.0	5.9
	-9.625	3.1	1.8	2.1	1.9	1.2	0.3	0.0	6.2
	-9.875	2.4	2.0	2.3	0.8	0.3	0.0	0.3	6.1
	-10.125	0.8	0.5	0.0	0.0	0.0	0.0	0.0	6.3
	-10.375	0.0	0.0	0.0	0.0	0.2	0.0	0.3	6.2
	-10.625	0.0	0.0	0.0	0.0	0.4	1.6	2.0	6.3

Sumber : <http://trmm.gsfc.nasa.gov>

Gambar 3.4 *Cropping* Data Hujan Satelit TRMM 3B42

## B. Pengolahan Data

Tahapan dari pengolahan data menggunakan pemodelan JST meliputi :

### 1. Normalisasi

Normalisasi berfungsi untuk menormalkan range data yang memiliki perbedaan signifikan, misalnya data curah hujan harian yang memiliki range data 0-1000. Normalisasi dilakukan dengan cara nilai curah hujan sesungguhnya dari data sekunder dirubah kedalam fungsi *sigmoid* yang memiliki range nilai 0-1. Fungsi *sigmoid* ini dipakai sebagai kebutuhan dalam fungsi aktivasi.

### 2. Input data

Data yang digunakan sebagai nilai input adalah data hujan hasil *cropping* dari satelit TRMM 3B42 yang sesuai dengan ukuran grid kemudian dibagi menjadi prosentase 70% data sebagai *training*, 15% sebagai validasi, dan 15% sebagai *testing*. Sedangkan data yang digunakan sebagai nilai target adalah data hujan observasi.

### 3. Penentuan arsitektur jaringan

Penentuan arsitektur jaringan berupa penentuan pola jaringan meliputi *input layer*, *hidden layer*, dan *output layer*. *Input layer* disesuaikan dengan jumlah banyaknya data yang akan diproses, untuk *hidden layer* perlu dilakukan uji coba (*trial*), sedangkan untuk *output layer* merupakan hasil dari proses running model.

### 4. Proses pelatihan jaringan

Proses pelatihan jaringan menggunakan algoritma *backpropagation* (propagasi balik). Di dalam jaringan ini, setiap unit yang berada di lapisan input terhubung dengan setiap unit yang ada di lapisan tersembunyi. Setiap unit yang ada dilapisan tersembunyi terhubung dengan setiap unit yang ada di lapisan output.

### 5. Pengujian

Dilakukan pengujian terhadap output dari pemodelan JST dengan data uji yaitu data hujan observasi, hal ini berfungsi untuk mengetahui keandalan model.

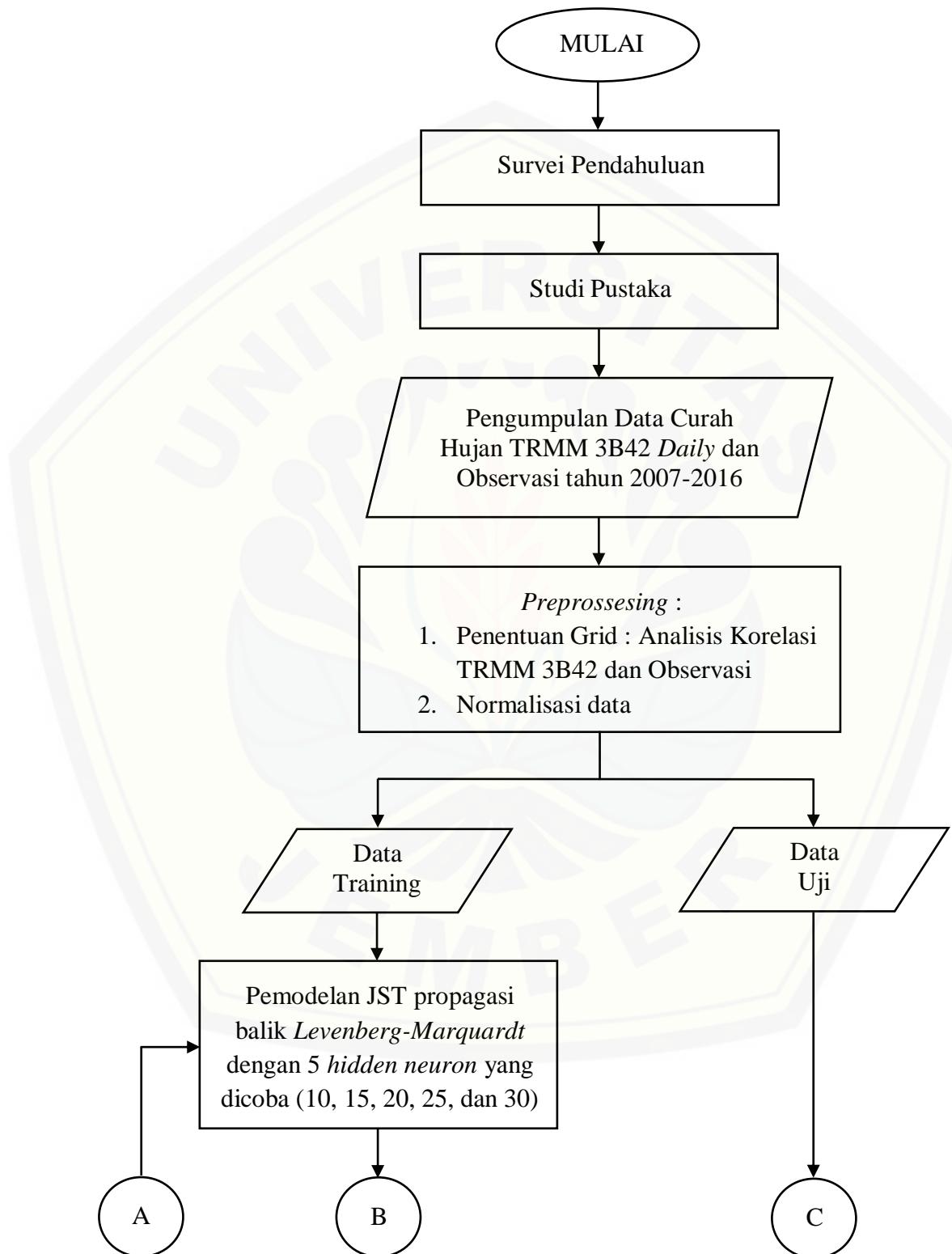
6. Validasi

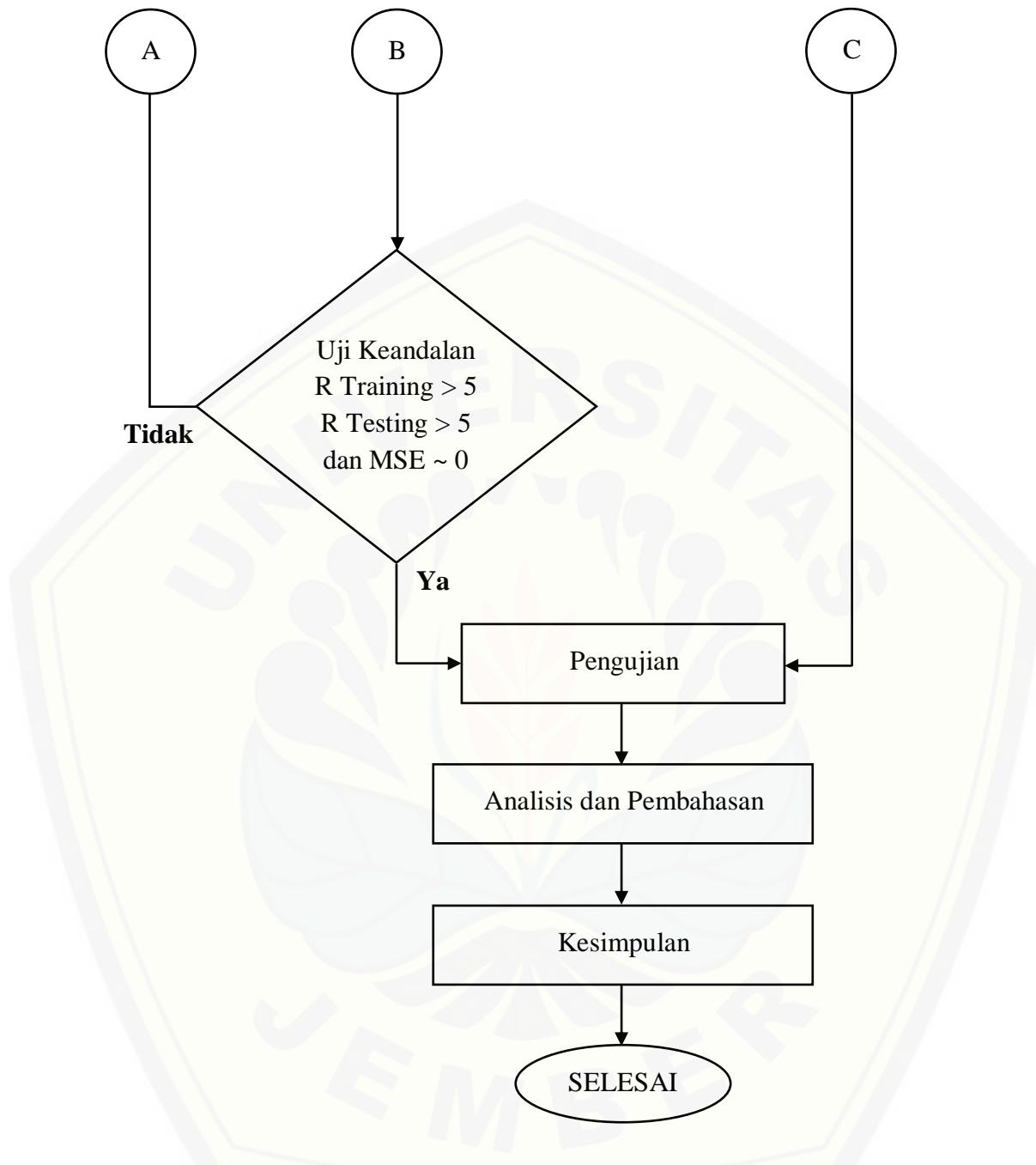
Uji validasi untuk mengetahui nilai *error* dengan kriteria R atau MSE.

7. Pembahasan

Pembahasan dan pengambilan kesimpulan dari hasil penelitian yang telah dilakukan.

### 3.5 Diagram Alir Penelitian





Gambar 3.5 Diagram Alir Penelitian

## BAB 5. PENUTUP

### 5.1. Kesimpulan

Berdasarkan hasil dan pembahasan pada bab sebelumnya, maka dapat diambil kesimpulan sebagai berikut :

1. Pemodelan JST menunjukkan hasil nilai korelasi antara data hujan satelit TRMM 3B42 dengan data hujan observasi pada DAS Sampean Baru cukup baik, yaitu dengan nilai  $R$  *training* 0,68402 dan nilai  $R$  *testing* 0,68650 dengan nilai *error* yang diperoleh dari uji MSE yaitu 0,0008014.
2. Penentuan ukuran *grid* TRMM mempengaruhi hasil korelasi antara data curah hujan TRMM dengan data curah hujan observasi. Ukuran *grid* optimal untuk wilayah DAS Sampean Baru adalah *grid* 2x2.

### 5.2. Saran

Adapun beberapa saran terkait dengan penelitian yang telah dilaksanakan adalah:

1. Penelitian sejenis perlu di uji coba pada DAS lain.
2. Perlu dilakukan penelitian lanjut terhadap efek spasial pada masing-masing stasiun hujan.
3. Perlu dikaji pengaruh periode panjang data terhadap akurasi model.

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**Lampiran A. Tabel Data Curah Hujan *Input* (Data Satelit TRMM), Target (Data Observasi) dan *Output* JST untuk Grid Optimal 2x2 :**

Precipitation Water	1	2	3	4	5	6	7	8	9	7 STA	Output
Tanggal	Bujur	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	Rerata CH	JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
01/01/2007	0	0	0	0	4	0	0	8.7	0	12.86	3.25
02/01/2007	17.2	62.1	51.2	20	20.9	7.7	9.8	14.5	22.4	11.57	14.71
03/01/2007	0	0	0	0	0	0	0	0	0	19.29	1.85
04/01/2007	0	0	0	0	0	0	0	0	0	2.71	1.85
05/01/2007	0	0	0	0	0	0	0	0	0	12.29	1.85
06/01/2007	0	0	0	0	0	0	0	0	0	6.29	1.85
07/01/2007	0	0	8.5	0	0	0	0	0	0	0.00	2.68
08/01/2007	0	0	0	0	0.8	0	0	0	0	5.71	1.99
09/01/2007	0	0	0	0	0	0	0	0	0	3.29	1.85
10/01/2007	0	0	0	0	0	0	0	0	0	0.00	1.85
11/01/2007	0	0	0	0	0	0	0	0	0	2.14	1.85
12/01/2007	0	0	0	0	0	0	0	0	0	0.00	1.85
13/01/2007	4.1	0	0	0	0	8.1	0	0	0	1.57	4.59
14/01/2007	0	0	0	3.9	0	2.5	0	0	0	3.14	3.36
15/01/2007	0	0	0	0	0	0	0	0	0	3.29	1.85
16/01/2007	0	0	8.3	0	0	0	0	0	0	6.00	2.66
17/01/2007	0	0	0	0	0	0	0	0	0	9.43	1.85
18/01/2007	7.8	15.1	16.8	8.2	8.4	12.7	23.8	42.2	35.2	18.14	13.84
19/01/2007	42.2	40.7	12.7	15.7	21.2	38.6	0	0	16.6	25.86	8.34
20/01/2007	8.1	9	0	0	0	0	36.5	29.8	0	4.57	4.64
21/01/2007	0	0	0	20.8	71.7	0	63.8	37.3	15.3	0.00	13.50
22/01/2007	1.5	3.8	29.9	8.3	6.8	31.9	38.1	15.3	23.1	4.86	8.17
23/01/2007	0	0	0	0	7.1	8.3	9.2	8.7	14	12.86	6.80
24/01/2007	0	0	2.9	0	0	1.7	10.3	0	2.7	16.14	3.23
25/01/2007	0	0	0	0	0	21.6	0	0	0	7.14	6.40
26/01/2007	0	0	0.2	6.2	1.2	3.6	0	10.3	2.3	17.14	5.63
27/01/2007	25.9	6.2	3.8	12.6	20.4	16.2	5.7	30	24.6	9.57	16.25
28/01/2007	16.7	0	10.5	46.8	27.9	19	0	0	0	25.00	15.31
29/01/2007	0	0	0	25.2	0	7.5	0	0	11	1.29	6.47
30/01/2007	0	0	0.1	0	0	0	0	0	0	6.14	1.86
31/01/2007	54.6	35.4	25.8	0	0	0	0	0	0	22.43	10.59
01/02/2007	0	0	0	0	2.9	4.5	0	0	0	18.86	3.61
02/02/2007	24.1	24.4	21.4	31.7	7.2	0	0	2.3	0	29.86	11.10
03/02/2007	35.8	14.8	25.2	4.4	2.2	6.8	14.2	1.6	0	12.29	13.87
04/02/2007	0	0	0	0	1.1	1.1	14.3	3.6	17.4	13.57	3.57
05/02/2007	11.6	2.7	0	4.9	0	0	0	9.4	0.5	11.57	5.80
06/02/2007	0	0	4.5	17.8	8.8	8.4	16.2	22.3	0	0.43	11.11
07/02/2007	0	0	13.8	0	5.3	12.3	0	1.2	1.3	0.00	6.40
08/02/2007	14.5	81.9	16.1	10.3	14.2	10.8	2.7	4	6.4	7.14	7.31
09/02/2007	7.3	0	5.1	29	18.1	19.3	37.7	24.9	39.5	6.43	14.75
10/02/2007	0	19.9	35.2	6.1	28.2	35.5	0	9	19.3	10.29	9.83
11/02/2007	5.6	0	7.2	0	8.1	4	4.4	12	1.8	5.57	6.86
12/02/2007	0	0	0	0	0	0	0	0	0	4.57	1.85
13/02/2007	0	0	0	3	9	0	6.5	8	0	0.43	5.16
14/02/2007	0	0	0	1.3	0	0	0	9.3	0.1	1.29	3.14
15/02/2007	8.7	0	0	30.3	8.1	13.1	44.4	8.8	4	6.71	13.01
16/02/2007	0	0	0	0	0.3	3.4	15.8	19.3	11.5	25.71	5.74
17/02/2007	0	0	2	3.2	11.4	9.7	9.1	8.2	0	4.57	8.36
18/02/2007	0	0	0	8.5	1.6	0	4.4	4.9	2.1	12.29	4.78
19/02/2007	5.2	0	0	3	0	0	6.5	7.8	0	30.14	4.64
20/02/2007	23.5	7.8	2.8	20.5	19.2	3	34.5	5.4	0	20.14	17.24
21/02/2007	0	0	0	43.2	24.4	36.8	57.8	21	15.9	12.00	13.43
22/02/2007	35.8	52.9	35.2	15	18	2.7	4.4	0.8	0	0.14	11.51
23/02/2007	60.5	18	0	0	0	15.7	5.4	21	9.57	5.84	
24/02/2007	19.1	0	16.2	14.2	14	12.7	24.4	38.2	69.6	6.29	8.81
25/02/2007	37.3	31.4	31.6	42.4	36.5	37.9	6.5	22.4	13.6	12.29	13.23
26/02/2007	0	0	3.1	18.1	47.2	27.8	17.3	54.2	12.8	16.43	8.54
27/02/2007	0	26.4	0	9.4	0	22.3	8.1	1.7	9.3	1.14	4.56
28/02/2007	10.5	0.5	3.6	0.1	0	0	1.3	0	0	1.43	3.82
01/03/2007	0.5	0	0	8.9	7.1	12.8	10.2	23.9	28.7	18.00	11.76
02/03/2007	13.4	18.2	19.6	11.9	23	38.4	5.9	10.4	8.3	8.71	11.18

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
03/03/2007	0	0	0	0.9	2.7	1.6	1.8	1.7	2.4	1.71	3.26	
04/03/2007	29.5	40.7	55.3	61.1	76.9	34.9	13.9	18.3	4.4	28.57	27.21	
05/03/2007	37.2	48.8	68.2	52.9	51.5	18.9	15.8	6.6	5.9	25.29	28.68	
06/03/2007	12	5.4	8.1	10.5	12.7	18.1	7.2	15.7	14	27.57	12.44	
07/03/2007	30.4	20.5	25.3	36.5	29.1	12.7	27.9	30.6	21.2	35.29	19.02	
08/03/2007	0	0	0	0	0	0	0	0	0	8.57	1.85	
09/03/2007	0	0	1	0	0	0	0.8	0	0	1.71	1.99	
10/03/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/03/2007	0	0	0	0	0	0	0	0	6	0.43	1.79	
12/03/2007	0	0	0	2.3	3.8	7.5	10.9	31	29.3	0.00	10.14	
13/03/2007	1.7	5.4	0	8.2	11	14.5	1.7	7.3	7.7	0.57	9.31	
14/03/2007	6.1	8.8	7.4	3	3.6	13.5	0	0.9	7.1	0.00	5.89	
15/03/2007	1.2	2.3	6.3	15.7	16.3	16.1	32.1	27.1	21.6	12.14	14.76	
16/03/2007	1.4	0.4	0.3	15.7	4.1	29.6	18.9	26.1	44.2	10.00	9.23	
17/03/2007	3	5.1	4	4.9	8.5	0.7	10.1	2	1.6	0.43	6.12	
18/03/2007	0	0	2.2	0	0	0	0.4	0.4	0.9	3.14	2.10	
19/03/2007	51	57.5	32.9	31.6	35.2	41.4	76	33.3	42.6	30.57	16.32	
20/03/2007	0	0	0.5	0	0	0	0	0	0	16.57	1.89	
21/03/2007	3.9	3.4	2.1	5.8	7.2	13.4	17.2	5.8	5.8	8.14	9.01	
22/03/2007	16.2	22.3	44	10.9	22.7	34.3	13.2	14.1	10.1	4.86	10.78	
23/03/2007	3.4	9.9	11.3	9.3	12.5	19.6	8.2	16.2	14.5	15.29	11.53	
24/03/2007	0	0	0	0	0.8	0.8	0	0	1.3	1.14	2.20	
25/03/2007	4.3	12.8	6.6	4.1	1.1	2.6	9.6	0.7	2.2	10.43	4.30	
26/03/2007	6.5	11.2	16.1	13.1	17.4	27	8.6	12.7	12.6	17.71	12.00	
27/03/2007	36.7	25	18.2	14.7	6.6	21.1	10.9	2.9	13.1	12.57	8.80	
28/03/2007	47.5	26.6	26	18	18.4	17.3	3.8	0.3	4.1	12.86	11.73	
29/03/2007	11.1	9.7	0.5	16.9	21	15	17.7	24.8	20.8	26.29	15.40	
30/03/2007	2.8	1.5	0	4.7	6.6	13.3	2.8	19	53.1	15.14	7.72	
31/03/2007	1	0	0	25.9	10.6	13.8	41.3	43.2	25.4	13.71	13.31	
01/04/2007	0	0	0	5.2	7.2	3.4	7.1	12.6	10.7	5.57	7.02	
02/04/2007	0	2.7	0	37.3	15.6	6.9	3.1	4.8	5.2	20.43	13.54	
03/04/2007	0	0	0	1.4	5.3	4.7	0	3.2	0.1	1.29	4.73	
04/04/2007	1.6	0	0	4.5	0	0	0	0	0	12.29	2.98	
05/04/2007	0	0	0	1.1	0	0	0.5	0	0	7.57	2.13	
06/04/2007	0	0	0	1.4	0	0	1.3	3.4	0	16.57	2.63	
07/04/2007	0	0	0	0.6	0.2	0	7.9	6.7	0.1	0.00	3.19	
08/04/2007	0	0	0	11	16.4	7.3	20.5	26.5	11.6	6.14	11.92	
09/04/2007	8.3	0	0	3.2	0	0	2.2	0	4.9	0.00	3.29	
10/04/2007	0	0	0	0	4.3	0	2.5	4.3	5.6	0.00	3.16	
11/04/2007	0	0	0	3.8	4.8	0	4.9	1.7	0	10.00	4.16	
12/04/2007	0	0	0	1.3	0	0	1.8	0	0	1.14	2.26	
13/04/2007	40.7	29.7	0.8	5.2	5.2	6	1.8	0.8	1.4	8.14	8.03	
14/04/2007	43.3	65.1	85.5	37.3	55.1	56.7	16.4	10.5	44.8	29.14	31.92	
15/04/2007	5.3	11	10.8	2	8	2.5	27.4	8.9	7.5	1.86	7.88	
16/04/2007	0	0	0	0.8	7.3	2.5	3.3	13.3	9.8	1.00	5.59	
17/04/2007	0	0	3.5	9.6	16.5	17.3	9.2	41.7	42.5	4.43	15.57	
18/04/2007	0	0	0	0.1	0	11.2	8.6	12.6	42.3	3.57	6.70	
19/04/2007	2.2	0	0	3.6	0	0	12.3	0.8	0	22.57	3.90	
20/04/2007	5.1	5.4	8.2	8.5	1.7	11.9	36.5	19.3	12.4	9.57	9.10	
21/04/2007	0	1.1	3.3	8.4	18.5	26.5	23	28	18.9	2.14	13.89	
22/04/2007	9.8	0	0	15.1	3.7	11.2	9	10.2	4.3	2.00	10.29	
23/04/2007	2.4	0	0	3.3	0	0	0	1.5	0	4.71	3.03	
24/04/2007	0	0	0	0	0	0.8	0	0	0	1.14	2.08	
25/04/2007	0	10	17.9	0	0	2	0	5.4	0	0.00	3.97	
26/04/2007	47.5	30.1	22.2	27.9	8	0.7	0	0	0	14.71	8.75	
27/04/2007	0	0	0	8.1	2.5	0	0	0	0	0.43	4.07	
28/04/2007	0	0	0	0	0	0	0	0	0	2.29	1.85	
29/04/2007	0	0	0	0	0	0	0	0	0	2.14	1.85	
30/04/2007	0	8.9	6.2	0	0	0	0	0	0	0.71	1.74	
01/05/2007	0	0	0	0	0	0	0	0	0	0.43	1.85	
02/05/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/05/2007	0	0	0	0	0	0	0	0	3.8	0.00	1.80	
04/05/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/05/2007	0	0	0	0	0	0	0	0	0	3.43	1.85	
06/05/2007	0	0	0	0	0	0.4	0	0	0	0.00	1.97	

Tanggal	Precipitation Water									Rerata CH Observasi	Output JST	
	Bujur	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125		
	Bujur	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125		
07/05/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/05/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/05/2007	0	0	0	0	0	0	0	0	0	0	1.14	1.85
10/05/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/05/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/05/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/05/2007	0	0	0	0	0	0	3.5	1	0	1.57	2.21	
14/05/2007	0	0	0.9	3.1	3.4	1.9	0	0	0	0.00	3.75	
15/05/2007	13.4	4.1	7.7	8.9	8	8	5.6	5.4	2.6	0.00	9.63	
16/05/2007	5.3	0	0	12.3	0	0	10.6	14.4	4.9	0.00	7.22	
17/05/2007	0	2	1.5	10.9	21.6	12.5	4	12.2	23.8	0.00	11.78	
18/05/2007	0	0	0	6	0	6.8	8.1	10.9	9.7	2.29	6.67	
19/05/2007	0	0	0	9.2	0	0	8.2	2.8	0	0.00	4.65	
20/05/2007	0	0	0	0	26.4	0	5.4	18.4	12.4	0.00	6.14	
21/05/2007	0	0	0	6.2	0	0	8	0	0	0.00	3.74	
22/05/2007	3.1	0	0	0	0	0	0	0	0	0.00	2.24	
23/05/2007	0	0	0	0	0	0	0	5	5.4	0.00	2.46	
24/05/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/05/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/05/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/05/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/05/2007	0	0	0	3.8	0	0	0	6.7	2.5	3.71	3.47	
29/05/2007	21.3	8.1	0.1	15.6	22.8	18.7	25.4	9.9	12.9	12.00	15.10	
30/05/2007	35.6	63.6	53.9	13.8	0	0	2.5	3.6	0	3.29	11.66	
31/05/2007	20.7	25.4	12.6	21.6	17.8	10.7	33.2	33.2	14.2	0.29	16.82	
01/06/2007	0	0	0	0	0	3.3	0	0	0.1	0.00	2.80	
02/06/2007	0	0	0	0	0	0	0.7	20.2	4.9	0.00	4.02	
03/06/2007	0	0	0	0	11.4	1.9	1.7	8.6	11.6	52.9	0.00	
04/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/06/2007	0	0	0	0	0	20.2	8.1	0	0	0	1.86	
06/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/06/2007	0	0	0	0	0	0	0	0	8.1	0.00	1.77	
08/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/06/2007	3.6	0	0	0	0	0	0	0	0	1.00	2.31	
12/06/2007	0	0	0	0	0	0	0.3	0	0	0.00	1.87	
13/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/06/2007	0	0	0	0	0	0	0	0	0	1.43	1.85	
16/06/2007	0	0	0	1.5	0	0.1	0	0	0	0.00	2.21	
17/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/06/2007	15.7	7.5	17.3	0	8	15.3	0	0	0	0.00	8.64	
19/06/2007	12.9	1.2	7.1	0	0	0	0	0	0	0.43	4.46	
20/06/2007	11.7	21.1	3.7	0	2.7	0.8	0	0	0	5.57	2.87	
21/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/06/2007	20.4	21.5	30.6	17.4	20.2	36	19.1	29.6	23	0.00	13.55	
28/06/2007	3.7	0	4.7	22	15	8.4	1.2	5.9	8.3	8.57	11.54	
29/06/2007	0	0	0	0	0	0	0	0	0	2.57	1.85	
30/06/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/07/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/07/2007	0	0	2.6	0	0	0	0	0	0	0.00	2.08	
03/07/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/07/2007	0	0	0.9	0	0	0	0	0	0	0.00	1.93	
05/07/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/07/2007	0	0	0	0	0	0	0	0	0	4.86	1.85	
07/07/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/07/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/07/2007	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/07/2007	0	15.8	5.9	0	0	0	0	0	0	0.00	1.20	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
11/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/07/2007	0	0	0	0	0	0	0	0	0	0	0	3.57	1.85
16/07/2007	0	0	0	2.4	10.7	0	0.6	1.9	1.3	1.29	4.48		
17/07/2007	0	0	0	0	0	0	0	0	0	0	0.71	1.85	
18/07/2007	0	0	1.8	0	0	0	16.6	0	0	0	0.00	3.28	
19/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/07/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/07/2007	5.9	2.2	0	5.9	1	0	9.2	0	0	0	0.00	4.49	
01/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/08/2007	0	0	0	2.7	0	0	0	0	0	0	0	0.00	2.44
04/08/2007	0	0	0	5.6	0	0	0	0	0	0	0	0.00	3.04
05/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/08/2007	0	0	0	0	0	0	0	0	0	0	0.6	0.00	1.84
12/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/08/2007	0	0	0	0	0	0	0	0	0	0	0	2.86	1.85
19/08/2007	0	0	0	0	0	0	0	0	0	0	0	1.57	1.85
20/08/2007	5	0	0	0	0	0	0	0	0	0	0	0.00	2.50
21/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/08/2007	0	5.6	0	0	5.5	0	0	0	0	0	0	0.00	2.33
28/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/08/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/09/2007	0	0	0	0.1	0	0	0	0	0	0	0	0.00	1.87
03/09/2007	0	0	1.5	0	0	0	0	0	0	0	0	0.00	1.98
04/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.43	1.85
06/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/09/2007	0	0	0	0	0	0	1.6	0	0	3.4	0.00	2.27	
08/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/09/2007	0	4.3	0	0	0	0	0	0	0	0	0	0.00	1.49
13/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
14/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/09/2007	5.1	3.6	0	0	0	0	0	0	0	0	0	0.00	2.20
22/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/09/2007	0.5	0	0	1.4	2.5	0	0	0	13.4	0	0.00	3.88	
24/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/09/2007	0	0.2	0	0	0	0	0	0	0	0	0	0.00	1.83
29/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/09/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/10/2007	0	0	0	0	4.8	0	0	0	3	0	1.71	2.92	
09/10/2007	15.5	6.8	0	15.7	16.3	26.4	0	8.6	18.4	6.00	10.79		
10/10/2007	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/10/2007	0	0	0	0	0	0	0	0	0	0	1.00	1.85	
12/10/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/10/2007	0	0	0	0.2	4.9	0	3.6	2.2	0.1	6.29	3.21		
14/10/2007	0	0	0	0	0	0	0	0	0	0	1.14	1.85	
15/10/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/10/2007	0	0	0	0	0	0	0	0	0	0	3.14	1.85	
17/10/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/10/2007	0	0	0	0	0	0	0	0	0	0	1.57	1.85	
19/10/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/10/2007	0	0	0	0	0	0	0	0	0.1	1.1	0.00	1.85	
21/10/2007	0	0	0	0	0	0.7	7.1	0	0	0	0.00	2.56	
22/10/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/10/2007	0	0	0	0	0	0	0	0	0	0	6.86	1.85	
24/10/2007	0	0	0	5.1	0	0	0	0	0	0	1.29	2.94	
25/10/2007	0	0	0	5.1	0	0	0	0	0	0	4.86	2.94	
26/10/2007	0	0	0	0	0	0	0	0	0	0	1.00	1.85	
27/10/2007	0	0	0	0	0	0	0	0	0	0	1.14	1.85	
28/10/2007	0	0	0	13.8	16.3	7	56.1	50.6	28.1	5.00	10.26		
29/10/2007	0	0	0	0	16.1	3.4	2.7	10.8	2.2	2.71	5.94		
30/10/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
31/10/2007	0	0	0	14.7	4.4	6.8	8	3.2	3.8	0.00	7.85		
01/11/2007	0	0	0	0	0	0	0	0	0	0	17.43	1.85	
02/11/2007	0	0	0	0	0	0	0	0	0	0	10.71	1.85	
03/11/2007	0	0	0	0	0	0	0	0	0	0	7.86	1.85	
04/11/2007	0	0	0	0	0	0	0	0	0	0	3.71	1.85	
05/11/2007	0	0	0	0	0	0	0	0	0	0	7.29	1.85	
06/11/2007	0	0	0	0	0	0	0	0	0	0	6.43	1.85	
07/11/2007	0	0	0	0	0	0	0	0	0	0	14.43	1.85	
08/11/2007	0	0	0	0	4.8	0	0	0	3	0	16.86	2.92	
09/11/2007	15.5	6.8	0	15.7	16.3	26.4	0	8.6	18.4	8.14	10.79		
10/11/2007	0	0	0	0	0	0	0	0	0	0	0.29	1.85	
11/11/2007	0	0	0	0	0	0	0	0	0	0	4.29	1.85	
12/11/2007	0	0	0	0	0	0	0	0	0	0	21.86	1.85	
13/11/2007	0	0	0	0.2	4.9	0	3.6	2.2	0.1	0.29	3.21		
14/11/2007	0	0	0	0	0	0	0	0	0	0	11.29	1.85	
15/11/2007	0	0	0	0	0	0	0	0	0	0	8.57	1.85	
16/11/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/11/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
18/11/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/11/2007	0	0	0	5.1	0	0	0	0	0	0	0.00	2.94
20/11/2007	0	0	0	0	0	0	0	0.1	1.1	0.00	1.85	
21/11/2007	0	0	0	0	0	0.7	7.1	0	0	0	0.00	2.56
22/11/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/11/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/11/2007	0	0	0	5.1	0	0	0	0	0	0	0.00	2.94
25/11/2007	0	0	0	5.1	0	0	0	0	0	0	0.00	2.94
26/11/2007	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/11/2007	0	0	0	0	0	0	0	0	0	0	2.29	1.85
28/11/2007	0	0	0	13.8	16.3	7	56.1	50.6	28.1	6.86	10.26	
29/11/2007	0	0	0	16.1	3.4	0	10.8	2.2	0	1.57	6.97	
30/11/2007	3.5	1.6	0.9	0	0	0.2	0	0	0	0.00	2.30	
01/12/2007	3.1	0	0	4.1	8.2	0	17.1	7.2	8.8	9.14	6.47	
02/12/2007	0	0	7.8	6.8	1.9	3.9	38.8	11.2	4.5	14.14	7.79	
03/12/2007	25.6	11	17.5	19.1	3.8	0	4.9	11.7	8.7	24.43	11.59	
04/12/2007	0	0	0	0.5	0.8	0	7	7.8	3.3	3.14	3.35	
05/12/2007	0	0.6	0	10.1	38.1	8.5	20.2	40.9	30.5	10.00	14.27	
06/12/2007	0	0	0	4.8	1.4	0	8.1	4.1	0	4.43	4.17	
07/12/2007	2.8	0.9	0	35.3	12.7	0.9	26.7	11.6	0	10.71	14.92	
08/12/2007	0	0	0	0.3	0.3	2.3	8.5	5.7	4.7	0.71	3.78	
09/12/2007	1.2	3.3	8	12.2	11.3	2.4	26.7	16.8	0.9	11.14	10.92	
10/12/2007	10.8	12.4	8	2.3	0.5	3.1	7.1	0.9	0	2.14	5.16	
11/12/2007	0	5.4	0.8	49.9	26.1	0.6	6	4.1	1	7.29	18.47	
12/12/2007	19.4	5	0	14.6	5.6	3.7	6.4	6.5	4.6	9.86	8.99	
13/12/2007	0	1.3	0	5.9	2.9	0	4.9	7.4	0	8.57	4.67	
14/12/2007	0.3	0	0	1.8	1.5	0	2.5	2	0	2.57	2.95	
15/12/2007	3.1	0	0	1.5	2.8	5.3	14.1	10.5	6.3	3.86	6.46	
16/12/2007	14.5	0.6	0	29.4	13.3	0	14.3	16.6	12	11.57	12.52	
17/12/2007	8.4	22.8	50.1	4.9	28.5	43	4.9	15.8	29.6	17.14	11.21	
18/12/2007	0	4.2	3.8	0	0	3.1	0.2	1.1	0	6.71	2.81	
19/12/2007	64.3	36.3	14.6	19.1	8.2	4.9	4.1	4.8	4.9	12.86	8.70	
20/12/2007	1.9	2.5	18.2	3.4	15	26.6	8.1	6.9	13.1	15.43	9.72	
21/12/2007	0	0	0	0	0	0.7	1.9	1	0.9	0.00	2.29	
22/12/2007	8.9	4.7	0.6	0	0	0.5	2.6	0	0	4.00	3.08	
23/12/2007	0	0	0	0.8	0	0	1.3	0	2.4	0.00	2.08	
24/12/2007	0	0	0	0	0	0	3.7	4.3	4.6	1.14	2.57	
25/12/2007	0	0	4.7	0.6	3.2	1.9	5.3	13.5	9.6	23.43	5.25	
26/12/2007	10.5	15.5	5.2	10.7	15.2	16.1	25	20.2	21.4	8.86	12.73	
27/12/2007	0.3	0	0	0	0	0	0	0	0	9.57	1.89	
28/12/2007	0	0	0	0	0	0.3	4.9	4.8	2.6	4.00	2.78	
29/12/2007	18	12.4	24.8	19.5	10.8	12	3.7	3.3	3.6	13.00	12.01	
30/12/2007	26.2	46	25.9	37.3	30.3	23	14	13.8	4.4	25.14	17.66	
31/12/2007	27.5	19.1	3.8	13.9	20.6	15.6	26	31.6	21.7	25.57	17.63	
01/01/2008	7.2	12.5	3.5	0	0	0	0	4.6	0	7.29	2.93	
02/01/2008	0	5.8	13.4	5.9	11.2	18.7	16.3	21.6	32.7	21.43	10.81	
03/01/2008	20.4	35.2	31.6	15.2	13.7	18.7	7	0	0.7	31.00	11.35	
04/01/2008	0	7.2	7.9	15.5	24.5	21.3	5.9	16.8	18.3	63.57	14.46	
05/01/2008	0	0	0	4.4	4	0	5.9	1.9	0	27.00	4.24	
06/01/2008	0	0	0	0	0	0	0	0	0	0.43	1.85	
07/01/2008	8.8	29.1	73.4	24.9	38.6	47.6	1.6	11.9	4.2	2.00	8.74	
08/01/2008	0	0	0	0	0	2	0	0	0	0.43	2.43	
09/01/2008	0	0	0	0	0	0	0	0.5	0.9	0.00	1.90	
10/01/2008	0	0	1	0	0	0	1.1	0.9	0	0.00	2.12	
11/01/2008	0	0	0	0	0	0	0	0	0	0.57	1.85	
12/01/2008	19	14.3	23.9	13.7	11.4	14.8	0	0.8	0	0.00	10.90	
13/01/2008	17.6	25.7	17.2	17.5	0	0	0	0	0	1.57	7.38	
14/01/2008	24.8	29.9	45.2	16.2	15.2	11.4	24.9	21.5	17.3	7.00	17.03	
15/01/2008	18.2	12.2	24.6	0	0	3.7	0	0	0	4.57	7.41	
16/01/2008	32	17.4	2	20	8.9	1.1	10.2	5.5	2.9	9.43	10.01	
17/01/2008	23.7	1.9	1.7	16.7	8.4	1.9	2.2	3.8	0	6.57	9.73	
18/01/2008	1.6	0	0	4	0	0	12.9	14.5	1.6	5.43	5.07	
19/01/2008	12.1	8.6	0	0	0	0	0	0	0	4.00	2.85	
20/01/2008	0	0	0	0.5	0	0	0.6	0.6	0	4.57	2.07	
21/01/2008	13.7	2.3	0	0	1.1	16.9	1.7	2.6	21.5	0.00	4.72	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
22/01/2008	0	0	0	0	0	0	0	0	0	0	5.57	1.85
23/01/2008	0	0	0	0	0	0	0	3.8	0	15.14	2.27	
24/01/2008	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/01/2008	0	0	0	4.3	0	0	9	0.5	0.2	1.00	3.48	
26/01/2008	3.1	0	0	0	0	2.1	0	2.3	0	11.86	3.17	
27/01/2008	0	0.5	0	9	18.9	19.8	28.8	39.4	18.1	55.86	14.06	
28/01/2008	18.4	23.5	14.1	10.6	20.9	11.5	0	7	20.3	27.86	8.59	
29/01/2008	9.6	0	3.8	17.5	3.8	25.4	65.3	32	29.8	17.43	6.12	
30/01/2008	24	23.2	15.6	35.8	43.3	24.9	17.4	18.6	16.9	12.57	16.73	
31/01/2008	0	0	0	0	0	0	15	24.2	0.6	12.43	3.98	
01/02/2008	25	13	0.6	10.9	9.1	0	14.1	16.8	14.2	3.57	10.33	
02/02/2008	36.3	21.4	21.3	18.7	18.9	36.8	4.7	9.7	8.5	25.00	12.88	
03/02/2008	5.4	3	17.5	1.6	1.5	0	7.7	1.5	0.3	3.71	5.89	
04/02/2008	30.4	30.4	33.9	26	13.8	28.8	34.5	26.3	40.5	10.86	11.06	
05/02/2008	57.8	72.8	31.6	28.1	23.2	14.6	0.8	3	5.7	10.57	9.13	
06/02/2008	0	1.5	2.1	0	0	0	2.6	5.3	8.2	3.43	2.69	
07/02/2008	16.6	16.8	11.3	15.3	16.3	5.6	4.7	0.9	4	34.43	10.02	
08/02/2008	34.8	50.6	44	49.4	71.4	64.3	39.8	61.5	54.1	120.86	21.36	
09/02/2008	3	0.4	0.4	1.6	2.4	3.4	0.6	1.2	1.3	5.29	4.05	
10/02/2008	15.4	9	0.6	26	25.3	20.4	10.8	17.6	16	47.29	15.46	
11/02/2008	0	0	0	2.3	0	0	7.6	1.6	0	9.71	3.07	
12/02/2008	0	4.5	28.1	1.1	7.1	19.5	0.1	1.3	1.7	7.86	7.29	
13/02/2008	7.2	16.7	20.6	5.1	21.1	21.1	0	0.3	1.7	8.29	8.93	
14/02/2008	0	0	0	0	0.9	3.1	0	9.9	17.8	12.14	4.57	
15/02/2008	3.3	0	0	0.5	3.1	4	0	0.4	3.2	22.43	3.91	
16/02/2008	0	0.5	7.1	0.3	0.5	5.3	0	0	0	14.14	3.90	
17/02/2008	0	0	0	0	0	0	0	0.1	0	5.86	1.86	
18/02/2008	0	0	0	0	0	0	0	0	15.6	8.29	1.78	
19/02/2008	0	0	5.1	6.4	1.2	4.3	52.9	42.3	34.6	3.43	6.29	
20/02/2008	0	0	0.4	2.4	3.8	4.4	12.8	10.4	12.1	1.00	6.18	
21/02/2008	0	0	0	1.3	0	0	4	0	1.9	4.29	2.38	
22/02/2008	0	0	0	9.3	1.9	0.4	9.8	7.7	3.9	18.57	5.70	
23/02/2008	2.8	3.1	5.5	0	0	0	0	0	0	3.43	2.49	
24/02/2008	0	2.7	1.6	0.9	0.6	0.7	0	0	0	0.29	2.26	
25/02/2008	4	11	9.8	15.9	33.3	15.5	16	21.9	0.7	39.86	12.80	
26/02/2008	0	0	0	10.2	5.7	2.7	11.4	1.7	0	8.86	6.93	
27/02/2008	16	9.8	28.5	20.2	25.2	51.9	8.8	16.4	28.3	12.86	15.52	
28/02/2008	0	0	0	11.7	8.1	0.8	9.4	5.4	4.5	24.00	7.41	
29/02/2008	0	0	0	0	0	0	3.6	0	0	3.57	2.11	
01/03/2008	2.5	0	0	2.1	0	0.6	19.3	16	16.5	14.00	5.55	
02/03/2008	8.8	0	14.8	14.1	1.6	28.4	9.5	5.7	6.8	6.71	9.12	
03/03/2008	18	32	59.7	9.7	15	15.6	7	0	0	9.14	12.10	
04/03/2008	9.7	1.3	1.2	8.5	6.2	3.5	8.3	9.2	14.1	5.57	7.62	
05/03/2008	2.9	7.5	11.5	16	8.6	9.3	6.2	4.2	0.5	14.57	10.09	
06/03/2008	4.9	1.5	0	64.5	23.7	12.6	29.1	20.8	10.4	16.29	18.89	
07/03/2008	0	5.6	0	5.3	7.9	2.8	8.6	12	6.8	9.29	6.49	
08/03/2008	10.1	16.3	0.7	12	15.7	15	7.9	7.2	1.6	19.29	11.01	
09/03/2008	0	0	0	1.1	0.2	3.8	1.2	0.9	0.6	19.00	3.38	
10/03/2008	0	0	0	2.5	6.2	0	25.9	24.2	0.8	1.43	5.57	
11/03/2008	0	0	0	3.3	12.4	17.3	5.9	8.6	9.2	26.00	9.74	
12/03/2008	0	0	1.9	18.5	24.9	22.2	22.4	36.5	42.8	27.57	18.12	
13/03/2008	22.1	11	0	4.1	0	0	0	3.6	1.7	18.29	5.54	
14/03/2008	0.9	0	0	1.3	15.4	5.3	5.7	17.9	20	22.71	8.45	
15/03/2008	5.4	5.4	0	5.3	10.8	5.2	13.2	9.5	5.7	3.71	8.26	
16/03/2008	7.2	1.9	0	26.2	3.7	6.7	48.7	16.6	3	9.14	10.48	
17/03/2008	0	0	0	6.9	0	0	5.5	6	0	6.00	4.35	
18/03/2008	0	0	0	6.2	0	6.9	8.4	13.6	36.6	8.86	7.52	
19/03/2008	0	0	0	6.2	0	6.9	8.4	13.6	36.6	18.57	7.52	
20/03/2008	30.7	50.8	61.2	27.2	11.7	16.6	9.5	16.8	14.2	35.57	18.07	
21/03/2008	4.9	9.5	22.7	15.9	23.7	26.3	25.8	18	28.7	6.71	14.25	
22/03/2008	4	5.4	10.3	7.1	10.6	10.6	31.5	20.2	26.4	38.14	10.83	
23/03/2008	30.5	31.2	0	4.6	3.7	1.1	5.5	2.2	4.9	14.86	5.29	
24/03/2008	18.6	9.6	3	6.5	2	4.3	4.4	7.7	9.5	3.43	7.28	
25/03/2008	1.4	10.3	27.3	10.8	5	7.4	17.4	26.5	40.5	0.57	10.14	
26/03/2008	0	4.6	2	4	4.8	17.2	10.8	18.8	22.8	4.29	9.67	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
27/03/2008	0	1.9	0	7.8	17.3	12.8	21.8	13.7	3.7	4.86	11.79		
28/03/2008	0.1	0	0	0.5	0	0	0	2.8	10.4	3.86	2.31		
29/03/2008	37.9	25.8	8.9	12.7	5.6	3.5	3.3	5.2	9.5	13.86	8.24		
30/03/2008	0	0	0	0	0	0	0	0	0	2.71	1.85		
31/03/2008	19.8	7.3	10.8	4.4	6.1	3.3	0.4	8.7	6.2	4.71	8.71		
01/04/2008	4.7	0	0	0	0	0	1.8	0	7	2.86	2.25		
02/04/2008	0	0	0	0	0	0	0	0	0	1.14	1.85		
03/04/2008	0	11.1	0	0	0	0	1.8	2.5	5.3	0.71	1.37		
04/04/2008	25.3	0	0	6.3	0	3.5	49.4	22.6	21	1.00	10.73		
05/04/2008	0	0	0	0	11.7	3.6	3.5	5.5	5.8	7.86	5.49		
06/04/2008	3.7	0	0	0	0	2.2	17.2	9.1	14	1.71	4.85		
07/04/2008	21.1	20.1	8.4	0	33.4	10.6	17.4	17.5	1.5	5.29	9.89		
08/04/2008	0	0	0	0	0	0	7.7	24.1	3.1	5.43	4.19		
09/04/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
10/04/2008	0	0	7	0	0	13.7	7.3	15.4	15.3	0.00	7.94		
11/04/2008	13.3	18.9	22	0	3.8	2.8	0	0	0	0.00	5.94		
12/04/2008	6.7	4	7	5.1	1.8	0	3.4	1.1	0	0.00	4.99		
13/04/2008	0	0	0	0	0	0	0	0	0	0.29	1.85		
14/04/2008	0	0	0	13	0	0	3.7	0	0	0.43	4.68		
15/04/2008	0	0	0	0	0	0	0	0	0	6.71	1.85		
16/04/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
17/04/2008	0	0	0	0	0	0	0	0	0	1.43	1.85		
18/04/2008	0	0	0	5.4	0	6.5	0	0	0	2.14	4.62		
19/04/2008	0	0	0	0	0	0	1.4	0	0	4.86	1.95		
20/04/2008	0	0	0	0	0	0	0	0	1.7	0	1.00	2.04	
21/04/2008	16.6	12.5	7.4	37.8	9.1	6.3	2.4	1.3	0	2.00	10.62		
22/04/2008	2.4	1.7	0	8.4	4.4	0	0	1.7	0	4.57	4.79		
23/04/2008	7.3	12.1	0	4.3	1.5	13.7	1	0	2.8	0.86	5.52		
24/04/2008	0	0	0	0	0	0	0	0	0	4.29	1.85		
25/04/2008	0	0	0	4.8	0	0	0	0	0	0.00	2.88		
26/04/2008	0	0	0	0	0	0	0	0	0	0.71	1.85		
27/04/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
28/04/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
29/04/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
30/04/2008	4.6	20.7	20.6	9.7	35	13.2	0	5.2	10.2	3.57	10.45		
01/05/2008	17.4	14	16.2	11.4	0	0	25	5.7	5.6	2.43	9.66		
02/05/2008	0	13.7	0	8.6	19.7	13.9	24.8	40.2	16.9	3.57	12.37		
03/05/2008	0	0	0	13.3	14.6	4.2	4.9	5	0	12.14	9.47		
04/05/2008	21.2	0	0	14.1	2.9	8.9	19.6	6.3	28.8	10.00	5.59		
05/05/2008	0	0	0	0	0	0	0	4.2	0	0.57	2.32		
06/05/2008	8.1	15.8	0	15.4	17.2	9.6	0	0.3	11.5	2.86	8.25		
07/05/2008	0	0	0	0	0	0	0	0	0	1.71	1.85		
08/05/2008	0	0	4.6	0	0	0	0	0	0	0.00	2.27		
09/05/2008	0	4.4	0	0	0	0	0	0	0	0.00	1.48		
10/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
11/05/2008	0.2	0	0	0	0	0	0	0	0	0.00	1.87		
12/05/2008	2.7	0	0	0	0	0	0	0	0	0.00	2.19		
13/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
14/05/2008	0	0	0	3.2	0	0	0	0	0	0.00	2.55		
15/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
16/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
17/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
18/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
19/05/2008	0	0	0	0	0.9	2.1	0	0.4	0	0.00	2.66		
20/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
21/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
22/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
23/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
24/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
25/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
26/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
27/05/2008	0	0	0	0	0	0	0	0	2	0.00	1.82		
28/05/2008	0	0	0	0	0	0	0	0	0	0.00	1.85		
29/05/2008	0	0	10	0	0	0	0	0	0	0.00	2.84		
30/05/2008	0	0	0	0	0	0	0.6	0	0.1	0.00	1.89		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
31/05/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/06/2008	0	0	0	1	0	0	0	0	0	0	0	0.00	2.07
04/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/06/2008	0	0	0	1.8	0	0	0	0	0	0	0	0.00	2.25
06/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/06/2008	0	0	0	14.9	5	4.9	18.9	0	0	0	0	2.00	8.42
10/06/2008	0	0	0	0	5	0	0	0	0	0	0	1.29	2.70
11/06/2008	0	0	0	0	0	2.3	0	0	0	0	0	0.00	2.52
12/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/06/2008	0	0	0	2.3	5.7	1.9	0	0	0	0	0	2.43	3.91
16/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	2.29
17/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/06/2008	0	0	0	1.6	0	0	0	0	0	0	0	0.00	2.20
21/06/2008	0.3	0	0	0	0	0	0	0	0.1	3.1	0.00	1.85	
22/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/06/2008	0	0	0	1.1	0	0	6.8	1.3	0.6	0.00	0.00	2.71	
26/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/06/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/07/2008	0	0	0	1.3	0	0	0	0	0	0	0	0.00	2.14
03/07/2008	0	0	0	1.6	0	0	0	0	0	0	0	0.00	2.20
04/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/07/2008	0	0	0	0	0	0	0	0	0	0	0.1	0.00	1.85
07/07/2008	0	5.8	0	0	0	0	0	0	0	0	0	0.00	1.37
08/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/07/2008	0	0	0	0	0	0	0	0	0	0	0.6	0.00	1.84
13/07/2008	0	0	0	0	0	0	0	0	0	0	0.4	0.00	1.84
14/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/07/2008	0	0	0	0.7	0	0	0	0	0	0	0	0.00	2.01
17/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/07/2008	0	0	0	0	0	0	0	0	0	0	0	0.71	1.85
28/07/2008	0	0	0	0	0	0	0	0	0	0	0	2.86	1.85
29/07/2008	9.1	0	0	0	0	0	0	0	0	0	0	0.57	3.11
30/07/2008	0	0	0	0	0	0	0	0	0	0	0	1.71	1.85
31/07/2008	2.9	0	0	0	0	0	0	0	0	0	0	0.00	2.21
01/08/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/08/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/08/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
04/08/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/08/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/08/2008	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/08/2008	0	0	0.6	0	0	0	0	0	0	0	0	0.00	1.90
08/08/2008	0	0	0	0	0	0	0	0	0	0.4	0.00	1.84	
09/08/2008	0	0	0	0	0	0	0	0	0	0	0.43	1.85	
10/08/2008	0	0	0	0	0	0	0	7.3	7.3	0.7	4.71	3.04	
11/08/2008	0	0	0	8.3	3.1	0	3.8	7.9	4	0.00	5.30		
12/08/2008	0	0	0	0.4	0	0.1	0	0	0.1	0.00	1.97		
13/08/2008	0	0	0	0	0	0	0	0	0	0	5.29	1.85	
14/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/08/2008	0	0.1	0	0.6	0	0	0	0	0	0	0.00	1.97	
17/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/08/2008	0	0	0	0	0	0	0	0	0	0	3.14	1.85	
22/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/08/2008	6.7	0	0	0	0	0	0	0	0	0	0.00	2.75	
25/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/08/2008	1.5	0	0	0	0	0	0	0	0	0	0.00	2.03	
27/08/2008	2	0	0	0	0	0	0	0	0	2.3	0.00	2.03	
28/08/2008	0	0	0	0	0	0	0	0	0	0	1.71	1.85	
29/08/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/08/2008	0	0	0	0	0	0	0	0	0	0.1	0.00	1.85	
31/08/2008	0	0	0	0	0	0	0	0	0	0.6	0.00	1.84	
01/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/09/2008	0	0	6.9	0	0	0	0	0	0	0	0.00	2.51	
06/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/09/2008	0	0	0	0	0	0	0	0	0	0	0	1.14	1.85
09/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/09/2008	0	0	0	0	0	0	0	0.4	0	0	0.00	1.88	
12/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/09/2008	0	0	0	13	0	0	0	0	0	0	0.00	4.41	
20/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/09/2008	0	0	0	5.6	0	0	0	0	0	0	0.00	3.04	
22/09/2008	0	0	0	9.5	0	0	0	0	0	0	0.86	3.79	
23/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/09/2008	0	0	5.3	0	0	0	0	0	0	0	0.00	2.34	
25/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/09/2008	28	0	0	0	0	0	0	0	0	0	0.00	6.71	
27/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/09/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/09/2008	0	22.4	0	0	0	0	0	0	0	0	0.00	0.10	
01/10/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/10/2008	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/10/2008	0	0	0	0	2.3	0.2	0.7	0	0	0	7.29	2.35	
04/10/2008	0	0	0	1.9	0	0	0	0	0	0	4.29	2.27	
05/10/2008	0	0	0	0	0	0	0	0	0	0	1.43	1.85	
06/10/2008	0	0	0	1.2	0	0	0	0	0	0	5.86	2.12	
07/10/2008	0	0	0	0	8.8	0.5	0.4	0.8	0.1	11.29	3.57		

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST	
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi		
08/10/2008		16.8	15.3	5.4	14.1	36.1	15.3	27.4	22.8	7.2	15.71	15.68	
09/10/2008		0	0	0	14.8	7.4	0.8	35.3	29.3	30.7	3.57	10.04	
10/10/2008		0	0	0	1.5	0	4.8	0	0	3.7	0.00	3.44	
11/10/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
12/10/2008		3.5	0	0	12.1	0.9	0	14.6	8.1	0	2.00	6.79	
13/10/2008		0	0	0	14.8	10.8	0	0	11.4	0	4.86	8.04	
14/10/2008		0	0	0	0	0	0	0	0	0	5.14	1.85	
15/10/2008		0	0	0	0	0	0	0	0	0	1.71	1.85	
16/10/2008		0	0	0	0	0	0	0	0	0	2.57	1.85	
17/10/2008		0	0	0	0.6	0	0	0	0	0	5.14	1.98	
18/10/2008		0	0	6.9	0	0	11.6	19.7	21.8	35.8	10.29	8.15	
19/10/2008		0	0	0	0	0	0	6.6	5.7	0	0.00	2.85	
20/10/2008		0	2	0	0	0	0	0	0	0	0.00	1.68	
21/10/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
22/10/2008		0	0	0	0	0	0	0	0	0.1	0.57	1.85	
23/10/2008		0	0	0	0	0	0	0	0	0	1.29	1.85	
24/10/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
25/10/2008		0	0	6.7	0	1	0	0	0.1	0.1	5.86	2.67	
26/10/2008		0	1.5	0	4.2	9.5	7.2	21.1	22.7	3.6	18.86	8.44	
27/10/2008		0	0	10.6	0	3.3	21	12.8	18.9	29	2.29	8.31	
28/10/2008		0	0	0	0	0	0	0	0	0	41.57	1.85	
29/10/2008		0	0	0	0	0	0	5.7	1.3	1.4	0.00	2.37	
30/10/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
31/10/2008		54	55	12.5	53.5	33.9	18.2	12.8	19	0	18.71	14.40	
01/11/2008		0	0	0	0	8.8	0	0	1	1.7	6.71	3.40	
02/11/2008		4.9	9	9.6	18.6	25.3	10.4	23.3	6	3.3	15.57	15.87	
03/11/2008		0	0	0	11.1	8.5	0	2.7	10.3	5.5	3.29	7.04	
04/11/2008		8.9	6.9	0	14.7	13.1	0	6.4	0	0	22.57	8.34	
05/11/2008		2.8	1.3	0	0	0	0	1	0.1	0	0.43	2.17	
06/11/2008		0	0	0.1	12.5	12.7	3.5	23.2	24.8	5.5	8.43	10.41	
07/11/2008		0	0	0	0	0	0	0	4	0	0.29	2.30	
08/11/2008		0	0	0	0	0	0	4.4	6.2	0	0.14	2.77	
09/11/2008		0	0	0	0	0	0	4.9	1	5.4	0.00	2.25	
10/11/2008		10.3	10	0	17.3	18.4	1	7.4	0.8	3.6	10.14	9.72	
11/11/2008		0	0	0	0	0	0	0	1.3	0	1.71	2.00	
12/11/2008		4.2	7.1	0	18	12.5	2.9	17.9	3.4	1	14.71	10.70	
13/11/2008		0.1	2.2	0	0	0	0	0	2.1	0	1.00	1.92	
14/11/2008		0	0	0	7	19.5	15.6	18.7	40.3	15.8	3.43	13.16	
15/11/2008		10.4	0	11.6	16.7	0	0	3	0	0	0.29	7.71	
16/11/2008		0	0	0	3.8	0	0	4.8	4	3.7	0.00	3.41	
17/11/2008		0	0	0	4.8	0	0	8.6	10.7	4.2	0.43	4.54	
18/11/2008		21.3	37.4	38.4	26.4	11	37.3	28.9	47.5	33.5	9.57	12.57	
19/11/2008		15.2	11.6	12.9	10.2	12.6	10.7	0	1.3	5.5	7.57	8.95	
20/11/2008		5.4	0	0	1.3	0	3.3	5.2	14.4	16.2	5.29	6.11	
21/11/2008		0	0	0	2.2	3.7	11	3.8	19.8	53.6	1.43	7.98	
22/11/2008		26.3	3.7	0	2.1	0	0	62.3	5.4	0	17.43	12.17	
23/11/2008		2.3	60.6	29.9	17.1	17.9	35	8.8	13.2	30.2	5.71	8.68	
24/11/2008		34.3	1.8	1.6	36.4	7.8	11.9	43	21.7	29.2	7.14	9.89	
25/11/2008		43	5.6	0	13.4	33.6	17.6	12.4	32.1	51.4	7.43	10.87	
26/11/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
27/11/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
28/11/2008		1	0	2.4	0	0	0	0	0	0	0.00	2.19	
29/11/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
30/11/2008		0	0	0	0	0	0.4	0	0	0	0.00	1.97	
01/12/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
02/12/2008		0.5	0.3	0	0	0	0	0	0	0	0.00	1.88	
03/12/2008		0	0	0	0	0	0	0	0	0	0.00	1.85	
04/12/2008		1.8	0	0	0	0	0	0	0	1.2	4.1	0.00	2.14
05/12/2008		0	0	0	10.1	6.2	0	0	9.2	11.2	3.29	6.10	
06/12/2008		0.8	4.8	0	21.2	58.1	19.4	16.1	13.6	7.2	30.29	18.16	
07/12/2008		28.4	25.7	12.7	43.3	28.7	24.8	27.1	10.2	52.2	39.29	4.90	
08/12/2008		3.5	33.2	3.8	26.1	15.3	5.6	69.3	73.2	26.7	24.43	-1.49	
09/12/2008		66.6	26.9	13.2	33.7	22	11.6	8.8	7.3	7	9.43	8.82	
10/12/2008		130	120.6	92.9	47.8	80	73.8	53.3	85	112.8	16.71	15.90	
11/12/2008		16.7	2.9	5.4	17.3	4.1	4.4	9.8	0	3.1	11.14	8.68	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
12/12/2008	19.4	24.6	13.5	33	26.9	43.3	12.4	26.7	29.2	15.00	13.89	
13/12/2008	22.1	21.5	12.1	40.5	42.2	47.3	31.9	52.6	23.6	15.14	11.32	
14/12/2008	0	0	0	0	3.6	4.8	0	0	0	22.29	3.81	
15/12/2008	0	0	0	0	0	2	0	0	0	12.71	2.43	
16/12/2008	0	0	0	2.6	1.8	8.3	0	0	0	0.00	4.91	
17/12/2008	3.9	12.7	3.7	10.5	17.5	14	4.5	4.5	10.8	0.71	9.83	
18/12/2008	10.2	9.8	10.7	26.6	7.5	29.7	69.6	15.8	24.1	1.71	3.82	
19/12/2008	0	0	0	0	1.8	7.3	0	0	0.9	1.71	4.16	
20/12/2008	18.7	21.1	4.3	3	12.5	7.7	0.4	1.9	0	3.43	7.46	
21/12/2008	0	0	0	1.4	2.3	2.4	0	0	6.3	3.43	3.12	
22/12/2008	0	0	0	0	0	1.2	2.6	3.9	0	3.00	2.80	
23/12/2008	0	0	1.8	0	0	0	0	0	0	5.71	2.01	
24/12/2008	0	0	0	0	0	0	0	0	0	0.29	1.85	
25/12/2008	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/12/2008	4	5.4	14.7	11.5	4.9	0	0	0	0	0.00	7.09	
27/12/2008	1.9	5	139.7	1.8	42.3	58.9	11.5	26.2	20.2	0.71	1.99	
28/12/2008	32.3	32.9	5.3	30.5	13.4	2.9	23.3	29.2	19.3	1.43	14.58	
29/12/2008	15.3	10.2	4.1	8.1	2.8	8.3	5.5	0	13.7	16.14	4.93	
30/12/2008	38.8	50	37.7	75.4	47.2	32.3	82.7	70.4	32	24.14	21.40	
31/12/2008	0.7	0	4	5.2	3.6	4.1	26.4	4.3	0.6	4.29	7.39	
01/01/2009	12.9	9.6	5	16	16.6	11.9	6.5	21.1	22.9	9.86	13.15	
02/01/2009	0	0	0	0	0	0	0	0	0	8.00	1.85	
03/01/2009	0	0	1.7	1.2	0	0	0	0	0	1.71	2.27	
04/01/2009	8	0.1	6.1	5.9	8.8	18.5	3.7	7.8	10.3	2.14	9.86	
05/01/2009	2.2	4	5.2	12.5	1.7	10.8	0	0	8.9	5.71	6.19	
06/01/2009	16.7	5.6	2.2	0	9.1	15.2	0	7.9	12.6	10.29	8.66	
07/01/2009	7.7	8.7	13	30	16	23.2	20.1	13.1	59.7	11.29	7.98	
08/01/2009	26.3	8.6	6.1	11.3	4.9	12.1	4.1	4.4	10.5	18.43	9.10	
09/01/2009	82.2	68.9	37.5	23.2	25.3	13.8	18	41	19.1	40.14	19.12	
10/01/2009	0	7.7	5.8	0	0	1.9	0	0	0	4.71	2.24	
11/01/2009	15	54.7	37.4	27.8	14.1	16.1	5	0	0.2	5.29	14.21	
12/01/2009	6.3	6	15.2	16.9	24.6	13.5	14.2	35.2	9	19.86	12.97	
13/01/2009	0	3.6	0	17	8.8	11.1	21.5	28.8	6.6	15.14	11.39	
14/01/2009	0	5.4	4.5	7.8	12	0	17	12.4	2.4	11.00	8.13	
15/01/2009	78.3	60.6	30.6	41.4	37.2	24.2	11.1	17.9	10.4	29.43	13.45	
16/01/2009	0	0	14.9	6.2	3.1	7.7	1	1.7	0	19.14	6.94	
17/01/2009	0	7	15.6	0	9.5	2.5	0	0	0	13.57	4.85	
18/01/2009	3.4	4.7	9.4	4.1	13.5	8.7	5.6	3.6	0	16.00	8.40	
19/01/2009	22.3	10.2	6.1	3.3	0	0	0.4	0.4	0	8.71	5.84	
20/01/2009	4.6	1.6	0	1.4	0	0	0	0	0	0.00	2.58	
21/01/2009	0	0	0	0	0	0	0	0	0	4.00	1.85	
22/01/2009	0	0.2	0	0	0	0	15.2	4.9	0.6	3.67	3.29	
23/01/2009	1.3	0	13.2	1.5	0	9.3	9.2	3.8	10.6	0.00	5.90	
24/01/2009	0.9	12.2	16.4	2.4	7.3	10.3	0.3	1.2	6.7	2.57	5.89	
25/01/2009	8.9	12.5	1.3	0	0	0	0	1.4	6.6	0.00	1.98	
26/01/2009	0	0	0	0	0	0	0	3.2	21.5	1.71	2.45	
27/01/2009	4.7	3	4.5	4.4	3.2	0	17.9	30.9	69	7.43	5.77	
28/01/2009	7.7	6.7	3.4	0	0	0	28.5	0	13.9	5.71	3.20	
29/01/2009	2.3	6.1	0	11.4	14.2	6.4	0	1.3	2	17.14	8.28	
30/01/2009	33	45.8	85.3	73.3	81.5	85.6	158	86.6	31.4	31.14	30.14	
31/01/2009	16.6	32.4	37.4	10.4	14.9	18.9	14.6	10.9	12	11.29	12.12	
01/02/2009	90.6	78.8	58.1	135.8	91.8	89.4	142	88.2	65.4	50.14	36.72	
02/02/2009	59.3	30.3	4.2	7.3	10.6	5.5	23.2	57.4	23.4	41.71	24.09	
03/02/2009	0	0	0	0	0.4	0	2.4	0	0	18.14	2.09	
04/02/2009	38.7	40.4	62.1	16.3	22	19.1	1.7	2.7	4.1	18.14	14.23	
05/02/2009	14.7	0	0	3.5	3.2	21.9	0	0	0	49.00	9.13	
06/02/2009	0	0	0	10.8	6.1	20.3	0	0	0	24.43	8.73	
07/02/2009	1.2	0	0	4.2	0	0	0	0	0	8.57	2.87	
08/02/2009	0	0	0	4.7	0	1.2	0	0	0	2.43	3.17	
09/02/2009	0	0	0	0	0	0	0	0	1.5	0.00	1.83	
10/02/2009	0	1.5	2.1	0	0	0	0	0	1.5	0.00	1.88	
11/02/2009	6	9.9	23	9.4	25.1	27.6	10.2	18.2	3.9	12.71	11.30	
12/02/2009	0	3.7	0.3	0	0	0	0	0	0	3.71	1.56	
13/02/2009	0	0	0	0	0	0	0	0	0	4.57	1.85	
14/02/2009	1.5	0	0	1.5	2.9	5.2	0	0	0	4.43	4.27	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
15/02/2009	15.2	24.7	5.1	4.9	5.4	4.5	34.4	14.2	28.4	22.57	5.45	
16/02/2009	45.9	44.7	22.2	19.3	20.7	23.8	37.3	38.8	6.2	17.71	18.85	
17/02/2009	36.4	19	0	1.4	0	0	1.1	4.8	2	3.86	7.74	
18/02/2009	36	39	50.4	0	3.3	3.3	12.3	3.2	25.4	0.71	6.56	
19/02/2009	0	12.3	0	12.7	0	0	0	0	0.8	1.43	3.41	
20/02/2009	0	0	0	0	4	13	0	0	0	9.29	5.86	
21/02/2009	0.9	2.3	1.1	24.5	13.1	7.2	20.2	21.8	16.5	24.43	13.73	
22/02/2009	8.9	16.6	28.2	23.1	20	30.9	21.4	30.7	28.3	17.57	14.66	
23/02/2009	8.1	0	0	14.9	4	6.4	2	6.4	19.1	23.57	6.90	
24/02/2009	0	2.1	0	12.8	10.3	0	32.9	29.2	7	30.71	9.27	
25/02/2009	3.9	10.1	0.8	16.1	18.6	10.8	26.7	15.8	19.3	27.00	13.27	
26/02/2009	0.7	1.1	0	10.5	11.8	9.7	11.1	20	18.1	17.14	11.49	
27/02/2009	6.6	6	22.1	5.3	11.9	6.4	0	0	2.6	28.71	8.11	
28/02/2009	0	0	0	19	4.5	0	12.8	0	1.4	3.00	7.67	
01/03/2009	0	0	0.9	11	7.4	1.2	4.2	0	10.6	4.14	5.88	
02/03/2009	33.7	0	0	49.2	37.3	24.5	27.4	30	19.1	7.14	15.68	
03/03/2009	0	0	1	0	0	0	8.9	15.1	2.9	1.43	3.84	
04/03/2009	36.2	17.8	12.2	42.2	23.8	0	21.2	26.5	17.4	16.86	15.46	
05/03/2009	0.4	0	3.1	0	5.2	3.3	3.8	5.1	7.1	3.71	4.66	
06/03/2009	0	0	0	0	0	0	2.4	11.7	19.5	0.00	3.93	
07/03/2009	16.8	26.7	14.2	23.3	42.1	26.1	27.3	28.2	30.6	8.57	18.00	
08/03/2009	0	0	0	0	0	0	6.5	2.9	0	1.43	2.60	
09/03/2009	0	0	0	0	0	0	0	0	0	0.43	1.85	
10/03/2009	0	16.5	0	0	10.3	6.9	0	4	0	2.71	4.48	
11/03/2009	0.7	0.2	0	0	0	6	0	0	0	3.71	3.61	
12/03/2009	0	0	0	0.1	2.5	0.1	0.1	0.1	1.4	1.86	2.32	
13/03/2009	0	5.2	25.3	0	8.1	20.7	0	0	0	1.71	7.09	
14/03/2009	0	0	0	0	0	0	0	0	0	3.57	1.85	
15/03/2009	0	0	0	0	0	0	2.2	1.7	0	7.57	2.19	
16/03/2009	0	0	0.2	0	0	0	0	0	0	0.00	1.87	
17/03/2009	0	0	0	4.2	4.2	2.4	10	3.3	2.4	6.71	5.22	
18/03/2009	0	0	0	2.8	0	0	0	0	0	0.00	2.46	
19/03/2009	0	16.1	19.3	0	5.5	6	0	3	0	0.00	4.84	
20/03/2009	0	0	0	1.3	2	2.4	11.4	5.7	14.3	0.00	4.47	
21/03/2009	0	0	0	3.1	10.3	6.2	7.4	7.1	1.6	0.00	7.12	
22/03/2009	11.9	0	0	10.5	0	0	0	0	0	7.43	5.04	
23/03/2009	0	0	0	2.4	0	0	0	0	0	7.57	2.38	
24/03/2009	0	0	0	0	0	0	0	0	0	5.00	1.85	
25/03/2009	0	0	0	0	0	0	0	0	0	2.86	1.85	
26/03/2009	0	0	0	0	0	0	0	0	0	1.00	1.85	
27/03/2009	0	0	0	4.7	8	3.6	0	0	0	6.43	5.33	
28/03/2009	0	0	2.6	0	0	0	0	7.7	2.9	10.57	2.94	
29/03/2009	0	0	0	14.7	0	0	18.9	11	8.7	0.00	6.69	
30/03/2009	0	0	0	0	0	0	2	0	0	0.00	1.99	
31/03/2009	0	0	0	0	2.9	6.2	3.8	13.2	35.5	1.29	6.50	
01/04/2009	36.6	36.8	26.3	36.2	42.6	36.1	42.5	48.4	43.9	7.57	18.77	
02/04/2009	0	3.1	2.3	0	0	0	0	17.5	5.5	0.00	3.76	
03/04/2009	3.2	5.8	8.6	11.6	11.1	11.6	13.2	4.4	7.7	8.71	10.09	
04/04/2009	0	11.1	0	6.7	12.9	0	5.6	11.8	13.5	6.14	6.43	
05/04/2009	0	0	0	0	0	0	1.9	0	0	0.43	1.98	
06/04/2009	0	0	0	5.2	0	0	0	0	0	0.00	2.96	
07/04/2009	0	0	0	0	0	0	0	0	4.1	0.00	1.80	
08/04/2009	0	0	0	0	0	0	1.8	0	0	0.00	1.98	
09/04/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/04/2009	0.2	0	0	3	0	0	19.2	7.3	20.6	0.00	4.28	
11/04/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/04/2009	0	0	0	0	0	0	5.7	4.3	2.6	13.29	2.68	
13/04/2009	0	0	0	16.8	7.9	0	15.4	15.4	1	12.14	9.33	
14/04/2009	0	0	8.6	0	3.2	2.6	2.8	8.4	6.4	4.57	4.84	
15/04/2009	0	0	0	0	0	0	0	0	0	2.29	1.85	
16/04/2009	0	0	0	14.1	10	9.2	12.4	0	0	10.14	9.78	
17/04/2009	0	0	0	2.2	0	0	0	0	0	0.00	2.33	
18/04/2009	17.9	0	0	27.1	25	0	8.2	17.4	0	12.14	12.90	
19/04/2009	15.9	0	0	0	2	0	3.5	8.1	7.3	8.57	5.71	
20/04/2009	42.2	42.1	19.3	26.9	25	19.6	19.3	0	16.8	10.71	8.25	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
21/04/2009	0	11.7	3.7	4.8	22.7	52	6.5	6.5	13.5	14.43	9.83		
22/04/2009	0	0	0.1	0	0	0	0	0	0	1	4.43	1.84	
23/04/2009	0	0	0	0	0	0	0	0	7.2	0	3.29	2.62	
24/04/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/04/2009	0	0	0	7.8	0	0	0	0	0	0	0.00	3.47	
26/04/2009	0	0	0	13.2	0	0	0	0	0	0	3.43	4.45	
27/04/2009	0	0	0	0	0	0	0	0	0	0	2.29	1.85	
28/04/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/04/2009	0	0	0	1.2	0	0	3.4	0	0	0	0.57	2.36	
30/04/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/05/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/05/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/05/2009	0	0	0	0	0	0	0.1	0	0	0	0.00	1.86	
04/05/2009	0	0	0	1.6	0	0	0	0	0	0	0.00	2.20	
05/05/2009	0	0	0	2.4	0	0	0	0	0	0	0.00	2.38	
06/05/2009	0	0	0	0	0	0	0	0	1.2	0	0.00	1.99	
07/05/2009	0	0	0	7.2	0	1.3	9	1.8	4.2	1.43	4.35		
08/05/2009	0	0	0	0	0	4.7	10.2	6.1	1.5	1.86	4.43		
09/05/2009	0	4.3	7.9	3.6	20.2	6.3	17	4.5	6.2	0.86	9.73		
10/05/2009	51.9	16.4	22.7	49.8	40.7	48	39	39.4	44.3	16.00	16.58		
11/05/2009	0	0	5.4	1.5	0	2.4	16.3	1.2	0.9	1.00	4.56		
12/05/2009	27.9	33.5	27.2	14.1	16	19.8	8	15.7	26.1	11.29	11.42		
13/05/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
14/05/2009	5.5	0	8.1	0	0	0	0	0	0.5	0.00	3.40		
15/05/2009	1.4	11.8	1.8	2.8	6.6	5.7	0	0	0	0.00	4.41		
16/05/2009	0	0	0	0	0	0	6.1	2.7	0	0.00	2.55		
17/05/2009	0	0	1.4	4	9.8	7.7	14	10.6	6.1	3.00	8.40		
18/05/2009	55.7	27.9	27.5	35.6	19.8	31.4	8.2	33.9	38.7	22.00	13.24		
19/05/2009	0	3.8	0	15	14.9	0	10.5	11.3	0	10.43	9.53		
20/05/2009	0	0	0	0	0	4.7	0	4.4	0	0.86	3.77		
21/05/2009	4.4	6.3	0	0.1	0.4	0	0.4	2.4	0	2.14	2.35		
22/05/2009	0	0	0	0	0	0	5	1.7	0	0.57	2.38		
23/05/2009	0	0	0	0	0	0	0	0	0	1.00	1.85		
24/05/2009	0	9.6	12	11.4	7.9	2.4	10.5	7.3	4	0.57	8.57		
25/05/2009	14.2	23	17.9	12.2	0	2.7	4.3	3.9	1.3	0.00	7.98		
26/05/2009	13.9	24.9	8.3	15.7	8.5	11.7	18.2	11.2	5.9	4.43	10.97		
27/05/2009	0	0	0	3.8	12.8	2.9	6.6	0	0	3.29	6.48		
28/05/2009	0	0	0	0	0	0	0	0	0	2.71	1.85		
29/05/2009	0	0	0	8.2	0	4.9	0	0	3.4	2.43	4.59		
30/05/2009	0	0	0	0	0	0	12.5	6.3	0	0.57	3.24		
31/05/2009	0	0	0	11.3	13.7	2.8	18.7	19.3	3.2	0.29	9.90		
01/06/2009	0	0	0	2.4	0	0	0	5.9	0	0.00	3.05		
02/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
03/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
04/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
05/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
06/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
07/06/2009	0	0	0	8.2	4.3	17.2	0	20.9	22.2	0.00	11.06		
08/06/2009	51.6	42.6	16.4	38.5	35.8	0	29.6	21.2	6.8	7.29	16.38		
09/06/2009	0	0	0	0	0	0	0	0	0	37.14	1.85		
10/06/2009	0	0	0	0	0	0	18.4	0	0	0.00	3.22		
11/06/2009	0	0	0	0	0	0	0	0	0	0.57	1.85		
12/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
13/06/2009	0	1.7	0	0	0	0	0	0	0	0.00	1.71		
14/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
15/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
16/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
17/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
18/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
19/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
20/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
21/06/2009	0	0	0	0	0	0	0	1	0	0.00	1.96		
22/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
23/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
24/06/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
25/06/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/06/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/06/2009	0	0	0	0	0	0	0	0	0	0	2.4	0.00	1.82
28/06/2009	0	0	0.1	0	0	0	0	0	0	0	0	0.00	1.86
29/06/2009	0	4	1.9	0	0	0	0	0	0	0	0	0.00	1.69
30/06/2009	0	0	0	2.1	0	0	0	0	0	0	0	0.00	2.31
01/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/07/2009	0	0	6.3	0	8.5	15.3	0	6.6	3.2	0.00	7.82		
04/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/07/2009	9.8	0	0	0	0	0	0	0	0	0	0	0.00	3.22
18/07/2009	0	0	0	0	0	0	0	8.1	3.8	3.8	0.00	2.78	
19/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/07/2009	0	0	0	0	28.7	0	0	0	0	0	0	0.14	6.19
24/07/2009	0	0	2.3	0	0	0	0	0	0	0	0	2.43	2.05
25/07/2009	0	0	0	0	0	0	0	0	0	0	0	1.14	1.85
26/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/07/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/07/2009	0	5.1	0	0	0	0	0	0	0	0	0	0.00	1.42
01/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/08/2009	0	0	0	2.4	0	0	0	0	0	0	0	0.00	2.38
03/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/08/2009	0.1	0	0	0	0	0	0	0	0	0	0.3	0.00	1.86
08/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/08/2009	0	0	0	0	0	0	0	0	0	0	0.2	0.00	1.85
19/08/2009	7	0	5.9	0	0	0	0	0	0	0	0	0.00	3.42
20/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/08/2009	0	0	0	0	0	0	0	0.2	0	0	0	0.00	1.86
23/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/08/2009	0	0	5.9	0	0	0	0	0	0	0	0	0.00	2.40
27/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
29/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/08/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/09/2009	0	0	0	29	0	0	0	0	0	0	0	0.00	6.68
04/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/09/2009	0	12.5	0	0	5.5	0	0	0	0	0	0	0.00	1.82
11/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/09/2009	0	0	0	0	0	0	0	32.2	0	0	0	1.57	4.12
16/09/2009	0	0	0	0	32.6	25.5	0	0	0	0	0	2.86	11.97
17/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.29	1.85
18/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/09/2009	0	0	0	7.7	0	0	0	0	0	0	0	0.00	3.45
21/09/2009	0	0	0	0	0	0	0	1.3	0	0	0	0.00	1.94
22/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/09/2009	0	0	0	0.1	0	0	0	0	0	0	0	0.00	1.87
26/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/09/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/10/2009	0	0	0	2.4	0	2.5	0	0	0	0	0	0.00	3.06
03/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/10/2009	0	0	0	1.1	0	0	0	0	0	0	0	3.14	2.09
09/10/2009	0	0	0	0	2.7	0	0	0	0.5	0	0	0.00	2.36
10/10/2009	0	0	0	0	0	0	0	11.3	11.9	0	0.43	3.53	
11/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/10/2009	0	0	0	5	6.6	1.9	4.6	9	0.1	8.86	5.77		
14/10/2009	0	0	0	0	2.1	5.9	0	0	0	0	0.00	3.86	
15/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/10/2009	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/10/2009	0	0	1.5	4.5	11.7	8.3	0	2.7	1.6	0.00	7.36		
24/10/2009	0	4.1	0	34.3	36	0	74.7	62.6	50.2	6.71	14.15		
25/10/2009	0	0	0	14.5	19	0	0	0	0	5.43	9.14		
26/10/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
27/10/2009	26	23.4	51.7	3.3	7.1	4.6	0	1.2	0.1	2.57	11.28		
28/10/2009	0	0	0	0	0	0	0	0	0	0.00	1.85		
29/10/2009	0	0	0	0	0	1.9	0	0	0	0.00	2.40		
30/10/2009	0	0	0	7.8	5.8	14.9	0	7.3	6.2	4.43	8.75		
31/10/2009	0	0	0	0	0	0	0	0	0	3.14	1.85		
01/11/2009	0	0	0	0	0	0	0	3.3	0	3.14	2.22		

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
02/11/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/11/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/11/2009	0	8.3	0	0	0	0	0	0	0	0	0.00	1.17
05/11/2009	0	0	0	0	0	0	0	6.1	1.2	0	0.00	2.41
06/11/2009	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/11/2009	0	0	0	0	3.4	0	13.7	16.2	3.6	0.00	4.44	
08/11/2009	0	0	0	6.1	0	15.3	3.8	0	3.9	0.00	6.38	
09/11/2009	0	0	0	0	1.4	0	0	0	0	0.00	2.09	
10/11/2009	0	0	0	0	9	6.2	4.7	10.5	0	0.71	6.13	
11/11/2009	0	0	0	0	0	0	2.9	0	0	0.00	2.06	
12/11/2009	0	0	0	0.8	3.5	0	4.2	4.8	0	3.86	3.38	
13/11/2009	0	0	0	12.6	0	0	28.6	18.7	0	2.86	6.85	
14/11/2009	0	0	0	4.3	3.2	0	15.6	9.6	3.7	0.86	5.27	
15/11/2009	15.2	30.7	0	31.3	34.7	18.9	23.9	9.8	12.7	5.29	17.62	
16/11/2009	0	0	0	11.1	3.8	0	13.4	17.1	4.5	12.71	7.29	
17/11/2009	7.9	0	0	15.1	5.9	3.3	0	0	7.1	2.43	6.35	
18/11/2009	0	0	0	0	0	0	0	0	0	0.43	1.85	
19/11/2009	33.2	25.5	8.4	4	3	0	8.9	17.3	21.5	1.71	9.05	
20/11/2009	0	0.3	0.3	6.7	10.7	24.7	20.3	22.4	32.8	13.43	11.02	
21/11/2009	0	27.2	0	28.6	19.6	15.2	31.9	27.3	35.9	11.71	14.12	
22/11/2009	0	0	0	0	0	0	0	0	2.1	4.43	1.82	
23/11/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/11/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/11/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/11/2009	9.3	10.2	19.3	19.2	17.2	18.9	3.7	0	7.1	4.71	11.24	
27/11/2009	12.5	0	0	0	1.6	1.7	6	12.8	5.4	0.00	6.72	
28/11/2009	24.3	0	0	8.7	21	17.2	8.9	4.3	7	6.29	13.03	
29/11/2009	0	0	0	0	0	0	0	0	0	9.43	1.85	
30/11/2009	0	0	0	0	0	0	2.7	0	0.1	1.14	2.04	
01/12/2009	0	0	0	0	1.6	0	0	0	0	0.00	2.12	
02/12/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/12/2009	0	0	0	2	0	0	0	0	0	0.00	2.29	
04/12/2009	0	2.5	0	0.6	17.6	2.8	2.8	20.2	19.8	1.43	7.40	
05/12/2009	0	0	0	8.3	8.8	0	0	0	0	0.29	5.46	
06/12/2009	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/12/2009	0	0	0	1.9	0	1.8	3.2	2.3	0	0.00	3.25	
08/12/2009	0	0	0	1.4	0.6	3.6	0	5.2	0	13.14	3.92	
09/12/2009	0	0	0	0	0	7.8	0	0	0	3.14	4.03	
10/12/2009	0	0	0	0	0	0	0	0	0	5.57	1.85	
11/12/2009	0	0	0	0	0	0	0	0	0	1.43	1.85	
12/12/2009	14.6	48	32.5	4.4	0	8.7	0	0	0	0.00	6.42	
13/12/2009	0	0	0	0	0	0	4.7	0	0	9.57	2.19	
14/12/2009	7.5	0	0	18.9	0	17.6	0	0	0	0.00	8.10	
15/12/2009	43.9	21.7	11.7	0	2.2	4.9	0.4	0.4	3.1	9.00	9.62	
16/12/2009	0	0	0	0	0	8.8	0	0	0	0.71	4.28	
17/12/2009	13.8	14.9	9.1	3.7	0	1.8	0	13.5	26.4	12.57	5.25	
18/12/2009	11.5	8.7	0	0	0	8	0	5.6	26.2	5.00	3.69	
19/12/2009	0	0	0	0.3	0	21.4	3.1	0	4.2	3.71	6.22	
20/12/2009	9.2	9	0	11.1	9.5	0	0	0	0	2.14	6.06	
21/12/2009	0	0	0	0	0	6.5	0	2	4.2	4.14	3.94	
22/12/2009	0	0	0.1	11.1	0	3	44.4	38.1	25.5	4.86	6.94	
23/12/2009	0	0	0	30.8	38	0.6	20.3	16.2	14.7	8.57	18.75	
24/12/2009	0	0	0	8.7	19.9	8.5	46	45.8	24.4	13.29	11.71	
25/12/2009	3.7	9	11	0	4	3.7	40.7	4.3	1.3	7.29	7.42	
26/12/2009	26.4	24	36.1	34	22.4	9.4	21	19.4	18.6	7.57	18.25	
27/12/2009	9.2	20.5	13.8	7.2	7.7	0	0	0	0	1.43	6.10	
28/12/2009	0	0	7.8	0	0	5.2	4.6	8.5	0	2.71	5.08	
29/12/2009	58.2	49.2	49.2	32.4	39.9	32.6	9.5	11.6	8.3	7.71	17.52	
30/12/2009	9.8	6.5	0	12.3	5.8	11.3	6.1	14.8	29.5	5.00	8.81	
31/12/2009	6.5	0	0.3	35.8	37.5	30.5	26.6	37.3	40.4	9.00	21.32	
01/01/2010	8	5.7	3.6	19	27.3	11.9	18.6	16.1	1.1	7.14	14.94	
02/01/2010	0	0	0	1.6	1.3	1.2	7.7	3.2	1	19.86	3.63	
03/01/2010	7.9	0	0	41.2	31.6	23.6	29.3	35.1	39.7	8.29	20.13	
04/01/2010	33.1	13.1	23	10	6.7	9	1.9	14.3	4.1	12.00	14.88	
05/01/2010	51.5	10.5	29.4	36.9	20.6	35.3	55.3	22.6	28.8	18.00	16.94	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
06/01/2010	0	0	12.4	12.4	3.4	7.3	35.7	15.6	1.9	28.14	10.19	
07/01/2010	47.2	83.3	79.4	50.7	46.6	29.1	20	24.5	48.8	28.29	21.45	
08/01/2010	1.1	1.8	12.7	2.2	6.2	11.3	9	0	1.2	7.00	7.33	
09/01/2010	42.1	48.1	36.4	44.2	37.2	24.7	38.8	34.9	21.5	47.71	22.56	
10/01/2010	0	0.1	0	1.5	0.6	0.5	0	0.8	0.4	15.86	2.51	
11/01/2010	5.8	5.2	6.8	0	12.1	14.3	0	2.6	4	1.43	7.58	
12/01/2010	0	20.9	20	0	0	0.7	0	0	0	21.57	2.71	
13/01/2010	42.1	77.2	68.2	93	84.8	43.1	31.1	59.6	38.7	31.71	29.03	
14/01/2010	0	0	0.2	0.2	0.4	0	0.7	2.3	2.6	4.57	2.27	
15/01/2010	3.7	3.3	0	11.2	9.2	0	11	8.6	5.1	7.71	7.80	
16/01/2010	0	0	0	0	0	0	0	0	0	9.71	1.85	
17/01/2010	0	0	0.3	1.3	7.3	3.3	0	13	5	12.29	5.59	
18/01/2010	21.8	12.7	0	4.1	3.4	7.1	11.1	16.4	4.6	8.00	10.93	
19/01/2010	0	0.8	0	4.4	5.3	1.8	7.7	4.6	4.6	8.43	5.19	
20/01/2010	30.9	0	0	4.1	7.9	1.9	14.1	0	0	3.86	10.83	
21/01/2010	50.6	13.9	3.5	30	3.1	14.3	2.1	1.2	10.6	8.00	4.26	
22/01/2010	24.6	33.2	0	27.6	10.9	8.5	7.5	0.7	2.5	8.14	7.95	
23/01/2010	1.4	2	1.8	11.1	27.9	35.5	23.8	30.7	16	17.29	14.02	
24/01/2010	5.6	5.3	8	17.6	14.9	25.1	24.1	0	11.5	7.29	11.83	
25/01/2010	1.9	0.1	1.1	10	2.7	3.2	28.8	18.3	25.9	5.29	8.09	
26/01/2010	4.1	4.7	5.6	4	15.4	16	18.1	20.1	25.7	9.86	11.64	
27/01/2010	1.6	0	6.9	17.9	0	40.9	12.2	1.2	5.9	15.14	5.46	
28/01/2010	8	8.4	5	4	1.7	0	2.3	5	6.3	3.29	4.42	
29/01/2010	4.4	6.5	0.6	0	19.1	54	1.9	13.9	40.6	6.29	5.90	
30/01/2010	0	1.4	6.5	10.3	19.2	46.4	1.5	13.9	42	10.86	10.51	
31/01/2010	12.6	23.2	5.4	13.5	16.1	11.2	9.2	1.4	29.3	9.71	5.15	
01/02/2010	0	0	1.3	18.8	10.1	4.4	28.4	0	1	17.71	11.83	
02/02/2010	20.2	9	10.8	4.7	3.1	38.8	0	0	3.5	12.57	7.63	
03/02/2010	20.1	21.9	25.4	32.5	10.3	15.4	37	18.1	9.6	6.00	16.25	
04/02/2010	4	0	0	1.6	4.6	0	1	0	11.5	16.86	2.94	
05/02/2010	2.6	27.7	16.3	20.4	17.6	2.2	28.4	24.4	21.4	19.14	14.03	
06/02/2010	44	30.5	12.3	41.4	24.5	17.6	42	36.6	24.5	29.00	18.05	
07/02/2010	52.5	67.5	26.6	22.4	25.8	36.2	0	9.4	31.9	7.43	6.52	
08/02/2010	9.9	17	19.7	4.6	9	10.8	11.6	2.2	7.9	2.29	8.29	
09/02/2010	0	0.2	0	2	0	0	21.7	20	5.9	1.14	4.77	
10/02/2010	9.9	0	0	6.7	1.9	4.9	29.3	5.1	0	4.14	8.74	
11/02/2010	4.2	0	0	3	0	2.4	5.3	4.2	7.9	4.86	4.30	
12/02/2010	29.6	8.3	2.4	43.9	18.1	6.2	21.8	27.8	17.7	11.00	15.14	
13/02/2010	14.8	9.3	20.3	16.6	7.3	6.5	2.6	4.8	8.7	8.71	10.16	
14/02/2010	0	0	0	0.9	1.2	1.8	21.1	10.8	14.3	12.43	4.97	
15/02/2010	0	0	0	6.6	1.5	5.6	24.9	13.2	7.7	3.14	7.08	
16/02/2010	0	0	0	17.7	18	14.4	15.8	15.1	2.1	8.00	13.62	
17/02/2010	2.9	2.6	0	0.5	5.9	4.5	11.2	10.8	14.8	24.86	6.18	
18/02/2010	16.5	2.6	5.2	4.6	7	11.8	0	5.6	13.6	7.57	8.01	
19/02/2010	33.1	13.6	3.9	11.9	47.2	38.4	4.2	10.3	17.3	12.86	16.74	
20/02/2010	0	0	4.3	4.6	4.7	6.9	0	4.2	3.7	10.43	6.18	
21/02/2010	2.2	0	0	0	0	0	0	0	2	6.43	2.06	
22/02/2010	24	43.7	29.7	11.8	27.3	28.3	9.5	9.6	16.6	6.86	11.09	
23/02/2010	22.2	9.4	8.9	23.9	24.6	41.1	0	39.3	17.2	8.43	12.24	
24/02/2010	0	0.9	0	4.1	2.1	5.5	1.2	0	2.5	17.00	4.47	
25/02/2010	0	0	0	7.2	0	0	24.3	17.7	8.2	11.00	5.91	
26/02/2010	6.7	10	25.2	7.2	6.8	4.6	1.4	3	2.8	0.86	8.40	
27/02/2010	0	6.9	12.1	0	4.4	8.2	0	1.3	4	3.14	4.85	
28/02/2010	2.9	4.5	10.7	4.5	7.3	13.9	0.8	0	8.2	2.86	6.78	
01/03/2010	19.2	5.7	12.5	0	0	6.1	0	0	0	6.86	7.21	
02/03/2010	2.1	0	0	7	6.6	6.6	4.4	9.6	19.3	15.14	7.53	
03/03/2010	21.5	0.5	0	0.1	3.6	1.2	0.2	2.8	9.3	7.43	5.21	
04/03/2010	3.1	0	0	14.8	9.8	12.2	32.3	29.9	16.5	2.29	12.77	
05/03/2010	22.6	20.1	14.5	2.8	6.2	10.2	21.3	11.2	9.8	5.43	11.19	
06/03/2010	15.8	27.5	26.7	43.1	20	27.2	54.3	49.7	42.2	7.71	13.37	
07/03/2010	6.9	7.2	1.4	23.5	24.8	26.1	27.6	30.4	37.3	20.43	16.96	
08/03/2010	9.2	3.7	12.4	11	9.2	8.8	10	13	13.6	8.14	10.92	
09/03/2010	0	3.7	0	17.1	11.6	15.4	20.1	24.1	4.5	0.00	12.25	
10/03/2010	0	0	0	0	8.5	1.9	0	6.6	1.7	0.29	4.31	
11/03/2010	0	3.9	0	0	0	0	0	0	0	7.43	1.52	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
12/03/2010	0	0	0	5.4	1.6	0	4.4	1	0	3.71	3.77	
13/03/2010	3.6	0	0	0	0	0	0	0	0	1.00	2.31	
14/03/2010	0	0	0	3.3	0	0	4.3	0	0.5	7.43	2.86	
15/03/2010	5.9	15.5	7.9	9.2	9.6	3.8	0	4.1	0	3.43	7.19	
16/03/2010	2.3	1	0	7	5.4	7.7	10.3	11.1	11.4	19.71	8.18	
17/03/2010	4.1	0	12.2	0	18.1	0	1.7	9.2	1.7	5.71	5.86	
18/03/2010	21.5	18.8	10.8	14.3	24.7	16.5	8.1	16.8	7.7	10.14	13.75	
19/03/2010	0	0	0	2.8	1.8	0	0	1.7	0	6.86	2.98	
20/03/2010	0	0	3.5	0	0	4.3	4.9	0	0	1.43	3.62	
21/03/2010	0	0.1	0.8	0	0	0	0	0	0	6.43	1.91	
22/03/2010	9.2	0.5	2.6	0	6.4	4.4	0	19.8	8.3	11.14	8.03	
23/03/2010	0	0	0	0	0	0	0	0	0	11.14	1.85	
24/03/2010	7.8	0	0	0	0	0	0	0	0	2.86	2.91	
25/03/2010	14.3	9.4	9.4	0	0	0	0	0	0	4.86	4.32	
26/03/2010	3.2	4.6	7.5	6.2	10.5	11.4	0	1.3	5.8	4.00	7.68	
27/03/2010	0	0	9.3	5.7	17.9	20.2	9.2	7.7	2.1	6.00	11.31	
28/03/2010	7.2	18	6.2	13.7	16	0	10.1	10.9	0	11.29	9.89	
29/03/2010	76.9	54.5	34	55.4	56.7	22.7	7.4	15.5	1.8	6.14	20.80	
30/03/2010	16.5	35.6	18.4	4.4	5.4	4.1	21.8	17.9	13.8	4.43	9.31	
31/03/2010	17.6	17.6	11.5	17.6	11.4	11.1	29.2	30.4	19.4	6.57	15.27	
01/04/2010	8.1	12.9	3.3	26	13.1	15.9	8.5	53.3	35	9.57	18.25	
02/04/2010	13.5	3.3	11.2	9.8	12.1	13.2	4.6	19.8	9.1	13.86	12.96	
03/04/2010	1.1	4.6	3.4	15.3	38.1	35.8	24	17.8	13.2	17.71	17.59	
04/04/2010	5.3	0	0	13.5	12.9	13.6	24.4	6.4	13.7	9.14	11.60	
05/04/2010	0	0	5.2	18.2	24.1	22.6	17.2	31.3	25.5	10.29	17.39	
06/04/2010	19.6	6	1.8	37.5	18.6	16	1.9	5.1	7.7	2.43	11.89	
07/04/2010	4.2	0	3.2	10.8	9.5	12.6	1.6	2.5	9	8.86	8.70	
08/04/2010	8.8	8.7	10.1	4.2	23	4.2	8.5	13.8	5.6	12.71	9.04	
09/04/2010	11.2	14.9	12.4	0	1.8	4.3	26.7	9.8	3.8	2.57	7.64	
10/04/2010	0	0	5.2	12.7	2.4	2.6	10.4	5.2	6	1.29	7.13	
11/04/2010	0.7	0	0.2	6.9	10	12.3	20.7	6.3	17.2	24.43	9.24	
12/04/2010	49.1	54.7	15.8	19.6	17	15.5	9.1	13.9	12.9	8.00	12.62	
13/04/2010	9.5	0	6.7	1.2	0.9	0	9.9	12.2	5.9	3.29	6.53	
14/04/2010	23.6	12.5	2.1	20.9	6	2.9	1.6	4.3	10.8	9.43	6.75	
15/04/2010	20.9	3.8	0	2.2	1.8	1.3	4.5	16.6	25.7	4.71	7.10	
16/04/2010	11.9	5.5	0	13.2	9	32.4	17.7	9.4	12.7	12.43	9.87	
17/04/2010	2.5	5.9	12.5	2.5	10.3	7.4	7.5	5.7	8.6	4.43	7.47	
18/04/2010	10.6	25.1	36.7	17.4	16.8	19.6	23.2	10.3	14.2	12.86	13.82	
19/04/2010	5.4	7.2	13.5	3.8	4.2	10	3.9	1.8	2.8	1.57	6.93	
20/04/2010	9.2	9.5	8.2	9	7.6	2.2	5.4	1.6	1.7	0.29	7.35	
21/04/2010	1.2	0	0	1.4	5.2	0	2.4	7.8	7.2	4.71	4.13	
22/04/2010	17.1	4.6	2	29.5	0	1.9	9.3	6.8	0.8	2.14	9.14	
23/04/2010	39.4	5.6	2	8.5	0	14.5	3.7	15.4	10.8	8.57	15.75	
24/04/2010	19	72.6	77.8	18.6	56.8	50.5	9.5	11.9	8.9	5.43	9.66	
25/04/2010	5.7	0	9.7	3	0	1.2	8.1	23.2	10	8.71	7.84	
26/04/2010	11.1	9.9	0	8.3	2.2	0	2.3	5.2	0	11.14	5.49	
27/04/2010	0	0	9.7	8.8	10	51.2	23.9	7.2	2.5	10.86	6.98	
28/04/2010	0.6	4.9	0.3	1.4	0.3	0.4	0.3	6.2	1.6	5.29	2.78	
29/04/2010	0	0	5.1	0	0	0	12.8	0	0	11.57	3.36	
30/04/2010	0	0	0	0	0	0	0	0	0	2.43	1.85	
01/05/2010	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/05/2010	0	19.9	29.1	0	0	2.8	21.9	5.2	0	6.43	6.04	
03/05/2010	13.9	7.1	4.6	9.2	37.8	23.6	6.1	21.2	3.8	3.43	12.51	
04/05/2010	0	0	7.9	0	0	0	0	0	11.1	8.86	2.21	
05/05/2010	0	0	0	0	24.9	0	0	0	13.8	13.86	5.68	
06/05/2010	0	0	0	0	0	0	0	0	0	0.43	1.85	
07/05/2010	12.1	23	4.2	20.4	0	0	48.9	12.5	46.6	1.86	-2.70	
08/05/2010	12.3	6.5	3.9	2.4	0	0	13.2	11.9	2.4	2.29	6.73	
09/05/2010	3.2	1.2	0.8	6.5	1.6	4.2	24.7	6.2	1.4	10.71	6.93	
10/05/2010	0	0	0	9.6	5	1.9	6.3	24.2	34	4.57	9.20	
11/05/2010	7	7.9	0	0	6.4	0	15.9	8.7	0	5.29	5.40	
12/05/2010	8.8	8.1	21.7	5.9	0	6	36.8	12.5	12.5	1.86	9.21	
13/05/2010	8.2	37.5	52.8	4.8	21.7	25.2	5.1	5.2	0	5.14	7.73	
14/05/2010	27.7	31.3	22.2	35.4	16	0	25.3	20.1	2.7	2.43	18.05	
15/05/2010	17.5	26	29	15.4	20.3	10.7	2	3.5	9.7	3.00	10.97	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
16/05/2010	4.4		11.3	5.7	1	0	1.6	1.5	0	0	5.71	2.79	
17/05/2010	0	0	0	0	0	0	0	1.6	0	13.7	0.00	1.87	
18/05/2010	0	0	0	7.5	1.8	25.4	25.6	28.6	18.9	9.43	9.79		
19/05/2010	4.4	2.7	14.3	8	15.6	16.4	0	5.8	0	10.86	10.36		
20/05/2010	0	0	0	27.1	7.9	5.4	16.4	4.7	0	11.14	11.39		
21/05/2010	20.5	15.1	0	28.6	15.7	0	0.9	1.9	0	11.57	9.55		
22/05/2010	4	0	0	0	0	0	0	0	0	4.86	2.36		
23/05/2010	14.3	4.8	2.9	21	14.5	9	13.8	7.3	1.9	11.57	12.99		
24/05/2010	0.2	5.7	2	27.1	17.1	20.8	0.4	2.1	7.5	6.57	12.41		
25/05/2010	0	0	0	15.7	8.8	0	23.2	40.1	8.3	3.86	9.24		
26/05/2010	0	3.5	12.7	20.3	20	63.9	39.2	39.1	26.8	9.43	-5.22		
27/05/2010	12.3	9.9	6.7	3	3.9	0	2.4	0	0	6.57	4.96		
28/05/2010	4.4	0	0	0	0	0	0	0	0	0.71	2.42		
29/05/2010	0	0	0	0	0	0	5.4	0	0	4.29	2.24		
30/05/2010	0	6.9	0	0	7.7	0	0	0	0	0.6	0.00	2.60	
31/05/2010	4.1	5.2	0	1.8	0	1	5.6	1.9	25.1	1.43	2.36		
01/06/2010	0	0	0	0	0	0	0	0	0	0.57	1.85		
02/06/2010	0	0	0	0	0	0	0	0	0	0.29	1.85		
03/06/2010	0	0	0	0	0	0	0	3.6	13.7	2	2.71	3.43	
04/06/2010	1.3	0	0	5.2	1.9	0	0	1.2	0	6.00	3.61		
05/06/2010	0	0	0	0	0	0	0	0	0	3.29	1.85		
06/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
07/06/2010	1.7	3	9.4	0	0	7.8	9.8	4.4	1.1	1.29	5.60		
08/06/2010	29.5	41	39.8	19.4	42.3	33.4	20.8	10.1	5.3	3.14	15.81		
09/06/2010	0	0	3.4	3.3	0	0	3.1	2.2	0	2.86	3.38		
10/06/2010	16.6	15.8	12.5	20.9	31	23.5	9.6	18.3	16.9	10.57	14.83		
11/06/2010	0	0	0	0	0	0	2.5	20.6	0	5.29	3.70		
12/06/2010	0	0	0	0	0	0	14.2	13	0	2.14	3.69		
13/06/2010	19.9	15.6	0	27.9	0	0	0	9.8	0	5.86	8.24		
14/06/2010	0	0	3.2	4	9.2	2.1	12.3	14.6	22.9	2.86	7.47		
15/06/2010	0	0.3	0	0	1.2	0.7	0	0.2	0	1.00	2.25		
16/06/2010	15.2	12.8	10.7	3.7	5.9	6.4	0	0	0.5	4.57	6.84		
17/06/2010	10.5	0	0.2	1.2	0	0	0	0	0	0.00	3.56		
18/06/2010	0	0	0	0	0	0	3.2	0	0	0.00	2.08		
19/06/2010	0	0	0	0	0	0	0	0	0	0.6	2.14	1.84	
20/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
21/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
22/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
23/06/2010	0	0	0	0	0	0	0	0	0.5	0.00	1.84		
24/06/2010	0	0.3	2.9	0	0.4	1.6	1.1	0.3	6.8	0.14	2.56		
25/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
26/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
27/06/2010	0	0	5.9	0	0	5.6	1.7	0	0	0.00	3.89		
28/06/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
29/06/2010	0	0	0	10.8	0	0	13.9	0	0	0.00	5.05		
30/06/2010	0	0	0	0	0	0	0	9.8	1.6	11.29	2.92		
01/07/2010	0	0	0	0	0	0	12	0	0	0.00	2.74		
02/07/2010	0	3.5	6.3	0	0	0	0	0	0	0.00	2.16		
03/07/2010	0	0	0	7.7	0	6.9	25.6	26.5	15.4	0.43	8.36		
04/07/2010	0	0	0	29.7	32.4	17	6.7	7.5	1.8	11.29	17.47		
05/07/2010	39.2	15.7	0	20.9	4.7	0	0	0	4.4	9.57	5.35		
06/07/2010	0	0	0	7.7	0	6.9	25.6	26.5	15.4	4.14	8.36		
07/07/2010	0	0	0.1	0	0	0	0	0	0	0.14	1.86		
08/07/2010	0	0	0	19.2	0.3	7.1	8.8	0.9	6.9	0.00	6.83		
09/07/2010	0	0	0	0	0	0	2.4	0	0	0.00	2.02		
10/07/2010	9.6	11.6	13	2	7.1	9.4	0	0	4.7	1.57	6.20		
11/07/2010	24.2	21.3	3.4	32.4	19.6	0	18.9	34.5	8	8.43	15.51		
12/07/2010	0	0	0	0	0	0	20.7	0	0	9.00	3.38		
13/07/2010	0	0	0	0	3.5	0	9.7	4.9	0	2.57	3.59		
14/07/2010	0	0	0	0	0	0	0	0	0	6.57	1.85		
15/07/2010	0.9	0	0	0	0	0	0	0	0	0.00	1.96		
16/07/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
17/07/2010	0	0	0	0	0	0	0	0	0	0.43	1.85		
18/07/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
19/07/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
20/07/2010	0	0	0	0	0	0	0	0	0	0	0	1.00	1.85
21/07/2010	0	0	4.2	0	0	0	0.1	0	0	0	0.00	2.24	
22/07/2010	0	0	4.2	0	0	0	0.1	0	0	0	0.00	2.24	
23/07/2010	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/07/2010	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/07/2010	52.4	70.5	67	3.6	32.9	56.3	2.9	2.2	41.5	6.00	26.29		
26/07/2010	0	0.2	3.6	6.5	0.6	0.6	1.9	7.6	1.1	1.29	4.84		
27/07/2010	0	3.9	3.9	4.2	0	0	0.1	0	0	2.43	2.85		
28/07/2010	0	0	0	3.8	13.9	0	0	0	0	0.86	5.29		
29/07/2010	0	0	0	0	0	0	0	0	0	2.86	1.85		
30/07/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
31/07/2010	0	0	0	0	0	0	0	0	0	2.86	1.85		
01/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
02/08/2010	0	0	0	0	0	0	0	0	0	0.71	1.85		
03/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
04/08/2010	15.8	0	4.9	13.9	0	19	0	0	12.5	1.57	6.55		
05/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
06/08/2010	0	0	0	0	0	0	0	0	0	0.86	1.85		
07/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
08/08/2010	0	0	0	0	0	0	0	0	0	5.29	1.85		
09/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
10/08/2010	0	0	0	0	0	0	0	0	0	1.14	1.85		
11/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
12/08/2010	0	3.8	0	0	0	0	0	0	0	3.00	1.53		
13/08/2010	0	0	0	0	0	0	0	0	0	0.5	1.14	1.84	
14/08/2010	0	15.8	6.8	0	0	0	0	0	0	0	1.57	1.30	
15/08/2010	0	0	0	0	0	0	0	0	0	0	3.29	1.85	
16/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
17/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
18/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
19/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
20/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
21/08/2010	0.8	0	0	3.7	8.4	2.2	20.4	8.7	0	6.14	7.11		
22/08/2010	0	0	0	14.5	17.7	7.2	23	7.1	0	12.43	12.89		
23/08/2010	0	0	15.1	18.4	16.1	0	12.5	0	0	22.43	12.84		
24/08/2010	0	0	0	0	19.7	0	6.1	58.2	5	7.00	0.86		
25/08/2010	0	0	0	4.5	0	0	0	0.2	8.5	3.57	2.64		
26/08/2010	0	0	0	0	0	0	12.5	0	0	4.00	2.78		
27/08/2010	0	0	0	4.4	0	0	0	0	0	0.00	2.79		
28/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
29/08/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
30/08/2010	0	0	0	0	0	0	0	0	0	21.6	0.29	1.83	
31/08/2010	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/09/2010	0	0	0	0	0	0	5.8	0	0	1.57	2.27		
02/09/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
03/09/2010	0	0	0	0	0	0	0	0	0	2.14	1.85		
04/09/2010	0	0	0	0	0	0	0	0	0	0.86	1.85		
05/09/2010	15.7	9.4	0	0	2.8	0	0	0	0	8.57	3.77		
06/09/2010	15.9	9.9	7.1	6.7	2.7	0.2	1.2	2	2.8	1.71	5.89		
07/09/2010	1.5	0.2	0	2	0	0	0	2.6	0	3.71	2.77		
08/09/2010	11.4	8.2	7.8	3	5	4.9	23.2	2.9	3	4.86	8.30		
09/09/2010	17.5	20.1	15.8	8.8	17.6	19.1	5.4	4.3	7	5.71	10.41		
10/09/2010	13.3	7.5	4.1	6.6	0	0	6	5.9	25.4	0.00	3.25		
11/09/2010	0	1.7	0	24.7	22.6	12.1	30.6	15.1	14.9	3.71	16.85		
12/09/2010	24.7	12.1	2.8	18.8	11.9	6.3	17.6	9.1	3	19.43	12.96		
13/09/2010	0	0	0	0	0	0	0	0	0	1.57	1.85		
14/09/2010	0	0	0	0	0	0	0	0	0	0.86	1.85		
15/09/2010	0	0	8.4	0	0	0	0	0	6	0	2.00	3.29	
16/09/2010	0.9	0.9	1.4	12.8	2.2	2.6	10.7	9.9	1.1	16.71	7.36		
17/09/2010	0	8	4.2	0	5	0.6	10.2	35.2	22.9	9.43	6.71		
18/09/2010	18.2	28.2	23.2	24.5	29.7	35.1	29.3	44.8	51.8	7.14	15.97		
19/09/2010	0	8.3	0	3.3	14.8	8.3	0	0	4.4	8.57	6.50		
20/09/2010	2	5.8	2.5	8	12.5	7.9	0.8	7.1	5.4	6.57	8.36		
21/09/2010	0.8	0	0	1.6	4	0	3.4	5.7	0.3	5.43	3.79		
22/09/2010	9.8	9.1	6.4	11.4	10.3	9.2	15.8	14.9	13.3	1.14	11.18		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
23/09/2010	0	3.2	6.6	6.7	6.2	0	7.2	8	0.8	1.71	6.24		
24/09/2010	0	2.5	2.2	2.8	0	0	7.8	4.1	0	2.71	3.45		
25/09/2010	0	0	0.6	0	0	0	0.5	0	0	3.43	1.94		
26/09/2010	0	0	0	4.7	0	0	4.9	0	0	0.00	3.21		
27/09/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
28/09/2010	0	0	0	0	0	0	0	0	0	5.86	1.85		
29/09/2010	0	0	0	0	0	0	0	0.3	0	12.86	1.88		
30/09/2010	0	0	0	0	0	0	0	0	0	3.43	1.85		
01/10/2010	0	4.4	8.5	10.1	16.5	20.2	12.9	20.9	8.7	5.14	12.77		
02/10/2010	0	0	0	0	0	0	0	0	0	6.86	1.85		
03/10/2010	0	0	0	0	0	0	9.9	0	0	0.00	2.58		
04/10/2010	0	0	0	0	0	0	0.3	0	3.3	2.14	1.83		
05/10/2010	0	0	0	1.4	4.8	0	0	0.1	9.6	2.00	2.83		
06/10/2010	0	0	0	0	0	1.6	0	0	0	0.00	2.31		
07/10/2010	34	51.4	13.5	46.1	29.2	12.2	24.2	15.8	5.5	5.14	18.30		
08/10/2010	6.1	9.4	0	3.2	4.6	10.9	0	2.6	2.9	16.29	6.10		
09/10/2010	0	0	0	4.9	3.2	5.8	9.2	1.3	9.8	16.86	5.40		
10/10/2010	0	0	0	0	0	0	0	0	0	7.14	1.85		
11/10/2010	0	0	0	0	0	0	0	0	0	1.00	1.85		
12/10/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
13/10/2010	0	0	0	0	0	0	0	0	0	0.29	1.85		
14/10/2010	118.6	18.1	0	73.2	10.4	1.3	0	0	0	0.00	-3.18		
15/10/2010	11.1	4.5	3.5	0	0	0	6.7	0	10.4	3.14	2.88		
16/10/2010	3.4	19.7	21.7	7	17.4	4.4	8.8	52.8	24.3	5.14	8.99		
17/10/2010	0	0	0	0	0	0	1.1	1.6	5.6	6.29	2.08		
18/10/2010	0	0	0	8	9.4	1	11.4	7.9	0.9	8.71	7.25		
19/10/2010	0.1	1.5	0.9	0	0	0	0	0	0	12.00	1.81		
20/10/2010	0	0	1.5	6.1	3.1	3	12.7	8.4	15.7	2.00	6.17		
21/10/2010	0	0	8.5	4.8	0	0	27.9	4.1	0	12.00	6.28		
22/10/2010	5	23.1	21.5	9.8	19.6	18.9	10	10.7	7.4	2.86	11.31		
23/10/2010	3	25.2	44.8	14.4	26.5	26.3	11.2	25.8	42.8	26.00	12.33		
24/10/2010	2.3	0	0	1.6	0	0	4.4	3.7	2.2	14.86	3.19		
25/10/2010	0	0	0	0	0	0.9	0	0	4.9	3.86	2.06		
26/10/2010	0	1.7	2.1	18.3	3.2	3.3	35.9	5	3.7	4.57	9.02		
27/10/2010	0	3.1	10.4	0	0	0	0	0	0	3.00	2.64		
28/10/2010	0	0	0	0	0	0	14	0	0	5.43	2.89		
29/10/2010	2.5	4.3	9.5	1.2	3.1	8.6	2.1	6.1	16.7	13.14	5.59		
30/10/2010	0	0.1	3.9	15.9	9.5	24.3	22.6	23.5	26.4	20.29	12.62		
31/10/2010	5.7	0	0.9	17.1	40	21	16.8	16.5	19	12.86	17.44		
01/11/2010	0	0	0	3.6	0	1.3	5.1	8.7	0.6	16.14	4.25		
02/11/2010	6.5	8.4	0	10.6	16.9	4.1	7.8	6.4	1.4	9.14	9.37		
03/11/2010	23	13.6	22.7	11.3	6.2	14.5	12.8	2.2	6	9.29	11.24		
04/11/2010	3.6	5.1	26.3	5.3	3.8	23	0	0	4.1	4.86	7.35		
05/11/2010	33.7	23.1	20.3	8.4	12.9	7.1	31.5	22.5	14.6	2.43	16.85		
06/11/2010	0	0	0	1.8	3.3	2.1	22.4	8.9	12.7	27.43	5.48		
07/11/2010	0.1	0.1	0	19.5	0	2.4	16.6	5.1	1.1	28.00	7.39		
08/11/2010	22.2	16	22.5	3	3.6	34	0	12.5	26.8	3.14	5.95		
09/11/2010	5.3	2.2	0	6.7	5.7	0	0	0	0	1.57	4.69		
10/11/2010	0	0	0	0	0	0	0	0	0.1	0.00	1.85		
11/11/2010	0	0	0	0	0	0	0	0	0	0.00	1.85		
12/11/2010	0	0	0	0	0	0	0	0	0	6.86	1.85		
13/11/2010	0	0	0	0	0	0	0	0	16.9	0	0.00	3.43	
14/11/2010	0	0	0	0	0	0	0	0	0	0	11.57	1.85	
15/11/2010	0	0	0	0	0	0	0	0	0	0	13.14	1.85	
16/11/2010	4.7	0	0	6.2	0	0	0	0	0	5.14	3.62		
17/11/2010	0	0	0	0	0	0	1.2	0	0	8.29	1.93		
18/11/2010	0	0	0	0	0	0	0	0	0	1.86	1.85		
19/11/2010	0	0	0	0	0	0	0	0	0	0	0.57	1.85	
20/11/2010	0	0	0	0	0	0	0	0	0	0	11.86	1.85	
21/11/2010	0	0	0	3.1	9.6	3.7	10.5	14.8	13.4	10.86	7.42		
22/11/2010	0	2.8	5.2	8.1	14.3	10.2	2	11.1	9.2	4.14	9.83		
23/11/2010	0	0	3.2	0	0	6.4	7.1	3.1	3.00	0.00	3.29		
24/11/2010	34.3	42.1	19.4	3.9	10.9	8.6	0	9.8	10.5	0.00	10.17		
25/11/2010	0	14.6	8.4	12.7	12.3	5.9	44.7	19.2	5	7.86	10.69		
26/11/2010	15.9	0	5	5.2	6.2	0	11.9	5.3	1.6	11.29	8.55		

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
27/11/2010	0	3.3	0	20	5.7	0	25.2	12.4	14.7	7.86	8.98	
28/11/2010	3.7	1.3	0	6.2	0	0	1.5	4.8	0.8	16.86	4.19	
29/11/2010	15.9	24.7	28.4	8.5	22.8	34	14.4	14.6	18.6	11.43	11.40	
30/11/2010	7.8	2.9	3.8	15.3	12.8	8.9	4.5	7.4	12.3	8.14	10.15	
01/12/2010	26.3	36.5	5.4	51.7	67	61.7	45.3	58.5	95.9	29.57	29.04	
02/12/2010	2.5	14	28.8	3.7	3.9	0	1.2	5.3	22	8.43	5.01	
03/12/2010	2.9	0.7	0.8	13.1	13.8	7.1	21.6	36.1	2.5	22.00	10.28	
04/12/2010	38.5	22.2	36.5	23.7	23.5	49.7	12.7	7.6	26.2	18.71	18.33	
05/12/2010	1.3	2.8	0	39.7	39.8	5.6	40.7	23.8	2.2	39.57	22.07	
06/12/2010	32.3	0	0	8.2	1.9	0	8	1.9	0	27.14	9.57	
07/12/2010	1.6	0	0	29.3	17.4	3.7	32.9	13.7	18.9	14.71	15.21	
08/12/2010	12.1	3.8	9.3	8.3	3.7	1.9	2.1	0.2	0	13.14	6.98	
09/12/2010	14.2	6.7	9.3	7.8	4.5	8.1	4.5	3.4	4.6	18.14	8.29	
10/12/2010	9.6	15.7	38.7	13.3	31.4	33.3	6.6	25.9	19.8	3.57	10.69	
11/12/2010	13.9	12.8	19.9	21.3	13.3	9.5	7.6	3.6	5	2.14	12.34	
12/12/2010	0	0	0.9	13	14.1	6.3	33.8	48.1	18.6	9.14	11.07	
13/12/2010	12.4	10.5	11.9	7.9	2.1	6.4	20.2	22	5.9	4.86	11.03	
14/12/2010	1.1	2.7	1.8	3.7	7.7	7.7	0	0.5	1.1	1.00	5.99	
15/12/2010	8.6	1.7	5.1	3.2	3.3	2.8	0.4	0.2	0.6	4.29	5.22	
16/12/2010	0	0	0.8	12	9.9	8.7	49.3	34.6	27	3.43	10.51	
17/12/2010	2.7	2.5	0	5.5	5	3.7	2.8	6.5	6.5	7.43	5.84	
18/12/2010	39.2	33.7	8.6	21.2	9.1	8	5.5	7	13	5.57	8.06	
19/12/2010	7.2	5	11.6	18.7	11.3	17.7	14.2	6.7	7.4	9.57	12.08	
20/12/2010	0	3.8	3.3	1	1.5	4.3	2.3	0	2.2	5.43	3.50	
21/12/2010	0	0.6	0	0	0.1	1.9	0	0	0	4.71	2.36	
22/12/2010	28.1	19	37.2	16.5	19.3	26.7	1.7	12.6	12.1	3.43	12.24	
23/12/2010	0.2	4.6	3.4	2.6	3.9	4.9	0	0	0	13.57	4.29	
24/12/2010	0	0	0	0	0	0	0	0	0	9.57	1.85	
25/12/2010	0	0	0	2.6	0.4	0	0.6	1.1	0.2	1.86	2.66	
26/12/2010	0	2.1	0	0	0	0	0	0	0	19.86	1.67	
27/12/2010	0	0	0	5.4	3.5	0	5.1	1.4	0	10.71	4.26	
28/12/2010	7.9	7.2	9	0	0	2.4	0	0	0	12.57	3.86	
29/12/2010	1.1	0.1	0.1	0	0	0	0	0	0.6	3.86	1.97	
30/12/2010	37.7	28.5	14.9	7.1	4.1	4.6	0.9	0.2	0.2	0.00	9.19	
31/12/2010	112.3	166.7	106.3	70.5	73.6	72.9	58.4	36.3	22.8	4.57	6.53	
01/01/2011	49	56.8	57.3	35.4	38.2	50.8	35.1	56.1	55.4	18.71	18.90	
02/01/2011	0	0	4.8	1.2	0	0	7.9	4.6	5.3	3.86	3.53	
03/01/2011	1.9	0	0	0	0.8	1.1	4.3	5.5	3.5	4.00	3.45	
04/01/2011	0	0	0	7.3	0.6	0	0	0	0	1.29	3.50	
05/01/2011	0	0	0	2.1	1	0	0.5	0	1.4	0.57	2.50	
06/01/2011	46.6	4.7	0	12.7	2.7	0	3	0.6	0.4	10.14	9.79	
07/01/2011	9	0	7.2	4.7	1.3	15.1	0	0	17.8	8.00	5.01	
08/01/2011	20.7	14.1	7.4	21.7	25.4	13.8	16.8	7.7	7.6	14.71	14.69	
09/01/2011	0	4.1	10.4	4.3	1.8	8.9	23.5	6	13.7	20.86	6.57	
10/01/2011	0	0	0	0.1	12	8.5	3.6	30.7	27.4	14.71	10.30	
11/01/2011	0.1	0.8	4.4	7.8	16.9	25	53.2	64.7	71.6	18.00	7.26	
12/01/2011	0	0.4	0.9	0	0	0	0	0	0	3.86	1.89	
13/01/2011	4.3	13	2.1	0	1.3	2.3	1.2	1.2	0.6	0.00	2.59	
14/01/2011	0	2.1	0.9	2.8	15.9	16	0	1.7	1.1	34.71	8.82	
15/01/2011	5.8	21.5	58.5	0.2	4.8	5.7	0.2	0.3	1.1	34.86	7.55	
16/01/2011	19.1	45.5	11	33	19.5	19.1	3.7	10.1	9.8	21.14	12.85	
17/01/2011	6.9	13.2	8.3	76.4	24.8	2.8	30	20.2	7.1	9.43	21.48	
18/01/2011	72.4	69.2	78.7	54.9	28	14.8	5.4	6.2	3.4	17.00	20.92	
19/01/2011	0.1	1.8	4.2	3.6	4.3	4.4	1	4.4	6.7	6.14	5.23	
20/01/2011	2.8	6.9	6.4	0.3	0.1	5	0	2	2.7	4.71	3.73	
21/01/2011	0	0	0	0	0	0	1	2.2	5.6	0.57	2.15	
22/01/2011	0	0	0	0	0	0	1.9	6.3	4.1	0.14	2.70	
23/01/2011	1.5	0	0	5	17.7	14	29.2	21	31.9	8.71	12.31	
24/01/2011	40.8	26.8	20.2	19.4	8.8	8.3	3.4	5.7	8.3	29.57	10.97	
25/01/2011	7.9	9.3	0.4	29	11.5	2.5	60.5	24.7	17	10.00	12.04	
26/01/2011	1.7	1.7	2.5	0.3	1.1	1.5	0.1	0.4	0.9	3.86	2.83	
27/01/2011	0	0	1	0	0	0	2.4	0	0	0.00	2.11	
28/01/2011	0	0	0	1.8	2.3	2	3.9	4.8	4.9	0.00	3.99	
29/01/2011	0	0	0	2.2	53.4	41.9	0	0.7	2.4	0.00	19.29	
30/01/2011	0	1.7	0	3.9	2.3	5.2	0.2	0	0	2.00	4.34	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -7.875	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
31/01/2011	0	1.4	0	3.9	4.5	1.1	33.7	13.1	7.5	4.57	6.26	
01/02/2011	15.3	13.9	28.4	9.7	18.2	26.6	23.8	22.4	17.7	7.71	13.91	
02/02/2011	4.1	4.8	0	0	0	0	13.4	19.3	3.6	3.57	4.68	
03/02/2011	0	2	3.9	2.1	3.2	5	10.3	7	6.7	0.57	5.66	
04/02/2011	4.8	12.8	0.5	3.8	9.6	0.3	8.1	7.5	3.9	14.43	5.45	
05/02/2011	1	2.2	0	1.4	1.1	2.3	0	0.7	2.4	12.00	2.96	
06/02/2011	0	0	0	1	0	0	0	0	0	0.71	2.07	
07/02/2011	0	0	0	1.1	0	0	0	0	0	0	1.57	2.09
08/02/2011	40.8	25.2	14.1	23.5	22.9	11.6	1.3	2.3	1.2	3.00	11.35	
09/02/2011	7.2	4.7	1.4	2.3	0	0.9	0	0.5	0.7	5.43	3.26	
10/02/2011	0	0	0	0	0	0	0	0	0	1.29	1.85	
11/02/2011	0	5.2	0	5.8	9.4	8.5	10.3	9.6	4.8	2.43	8.10	
12/02/2011	0	8.9	2.1	5.8	7.2	7.9	1.6	0	47.7	3.43	3.27	
13/02/2011	0	0.7	0	0	0	0	0	0	0	1.14	1.79	
14/02/2011	5.4	4.3	0.3	4.4	2.7	4.5	12.7	13	0.7	0.00	7.04	
15/02/2011	0	0	0	0	0	0	2.6	1.2	0	3.71	2.16	
16/02/2011	1.6	0	4.7	4.3	1.9	0	0.6	0.4	1.1	5.57	3.84	
17/02/2011	0	0	0	4.5	6.3	0	5.4	4.9	0	6.86	4.89	
18/02/2011	13	1.9	2.4	13.1	0	0	0	1.1	4.2	5.57	5.23	
19/02/2011	0	4.1	21.4	9.4	0	0	4.4	1	0.3	5.86	6.85	
20/02/2011	12.8	1	0	0	0.4	1.1	0	0	0.5	3.14	3.94	
21/02/2011	15.4	18.7	15.6	12.1	11.1	28.3	10.6	6.6	7	4.00	10.33	
22/02/2011	13.1	0	0.9	18.4	5.8	3.9	38.8	5.5	9.7	6.14	10.81	
23/02/2011	18.8	25.9	4.5	24.1	25.9	17.5	55.9	37	17.3	3.14	16.83	
24/02/2011	4.7	1.6	7.4	18.5	16.6	18.7	15.8	18.9	24.5	3.29	14.21	
25/02/2011	0	2.1	1.1	0	0	0	7.9	9.3	10.9	7.57	3.38	
26/02/2011	1.4	4.4	0	18.3	21.6	11.4	6	8.1	0	29.86	12.88	
27/02/2011	2.8	0	0	0	1.7	0	0	0	0	5.43	2.48	
28/02/2011	25.7	26.7	36.2	39.2	22.5	9.8	14.7	10.6	0.7	40.86	18.42	
01/03/2011	12.2	4.4	2.3	1.5	0.9	1.2	2.1	1.2	0.5	17.71	4.54	
02/03/2011	2.4	0	0	0.3	0	0	0	0	1.5	6.14	2.16	
03/03/2011	52.3	47.4	52.2	40.8	39.3	41.9	21.9	28.4	40	10.14	16.86	
04/03/2011	2.3	20.3	0	12.6	8.2	0	21.6	18.7	0	3.29	7.78	
05/03/2011	46.4	49.1	23.7	23.9	20.6	20.9	33.4	6.3	12.2	4.14	13.27	
06/03/2011	19.9	30.9	28.2	23	26.5	25.9	37.5	24.7	22.9	15.71	17.08	
07/03/2011	3.2	0	0	6.5	5.2	1.5	28.1	19.6	14.9	16.00	8.06	
08/03/2011	0	0	0	0	0	0	5	0	0	5.57	2.21	
09/03/2011	0	0	5.1	4	5.4	12.1	16.4	8.7	6.5	6.43	8.51	
10/03/2011	0	1.7	9.4	0	0	6.6	9.6	3.9	12.5	6.86	4.68	
11/03/2011	3.8	2.9	2	16.1	5.5	5.7	0.4	3.4	3.7	3.00	7.76	
12/03/2011	1.1	5.2	0	16	14.1	1.5	2.5	18.8	12.7	19.14	9.92	
13/03/2011	0	0	0	0.4	0.1	0.5	0.3	0.9	1.4	5.71	2.21	
14/03/2011	0	0	0	0	0	0	0	0	0	2.86	1.85	
15/03/2011	27.8	27	4.4	12	7.5	0	3.1	0.7	0	0.43	7.17	
16/03/2011	0	0	0	0	0	0	0	1.3	1.2	4.14	1.99	
17/03/2011	0	0	0	0	0	0	3.5	0	0	0.00	2.10	
18/03/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/03/2011	0	0	0	19.8	20.8	32.1	36.6	34.5	9.6	2.29	12.01	
20/03/2011	0	0.9	0.2	4.3	5.2	2.8	0.9	2.9	2.8	2.57	4.78	
21/03/2011	1.8	4.2	2.8	20.6	32.7	22.4	21	17.4	19.7	9.29	17.81	
22/03/2011	10.5	1.6	0	5.6	12.3	5.1	12	14.5	7.4	3.57	9.83	
23/03/2011	0	1.8	4	1.4	26.2	31.3	2.8	5.7	0	6.86	11.50	
24/03/2011	0	0.1	1.3	4.9	0.7	4.6	7.4	4.5	7.5	6.29	5.17	
25/03/2011	5.6	1.8	5.9	0.6	0	6.3	0	0	0	7.86	4.66	
26/03/2011	0.7	2.2	11.7	0	0	1.1	0	0	0	0.00	3.19	
27/03/2011	94.6	56.1	17.1	53.8	21.1	4.8	11.7	9.4	2	4.29	-1.30	
28/03/2011	21	17	43.2	7.4	39.3	27.4	6.3	35	33.2	10.14	8.64	
29/03/2011	2.8	7.8	4.6	0.4	0	2.8	14.1	22.3	19.8	11.57	6.34	
30/03/2011	32.9	10.4	10.6	34.5	7.3	7.8	1.8	4.8	11.6	4.71	7.99	
31/03/2011	44.7	33.5	23.1	26	17.1	9.1	21.4	23.6	26.4	0.43	15.03	
01/04/2011	8.7	10.2	0	7.9	19	8.4	15.6	44.5	24.8	7.71	13.84	
02/04/2011	0	0	8.1	2.1	15.2	15.6	6	1.5	3.8	9.86	9.01	
03/04/2011	3.6	9.1	2.9	1.5	1.6	5.6	15.1	3.8	19.6	5.57	4.11	
04/04/2011	8.4	13.5	7	2.1	5.5	3.2	6.8	7.3	0.5	1.71	6.24	
05/04/2011	0	0	2	1	1.8	2.1	0	0	0	1.29	3.14	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
06/04/2011	0	0	3.2	0	0	3.9	5.9	4.9	0	1.71	4.10	
07/04/2011	47.6	56.7	51.5	29.6	32	25.3	13.2	15.8	8.4	6.71	19.13	
08/04/2011	29	9.6	9	15.9	8.8	8.1	12	7.5	8.1	24.43	11.98	
09/04/2011	10.6	0	0	38.9	24.3	2.2	54.3	47.8	11.8	10.14	16.10	
10/04/2011	11.8	7	11.2	17.4	13.5	16.6	22.5	29.3	36.7	11.43	14.41	
11/04/2011	0	0	0	13.6	1.4	5.3	11.3	10.4	15.7	11.43	7.62	
12/04/2011	15.3	15.4	5.6	11.6	8.9	0.5	5.1	8.4	5.5	9.29	8.34	
13/04/2011	16.1	2.2	9	19.5	31	18.2	4.1	1	5.2	12.57	13.67	
14/04/2011	0	0	0	10.6	17.6	6.3	6	9.2	0	13.71	9.96	
15/04/2011	3.7	26.3	12.4	6.8	14.7	8.7	3	17	11.7	7.00	9.24	
16/04/2011	5.7	17.8	0	10.2	8.8	0.1	4.7	1.2	0.2	6.14	5.63	
17/04/2011	4.3	8.9	3.7	0	0	3.9	0	0	0	0.86	3.00	
18/04/2011	3.4	0	0	5.5	2.7	0	2.1	2.6	0	5.86	4.38	
19/04/2011	0	0	0	0	0	0.9	4.7	0	4.8	3.71	2.36	
20/04/2011	0	0	0	8.3	0	4.8	0	0	3	5.29	4.59	
21/04/2011	0	0	0	0	0	0	0	0	0	7.43	1.85	
22/04/2011	21.5	17.1	15.9	6.7	10.2	19.9	6.3	10.9	12.3	3.57	11.25	
23/04/2011	30.8	15.5	0	9.6	5.4	0	8.3	7.1	9.7	0.14	7.67	
24/04/2011	0	0	0	9.8	2.5	7.6	25.2	10.1	2.8	1.86	8.00	
25/04/2011	0	0	3.6	0.9	0	4.8	0	0	0	3.00	3.62	
26/04/2011	0	0	0	0	0	0	9.4	9.8	0	2.71	3.32	
27/04/2011	0	0	0	0	0	0	0	0	4.6	0.00	1.80	
28/04/2011	5.6	0	0	2.7	3.7	0	0	2.3	3.1	0.43	3.88	
29/04/2011	0	0	0	12.8	2.6	9.1	31.9	9.2	4.8	7.86	8.50	
30/04/2011	0.2	0	0	16.6	4.7	0.4	19.5	1.4	6.3	20.29	7.66	
01/05/2011	40.3	25.2	36.3	36.1	20.2	36.5	16.7	19.7	18.4	4.14	13.94	
02/05/2011	16.3	21.7	19.9	41.1	42.4	25.2	31.6	30.2	23.9	14.43	20.33	
03/05/2011	0	0	0	1.6	0	11.2	3.5	5.5	8.1	8.57	6.00	
04/05/2011	0.1	0	1.1	14.3	12.5	9	16.3	7.1	6.4	5.57	11.11	
05/05/2011	10	3.6	1.7	0	0	2.1	14.4	0	0	8.00	4.87	
06/05/2011	18.2	23.3	8.8	13.7	12.6	8.4	0	7.1	8.8	5.29	9.32	
07/05/2011	1.2	3.8	0.8	0	0	0	0	0	0	1.29	1.75	
08/05/2011	27.2	20.2	16.4	20.4	12.2	15.6	12.4	30.8	26.5	3.29	16.60	
09/05/2011	0	0	0	0	0	0	0	0	0	1.71	1.85	
10/05/2011	2.7	0	0	0	0	0	0	0	0	0.00	2.19	
11/05/2011	0	0	0.1	0	0	0	0	0	0	0.14	1.86	
12/05/2011	0.4	0	0	0	0	0	0	0	0	0.00	1.90	
13/05/2011	10.6	1.3	0	14.4	11.6	0	12.8	0.7	1.7	11.14	9.21	
14/05/2011	0	0	0.3	7.3	8.9	4.6	13.1	9.8	9.6	9.57	8.09	
15/05/2011	0	8	5.7	10.4	7.9	9.8	34	28.9	38.8	5.71	10.34	
16/05/2011	0	0	0	1.5	0	0	0	0	0	7.43	2.18	
17/05/2011	0	0	0	0	0	3.9	0	0	1	0.29	2.96	
18/05/2011	0	0	0	0	4.2	0	0	3.4	1.4	16.43	2.87	
19/05/2011	0	0	0.1	0	0	0	0	0.3	2.5	7.57	1.86	
20/05/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/05/2011	0	0	0	0	0	0	0	0	0	2.57	1.85	
22/05/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/05/2011	0	0	0	0	0	0	0	0	0	1.29	1.85	
24/05/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/05/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/05/2011	0	0	0	0	0	0	0	0	0	0.14	1.85	
27/05/2011	0	0	0	0	0	0	0	0	0	1.71	1.85	
28/05/2011	0	0	0	0	0	0	0	0	0	0.57	1.85	
29/05/2011	0	0.8	0	0	0	0	0	0	0	0.00	1.78	
30/05/2011	0	0	8.7	0.2	4.5	8.6	6.3	18.4	6.6	4.71	7.69	
31/05/2011	1.3	7.8	9.4	6.4	11.1	11.7	7.7	14.7	16.4	1.86	9.85	
01/06/2011	6.1	16.6	14.5	0.4	9.5	5.2	2	2	0	0.00	5.77	
02/06/2011	0	0	0	0	0	0	4.9	0	0	0.00	2.20	
03/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/06/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
10/06/2011	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/06/2011	0	0	2.3	0	0	2.4	0	0	0	10.6	0.00	2.52	
12/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/06/2011	0	0	0	0	0	0	0	0	0	0.4	0.00	1.84	
18/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/06/2011	0	0	0	1.1	0	0	0	0	0	0	0.00	2.09	
22/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/06/2011	0	2.4	0	0.4	1.7	1.6	3.4	4.4	6.8	0.00	3.21		
26/06/2011	0	0	0	0	0.4	0	0	4.4	3.5	0.00	2.42		
27/06/2011	0	0	0	0	0	0	3.4	5.8	3.5	1.00	2.72		
28/06/2011	4.8	2.2	0	16.6	5.7	8.8	13.9	8.1	9	1.29	9.46		
29/06/2011	3.4	0.3	1.6	2.7	0	0	0	0	0	0	14.86	2.96	
30/06/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/07/2011	11.1	25.1	6.4	0	9.9	4.7	0	0	13.9	0.00	3.23		
06/07/2011	0	0	0	1.3	0	0	0	0	0.9	0.00	2.12		
07/07/2011	0	0	0	0	0	0	0	0	0	0.00	1.85		
08/07/2011	0	0	0	0	0	0	0	0	0	0.00	1.85		
09/07/2011	0	0	0	0	0	0	0	0	0	0.00	1.85		
10/07/2011	0	0	0	0	0	0	0	0	0	0.00	1.85		
11/07/2011	0	0	0	0	0	0	0	0	0	0.00	1.85		
12/07/2011	0	0	0	0	0	0	0	0	0	1.00	1.85		
13/07/2011	0	0	0	0	0	0	0	0	0	0	2.14	1.85	
14/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/07/2011	0	0	0	0	0	3.8	0	0	8.2	0.00	2.84		
16/07/2011	0	0	0	0	0	0	0	0	0	0	3.00	1.85	
17/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/07/2011	0	0	0	0	0	0	0	0	0	0	1.43	1.85	
19/07/2011	0	0	0	0	0	0	0	0	0.9	0.00	1.84		
20/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/07/2011	0	0	0	4	2.4	2.7	0	0	0	0	0.00	3.88	
22/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/07/2011	6.6	0	0	0	0	0	0	0	0	0	0.00	2.73	
29/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
31/07/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/08/2011	0	2.2	0	0	0	0	0	0	0	0	0.00	1.66	
07/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
14/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/08/2011	13.4	11.5	5.5	0	0	0	0.8	0	0	0	0.00	3.56
17/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/08/2011	0	2.2	0	0	0	0	0	0	0	0	0.00	1.66
23/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/08/2011	0	4.2	0	0	0	0	0	0	0	0	0.00	1.50
26/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/08/2011	0	0	0	0	0	0	0	0	0	0.1	0.00	1.85
28/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/08/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/08/2011	2.3	2.8	5.8	0	0.4	0	0	0	0	3.6	0.00	2.38
31/08/2011	0.1	0.3	0	0.1	1.5	1.5	0	0.7	2	0.00	2.60	
01/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/09/2011	0	0.5	0	0	0	0	0	0	0	0.00	1.81	
08/09/2011	1.6	0	0	0	0	0	0	0	0	0.00	2.05	
09/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/09/2011	0	0	0	0.4	0	0	0	0	0	0.00	1.94	
12/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/09/2011	0	0	0	0	0	0	0	4.4	0	0	0.00	2.17
15/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/09/2011	0	0	0	0.3	0	0.1	4	0.7	0	0.00	2.31	
19/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/09/2011	0	0	0	0	0	0	0	0	0	0.86	1.85	
21/09/2011	0	0	0	0	0	0	0	0	0	2.86	1.85	
22/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/09/2011	0	0	0	0	0	0	0	0	0.7	0	0.00	1.93
25/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/09/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/10/2011	0	0	4.3	0	0	0	0	0	0	0.00	2.24	
04/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/10/2011	9.6	0	0	0	0	0	0	0	0	0.00	3.19	
13/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/10/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/10/2011	0	0	0	0	0	0	0	0	0	3.86	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
18/10/2011	0	0	0	0	0	0	0	0	0	0	0.14	1.85
19/10/2011	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/10/2011	3.6	0.8	2.6	0	0	2.1	0	0	0	0	2.43	3.05
21/10/2011	0	0	0	8.6	1.3	0	9.8	4	6.8	0.00	4.85	
22/10/2011	0	0	0	7.8	5	0	5.6	6.2	0.8	2.29	5.55	
23/10/2011	2.6	0.8	0	38	25.1	5	80.5	39.6	25.6	4.29	16.46	
24/10/2011	0	0	0	0	1.9	0	9.6	28.5	6.4	1.57	4.78	
25/10/2011	0	0	0	0	0	0	11.4	2.2	0	0.14	2.87	
26/10/2011	0	0	0	0.9	0	0	0	0	0	0.00	2.05	
27/10/2011	0	0	4.8	0	0	4.4	1.9	1.9	2.5	0.00	3.73	
28/10/2011	0	0	0	0	1.5	0	0	2.2	18.5	6.43	2.37	
29/10/2011	0	0	0	0	0	0	0	0	0	0.29	1.85	
30/10/2011	0	0	0	9.9	16.9	9	4.1	2.6	0	4.29	9.90	
31/10/2011	0	0	0	2.6	1.5	0	0	0	0	5.29	2.70	
01/11/2011	7.8	14.7	3.1	7.4	4.7	0	0	0	0	10.43	4.37	
02/11/2011	0	0	0	2.1	0	0	0	0	0	5.71	2.31	
03/11/2011	0	0	0	5.6	8.9	10.8	0	0	2	6.57	7.21	
04/11/2011	0	0	0	0	1.9	0.7	0.4	3.6	4.3	16.43	2.79	
05/11/2011	2.1	5.2	4.4	7.7	7.3	5.7	12	22.8	9.2	8.71	9.32	
06/11/2011	14.9	21	26.7	19.8	19.8	11.8	6.5	3.2	5.5	6.57	12.84	
07/11/2011	53.5	37.9	15.7	48.8	24.4	11.4	49.8	36.7	27.4	15.57	15.36	
08/11/2011	50.6	33.3	39.7	37.7	28.7	34	2	10.6	21.4	6.57	10.70	
09/11/2011	0	0.9	5.6	6.4	1.3	7.8	6.1	5.3	10.6	12.00	6.34	
10/11/2011	3.2	3.7	3.1	5.3	2.3	2.7	14.8	8	1.1	0.00	6.31	
11/11/2011	0	0	0	0	0	0	22.3	3.7	0	1.57	3.66	
12/11/2011	0	0	0	0	0	1	2.9	4.2	3.7	5.71	2.81	
13/11/2011	5.5	7.9	0	6.1	7	2.6	11.7	16.8	10.8	3.57	7.68	
14/11/2011	23.1	0	0	7.7	0	2.6	0	5.7	0	7.14	8.58	
15/11/2011	0	0.9	0	5.2	8.9	2.9	16.2	1.8	0	6.00	7.01	
16/11/2011	0	0	0	2.2	3.6	0	0	0	0	4.14	2.99	
17/11/2011	0	0	0	0	0	0	5.3	3.1	0.1	8.00	2.54	
18/11/2011	1	0.9	0	20.2	22.8	12.3	21.8	23.5	10.3	7.57	15.55	
19/11/2011	0	0	0	9.6	5.4	1.1	22.5	17	4.1	6.14	7.81	
20/11/2011	3.8	0	0	0	0	0	0.6	6.4	10.1	6.86	3.11	
21/11/2011	0	12.9	17.4	6.2	5.8	7.8	0.2	1.8	6.5	7.71	6.32	
22/11/2011	16.9	15	3.5	20.1	22.8	19.4	22.3	24.2	22.4	1.00	16.11	
23/11/2011	9	21.7	10.6	23.2	26.3	23.3	14.9	22.1	25.5	0.43	15.82	
24/11/2011	0	0	0	0	0	0	0	0	0	7.57	1.85	
25/11/2011	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/11/2011	0	0	0	0	0	0	0	0	0	0.29	1.85	
27/11/2011	0	1	0.8	0	15.5	6.7	24.2	2.7	0.8	0.29	8.83	
28/11/2011	3.4	4.5	3.9	0	0	1.5	0	0	0	3.29	2.67	
29/11/2011	16.9	15.2	21.5	4	2.6	2.8	0	0	0.6	1.57	7.31	
30/11/2011	0	0	0	0	0	0	6.1	5.1	0	3.14	2.77	
01/12/2011	0	0	0	0	6	1.8	0	1.5	0	14.43	3.52	
02/12/2011	0.9	1.9	0	1.2	2.4	0.6	0	0	0.5	19.43	2.63	
03/12/2011	4.8	0	1	21.3	0.7	0	30.1	1.2	4.1	21.57	8.04	
04/12/2011	0	0	0	0	0.7	0	0.5	0	0	9.14	2.00	
05/12/2011	18.5	19.2	20.8	8.1	1.4	10.3	8.1	0	1.1	2.43	8.80	
06/12/2011	19.5	14	6.2	29.9	9.9	3.1	8.7	4.3	10.2	2.14	9.36	
07/12/2011	1.3	3	6.2	1.2	6.8	48.9	0.9	5.3	9.2	3.00	3.57	
08/12/2011	0	0	9.1	0	0	0	0	0	0	1.29	2.74	
09/12/2011	0	24.1	12.3	2.4	19.8	10	5.5	12.2	1.5	4.57	7.50	
10/12/2011	10	12.9	11.7	13.8	17.2	6	2	7.5	1.1	1.71	10.54	
11/12/2011	6.5	12.1	0	2	7.8	0	0	0.8	4.1	4.29	3.31	
12/12/2011	7.6	2.2	0	0.9	2.2	1.5	11	9.5	4.7	0.00	5.56	
13/12/2011	9.2	0	0	0.9	0	2.7	2.3	11	30.4	1.00	4.77	
14/12/2011	0	0	0	3.5	0	4.8	3.9	4	10.6	7.43	4.56	
15/12/2011	13.6	19.6	29.3	36.3	37.2	35.4	46.2	46.4	46.2	30.71	18.11	
16/12/2011	0	36.4	36.6	17.6	22.2	13.1	8.4	24.9	13.8	17.71	13.10	
17/12/2011	44.1	43.6	39.1	43.5	48	42.1	21.4	24.3	23.5	13.00	17.65	
18/12/2011	0	0	0	1	0	0	2.2	1.4	2.5	3.14	2.35	
19/12/2011	2.5	9.7	11.4	3.3	2.5	9.8	10.5	9.9	12.8	2.43	7.00	
20/12/2011	0	0.3	0	0	0	0.7	4.8	4.2	9.2	5.14	2.84	
21/12/2011	0	0	0	21.7	32.1	7.7	13.2	32.7	18	5.57	15.61	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
22/12/2011	4.5	8.6	7.7	9.9	6.1	6	17.4	11.7	4.6	12.86	9.22	
23/12/2011	0	11.8	5.6	15.6	1.9	0	45.3	22.9	16.2	15.71	6.42	
24/12/2011	0	0	0	3.7	2.4	2.2	6.9	20.4	12.1	12.00	6.53	
25/12/2011	20.5	8.1	0	30.9	41.4	26.1	25.6	40.3	24.6	19.14	18.87	
26/12/2011	0	3.4	5.7	0	0	1.9	0	0.6	1.3	13.29	2.62	
27/12/2011	5.9	5.6	4.8	6.6	2.3	2.4	7.4	2.2	0	2.29	5.83	
28/12/2011	0	0	0	18.8	7.7	0	32.1	11.6	0	7.00	10.77	
29/12/2011	0	0	0	0	0	0	0	0	0	5.71	1.85	
30/12/2011	88.6	37.7	12	19.8	19	56.8	39.7	26.2	27.9	5.14	17.65	
31/12/2011	25.6	2.3	22.6	34.1	28	21.3	28.5	14.1	11.4	8.14	18.58	
01/01/2012	9.4	3.7	2.2	5.8	4.8	13.4	29.3	28.2	14	5.71	11.69	
02/01/2012	0	0	0	0	0	0	1.7	0	0	1.00	1.97	
03/01/2012	0	0	0	1.3	0	0	14.3	9.3	11.2	1.14	3.99	
04/01/2012	1.5	1.8	0	4.4	1.7	0	2.5	12.8	7.4	6.43	4.82	
05/01/2012	3.7	2.3	0	16	52.3	33.6	4	13.8	12.7	29.43	17.89	
06/01/2012	16.4	22.9	15.7	13.6	6.7	2.8	39.9	55.7	13.5	25.43	9.77	
07/01/2012	106.9	113	60.4	44	25.6	17	9	9.3	9.5	16.29	13.22	
08/01/2012	0	0	0.9	3.6	2.7	2.3	19.4	21.9	21.2	13.86	7.29	
09/01/2012	2.1	8.6	12.6	0.7	2.8	6.1	0.6	1.6	4.8	3.14	4.56	
10/01/2012	17.8	15.2	13.4	14.1	8.6	1	0	1.1	0	3.14	8.70	
11/01/2012	49.2	9.4	6.5	38.8	20.7	9	46.7	21.7	21.3	14.86	16.25	
12/01/2012	16	34.4	43	27.2	41.6	44.5	11.4	19.2	28.3	11.00	17.38	
13/01/2012	13.5	22.7	24.1	9.2	1.8	14	0.4	2.7	5.4	24.14	7.93	
14/01/2012	8.5	5.3	3.2	18.3	16.6	23.4	9.3	13.6	17.8	18.71	13.01	
15/01/2012	11.6	13.9	10.7	13.8	8.3	10.3	18.8	19.5	24	23.57	11.40	
16/01/2012	2.2	0	0	2.5	6.1	0	3.5	16	3.5	12.71	5.33	
17/01/2012	0	0	0	0	0	0	2	2.1	0	4.57	2.22	
18/01/2012	1.4	8.7	2.2	11.7	8.8	8.9	21.6	19.3	24.5	0.00	10.32	
19/01/2012	11.5	13.5	20.8	13.3	14.6	29.1	6.2	7.6	18.8	2.14	9.81	
20/01/2012	0	0	0	2.3	0.4	4.7	0	0	0.4	0.86	3.69	
21/01/2012	2.4	1.6	6	6.5	8	9.3	5.2	3.9	0	34.00	8.16	
22/01/2012	74.9	56.1	47.8	8.7	2	2.7	3.3	0.2	0.4	25.86	9.56	
23/01/2012	22.2	12.6	15.8	31.2	27.7	19.1	32.7	62.7	42	22.29	20.01	
24/01/2012	15.5	6.5	0	3.3	10.5	13.3	0.5	1.2	2.1	21.71	8.49	
25/01/2012	0	0	0	3.9	13.1	5.3	0	5.9	0.3	1.57	6.86	
26/01/2012	0	0.8	2.2	0	0	0.1	0	0.3	1.7	4.57	2.01	
27/01/2012	0.7	4.2	0	5.1	9.2	0.4	3.7	0	1.7	6.57	4.87	
28/01/2012	9.1	4.4	2.8	60.1	71.9	52.3	57.8	67.7	66.4	31.14	26.15	
29/01/2012	97	47.2	53.2	51.3	20.1	33	98.5	15.6	8.5	40.00	35.74	
30/01/2012	2.2	0	0.7	5.5	2.3	4.1	2	3.3	3.9	6.14	5.22	
31/01/2012	10.7	11	3.8	6.3	9.2	3.8	32.8	18.5	5.9	6.71	10.33	
01/02/2012	9.9	3	1.5	12.6	2.2	2.3	1.6	0.9	0.2	3.14	6.26	
02/02/2012	10.9	12.3	4.6	18.7	22.6	4.8	22.1	19.6	15.4	24.29	14.39	
03/02/2012	37	45.6	27.3	21.7	27.1	15.6	10.8	10.4	12	29.43	13.69	
04/02/2012	6	7.9	9.6	11.2	15.1	21.8	12.4	21.3	28.3	27.57	12.65	
05/02/2012	0	0	0	0	0	0	0	0	0	18.14	1.85	
06/02/2012	4.3	0	0	27.4	8.3	1.2	26.4	10.3	1.2	18.71	12.46	
07/02/2012	0	6.1	0	0	1.7	0	0	0.7	0	8.14	1.72	
08/02/2012	0	0	0	0	1.5	9.7	0	1.3	4.5	12.43	4.83	
09/02/2012	0	0	0	0	1.4	3.2	1.2	1.8	0.7	0.86	3.29	
10/02/2012	0	0.1	0.2	2	0	0.5	0	0	0.2	1.14	2.43	
11/02/2012	4.4	0	0	0	2.5	2.6	3.7	9.5	3.1	5.14	4.97	
12/02/2012	2.7	7.6	0	13.8	12.9	2.5	19.9	17.6	3.2	9.57	10.33	
13/02/2012	0	0	0	0	0	0	0	0	0	17.43	1.85	
14/02/2012	0	0	0	0.3	0	0	0	0	0	26.71	1.92	
15/02/2012	0	0	0	0	0	0	0	0	0	12.43	1.85	
16/02/2012	2.2	0	0	9	2	4.7	14.7	7.9	5.3	14.71	7.06	
17/02/2012	0	0	4.8	2.1	4.6	3.2	7.5	0	0	6.71	5.01	
18/02/2012	0.4	3.2	17.5	27.4	23.8	24.6	20.9	23.2	16.9	5.43	16.62	
19/02/2012	47.7	63.8	64.7	15.9	29.3	31.9	16	17	31.3	10.00	13.26	
20/02/2012	11.4	6.8	13.3	3	5.1	6.1	15.5	27.9	14.9	5.86	11.28	
21/02/2012	11.9	4.8	0	1.3	0	0.1	0	0.1	0	5.71	3.40	
22/02/2012	8.5	0	0	0	0	0	1.8	0	0	2.00	3.17	
23/02/2012	11.4	2.3	0	7.8	0	0	14.9	1.8	1.4	0.00	5.90	
24/02/2012	16.8	5.8	0	27.4	14.1	4.9	22.8	24.7	20.7	6.57	14.21	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
25/02/2012	0	2.8	0	3.3	16.4	11.4	3.7	12	3.7	1.71	9.15	
26/02/2012	0	0	0	11.1	18.7	12.6	16.4	6.9	3.7	6.43	12.39	
27/02/2012	0	0	0	5.7	0.8	0	19.7	11.2	4.1	12.29	5.33	
28/02/2012	4.3	3.7	2.2	4.4	7.1	8.8	11.1	14.1	13.7	11.43	8.77	
29/02/2012	0.7	1.6	0	1.6	0	0	1.2	1.7	2.5	0.29	2.40	
01/03/2012	0	0	8.5	0	0	0	11.1	5.6	13.3	4.43	3.72	
02/03/2012	0	5	0.8	14.3	53.7	25.1	9.4	10.2	9	1.14	16.78	
03/03/2012	2.1	2.3	0	2.9	0.6	0	9.8	7.7	8.2	1.14	4.07	
04/03/2012	16.1	28.8	60.3	1.3	3.7	7.6	8.2	5.2	0.8	4.14	10.59	
05/03/2012	12.1	11.3	17.5	0.4	5.2	10.4	1.5	2.4	10.6	2.14	6.29	
06/03/2012	0	0	0.7	13.1	16.4	35.4	28.2	50.8	67	10.71	8.49	
07/03/2012	60.8	27.9	11.2	50.4	38.7	24.1	53.7	40.8	29.3	22.71	17.38	
08/03/2012	38.7	29.3	1.9	19.6	16.1	2.7	8.1	8.4	2.2	15.86	11.19	
09/03/2012	55.4	39	13.2	85.5	53.2	43.2	18.5	18.9	22	6.29	11.63	
10/03/2012	0	1.2	7.4	0.7	0	5.4	1	7.9	11.8	3.29	4.94	
11/03/2012	6.9	10.6	3.2	10.2	2.8	10	6.3	2.9	1.6	0.00	7.16	
12/03/2012	19	15.4	8.8	8.5	7	4.8	3.7	0.9	4.2	1.14	7.48	
13/03/2012	6.1	9.5	12.6	31.2	23.1	17	84.5	62.8	31.2	5.00	6.24	
14/03/2012	2	9.3	0	7.7	29.4	44.3	3.7	0.8	6.8	8.00	14.12	
15/03/2012	24.2	12.4	5.7	24.1	8	10.1	0.4	0.1	3.2	11.43	8.81	
16/03/2012	0	0	0	1.7	3	2.7	2	1.5	0	16.57	3.81	
17/03/2012	0	0	2	5.4	7.2	6.5	3.4	7.9	14.3	7.71	7.12	
18/03/2012	0	1.2	0.1	14.3	8.5	6.5	16	14.6	3.4	35.86	10.05	
19/03/2012	20.9	24.9	28.5	24.9	13.9	10.1	25.4	19.3	15.2	62.71	16.83	
20/03/2012	0	0	0	0	0	1.3	7.7	13.2	8.4	0.71	4.23	
21/03/2012	0	0	0	0	0	0	0	0	0	1.86	1.85	
22/03/2012	0	0	0	6.2	4.3	0	0	0	0	0.14	4.04	
23/03/2012	1.4	3.2	7.2	1.2	1	7.1	0.4	0.7	2.9	3.29	4.49	
24/03/2012	0	0	0	0	0	0	0	0	0	1.71	1.85	
25/03/2012	2.8	0	0	0.1	1.6	3.5	0	3.3	4.8	17.43	3.83	
26/03/2012	0	0	6.5	4.1	7.4	10.4	0.3	0	0	8.14	6.91	
27/03/2012	8.4	0	0	0	0	0	0	0	0	0.00	3.00	
28/03/2012	0	0	0	0	0	0	0	0	0	0.43	1.85	
29/03/2012	0	0.3	0.1	4.3	4.3	1	2.7	1.2	0.1	0.00	4.19	
30/03/2012	0	0	0	8.4	3.9	0	9.3	15.9	0	2.43	6.30	
31/03/2012	0	0	0	0	0	0	3.3	0	0	0.43	2.08	
01/04/2012	1.4	0	0	7.6	2.8	0.3	15	14.7	11.1	8.29	6.60	
02/04/2012	0	0.2	0.8	9.8	3.6	0	17.4	6.7	0.7	1.29	6.67	
03/04/2012	4	25.4	8.4	14.5	3.4	0	11.9	4.2	2.3	7.43	6.59	
04/04/2012	12.2	28.8	8.4	7.8	18	18	3.6	20.3	4.7	6.00	11.89	
05/04/2012	4.1	0	0	15.4	14.6	28.8	6.6	28.4	14.9	7.43	14.07	
06/04/2012	13.5	3.1	0	3	12	0.4	4.9	8.9	21.2	8.14	5.77	
07/04/2012	2.8	0	0	2.8	2.2	3.2	9.6	7.4	13.9	7.00	5.33	
08/04/2012	0	0	0	0	0	0	4.6	0	0	0.71	2.18	
09/04/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/04/2012	7.1	0	0	0	0	0	0	0	0	0.00	2.80	
11/04/2012	0	0	0	0	0	0	0	0	0	2.14	1.85	
12/04/2012	0	0	11.9	0	0	0	0	0	0	0.00	3.05	
13/04/2012	0	0	0	0.9	0	0	8.8	5	0	5.29	3.14	
14/04/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/04/2012	12	14.7	5.2	6.8	4.1	1.2	13	9.1	5	0.00	7.31	
16/04/2012	0.1	0	0	0	0	0	0	3.6	0	15.29	2.27	
17/04/2012	0	0	0	0	0	0	0	0	1.7	0.00	1.83	
18/04/2012	0	0	0	4.9	4.2	0	0	0	0	15.86	3.73	
19/04/2012	0	0	0	0	0	0	0	0	0	8.43	1.85	
20/04/2012	0	0	0	0	0	0	0	0	0	4.00	1.85	
21/04/2012	0	0	0	0	0	0	0	0	0.3	2.29	1.85	
22/04/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/04/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/04/2012	0	0	0	4.9	0	0	23.9	0	0	0.00	4.62	
25/04/2012	0	0	0	0	0	0	0	0	0	1.71	1.85	
26/04/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/04/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/04/2012	0	0	0	4.6	0	0	0	3.3	0	0.86	3.24	
29/04/2012	0	0	15.3	11	8.2	18.2	12.1	12.2	12.9	1.29	11.00	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
30/04/2012	6.1	0	0	17.3	22.9	6.4	8.9	10.2	7	6.14	12.72	
01/05/2012	0	0	0	0	0	0	0	0	2.6	7.14	1.82	
02/05/2012	0	0	0	0	0	0	0	0	0	4.29	1.85	
03/05/2012	0	2.7	1.3	0	0	0.7	0	0	0	2.00	1.93	
04/05/2012	0	0	0	0	0	0	0	0	1.1	9.29	1.83	
05/05/2012	0	0.1	3	0	0	0	3.5	0.2	0	0.86	2.39	
06/05/2012	0	0	0	15.3	0.1	2	8.4	9.4	8.3	1.57	6.71	
07/05/2012	11.5	5.9	0	4.2	4.2	0	6	1.6	0	10.43	5.21	
08/05/2012	0	0	0	0	0	0	0	0	0	4.00	1.85	
09/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/05/2012	0	0	0	0	1.2	0	0	0	0	0.00	2.05	
11/05/2012	0	0	0	0	0	0	0	0	0	5.29	1.85	
12/05/2012	0.4	0	0	12.4	14.3	10.3	18.4	37.7	34.6	0.00	14.90	
13/05/2012	86.7	90.4	55.2	66.2	71.5	67.5	37.5	47.5	48.2	9.29	19.00	
14/05/2012	25.1	31.1	37.3	24.3	32.1	28	20.7	20.2	22.6	10.86	15.42	
15/05/2012	0	0	0	0	0	0	6.4	8	5.8	5.29	3.15	
16/05/2012	0	0	0	0	0	0	6.3	1.9	0	0.00	2.49	
17/05/2012	0	0	0	0	0	0	8.7	0	0	1.00	2.49	
18/05/2012	0	0	0	0	0	0	0	21.3	3.6	0	0.00	3.60
19/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/05/2012	0	0	0	2.7	0	0	0	0	0	0.00	2.44	
22/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/05/2012	0	0	0	2.8	0	0	0	0	0	0.00	2.46	
26/05/2012	0	2.6	0	0	0	0	0	0	0	0.00	1.63	
27/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/05/2012	0	0	0	0	0	0	0	0	0.2	0	0.00	1.87
29/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
31/05/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/06/2012	0	0	1.4	0	0	0	0	0	0	0.00	1.97	
03/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/06/2012	2.6	0	0	0	0	0	0	0	0	0.00	2.17	
05/06/2012	0	0	0	0	0	0	0	0	0	0.29	1.85	
06/06/2012	0	0	0.1	0	0	0	0	0	0	1.2	5.14	1.84
07/06/2012	0	0	0	0	0	1.4	0.7	0	0	2.14	2.30	
08/06/2012	0	0	0	0	0	0	0	0	0	7.57	1.85	
09/06/2012	0	0	0	0	0	0	0	17.8	1.3	0	0.29	3.25
10/06/2012	15.1	10.8	3.8	1.9	4.8	6.4	0	0	0	3.00	6.02	
11/06/2012	5	6.5	6	5	7	1.6	0.8	9.2	2.3	1.43	6.26	
12/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/06/2012	0	0	0	1.5	0	0	0	0	0	0.00	2.18	
17/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/06/2012	0	0	0	5.4	2.6	0.7	0	2	2.4	0.00	3.88	
20/06/2012	0.1	0.5	0.8	9.3	0	0.4	3.4	5.4	31.7	2.14	4.35	
21/06/2012	2.5	0	0	8.8	6.4	0	7.3	0.2	0	0.00	5.95	
22/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/06/2012	0	0	0	0.6	0	0	0	0	0	0.00	1.98	
30/06/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/07/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/07/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/07/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
04/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/07/2012	0	0	0	0	0	0	0.5	0.7	3.9	0.00	1.93	
12/07/2012	0	0.2	0.2	0	0	0.5	0	0	0	0	0.00	1.99
13/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/07/2012	0	0	0	1.2	0	0	0	0	0	0	0.00	2.12
16/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/07/2012	0.4	0	0	2.5	0	1.8	40.2	42.1	39.5	1.86	7.18	
19/07/2012	9.5	6.7	2.4	9.5	6.7	1.2	9.2	6.5	1.1	0.29	7.74	
20/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/07/2012	0	0	0	0	0	0.1	0	0	0	0	0.00	1.88
31/07/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/08/2012	0	0	0	0	0.1	0	0	0	0	0.1	0.00	1.87
04/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/08/2012	0	0	0	1.7	0	0	0	0	0	0	0.00	2.22
08/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/08/2012	0	0	0	3.4	0	0	0	0	0	0	0.00	2.59
14/08/2012	0	0	0	2.3	0	0	0	0	0	0	0.00	2.35
15/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/08/2012	0	0	0	0	0	0	0	3.1	0	0	0.00	2.07
28/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/08/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/09/2012	7.7	5.2	0.8	0	0	0	0	0	0	0	0.00	2.53
02/09/2012	0	16.2	0	0	0	0	0	0	0	0	0.00	0.56
03/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
07/09/2012	0	0	1.2	0	0	0	0	0	0	0	0.00	1.95
08/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/09/2012	0.1	0	0	0	0	0	0	0	0	0	0.00	1.86
10/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/09/2012	23	0	0	0	0	0	0	0	0	0	2.00	5.65
19/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/09/2012	0	0	0	0	4.3	2.1	19.3	29.1	28.9	0.00	7.72	
26/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/09/2012	0	0	0	0	0	0	0.5	0	0	0	0.00	1.88
28/09/2012	0	0	0	7	0	0	0	0	0	0	0.00	3.32
29/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/09/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/10/2012	0	0	0	0	0	0	0	0	7.3	0	12.86	2.63
03/10/2012	0	0	0	0	0	0	0	0	0	0	3.57	1.85
04/10/2012	0	0	0	0	11	0	0	0	0	0	11.57	3.71
05/10/2012	0	0	0	3.2	13.6	0	0	0	0	0	4.00	5.07
06/10/2012	0	0	0	0	0	0	0	0	0	0	0.71	1.85
07/10/2012	0	0	0	0	0	0	0	0	0	0	11.57	1.85
08/10/2012	0.4	0.1	0	5.7	0	0	0	0	0	0	7.71	3.09
09/10/2012	0	0	0	0	0	0	0	0	0	0	0.86	1.85
10/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/10/2012	0	0	0	4.5	0	0	2.8	0.4	0	0	0.00	3.06
13/10/2012	17.5	0	0	0	0	0	0	0	0	0	0.00	4.57
14/10/2012	0	0	0	1.7	0	0	5.4	1	5.2	1.57	2.63	
15/10/2012	0	0	0	8.6	0	0	0	0	0	0	0.00	3.62
16/10/2012	10.4	0	0	0	0.1	0	3.4	0	0	0	0.00	3.63
17/10/2012	7	0	0	3.2	1	0	7.9	7.3	6.7	9.86	4.90	
18/10/2012	0	0	0	0	0	0	0	0	0	0	1.57	1.85
19/10/2012	0	0	0	8.6	0	0	0	0	0	0	0.00	3.62
20/10/2012	0	0	0	3.2	0	0	0.6	0	0	0	5.71	2.59
21/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/10/2012	8.5	0	0	0	0	0	0	0	0	0	0.00	3.02
25/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/10/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/10/2012	0	0	0	0	0	0	0	0	0.1	0	0.00	1.86
28/10/2012	0	0	0	5.6	2.8	0	31.2	26.4	0.2	1.14	5.60	
29/10/2012	3.4	6	0	13.4	9.6	0.6	34.6	34.2	33	0.00	10.32	
30/10/2012	0.8	18.6	2.9	8.9	9.9	0.4	4.6	1.2	0	5.43	5.61	
31/10/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/11/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/11/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/11/2012	0	0	0	0	0	0	0	3.4	0.5	0	0.57	2.15
04/11/2012	0	0	0	0.5	0.1	0	0	0.2	0	3.29	2.00	
05/11/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/11/2012	0	0	0	0	1.1	0	0.7	0	0	4.57	2.09	
07/11/2012	0	0	0	0	2	2.1	0	0	0	0.00	2.79	
08/11/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/11/2012	0	0	0	0	0	0	9.3	0	0	6.71	2.53	
10/11/2012	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
11/11/2012	0	0	0	0	0	0	0	0	0	0	0.29	1.85
12/11/2012	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/11/2012	0	0	0	0	1.2	0	0	0	0	0	3.00	2.05
14/11/2012	0	0	0	1.3	0	0	7.9	0	0	0	7.29	2.71
15/11/2012	0	0	0	1.8	0	0	2.4	2.2	0	0	1.71	2.66
16/11/2012	14	6.1	0	14.9	8.5	4.2	6.3	1.1	0	0	9.86	8.60
17/11/2012	23.3	0	0	13.5	1.9	0	4.4	4	0.6	0.6	4.57	8.35
18/11/2012	0	0	0	12	8.8	3.5	10.1	12.7	5.7	5.7	2.86	8.82
19/11/2012	0	5.8	4.3	8.5	12.6	5.8	2.5	9.6	7.7	7.7	10.29	8.42
20/11/2012	0	0	0	0	0	0	0.9	9.2	5.4	5.4	0.57	3.01
21/11/2012	0	0	0	0	2	0.2	3.3	0	2.2	2.2	1.86	2.46
22/11/2012	5	0	0	9.9	11.4	4.4	15.8	14.8	6.7	6.7	16.57	10.09
23/11/2012	0	0	0	16.8	17.7	4.4	22.7	24.2	10.1	10.1	19.43	12.82
24/11/2012	0	0	0	14.4	11.7	2.2	19	8.7	0.2	0.2	8.57	10.23
25/11/2012	0	0	0	0	0	0	2.4	0	0	0	0.43	2.02
26/11/2012	2.1	0	0	1.7	4.4	4.4	4.2	0	3.3	0.71	0.71	4.60
27/11/2012	5.9	0	0	0.7	0	0	18.8	18.9	14.1	0.00	0.00	5.96
28/11/2012	2.5	0	0	16.8	16.4	21.1	18.4	13.7	24.3	5.86	5.86	13.24
29/11/2012	16.5	3.3	0.7	19.9	20.4	20	24.6	30.1	23.4	5.71	5.71	17.30
30/11/2012	0	0	0	20.4	13.7	6.3	14.4	19.6	10.1	4.71	4.71	12.66
01/12/2012	0	0	0	0	0	0	3.5	0	0	0.00	0.00	2.10
02/12/2012	0	0	5.3	0	0	2.2	2	0	0	0	16.00	3.05
03/12/2012	0	1.1	0	5.8	0	1.5	0.7	0	3.6	3.6	5.00	3.31
04/12/2012	35	31.2	17.9	24.9	34.2	29.3	27.3	27.7	17.9	18.71	18.71	17.52
05/12/2012	0	0.7	1.4	11.3	6	8.6	6	7.4	8.3	7.86	7.86	8.42
06/12/2012	0	0	0	6.7	7.5	2.2	27.2	20.1	5.7	7.43	7.43	7.98
07/12/2012	0	0	0	0	0.7	0	10.8	7.5	0	4.43	4.43	3.35
08/12/2012	15.4	10.2	18	0	0	12.2	4.7	1.7	0	8.14	8.14	8.20
09/12/2012	15.4	0	3.2	8	11.2	23.9	0	32.2	35.2	6.71	6.71	12.81
10/12/2012	27	17.4	14.4	16.7	14.3	5.7	30.3	13.6	0.8	15.57	15.57	16.76
11/12/2012	0.9	1.1	0	0	0	0	0	1.3	0	2.86	2.86	2.02
12/12/2012	8.8	15.6	10.6	2.6	13.8	12.5	10.6	20.1	15.7	4.71	4.71	10.74
13/12/2012	4	3.7	0	0	0	0	0	0	15.5	7.29	7.29	1.49
14/12/2012	20.3	48.8	32.6	13.4	19.5	28.4	10.2	16.5	40.3	6.71	6.71	8.09
15/12/2012	0	0	3.1	11	0	0	22.5	6.9	1.1	2.43	2.43	6.54
16/12/2012	1.4	1.6	0	0	0	0	4.7	6.5	5.2	9.57	9.57	2.94
17/12/2012	0	0	0	9	14.7	14.5	13.1	18.3	14.1	8.57	8.57	12.32
18/12/2012	7	19.4	17.3	0.7	4.7	2.4	3.5	9.7	0.2	5.29	5.29	6.03
19/12/2012	6.7	0	0	11.8	1.7	5.1	15.6	0	9.9	1.86	1.86	6.15
20/12/2012	35.6	49.4	21.7	27.5	27.3	22.2	24.5	32	31.9	0.29	0.29	17.30
21/12/2012	0	0	0	3.3	0.9	1.2	1.3	2.1	4.2	4.00	4.00	3.34
22/12/2012	0.1	1.8	0	26.1	18.9	15.2	3.8	19.6	25.7	9.57	9.57	15.21
23/12/2012	28.5	0	5.3	0	0	0	0	0	2.7	15.00	15.00	6.88
24/12/2012	3.8	5.8	0	26.4	12.8	3.4	42.5	14.8	7.2	25.57	25.57	13.95
25/12/2012	9	0	0	31.8	25.4	14.7	11.1	21.2	10.6	16.14	16.14	16.46
26/12/2012	32.2	10.2	24.1	22.3	34.1	29.7	26.5	27.8	30.7	14.43	14.43	16.54
27/12/2012	0	1.8	3.2	10.4	15.8	18	0	0	0.6	13.43	13.43	10.32
28/12/2012	0	0	1	0	0	4.3	0	0	0	2.86	2.86	3.14
29/12/2012	0	0	4.1	0	0	4.3	0	0	0	4.57	4.57	3.35
30/12/2012	1	2.1	2	0	0	0.5	20.2	7.7	2.5	6.29	6.29	4.02
31/12/2012	13.5	17.4	52.4	19.3	13.8	33	33.7	19.9	18.5	2.57	2.57	12.68
01/01/2013	26.6	18.1	38.4	29.4	34.7	30.2	35.1	32.7	37	4.14	4.14	17.41
02/01/2013	24.9	27.8	31.5	19.8	31	39.4	13	8.5	21.4	2.71	2.71	14.36
03/01/2013	0	0	0	0	0	0	1.8	0	0	2.43	2.43	1.98
04/01/2013	22.3	23.9	26.9	7.5	14.1	22.6	4.9	1.5	8.7	9.43	9.43	9.27
05/01/2013	3.7	4.6	15.6	18.1	19.8	19.7	15.4	15.1	19.3	20.14	20.14	14.24
06/01/2013	33	19.8	10.1	21.5	10.3	22.2	33.2	32.6	31	15.14	15.14	15.32
07/01/2013	0	9.8	27.4	3	23.1	13.8	8.5	19.1	13.5	27.14	27.14	9.62
08/01/2013	0	0	0	2.2	3.2	1.4	5.8	6.1	2.4	8.00	8.00	4.30
09/01/2013	8.5	2.1	6.2	5.6	5.6	6	4.6	4.3	1.3	6.00	6.00	7.68
10/01/2013	0	0	0	0	12.5	20.1	5.3	16.1	34.1	12.57	12.57	8.71
11/01/2013	0	0	0	0	0.2	0	0	2.1	5.8	8.14	8.14	2.11
12/01/2013	95.4	94.7	64	92.5	58.9	41.6	48.3	32.7	20.3	21.00	21.00	26.94
13/01/2013	73.7	34	11.9	19.3	5.5	10	10.5	21.4	30.2	5.71	5.71	8.81
14/01/2013	32.8	34	26.3	31	13.3	21.3	21.9	24.4	38.1	6.00	6.00	11.10

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -7.875	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
15/01/2013	0	3.3	4.7	15	19.8	10.5	9.9	11.9	8.1	18.86	12.68	
16/01/2013	15.2	0	0	15.1	1.6	0	8.4	14.1	12.8	11.14	8.35	
17/01/2013	5.7	0	0	18.7	10.1	1.8	56.2	12.5	6.6	6.14	12.91	
18/01/2013	4	12.4	21	10.7	18.9	1.9	15.4	28.8	10	9.71	10.61	
19/01/2013	74.9	130.2	57.1	105.7	106.8	46.6	52.3	39.3	28.3	105.57	97.58	
20/01/2013	21	19.7	30.9	23.6	25.7	35.3	30.8	30.1	18.4	31.43	14.65	
21/01/2013	11.7	12.6	15.9	7.4	14.2	10.7	12.9	10.6	8.1	30.43	11.23	
22/01/2013	7.4	5.2	0	0	0	0	9.9	8.3	4.5	5.71	4.13	
23/01/2013	10.3	4.1	7.6	8.3	15.8	21	23.1	27	21.2	34.14	14.59	
24/01/2013	2	0	0	0	0	0	30.2	26.2	9.5	10.57	4.88	
25/01/2013	0	0	0	0	0	2.9	1.3	2.8	3.6	1.43	3.11	
26/01/2013	0	0	2.2	6.5	9	13	0	0	4.5	2.71	7.67	
27/01/2013	0	0	0	0	0	0	0.5	0	0	2.14	1.88	
28/01/2013	0	0	0	14.4	11.3	5	5.3	8.4	7.4	1.00	9.41	
29/01/2013	0	0	0	1.5	2.8	7.4	0	3.5	6.6	5.57	5.08	
30/01/2013	1.6	2.2	7.1	32.4	45.3	46.8	77.1	81.1	66.2	26.43	5.13	
31/01/2013	0	0	1.2	1.2	1.7	2.4	0	0.8	1.6	4.14	3.25	
01/02/2013	25.4	40.5	54.5	10.7	18.9	25.7	7.3	17.6	25.2	5.14	11.18	
02/02/2013	0	0	0	0	0	0	3.7	4.9	0	2.00	2.61	
03/02/2013	4.7	8.5	11.4	9.7	15.1	25	5.2	2.5	8.4	12.71	9.95	
04/02/2013	0	0	0	1.6	0.8	0.5	3.6	2.9	4	11.71	3.02	
05/02/2013	2.8	0	0	8.5	1.2	0	9.8	0	0	4.29	4.90	
06/02/2013	0	0	0	0	0	0	5.4	0	0	9.14	2.24	
07/02/2013	0	0	0	0	0	0	0	0	0	1.14	1.85	
08/02/2013	0	0	0	0.8	0	0	0.1	4.6	1.5	2.43	2.56	
09/02/2013	0	0	3.7	7	2.8	4.6	7	8.8	0	4.71	6.68	
10/02/2013	0	0	0	0	0	0	0	0	0	1.86	1.85	
11/02/2013	0	0	0	0	0	0	0	1.9	0.8	9.00	2.06	
12/02/2013	0	0	0	2.8	0.7	6.1	2.8	15.9	11.9	14.14	6.77	
13/02/2013	9.9	0	0	2.1	0	0	9.1	15	11.6	9.71	6.18	
14/02/2013	18.4	3.5	0	45.3	7.3	9.1	19.2	17.6	8.2	13.86	12.10	
15/02/2013	11.1	2.4	0.1	15.1	10.7	18	4.8	9.7	4.3	14.00	11.94	
16/02/2013	20.3	16.9	15.7	22.3	33.6	23.3	31.4	20.5	10.6	20.14	17.87	
17/02/2013	0.5	0	0	7.8	11.4	1.6	17.7	16.4	7.9	9.14	8.63	
18/02/2013	12.1	0	1.7	19.1	9.3	12.7	13.5	21.7	28.9	10.43	12.63	
19/02/2013	4	0.1	0.1	17.7	1.1	0.1	5.4	1.1	7.3	9.71	5.52	
20/02/2013	13.3	18.9	26.9	8.4	11.2	13.9	5	4.3	8.9	3.71	9.64	
21/02/2013	0	4.1	10.1	4.8	16.8	18.9	1	1.1	4.1	21.29	9.28	
22/02/2013	35.6	36.4	31.5	101.3	96.7	68.1	96.6	47.5	22.7	60.86	60.20	
23/02/2013	0	6.6	7.8	4.2	13.2	2.7	5.4	4.4	4.7	37.43	6.76	
24/02/2013	21.9	30.7	26.3	22.5	15.6	11.9	7.2	6.6	10.9	18.71	12.49	
25/02/2013	1.6	0	0	4.5	3.5	0	0	0	0	16.57	3.65	
26/02/2013	7	7.8	2.8	5.6	10	12.3	6.8	4.1	3	33.43	8.61	
27/02/2013	57.5	57.9	48.8	25.5	32.3	32.7	16.3	18.8	18.9	29.86	17.03	
28/02/2013	54	18.9	7.7	19.6	9.4	8.2	6.1	9.4	11.1	11.57	11.40	
01/03/2013	97.1	190.9	99	137.2	140.7	51.7	35	20.5	35.5	8.57	10.90	
02/03/2013	0	0	0	7.8	0	2.7	10.9	0	11	5.14	4.35	
03/03/2013	28.2	13.2	0	40.9	12.6	11.1	31.4	30.5	13.7	11.00	14.99	
04/03/2013	44.3	16.7	9.6	40.2	15.4	6.1	44.3	16.5	8.5	25.29	16.45	
05/03/2013	16	19.3	31.1	5.1	14.4	8.4	4.4	4.9	5.6	28.57	9.85	
06/03/2013	0.7	0	0	0.1	1.4	3.9	4.3	4.9	0.6	14.14	4.14	
07/03/2013	0	0	0	0	0	2.9	0	2.5	5.4	7.71	3.00	
08/03/2013	16.5	0	0	5.5	11.7	8.4	9.1	8.3	11.8	19.57	9.76	
09/03/2013	11.6	0	6.7	12.5	10.5	9.1	6	5.3	2.4	8.86	10.69	
10/03/2013	0	0.8	0	0	3.1	16.5	0	7.5	16.4	6.29	6.80	
11/03/2013	0	0	0	0	0	0	0	0	0	0.86	1.85	
12/03/2013	3.7	3.5	6.5	5.2	10.1	26.9	0	0	1.7	0.00	8.76	
13/03/2013	0	3.2	4.2	0	0	0	0	0	0	2.57	1.97	
14/03/2013	0	4.8	7.9	8.2	11.6	18.5	16.2	15.3	14.1	16.29	11.33	
15/03/2013	9.8	12.9	14.4	10.4	15.8	22.5	5.3	9	15.5	18.00	10.55	
16/03/2013	3.3	4.7	0	10.4	13.3	4.2	17.4	10.3	2.8	27.71	9.86	
17/03/2013	10.2	0	0	7.6	2	0	12.1	7.2	0.1	14.86	7.06	
18/03/2013	3.3	0	0	27.5	13.3	20.4	59.4	106.7	67.2	2.43	0.08	
19/03/2013	0	0	0	0	0	0	0	0	0	2.43	1.85	
20/03/2013	0	0	0	0	0	0	0	0	0	1.43	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
21/03/2013	0	0	0	9.6	0	0	13.4	2.3	0.3	3.57	5.00	
22/03/2013	0	0	0	0	0	0	0	0	0	12.43	1.85	
23/03/2013	4.9	1.9	0	2.4	0	0	0	0	0	4.86	2.79	
24/03/2013	0	0	0	0.7	0	1.2	0	0.5	0	14.43	2.41	
25/03/2013	0	0	0	2.3	0.3	0.1	9	4.6	0.1	15.14	3.52	
26/03/2013	0	0	0	0	0	0	0	0	0	22.57	1.85	
27/03/2013	15.2	0	0	2.4	0	0	0	0	0	4.00	4.48	
28/03/2013	23.7	0	24.8	3.9	0	6.5	0	9.4	13.2	2.43	10.61	
29/03/2013	0	0	3.9	15.9	15.8	8	11.6	3.8	9.6	6.14	11.37	
30/03/2013	2.5	1.2	0	8.8	13.3	9.4	22.3	23.9	21.3	19.57	12.14	
31/03/2013	0	0	0	1.6	0	0	5.5	3.6	8	9.57	2.93	
01/04/2013	9	0	0	2.4	0	2.1	0	0	5	9.29	3.62	
02/04/2013	0	0	4.5	0	0	0	0.5	1.7	4.7	9.00	2.41	
03/04/2013	0	0	0	3.5	2.3	0	25.6	28.8	24.7	17.71	6.98	
04/04/2013	0	0	0	0	0	0	0	0.2	3.1	14.00	1.84	
05/04/2013	2	11.9	0	10	13.1	1.4	12.6	17.5	12.8	4.43	8.65	
06/04/2013	11.4	8.4	0	13.4	21.8	13.6	10.4	12	9.2	4.43	12.94	
07/04/2013	59	62.4	23.7	54.5	41.9	48.5	42.3	33	34.6	29.86	15.33	
08/04/2013	0	0.2	3.8	8.2	4.6	4.1	5.6	5.6	19.6	16.14	6.21	
09/04/2013	0	1.7	5.2	2.3	3.3	4.5	0	0	0	1.43	4.38	
10/04/2013	12	11.9	10.1	11.9	14.8	20.1	32.2	26.4	16.8	0.00	14.47	
11/04/2013	10.2	8.7	1.9	2.1	12.2	14.8	7.1	20.1	22.9	8.43	10.76	
12/04/2013	37.6	41.1	72.4	8	15.1	27.1	0	2.7	6.9	10.43	12.09	
13/04/2013	0	0	0	0	0	0	12.4	6.7	0	6.29	3.27	
14/04/2013	0	2.1	0	0	0	0	0	5	0	0	6.14	2.02
15/04/2013	4.3	0	0.8	12.3	6.4	4.9	16.1	20	14.8	27.00	10.25	
16/04/2013	0	0	0	19.2	27.6	0	8	26.4	1.8	4.14	10.20	
17/04/2013	16.8	4.5	11.7	0	0	3.5	0	0	0	3.43	6.24	
18/04/2013	46.3	52.9	66.8	44.8	33.7	16.7	32.8	21.3	3.7	8.14	27.12	
19/04/2013	1.1	1.3	2.6	27.6	15.5	14.8	13.1	5.1	15.6	6.71	12.85	
20/04/2013	0	0	0	0	0	0	5	0	0	0.57	2.21	
21/04/2013	0	0	0	0	0	0	0	0	0	1.43	1.85	
22/04/2013	0.1	0.6	1.2	0.7	1.6	1.3	3.1	0.8	0.2	0.00	3.02	
23/04/2013	0	0	0	0	0	0	1.7	11.2	5.3	0.00	3.26	
24/04/2013	0	0	0	0	0	0	0	0	0	0	0.71	1.85
25/04/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/04/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/04/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/04/2013	0	0	0	0.6	0	0	0	0	0	0	0.00	1.98
29/04/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/04/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/05/2013	2.4	0	0	0	0.1	0.1	0	0.1	0	0.00	2.21	
02/05/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/05/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/05/2013	0	0	0	0	0	0	0	0	0	0.43	1.85	
05/05/2013	0	0	0	0	0	0	0	0	0	0.14	1.85	
06/05/2013	0	0	0	0	0	0	0	1.5	0	0.00	1.96	
07/05/2013	1.7	0	0	0	0	0	0	0	0	11.29	2.06	
08/05/2013	0	0.4	0	0.1	1.5	0.2	0	1.6	0.4	0.00	2.32	
09/05/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/05/2013	0	0	0	0	0	0	0	0	0	8.00	1.85	
11/05/2013	0	0	0.2	0	0	0	0	0	0	1.71	1.87	
12/05/2013	0.3	0	3.9	13.7	0.3	3.6	4.6	2.6	1.1	0.86	6.37	
13/05/2013	3.8	1.6	0	13.8	7.5	4.8	4.1	6.3	5.8	9.57	8.20	
14/05/2013	19.9	0	0	9.5	0	0	0	0	0	4.43	5.95	
15/05/2013	9.9	21.6	29	2.8	11.7	15.6	0.1	0	0	1.43	7.84	
16/05/2013	15.9	0.1	8	18.7	1.4	20.7	7.5	0.7	11.3	2.71	7.82	
17/05/2013	8.9	20.5	7.7	5.8	0	0	10.4	2.7	0.9	16.43	4.63	
18/05/2013	11.3	0	0	11.3	19.5	0	13.7	19.4	3.3	34.00	10.64	
19/05/2013	6.7	0	0	1.6	0	0	0	0	1	0.29	2.97	
20/05/2013	0	0	0	2.3	2.2	1.6	23.4	20.9	16.5	2.43	6.29	
21/05/2013	0	1.8	6.4	0	0	0	0	0	0	0.29	2.31	
22/05/2013	0	0	0	0	0	0	7.2	4.5	9.4	0.00	2.83	
23/05/2013	0	0	2.4	19.2	7.7	13.1	54.4	18.6	28.1	8.00	9.34	
24/05/2013	0	0	0	0	0	0	0	0	0	10.43	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
25/05/2013	1.2	2.9	0	0	0	0	9.7	0	0	4.14	2.45	
26/05/2013	50.2	44.7	33.2	24.1	22.8	20.1	14.4	23.1	25.6	23.00	15.22	
27/05/2013	34.2	57	45.9	17.5	24	29	11.9	16.1	18.5	11.71	14.11	
28/05/2013	0	0	0	0	0	0	0	8.5	5.5	9.57	2.89	
29/05/2013	0	0.9	3.9	6.9	18.2	1.9	15	21	7	21.71	9.05	
30/05/2013	6.7	30.7	19.7	15.7	41.2	19.1	12.9	10.4	8.5	3.71	13.84	
31/05/2013	11.2	4.5	10.7	2.1	3	16.8	0	4.3	14.8	0.57	6.68	
01/06/2013	0	3.2	10.3	0	2.9	10.8	0	0	1	1.43	5.22	
02/06/2013	8	2.5	15.4	4.4	0	15.6	0	0	5.2	2.29	6.77	
03/06/2013	10.1	0	0.7	0	0	0.9	0	0	8.4	1.71	2.81	
04/06/2013	3.7	0	0	0	0	3.2	0	1.7	4.1	4.57	3.35	
05/06/2013	78.4	1.5	0	60.3	2.8	0	54.3	0	0	0.29	2.84	
06/06/2013	0	7.9	0	13.5	13.3	7.6	25.1	37.2	23.2	13.57	12.58	
07/06/2013	3.2	0	0	2	0	2.4	0.5	2	7.3	1.29	3.40	
08/06/2013	10.9	7.7	6.3	11.8	0	0	0	0	0	3.29	5.39	
09/06/2013	8.8	14.2	10.8	14.1	14.1	9.1	7.8	17.9	10.4	22.71	12.07	
10/06/2013	51	68.1	34.1	15.3	12.1	4.6	0.5	0	1	0.00	8.53	
11/06/2013	12.5	15.3	38.5	21.7	9.6	27.2	13.8	15.4	3	10.86	12.54	
12/06/2013	22.4	28.1	23.3	28.1	44.5	26.6	11.2	28.1	25.2	2.29	14.73	
13/06/2013	2.3	3	3.8	3.2	9.7	4.9	11.2	10.4	10	1.71	7.53	
14/06/2013	18.2	11.2	13.9	10.4	21.5	11.2	6	22.7	30.5	7.14	12.37	
15/06/2013	0	12.8	21.4	0	5	18.8	0	1.3	14.5	10.14	4.77	
16/06/2013	13.4	21	14.1	13.9	40.2	21.9	12	0	12.5	18.57	13.26	
17/06/2013	9.8	11.7	12.9	7.7	5.8	8.8	3.4	8.4	8.8	16.43	8.57	
18/06/2013	0.6	0.2	0	0	1.8	0.2	0	0	0.1	7.86	2.26	
19/06/2013	0	0	0	0	0	3.7	0	0	0	1.57	2.92	
20/06/2013	0	0	0	0	0	0	0	0	0	0.14	1.85	
21/06/2013	0	0	0	0	0	0	8.3	0	0	0.57	2.46	
22/06/2013	0	0	0	0	0.1	0.8	33.5	13.8	2.6	0.14	4.29	
23/06/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/06/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/06/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/06/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/06/2013	0	0	0	0	0	0	0	0	0	5.8	0.00	1.79
28/06/2013	0	0	0	3.2	6.4	0	0.7	0	0	1.86	3.81	
29/06/2013	0	0	0	0.1	0	0	2.5	2.9	0.1	0.00	2.36	
30/06/2013	2.9	4.3	9.3	0	4.7	3.7	7.3	12.4	0	5.43	6.01	
01/07/2013	10.3	9.3	11.8	14.1	9.7	8.8	10	0	0	0.86	10.31	
02/07/2013	69.9	123.8	69	41.5	48.5	57.9	24.9	21.8	38.2	1.43	17.56	
03/07/2013	17.5	10.7	26.3	20.9	17.4	14.3	33.1	43.9	20	7.00	17.09	
04/07/2013	0	0	0	0	0	0	0	0	0	0.57	1.85	
05/07/2013	0	0	0	3.6	0	0	0	0	0	0.00	2.63	
06/07/2013	0	1.7	0	0	0	0	0	0	0	0.43	1.71	
07/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/07/2013	0	0	0	0	0	0	22.2	40	37.9	6.29	7.69	
10/07/2013	0	0	0	11.6	10.6	3.2	14.5	6.8	2.5	4.86	9.02	
11/07/2013	11.6	4.2	5.8	23.7	11.4	10.3	14.3	18.7	15.5	4.57	13.55	
12/07/2013	7.9	0	2	0	18.1	0	0	0	0	26.14	5.53	
13/07/2013	0	0	0	0	0	0	4.4	0	0	9.14	2.17	
14/07/2013	0	0	0	0	2.6	9.6	4	5	2.4	5.00	5.74	
15/07/2013	0	0.4	0	0	0	0	0	0	0	2.00	1.82	
16/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/07/2013	0	0	0	0	0	0	0	0	9.2	7.43	1.77	
23/07/2013	0	0	0	0	1.9	3	1.4	2.8	5	0.29	3.43	
24/07/2013	0	0	0	3.3	0	0	0	4.3	7.6	5.14	3.06	
25/07/2013	0	0	0	0	2.6	0.2	1.5	0.9	0.8	0.00	2.54	
26/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/07/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST	
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi		
29/07/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/07/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
31/07/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/08/2013	0	0	0	0	0	0	0	0	0	0	1.4	0.00	1.83	
06/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/08/2013	0	0	0	0	0	0	0	0	1.3	1.8	0	0.00	2.14	
14/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/08/2013	0	0	0	4.7	0	0	0	0	0	0	0	0.00	2.86	
27/08/2013	0	0	0	1.7	0	0	0	0	0	0	0	0.00	2.22	
28/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.29	1.85	
30/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
31/08/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/09/2013	0	0	0	0	0	0	0	0	0	0	0.1	0.00	1.85	
05/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/09/2013	0	0	0	0	0	0	0	0	0	0	4.8	5.4	0.00	2.43
10/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.3	0.00	1.85
12/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/09/2013	0	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/09/2013	0	0	0	0	0	0	0	0	0	0.4	5	0.00	1.85	
18/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/09/2013	0	13.1	2.4	0	12.4	3.6	0	12.9	14.9	0.00	5.47			
25/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/09/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/09/2013	0	0	0	0	0	0	0	2.4	0	0	0	0.00	2.02	
01/10/2013	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.875	-7.875	-8.125	-8.125	-8.125	-8.125	-8.125	Observasi	
02/10/2013	8.3	0	0	0	0	0	0	0	0	0	0.00	2.99
03/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/10/2013	20.1	20.1	0	0	0	0	0	0	0	0	0.86	3.26
06/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/10/2013	0	0	0	0	0	0	0	0	2.2	0	0.00	2.10
08/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/10/2013	0	0	0	0	0	0	0	8.5	0	0	0.00	2.47
17/10/2013	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/10/2013	0	0	0	0	0	0	0	0	0	0	1.14	1.85
19/10/2013	0	0	0	4.4	4.3	0	4.7	0.5	0	1.43	4.08	
20/10/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/10/2013	0	0	0	0	0	0	9.9	37.8	7.5	4.00	4.86	
22/10/2013	0	0	0	3.2	12.3	1	2.2	6.1	3.5	0.86	5.61	
23/10/2013	0	0	0	0	0	0	8.5	2.3	0	2.00	2.68	
24/10/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/10/2013	0	0	0	11.8	0	0	35.3	5.3	19.2	0.00	5.17	
26/10/2013	0.5	0.5	0	16.5	12	0	9.1	9.8	0	12.43	9.42	
27/10/2013	0	0	0	0	0	0	0	0	0	18.00	1.85	
28/10/2013	0	0	0	0	0	0	0	0	0	8.57	1.85	
29/10/2013	0	0	0	4.4	5.6	0	8.5	18.6	9.9	5.00	6.13	
30/10/2013	0	0	0	8.7	5.1	1.4	0	0	0	4.57	5.09	
31/10/2013	0	0	0	0	0	0	0	0	0	0.14	1.85	
01/11/2013	0	0	0	0	0	0	0	0	0	16.57	1.85	
02/11/2013	0	0	0	0	0	0	0	0	0	10.57	1.85	
03/11/2013	6.1	2.9	0	0	0	0.2	0	0	0	6.00	2.46	
04/11/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/11/2013	0	0	1.7	5.7	7.4	6.8	6.6	0	1.7	4.71	6.72	
06/11/2013	1.7	2	0	13.3	18.4	9.5	26.8	35.8	12	3.86	12.86	
07/11/2013	0	0	0	2.1	6	2.4	0	1.4	0	21.86	4.19	
08/11/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/11/2013	0	0	0	0	0	0	0	0	0	8.29	1.85	
10/11/2013	0	0	0	0	0	0	0	0	0	0.29	1.85	
11/11/2013	0	0	0	0	0	0	7.2	2.4	0	7.86	2.60	
12/11/2013	12.6	6.5	10.8	8.6	15.6	17.3	11.1	14.9	14.4	9.86	12.50	
13/11/2013	0	0	0	0	0	0	0	0	0	16.71	1.85	
14/11/2013	32.5	18.5	9	20	30.7	33.2	24.7	22	30.5	7.00	15.75	
15/11/2013	1.8	4.7	16.2	7.5	0	4.2	10.3	0	0	8.29	6.67	
16/11/2013	0	0	0	0	0	0	2	0	0	8.14	1.99	
17/11/2013	18	36.9	15.2	16.6	13	10.7	17.7	11.5	11.9	7.14	11.86	
18/11/2013	0	0	3.3	5.2	6.9	7	18.7	18.7	40.5	9.71	8.89	
19/11/2013	20	19.6	45.5	19.5	16.2	19.1	24.3	27.3	18	12.14	16.68	
20/11/2013	54.8	40.8	7.9	20.5	17.4	9.1	19.6	30.7	6.1	10.71	18.84	
21/11/2013	0	0.7	0	8.9	1	4.4	0.2	0	0	1.71	4.87	
22/11/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/11/2013	7.5	0	0	0	0	0	0	0	0	2.14	2.87	
24/11/2013	2.1	0	0	0	0	0	0	0	0	1.57	2.11	
25/11/2013	29.4	33.8	35.4	77.1	80.3	70.8	52.6	52.8	60.9	54.14	39.28	
26/11/2013	0	0	0	0	5.5	6	9.9	38.7	22.8	17.57	9.32	
27/11/2013	5.8	0	0	14.3	16.9	12.2	9.7	12.3	24.1	6.14	11.60	
28/11/2013	26.1	25.8	22.3	27.4	20.8	11.9	21.9	16.6	13.2	1.00	16.74	
29/11/2013	0	2.1	5.6	0	0	1.5	0	0	0	4.29	2.58	
30/11/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/12/2013	0	0	0	0	0	0	0	0	0	0.29	1.85	
02/12/2013	0	0	0	6.4	1.3	0	7	0	0	3.14	4.01	
03/12/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/12/2013	7.3	5.1	1.9	0	0	1.3	0	0	0	0.29	2.94	
05/12/2013	1.4	10.2	5.8	1.7	3.5	4	8.4	19.2	22.2	20.00	6.71	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
06/12/2013	3.6	0	1	27.5	20.1	17.9	39.3	40.6	24	8.14	16.89	
07/12/2013	0	0	0	35.1	32.5	13.3	39.8	37	17.5	7.71	19.86	
08/12/2013	18.6	18.2	10.2	11.1	7.5	0	25.9	10.3	3.6	38.71	11.45	
09/12/2013	8.6	10.6	10.4	13.3	7	5.9	15.7	7.8	7	25.71	9.93	
10/12/2013	5.1	7	1.9	0	3.3	1.9	7	7.7	0	0.00	4.60	
11/12/2013	15.7	14.8	15.9	4.9	5.5	4.7	2.7	3.3	0	17.71	8.18	
12/12/2013	25.8	20	10.7	10.6	15.4	12.1	4.2	4.9	12.5	13.29	9.43	
13/12/2013	6.2	3	0.6	2.6	9.9	4.2	18.9	5.8	7.9	14.71	7.63	
14/12/2013	24.5	25.9	13.1	32.5	22.3	21.8	17.2	36.6	23.9	50.14	17.75	
15/12/2013	58.8	36.9	21	34.3	44.7	43.7	39.8	25.2	43.8	41.14	19.90	
16/12/2013	2	8.2	0	33.1	40.9	50.3	29.2	27	43.8	37.29	22.45	
17/12/2013	16.6	11.5	0	25	8.4	11	13.3	16.4	13	31.57	11.96	
18/12/2013	26.3	34.1	22.2	32.8	33.6	41.8	17	16.7	18.7	24.57	15.47	
19/12/2013	4.5	0	2.2	3.4	0	7.7	6.5	6.2	8.8	5.29	6.18	
20/12/2013	0.4	3.9	3.9	12	12.1	6.4	9	0.8	8.4	36.14	8.71	
21/12/2013	47.1	51	67.6	30.5	34.2	42.3	29.1	36.1	29.5	3.43	17.66	
22/12/2013	27.2	36.5	33.3	18.5	28.6	26.5	25.4	45.9	32.4	51.00	17.76	
23/12/2013	8.2	4.1	0	4.3	1.2	0	0	1.6	2.9	7.29	3.63	
24/12/2013	0	0	0	4.8	3.3	3.6	19.1	9.1	8.2	3.57	6.37	
25/12/2013	0	0	0	0	0	0	1.4	0	0	3.14	1.95	
26/12/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/12/2013	4.2	0	0	0	0	0	0	0	0	0.00	2.39	
28/12/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/12/2013	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/12/2013	14.4	5.6	0	22.3	15.5	5.4	2.2	8.1	12.1	20.86	10.18	
31/12/2013	4.1	11.7	21.9	28.7	19.1	9.8	60.5	43.4	23.3	36.71	15.13	
01/01/2014	6.4	9	3.9	2.9	2.1	4.3	3.4	6.1	4.9	18.29	5.28	
02/01/2014	0	0	0	0	0	2.4	0	0	0	3.00	2.55	
03/01/2014	9.2	1	0	11.8	9.6	9.2	13.5	9.9	14.5	7.14	10.08	
04/01/2014	1.5	5.9	21.4	11.6	9.8	18.1	17.4	13	16.3	3.86	11.28	
05/01/2014	9.1	17.6	13.8	15.9	20.5	6.8	17.8	16.2	6.5	19.29	13.55	
06/01/2014	0	0	2.1	1.7	1.1	0	0	0	0	3.29	2.62	
07/01/2014	1.4	2.8	0	15.2	6.1	0	0.7	0	1.3	8.29	6.13	
08/01/2014	1.4	0	2.4	16.6	38.2	11.2	19.7	32.3	12.4	1.86	14.13	
09/01/2014	0	3.6	0	0	0	0	1.8	12.1	6.5	0.86	3.14	
10/01/2014	4.9	1.9	1.9	2.7	4	5.6	14.5	6.1	3.9	8.43	6.77	
11/01/2014	0	0	3.1	10.2	5.4	8.6	0	0	0	7.71	7.15	
12/01/2014	0	0	0	0	0	2.6	5.3	6.3	3.6	0.43	3.66	
13/01/2014	11.6	0	3.3	8.7	4.4	7	9.5	7.8	11.4	4.14	8.50	
14/01/2014	0	0	0	0	0	0	0	0	0	0.71	1.85	
15/01/2014	0	0	0	0	0	0	0	0	0	5.00	1.85	
16/01/2014	14.2	21.6	4.5	10	6.8	0.2	0	1.8	0.8	0.43	5.88	
17/01/2014	3.4	0	0	11.8	8.9	0	10.6	5.7	1.8	9.86	7.92	
18/01/2014	0	0	0	0.5	0	0	0	0	0	5.71	1.96	
19/01/2014	1.7	2.8	0	7	12.3	3.7	0	0	0	2.57	6.58	
20/01/2014	0	0	0	0	0	0	5.5	0.7	0	13.57	2.32	
21/01/2014	0	0	0	0.3	0	0	2.3	2.4	0	10.00	2.34	
22/01/2014	67.8	68.8	84.4	68.6	84.9	83.7	57	73.3	105.9	35.00	40.91	
23/01/2014	0	1.1	6.4	33.1	25.9	22.6	38.7	60	55.3	47.14	19.76	
24/01/2014	26.3	16.1	8.6	24.7	13	8.4	41.8	32.7	21	32.00	16.80	
25/01/2014	0	0	0	5	0	0	7.4	0	0	9.86	3.46	
26/01/2014	0	0	0.5	0	0	0	0	0	0	7.71	1.89	
27/01/2014	33.8	40.7	46.5	13.2	4	0	0	0	0	23.57	11.90	
28/01/2014	4.6	0	0	8.9	5.1	0	0	4.1	0	16.00	5.64	
29/01/2014	20.7	22.7	9.5	24.2	21.5	13.9	2.2	8.9	5	24.29	12.71	
30/01/2014	10.8	15.9	12.2	12.1	20.1	17.9	13	7.3	1.8	33.43	12.57	
31/01/2014	36.7	74.5	59.2	27.7	30.1	28.1	25.6	26.2	7.3	25.57	20.80	
01/02/2014	42.8	75.8	87.9	80.6	76.3	50.5	0	1.2	6.5	38.14	33.60	
02/02/2014	0.8	13.1	11.1	0	1.7	0	0.3	0	0	10.00	2.42	
03/02/2014	18.5	13.6	0	75.7	46.5	11.7	75.7	52.8	19.8	30.43	21.01	
04/02/2014	0	0	0	0	0	0	0	0	0	2.14	1.85	
05/02/2014	3.7	1.5	0	17.7	25	4.5	29.6	28.7	14.4	3.86	14.85	
06/02/2014	0	0	0	0	0	0	7.8	0	0	2.57	2.42	
07/02/2014	5.2	0	3.9	4.5	0	0	0	0	0	0.57	3.82	
08/02/2014	5.9	0	0	23.8	7.4	4.7	20.3	6.2	1.3	10.29	11.31	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -7.875	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
09/02/2014	0	0	0	0	0	0	44.1	6.5	1.4	5.29	4.31	
10/02/2014	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/02/2014	0	0	0	0	0.9	0.2	19.7	13.3	3.3	10.14	4.18	
12/02/2014	0	0	0	0	0	0	12.8	42.7	26.1	2.57	7.14	
13/02/2014	0	3.3	0	6.5	5.8	13.1	0	3	14.5	1.43	6.83	
14/02/2014	0	0	1.2	9.8	3.3	2.8	11.3	23.1	4	2.57	7.90	
15/02/2014	0	0	0	1.1	1.7	0	0.7	0	0	2.57	2.45	
16/02/2014	1.1	3	6.1	1.4	0	6.7	7.4	0	2.8	9.43	4.48	
17/02/2014	56	55.9	50.7	37.7	34.1	27.9	1.3	0.7	5.5	10.71	15.29	
18/02/2014	68.9	30.6	28.5	12.5	12.8	16.1	2.3	0.1	0.3	7.14	14.68	
19/02/2014	28.7	41.1	16.3	29.8	30.7	31.5	27.4	42.6	40.5	29.43	17.68	
20/02/2014	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/02/2014	15.1	8.1	0	30	24.4	14.1	26.1	6.6	15.7	18.29	15.23	
22/02/2014	34.7	47.8	53.7	16.4	17.9	33.8	2.6	1	6.4	23.43	11.49	
23/02/2014	0	0	0	1.5	7.4	25.9	8.7	3	14.2	9.14	7.69	
24/02/2014	3.3	9.9	0	9.9	3.1	5.6	0.6	0	5.5	2.57	4.87	
25/02/2014	18.8	11.2	3.9	2.1	15.7	1.4	3.9	15.7	25.6	3.14	7.28	
26/02/2014	1.7	0	0	0	0	0	2.6	0	0.4	0.43	2.24	
27/02/2014	11.6	1.5	0	2.2	12.5	8.5	4.3	27.6	24	8.29	11.59	
28/02/2014	0	0	2.5	0	0	5	0	0	5	9.71	3.30	
01/03/2014	0	0	0	0	0	0	0	0	0	2.14	1.85	
02/03/2014	0	0	0	0	0	0	0	0	0	4.00	1.85	
03/03/2014	19.4	0	0	3.9	2.7	0	2.5	1.2	0	3.57	6.27	
04/03/2014	2.8	8.1	0	27.8	21	12	25.8	11.3	12.1	2.14	15.86	
05/03/2014	0	0	3.9	5.5	14.8	14.3	13.8	6.4	5.8	5.86	10.51	
06/03/2014	0	0	0	0	0	0	0	0	0	1.00	1.85	
07/03/2014	0	0	0	0	0	2.9	0	0	0	0.00	2.69	
08/03/2014	0	0	0	0	0	0	0.4	0	0	0.00	1.88	
09/03/2014	38.9	39.8	24.9	0	2.9	3.7	0	0	0	0.00	8.90	
10/03/2014	32.3	38.2	3.2	2.6	2.9	8.2	12.7	21.6	14.1	1.57	11.81	
11/03/2014	0	0	0	8.6	9.7	0	1.3	5.3	0	4.71	6.19	
12/03/2014	23.2	6.8	10.8	86.6	40	22.1	18.2	11.1	38.6	12.29	15.67	
13/03/2014	43.6	69.6	56.6	37.4	66.6	50.4	57.6	45.8	22	19.14	18.70	
14/03/2014	0	0	0	1.7	2.6	2.5	12.5	8.8	7.7	19.57	5.05	
15/03/2014	0	0	0	1.7	2.6	2.5	12.5	8.8	7.7	16.57	5.05	
16/03/2014	2.7	0	0.1	8.5	5.3	9.6	15.8	26.6	33.7	6.00	11.38	
17/03/2014	0	0	0	2.9	9.8	1.9	1.7	9.8	2.3	6.43	5.58	
18/03/2014	0	0	1	0	0	0	0.2	0	0	21.43	1.95	
19/03/2014	11.9	8	0	0	0	0	1.2	1.5	3.4	5.29	2.95	
20/03/2014	0	0	0	14.8	4.6	8.3	0	8.5	6.7	9.14	8.53	
21/03/2014	12	20	29.8	6.6	0	0	0	0	0	0.14	7.51	
22/03/2014	0	0	0	0	0	0	1	6.8	3	0.00	2.69	
23/03/2014	0	0	0	1.9	0	0	7.5	0	0	3.29	2.81	
24/03/2014	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/03/2014	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/03/2014	0	0	0	0	0	0	0	0	0	0.29	1.85	
27/03/2014	0	0	0	16	2.4	0	16.2	7.3	1.4	0.71	7.42	
28/03/2014	0	0	0	13.4	18	16.5	19	15.8	14.2	5.86	13.83	
29/03/2014	0	0	0	0	0	0	5.4	0	0	0.57	2.24	
30/03/2014	0	0	0	0	0	0	1.3	0	0	0.14	1.94	
31/03/2014	0	0	0	0	0	0	2.9	0	0	0.00	2.06	
01/04/2014	0	0	0	6.4	0	2.2	11.7	0	0	0.71	4.53	
02/04/2014	13.8	10.5	10.4	2.7	1.3	4.1	16.3	6.8	0	0.00	8.27	
03/04/2014	0	0	0	2.6	0	0	8.5	0	0	0.43	3.04	
04/04/2014	0	0	0	0	0.1	0.2	0.9	0.1	0	3.71	2.00	
05/04/2014	8.3	0.5	0	0	2.6	0	0	0	1.5	0.71	3.22	
06/04/2014	0	0	0	0	0	0	0	4.4	0	12.57	2.34	
07/04/2014	2.6	21.7	21.7	1.7	5.6	11.3	1.4	2.6	10.3	1.57	5.37	
08/04/2014	11.6	13.4	8.2	28.3	13.8	4.7	21	8.2	3.9	22.43	14.17	
09/04/2014	0	0	0	3.3	0	3.4	2	1.9	6.1	15.57	3.76	
10/04/2014	8	13.9	4.3	9.4	17.4	2.5	4.1	11.5	6.1	12.86	8.83	
11/04/2014	0.9	10.1	26.9	4.5	20.9	27.7	11.4	31.1	50.2	10.14	11.08	
12/04/2014	18.8	10.7	6.4	32.6	33.3	54.5	26.9	33.4	61.7	14.43	18.60	
13/04/2014	0	0	0	20.6	11.4	9	10.4	6.3	11.3	12.57	11.00	
14/04/2014	65.4	46.5	32.7	14.3	7.9	12.6	0	0	0	10.00	11.38	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
15/04/2014	0	0	0	0	11.1	4.7	14.7	0	0	7	0.43	7.49	
16/04/2014	0	0	0	0	0	0	0	0	0	0	2.14	1.85	
17/04/2014	0	0	0	0	0	0	0	0	3.2	8.9	4.14	2.25	
18/04/2014	1.1	6.1	0	0	0.1	9	7.5	4.4	0	5.86	4.83		
19/04/2014	0.6	0.5	1.5	4	12	12.8	38.7	30.5	32.2	4.57	11.42		
20/04/2014	0	0	0	12	2.6	0	21.3	12.6	1.8	1.57	7.26		
21/04/2014	0	0	0	3.4	10.6	4.4	13.7	17.2	14.2	13.57	8.20		
22/04/2014	15.3	0	0.6	5.6	15.6	7.3	19.2	16	16	21.00	11.89		
23/04/2014	0	0	0	0	0	0	0	3.5	0	5.14	2.24		
24/04/2014	0	3.1	0	3.1	15.1	14.6	1	9.7	11.1	7.57	9.37		
25/04/2014	13.2	0	2.4	14.6	0	0	11.6	2.5	1.5	34.71	7.35		
26/04/2014	12.8	17.8	21.2	17.1	10.7	8.2	18.4	14	4.9	23.14	13.69		
27/04/2014	0	0	0	11.3	0	1.9	6.5	0	0	5.14	4.97		
28/04/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
29/04/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
30/04/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
01/05/2014	0	0	0	0	0	0	0	0	0	0.29	1.85		
02/05/2014	0	0	0	0	0	0	0	0	0	3.14	1.85		
03/05/2014	0.1	0.4	0	10.2	0.6	2.1	1.2	7.6	2	0.71	5.55		
04/05/2014	4.7	0	0	0	1.3	0	0	9.4	2.7	0.00	3.85		
05/05/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
06/05/2014	0	0	0	0	0	0	0	0	0	5.43	1.85		
07/05/2014	0	0	0	1.1	0	0	0	0	0	6.71	2.09		
08/05/2014	0	0	0	0	0	0	0	11.2	0	0.00	2.68		
09/05/2014	0	0	0	1.8	8.1	4.1	0	0	0	5.86	4.80		
10/05/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
11/05/2014	0	0	0	0	0	0	0	0	0	0	1.00	1.85	
12/05/2014	75.5	56	45.8	68.5	59.2	59.9	54	57.1	77.8	15.43	13.66		
13/05/2014	0	0	0	7.5	6.5	1.6	8.8	2.2	10.5	20.14	5.73		
14/05/2014	0	0	0	0	0	0	15.8	0	0	0.14	3.03		
15/05/2014	0	0	0	0	0	0	0	0	0	4.00	1.85		
16/05/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
17/05/2014	0.8	4.2	0	0	0	0	0	0	0	0.29	1.59		
18/05/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
19/05/2014	0	0	0	0	0	0	0	0	0	13.43	1.85		
20/05/2014	0	2.7	0	0	0	1.9	0	9.4	7.5	3.14	3.48		
21/05/2014	0	0	0	0	0	0	0	0	0	2.14	1.85		
22/05/2014	0	0	0	0	0	0	0	0	1	0	0.00	1.96	
23/05/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
24/05/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
25/05/2014	0	0	0	2	1.2	0	6.9	5.9	0.8	5.14	3.57		
26/05/2014	0.5	0	0	0.5	2	0	0	1.5	0	0.00	2.53		
27/05/2014	0	0	2.5	0	0	0	0	0	0	1.14	2.07		
28/05/2014	0	0	0	0	0	0	0	0	0	2.43	1.85		
29/05/2014	0	0	0	5.7	13.2	11.9	0	5	5.8	10.71	8.77		
30/05/2014	0	0	0	2	0	0	0	0	0	0.00	2.29		
31/05/2014	2.8	0	0	0	0	0	0	0	0	0.00	2.20		
01/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
02/06/2014	0	0	0	0	15.6	0	0	0	0	3.14	4.45		
03/06/2014	0	0	0	5.6	0	0	0	0	0	2.29	3.04		
04/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
05/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
06/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
07/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
08/06/2014	0	0	0	0	0	0	0	0	0	2.43	1.85		
09/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
10/06/2014	0	0	0	0	0	0	0	0	10.2	0	0.00	2.90	
11/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
12/06/2014	0	0	0	6.3	0	0	0	0	0	0.00	3.18		
13/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
14/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		
15/06/2014	0	0	0	0	0	0	0	0	0	1.43	1.85		
16/06/2014	0	0	0	0	0	0	0	0	0	0.43	1.85		
17/06/2014	0	0	0	0	0	0	0	0.9	0	0.00	1.95		
18/06/2014	0	0	0	0	0	0	0	0	0	0.00	1.85		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
19/06/2014	0	0	0	0	0	0	0	0	0	0	0	3.71	1.85
20/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/06/2014	0	0.7	1.3	47.9	32.7	9.4	35	40.2	44.6	10.43	21.73		
25/06/2014	0	0	0	0	0	0	0	0	0	0	0	3.86	1.85
26/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/06/2014	16.6	0	0	0	0	0	0	0	0	0	0	0.00	4.40
28/06/2014	1.4	0	0	0	0	0	0	0	0	0	0	0.00	2.02
29/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/06/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/07/2014	4	0	0	0	0	0	0	0	0.2	0.7	0.00	2.36	
02/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/07/2014	0.8	0	0	0	0	0	0	0	0	0	0	0.00	1.95
06/07/2014	0	16.9	0	0	0	0	0	0	0	0	0	0.00	0.51
07/07/2014	0	0	0	0	0	0	0	0	0	0	0	3.14	1.85
08/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/07/2014	0.6	1.2	0.7	48.8	30.1	7.5	13.8	5.9	56.8	0.14	8.00		
13/07/2014	0	0.1	0	1.1	0.3	0.6	0.3	0	0	0	6.29	2.33	
14/07/2014	23.6	15.2	8	9.4	0	0	3.3	4.3	16.1	0.00	4.53		
15/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/07/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/07/2014	0	0	0	0	0	0	0	7.8	6.2	0	0.00	2.97	
01/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/08/2014	0	0	0	0	0	0	0	0	0	0	0	2.43	1.85
04/08/2014	0	0	0	7.6	0	0.4	1.7	0	0	0	0.00	3.65	
05/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/08/2014	9.6	20.5	0	0	0	0	0	0	0	0	0	0.00	1.53
09/08/2014	0	0.7	16	0	0.8	15.9	0	0	24.5	0.00	3.47		
10/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/08/2014	15.6	0	0	0	0	0	0	0	0	0	0	0.00	4.22
12/08/2014	0	0	0	5.6	0	0	0	0	0	0	0	0.00	3.04
13/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/08/2014	0	0	0	4.1	0	0	0	0	0	0	0	0.00	2.73
15/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/08/2014	0	0	0	0	0	0	25.3	35.7	0	8.71	3.11		
21/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/08/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
23/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/08/2014	15.3	0	0	0	0	0	0	0	0	0	0.00	4.17
25/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/08/2014	0	0	0	0	0	0	0	2.9	1.1	2.8	0.00	2.15
30/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/08/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/09/2014	15.1	0	0	0	0	0	0	0	0	0	0.00	4.13
02/09/2014	0.5	0	0	0	0	0	0	0	0	0	0.00	1.91
03/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/09/2014	6.7	0	0	0	0	0	0	0	0	0	0.00	2.75
07/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/09/2014	0	0	0	2.9	0	0	0	0	0	0	0.00	2.48
19/09/2014	0	19.3	0	9.1	0	0	0	0	0	0	0.00	2.28
20/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/09/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/10/2014	0	0	4.4	0	0	0	0	0	0	2.9	0.00	2.18
08/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/10/2014	0	0	0	9.4	10	0	26.1	46.3	5	0.00	6.14	
16/10/2014	0	0	0	0	0	0	0	0	0	0	1.00	1.85
17/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/10/2014	0	0	0	0	0	0	7.1	0	0	0	0.00	2.37
19/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/10/2014	0	15.8	0	0	0	0	0	0	0	0	1.14	0.59
22/10/2014	0	0	0	0	0	0	0	0	0	0	3.14	1.85
23/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/10/2014	0	0	0	0	0	0	0	0	0	0	1.71	1.85
26/10/2014	0	0	0	0	0	0	0	0	0	0	0.00	1.85

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
27/10/2014	0	0	0	0	1.8	0	0	0	0	0	0	0.00	2.25
28/10/2014	0	0	0	0	0	0	0	0	0	0	0	7.57	1.85
29/10/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/10/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/10/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/11/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/11/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/11/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/11/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/11/2014	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/11/2014	0	0	0	2.7	9.2	7.2	4.8	53.3	22.8	3.29	10.50		
07/11/2014	0	14.5	0	0	20.1	4.6	11.7	17.2	10.1	7.00	6.93		
08/11/2014	0	0	0	5.1	2.3	2.5	21.4	10.5	0	24.57	6.12		
09/11/2014	0	0	0	13.7	15.7	8.4	20.3	16.8	8	11.14	12.30		
10/11/2014	1.6	2.3	3.2	3.5	27.8	9.9	8.4	13.6	6.4	17.86	10.20		
11/11/2014	0	0	0	0	0.6	0	0	0	0	3.00	1.95		
12/11/2014	0	0	0	2.4	0	2.5	1.1	0	4.1	3.29	3.05		
13/11/2014	0	0	0	0	0	0	0	0	0	8.86	1.85		
14/11/2014	0	0	0	0	0	0	0	8.3	4.1	10.3	11.00	2.84	
15/11/2014	0	0	0	2.1	1.2	0	18.6	4	0	6.14	4.22		
16/11/2014	25.9	0	0	14.7	7.1	4.3	22.4	21.2	25.5	7.86	12.06		
17/11/2014	0	4.3	0	12.9	15	14.9	18	9.2	7.5	12.29	11.97		
18/11/2014	14.2	0	0	15.1	10	0	3	4	0	7.43	8.64		
19/11/2014	0	0	0	0	0	0	0	0	0	1.29	1.85		
20/11/2014	0	0	0	1.3	0	0	0	0	0	11.14	2.14		
21/11/2014	0	13.3	0	0	0	0	0	0	0	1.00	0.78		
22/11/2014	0	0	0	0	0	0	0	0	0	5.57	1.85		
23/11/2014	0	0	0	0	0	0	7	1.5	1.7	3.86	2.48		
24/11/2014	4.6	0	0	9	2.7	0	1.9	0.9	0	7.14	4.94		
25/11/2014	0	0	0	23.8	9.8	14.3	15.9	20.2	13.5	20.86	13.33		
26/11/2014	0	0	0	0	4.1	0	0	0	0	11.57	2.55		
27/11/2014	0	0	0	2.3	0	2.7	0	2.2	6.9	11.00	3.33		
28/11/2014	0	5.1	0	6.6	9	3	6.4	7.5	6.7	0.29	6.53		
29/11/2014	48.3	45.1	0	37.8	16.5	0	25.3	13.9	21.5	4.29	3.43		
30/11/2014	0	0	0	0	0	2.6	20.9	4.1	6.1	0.71	4.12		
01/12/2014	25.6	18.5	10.3	12.2	10	5.9	18.5	7.7	0	0.29	12.98		
02/12/2014	9.6	32	8.9	19.5	24.5	12.2	35.3	36.3	24.7	18.29	15.93		
03/12/2014	24.6	22.1	16	2.6	7.2	5.1	0	0	1.9	1.57	7.56		
04/12/2014	0	0	0	11.4	12.8	8.2	30.2	34.2	20.1	6.57	12.34		
05/12/2014	28.2	74.6	55	20.3	34.9	28.1	17.6	34.9	57.6	18.43	11.59		
06/12/2014	16.3	19.2	33	12.5	7.2	3.7	0.6	9.5	9.2	13.00	11.16		
07/12/2014	0	0	0	7.7	11.4	9.6	3.6	4	5.7	4.71	8.49		
08/12/2014	0	0	0	0	0	0	0	0	0	6.57	1.85		
09/12/2014	0	0	0	0	0	0	0	0	0	2.57	1.85		
10/12/2014	17.4	19	18.2	7	5.1	9.6	5.9	3.5	8	0.29	8.35		
11/12/2014	0	1.1	0	5.9	6.4	6.6	3.7	6.4	8.6	6.00	6.80		
12/12/2014	0	0	0	0	0	0	0	0	0	9.43	1.85		
13/12/2014	0	0	0	0	0	0	0	0	0	2.86	1.85		
14/12/2014	0	0	0	0.7	0	0	0	0	0	0.00	2.01		
15/12/2014	1.8	0.7	8	3.6	5.3	3.8	7.2	13.1	10.7	3.57	7.20		
16/12/2014	14.1	0	0	40	29.2	24.2	44.2	50.8	40.2	22.00	19.38		
17/12/2014	41.8	32.2	22.2	22.8	12.5	19.8	16	14.3	27.9	10.71	9.73		
18/12/2014	2.2	0	0	3.3	3	1.6	28.4	14.4	16.2	10.14	6.39		
19/12/2014	1.4	2.4	3.3	5.8	3.6	1.6	5.7	3.5	5	7.57	5.12		
20/12/2014	14.5	11.7	14.1	29.4	38.6	35.5	26.6	40	35.2	16.14	18.27		
21/12/2014	25.7	7.3	0	26.3	11	1.4	40.9	23.9	5.8	3.71	16.19		
22/12/2014	4.5	0	3	14.9	14.4	17.2	11.2	28	12.4	11.29	14.49		
23/12/2014	0	0	0	3.4	0	18.1	3.9	0	8.14	4.18			
24/12/2014	9	6.1	0	30.6	12.6	1.5	44.7	20.2	8.3	15.57	14.81		
25/12/2014	18.4	6	0	24.2	33.6	41.4	8.7	24.9	38	5.14	16.59		
26/12/2014	6.3	15.1	25.3	30.3	34.2	35.4	32.1	31.9	15.5	22.14	14.68		
27/12/2014	6.4	0	4.7	25.3	24.2	19.2	7.9	12	12.4	25.14	15.26		
28/12/2014	13.8	0	0	12	0	0	31.6	19.3	0	24.29	10.14		
29/12/2014	0	0	0	0	0	0	0	0	0	7.29	1.85		
30/12/2014	1.4	4.3	0	8.7	6.6	1.5	0.6	0	1.6	5.71	5.15		

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
31/12/2014	0	0	0	10.5	20.8	20.6	13.7	13.7	24.7	6.71	13.19	
01/01/2015	38.6	41.2	8.1	33.2	39.4	21.2	15.2	14.4	0	9.57	16.09	
02/01/2015	26.9	26.5	21.9	6.3	25	31.9	9.3	9	5.5	20.86	12.08	
03/01/2015	0	0	3.8	0	1.7	3.9	0	0	0	1.71	3.50	
04/01/2015	0	3	7.3	0	0	0	2.5	6.5	9	5.71	3.13	
05/01/2015	12.3	5.6	4	0	7.7	8	1.3	16.7	13.9	15.43	8.91	
06/01/2015	0	0	9.3	0	0	0	0	0	0	0.29	2.76	
07/01/2015	0	0	1.7	0	0	0	0	0	0	0.00	2.00	
08/01/2015	1.4	4.7	0	6.2	0	0	0	0	0	0.00	2.91	
09/01/2015	6.9	10.7	5.7	8.1	9.5	2.4	0	0	0	3.43	6.33	
10/01/2015	27.9	25.4	32.3	24.5	11.3	12.7	1.7	1	1.1	0.43	12.68	
11/01/2015	1.8	3.7	0.7	17.6	13.8	10.2	39.9	17.5	17.7	16.29	12.80	
12/01/2015	19.5	10.9	13.1	8.3	7.5	0	9	8.7	0	10.00	10.29	
13/01/2015	27.3	22.5	22	1.3	10.4	7	0	5.5	10.2	12.71	8.68	
14/01/2015	27	11.9	4.5	4.9	8.9	1.6	0	0	2.4	37.71	7.03	
15/01/2015	0	0	0	0	0	0	0	0	0	1.57	1.85	
16/01/2015	3.5	2.3	0.9	0	0	6.6	0	0	0	1.71	3.96	
17/01/2015	11.8	12.5	7.2	1.9	0	2.7	6.6	0	6.9	4.29	3.90	
18/01/2015	1.7	9.3	6.3	0	0	0	0	0	0	5.43	1.94	
19/01/2015	49.9	29.4	28.3	17.8	8.2	10.4	0	5.3	24.2	10.71	5.30	
20/01/2015	7	7.1	0	3.1	6.6	0	2.9	0.8	6.9	5.29	3.79	
21/01/2015	0	0	0	0	0	0	1.6	2.5	2.3	0.00	2.23	
22/01/2015	5.9	10.4	15.4	28.1	16.3	11.3	12.8	35.7	28.6	10.71	16.88	
23/01/2015	1.9	7.9	21.5	16	0	6.3	3.9	11.9	21.8	1.29	8.52	
24/01/2015	0	0	0	0	2.5	0.7	14.5	9	4.2	0.00	4.21	
25/01/2015	1.5	8.4	0	69.5	58.1	30.1	48.2	78	45.4	9.14	16.76	
26/01/2015	17.5	11.8	7.2	25.5	18.4	3.3	0	0	0	6.57	10.90	
27/01/2015	0	0	0	3	8.4	21.8	0	5.2	9.6	0.71	8.43	
28/01/2015	0	0	0	0	0	2.2	0	0	0	2.43	2.49	
29/01/2015	10	17.6	7.6	14.9	12.4	22.1	40.6	3	12.5	11.57	9.88	
30/01/2015	19.5	16.9	8.2	12.8	12.8	5.4	35.3	16.5	21.2	1.00	12.23	
31/01/2015	6.4	18.2	8.7	30.3	38.1	26.1	68.4	61.7	38.4	21.86	14.70	
01/02/2015	17	1.5	6.5	1.1	4.7	16.5	7.6	16.9	10	14.86	12.22	
02/02/2015	6.4	0	0	0	0	0	0	0	0	2.00	2.70	
03/02/2015	4.9	11.5	6	1.9	1	2.4	0	0	1.5	5.71	3.20	
04/02/2015	0	0	0	0	0	0	0	0	0	5.14	1.85	
05/02/2015	5.2	1.4	0	14.9	10.7	5.7	21.5	7.8	3.8	15.71	11.02	
06/02/2015	3.4	8.8	3.8	3.9	7.9	7.3	8.9	16.4	7.8	12.29	8.22	
07/02/2015	0	0	0	0	0	0	0	0	0	13.14	1.85	
08/02/2015	1.9	0	5	14.4	5.5	1.7	36.7	13.9	3.7	13.00	10.34	
09/02/2015	0	0	0	3.9	3.8	0	0	0	0	3.71	3.42	
10/02/2015	0	0	0	8.5	12.5	16.7	9.9	13.6	12	11.14	11.44	
11/02/2015	42	24.5	36.4	15.7	18.3	23.2	27.5	18.3	5.6	46.43	19.59	
12/02/2015	5.3	9.4	16.4	14	17.5	18.1	31.3	33.1	35.9	16.57	14.97	
13/02/2015	0	0	0	0	0	0	11.2	11	15.9	13.71	3.96	
14/02/2015	19.1	48.1	36.6	45.1	49.5	50.3	22.4	24.8	38.9	44.43	27.30	
15/02/2015	0	0	0	0	0	0	0	3.8	0.9	9.14	2.28	
16/02/2015	0	0	0	0	10.4	6.9	0	4.5	1.4	28.43	5.87	
17/02/2015	10.5	14.2	0	23	12.3	0	0	3.9	1.5	33.86	8.70	
18/02/2015	1.3	2.3	0	3	5.5	1.2	23	19.6	1.9	21.71	6.22	
19/02/2015	1.9	0	8.7	6.2	5.1	7.3	0	0	0	20.29	6.66	
20/02/2015	0	0	0	0	0	0	0	1.2	0	0.00	1.99	
21/02/2015	1.4	9.7	8.7	13.4	22.7	15.4	1	12.9	7.7	2.71	12.35	
22/02/2015	10.5	10.5	0	9.9	13	0	0	0	0	1.14	6.44	
23/02/2015	0	3.4	5.5	8.1	4.1	0	11	7	9	2.29	6.07	
24/02/2015	32.1	31.9	50.8	29.3	29.6	31	28.7	30.3	25.2	25.43	17.44	
25/02/2015	0	0	0.5	0	0	0	0	0	0	2.71	1.89	
26/02/2015	0	0	0	15.9	12.6	12.7	4.8	2.1	1.3	14.29	10.64	
27/02/2015	0	0	0	1.2	2.9	6.5	1.4	5.1	13.2	25.29	5.10	
28/02/2015	65.4	63.3	37.9	34	15.9	21.6	23.6	8.3	17.3	15.00	7.50	
01/03/2015	0	0	1.5	1.6	3.4	0.9	0	0	1	1.57	3.17	
02/03/2015	2.8	2.8	0	2.4	3.9	6.7	0	0	0	4.57	4.87	
03/03/2015	25.4	20	4.3	13.5	11	11	11.3	17.5	29.2	3.43	9.96	
04/03/2015	0	0	0	4.4	11.9	17.4	14	4.2	14	7.86	9.33	
05/03/2015	4.5	0	1.6	22.9	11.3	1.1	43.9	26.1	12.5	19.29	13.29	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
06/03/2015	28.6	32.1	17.2	27.7	27.3	24.4	41.1	36	42.4	15.57	16.42		
07/03/2015	59.6	42.7	19.7	93.4	86.5	65	22.6	35.4	29.4	50.57	27.11		
08/03/2015	0	0	2.9	1.5	6	1.4	1	0	0	6.57	3.97		
09/03/2015	7.1	13.9	25.1	30.1	22.3	21.6	9.5	12.3	6	13.14	15.08		
10/03/2015	0	0	2.2	21.3	7	6.8	21.2	19.9	12.4	2.86	11.67		
11/03/2015	19.9	60.2	70.1	7	7.5	32	5.5	20.5	9	6.00	11.09		
12/03/2015	7.5	12.1	4.3	1.5	3.2	4.8	5.6	18.8	21.3	6.14	7.23		
13/03/2015	19.6	13.2	23.3	0	0	2.2	3.2	8.3	12.7	1.14	7.64		
14/03/2015	27.3	6.9	1.9	54.3	31.8	16.5	60.7	24.8	11.7	37.00	22.03		
15/03/2015	0	0	0	3.3	11.1	3.6	0	12.8	20	29.71	7.01		
16/03/2015	0	0	0	0.7	0	1.1	0.4	8.9	4.4	4.86	3.45		
17/03/2015	0	0	0	8.1	12.1	15.5	7.8	12	15.3	3.14	10.80		
18/03/2015	42.8	11.9	0	8.9	2.2	0	1	0	0	0.86	8.26		
19/03/2015	7.7	0	0	4.4	9.4	0	6.7	4.7	0	8.57	6.45		
20/03/2015	0	0	0	2.9	0	0	2.5	0	4.4	4.57	2.56		
21/03/2015	0	0	0	2.2	5	1.4	3.8	4.7	0	5.43	4.33		
22/03/2015	0	0	0	13.7	8.1	11.8	29	18.2	9.3	3.43	11.10		
23/03/2015	0	0	0	0	3.8	0	10.2	22.4	0	1.71	4.19		
24/03/2015	0	0	0	5.8	0	0	10.1	4.6	0	0.00	4.26		
25/03/2015	0	0	0	3.5	1.9	1.8	0	5.9	1.5	0.00	4.13		
26/03/2015	0	0	0	0	0	0	0	0	0	0.43	1.85		
27/03/2015	0	0	0	4.4	0	15.2	5.5	0	6.4	0.00	6.11		
28/03/2015	0	0	0	14	0	0	23.3	1.6	0	14.57	6.36		
29/03/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		
30/03/2015	0	0	0	2.9	1.2	0	1.3	0	0	1.57	2.80		
31/03/2015	0	0	16	6.3	2	0	8.8	2.7	0	2.43	6.59		
01/04/2015	0	0	0	0	0	0	0	0	0	1.57	1.85		
02/04/2015	9	6.3	1.8	7.6	1.4	9.9	4	1.6	4.5	21.86	6.40		
03/04/2015	12.5	3.8	4.6	17.8	5.2	1.4	10	4	0	25.57	9.41		
04/04/2015	0	0	0	0	0	0	0	0.9	0	3.00	1.95		
05/04/2015	0	0	0	0	0	0	3.8	0	0	2.29	2.12		
06/04/2015	7.6	8.6	19.9	12.4	0	9.6	13.9	2.8	3.6	18.29	8.90		
07/04/2015	5.6	4.4	0	6.4	7	7.6	5.5	7.2	7.9	28.43	7.57		
08/04/2015	0	0	0	0	0	0	1	0	0	0.00	1.92		
09/04/2015	0	0	0	0	0	0	14.1	0	0	2.29	2.90		
10/04/2015	0	0	0	0	0	0	0	0	0	2.00	1.85		
11/04/2015	2.9	4.3	2.7	10.7	0	0	36.3	9.9	6	10.43	6.46		
12/04/2015	47.2	44.9	25.3	10	20.3	22.1	14.2	9.9	17.5	11.43	12.11		
13/04/2015	0	0	0	0	2.1	1.6	4.9	7.5	8	2.86	3.86		
14/04/2015	0	0	0	2.2	1.9	0	1.2	0	0	0.86	2.77		
15/04/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		
16/04/2015	0	0	0	0	0	0	0	0	4.1	3.86	1.80		
17/04/2015	0	0	0	1.8	0	0	0	1.3	2.4	2.43	2.37		
18/04/2015	8.9	7.1	1.9	10.7	15.5	10.9	14.3	56.4	30.9	18.14	15.90		
19/04/2015	0	0	1.9	4.8	3.9	1.8	2	8.1	2.2	5.43	5.23		
20/04/2015	14.7	19.5	13.1	13.2	15.6	17.6	10.1	5.5	8.3	12.57	11.08		
21/04/2015	8.6	8.6	3.7	3.9	1.6	1.8	3.2	2.3	1.7	4.86	4.64		
22/04/2015	19	16.3	39.4	28.4	11.4	15.2	31.4	21.8	21.9	9.71	17.37		
23/04/2015	20	21.5	16.8	28.8	37.5	29.6	24.7	22.7	18.9	22.29	17.22		
24/04/2015	28.2	15	14	15.9	8.3	5.7	6	3.4	0	17.86	11.59		
25/04/2015	1.3	11.5	4.5	0	0	1	0	1	4.43	1.56			
26/04/2015	0	1.6	0	4.6	5.4	6.1	0	2.4	5.3	4.71	5.48		
27/04/2015	35.6	45.9	70.6	35.1	45.6	47.1	20.9	21.4	31.7	31.71	18.89		
28/04/2015	0	3.4	0	0	1.9	1.9	0	0	0	2.43	2.42		
29/04/2015	8.4	5.8	2.8	3.4	6.9	5.9	3.4	4.6	11.2	7.71	6.11		
30/04/2015	31	21.9	12.2	10	7.5	1.8	0	12.3	6.3	6.00	10.79		
01/05/2015	0	0	0	21	15.3	8.5	57.1	43.6	25.9	9.00	11.83		
02/05/2015	34.1	46	27.2	24.2	31.7	31.7	26.2	6.2	20.8	6.29	14.02		
03/05/2015	26.6	36.9	30.9	26.6	30.4	7.7	4.9	35.7	0	6.00	11.15		
04/05/2015	0	0	3.8	0	11.9	21.9	0	0	4.4	2.14	8.01		
05/05/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		
06/05/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		
07/05/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		
08/05/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		
09/05/2015	0	0	0	0	0	0	0	0	0	0.00	1.85		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
10/05/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/05/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/05/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/05/2015	4.1	0	0	27.6	14.6	6.2	16.1	0	0	0	3.71	13.40	
14/05/2015	0	0	0	0	0	0	0	0	0	0	8.86	1.85	
15/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/05/2015	0	0	0	0	0	0	0	0	0	0	1.71	1.85	
25/05/2015	0	0	0	0	0	0	0	5.5	12	0	0.00	3.29	
26/05/2015	0	0	0	0	0	0	0	0	0	0	0	2.43	1.85
27/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/05/2015	0	0	0	0	0	0	0	0	0	0	23.8	0.00	1.86
31/05/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/06/2015	0	0	0	6.2	0	0	0	6	0	0	2.43	3.59	
03/06/2015	0	0	0	12.6	8.3	0	17.5	29.9	31.1	0.00	10.26		
04/06/2015	0	0	0	0	0	0	2.5	0	0	0	0.00	2.03	
05/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/06/2015	0	0	0	0	0	0	0	0	0	0	0.71	1.85	
08/06/2015	0	0	0	0	0	0	0	0	0	0	1.43	1.85	
09/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/06/2015	7.8	0	0	3.1	0	0	7.6	0	0	0	0.00	4.11	
20/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/06/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -7.875	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.875	-7.875	-8.125	-8.125	-8.125	-8.125	-8.125	Observasi	
14/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/07/2015	0	6.9	0	0	0	0	0	0	0	0	0.00	1.28
21/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
31/07/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/08/2015	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/08/2015	0.4	0	0	0.4	0.4	0	0	0	0	0	0.00	2.05
09/08/2015	0	0	7.6	0	0	9	0	3.3	6.8	0.00	4.94	
10/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
28/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
30/08/2015	0	14.3	0	0	0	0	0	0	0	0.00	0.70	
31/08/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
02/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
03/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
04/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
05/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
07/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
08/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
09/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/09/2015	0	0	0	0	0	0	0	0	0	0.00	1.85	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
17/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/09/2015	16.6	16.5	0	22.6	0	0	18.4	0	0	0	0	0.00	6.22
28/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/09/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
02/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/10/2015	6.3	0	0	0	0	0	0	0	0	0	0	0.00	2.69
10/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
12/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
14/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
15/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
16/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
18/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
19/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
20/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
21/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
23/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
25/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
26/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
27/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
29/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
30/10/2015	0	0	0	0	0	0	0	0	0	10.6	6.7	0.43	3.18
31/10/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
01/11/2015	0	0	0	0	0	0	0	0	0	0	0	2.14	1.85
02/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
03/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/11/2015	0	0	0	0	0	0	0	0	20	16	1.9	11.29	4.00
07/11/2015	0	0	0	0	0	0	0	0	0	0	0	11.86	1.85
08/11/2015	0	0	0	3.2	18.7	0.4	4.3	27.9	15.2	1.86	0	7.28	
09/11/2015	0	0	0	0	2.4	8.3	1.8	11.6	27.8	3.43	0	6.46	
10/11/2015	0	0	0	13.9	0	1.5	15.1	13	12.8	10.57	0	6.98	
11/11/2015	0	0	0	15.9	15.5	0	1.3	6.1	7	5.29	0	8.95	
12/11/2015	0	0	0	47.5	25.6	3.7	19.9	13.6	2.4	12.14	0	19.45	
13/11/2015	0	0	0	0	0	0	2.5	2.8	0	6.71	0	2.33	
14/11/2015	0	0	0	0	0	0	12.8	6.6	0	4.86	0	3.28	
15/11/2015	0	0	0	0	0	0	0	0	0	1.29	0	1.85	
16/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
17/11/2015	0	0	0	0	5.2	2	1.1	5.8	5	17.71	0	3.97	
18/11/2015	0	0	0	0	0	0	0	0	0	0	0.86	0	1.85
19/11/2015	0	0	0	0	0	0	0	15.3	0	0	0.86	0	2.99
20/11/2015	0	0	0	0	0	0	0	0	2.7	0	10.71	0	2.15

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
21/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/11/2015	0	4.9	0	0	0	0	0	0	0	0	0	0.00	1.44
23/11/2015	0	0	0	0	0	0	0	6.1	0	0	0	0.00	2.29
24/11/2015	7.9	0	0	0	0	11.6	5.4	0	0	0	0	4.71	6.06
25/11/2015	0	0	0	0	0	0	0	0	0	4.4	7.71	1.80	
26/11/2015	16.6	5.3	4.2	6.5	3	2	12.3	8	2.3	0.86	0.86	8.67	
27/11/2015	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
28/11/2015	0	0	0	0	0	0	0	17.2	1.5	0	0	0.00	3.23
29/11/2015	0	14	0	0	0	0	0	1.3	0	0	0	0.00	0.80
30/11/2015	0	0	0	5.8	3	0	12.3	1.5	0	0	1.00	0.00	4.85
01/12/2015	0	0	0	0	0	0	0	0	0	0	2.71	1.85	
02/12/2015	0	0	0	0	0	0	0	0	0	0	4.00	1.85	
03/12/2015	18.3	10.6	0	17.7	22.6	5.7	20.8	35.3	7.8	6.57	14.26		
04/12/2015	0	0	1.8	17.8	18.8	8.7	14.3	6.8	7.2	4.00	13.04		
05/12/2015	2	5	14.8	1.8	2.1	13.3	2.3	8.5	11.3	0.86	7.14		
06/12/2015	0	38.6	26.3	2.2	2.2	4.9	2.2	3.1	1.3	2.43	4.35		
07/12/2015	0	0	0	0	0	0	0	0	0	0.86	1.85		
08/12/2015	0	0	0	5.9	0	0	39.4	10.4	1.1	2.86	5.43		
09/12/2015	0	0	0	0	0	0	0	19.2	11.9	5.4	13.14	3.93	
10/12/2015	0	0	0	4.1	1.9	0	7	5	2.8	19.71	4.08		
11/12/2015	0	0	0	0	0	0	2.6	0.5	0.4	3.14	2.08		
12/12/2015	0	0	0	31.7	32.2	2.9	49	48	13.4	15.43	15.18		
13/12/2015	0	8.7	4.8	4.7	8.6	18.1	6.8	11.4	50.8	1.00	6.51		
14/12/2015	20.5	6.8	2.3	21.9	5.9	6.5	26.4	24.3	18.2	8.86	13.23		
15/12/2015	16.3	17.7	37.9	11.3	10.6	14.4	24.3	5.2	0	7.71	14.91		
16/12/2015	0	0	0	15.1	7.7	18.4	12.8	18.2	2.3	10.57	11.51		
17/12/2015	21.7	10.5	6.7	43.9	41.2	33.1	19.4	22.7	24.8	22.71	17.37		
18/12/2015	78.5	47.8	50.3	35.1	11.4	4.6	25.8	10.1	6.1	7.29	12.79		
19/12/2015	0	20.6	0	0	1.4	5.2	0	0	2	4.00	1.79		
20/12/2015	9.2	2.6	0	0	0	2.9	0	7.2	11.3	5.29	4.46		
21/12/2015	0	0	0	6.6	0	0	7.8	4.4	9.6	3.43	4.09		
22/12/2015	0	15.4	0	0	1.4	0	0	3.1	10	0.00	1.31		
23/12/2015	0	0	0	0	0	0	3.8	6.1	5.2	1.29	2.79		
24/12/2015	2.8	0	0	9.9	7.9	0	0	3.6	15.2	1.14	5.34		
25/12/2015	0	0	0	3.4	0	0	2	0	0	14.14	2.73		
26/12/2015	0	0	0	0	0	0	0	0	0	15.00	1.85		
27/12/2015	0	0	0	0	9.2	7.7	0	0	0	16.71	5.49		
28/12/2015	0	0	0	0	0	0	0	2.9	0	0.00	2.18		
29/12/2015	0	2.1	0	0	0	0	0	0	0	0.00	1.67		
30/12/2015	0	0	0	0	7.8	0	0	0	2	5.14	3.15		
31/12/2015	0	0	0	0	0	0	0	0	0	2.14	1.85		
01/01/2016	0	0	0	0	0	0	0	0	1	4.71	1.84		
02/01/2016	0	0	0	0	0	0	0	0	0	16.71	1.85		
03/01/2016	8.1	0	0	4.1	0	0	0	0	0	23.00	3.67		
04/01/2016	0	0	0	0	0	0	0	0	0	0.71	1.85		
05/01/2016	0	0	0	0	0	0	4.6	0	0	0.43	2.18		
06/01/2016	0	0	0	0	0	0	0	3.3	0	0	5.29	2.08	
07/01/2016	3.5	0	0	5.7	4.8	0	5.6	0	0	5.71	4.85		
08/01/2016	5.8	0	0	1.8	1.5	4.1	0	0	0.8	0.71	4.26		
09/01/2016	1.3	1.7	0	0	0	0	0	5.2	0	18.00	2.49		
10/01/2016	0	0	0	8.5	1.2	0	25	19.4	5.4	9.86	6.47		
11/01/2016	0	0	0	0	0	0	4.5	1.9	0	0.00	2.37		
12/01/2016	0	0	0	0	0	0	3.1	0	0	0.00	2.07		
13/01/2016	0	0	0	0	0	0	0	0	0	1.00	1.85		
14/01/2016	0	0	0	0	0	0	10.4	0	0	0.71	2.62		
15/01/2016	0	0	0	0	0	0	0	0	0	7.43	1.85		
16/01/2016	0	0	0	7	4	0	0	0	0	6.29	4.16		
17/01/2016	3.8	0	0	6.2	14.8	13.5	7.5	21.5	13.8	3.14	12.08		
18/01/2016	3.3	0	0	6.1	0.7	0	13.5	9.1	0	0.00	5.60		
19/01/2016	0	0	0	3.8	4	0	17.1	20.6	4.9	10.14	5.84		
20/01/2016	3.3	4.8	2.4	3.9	14.7	12.2	11.6	18.9	17.1	13.00	10.88		
21/01/2016	15.5	16.6	3.8	14.2	19	7.8	10.3	14.4	16.4	8.57	11.63		
22/01/2016	1	6.9	12.8	14.3	24.2	31.4	31.4	47	41.8	2.57	15.13		
23/01/2016	4.1	0	14.4	9.1	8.3	16.7	4.8	9.9	9.1	4.00	10.49		
24/01/2016	16.6	16.7	13	4.1	5	14.4	10.7	12.7	16.1	11.29	9.66		

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 -7.625	5 114.125	6 -7.875	7 113.625	8 -8.125	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Observasi	
25/01/2016		19	34.5	17	16.9	10.4	6	9.8	7.6	4.5	24.71	11.27
26/01/2016		1.4	5.2	11.2	5.4	5.4	1.3	9.7	8.2	6.8	4.14	6.71
27/01/2016		24	23.2	17.7	7.4	2.3	13.7	10.7	7.4	17.9	7.86	7.90
28/01/2016		0	6.2	0	0	0	0	0	0	0	2.00	1.33
29/01/2016		1.2	3.6	5.8	0	0	0	0	0	5.5	4.43	2.06
30/01/2016		108.3	95.7	134.8	75.6	81.3	85.6	29.1	30.2	36.4	23.71	21.95
31/01/2016		26.1	20.2	12.3	27.7	12.8	6.7	27.3	17.3	8.4	17.29	15.90
01/02/2016		0	3.2	10.6	5.6	7.7	6.4	25.1	16	12.4	22.57	9.25
02/02/2016		7.2	6.6	4.9	48.7	21.3	25.3	47.6	34.7	40.6	27.29	14.39
03/02/2016		9.2	6.3	0	0	0	0	0	0	0	8.00	2.58
04/02/2016		9.6	37.4	34.9	0	24.8	35.1	11.6	33.4	40.1	0.00	9.57
05/02/2016		2	2.2	4.4	4.2	4.2	3.5	6.1	3.3	5.3	4.29	5.49
06/02/2016		4.4	0	0	1.5	3	2.5	6.6	0	1.8	5.71	4.34
07/02/2016		0	0	1.3	5.5	2	4.6	17.1	22.8	17.4	7.14	8.14
08/02/2016		3.8	1.2	4.7	24.8	23.6	30.4	21.1	23.8	28.1	24.43	16.33
09/02/2016		0	0	2	5.7	3.2	0	13	5.8	0.6	23.29	5.45
10/02/2016		31.5	26.8	30.6	13.9	25	23.3	11	6.4	13	4.57	11.99
11/02/2016		52.8	43.1	35.9	43.2	27.6	30.7	50	38.1	20	13.43	20.43
12/02/2016		34.2	33.3	26.8	10.8	20.1	12.1	7.8	7.3	8.9	24.71	12.09
13/02/2016		0	0	0	0	0	0	1.4	0	0	4.86	1.95
14/02/2016		6	5.1	0.7	0	0	0	0	0	0	4.29	2.28
15/02/2016		0	7	0	23.3	27.3	35.1	31.2	3.2	21.7	12.43	16.87
16/02/2016		0	0	0	2.8	0	1.3	0.9	6.6	2.6	3.71	3.67
17/02/2016		0	0	0	1.5	4.2	0	2.3	1.4	0	9.00	3.25
18/02/2016		0	0	0	0	0	0	0	0	0	4.86	1.85
19/02/2016		0	0	0	0	0	0	0	0	0	6.71	1.85
20/02/2016		11.3	0	0	16.2	0	0	5.3	5.1	13.7	10.57	5.29
21/02/2016		35.2	24.3	4.1	40.9	33	29.3	24.4	57.8	44.2	19.86	18.01
22/02/2016		43	39.9	19.7	57.4	59.5	25.5	27.8	41.6	11.3	28.00	16.95
23/02/2016		1.1	4.5	3.2	10.1	23.7	19.5	20.5	20.9	8.3	19.43	14.05
24/02/2016		1.6	1.1	6.2	14.8	23.6	17.4	19.9	11	22.4	14.29	14.19
25/02/2016		24.1	33.5	31.8	14.2	6.3	4.5	6.6	1.7	4.2	4.57	11.00
26/02/2016		41.8	38.7	30	34.7	24.6	14	15.2	9.2	12	14.29	14.39
27/02/2016		0	5.1	9.5	12.7	7.9	9.8	8.4	5.3	9.1	15.86	9.11
28/02/2016		26.9	14.4	0	6.9	0	0	7.5	4.3	0	6.71	7.39
29/02/2016		29.1	19.3	23.1	18.1	27.3	18.7	27.1	48	30.8	19.43	19.15
01/03/2016		9.4	10.9	7.6	17.1	8.6	2.6	22.2	21.4	18.1	5.86	11.65
02/03/2016		26.1	13.1	0	14.2	1.9	4.1	0	8.5	10.3	36.29	7.63
03/03/2016		0	0	0	0	6.3	10.5	2.5	4.5	9.6	2.43	6.24
04/03/2016		14.3	6.4	0	0	0	0	8.7	0	0.7	2.71	4.09
05/03/2016		0	0	0	2.5	0	0	2	1.2	0	7.29	2.68
06/03/2016		6.1	0	4.8	7.3	8.3	7.7	10.4	13.6	9.6	4.71	9.81
07/03/2016		0	0	0	0	0	0	6.7	2.7	0	7.43	2.59
08/03/2016		8.3	0	0	5.7	5.9	7.1	14.6	30.6	0	1.43	9.88
09/03/2016		0	0	0	14.6	31.1	39.5	32	28.6	30.1	3.71	16.08
10/03/2016		0	0	0	20.2	13.9	21	55.3	38.1	35.1	3.14	12.25
11/03/2016		0	0	0	3.2	1.2	1	21.6	11.8	2.7	13.14	5.18
12/03/2016		5.6	7.6	0	7.9	6.9	1	1.7	1.3	0	1.57	5.35
13/03/2016		0	0	0	3.9	2.6	1.8	0	1	0	24.71	3.78
14/03/2016		8.8	2.7	12.3	21	31.1	20.6	9.9	12.8	0.9	26.71	14.67
15/03/2016		0	0	0	0	0	14.9	0	3.3	24.4	3.00	5.04
16/03/2016		0	1.9	0	0	0	0	0	0	0	0.86	1.69
17/03/2016		0	0	0	0	0	0	0	0	0	0.57	1.85
18/03/2016		29.3	34.3	35	15.1	17.7	3.5	0	7.9	13.7	15.86	10.91
19/03/2016		0	0	0	7.8	9.7	1.5	10.5	6.5	1.5	11.29	7.23
20/03/2016		7.7	0	0	3.9	1.7	0	9.9	6	1	10.14	5.52
21/03/2016		0	0	0	8.8	0	0	3.3	5.1	0	0.43	4.51
22/03/2016		0	13.3	0	4.4	13.5	12.7	13.6	29.5	6.1	4.86	9.57
23/03/2016		9.7	6.6	0	16.7	14.1	8.1	15.3	12.6	11.6	13.00	11.83
24/03/2016		0	0	3	6.5	1.8	0	10.7	11.7	6.7	0.43	5.74
25/03/2016		0	0	0	5.1	0	0	10.3	0	0	0.43	3.69
26/03/2016		0	0	0	0	0	0	0	0	0	7.86	1.85
27/03/2016		34.3	30.1	0	14.1	9.2	0	1.3	4.2	0	14.86	7.93
28/03/2016		0	0	0	0	0	0	2.1	0	2.1	4.57	1.97
29/03/2016		28.9	28.1	24.3	8	8.4	15.3	13.1	0	8.1	13.29	9.63

Tanggal	Bujur	1 113.625	2 -7.625	3 113.875	4 114.125	5 113.625	6 113.875	7 114.125	8 113.625	9 113.875	7 STA Rerata CH	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-7.875	-8.125	-8.125	Observasi	
30/03/2016	18	16.7	14.9	14.6	0	1.2	5.1	3.4	5.6	9.14	7.70	
31/03/2016	0	0	0	9.5	0	5	3.6	7.8	3.8	6.57	6.16	
01/04/2016	12.2	0	0	13.7	0	0	0	0	0	7.43	5.42	
02/04/2016	19.5	0	11.7	12.2	0	0	3.9	0	0	0.86	8.36	
03/04/2016	11.3	0	0	11.2	0	0	6.3	8.8	0	5.14	7.24	
04/04/2016	0	0	0	6	29.3	3.5	12	17.2	0	6.43	8.51	
05/04/2016	0	0	0	0	5	4.6	12.6	24.7	30.6	3.00	8.30	
06/04/2016	10.2	0	0	3.4	5.2	0	19.9	34.2	15.6	11.29	9.44	
07/04/2016	3.7	6.9	0	0	0	14.1	20.2	5.5	6.6	5.00	6.28	
08/04/2016	43.9	11.3	0	34.5	6.2	5.3	31.7	23.8	7.6	6.00	15.06	
09/04/2016	0	0	8.5	23.9	30.4	16.4	29.8	17.1	9.6	40.29	18.74	
10/04/2016	0	0	0	0	0	0	6.2	0	0	4.43	2.30	
11/04/2016	0	12.4	10.3	0	0	14	7.6	2.3	0	1.00	5.21	
12/04/2016	6.5	17.5	14.9	7.5	0	0	10.8	0	5.5	3.43	5.01	
13/04/2016	14.6	0	0	2.1	0	0	4.6	5.9	6.7	5.43	5.22	
14/04/2016	0	0	0	0	0	0	8.5	0	0	5.14	2.47	
15/04/2016	28.5	50.8	73.4	4.5	30	40.5	0	0	0	7.86	8.89	
16/04/2016	0	0	0	0	0	0	5	0	13.3	6.14	2.07	
17/04/2016	0	0	0	19.7	0	0	0	0	0	0.57	5.48	
18/04/2016	11.3	4.7	0	20.7	12.2	0	0	0	0	8.00	8.45	
19/04/2016	0	0	0	0	0	0	0	0	0	6.43	1.85	
20/04/2016	0	0	0	0	0	0	0	0	0	5.43	1.85	
21/04/2016	15.6	0	0	0	0	0	0	0	0	0	1.14	4.22
22/04/2016	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/04/2016	0	0	0	0	0	0	0	14	0	0	1.00	2.89
24/04/2016	0	0	0	3.2	0	0	14.6	0	0	1.43	3.62	
25/04/2016	0	0	0	0	0	0	0	0	0	0	1.29	1.85
26/04/2016	6.5	0	0	4.4	0	0	7	15.2	0	1.29	6.03	
27/04/2016	0	0	0	0	16.4	0	0	0	0	0	1.43	4.57
28/04/2016	0	0	0	0	0	0	0	0	0	5.43	1.85	
29/04/2016	0	0	0	0	0	0	0	0	0	0	2.57	1.85
30/04/2016	0	0	0	11.6	0	0	12.9	0	0	0.14	5.12	
01/05/2016	0	0	3.1	0	0	0	0	0	0	0.00	2.13	
02/05/2016	0	0	0	0	0	0	10.6	15.3	0	0.00	3.67	
03/05/2016	0	0	0	0	0	0	5.8	0	0	0.00	2.27	
04/05/2016	0	0	0	0	0	0	0	2.3	0	0.86	2.11	
05/05/2016	0	0	0	0	0	0	4.8	5.5	2.5	0.29	2.75	
06/05/2016	0	0	0	0	12.7	0	0	0	0	4.71	3.99	
07/05/2016	0	0	0	0	10.3	0	0	0	13	13.6	9.14	4.80
08/05/2016	0	0	3.1	6.4	24	0	39.6	27.9	0	4.00	8.94	
09/05/2016	27.1	40.8	19.1	0	0	14.6	0	0	15.6	3.86	3.16	
10/05/2016	0	0	0	0	0	0	1.3	0	0	0.29	1.94	
11/05/2016	0	0	0	16.1	3	0	28.9	13.4	2.7	0.29	8.40	
12/05/2016	0	0	0	0	0	0	25	1.9	0	0.00	3.75	
13/05/2016	0	0	8.2	0	0	0	0	0	0	0.00	2.64	
14/05/2016	7.8	7.3	0	14.9	8.3	0	15.2	6	3.6	1.00	8.59	
15/05/2016	0	0	0	2.7	0	0	0	0	0	11.86	2.44	
16/05/2016	0	0	0	0	18.2	0	0	11.5	0	8.29	4.54	
17/05/2016	0	0	0	0	0	0	0	0	0	1.14	1.85	
18/05/2016	0	0	0	0	0	0	0	0	0	4.43	1.85	
19/05/2016	0	0	0	0	0	0	0	0	0	9.57	1.85	
20/05/2016	0	0	0	0	0	0	0	0	0	7.71	1.85	
21/05/2016	0	0	0	9.3	8.8	0	0	0	0	2.14	5.70	
22/05/2016	0	0	0	0	0	0	0	0	0	5.14	1.85	
23/05/2016	0	0	0	0	0	0	0	0	0	1.29	1.85	
24/05/2016	0	0	0	0	0	0	0	0	0	0.43	1.85	
25/05/2016	0	0	0	0	0	0	0	0	0	0.57	1.85	
26/05/2016	0	0	0	0	0	0	0	0	0	0	0.57	1.85
27/05/2016	30.1	25.9	7.9	51.4	4.7	9.9	36.8	26.2	0	5.71	11.06	
28/05/2016	0	0	0	0	0	0	0	5.9	0	2.71	2.49	
29/05/2016	4.2	0	0	27	22.4	28.5	4.1	12.9	3.3	11.43	14.63	
30/05/2016	138.4	104.8	82.1	43.5	55.1	61.6	28.8	42.4	46.8	21.14	20.68	
31/05/2016	0	0	0	47.9	29	0	33.7	25.7	36.8	29.29	20.18	
01/06/2016	0	0	0	16	14.4	0	15.7	12	0	20.57	10.45	
02/06/2016	0	0	0	0	0	0	0	0	0	2.43	1.85	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
03/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/06/2016	0	0	0	0	0	2.6	0	5.2	4.2	2.2	0	0.71	3.06
06/06/2016	0	0	0	0	0	0	0	0	0	0	0	4.00	1.85
07/06/2016	0	0	0	0	0	0	0	10.5	13.2	33.5	0	5.29	5.02
08/06/2016	0	0	0	0	0	0	0	0	0	0	0	6.71	1.85
09/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
10/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
11/06/2016	0	0	0	0	0	0	0	8.1	0	0	0	0.00	2.44
12/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
13/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.43	1.85
14/06/2016	0	0	0	16.5	26.5	24.5	43.9	50	38.5	29.14	0	17.27	
15/06/2016	0	0	17.1	0	0	0	0	0	7.5	0	0	8.71	4.33
16/06/2016	0	0	0	0	0	0	0	0	0	0	0	5.71	1.85
17/06/2016	0	0	0	0	0	0	0	0	0	0	0	2.29	1.85
18/06/2016	17.7	27	11.2	26.4	23	7.4	18.1	5.9	5.6	17.29	0	14.92	
19/06/2016	7.9	16.4	0	25.1	18.9	7.4	9	5.1	4.8	3.14	0	12.28	
20/06/2016	0	0	0	0	0	0	0	0	0	0	0	7.00	1.85
21/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
22/06/2016	0	0	0	0	0	0	0	0	0	0	0	3.29	1.85
23/06/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
24/06/2016	0	0	0	0	0	0	0	0	0	0	0	2.14	1.85
25/06/2016	0	0	0	0	0	0	0	0	0	0	0	2.00	1.85
26/06/2016	0	0	0	8.3	8	0	0	0	6.4	15.5	0	15.86	5.60
27/06/2016	6	0	0	0	0	0	0	0	4.4	0	0	1.57	3.30
28/06/2016	34.6	27.6	46.4	23.9	34.2	39.2	28.7	43.6	41.8	23.29	0	15.97	
29/06/2016	42.5	19.4	26.3	25.8	28	48.1	28.8	29.3	62.2	17.86	0	16.81	
30/06/2016	18.1	19.6	0	7.9	5.9	2.1	0	0	0	11.00	0	5.39	
01/07/2016	0	0	0	0	0	0	13.3	0	0	0	0	1.29	2.84
02/07/2016	0	0	11.5	0	0	0	11.1	0	0	0	0	1.57	3.99
03/07/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
04/07/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
05/07/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
06/07/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
07/07/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
08/07/2016	0	0	0	0	0	0	0	0	0	0	0	0.00	1.85
09/07/2016	0	0	4	0	0	4.9	0	0	0	3	0	0.00	3.41
10/07/2016	0	0	0	0	0	0	13.9	0	0	15.8	0	5.29	2.56
11/07/2016	0	0	0	0	0	0	0	20.6	1.2	3.2	0	1.43	3.32
12/07/2016	0	0	0	0	0	0	0	0	22.2	13.3	0	0.71	4.81
13/07/2016	0	0	0	0	0	0	0	0	0	0	0	1.57	1.85
14/07/2016	0	6.1	5.8	24.3	20.5	8.9	2.9	8.8	12.2	13.29	0	13.44	
15/07/2016	11.6	19.2	2.8	32.7	28.2	24.8	0	19	22.3	1.86	0	15.48	
16/07/2016	35.8	38.2	18.5	20.2	28.3	21.3	3.1	4.9	3.2	5.14	0	12.05	
17/07/2016	0	0	0	0	0	19.3	21.5	0	0	10.43	0	3.94	
18/07/2016	0	0	0	0	0	0	0	0	0	5.14	0	1.85	
19/07/2016	0	0	0	0	0	0	0	0	0	8.86	0	1.85	
20/07/2016	74	69	50.7	55.2	48.3	28.5	48.8	36.8	23.4	7.86	0	25.28	
21/07/2016	0	0	5.6	0	0	0	0	0	0	1.86	0	2.37	
22/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
23/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
24/07/2016	0	0	0	0	0	0	0	0	0	1.43	0	1.85	
25/07/2016	0	0	0	0	0	0	0	0	0	1.00	0	1.85	
26/07/2016	0	0	0	0	0	0	0	0	0	3.29	0	1.85	
27/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
28/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
29/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
30/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
31/07/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
01/08/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
02/08/2016	0	0	3.4	4.9	0	0	10.3	0	6.5	0.00	0	3.72	
03/08/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
04/08/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
05/08/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	
06/08/2016	0	0	0	0	0	0	0	0	0	0.00	0	1.85	

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
07/08/2016	0	0	0	0	0	4.2	0	2.6	17	9.5	3.57	4.49	
08/08/2016	0	0	0	0	0	0	0	0	0	0	0.86	1.85	
09/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/08/2016	0	0	0	0	0	0	0	0	0	0	1.29	1.85	
14/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
16/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
22/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
24/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
25/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
26/08/2016	8.2	0	0	0	0	0	0	0	0	0	0.00	2.97	
27/08/2016	0	0	0	0	0	0	0	12.2	0	0	0.00	2.75	
28/08/2016	0	0	0	4.4	0	0	61.5	0	0	0	0.00	5.90	
29/08/2016	0	0	0	0	0	0	0	0	8.2	7.2	0.00	2.90	
30/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
31/08/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
01/09/2016	0	0	0	0	0	0	0	0	0	0	4.00	1.85	
02/09/2016	0	0	0	0	0	0	0	0	0	0	11.57	1.85	
03/09/2016	0	0	0	0	0	0	0	0	0	0	0.86	1.85	
04/09/2016	17	0	0	0	0	0	0	3.8	0	0	0.00	4.84	
05/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
06/09/2016	0	0	0	0	0	0	0	1.5	0	0	0.00	1.96	
07/09/2016	0	0	0	0	0	0	0	0	0	0	0.29	1.85	
08/09/2016	0	0	0	0	0	0	0	0	0	0	2.57	1.85	
09/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
10/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
11/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
12/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/09/2016	0	0	0	0	0	0	0	0	1.4	0	0.00	2.01	
14/09/2016	0	0	0	0	0	0	0	0	0	0	2.86	1.85	
15/09/2016	0	0	0	0	0	0	0	27.2	14.6	1.7	0.00	4.06	
16/09/2016	0	0	0	0	0	0	0	7.2	0	0	0.00	2.37	
17/09/2016	0	0	0	0	0	0	0	0	0	0	4.14	1.85	
18/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
19/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
20/09/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
21/09/2016	0	0	0	0	0	0	0	0	2.3	0	0.00	2.11	
22/09/2016	0	0	0	0	0	0	0	7.3	0	0	5.14	2.38	
23/09/2016	0	0	0	35	8.8	7.1	31.4	24.3	7	21.14	13.08		
24/09/2016	27.4	43.1	32.6	52.1	58	30.3	22.3	35.9	32.5	32.57	20.18		
25/09/2016	0	0	0	0	0	0	0	10.2	4.3	2.29	3.05		
26/09/2016	0	10.2	0	0	21.8	4.3	16.9	28.4	31.1	9.86	9.15		
27/09/2016	0	0	0	0	0	0	0	0	0	0.29	1.85		
28/09/2016	0	0	0	0	0	0	0.9	0	0	0.00	1.91		
29/09/2016	0	0	0	0	0	0	0	0	5	0.00	1.79		
30/09/2016	0	0	0	9.1	0	7.2	0	0	0	0.00	5.35		
01/10/2016	0	0	0	0	0	0	1	5	1.7	1.29	2.47		
02/10/2016	31.2	24.6	0	66.4	55	25.6	34.2	35.4	30.9	23.86	19.59		
03/10/2016	0	0	0	14	5.6	0	39.7	15.3	0	29.00	9.09		
04/10/2016	5	1.2	0	1.5	3.1	0	12.2	7.7	6.1	3.43	4.88		
05/10/2016	0	0	0	0	0	0	5.1	0	0.43	2.41			
06/10/2016	0	0	0	0	0	0	2.5	0	0	4.00	2.03		
07/10/2016	0	9.9	2.9	1.3	0	3.2	3.3	1.9	0	1.86	2.84		
08/10/2016	48.3	36	19.3	20.7	25.7	20.6	10.3	25.6	39.5	1.14	11.20		
09/10/2016	93.6	103.8	70.3	36.7	60	65	19.6	46.4	44.6	37.86	20.61		
10/10/2016	0	0	0	0	0	0	21.6	0	0	0.00	3.45		

Tanggal	Precipitation Water		1	2	3	4	5	6	7	8	9	7 STA	Output JST
	Bujur	Lintang	113.625	113.875	114.125	113.625	113.875	114.125	113.625	113.875	114.125	Rerata CH Observasi	
11/10/2016	0	0	0	3.7	0	0	21.8	3.5	0	0	3.14	4.43	
12/10/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
13/10/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
14/10/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
15/10/2016	0	0	0	0	0	0	0	1.6	0	0	0.00	1.96	
16/10/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
17/10/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
18/10/2016	0	0	0	0	0	0	0	0	0	0	0.71	1.85	
19/10/2016	0	0	0	0	0	0	7.2	0	0	0	0.00	2.37	
20/10/2016	8.2	0	0	2.8	0	0	3.2	0	0	0	0.00	3.74	
21/10/2016	5.4	14.1	19	6.2	7.1	7.7	9.3	6.8	5.7	0.57	8.55		
22/10/2016	0	0	0	0	0	0	0	0	0	0	0.00	1.85	
23/10/2016	27.4	19.4	11.3	9.1	6.6	12.7	6.6	1.4	8.6	2.00	8.48		
24/10/2016	0	0	0	12.5	0	0	5.2	3.8	13.4	0.86	4.68		
25/10/2016	17.5	0	0	7.8	0	0	6.2	7.7	1.2	0.00	7.59		
26/10/2016	0	12.1	0	38.7	34.5	3.5	16.3	21.6	2.5	17.29	17.89		
27/10/2016	15.4	0	0	36	13.7	0	31.5	8.6	0	15.14	15.99		
28/10/2016	5.4	0	3.9	0	0	0	11.6	11.2	0	14.57	5.09		
29/10/2016	0	0	0	21.9	18.4	10.1	30.4	25	9.3	9.86	14.89		
30/10/2016	0	0	0	0	0	0	0	0	0	11.57	1.85		
31/10/2016	0	0	0	0	0	0	0	0	0	6.29	1.85		
01/11/2016	0	0	3.1	0	0	0	7.6	5.9	0	13.00	3.23		
02/11/2016	0	0	0	0	0	0	5.3	0	0	0.00	2.23		
03/11/2016	0	0	0	10	0	0	0.8	6.7	3.2	4.57	4.73		
04/11/2016	0	0	0	3.1	7	0	3.5	0	0	5.71	4.15		
05/11/2016	0	0	0	0	0	0	0	0	0	6.14	1.85		
06/11/2016	0	0	0	0	0	0	0	0	0	0.71	1.85		
07/11/2016	1.3	0.8	0.8	3.9	1.5	0	15.5	11.9	0.9	6.43	5.21		
08/11/2016	8.2	2.3	0	17.2	36	0	33.7	59.5	6.2	4.71	3.63		
09/11/2016	44	30.8	38.8	26.3	23.5	12.4	28.1	21.5	17.3	21.14	19.26		
10/11/2016	0	0	0	0	0	7.4	5.8	3.9	5.9	6.71	4.71		
11/11/2016	0	0	0	0	4.3	9.5	7.1	5.2	16.4	12.14	5.93		
12/11/2016	2.2	0	0	0	0	0	13.2	3.8	0.9	2.86	3.47		
13/11/2016	9.3	0	0	12.8	0	0	5.9	6.7	0	5.43	6.76		
14/11/2016	9.4	5.6	0	2.1	0	0	2.2	0	0	3.00	3.21		
15/11/2016	5.8	1.9	1.4	4.1	4.2	12	8.5	10.4	8.7	7.86	8.60		
16/11/2016	0	0	0	3.9	1.7	0	20.7	23.2	0	6.29	5.21		
17/11/2016	0	0	0	7.4	0	0	6.2	0	0	4.86	3.84		
18/11/2016	0	0	0	0	0	0	5.7	0	0	2.86	2.26		
19/11/2016	0	0	0	9.7	7.9	0	8.2	24	9.2	8.86	7.95		
20/11/2016	0	0	0	0	0	0	0	0	0	7.57	1.85		
21/11/2016	0	0	0	0	0	0	7.5	4.5	2.4	3.14	2.81		
22/11/2016	7.5	7.6	6.8	8.7	11.5	14	9.8	13.3	17.6	2.00	10.61		
23/11/2016	4.3	10.4	2.3	18.7	30.7	34.4	26.4	20.4	34.9	12.29	16.65		
24/11/2016	30.6	45.9	31.6	28.6	32.4	28.6	49.7	33.1	35.8	20.14	18.39		
25/11/2016	1.8	3.2	5.1	15.8	10.3	16.6	16.4	16	14.8	27.29	12.29		
26/11/2016	12	7.8	0	20	17.4	0	36.6	21	10	5.86	14.57		
27/11/2016	0	0	0	3.8	0	2	13.4	3.9	3.3	5.43	4.39		
28/11/2016	9.7	6.1	1.7	20.5	10.1	3.5	24.6	18.2	6.8	17.57	12.55		
29/11/2016	3.9	0	1.8	0	0	0	0.6	3.2	18.7	6.14	2.44		
30/11/2016	32.6	33	16.4	19.5	16.9	17	18.1	8.6	11.3	2.00	12.97		
01/12/2016	0	0	0	14.7	17	21.8	20.4	26.1	17.2	11.57	14.94		
02/12/2016	46.3	16.5	18.6	44.7	44.1	45.1	61.1	60.9	49.6	14.00	15.73		
03/12/2016	0	0	0	11.5	15	8.9	16.3	11.7	17.4	11.71	11.24		
04/12/2016	26.9	19.3	24.8	19.9	12.2	15.4	10.1	10.2	13	14.14	13.01		
05/12/2016	22.5	31.1	58.2	27.3	28.6	41.4	38.5	24.8	21.8	21.57	15.59		
06/12/2016	1.9	0	1.7	0	0	0	0	5.4	9.29	2.07			
07/12/2016	0	0	0	1.6	0	0	3.4	0	0	2.86	2.45		
08/12/2016	18.7	19.6	32.7	10.8	6.5	2.6	63.2	38.7	31.5	13.14	11.29		
09/12/2016	0	0	0	0	0	0	0	0	0	6.43	1.85		
10/12/2016	0	8	3.2	0	2.7	3.4	0	1.6	4.3	4.43	2.97		
11/12/2016	7.1	1.8	0	14.6	6.9	0	5.9	11.2	32.2	11.00	6.05		
12/12/2016	10.7	21.8	21.4	6.5	33.1	34.8	13.7	28.9	33.2	4.43	13.01		
13/12/2016	1.2	6.7	6.9	1.4	9.5	6.4	6.9	6.2	4.9	17.57	6.51		
14/12/2016	0	0	0	0	0	0	0.8	5.8	18.71	1.90			

Tanggal	Bujur	1 113.625	2 113.875	3 114.125	4 113.625	5 113.875	6 114.125	7 113.625	8 113.875	9 114.125	7 STA	Output JST
	Lintang	-7.625	-7.625	-7.625	-7.875	-7.875	-7.875	-8.125	-8.125	-8.125	Rerata CH Observasi	
15/12/2016	4.5	2.3	8.3	22.9	14.5	14.9	10.5	3.3	3.1	9.71	12.93	
16/12/2016	18	32.7	32.5	26.6	30.3	20.1	36.1	12.4	2	16.57	20.58	
17/12/2016	0	3.5	0	10.1	10.2	2.8	12.5	0	4.2	13.00	7.50	
18/12/2016	0	0	0	0	0	0	0	0	0	11.14	1.85	
19/12/2016	19.6	28.2	30.2	14.6	11.5	15.1	26	25.5	14.4	18.43	15.53	
20/12/2016	13.5	6.6	14.1	19.8	8.5	11.9	4	5.7	7.7	11.00	10.87	
21/12/2016	7.9	13.8	4.1	28.6	34.2	11.8	18.2	28.4	21.1	38.86	17.98	
22/12/2016	0	0	0	2.1	6.2	6.1	3.8	7.1	6.5	10.29	6.08	
23/12/2016	7.1	6.1	25.1	39.9	17.8	10.8	4.4	2.8	3.8	34.14	16.10	
24/12/2016	3.2	0	0	0	0	0	0	0	0	10.57	2.25	
25/12/2016	0	0	0	0	0	0	0	3.8	0	19.86	2.27	
26/12/2016	0	0	0	0	0	0	0	0	0	0.00	1.85	
27/12/2016	17.7	16	4.3	6.5	6	6.4	0	0	0	0.00	6.76	
28/12/2016	0	0	0	0	0	0	0	0	0	0.00	1.85	
29/12/2016	51.1	40.8	9.8	5.7	12	21.2	10.7	9.4	9.5	18.57	13.81	
30/12/2016	23.3	15	4.6	27.1	21.4	13.4	25.5	21.3	10.7	16.14	16.81	
31/12/2016	0	0	0	0	0	0	0	0	0	3.86	1.85	