

Activity 360201.04: Hydrological data audit and capacity building in data management

Ayeyarwady WISDM time series database

Prepared for: Hydro-Informatics Centre and Department of Meteorology and Hydrology by Alluvium and Hydronumerics

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1 Introduction to the Ayeyarwady WISDM time series database

The datasets needed for informed evidence-based decision making in the Ayeyarwady Basin, Myanmar, have historically been dispersed across a number of agencies, stored in various formats and of unknown quality. The Myanmar Department of Meteorology and Hydrology (DMH) and the Hydro-Informatics Centre (HIC) have therefore requested assistance in: i) undertaking a comprehensive review of available hydrometric and meteorological data in the basin; and ii) capacity building in quality control and database development.

The Australian Water Partnership (AWP)-supported **Activity 1 Hydrological data audit and capacity building in data management** has addressed this request and will form a key first step in the development of a surface water baseline assessment of the basin using an Ayeyarwady Basin Source model. The activity has consolidated and quality checked hydrological, meteorological, water quality and sediment data available for the basin. The original and quality checked data has been compiled into a hydrological time series database using Hydrohub software¹. The database has been installed within the Hydro-Informatics Centre and will form part of the Myanmar Water Information System for Data Management (WISDM) currently being developed under the State of the Basin Ayeyarwady (SOBA) program. The database is a live tool that can continue to be updated with new datasets and data can be extracted for use as required.

The Ayeyarwady WISDM times series database (the time series database) compiles hydrological, meteorological, water quality, sediment and reservoir operation time series datasets provided by DMH; Department of Hydropower Implementation (DHPI) and the Irrigation and Water Utilization Management Department (IWUMD). A summary of the datasets contained in the time series database is provided in Table 1 and Figures 1 to 3. A full list is provided in Appendix A.

The purpose of this accompanying report is to describe the data processing, coding and formatting that have been adopted in preparation of the Ayeyarwady WISDM times series database. A separate document has also been developed that provides training on the programming and use of the database itself.

A significant amount of spatial data has also been collected and, although not included in the time series database, may be useful to further work undertaken in the basin. A summary of the spatial datasets compiled is provided in Appendix B.

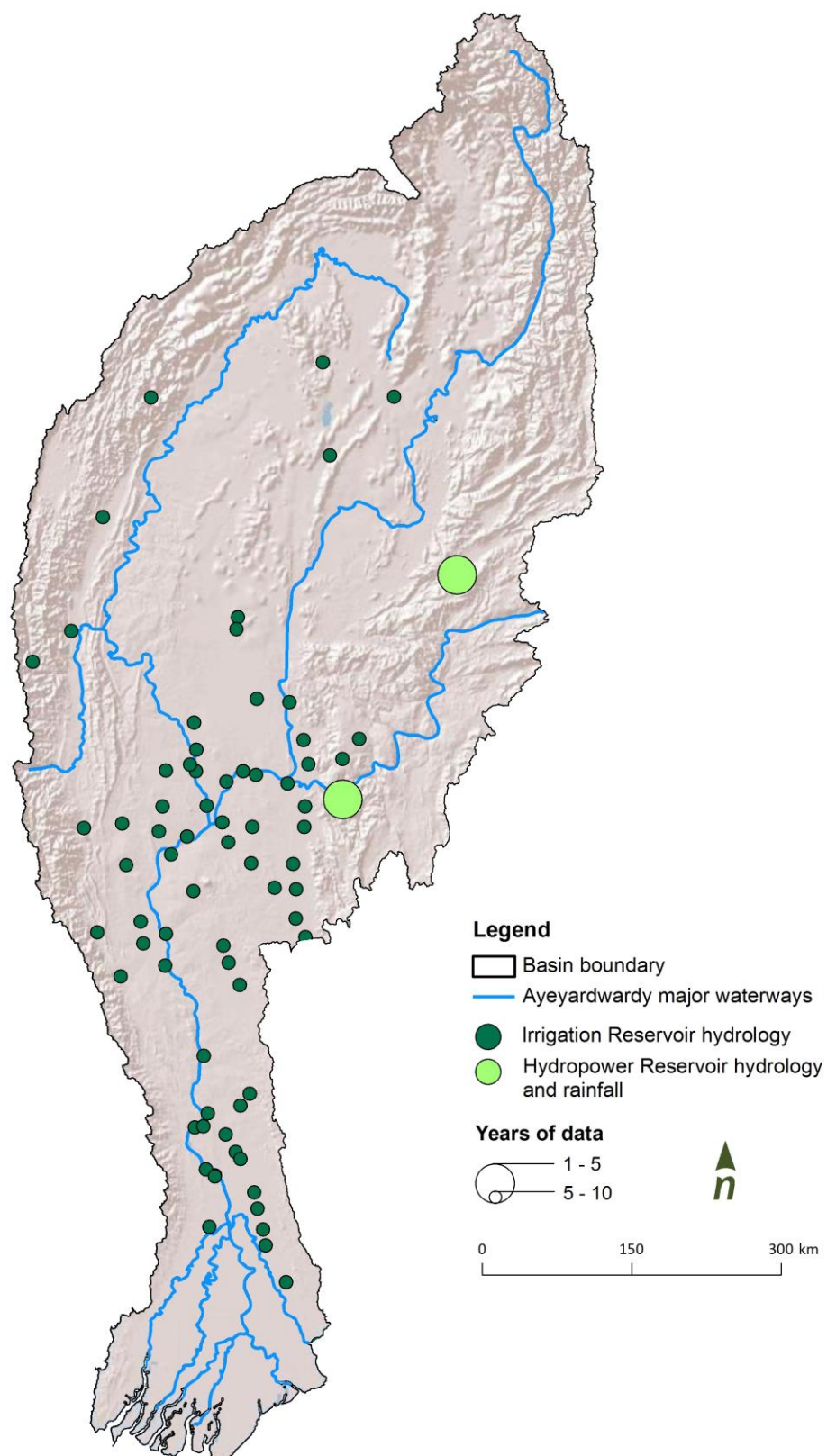
¹ HydroHub is a database and decision support tool that can store datasets as well as monitor and forecast the conditions of surface water bodies. It provides a visualisation interface, manages historical and real-time water resource data, and computes decision support indices.

Table 1. Table of datasets contained in the Ayeyarwady WISDM time series database

Data type	Source of datasets	Number of datasets	Time step	Duration
River water level	DMH and IWUMD	23	Daily	Min. of 2014 to 2016 Max. of 1970 to 2015
Discharge	DMH	9	Daily	Min. of 2004 to 2015 Max. of 1970 to 2015
Sediment discharge	DMH	8	Daily	Min. of 1998 to 2015 Max. of 1986 to 2015
Minimum temperature	DMH	15	Daily	1986 to 2015
Maximum temperature	DMH	15	Daily	1986 to 2015
Rainfall	DMH and IWUMD	22	Daily	DMH - 1986 to 2015 IWUMD – various
Relative humidity	DMH	15	Daily	1986 to 2015
Wind speed	DMH	15	Daily	1986 to 2015
Wind direction	DMH	15	Daily	1986 to 2015
Evaporation ²	IWUMD	1	Daily	2009 to 2016
Hydropower reservoir - Inflow	DHPI	2	Daily	2009 to 2016
Hydropower reservoir - Outflow from spillway	DHPI	1	Daily	2010 to 2016
Hydropower reservoir - Outflow from turbine	DHPI	1	Daily	2010 to 2016
Hydropower reservoir - Outflow total	DHPI	2	Daily	2010 to 2016
Hydropower reservoir - Storage	DHPI	2	Daily	2010 to 2016
Hydropower reservoir - Water level	DHPI	2	Daily	2010 to 2016
Hydropower reservoir hydrology - Rainfall	DHPI	2	Daily	2010 to 2016
Irrigation and multipurpose reservoir – Inflow	IWUMD	225	Monthly	2011 to 2016
Irrigation and multipurpose reservoir - Utilisation	IWUMD	225	Monthly	2011 to 2016
Irrigation and multipurpose reservoir - Wastage and losses	IWUMD	225	Monthly	2011 to 2016
Irrigation and multipurpose reservoir - Storage balance	IWUMD	217	Monthly	2011 to 2016
Water quality (pH, EC, Temp, Turb, Sal, Fe plus parameters that change between years) ²	IWUMD	17	Twice a year	Various (between one to three years)

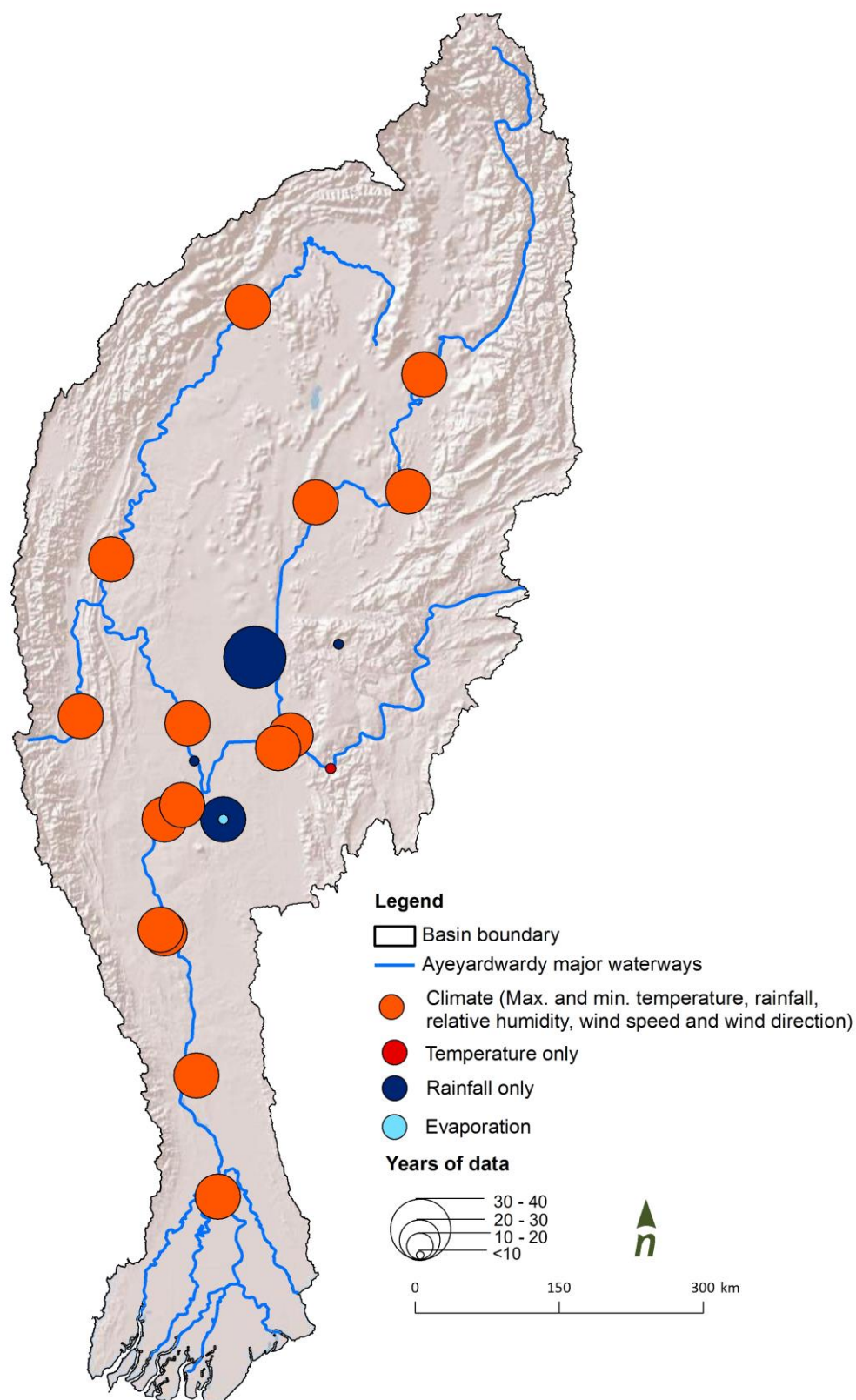
² Only raw dataset provided within the database

Figure 1: Reservoir hydrology datasets contained in the Ayeyarwady WISDM time series database



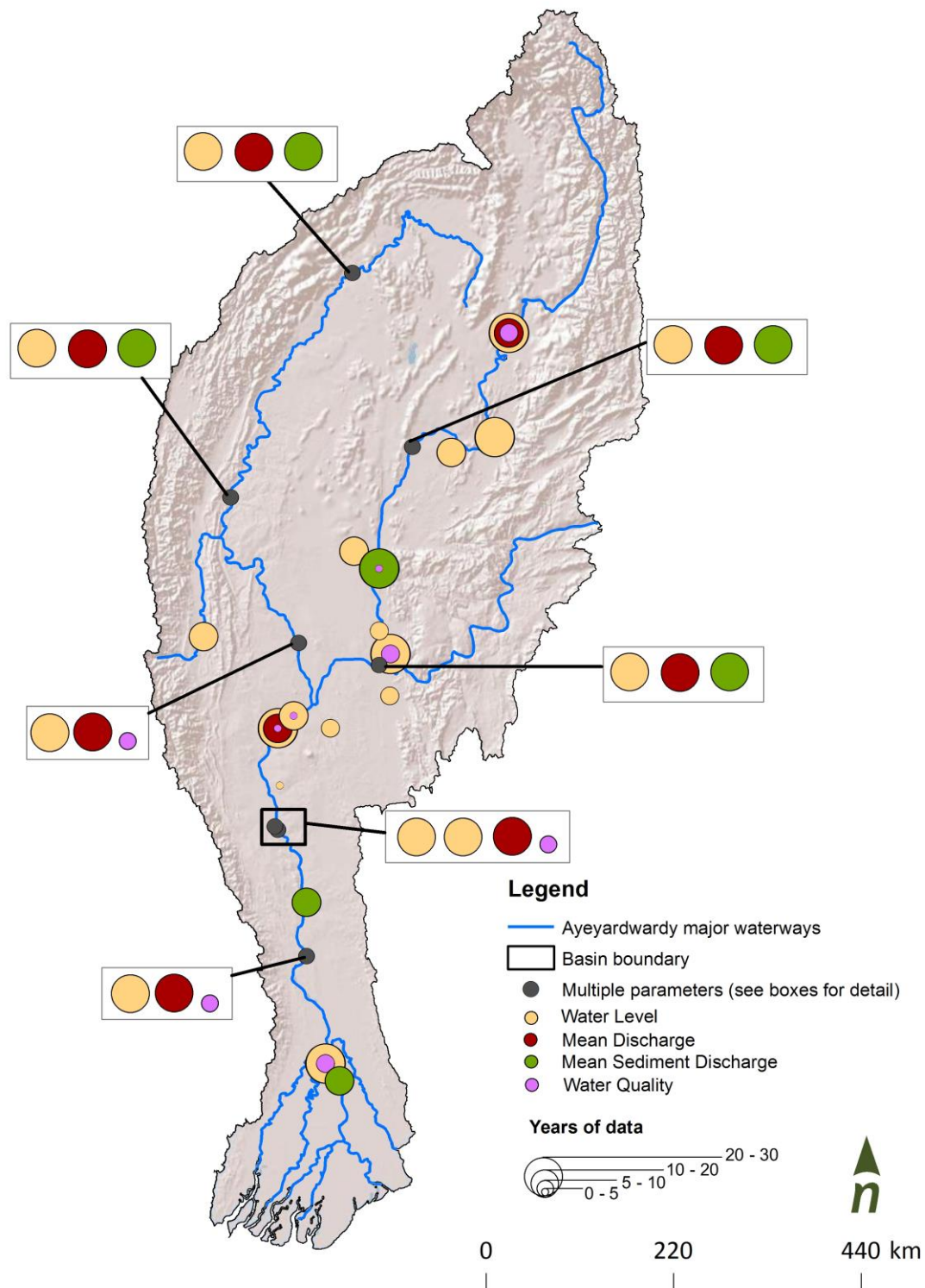
Note: Many of the irrigation reservoirs are close together and appear overlapped in the above map

Figure 2: Meteorology datasets contained in the Ayeyarwady WISDM time series database



Note: Locations have not been obtained for the following IWUMD stations – Butalin river pumping station; Chit Thu; Danuphyu; Daydaye; Homalin; Kalaewa; Khaing Kang; Manipura; Myinchan; and Sintku

Figure 3: Water level, discharge, sediment and water quality datasets contained in the Ayeyarwady WISDM time series database

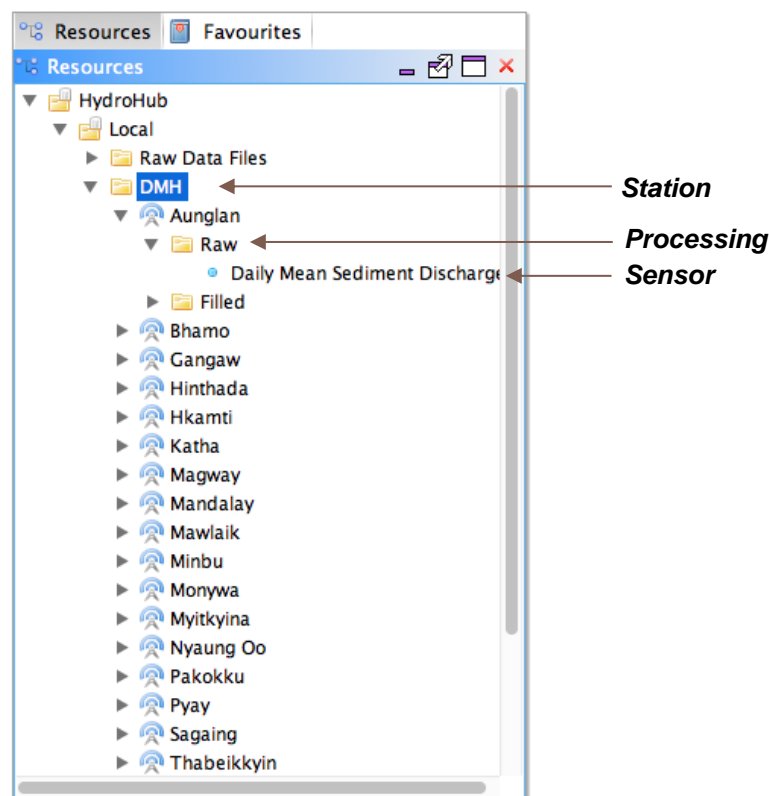


2 Database setup and protocols

2.1 Database schema

All time series data sets collected for the Ayeyarwady Basin have been imported into the HydroHub database schema. Within the database each dataset is attached to a geo-referenced station and assigned a standardised name and units. Figure 1 shows the resource tree for the Ayeyarwady database with example DMH stations and the sediment discharge dataset measured at Aunglan station. The following sections describe the meaning and protocols used in the database for stations, sensors and processing.

Figure 4: Screenshot of HydroHub resource tree showing the hierarchy of station and sensor resources as well as the processing state



2.2 Station resources

All station metadata information is configured in XML configuration files³ and then stored in the database under a *locations* table. Each XML file contains information on the site name, title and location. An example XML configuration file for Aunglan station is shown in Box 1⁴.

For all stations in the Ayeyarwady database the name of station resources files is set as "ayeyarwady.*DataSource*. *StationName*." Where: i) *DataSource* is the source of the data which can be DMH, IWUMD or DHPI; and ii) *StationName* is the name of the station.

³ XML stands for Extensible Markup Language file. These files are plain text files that describe the transportation, structure, and storage of data.

⁴ Note that within the Hydrohub software the Aunglan station XML configuration file is located at /config/resources/DMH/Aunglan.xml

Box 1. Configuration file for Aunglan station containing metadata information

```
<?xml version="1.0" encoding="UTF-8"?>
<Station>
  <name>Aunglan</name>
  <title>Aunglan</title>
  <longname>Ayerwady River Gauge</longname>
  <site>Ayeyarwady</site>
  <latitude>19.367</latitude>
  <longitude>95.217</longitude>
  <daylightSavingsAware>false</daylightSavingsAware>
  <surfaceDatum>ABS</surfaceDatum>
  <bottomDatum>ABS</bottomDatum>
  <datum>ABS</datum>
  <zOffset>0.0</zOffset>
  <StationResourceGroup>
    <address>Raw</address>
    <longname>Raw Data</longname>
    <processingInterval>86400</processingInterval>
    <processingOffset>0</processingOffset>
  </StationResourceGroup>
  <StationResourceGroup>
    <address>Filled</address>
    <longname>Filled Data</longname>
    <processingInterval>86400</processingInterval>
    <processingOffset>0</processingOffset>
  </StationResourceGroup>
  <StationSensorsGroup>
    <name/>
    <sensorsFile>/config/resources/DMH/sensors/sediment_discharge.xml</sensorsFile>
  </StationSensorsGroup>
</Station>
```

2.3 Sensor resources

Each station resource points to one or more sensor resources that contain the actual time series data. For example, the Aunglan station described in Box 1 points to the sensor configuration file:

/config/resources/DMH/sensors/sediment_discharge.xml

Each sensor resource contains a time series of the given data type, normally at a daily time step⁵. Table 2 outlines the data types used in the Ayeyarwady time series database. Note that one station resource can point to multiple sensor resources – for example at Ayartaw station there are datasets for both rainfall and water level.

Table 2. Data types used in the Ayeyarwady database

Name	Description	Units
discharge	Daily Mean Discharge	m ³ /s
sediment_discharge	Daily Mean Sediment Discharge	kg/sec
water_level	Water Level	cm
maximum_temperature	Maximum Temperature	°C
minimum_temperature	Minimum Temperature	°C

⁵ Irrigation reservoir hydrology is provided in monthly time steps and water quality datasets are provided twice a year

Name	Description	Units
average_temperature	Average Temperature	°C
rainfall	Rainfall	mm
relative_humidity	Relative Humidity	%
wind_speed	Wind Speed	m/s
wind_direction	Wind Direction	°
inflow	Reservoir Inflow	m ³ /s
outflow_total	Reservoir Outflow Total	m ³ /s
outflow_spillway	Reservoir Outflow Spillway	m ³ /s
outflow_turbine	Reservoir Outflow Turbine	m ³ /s
storage	Reservoir Storage	m ³
utilisation	Reservoir Utilisation	m ³
losses	Reservoir Wastage and Losses	m ³
evaporation	Evaporation	mm/day
temperature	Temperature	°C
salinity	Salinity	%
electrical_conductivity	Electrical Conductivity	µmhos/cm
turbidity	Turbidity	NTU
suspended_solids	Suspended Solids	g/l
biochemical_oxygen_demand	Biochemical Oxygen Demand	mg/l
chemical_oxygen_demand	Chemical Oxygen Demand	mg/l
arsenic	Arsenic	ppm
cadmium	Cadmium	ppm
copper	Copper	ppm
cyanide	Cyanide	mg/l
iron	Iron	ppm
lead	Lead	mg/l
mercury	Mercury	ppm
pH	pH	

2.4 Processing state

Each time series dataset is stored in two formats within the database:

- **RAW** - The raw file is created by importing the dataset as collected and reformatting into a consistent database format. The values of the raw data are not altered, nor are gaps filled, but invalid values and possible outliers are identified; and
- **FILLED** – The filled file contains the processed dataset produced by running the quality assurance and quality control processes. This dataset may be altered from the original collected dataset (e.g. gaps may have been filled and errors fixed).

2.5 Processing codes

Each data point in each time-series dataset is assigned a process code depending on the results of the quality checking and processing tasks. Table 3 outlines the process codes used in the time series database.

Table 3. Processing codes

Code	Description
RAW files	
QC_VALID	Raw data that has passed quality checking tasks
QC_INVALID	Raw data that has failed one or more quality checking tasks
DERIVED	Unit have been changed to be consistent with other datasets
<i>Empty cell</i>	Indicates missing time step in the original dataset
CALM	Special code for wind direction that indicates the original dataset value was "CALM" and has been changed to zero
TRACE	Special code for rainfall that indicates the original dataset value was "TRACE" and has been changed to zero
FILLED files	
DOWNSAMPLED	Data that has passed quality checking test and no fill required
FILLED	Gap filled data using the algorithms described in Section 3
FILLED_DEFAULT	Gap size was too big for gap filling, so value has been set to -9999
FLAGGED_OUTLIER	Raw data that has failed an outlier test but has not been altered

4 Quality checking and infilling methods

4.1 Automation of quality checking and infilling

More than 1,000 time series files were identified for inclusion in the database. Due to the large number of files, the Hydrohub database software was used for automatic reformatting and quality assurance processing. To enable this automation, an initial manual of each time series dataset was undertaken and a quality checking and infilling process defined for each that is compatible with the Hydrohub software. A description of the adopted quality checking and infilling processes is provided in Chapters 4.2 to 4.4 and summarised in Appendix C.

The quality checking and infilling algorithms are divided into two stages:

1. **Outlier/error identification** - Use of statistical and consistency check techniques to identify outliers or errors in the data; and
2. **Infilling** – Filling of data gaps and errors using linear interpolation of values within the station or correlation with values from other stations and global datasets.

Within the database the datasets are automatically processed through the following steps:

1. **Import data** – The raw datasets are imported into the database and reformatted from the raw format into a consistent database format and units;
2. **Run quality control tests** – Each data point is tested for quality by running the defined quality assurance algorithms (described in sections 4.2 to 4.4 and Appendix C) on the original datasets and identifying each data point as: i) passed all quality assurance tests (QC_VALID); or ii) failed a test (QC_INVALID);
3. **Identify missing time steps** - Identifies where a time step is missing and adds to the time series to fill the gap. For example, if the original dataset jumps from the 20th April 2015 to 22nd April 2015, an additional row will be added to include 21st April 2015. The “RAW” file is created at this stage; and
4. **Infill gaps and outliers** – Gaps in the original datasets and data points that don’t pass quality control tests are then filled by using the algorithms identified in section 3.2 and Appendix C. If no algorithm is used (e.g. the gap size is too big) then the data point is set to a default value (-9999). The “FILLED” file is created at this stage.

The implementation of automated outlier detection algorithms for any data point may result in any of the four outcomes outlined in Figure 5. In developing the quality checking algorithms, the aim is to maximise the true positive and true negative outcomes while minimising false positive or false negative outcomes. To maximise these outcomes the quality assurance algorithms for each data type have been developed through application on test datasets to optimise the selection of confidence intervals, probabilities and tolerance values.

Figure 5. Possible test outcomes

		Test outcome	
		Outlier (Positive)	Not an outlier (Negative)
Truth	Outlier (True)	True positive Data points that are outliers and detected as outliers.	False negative Data points that are outliers but not detected as outliers.
	Not an outlier (False)	False positive Data points that are not outliers but detected as outliers	True negative Data points that are not outliers and detected as not outliers.

4.2 Quality checking and infilling methods for highly/moderately autocorrelated time series

4.2.1 Discharge, sediment discharge, reservoir inflows and stream level

In autocorrelated time series each value can be assumed to be correlated to the value before and after it. The following highly/moderately autocorrelated time series are contained within the database (see Appendix D for maps of station locations):

- Water level time series at 15 stations provided by DMH and eight stations provided by IWUMD;
- Discharge for nine stations provided by DMH;
- Sediment discharge for seven stations provided by DMH; and
- Long term (greater than five years) hydropower reservoirs inflows for two reservoirs⁶ provided by DHPI.

For the highly/moderately autocorrelated datasets the sliding window prediction model documented by Yu (2014) was used to identify outliers that indicate possible data errors (see Box 2 for equations). The approach identifies if a central value falls within a prediction bound set by its neighbouring values. A two-sided neighbour window with window width of five was selected (i.e. five data points before a central value and five values after the central value). Weighting factors are then applied to the five values either side of the central (observed) value with the largest weighting assigned to the data closest to the central value. The predicted value is then calculated using the weighting factors and equation outlined in Box 2. Both 95% and 99% prediction confidence intervals (PCI) were tested and 99% identified as preferred as it is sensitive to sudden fluctuations of the data, and manual checking of outliers in test datasets concluded that most of the values flagged at 99% appear reasonable (example shown in Figure 6).

A manual check assessing the number of true positive and false positive values flagged as outliers, identified several reasonable values being detected as “outliers”. Therefore, in addition to the PCI bounds a tolerance rate was set for all highly/moderately autocorrelated data - either ± 5 absolute values of the predicted values or $\pm 2\%$ of the predicted values.

Box 2: Two sided sliding window prediction model used to identify outliers in autocorrelated datasets (Yu, 2014)

1. Define the window

Given a time series $T^m = \langle d_1 = (v_1, t_1), d_2 = (v_2, t_2), \dots, d_m = (v_m, t_m) \rangle$, the two sided window neighbouring points sets $n_i^{(k)}$ for the point d_i is defined as:

$$n_i^{(k)} = \{d_{i-k}, \dots, d_{i-1}, d_{i+1}, \dots, d_{i+k}\}$$

2. Predict the central value

Predict \bar{v}_i using the equations below:

$$\bar{v}_i = \frac{(\sum_{j=1}^k w_{i-j} v_{i-j} + \sum_{j=1}^k w_{i+j} v_{i+j})}{((\sum_{j=1}^k w_{i-j}) + (\sum_{j=1}^k w_{i+j}))}$$

Where $(w_{i-k}, \dots, w_{i-1}, w_{i+1}, \dots, w_{i+k})$ stands for the weight of neighbourhood (defines the relationship between the values within the two sided window and the expected value. For simplicity we have assigned as $(1, 2, \dots, k, k, \dots, 1, 2)$).

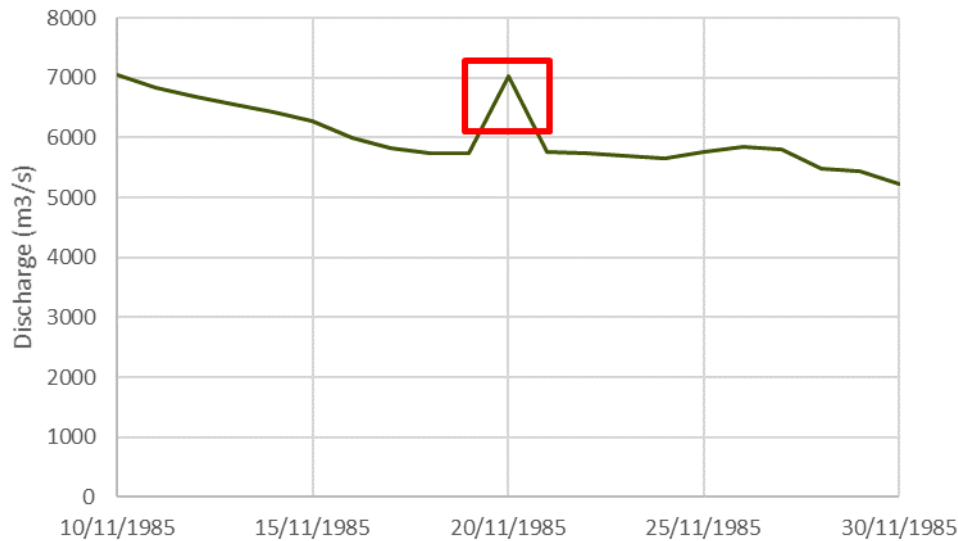
⁶ Records for seven hydropower and multipurpose reservoirs were provide for only six months, and therefore not adopted for further processing

3. Calculate the confidence boundary

A confidence boundary, *PCI*, provides a range of possible values that the central value can take. For the discharge, sediment discharge, reservoir inflows, and water level datasets confidence boundary, is calculated using the predicted value (\bar{v}_i) and a confidence coefficient of $p = 99$, $\alpha = 0.01$ (i.e. **99% prediction confidence interval**) with S being the standard deviation of the model residuals:

$$PCI = \bar{v}_i \pm t_{\alpha/2, 2k-1} \times s \sqrt{1 + \frac{1}{2k}}$$

Figure 6 An example of a flagged outlier in the hydrograph at Pyay discharge station (flagged outliers were not infilled for the discharge datasets)



A limitation of the sliding window method is that it only takes into account a window of 10 days and it therefore may not detect a longer term systematic error. For example, Figure 7 shows the method successfully identifying four consecutive outlier points in the Tat Ywa stream water level. However, when longer periods of the series are plotted (Figure 8) it is possible to identify a systematic error for a duration in the order of months. For example, from June to October in 1988, the recorded water level is far lower than for the rest of the time series. This systematic long term error is not identified by the algorithm and has been manually fixed.

Due to these limitations, it is recommended that visual inspection of the data is undertaken prior to adoption to confirm suitability for the intended use.

Figure 7 An example of flagged outliers in the water level time series at Tat Ywa station



Figure 8 An example of systematic water level error at Tat Ywa station



For all highly autocorrelated series where an outlier is identified, no infilling is undertaken but the value is flagged to be clearly identifiable for visual inspection prior to use. The decision of maintaining flagged outlier values instead of treating these as gaps and infilling using linear interpolation was made after visual inspection in the post processing phase. In several cases across all sites, the algorithms identified a number of sudden rises and a smaller number of falls in the time series that were deemed as possibly normal (i.e. possibly not an error). The aim of maximising true positive and true negative outcomes could be undermined by these possible false positive results and hence a conservative approach to infilling the highly autocorrelated series was adopted.

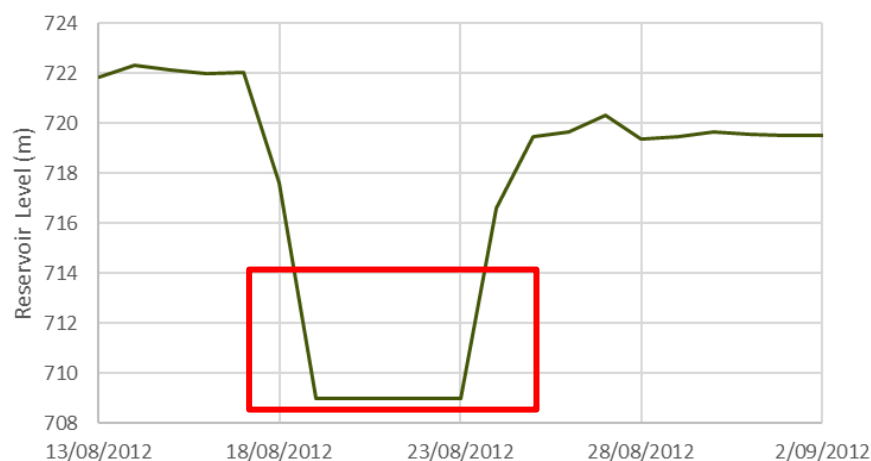
4.2.2 Hydropower reservoir water level

Long term hydropower reservoir water time series have only been obtained for two hydropower reservoirs - Shweli 1 and Yeywa (see Appendix D for locations). For reservoir water level, the sliding window prediction model documented by Yu (2014) was used for identifying outliers, but with some variations. Initial tests of the two-sided window approach found that the process identified the first of a group of outliers correctly (true positive) however where there were consecutive outliers in the data sets, subsequent outlier points were not correctly identified (false negative). As reservoir water level for the test data sets (Shweli 1 and Yeywa hydropower stations) were highly autocorrelated and could be predicted well using the previous daily data (rather than also needing to include future data as was found for discharge), a one-sided window approach was adopted.

For the hydropower reservoir water level datasets a one-sided window model using the previous ten non-outlier values was used to predict the next value. To minimise the number of false positive values occurring when reservoir level changed rapidly, a tolerance rate of 3 m in addition to the defined 99% PCI was included. The tolerance rate was set to 3 m because in the test data this tolerance was able to: i) capture single and consecutive outliers; ii) provide more tolerance for sudden fluctuations; and iii) still correctly identify outliers that are likely due to transcription errors. An example of identified outliers is shown in Figure 9.

Visual inspection of the flagged outliers indicated that there was a number of sudden rises and a smaller number of falls in the time series that were may have been real (i.e. possibly not an error). The aim of maximising true positive and true negative outcomes could be undermined by these possible false positive results and hence a conservative approach was adopted for infilling the hydropower reservoir water level series. Where an outlier is identified, no infilling is undertaken but the value is flagged to be clearly identifiable for visual inspection prior to use.

Figure 9 Detection of possible outliers of reservoir water level from the time series measured at Shweli 1 hydropower station (outliers were not infilled for the reservoir water level datasets)



4.2.3 Hydropower reservoir storage

Major errors were noted with both the Shweli 1 and Yeywa hydropower reservoir storage datasets. The Shweli 1 dataset contains a high proportion of negative values (example shown in Figure 10). The presence of negative values suggests that there may be an issue with the applied level-storage rating curve but the database development team was unable to obtain the level-storage rating curve for review. It is therefore recommended that an updated curve is developed and, if possible, historic curves obtained. The updated curve (or curves if there has been change to the reservoir due to sedimentation or other reasons) should then be re-applied to the recorded level data to re-derive the storage time series.

Issues with the calculation of storage volume in Yeywa were also identified. The storage volume compared to recorded water level shows an inconsistency in the applied level-storage relationship (Figure 11). For example, there are instances of very large changes in volume with little change in water level. It is therefore recommended that a recalculation of the level-storage relationship is also developed for Yeywa reservoir and reapplied to calculate a new storage dataset.

To enable temporary use of the datasets whilst the above issues are addressed, outlier identification was undertaken for the two hydropower reservoir storage datasets. The one-sided window method was adopted and modified by changing the tolerance threshold to 10% of the full supply volume of each reservoir (example of outlier identification provided in Figure 12). Where an outlier is identified, no infilling is undertaken but the value is flagged to be clearly identifiable for visual inspection prior to use.

Figure 10 Time series plot of Shweli water storage showing examples of negative and highly varying storage data



Figure 11 Scatter plot of Yeywa water storage versus water level showing inconsistency in the level-storage relationship

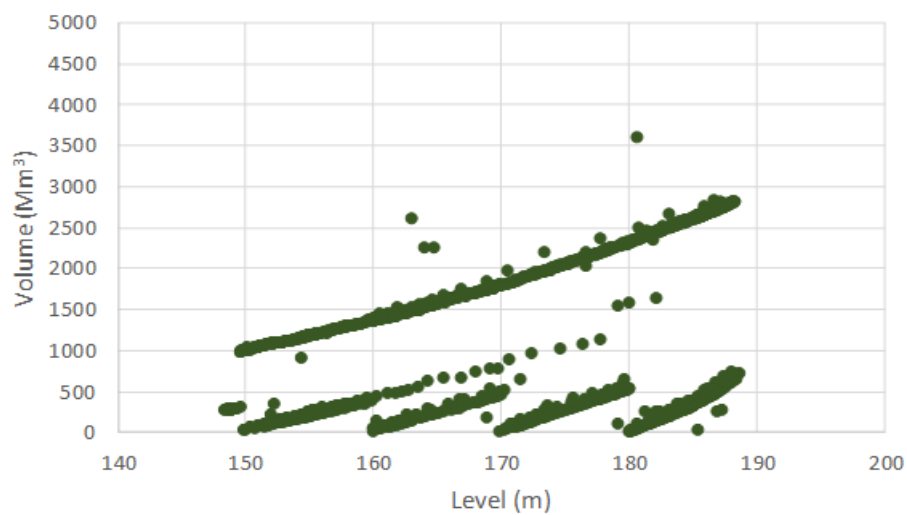
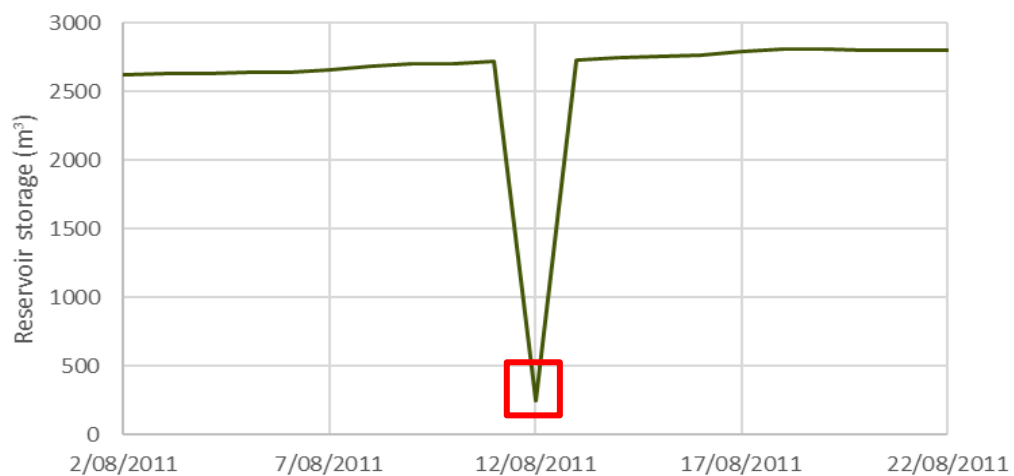


Figure 12 Time series plot of Yeywa water storage showing an example identified outlier (outliers were not infilled for the reservoir storage datasets)



4.3 Quality checking and infilling methods for low autocorrelated time series

4.3.1 Rainfall

Daily rainfall data was supplied in three groups, DMH sites (15 stations), IWUMD sites (seven stations) and hydropower reservoirs (two reservoirs). See Appendix D for maps of station locations and the periods of record. The quality assurance of the rainfall datasets began with a series of manual checks of the rainfall time series data including:

- **Single mass curves** – A visual inspection was undertaken by plotting a single mass curve which shows the cumulative rainfall over time recorded at each site (example shown in Figure 13 for six stations and graph for all stations provided in Appendix E). This is a useful comparison to look for differences in the trend of the cumulative rainfall and the relative rates of rainfall at each site. For example, of the sites plotted in Figure 13 Myitkyina has the greatest rainfall while Nyaung Oo has the least. Missing data at Mawlaik during 2009 and 2010 affects the cumulative rainfall at this site.
- **Double mass curves** – Double mass curves were plotted for each rainfall record against every other rainfall record excluding dates where data is missing from either (examples provided in Figure 14). A change in slope of the double mass curve indicates a change in the recorded precipitation regime at one site compared to another; and
- **Correlation of monthly rainfall** - The correlation of monthly rainfall between all the sites was calculated (example for six stations provided in Table 4).

The manual inspections concluded that the rainfall measured at each station differs greatly from each other as expected due to the large distances between the sites and the influence of topography. Due to these differences, the potential to infill missing data from nearby available sites is somewhat limited.

Figure 13 Example single mass curves of rainfall data records at six climate stations (graph of all stations provided in Appendix E)

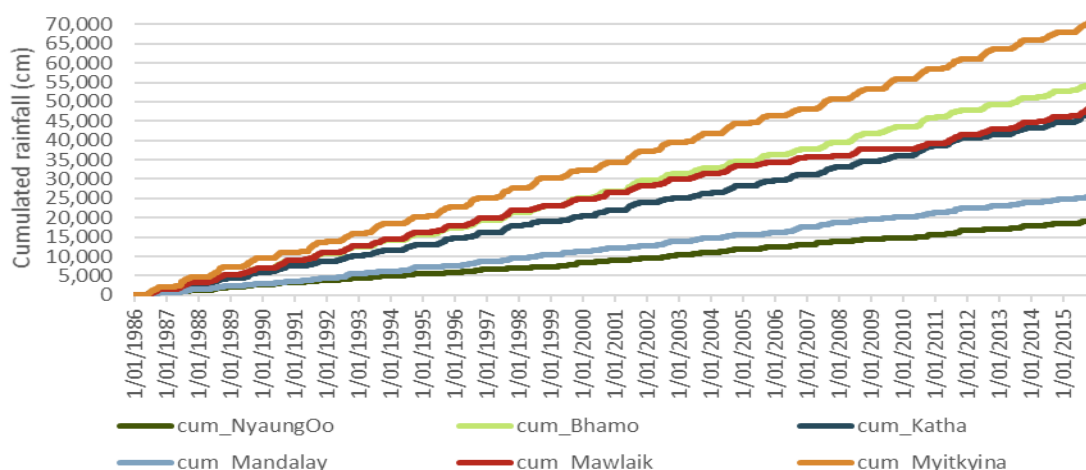


Figure 14 Example double mass plots of Mawlaik against neighbouring stations and associated R² relationships

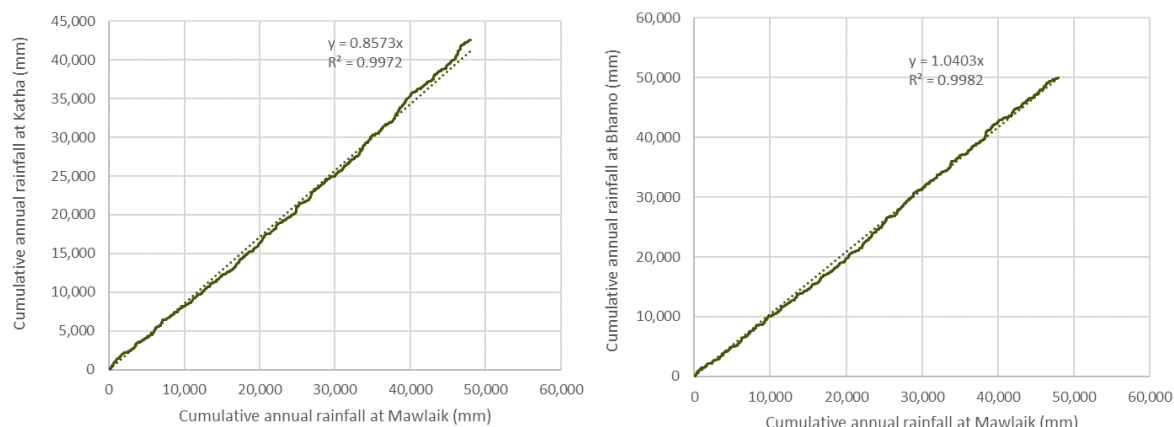


Table 4 Example correlation table of six climate stations displaying their regression equations and associated R² values.

Site		Bhamo	Myitkyina	Mandalay	Mawlaik	Katha	Nyaung Oo
Bhamo	Equation		1.1907x	0.3366x	0.8147x	0.7589x	0.2488x
	R ²		0.6945	0.1003	0.5559	0.5944	0.0758
Myitkyina	Equation	1.1907x		0.247x	0.619x	0.5553x	0.183x
	R ²	0.6945		0.0441	0.5116	0.4817	0.0276
Mandalay	Equation	0.3366x	0.247x		1.5571x	1.2349x	0.6445x
	R ²	0.1003	0.0441		0.3747	0.1076	0.4815
Mawlaik	Equation	0.8147x	0.619x	1.5571x		0.7729x	0.3111x
	R ²	0.5559	0.5116	0.3747		0.5571	0.3765
Katha	Equation	0.7589x	0.5553x	1.2349x	0.7729x		0.3008x
	R ²	0.5944	0.4817	0.1076	0.5571		0.1569
Nyaung Oo	Equation	0.2488x	0.183x	0.6445x	0.3111x	0.3008x	
	R ²	0.0758	0.0276	0.4815	0.3765	0.1569	

Outliers were identified within the rainfall datasets using two methods:

- **Seasonal consistency** - Consistency checks of rainfall data with seasons e.g. average rainfall should be lower in non-monsoon seasons (mid-Oct to mid-May); and
- **Non-negative** - Consistency checks of rainfall data ensuring values are not negative.

Gap filling was considered using either correlation to nearby stations or to the global rainfall dataset Climate Hazards Group InfraRed Precipitation with Station data (CHIRPS). The CHIRPS data set is a quasi-global rainfall dataset incorporating 0.05° resolution satellite imagery with in-situ station data to create gridded rainfall time series. CHIRPS is available for the time period of 1981 to near present, freely available to the public and is published as Network Common Data Form (NetCDF) files (<https://www.unidata.ucar.edu/netcdf/>).

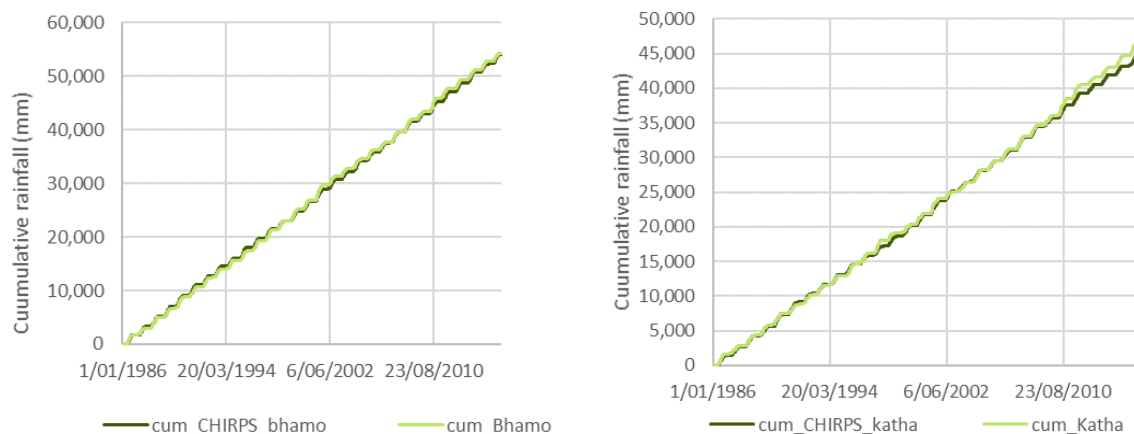
The gap filling process included:

- **Station-Station correlation table** - Developed correlation table of all stations compared to all other stations (example for six stations provided in Table 4);

- **Station-CHIRPS correlation table** - Transformed CHIRPS gridded data into time series and developed correlation table comparing each station to CHIRPS (comparison single mass curves example showed in Figure 15 and correlation table provided in Appendix E);
- **Identified best correlation for each station:** For each station the best correlation was selected by selecting the highest R^2 value either from the neighbouring station or CHIRPS correlation tables; and
- **Infill gaps:** Gaps and outliers were then infilled using the best correlation identified (either neighbouring station or CHIRPS).

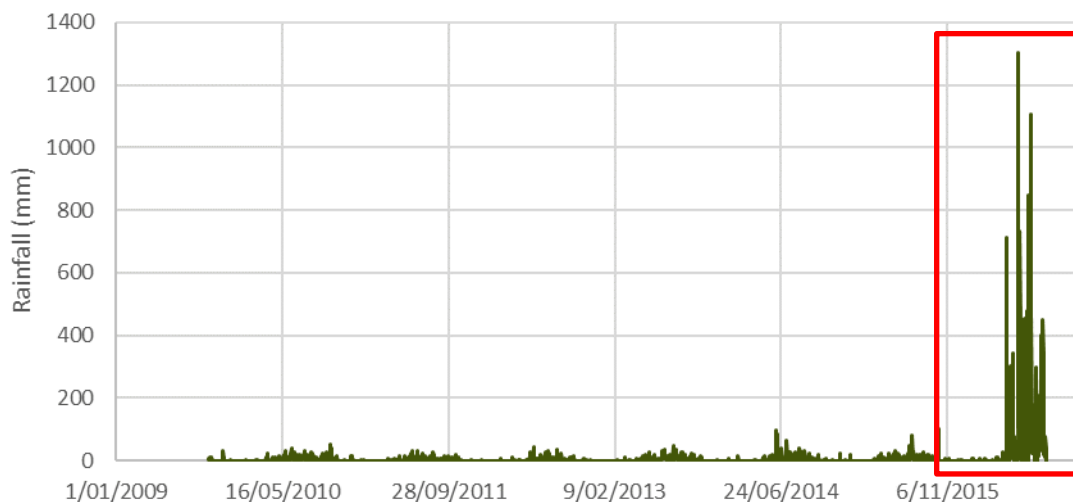
For the datasets collected, in all cases the CHIRPS data provided the best correlation for infilling rather than correlation with another station.

Figure 15 Examples of single mass curves comparison of climate station data with CHIRPS dataset.



Inspection of the rainfall dataset at Shweli 1 hydropower shows an inconsistency issue with the rainfall record from May 2016 to the end of the record in August 2016 (Figure 16). Initial discussions with DHPI indicate this is likely to be a conversion error and DHPI are following up further to confirm. Within the database these dates have been set as unfilled outliers (-9999). If DHPI can confirm that the error is related to conversion and provide an updated dataset then this will need to be updated in the database.

Figure 16 Rainfall recorded at Shweli1 hydropower station and the amplified rainfall errors shown in the red box



4.3.2 Temperature

Temperature data was provided by DMH for 15 stations (see Appendix D for locations). Outliers were identified within the temperature datasets using two methods. Firstly, a consistency check of temperature with seasons was undertaken to (e.g. temperature should be lower in non-monsoon seasons (mid-Oct to mid-May)).

To determine which statistical outlier test could be adopted for temperature, a boxplot of a selection of the temperature time series was developed and various probability distributions tested using goodness-of-fit and comparison of cumulative distributions. It was found that the normal distribution fits well with the temperature data (examples in Figure 17 and Figure 18). The Grubb's outlier test, a common outlier test for normally distributed data, was therefore used to identify outliers in the temperature datasets.

Gaps and outliers of less than five consecutive days were infilled by constructing a table of correlations between stations and using the best correlation (i.e. highest R^2 value). Large data gaps (more than 5 days) were not infilled and were labelled with an identifying code (-9999).

Figure 17 Maximum temperature histogram for six example climate stations fitted with a normal distribution

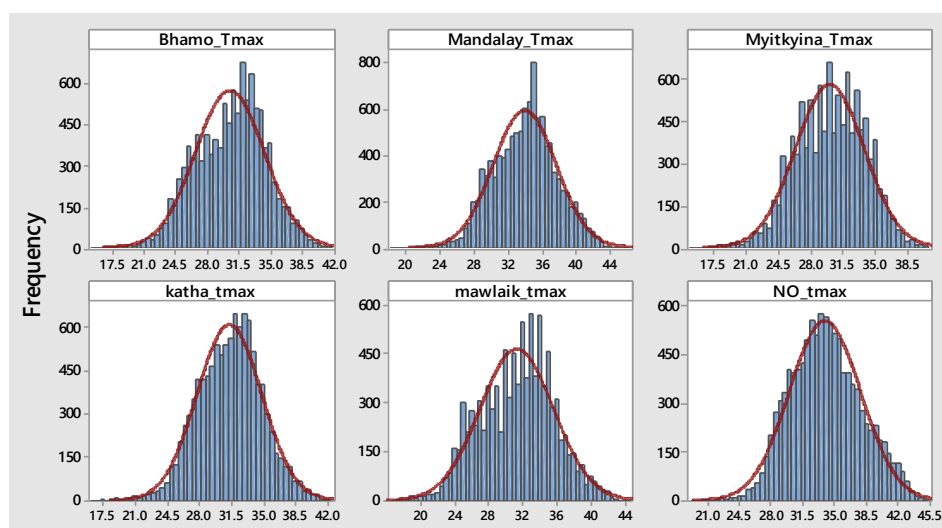
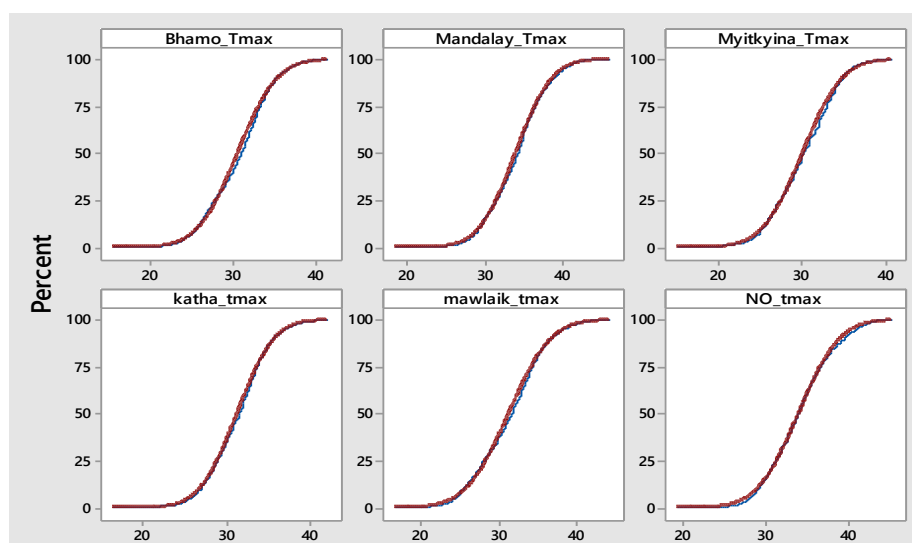


Figure 18 Empirical maximum temperature cumulative distribution function (CDF) fitted with Normal distribution for six test stations



4.3.3 Relative Humidity

Relative humidity data was provided by DMH for 15 stations (see Appendix D for locations). For the relative humidity datasets, outliers were identified using two methods. Firstly, a consistency check of relative humidity data with temperature was undertaken to ensure that temperature increases are associated with humidity decreases. Secondly, for a sample set of stations a goodness-of-fit and empirical cumulative distribution function test was used to identify an appropriate probability distribution – identified as the Weibull probability distribution (Figure 19 and Figure 20). Approaches identified by van der Loo (2010) for identifying outliers in a dataset with Weibull probability distribution were used to identify outliers in the relative humidity datasets. An example is illustrated in Figure 21 for the site at Bhamo. There were no outliers detected in any of the relative humidity time series.

Gaps of less than five consecutive days were infilled by constructing a table of correlations between relative humidity stations and using the best correlation (i.e. highest R^2 value). Large data gaps (more than five days) were not infilled and were labelled with an identifying code (-9999).

Figure 19 Histogram of relative humidity of example six climate stations with the fitted line based on Weibull distribution

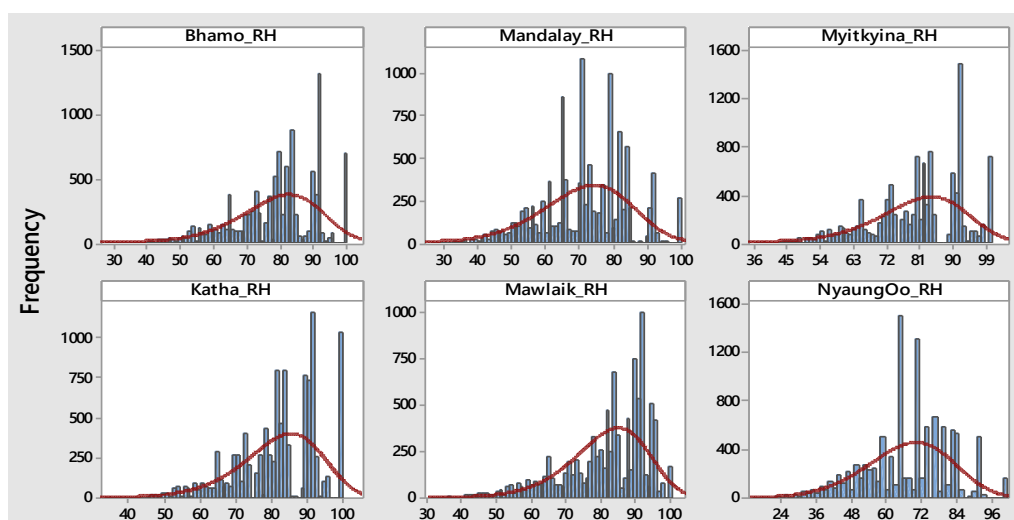


Figure 20 Empirical CDF of relative humidity of example six climate stations using the Weibull distribution

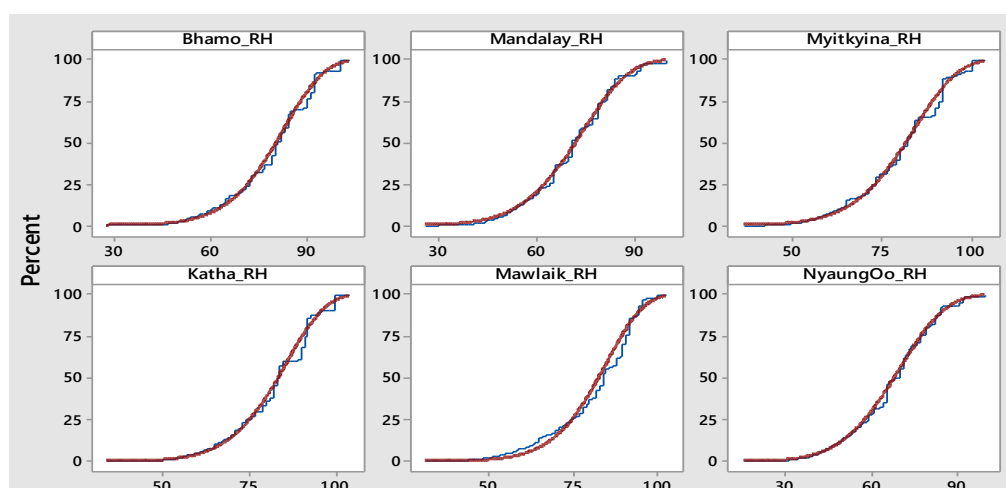
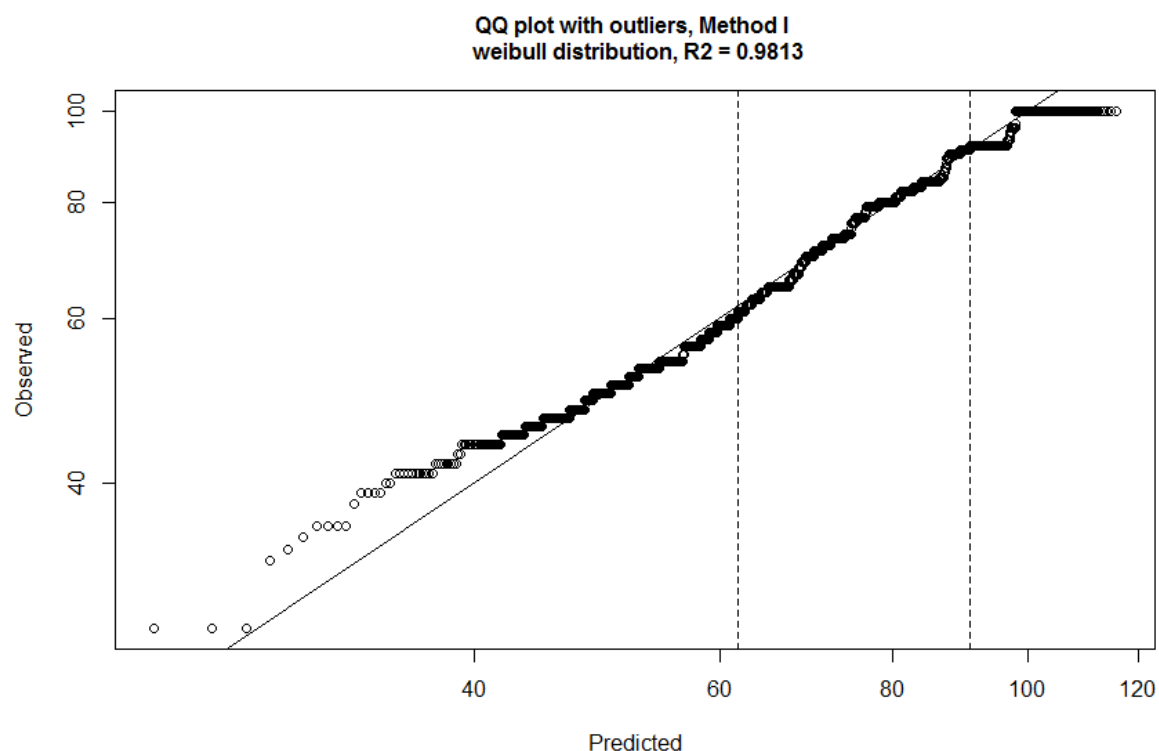


Figure 21 QQ plot of fitted distribution of the humidity data shows that there is no outlier in this dataset at Bhamo.



4.4 Quality checking and infilling methods for other time series

4.4.1 Wind speed

Wind speed data was provided by DMH for 15 stations (see Appendix D for locations). Two outlier/error checks were conducted on the wind speed datasets. The first test cross-checked wind speed against wind direction at the same station to ensure that values of zero wind speed occur on the same day as “calm” wind direction. Where a zero wind speed occurred but the wind direction was not calm the value was identified as an outlier. For example, this discrepancy occurred on three days in the Mawlaik wind speed dataset, and nine times for the Katha dataset (Table 5).

Table 5 Example of data where wind speed is not consistent with wind direction

Sites	Dates where wind speed = 0, wind direction ≠ “calm”
Mawlaik	13/03/1987; 15/08/2001; 20/08/2001
Katha	23/09/1999; 12/03/2000; 10/06/2004; 08/12/2005; 05/09/2009; 07/09/2009; 10/09/2009; 12/09/2009; 19/09/2009

The second test detects abnormally low variation in wind speed by searching for excessively long periods of consecutive records with none or very small changes of wind speed. This test is used because unusually low variations may indicate data transcription errors, blocked sensors or

malfunctioning wind detection instruments. Approaches described by Chávez-Arroyo and Probst (2015) were adopted for this test and included four key steps for each station:

1. **Categorise wind speed** - Categorised wind speed into calm (less than 2.5 mph) and non-calm wind speed (more than 2.5 mph);
2. **Develop frequency counts** - Developed frequency counts for different numbers of consecutive wind speed value repetitions (see example in Table 6);
3. **Identify threshold value** - Identified a threshold value (or the maximum number of consecutive records assumed to be valid) which was set at the value that first exceeds 99.5% of the cumulated frequencies for calm wind speeds (see example in Table 6) or seven consecutive days for non-calm wind speeds; and
4. **Flag possible errors** - Flag as erroneous where consecutive values exceed the threshold value.

For consecutive records of less than five days, data was infilled using regressions between stations and applying the correlation with the best R^2 relationships. Due to the high uncertainty associated with data infilling, any consecutive records more than five days were not infilled and were flagged using a data quality code (-9999).

Table 6. Bharno calm wind speeds example of frequency counts of i) the number of consecutive days of the same speed; and ii) percentage of cumulated frequency used to determine the threshold value that is deemed valid. The example shows that 11 consecutive days of the same calm wind speed is the threshold where it first exceeds 99.5% cumulated frequencies (highlighted in grey).

Number of consecutive days	Frequency	% cumulated frequencies
1	5456	80.25
2	705	90.62
3	255	94.37
4	148	96.54
5	76	97.66
6	48	98.37
7	24	98.72
8	23	99.06
9	13	99.25
10	12	99.43
11	9	99.56
12	5	99.63
13	3	99.68
14	3	99.72

4.4.2 Hydropower reservoir outflow

Long term hydropower reservoir outflow time series have only been obtained for two hydropower reservoirs - Shweli 1 and Yeywa (see Appendix D for locations). Quality assurance of hydropower reservoir outflow datasets began with a series of manual checks of the data. This included consistency checks on whether total outflow is equal to the sum of spill outflow and turbine outflow. This check found errors in the Yeywa outflow data from 06/08/2015 to 20/11/2015, 30/10/2014 and 10/11/2014 to 11/11/2014. These were corrected for further quality checks by combining spillway and turbine outflow. A second consistency check was undertaken to ensure all values are positive.

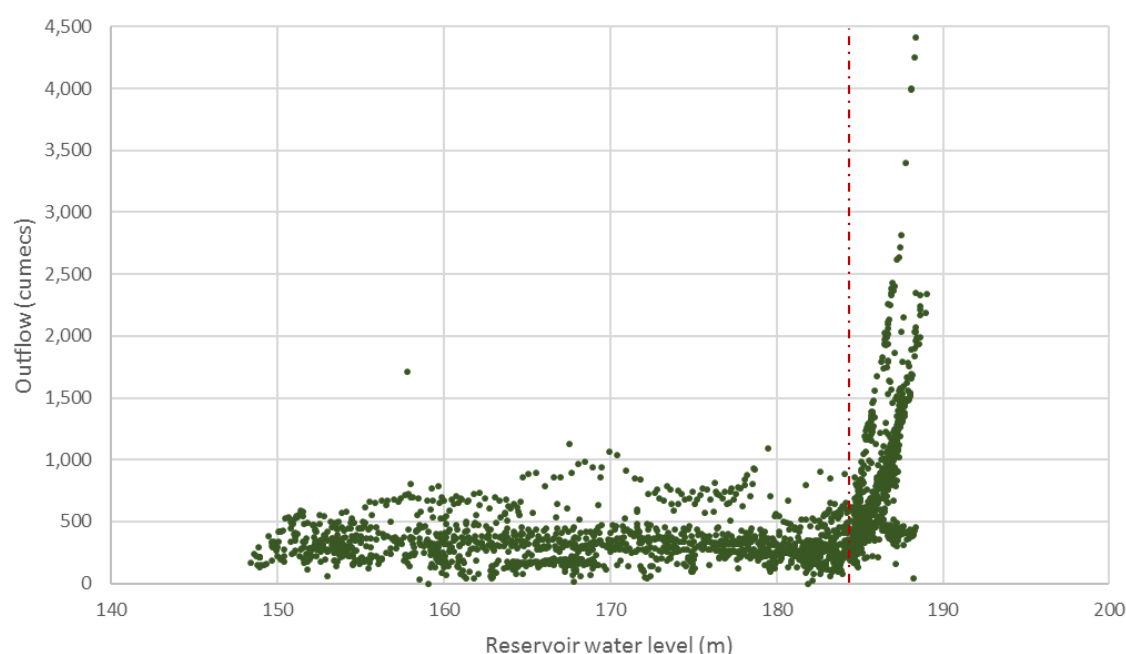
The method for identifying outliers was different for each hydropower station for which long term time series was collected. In the Shweli dataset, turbine outflow is separated from spillway outflow. Outliers

in each Shweli outflow dataset (turbine, spillway and total) were identified as outside of three standard deviations from the mean value for that dataset.

Only total outflow is available for most of the Yeywa dataset. Therefore the turbine and spillway flows were separated so that checks could focus on turbine releases as there is a maximum limit on flow rate through the turbine, but spills are far more variable. As details on spillways were not available, the reservoir level at which spills may commence was estimated by plotting the total outflows against reservoir water level and identifying the height where the higher flow rate spills commence. For Yeywa, the spill level was identified as 184.5m (Figure 22) and outliers were identified as outside of three standard deviations from the mean value when reservoir water level is below spill level. Above spill level no outliers are identified.

Outliers of less than two consecutive days were infilled using linear interpolation of previous and next days values. Data gaps and outliers more than two days were not infilled and were labelled with the code (-9999).

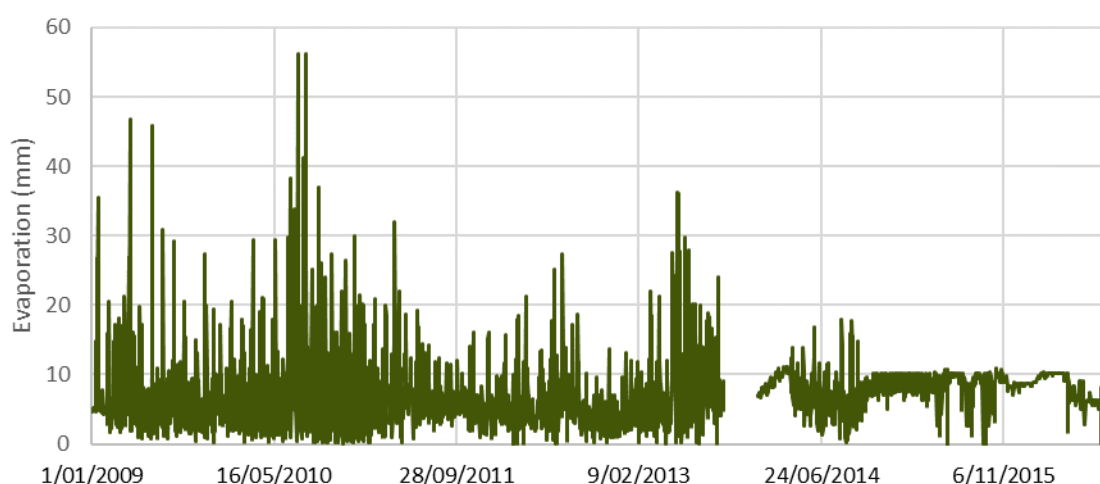
Figure 22 Plot of outflows and reservoir water level at Yeywa to determine the value (red line) for which the spill data is influencing the total outflows



4.4.3 Evaporation

Only one daily evaporation dataset has been collected – provided by IWUMD. The Ayartaw site has a seven-year record of evaporation with less than 20% of data missing. A time series plot of the dataset (Figure 23) shows that there are major consistency issues with the data. From the start of October 2013, there is data missing for a period of three months. In addition, the variability in records in 2009 to 2013 is much greater than post 2014. It is not clear what caused this gap in recordings and change in variability, and there are no other evaporation stations to cross-check against. It was therefore concluded that this dataset would be provided in raw format only and no outlier detection or infilling would be undertaken.

Figure 23 Daily evaporation time series recorded at Ayataw station



4.4.4 Water quality

Water quality sampling information has been provided by IWUMD for between three to five years for seventeen stations on the Ayeyarwady and Chindwin rivers (see Appendix D for locations). The parameters measured changes between years, with six parameters consistently measured for all stations across all years: pH, Electrical Conductivity, Temperature, Salinity, Turbidity and Iron. Another eight parameters are measured for some stations and for some years: Suspended Solids, Arsenic, Lead, Mercury, Copper, Cyanide, Biochemical Oxygen Demand and Chemical Oxygen Demand.

Due to the ad-hoc nature of the water quality sampling (maximum of two times a year) it is not possible to undertake quality assurance on the datasets except for a logic check of the range of results. Therefore within the database the water quality dataset are reformatted into a consistent format and the original values are not altered.

4.4.5 Irrigation and multipurpose reservoirs

Monthly irrigation and multipurpose reservoir hydrology datasets – inflow, utilisation (e.g. irrigation, domestic, industrial, hydropower), losses and storage – for 225 irrigation and multipurpose reservoirs were provided by IWUMD in hardcopy and digitised by the project team (see Figure 1 for locations). As a simple test of data quality, a monthly water balance check was undertaken (i.e. does storage from previous period plus inflow minus outflows equal the new storage?) (example provided in Table 7). When the inflow, outflows and storage do not balance, the values are flagged as possible errors.

Table 7. Example of monthly water balance check for irrigation and multipurpose reservoirs. Notes: i) Calculated storage is the storage balance from previous month plus inflow, minus wastage and evaporation, and irrigation supply; ii) error identified for July 2011.

Date	Values contained in dataset (all in ac ft)				Quality check	
	Inflow (a)	Wastage and evaporation (b)	Irrigation supply (c)	Storage balance (d)	Calculated storage	Difference between reported and calculated storage
03/2011	11	75	1,886	19,890	19,890	0
4/2011	12	55	2,556	17,291	17,291	0
05/2011	4,685	26	1,886	20,064	20,064	0
06/2011	19,814	10,948	1,636	27,294	27,294	0
07/2011	7,922	8,225	2,180	24,311	24,811	500

5 Additional discharge analysis

5.1 Rating curve reviews

Two additional analyses have been undertaken in relation to the discharge datasets. The first, documented in a separate report⁷, undertook a review of rating curves at five pilot sites in the basin (Kalewa, Katha, Sagaing, Nyaung Oo and Zalun). By undertaking new ratings (cross-sections, water level and flow) and characterising the uncertainty, bias and sensitivity of the channel rating and cross-section, the analysis concludes that the rating tables for all of the five sites are erroneous and need to be updated. The report recommends that a program of ongoing rating table reviews at critical discharge stations is needed to ensure accurate discharge measurements across the basin.

Of the five pilot review sites there are three that are represented in the discharge datasets provided for the database – Katha, Sagaing and Ngaung Oo. For Katha and Nyaung Oo the report provides a revised rating curve developed based on the new gauging and use of Mannings equation. These rating curves should be used for future measurements, but it was decided not to use the new curves for historical data as they may not be reliable over a long historical time period. Further gaugings covering a wider range of stage levels should be undertaken at both sites to have a higher level of confidence in the proposed changes to rating tables.

For Sagaing, the report identifies an alternative rating curve (discovered on a wall in the gauging station hut) and confirms that this new curve provides relatively accurate results. This curve has been used to update the discharge time series at Sagaing based on the historical water level time series at this station.

The consistency and statistical checks undertaken on the discharge time series as part of developing the time series database are not able to identify if there are systemic errors due to issues with the rating curves. Therefore, it is recommended that a rating curve review be undertaken for each of the discharge stations included in the database. The revised curve, or series of curves if historical curves can be developed, should then be re-applied to the water level series to re-derive discharge. In the meantime, the discharge time series should be used with caution.

5.2 Water balance analysis for the Ayeyarwady river network

The second additional analysis of the discharge datasets was an initial exploration of the reasons for a downstream decrease in discharge identified for some years in four reaches - Mawlaik to Monywa, Myityina to Katha, Nyaung Oo to Magway and Magway to Pyay (Table 8, Figure 24 and Figure 25). The downstream decrease in discharge could indicate quality issues with the data, or may be related to actual physical effects such as extraction for irrigation, filling of reservoirs, high flow breakouts around stream gauges, groundwater recharge, tidal influences or high rates of evaporation.

⁷ Report is titled River Survey: Rating table and cross-section review for five pilot sites. Prepared for the Hydro Informatics Centre and Department of Hydrology and Meteorology by ALS Hydrographics on behalf of the Australian Water Partnership

Table 8. Reaches with downstream decrease in annual flow volume identified for more than one year.

Note: The confluence of the Chindwin and Ayeyarwady is not included here as the loss only occurred in one year in this reach (2004)

	Mawlaik to Monywa	Myityina to Katha	Nyaung Oo to Magway	Magway to Pyay
Years of occurrence	2010 and 2012	1999, 2000, 2003 and 2005	2013 and 2014	Most years
Magnitude of loss per year (Mm ³)	2,170 and 1,630	3,500 to 10,500 Mm ³	800 and 7,000Mm ³	68 to 42,300 Mm ³

In the below sections an initial analysis of the possible explanations for the decreasing downstream flow is presented for the four reaches. Each reach has been tested against the following possible explanations for water losses:

- **Data errors** - Errors in the rating curve of one or both stations may cause systematic shift in the discharge time series;
- **Filling of reservoirs** - When a dam is commissioned it fills up and can reduce downstream discharge for a period of years;
- **Extraction or diversion of water for irrigation** - Water may be extracted for irrigation through diversion or pumping within the reach;
- **Groundwater recharge** - Water may be infiltrating from the river to groundwater within the reach;
- **Overland flow and evaporation** - During wet season flooding, water can overtop the bank and flow overland where it evaporates or bypasses the downstream station (this has been documented as occurring on the Mekong River);
- **Defiles influencing water level**- Five major defiles occur on the Ayeyarwady, these may influence the discharge and water level; and
- **Tidal influences** - Tidal influences may impact on water level and discharge.

The analysis presented below has been unable to isolate a definitive explanation of the water losses in each reach due to the need for additional information and research. Further investigations are required to confirm the reason for these phenomena and whether they are errors or have a physical explanation. In the meantime, the discharge time series for these stations should be used with caution.

Figure 24 Difference in annual flow volume for the four reaches where downstream decrease in mean annual discharge volume has occurred for more than one year. Note: The issue occurs most often and in greatest magnitude in the Magway to Pyay reach (most years of the period of record)

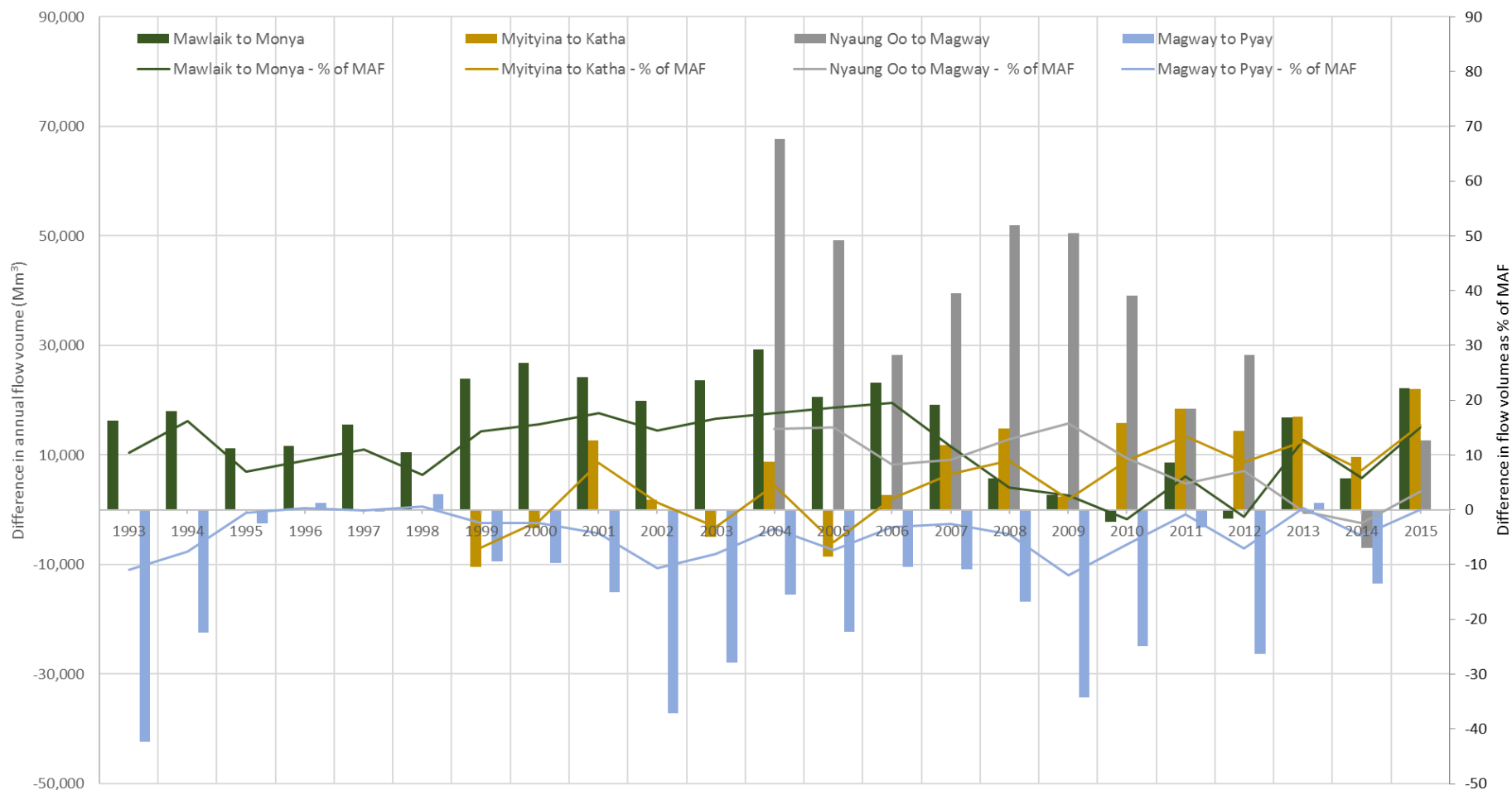
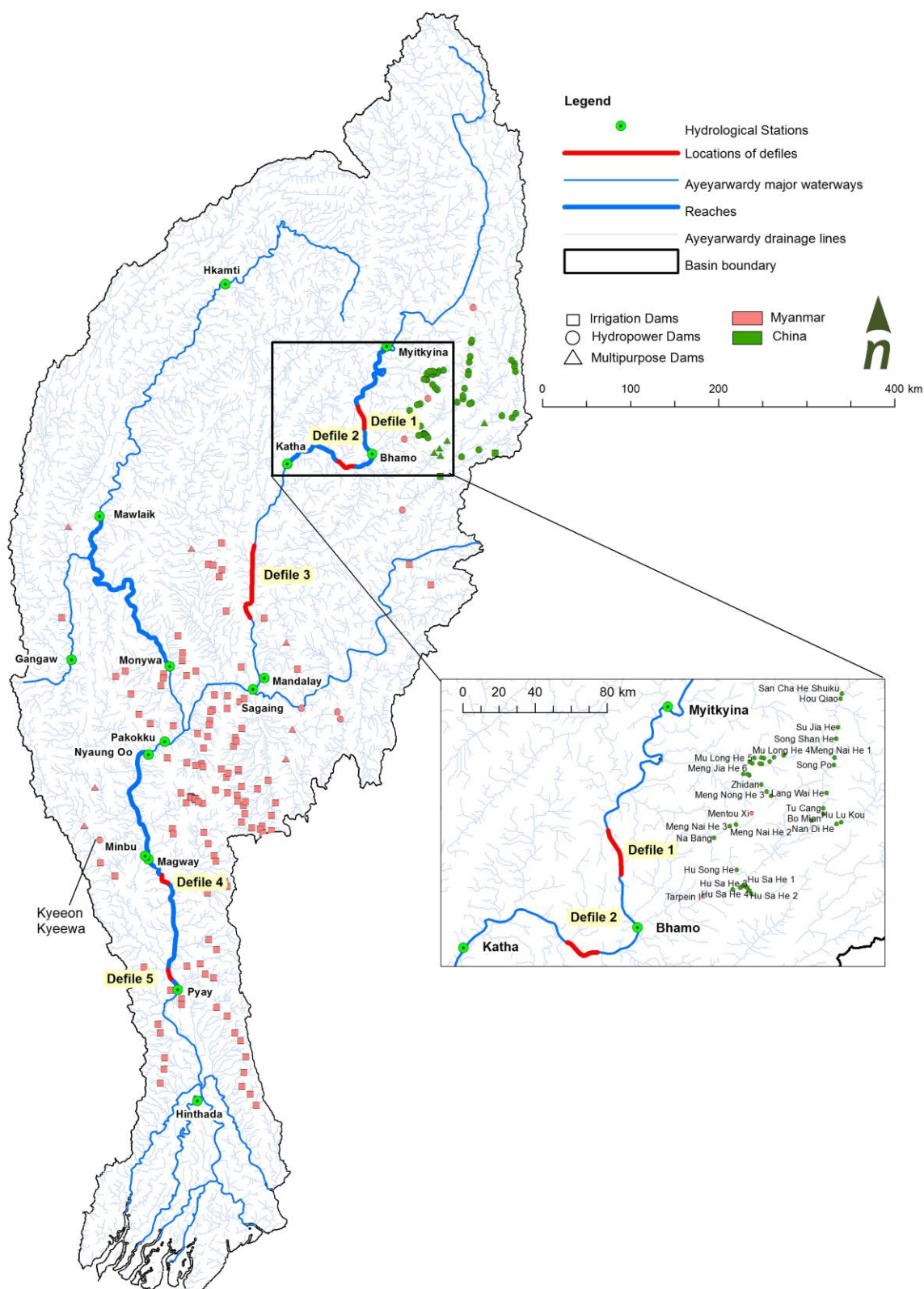


Figure 25 Location of reaches with water loss compared to location of reservoirs and defiles



5.2.1 Mawlaik to Monywa

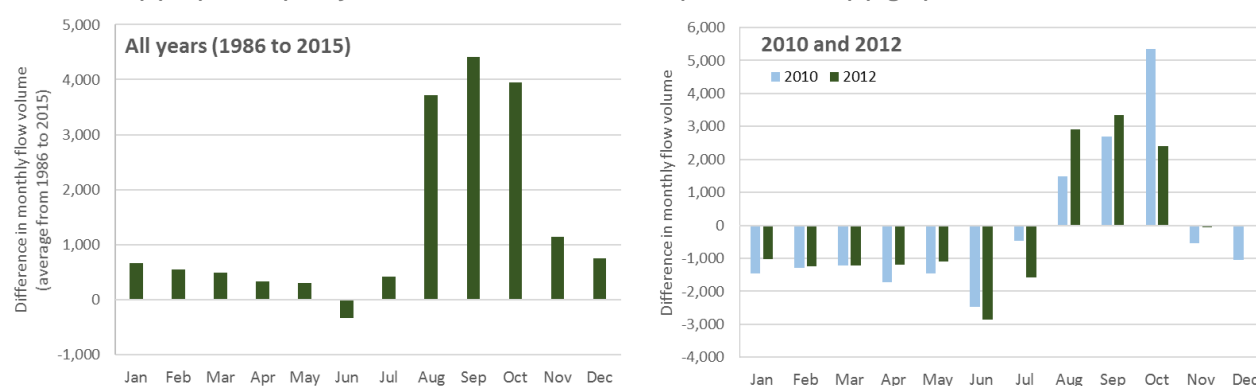
Analysis of possible reasons for a cumulative loss of water in 2010 and 2013 in the Mawlaik to Monywa reach (Table 9) shows that there are three possible explanations that require further research:

- **Data errors** – Rating curve review needed at both stations at various stage heights to identify and fix systematic errors in the rating curves and to re-derive discharge series;
- **Extraction or diversion of water for irrigation** - Cropping and irrigation information has been requested from the Department of Agrilcutral Land Management and Statistics (DALMS). Once this data has been obtained, a cross-check of irrigation extraction/diversion locations and volumes can be undertaken to check if volumes of extraction or diversion in the reach matches the volume of losses; and
- **Groundwater recharge** - Further research on potential recharge/ infiltration rates is required to confirm whether infiltration rates matches losses. Further exploration of recharge rates for the basin are being undertaken as part of SOBA Package 2 and will inform whether this explanation is feasible.

Table 9. Results of analysis of possible reasons for water losses in the Mawlaik to Monywa reach

Explanation	Results
Data errors	Not able to confirm because rating curve review not available for either station
Filling of reservoirs	Not a likely explanation as no major reservoir located in the reach or tributaries (Figure 25)
Extraction or diversion of water for irrigation	Not able to confirm due to lack of irrigation water use information
Groundwater recharge	Possible explanation because losses in 2012 and 2012 occur in the dry season (Figure 26) and are in the range of feasible groundwater infiltration from the river
Overland flow and evaporation or bypass of channel	Not a likely explanation as losses occur in dry season when overland flow would not occur (Figure 26)
Defiles influencing water level	Not a likely explanation as no defiles located in reach (Figure 25)
Tidal influences	Not a likely explanation as not in tidal area (Figure 25)

Figure 26 Average losses for each month in the Mawlaik to Monywa reach: i) over the full period of record (1993 to 2015) (left); and ii) for years with a net loss of water (2011 and 2012) (right)



5.2.2 Myityina to Katha

Analysis of possible reasons for water losses in the Myityina to Katha reach in 1999, 2000, 2003 and 2005 (Table 4) show that there are three possible explanations that require further research:

- **Filling of reservoirs** – Research on commission date and Fully Supply Capacity of reservoirs located in the contributing catchments is needed to compare loss volumes against the total Full Supply Capacity of reservoirs commissioned during the years of annual losses;
- **Extraction or diversion of water for irrigation** – Need to obtain and cross-check irrigation location and use information against reaches and identify if volume of water extracted for irrigation matches losses; and
- **Defiles influencing water level** - Hydraulic modelling required to identify impact of the defiles on water level and discharge

Table 10. Results of analysis of possible reasons for water losses in the Mawlaik to Monywa reach

Explanation	Results
Data errors	Revised rating curve developed as part of rating curve review work has been used to re-calculate discharge at Katha. Comparison of the difference in flow volume with the DMH supplied and revised discharge shows that both exhibit losses in 1999, 2000, 2003 and 2005 (Figure 27). Therefore the losses are not likely to be due to rating curve errors.
Filling of reservoirs	<p>There are 43 reservoirs on tributaries that join the mainstream in this reach. Of the 43 reservoirs, three are known to have been commissioned in the period of annual losses:</p> <ul style="list-style-type: none"> • Hu Song He in China commissioned in 1998 with Fully Supply Capacity of 99.3 Mm³ • Meng Dian He 1 in China commissioned in 1998 with unknown Full Supply Capacity • Meng Jia He 5 in China commissioned in 2004 with unknown Full Supply Capacity <p>The commission date of a further 13 reservoirs is unknown and therefore may have been commissioned during the period of annual losses (three with combined Full Supply Capacity of 13.54 Mm³ and 10 with unknown Fully Supply Capacity).</p> <p>The largest reservoir in the contributing catchment is Su Jia He commissioned in China in 2011 and with Full Supply Capacity of 2,260 Mm³.</p> <p>It is possible that the Fully Supply Level of the Meng Dian He 1, Meng Jia He 5 or another reservoir commissioned during the period of losses has a Fully Supply Capacity in the thousands of Mm³, and therefore may be responsible for some or all of the flow losses. This is not likely to be the only explanation, as the reservoirs are not located on the mainstream, but may be a contributing factor.</p>
Extraction or diversion of water for irrigation	Not able to confirm due to lack of irrigation water use information
Groundwater recharge	Not a likely explanation as no clear seasonal pattern in losses (Figure 27)
Overland flow and evaporation or bypass of channel	Not a likely explanation as no clear seasonal pattern in losses (Figure 27)
Defiles influencing water level	Possible explanation as two major defiles are located within the reach (Figure 25)
Tidal influences	Not a likely explanation as the reach is not in tidal area

Figure 27 Difference in annual flow volume for the Myityina to Katha reach using the discharge values at Katha provided by DMH, and discharge series developed using a revised rating curve. Note that with both discharge datasets losses occur in 1999, 2000, 2003 and 2005

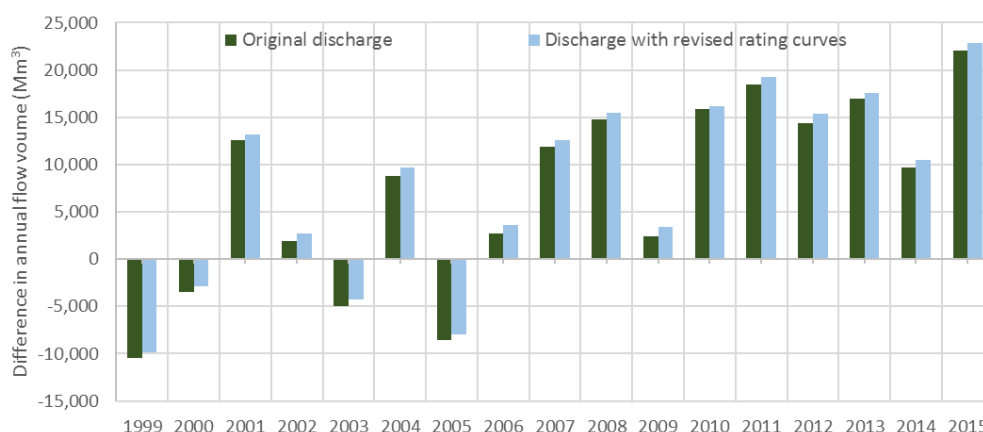
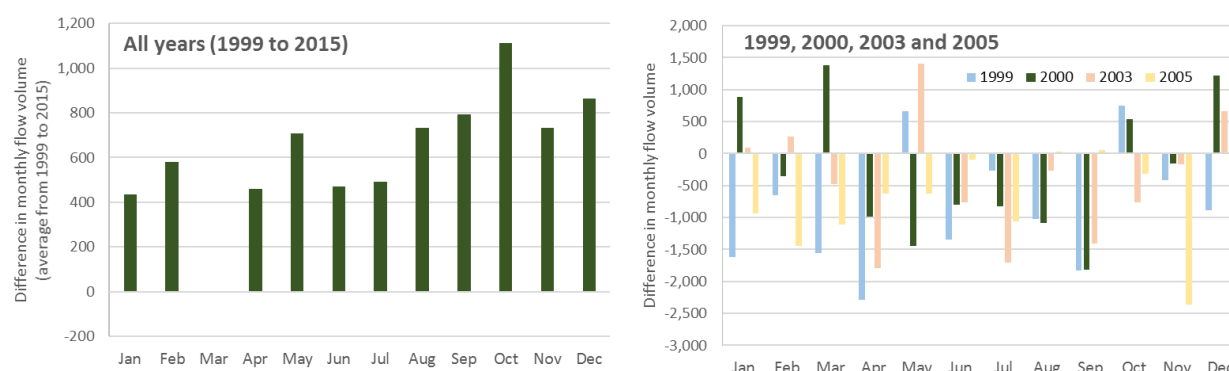


Figure 28 Average losses for each month in the Myityina to Katha reach: i) over the full period of record (1999 to 2015) (left); and ii) for years with a net loss of water (1999, 2000, 2003 and 2005) (right)



5.2.3 Nyaung Oo to Magway

Analysis of possible reasons for water losses in the Nyaung Oo to Magway reach (Table 4) show that there are two possible explanations that require further research:

- **Data errors** – Further gaugings need to be undertaken at Nyaung Oo to confirm the revised rating curve, in addition a new rating curve should be developed for Magway and the losses calculations redone with the updated discharge datasets; and
- **Extraction or diversion of water for irrigation** – Need to obtain and cross-check irrigation location and use information against reaches and identify if volume of water extracted for irrigation matches losses.

Table 11. Results of analysis of possible reasons for water losses in the Mawlaik to Monywa reach

Explanation	Results
Data errors	Revised rating curve developed as part of rating curve review work has been used to re-calculate discharge at Nyaung Oo. Comparison of the difference in flow volume with the DMH supplied and revised discharge shows that the loss does not occur when using the revised rating curve discharge values (Figure 29). Therefore the losses may be due to errors with the rating curve.
Filling of reservoirs	Kyeeon Kyeeewa reservoir commissioned in 2012 has estimated storage of 571 Mm ³ and is located on a tributary that

Explanation	Results
	joins the mainstream in this reach. Possible explanation for 2013 loss (822 Mm ³) but not the significantly higher 2014 loss (7,041 Mm ³)
Extraction or diversion of water for irrigation	Not able to confirm due to lack of irrigation water use information
Groundwater recharge	Not a likely explanation as no clear seasonal pattern in losses (Figure 30)
Overland flow and evaporation or bypass of channel	Not a likely explanation as no clear seasonal pattern in losses (Figure 30)Figure 31)
Defiles influencing water level	Not a likely explanation as no defiles located in reach (Figure 25)
Tidal influences	Not a likely explanation the reach is not in tidal area

Figure 29 Difference in annual flow volume for the Nyaung Oo to Magwat reach using the discharge values at Nyaung Oo provided by DMH, and discharge series developed using a revised rating curve. Note that with both discharge datasets losses occur in 1999, 2000, 2003 and 2005

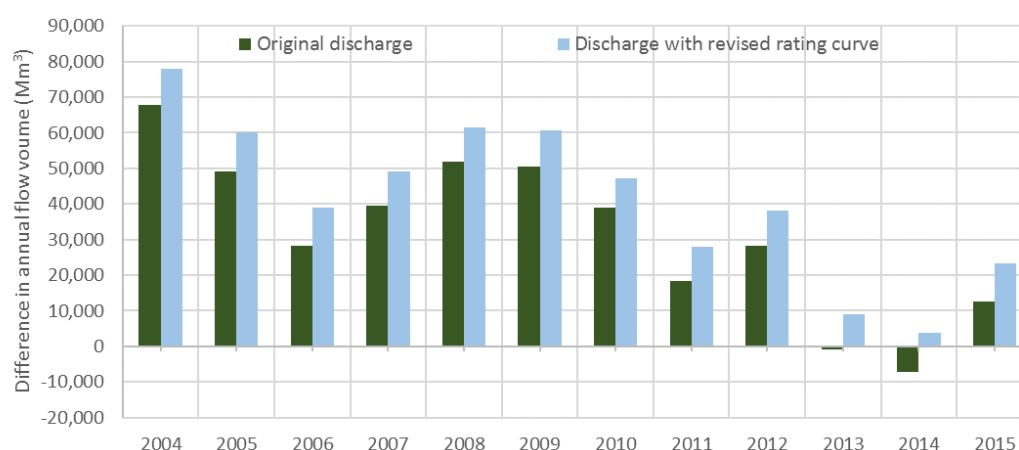
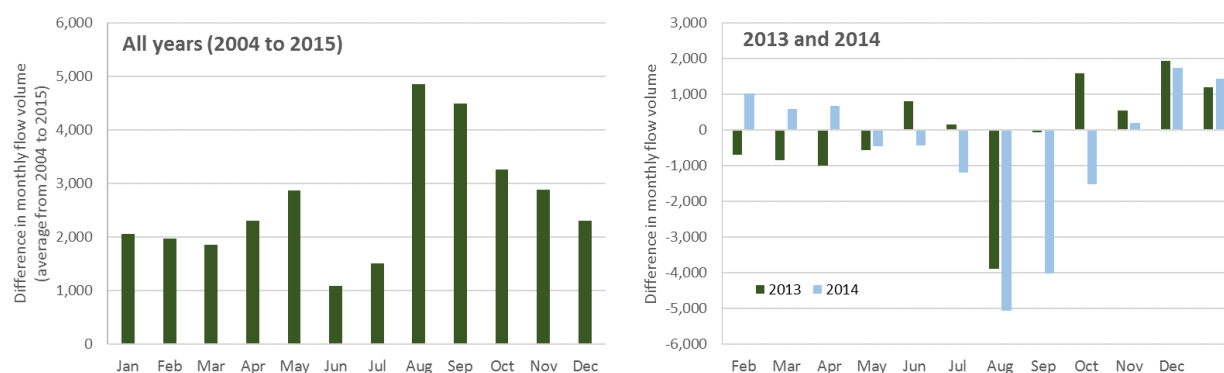


Figure 30 Average losses for each month in the Nyaung Oo to Magway reach: i) over the full period of record (2004 to 2015) (left); and ii) for years with a net loss of water (2013 and 2014) (right)



5.2.4 Magway to Pyay

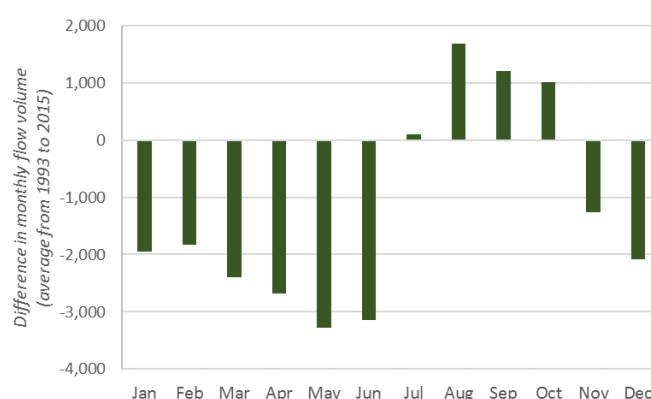
Analysis of possible reasons for water losses in the Magway to Pyay reach (Table 4) show that there are four possible explanations that require further research:

- **Data errors** - Rating curve review needed at both stations at various stage heights to identify and fix systematic errors in the rating curves and to re-derive discharge series;
- **Extraction or diversion of water for irrigation** – Need to obtain and cross-check irrigation location and use information against reaches and identify if volume of water extracted for irrigation matches losses;
- **Defiles influencing water level** - Hydraulic modelling required to identify impact of the defiles on water level and discharge; and
- **Tidal influences** - Further research required to assess possible tidal implications for discharge at Pyay. Initial tests could include hourly water level monitoring at Pyay to detect presence of tidal perturbation in water levels.

Table 12. Results of analysis of possible reasons for water losses in the Mawlaik to Monywa reach

Explanation	Results
Data errors	Not able to confirm because rating curve review not available for either station
Filling of reservoirs	Not a likely explanation as no major reservoir located in the reach or tributaries
Extraction or diversion of water for irrigation	Not able to confirm due to lack of irrigation water use information
Groundwater recharge	Not a likely explanation as no clear seasonal pattern in losses (Figure 31)
Overland flow and evaporation or bypass of channel	Not a likely explanation as losses occur in dry season when overland flow would not occur (Figure 31)
Defiles influencing water level	Possible explanation as two of the major defiles are located within the reach (Figure 25)
Tidal influences	Possible explanation as Pyay is located in the tidally affected area

Figure 31 Average losses for each month over the period of record (1993 to 2015) in the Magway to Pyay reach



6 Processing and quality summary

6.1 Overall summary

1,614 time series datasets covering 263 stations have been compiled into the Ayeyarwady WISDM time series database. The data types included are discharge, sediment, river water levels, reservoir inflows, reservoir outflows, reservoir water levels, reservoir storages, rainfall, temperature (max and min), relative humidity, wind speed, evaporation and a range of water quality parameters. Within the database, a total of 35,059 data gaps have been identified and of the 1,422,561 values analysed a total of 24,317 have been identified as possible data errors. Of these gaps and possible data errors 556 have been infilled, 47,904 could not be accurately infilled (coded as -9999) and 1,735 have been left as the original value (with a code indicating possible error/outlier). A summary of the results for each data type is provided below and a station by station summary of the quality assurance processing is provided in Appendix F.

6.2 River water level time series processing summary

Analysis of the 23 river water level datasets found that the time series are in good condition. Only 912 gaps (<1% of total data points) and 470 possible errors (<1% of total data points) were identified (Table 13). Most of these possible errors were not infilled due to the possibility that they are real (i.e. not an error). It is recommended that inspection of the identified outliers is undertaken prior to adoption of the water level datasets to confirm suitability for the intended use.

Table 13. Summary of quality assurance and infilling processing for the water level time series

Processing statistic	Number
Dataset	23
Data points	171,811
Gaps	912
Errors/outliers	470
Gaps and errors/outlier infilled	6
Gaps and errors/outlier not infilled (changed to -9999)	906
Outlier/error value not altered	470

6.3 Discharge time series processing summary

Analysis of the nine river discharge datasets found that the time series are in useful condition but require further updates. No gaps and only 723 possible errors (<1% of total data points) were identified (Table 14). Although the discharge time series mostly passed the statistical tests, a separate review of rating curves identified major issues with the ratings used in the basin including three stations for which discharge time series were obtained – Katha, Sagaing and Nyaung Oo. In addition, further investigations are required to confirm the reason for the “lost water” phenomena in four reaches (Mawlaik to Monywa, Myityina to Katha, Nyaung Oo to Magway and Magway to Pyay) as it is currently not clear if the phenomena are due to errors or have a physical explanation. Due to these limitations, the discharge time series should be used with caution and a manual check undertaken to ensure appropriateness for the intended use. Illustration of the time series is provided in Appendix G.

Table 14. Summary of quality assurance and infilling processing for the discharge time series

Processing statistic	Number
Dataset	9
Data points	84,675
Gaps	0
Errors/outliers	723
Gaps and errors/outlier infilled	0
Gaps and errors/outlier not infilled (changed to -9999)	0
Outlier/error value not altered	723

6.4 Sediment discharge time series processing summary

Analysis of the eight sediment discharge datasets found that the time series are in good condition. The statistical tests only identified 165 possible outliers (<1% of all data points) (Table 15). It is understood from discussions with DMH that the sediment discharge is calculated using an empirical relationship with discharge, but the empirical relationships used to convert discharge time series to sediment discharge could not be obtained and checked. In addition, given the possible systematic errors identified in the discharge datasets due to erroneous rating curves, the sediment discharge data should be viewed with caution and checked for appropriateness for the intended use. Illustration of the time series is provided in Appendix H.

Table 15. Summary of quality assurance and infilling processing for the sediment discharge time series

Processing statistic	Number
Dataset	8
Data points	79,255
Gaps	0
Errors/outliers	196
Gaps and errors/outlier infilled	0
Gaps and errors/outlier not infilled (changed to -9999)	0
Outlier/error value not altered	196

6.5 Meteorology time series processing summary

Analysis of the meteorological time series found that the time series are in good condition but tend to contain a large number of gaps (Table 16). For example, in the 22 rainfall stations time series, 7,699 gaps were identified (4% of data points). These gaps limit the usability of the data where long term consecutive datasets are required. The database processing has infilled these gaps where possible, but for large data gaps (more than five days), the gaps could not be reliably filled. Illustration of the time series is provided in Appendix I.

Table 16. Summary of quality assurance and infilling processing for the meteorology time series

Data type	No.	Data points	Gaps	Errors/outliers	Gaps and errors/outlier infilled	Gaps and errors/outlier not infilled ⁸	Outlier/error value not altered
Minimum temperature	15	162,801	3,872	100	69	3,903	0
Maximum temperature	15	162,846	3,827	151	89	3,891	

⁸ -9999 inserted as the value

Data type	No.	Data points	Gaps	Errors/outliers	Gaps and errors/outlier infilled	Gaps and errors/outlier not infilled ⁸	Outlier/error value not altered
Rainfall	22	187,303	7,699	1,129	40	8,790	0
Relative humidity	15	160,239	3,965	3	59	3,911	0
Wind speed	15	156,995	7,209	10,588	8	17,789	0
Wind direction	15	156,660	7,544	0	261	7,285	0

6.6 Hydropower reservoir hydrology time series processing summary

A limited amount of hydropower reservoir hydrology series were obtained. Of the eight hydropower reservoirs in the Myanmar section of the basin, daily time series for long periods (greater than five years) were obtained for only two hydropower reservoirs– Shweli 1 and Yeywa. Time series of less than six months' length were obtained for another three hydropower reservoirs - Chibwe Nge, Zawgyi 1 and Kyeeon Kyeeewa – but not further analysed due to the short period of record.

Analysis of the limited reservoir hydrology time series obtained found that they should be used with caution. There are a relatively large number of possible errors/outliers identified through the statistical checks – ranging from 12% of all the reservoir storage datapoints to 1% of the turbine outflow datapoints (none of the spillway outflow datapoints were identified as outliers) (Table 17). In most cases, the datasets may still be used with caution and a careful review to ensure suitability for the intended use. Illustration of the time series is provided in Appendix J.

Of particular concern is the reservoir storage time series, in which major errors were noted for both the Shweli 1 and Yeywa hydropower reservoirs. The Shweli 1 dataset contains a high proportion of negative values, and the Yeywa storage volume compared to recorded water level shows an inconsistency in the applied level-storage relationship. Before these datasets can be used a recalculation of the level-storage relationship should be developed and then applied to calculate a new storage dataset.

Table 17. Summary of quality assurance and infilling processing for the hydropower reservoir hydrology time series

Data type	No.	Data points	Gaps	Errors/outliers	Gaps and errors/outlier infilled	Gaps and errors/outlier not infilled ⁹	Outlier/error value not altered
Reservoir hydrology - Inflow	2	5,471	7	469	6	425	45
Reservoir hydrology - Outflow from spillway	1	2,921	1	0	1	0	0
Reservoir hydrology - Outflow from turbine	1	2,921	1	34	3	6	26
Reservoir hydrology - Outflow total	2	5,470	8	162	9	161	0

⁹ -9999 inserted as the value

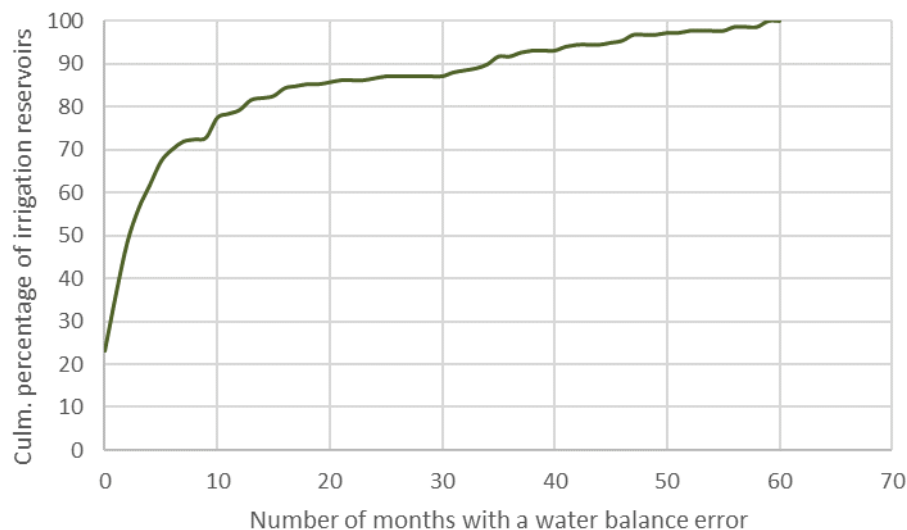
Data type	No.	Data points	Gaps	Errors/outliers	Gaps and errors/outlier infilled	Gaps and errors/outlier not infilled ⁹	Outlier/error value not altered
Reservoir hydrology - Storage	2	5,471	7	710	7	468	242
Reservoir hydrology - Water level	2	5,471	7	311	8	273	37

6.7 Irrigation and multipurpose reservoir time series processing summary

Analysis of the 225 irrigation and multipurpose reservoir monthly hydrology time series has found the datasets to be in useful condition but require further processing. 167 reservoirs (75% of the total) have at least one error in the monthly water balance and the number of errors ranges from 1 to 59 months. Most reservoirs (75%) have less than 5 months with errors and in total (i.e. across all months of all reservoirs) there are errors in about 5% of months (Figure 32). Whilst these results mean that the irrigation and multipurpose reservoir datasets need to be used with caution, and will need processing to ensure the water balance errors are fixed, much of the data appears to be in good condition and so the dataset should be adopted for use.

In addition to the monthly time series, daily time series of less than six months' length were obtained for four of the multipurpose reservoirs - Kinda, Sedawgyi, Thapanzeik and Mone – but not further analysed due to the short period of record.

Figure 32. Cumulative distribution of number of months with a water balance error for the 217 irrigation reservoirs



6.8 Evaporation and water quality time series processing summary

Only one daily evaporation dataset has been collected – at Ayartaw. Due to major errors in the data, it was therefore decided that the dataset would be provided in raw format only and no outlier detection or infilling would be undertaken.

No quality assurance processing was undertaken on the 17 water quality time series provided for the database. These files have been reformatted to be consistent but no outliers identified and no gaps infilled.

References

- Chávez-Arroyo, R. and Probst, O. (2015) Quality assurance of near-surface wind velocity measurements. Mexico. Met. Apps, 22: 165–177. doi:10.1002/met.1432 and <http://onlinelibrary.wiley.com/doi/10.1002/met.1432/pdf>;
- Yu et al. (2014) Time series outlier detection based on sliding window prediction. Mathematical problems in engineering. 1-14
- Van Der Loo, M. (2010) Distribution based outlier detection in univariate data. Discussion paper 10003 by Statistics Netherlands, Den Hague, Netherlands.

Appendix A: Datasets contained in the Ayeyarwady WISDM time series database

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1	Aunglan	19.367N	95.217E	Mean Sediment Discharge	Daily	01/01/1998	31/12/2015
2	Ayartaw	21.199539N	95.46994E	Water Level	Daily	01/01/2009	30/09/2016
3	Ayartaw	21.199539N	95.46994E	Rainfall	Daily	01/01/1993	30/06/2016
4	Ayartaw	21.199539N	95.46994E	Evaporation	Daily	01/01/2009	31/08/2016
5	Bhamo	24.267N	97.2E	Water Level	Daily	01/01/1986	31/12/2015
6	Bhamo	24.267N	97.2E	Maximum Temperature	Daily	01/01/1986	31/12/2015
7	Bhamo	24.267N	97.2E	Minimum Temperature	Daily	01/01/1986	31/12/2015
8	Bhamo	24.267N	97.2E	Rainfall	Daily	01/01/1986	31/12/2015
9	Bhamo	24.267N	97.2E	Relative Humidity	Daily	01/01/1986	31/12/2015
10	Bhamo	24.267N	97.2E	Wind Speed	Daily	01/01/1986	31/12/2015
11	Bhamo	24.267N	97.2E	Wind Direction	Daily	01/01/1986	31/12/2015
12	Bhamo	24.267N	97.2E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
13	Butalin river pumping station	Not available	Not available	Water temperature	Twice a year	15/08/2012	15/03/2015
14	Butalin river pumping station	Not available	Not available	Salinity	Twice a year	15/08/2012	15/03/2015
15	Butalin river pumping station	Not available	Not available	Electrical Conductivity	Twice a year	15/08/2012	15/03/2015
16	Butalin river pumping station	Not available	Not available	Turbidity	Twice a year	15/08/2012	15/03/2015
17	Butalin river pumping station	Not available	Not available	Arsenic	Twice a year	15/08/2012	15/03/2015
18	Butalin river pumping station	Not available	Not available	Copper	Twice a year	15/08/2012	15/03/2015
19	Butalin river pumping station	Not available	Not available	Iron	Twice a year	15/08/2012	15/03/2015
20	Butalin river pumping station	Not available	Not available	Lead	Twice a year	15/08/2012	15/03/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
21	Butalin river pumping station	Not available	Not available	Mercury	Twice a year	15/08/2012	15/03/2015
22	Butalin river pumping station	Not available	Not available	pH	Twice a year	15/08/2012	15/03/2015
23	Chit Thu	Not available	Not available	Rainfall	Daily	01/01/2009	31/12/2011
24	Danuphyu	Not available	Not available	Water temperature	Twice a year	10/09/2006	15/03/2012
25	Danuphyu	Not available	Not available	Salinity	Twice a year	10/09/2006	15/03/2012
26	Danuphyu	Not available	Not available	Electrical Conductivity	Twice a year	10/09/2006	15/03/2012
27	Danuphyu	Not available	Not available	Turbidity	Twice a year	10/09/2006	15/03/2012
28	Danuphyu	Not available	Not available	Arsenic	Twice a year	15/07/2009	03/03/2010
29	Danuphyu	Not available	Not available	Copper	Twice a year	15/07/2009	15/07/2009
30	Danuphyu	Not available	Not available	Iron	Twice a year	10/09/2006	15/03/2012
31	Danuphyu	Not available	Not available	Lead	Twice a year	15/07/2009	15/07/2009
32	Danuphyu	Not available	Not available	pH	Twice a year	10/09/2006	15/03/2012
33	Daydaye	Not available	Not available	Water temperature	Twice a year	09/09/2006	15/03/2012
34	Daydaye	Not available	Not available	Salinity	Twice a year	09/09/2006	15/03/2012
35	Daydaye	Not available	Not available	Electrical Conductivity	Twice a year	09/09/2006	15/03/2012
36	Daydaye	Not available	Not available	Turbidity	Twice a year	09/09/2006	15/03/2012
37	Daydaye	Not available	Not available	Arsenic	Twice a year	15/07/2009	15/07/2011
38	Daydaye	Not available	Not available	Copper	Twice a year	15/07/2009	15/07/2009
39	Daydaye	Not available	Not available	Cyanide	Twice a year	15/07/2011	15/07/2011
40	Daydaye	Not available	Not available	Iron	Twice a year	09/09/2006	15/03/2012
41	Daydaye	Not available	Not available	Lead	Twice a year	15/07/2009	15/07/2011
42	Daydaye	Not available	Not available	Mercury	Twice a year	15/07/2011	15/07/2011
43	Daydaye	Not available	Not available	pH	Twice a year	09/09/2006	15/03/2012
44	Gangaw	22.167N	94.133E	Water Level	Daily	01/01/2000	31/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
45	Gangaw	22.167N	94.133E	Maximum Temperature	Daily	01/01/1986	31/12/2015
46	Gangaw	22.167N	94.133E	Minimum Temperature	Daily	01/01/1986	31/12/2015
47	Gangaw	22.167N	94.133E	Rainfall	Daily	01/01/1986	31/12/2015
48	Gangaw	22.167N	94.133E	Relative Humidity	Daily	01/01/1986	31/12/2015
49	Gangaw	22.167N	94.133E	Wind Speed	Daily	01/01/1986	31/12/2015
50	Gangaw	22.167N	94.133E	Wind Direction	Daily	01/01/1986	31/12/2015
51	Gangaw	22.167N	94.133E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
52	Hinhada	17.667N	95.417E	Water Level	Daily	01/01/1986	31/12/2015
53	Hinhada	17.667N	95.417E	Maximum Temperature	Daily	01/01/1986	31/12/2015
54	Hinhada	17.667N	95.417E	Minimum Temperature	Daily	01/01/1986	31/12/2015
55	Hinhada	17.667N	95.417E	Rainfall	Daily	01/01/1986	31/12/2015
56	Hinhada	17.667N	95.417E	Relative Humidity	Daily	01/01/1986	31/12/2015
57	Hinhada	17.667N	95.417E	Wind Speed	Daily	01/01/1986	31/12/2015
58	Hinhada	17.667N	95.417E	Wind Direction	Daily	01/01/1986	31/12/2015
59	Hinhada	17.667N	95.417E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
60	Hinhada	17.667N	95.417E	Water temperature	Twice a year	10/09/2006	15/03/2012
61	Hinhada	17.667N	95.417E	Salinity	Twice a year	10/09/2006	15/03/2012
62	Hinhada	17.667N	95.417E	Electrical Conductivity	Twice a year	10/09/2006	15/03/2012
63	Hinhada	17.667N	95.417E	Turbidity	Twice a year	10/09/2006	15/03/2012
64	Hinhada	17.667N	95.417E	Arsenic	Twice a year	17/07/2009	15/03/2012
65	Hinhada	17.667N	95.417E	Cadmium	Twice a year	15/03/2012	15/03/2012
66	Hinhada	17.667N	95.417E	Copper	Twice a year	17/07/2009	17/07/2009
67	Hinhada	17.667N	95.417E	Iron	Twice a year	10/09/2006	15/03/2012
68	Hinhada	17.667N	95.417E	Lead	Twice a year	17/07/2009	15/03/2012
69	Hinhada	17.667N	95.417E	Mercury	Twice a year	15/03/2012	15/03/2012

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
70	Hinthada	17.667N	95.417E	pH	Twice a year	10/09/2006	15/03/2012
71	Hkamti	26.0N	95.7E	Water Level	Daily	01/01/1986	31/12/2015
72	Hkamti	26.0N	95.7E	Mean Discharge	Daily	01/01/1986	31/12/2015
73	Hkamti	26.0N	95.7E	Mean Sediment Discharge	Daily	01/01/1986	31/12/2015
74	Hkamti	26.0N	95.7E	Maximum Temperature	Daily	01/08/1986	31/12/2015
75	Hkamti	26.0N	95.7E	Minimum Temperature	Daily	01/08/1986	31/12/2015
76	Hkamti	26.0N	95.7E	Rainfall	Daily	01/01/1986	31/12/2015
77	Hkamti	26.0N	95.7E	Relative Humidity	Daily	01/08/1986	31/12/2015
78	Hkamti	26.0N	95.7E	Wind Speed	Daily	01/08/1986	31/12/2015
79	Hkamti	26.0N	95.7E	Wind Direction	Daily	01/08/1986	31/12/2015
80	Hkamti	26.0N	95.7E	Wind Speed m/s	Daily	01/08/1986	31/12/2015
81	Hnget Pyaw Tie	23.066151N	95.717033E	Water Level	Daily	01/04/1986	31/03/2001
82	Homalin	Not available	Not available	Water temperature	Twice a year	13/09/2006	15/03/2012
83	Homalin	Not available	Not available	Salinity	Twice a year	13/09/2006	15/03/2012
84	Homalin	Not available	Not available	Electrical Conductivity	Twice a year	13/09/2006	15/03/2012
85	Homalin	Not available	Not available	Turbidity	Twice a year	13/09/2006	15/03/2012
86	Homalin	Not available	Not available	Arsenic	Twice a year	15/07/2009	15/07/2011
87	Homalin	Not available	Not available	Copper	Twice a year	15/07/2009	15/07/2009
88	Homalin	Not available	Not available	Cyanide	Twice a year	15/07/2011	15/07/2011
89	Homalin	Not available	Not available	Iron	Twice a year	13/09/2006	15/03/2012
90	Homalin	Not available	Not available	Lead	Twice a year	15/07/2009	15/07/2011
91	Homalin	Not available	Not available	Mercury	Twice a year	15/07/2011	15/07/2011
92	Homalin	Not available	Not available	pH	Twice a year	13/09/2006	15/03/2012
93	Kalaewa	Not available	Not available	Water temperature	Twice a year	19/09/2006	15/03/2012
94	Kalaewa	Not available	Not available	Salinity	Twice a year	19/09/2006	15/03/2012

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
95	Kalaewa	Not available	Not available	Electrical Conductivity	Twice a year	19/09/2006	15/03/2012
96	Kalaewa	Not available	Not available	Turbidity	Twice a year	19/09/2006	15/03/2012
97	Kalaewa	Not available	Not available	Arsenic	Twice a year	15/07/2009	15/03/2010
98	Kalaewa	Not available	Not available	Copper	Twice a year	15/07/2009	15/07/2009
99	Kalaewa	Not available	Not available	Iron	Twice a year	19/09/2006	15/03/2012
100	Kalaewa	Not available	Not available	Lead	Twice a year	15/07/2009	15/07/2009
101	Kalaewa	Not available	Not available	pH	Twice a year	19/09/2006	15/03/2012
102	Katha	24.167N	96.333E	Water Level	Daily	01/01/1986	31/12/2015
103	Katha	24.167N	96.333E	Mean Discharge	Daily	01/01/1986	31/12/2015
104	Katha	24.167N	96.333E	Mean Sediment Discharge	Daily	01/01/1986	31/12/2015
105	Katha	24.167N	96.333E	Maximum Temperature	Daily	01/01/1986	31/12/2015
106	Katha	24.167N	96.333E	Minimum Temperature	Daily	01/01/1986	31/12/2015
107	Katha	24.167N	96.333E	Rainfall	Daily	01/01/1986	31/12/2015
108	Katha	24.167N	96.333E	Relative Humidity	Daily	01/01/1986	31/12/2015
109	Katha	24.167N	96.333E	Wind Speed	Daily	01/01/1986	31/12/2015
110	Katha	24.167N	96.333E	Wind Direction	Daily	01/01/1986	31/12/2015
111	Katha	24.167N	96.333E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
112	Khaing Kang	Not available	Not available	Water Level	Daily	01/04/2009	15/08/2012
113	Kyauk Talone	22.84119N	96.548721E	Rainfall	Daily	01/01/2009	31/03/2012
114	Magway	20.133N	94.917E	Water Level	Daily	01/03/1993	31/12/2015
115	Magway	20.133N	94.917E	Mean Discharge	Daily	01/03/1993	31/12/2015
116	Magway	20.133N	94.917E	Maximum Temperature	Daily	01/01/1986	31/12/2015
117	Magway	20.133N	94.917E	Minimum Temperature	Daily	01/01/1986	31/12/2015
118	Magway	20.133N	94.917E	Rainfall	Daily	01/01/1986	31/12/2015
119	Magway	20.133N	94.917E	Relative Humidity	Daily	01/01/1986	31/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
120	Magway	20.133N	94.917E	Wind Speed	Daily	01/03/1987	31/12/2015
121	Magway	20.133N	94.917E	Wind Direction	Daily	01/03/1987	31/12/2015
122	Magway	20.133N	94.917E	Wind Speed m/s	Daily	01/03/1987	31/12/2015
123	Magway	20.133N	94.917E	Water temperature	Twice a year	21/09/2006	15/03/2012
124	Magway	20.133N	94.917E	Salinity	Twice a year	21/09/2006	15/03/2012
125	Magway	20.133N	94.917E	Electrical Conductivity	Twice a year	21/09/2006	15/03/2012
126	Magway	20.133N	94.917E	Turbidity	Twice a year	21/09/2006	15/03/2012
127	Magway	20.133N	94.917E	Arsenic	Twice a year	25/07/2009	15/03/2012
128	Magway	20.133N	94.917E	Cadmium	Twice a year	15/03/2012	15/03/2012
129	Magway	20.133N	94.917E	Copper	Twice a year	25/07/2009	25/07/2009
130	Magway	20.133N	94.917E	Cyanide	Twice a year	15/07/2011	15/03/2012
131	Magway	20.133N	94.917E	Iron	Twice a year	21/09/2006	15/03/2012
132	Magway	20.133N	94.917E	Lead	Twice a year	25/07/2009	15/03/2012
133	Magway	20.133N	94.917E	Mercury	Twice a year	15/07/2011	15/03/2012
134	Magway	20.133N	94.917E	pH	Twice a year	21/09/2006	15/03/2012
135	Mahu	21.745119N	95.19751E	Rainfall	Daily	01/01/2009	31/12/2011
136	Mandalay	21.983N	96.1E	Water Level	Daily	01/01/1986	31/12/2015
137	Mandalay	21.983N	96.1E	Maximum Temperature	Daily	01/01/1986	31/12/2015
138	Mandalay	21.983N	96.1E	Minimum Temperature	Daily	01/01/1986	31/12/2015
139	Mandalay	21.983N	96.1E	Rainfall	Daily	01/01/1986	31/12/2015
140	Mandalay	21.983N	96.1E	Relative Humidity	Daily	01/01/1986	31/12/2015
141	Mandalay	21.983N	96.1E	Wind Speed	Daily	01/01/1986	31/12/2015
142	Mandalay	21.983N	96.1E	Wind Direction	Daily	01/01/1986	31/12/2015
143	Mandalay	21.983N	96.1E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
144	Mandalay	21.983N	96.1E	Water temperature	Twice a year	15/09/2006	15/03/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
145	Mandalay	21.983N	96.1E	Salinity	Twice a year	15/09/2006	15/03/2015
146	Mandalay	21.983N	96.1E	Electrical Conductivity	Twice a year	15/09/2006	15/03/2015
147	Mandalay	21.983N	96.1E	Turbidity	Twice a year	15/09/2006	15/03/2015
148	Mandalay	21.983N	96.1E	Suspended Solids	Twice a year	15/04/2014	15/03/2015
149	Mandalay	21.983N	96.1E	Biochemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
150	Mandalay	21.983N	96.1E	Chemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
151	Mandalay	21.983N	96.1E	Arsenic	Twice a year	27/03/2007	15/03/2015
152	Mandalay	21.983N	96.1E	Copper	Twice a year	15/07/2009	15/03/2015
153	Mandalay	21.983N	96.1E	Cyanide	Twice a year	15/07/2011	15/03/2015
154	Mandalay	21.983N	96.1E	Iron	Twice a year	15/09/2006	15/03/2015
155	Mandalay	21.983N	96.1E	Lead	Twice a year	27/03/2007	15/03/2015
156	Mandalay	21.983N	96.1E	Mercury	Twice a year	15/07/2011	15/03/2015
157	Mandalay	21.983N	96.1E	pH	Twice a year	15/09/2006	15/03/2015
158	Manipura	Not available	Not available	Water Level	Daily	08/04/2007	30/04/2012
159	Mawlaik	23.633N	94.417E	Water Level	Daily	01/01/1986	31/12/2015
160	Mawlaik	23.633N	94.417E	Mean Discharge	Daily	01/01/1986	31/12/2015
161	Mawlaik	23.633N	94.417E	Mean Sediment Discharge	Daily	01/01/1986	31/12/2015
162	Mawlaik	23.633N	94.417E	Maximum Temperature	Daily	01/01/1986	31/12/2015
163	Mawlaik	23.633N	94.417E	Minimum Temperature	Daily	01/01/1986	31/12/2015
164	Mawlaik	23.633N	94.417E	Rainfall	Daily	01/01/1986	31/12/2015
165	Mawlaik	23.633N	94.417E	Relative Humidity	Daily	01/01/1986	31/12/2015
166	Mawlaik	23.633N	94.417E	Wind Speed	Daily	01/01/1986	31/12/2015
167	Mawlaik	23.633N	94.417E	Wind Direction	Daily	01/01/1986	31/12/2015
168	Mawlaik	23.633N	94.417E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
169	Minbu	20.167N	94.883E	Water Level	Daily	01/01/1986	31/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
170	Minbu	20.167N	94.883E	Maximum Temperature	Daily	01/01/1986	31/12/2015
171	Minbu	20.167N	94.883E	Minimum Temperature	Daily	01/01/1986	31/12/2015
172	Minbu	20.167N	94.883E	Rainfall	Daily	01/01/1986	31/12/2015
173	Minbu	20.167N	94.883E	Relative Humidity	Daily	01/01/1986	31/12/2015
174	Minbu	20.167N	94.883E	Wind Speed	Daily	01/01/1986	31/12/2015
175	Minbu	20.167N	94.883E	Wind Direction	Daily	01/01/1986	31/12/2015
176	Minbu	20.167N	94.883E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
177	Monywa	22.1N	95.133E	Water Level	Daily	01/01/1986	31/12/2015
178	Monywa	22.1N	95.133E	Mean Discharge	Daily	01/01/1986	31/12/2015
179	Monywa	22.1N	95.133E	Maximum Temperature	Daily	01/01/1986	31/12/2015
180	Monywa	22.1N	95.133E	Minimum Temperature	Daily	01/01/1986	31/12/2015
181	Monywa	22.1N	95.133E	Rainfall	Daily	01/01/1986	31/12/2015
182	Monywa	22.1N	95.133E	Relative Humidity	Daily	01/01/1986	31/12/2015
183	Monywa	22.1N	95.133E	Wind Speed	Daily	01/01/1986	31/12/2015
184	Monywa	22.1N	95.133E	Wind Direction	Daily	01/01/1986	31/12/2015
185	Monywa	22.1N	95.133E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
186	Monywa	22.1N	95.133E	Water temperature	Twice a year	19/09/2006	15/03/2015
187	Monywa	22.1N	95.133E	Salinity	Twice a year	19/09/2006	15/03/2015
188	Monywa	22.1N	95.133E	Electrical Conductivity	Twice a year	19/09/2006	15/03/2015
189	Monywa	22.1N	95.133E	Turbidity	Twice a year	19/09/2006	15/03/2015
190	Monywa	22.1N	95.133E	Arsenic	Twice a year	15/07/2009	15/03/2015
191	Monywa	22.1N	95.133E	Copper	Twice a year	15/07/2009	15/03/2015
192	Monywa	22.1N	95.133E	Iron	Twice a year	19/09/2006	15/03/2015
193	Monywa	22.1N	95.133E	Lead	Twice a year	15/07/2009	15/03/2015
194	Monywa	22.1N	95.133E	Mercury	Twice a year	15/08/2012	15/03/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
195	Monywa	22.1N	95.133E	pH	Twice a year	19/09/2006	15/03/2015
196	Myinchan	Not available	Not available	Water temperature	Twice a year	15/06/2012	15/03/2015
197	Myinchan	Not available	Not available	Salinity	Twice a year	15/06/2012	15/03/2015
198	Myinchan	Not available	Not available	Electrical Conductivity	Twice a year	15/06/2012	15/03/2015
199	Myinchan	Not available	Not available	Turbidity	Twice a year	15/06/2012	15/03/2015
200	Myinchan	Not available	Not available	Suspended Solids	Twice a year	15/04/2014	15/03/2015
201	Myinchan	Not available	Not available	Biochemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
202	Myinchan	Not available	Not available	Chemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
203	Myinchan	Not available	Not available	Arsenic	Twice a year	15/06/2012	15/03/2015
204	Myinchan	Not available	Not available	Copper	Twice a year	15/04/2014	15/03/2015
205	Myinchan	Not available	Not available	Cyanide	Twice a year	15/06/2012	15/03/2015
206	Myinchan	Not available	Not available	Iron	Twice a year	15/06/2012	15/03/2015
207	Myinchan	Not available	Not available	Lead	Twice a year	15/06/2012	15/03/2015
208	Myinchan	Not available	Not available	Mercury	Twice a year	15/04/2014	15/03/2015
209	Myinchan	Not available	Not available	pH	Twice a year	15/06/2012	15/03/2015
210	Myitkyina	25.367N	97.35E	Water Level	Daily	01/01/1986	31/12/2015
211	Myitkyina	25.367N	97.35E	Mean Discharge	Daily	01/01/1999	31/12/2015
212	Myitkyina	25.367N	97.35E	Maximum Temperature	Daily	01/01/1986	31/12/2015
213	Myitkyina	25.367N	97.35E	Minimum Temperature	Daily	01/01/1986	31/12/2015
214	Myitkyina	25.367N	97.35E	Rainfall	Daily	01/01/1986	31/12/2015
215	Myitkyina	25.367N	97.35E	Relative Humidity	Daily	01/01/1986	31/12/2015
216	Myitkyina	25.367N	97.35E	Wind Speed	Daily	01/01/1986	31/12/2015
217	Myitkyina	25.367N	97.35E	Wind Direction	Daily	01/01/1986	31/12/2015
218	Myitkyina	25.367N	97.35E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
219	Myitkyina	25.367N	97.35E	Water temperature	Twice a year	13/09/2006	15/03/2012

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
220	Myitkyina	25.367N	97.35E	Salinity	Twice a year	13/09/2006	15/03/2012
221	Myitkyina	25.367N	97.35E	Electrical Conductivity	Twice a year	13/09/2006	15/03/2012
222	Myitkyina	25.367N	97.35E	Turbidity	Twice a year	13/09/2006	15/03/2012
223	Myitkyina	25.367N	97.35E	Arsenic	Twice a year	15/07/2009	15/07/2011
224	Myitkyina	25.367N	97.35E	Copper	Twice a year	15/07/2009	15/07/2009
225	Myitkyina	25.367N	97.35E	Cyanide	Twice a year	15/07/2011	15/07/2011
226	Myitkyina	25.367N	97.35E	Iron	Twice a year	13/09/2006	15/03/2012
227	Myitkyina	25.367N	97.35E	Lead	Twice a year	15/07/2009	15/07/2011
228	Myitkyina	25.367N	97.35E	Mercury	Twice a year	15/07/2011	15/07/2011
229	Myitkyina	25.367N	97.35E	pH	Twice a year	13/09/2006	15/03/2012
230	Nyaung Oo	21.2N	94.917E	Water Level	Daily	01/01/1986	31/12/2015
231	Nyaung Oo	21.2N	94.917E	Mean Discharge	Daily	01/01/2004	31/12/2015
232	Nyaung Oo	21.2N	94.917E	Maximum Temperature	Daily	01/01/1986	31/12/2015
233	Nyaung Oo	21.2N	94.917E	Minimum Temperature	Daily	01/01/1986	31/12/2015
234	Nyaung Oo	21.2N	94.917E	Rainfall	Daily	01/01/1986	31/12/2015
235	Nyaung Oo	21.2N	94.917E	Relative Humidity	Daily	01/01/1986	31/12/2015
236	Nyaung Oo	21.2N	94.917E	Wind Speed	Daily	01/01/1986	31/12/2015
237	Nyaung Oo	21.2N	94.917E	Wind Direction	Daily	01/01/1986	31/12/2015
238	Nyaung Oo	21.2N	94.917E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
239	Nyaung Oo	21.2N	94.917E	Water temperature	Twice a year	15/06/2012	15/03/2015
240	Nyaung Oo	21.2N	94.917E	Salinity	Twice a year	15/06/2012	15/03/2015
241	Nyaung Oo	21.2N	94.917E	Electrical Conductivity	Twice a year	15/06/2012	15/03/2015
242	Nyaung Oo	21.2N	94.917E	Turbidity	Twice a year	15/06/2012	15/03/2015
243	Nyaung Oo	21.2N	94.917E	Suspended Solids	Twice a year	15/04/2014	15/03/2015
244	Nyaung Oo	21.2N	94.917E	Biochemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
245	Nyaung Oo	21.2N	94.917E	Chemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
246	Nyaung Oo	21.2N	94.917E	Arsenic	Twice a year	15/06/2012	15/03/2015
247	Nyaung Oo	21.2N	94.917E	Copper	Twice a year	15/04/2014	15/03/2015
248	Nyaung Oo	21.2N	94.917E	Cyanide	Twice a year	15/06/2012	15/03/2015
249	Nyaung Oo	21.2N	94.917E	Iron	Twice a year	15/06/2012	15/03/2015
250	Nyaung Oo	21.2N	94.917E	Lead	Twice a year	15/06/2012	15/03/2015
251	Nyaung Oo	21.2N	94.917E	Mercury	Twice a year	15/04/2014	15/03/2015
252	Nyaung Oo	21.2N	94.917E	pH	Twice a year	15/06/2012	15/03/2015
253	Pakokku	21.333N	95.083E	Water Level	Daily	01/01/1998	31/12/2015
254	Pakokku	21.333N	95.083E	Maximum Temperature	Daily	01/06/1986	31/12/2015
255	Pakokku	21.333N	95.083E	Minimum Temperature	Daily	01/06/1986	31/12/2015
256	Pakokku	21.333N	95.083E	Rainfall	Daily	01/06/1986	31/12/2015
257	Pakokku	21.333N	95.083E	Relative Humidity	Daily	01/07/1987	31/12/2015
258	Pakokku	21.333N	95.083E	Wind Speed	Daily	01/02/1995	31/12/2015
259	Pakokku	21.333N	95.083E	Wind Direction	Daily	01/02/1995	31/12/2015
260	Pakokku	21.333N	95.083E	Wind Speed m/s	Daily	01/02/1995	31/12/2015
261	Pakokku	21.333N	95.083E	Water temperature	Twice a year	22/09/2006	15/03/2011
262	Pakokku	21.333N	95.083E	Salinity	Twice a year	22/09/2006	15/03/2011
263	Pakokku	21.333N	95.083E	Electrical Conductivity	Twice a year	22/09/2006	15/03/2011
264	Pakokku	21.333N	95.083E	Turbidity	Twice a year	22/09/2006	15/03/2011
265	Pakokku	21.333N	95.083E	Arsenic	Twice a year	25/03/2007	25/03/2007
266	Pakokku	21.333N	95.083E	Iron	Twice a year	22/09/2006	15/03/2011
267	Pakokku	21.333N	95.083E	Lead	Twice a year	25/03/2007	25/03/2007
268	Pakokku	21.333N	95.083E	pH	Twice a year	22/09/2006	15/03/2011
269	Paytawlay	21.541439N	96.092667E	Water Level	Daily	01/01/2009	30/09/2016

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
270	Pyay	18.8N	95.217E	Water Level	Daily	01/01/1986	31/12/2015
271	Pyay	18.8N	95.217E	Mean Discharge	Daily	01/01/1986	31/12/2015
272	Pyay	18.8N	95.217E	Mean Sediment Discharge	Daily	01/01/1986	31/12/2015
273	Pyay	18.8N	95.217E	Maximum Temperature	Daily	01/01/1986	31/12/2015
274	Pyay	18.8N	95.217E	Minimum Temperature	Daily	01/01/1986	31/12/2015
275	Pyay	18.8N	95.217E	Rainfall	Daily	01/01/1986	31/12/2015
276	Pyay	18.8N	95.217E	Relative Humidity	Daily	01/01/1986	31/12/2015
277	Pyay	18.8N	95.217E	Wind Speed	Daily	01/01/1986	31/12/2015
278	Pyay	18.8N	95.217E	Wind Direction	Daily	01/01/1986	31/12/2015
279	Pyay	18.8N	95.217E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
280	Pyay	18.8N	95.217E	Water temperature	Twice a year	22/09/2006	15/03/2012
281	Pyay	18.8N	95.217E	Salinity	Twice a year	22/09/2006	15/03/2012
282	Pyay	18.8N	95.217E	Electrical Conductivity	Twice a year	22/09/2006	15/03/2012
283	Pyay	18.8N	95.217E	Turbidity	Twice a year	22/09/2006	15/03/2012
284	Pyay	18.8N	95.217E	Arsenic	Twice a year	03/07/2009	15/03/2012
285	Pyay	18.8N	95.217E	Cadmium	Twice a year	15/03/2012	15/03/2012
286	Pyay	18.8N	95.217E	Copper	Twice a year	03/07/2009	03/07/2009
287	Pyay	18.8N	95.217E	Iron	Twice a year	22/09/2006	15/03/2012
288	Pyay	18.8N	95.217E	Lead	Twice a year	03/07/2009	15/03/2012
289	Pyay	18.8N	95.217E	Mercury	Twice a year	15/09/2011	15/03/2012
290	Pyay	18.8N	95.217E	pH	Twice a year	22/09/2006	15/03/2012
291	Sagaing	21.867N	95.983E	Water Level	Daily	01/01/1986	31/12/2015
292	Sagaing	21.867N	95.983E	Mean Discharge	Daily	01/01/1986	31/12/2015
293	Sagaing	21.867N	95.983E	Mean Sediment Discharge	Daily	01/01/1986	31/12/2015
294	Sagaing	21.867N	95.983E	Maximum Temperature	Daily	01/01/1986	31/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
295	Sagaing	21.867N	95.983E	Minimum Temperature	Daily	01/01/1986	31/12/2015
296	Sagaing	21.867N	95.983E	Rainfall	Daily	01/01/1986	31/12/2015
297	Sagaing	21.867N	95.983E	Relative Humidity	Daily	01/01/1986	31/12/2015
298	Sagaing	21.867N	95.983E	Wind Speed	Daily	01/01/1986	31/12/2015
299	Sagaing	21.867N	95.983E	Wind Direction	Daily	01/01/1986	30/12/2015
300	Sagaing	21.867N	95.983E	Wind Speed m/s	Daily	01/01/1986	31/12/2015
301	Sagyo	20.597601N	94.93792E	Water Level	Daily	01/07/2011	16/08/2012
302	Shweli 1 Hydropower Station	23.698133N	97.506472E	Inflow	Daily	01/09/2008	31/08/2016
303	Shweli 1 Hydropower Station	23.698133N	97.506472E	Outflow Total	Daily	01/09/2008	31/08/2016
304	Shweli 1 Hydropower Station	23.698133N	97.506472E	Outflow Spillway	Daily	01/09/2008	31/08/2016
305	Shweli 1 Hydropower Station	23.698133N	97.506472E	Outflow Turbine	Daily	01/09/2008	31/08/2016
306	Shweli 1 Hydropower Station	23.698133N	97.506472E	Storage	Daily	01/09/2008	31/08/2016
307	Shweli 1 Hydropower Station	23.698133N	97.506472E	Rainfall	Daily	01/09/2008	31/08/2016
308	Shweli 1 Hydropower Station	23.698133N	97.506472E	Water Level	Daily	01/09/2008	31/08/2016
309	Si-Thaung	24.107611N	96.746033E	Water Level	Daily	01/01/2003	31/12/2012
310	Sintku	Not available	Not available	Water temperature	Twice a year	15/06/2012	15/03/2015
311	Sintku	Not available	Not available	Salinity	Twice a year	15/06/2012	15/03/2015
312	Sintku	Not available	Not available	Electrical Conductivity	Twice a year	15/06/2012	15/03/2015
313	Sintku	Not available	Not available	Turbidity	Twice a year	15/06/2012	15/03/2015
314	Sintku	Not available	Not available	Suspended Solids	Twice a year	15/04/2014	15/03/2015
315	Sintku	Not available	Not available	Biochemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
316	Sintku	Not available	Not available	Chemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
317	Sintku	Not available	Not available	Arsenic	Twice a year	15/06/2012	15/03/2015
318	Sintku	Not available	Not available	Copper	Twice a year	15/04/2014	15/03/2015
319	Sintku	Not available	Not available	Cyanide	Twice a year	15/06/2012	15/03/2015
320	Sintku	Not available	Not available	Iron	Twice a year	15/06/2012	15/03/2015
321	Sintku	Not available	Not available	Lead	Twice a year	15/06/2012	15/03/2015
322	Sintku	Not available	Not available	Mercury	Twice a year	15/04/2014	15/03/2015
323	Sintku	Not available	Not available	pH	Twice a year	15/06/2012	15/03/2015
324	Tat Ywa	22.22687N	95.981407E	Water Level	Daily	01/01/1987	31/12/1992
325	Thabeikkyin	22.883N	95.983E	Mean Sediment Discharge	Daily	01/01/1986	31/12/2015
326	Thabeikkyin	22.883N	95.983E	Water temperature	Twice a year	15/06/2012	15/03/2015
327	Thabeikkyin	22.883N	95.983E	Salinity	Twice a year	15/06/2012	15/03/2015
328	Thabeikkyin	22.883N	95.983E	Electrical Conductivity	Twice a year	15/06/2012	15/03/2015
329	Thabeikkyin	22.883N	95.983E	Turbidity	Twice a year	15/06/2012	15/03/2015
330	Thabeikkyin	22.883N	95.983E	Suspended Solids	Twice a year	15/04/2014	15/03/2015
331	Thabeikkyin	22.883N	95.983E	Biochemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
332	Thabeikkyin	22.883N	95.983E	Chemical Oxygen Demand	Twice a year	15/04/2014	15/03/2015
333	Thabeikkyin	22.883N	95.983E	Arsenic	Twice a year	15/06/2012	15/03/2015
334	Thabeikkyin	22.883N	95.983E	Copper	Twice a year	15/06/2012	15/03/2015
335	Thabeikkyin	22.883N	95.983E	Cyanide	Twice a year	15/06/2012	15/03/2015
336	Thabeikkyin	22.883N	95.983E	Iron	Twice a year	15/06/2012	15/03/2015
337	Thabeikkyin	22.883N	95.983E	Lead	Twice a year	15/06/2012	15/03/2015
338	Thabeikkyin	22.883N	95.983E	Mercury	Twice a year	15/04/2014	15/03/2015
339	Thabeikkyin	22.883N	95.983E	pH	Twice a year	15/06/2012	15/03/2015
340	Yeywa Hydropower Station	21.674325N	96.474425E	Inflow	Daily	01/01/2010	30/12/2016

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
341	Yeywa Hydropower Station	21.674325N	96.474425E	Outflow Total	Daily	01/01/2010	30/12/2016
342	Yeywa Hydropower Station	21.674325N	96.474425E	Storage	Daily	01/01/2010	30/12/2016
343	Yeywa Hydropower Station	21.674325N	96.474425E	Rainfall	Daily	01/01/2010	30/12/2016
344	Yeywa Hydropower Station	21.674325N	96.474425E	Water Level	Daily	01/01/2010	30/12/2016
345	Yeywa Hydropower Station	21.674325N	96.474425E	Minimum Temperature	Daily	01/12/2009	03/09/2016
346	Yeywa Hydropower Station	21.674325N	96.474425E	Maximum Temperature	Daily	01/12/2009	03/09/2016
347	Yeywa Hydropower Station	21.674325N	96.474425E	Average Temperature	Daily	01/12/2009	03/09/2016
348	Ywatha	22.714581N	95.764069E	Rainfall	Daily	01/01/1980	31/07/2016
349	Zalun	17.486N	95.565E	Mean Sediment Discharge	Daily	01/01/1997	31/12/2015
350	Kanyin Dam Project	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
351	Kanyin Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
352	Kanyin Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
353	Kanyin Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
354	Kanyin Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
355	Kanyin Dam Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
356	Kunchaung Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
357	Kunchaung Dam	Not available	Not available	Domestic Released	Monthly	01/01/2011	01/12/2011
358	Kunchaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
359	Kunchaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
360	Kunchaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
361	Kunchaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
362	Kunchaung Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2011

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
363	Kunchaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
364	Kunchaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
365	Kyaunggya Dam Project	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
366	Kyaunggya Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2013	01/12/2015
367	Kyaunggya Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
368	Kyaunggya Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
369	Kyaunggya Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
370	Kyaunggya Dam Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2013	01/12/2015
371	Ma Mya Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
372	Ma Mya Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
373	Ma Mya Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
374	Ma Mya Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
375	Ma Mya Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
376	Mokka Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
377	Mokka Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
378	Mokka Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
379	Mokka Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
380	Mokka Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
381	Mokka Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
382	Nankathu Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
383	Nankathu Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
384	Nankathu Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
385	Nankathu Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
386	Nankathu Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
387	Nankathu Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
388	Nankathu Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
389	Ye gyaw Dam Project	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
390	Ye gyaw Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
391	Ye gyaw Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
392	Ye gyaw Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
393	Ye gyaw Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
394	Ye gyaw Dam Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
395	Alain gni Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
396	Alain gni Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
397	Alain gni Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
398	Alain gni Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
399	Alain gni Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
400	Alain gni Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2011
401	Alain gni Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
402	Baingda Dam Project	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
403	Baingda Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
404	Baingda Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
405	Baingda Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
406	Baingda Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
407	Baw ni	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
408	Baw ni	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
409	Baw ni	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
410	Baw ni	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
411	Baw ni	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
412	Baw ni	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
413	Bawbin Dam	Not available	Not available	Conduit Outlet	Monthly	01/01/2012	01/12/2014
414	Bawbin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
415	Bawbin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
416	Bawbin Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
417	Bawbin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
418	Bawbin Dam	Not available	Not available	Total Outflow	Monthly	01/01/2012	01/12/2014
419	Bawbin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
420	Bawbin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
421	Bawbin Dam Bawbin chaung	Not available	Not available	Conduit Outlet	Monthly	01/01/2012	01/12/2012
422	Bawbin Dam Bawbin chaung	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
423	Bawbin Dam Bawbin chaung	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
424	Bawbin Dam Bawbin chaung	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
425	Bawbin Dam Bawbin chaung	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
426	Bawbin Dam Bawbin chaung	Not available	Not available	Total Outflow	Monthly	01/01/2012	01/12/2012
427	Bawbin Dam Bawbin chaung	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
428	Bawbin Dam Bawbin chaung	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
429	Chaungmagyi	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
430	Chaungmagyi	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
431	Chaungmagyi	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
432	Chaungmagyi	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
433	Chaungmagyi	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
434	Gamone Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
435	Gamone Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
436	Gamone Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
437	Gamone Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
438	Gamone Dam	Not available	Not available	Total Outflow	Monthly	01/01/2013	01/12/2013
439	Gamone Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
440	Gamone Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
441	Kabaung Dam Project	Not available	Not available	Hydro Power	Monthly	01/01/2012	01/12/2014
442	Kabaung Dam Project	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2014
443	Kabaung Dam Project	Not available	Not available	Power Output	Monthly	01/01/2012	01/12/2014
444	Kabaung Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2014
445	Kabaung Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2014
446	Kabaung Dam Project	Not available	Not available	Turbine Running	Monthly	01/01/2012	01/12/2014
447	Kabaung Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2014
448	Kadugwe Dam Project	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
449	Kadugwe Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
450	Kadugwe Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
451	Kadugwe Dam Project	Not available	Not available	Total Outflow	Monthly	01/01/2013	01/12/2014
452	Kadugwe Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
453	Kangyi Gone Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
454	Kangyi Gone Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
455	Kangyi Gone Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
456	Kangyi Gone Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
457	Kangyi Gone Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
458	Kangyi Gone Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
459	Kantin Bilin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
460	Kantin Bilin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
461	Kantin Bilin Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
462	Kantin Bilin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
463	Kantin Bilin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
464	Kantin Bilin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
465	Kawliya Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
466	Kawliya Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
467	Kawliya Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
468	Kawliya Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
469	Kawliya Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
470	Khawa Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
471	Khawa Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
472	Khawa Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
473	Khawa Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
474	Khawa Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
475	Khawa Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
476	Mazin	Not available	Not available	Conduit Outlet	Monthly	01/01/2012	01/12/2014
477	Mazin	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
478	Mazin	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
479	Mazin	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
480	Mazin	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
481	Mazin	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2014
482	Mazin	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
483	Min Hla Dam	Not available	Not available	Conduit Outlet	Monthly	01/01/2012	01/12/2014
484	Min Hla Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
485	Min Hla Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
486	Min Hla Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
487	Min Hla Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
488	Min Hla Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2014
489	Min Hla Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
490	Min Ye Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
491	Min Ye Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
492	Min Ye Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
493	Min Ye Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
494	Min Ye Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
495	Min Ye Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
496	Naung Gain Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
497	Naung Gain Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
498	Naung Gain Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
499	Naung Gain Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
500	Naung Gain Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
501	Naung Gain Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
502	Nga Mwe Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
503	Nga Mwe Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
504	Nga Mwe Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
505	Nga Mwe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
506	Nga Mwe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
507	Nga Mwe Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
508	North Nawin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
509	North Nawin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
510	North Nawin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
511	North Nawin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
512	North Nawin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
513	North Nawin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
514	Pathi Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
515	Pathi Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
516	Pathi Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
517	Pathi Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
518	Pathi Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
519	Pathi Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
520	Pathi Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
521	Phyu Chaung Dam	Not available	Not available	Hydro Power	Monthly	01/01/2014	01/12/2015
522	Phyu Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
523	Phyu Chaung Dam	Not available	Not available	Power Output	Monthly	01/01/2014	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
524	Phyu Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
525	Phyu Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
526	Phyu Chaung Dam	Not available	Not available	Turbine Running	Monthly	01/01/2014	01/12/2015
527	Phyu Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
528	Pyin Bon	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
529	Pyin Bon	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015
530	Pyin Bon	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
531	Pyin Bon	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
532	Pyin Bon	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
533	Pyin Bon	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
534	Pyin Bon	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
535	Pyin Bon	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
536	Salu Dam Project	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2012	01/12/2015
537	Salu Dam Project	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
538	Salu Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
539	Salu Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
540	Salu Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
541	Salu Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
542	Salu Dam Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
543	Shwe Daung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
544	Shwe Daung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
545	Shwe Daung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
546	Shwe Daung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
547	Shwe Daung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
548	Shwe Daung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
549	Shwe Laung Dam	Not available	Not available	Conduit Outlet	Monthly	01/01/2012	01/12/2014
550	Shwe Laung Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2012	01/12/2015
551	Shwe Laung Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
552	Shwe Laung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2014
553	Shwe Laung Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
554	Shwe Laung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
555	Shwe Laung Dam	Not available	Not available	Total Outflow	Monthly	01/01/2012	01/12/2014
556	Shwe Laung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
557	Shwe Laung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
558	Singu Chaung Gaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
559	Singu Chaung Gaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
560	Singu Chaung Gaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
561	Singu Chaung Gaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
562	Singu Chaung Gaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
563	Singu Chaung Gaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
564	South Nawin Dam Diversion	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
565	South Nawin Dam Diversion	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
566	South Nawin Dam Diversion	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
567	South Nawin Dam Diversion	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
568	South Nawin Dam Diversion	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
569	South Nawin Dam Diversion	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
570	South Nawin Dam Diversion	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
571	South Nawin Dam Main	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
572	South Nawin Dam Main	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
573	South Nawin Dam Main	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
574	South Nawin Dam Main	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
575	South Nawin Dam Main	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
576	South Nawin Dam Main	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
577	Swa Chaung Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015
578	Swa Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
579	Swa Chaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
580	Swa Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
581	Swa Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
582	Swa Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
583	Swa Chaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
584	Taung Nyo Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
585	Taung Nyo Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
586	Taung Nyo Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
587	Taung Nyo Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
588	Taung Nyo Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
589	Taung Nyo Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
590	The Gaw Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
591	The Gaw Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
592	The Gaw Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
593	The Gaw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
594	The Gaw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
595	The Gaw Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
596	Thonze Dam Project	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
597	Thonze Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
598	Thonze Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
599	Thonze Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
600	Thonze Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
601	Wagadok Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
602	Wagadok Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
603	Wagadok Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
604	Wagadok Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
605	Wagadok Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
606	Wegyi Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
607	Wegyi Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
608	Wegyi Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
609	Wegyi Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
610	Wegyi Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
611	Wegyi Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
612	Yenwe DamProject	Not available	Not available	Hydro Power	Monthly	01/01/2011	01/12/2015
613	Yenwe DamProject	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
614	Yenwe DamProject	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
615	Yenwe DamProject	Not available	Not available	Power Output	Monthly	01/01/2011	01/12/2015
616	Yenwe DamProject	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
617	Yenwe DamProject	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
618	Yenwe DamProject	Not available	Not available	Turbine Running	Monthly	01/01/2011	01/12/2015
619	Yenwe DamProject	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
620	Yetho Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
621	Yetho Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
622	Yetho Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
623	Yetho Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
624	Yetho Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
625	Yetho Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
626	Zalataw	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
627	Zalataw	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
628	Zalataw	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
629	Zalataw	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
630	Zalataw	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
631	Zalataw	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
632	Laiva	Not available	Not available	G1 Power Output	Monthly	01/01/2011	01/04/2017
633	Laiva	Not available	Not available	G1 Running Time	Monthly	01/01/2011	01/04/2017
634	Laiva	Not available	Not available	G2 Power Output	Monthly	01/01/2011	01/04/2017
635	Laiva	Not available	Not available	G2 Running Time	Monthly	01/01/2011	01/04/2017
636	Laiva	Not available	Not available	Hydro Power	Monthly	01/01/2011	01/04/2017
637	Laiva	Not available	Not available	Inflow	Monthly	01/01/2011	01/04/2017
638	Laiva	Not available	Not available	Rainfall	Monthly	01/01/2011	01/04/2017

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
639	Laiva	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/04/2017
640	Laiva	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/04/2017
641	Laiva	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/04/2017
642	Kalagone Weir	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
643	Kalagone Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
644	Kalagone Weir	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
645	Kalagone Weir	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
646	Myothigole Weir	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
647	Myothigole Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
648	Myothigole Weir	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
649	Myothigole Weir	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
650	Washaung Weir	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
651	Washaung Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
652	Washaung Weir	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
653	Washaung Weir	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
654	Washaung Weir	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
655	Aingma	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
656	Aingma	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
657	Aingma	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
658	Aingma	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
659	Bangon Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015
660	Bangon Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
661	Bangon Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
662	Bangon Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
663	Bangon Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
664	Bangon Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
665	Bangon Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
666	Boke Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
667	Boke Chaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
668	Boke Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
669	Boke Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
670	Boke Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
671	Boke Chaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
672	Bwetgyi Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2012	01/12/2015
673	Bwetgyi Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
674	Bwetgyi Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
675	Bwetgyi Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
676	Bwetgyi Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
677	Bwetgyi Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
678	Bwetgyi Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
679	Bwetgyi Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
680	Gwecho Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
681	Gwecho Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
682	Gwecho Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
683	Gwecho Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
684	Gwecho Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
685	Gwecho Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
686	Gyo Pyan Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
687	Gyo Pyan Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
688	Gyo Pyan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
689	Gyo Pyan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
690	Gyo Pyan Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
691	Inbet Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
692	Inbet Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
693	Inbet Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
694	Inbet Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
695	Kantawgyi Tank	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
696	Kantawgyi Tank	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
697	Kantawgyi Tank	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
698	Kantawgyi Tank	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
699	Kantawgyi Tank	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
700	Kantawgyi Tank	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
701	Khin Mon Dam	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
702	Khin Mon Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2013	01/12/2015
703	Khin Mon Dam	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
704	Khin Mon Dam	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
705	Khin Mon Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
706	Khine Canal	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
707	Khine Canal	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
708	Khine Canal	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
709	Khingyi baluck Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
710	Khingyi baluck Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
711	Khingyi baluck Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
712	Khingyi baluck Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
713	Khingyi baluck Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
714	Kinmundaung Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
715	Kinmundaung Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
716	Kinmundaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
717	Kinmundaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
718	Kinmundaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
719	Kinmundaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
720	Kinmundaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
721	Kinmundaung Weir	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
722	Kinmundaung Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
723	Kinmundaung Weir	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
724	Kyauk Sauk Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
725	Kyauk Sauk Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
726	Kyauk Sauk Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
727	Kyauk Sauk Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
728	Kyauk Sauk Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
729	Kyauk Sauk Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
730	Kyaukdaga Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
731	Kyaukdaga Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
732	Kyaukdaga Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
733	Kyaukdaga Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
734	Kyaukdaga Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
735	Kyeon Kyeewa Dam Multipurpose Project	Not available	Not available	G1 Power Output	Monthly	01/01/2013	01/12/2014
736	Kyeon Kyeewa Dam Multipurpose Project	Not available	Not available	G1 Running Time	Monthly	01/01/2013	01/12/2014

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
737	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	G2 Power Output	Monthly	01/01/2013	01/12/2014
738	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	G2 Running Time	Monthly	01/01/2013	01/12/2014
739	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	Hydro Power	Monthly	01/01/2013	01/12/2015
740	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
741	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
742	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
743	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
744	Kyeeon Kyeewa Dam Multipurpose Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2013	01/12/2015
745	Kyet Mauk Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
746	Kyet Mauk Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
747	Kyet Mauk Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
748	Kyet Mauk Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
749	Kyet Mauk Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
750	Kyet Mauk Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
751	La Pa Na Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
752	La Pa Na Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
753	La Pa Na Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
754	La Pa Na Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
755	Laydaingzin Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
756	Laydaingzin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
757	Laydaingzin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
758	Laydaingzin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
759	Laydaingzin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
760	Laydaingzin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
761	Linzin	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
762	Linzin	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
763	Linzin	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
764	Linzin	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
765	Maday Dam	Not available	Not available	Conduit Outlet	Monthly	01/01/2011	01/12/2014
766	Maday Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
767	Maday Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015
768	Maday Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
769	Maday Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
770	Maday Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
771	Maday Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
772	Maday Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2014
773	Maday Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
774	Maday Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
775	Magyi Thonepin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
776	Magyi Thonepin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
777	Magyi Thonepin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
778	Magyi Thonepin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
779	Magyi Thonepin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
780	Mann Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
781	Mann Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
782	Mann Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
783	Mann Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
784	Mann Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
785	Mann Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
786	Mezali	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
787	Mezali	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
788	Mezali	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
789	Mezali	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
790	Min Kan Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
791	Min Kan Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
792	Min Kan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
793	Min Kan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
794	Mono Multipurpose Dam Project	Not available	Not available	Hydro Power	Monthly	01/01/2012	01/12/2012
795	Mono Multipurpose Dam Project	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2012
796	Mono Multipurpose Dam Project	Not available	Not available	Power Output	Monthly	01/01/2012	01/12/2012
797	Myaetaung Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
798	Myaetaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
799	Myaetaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
800	Myaegetaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
801	Myaegetaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
802	Myaing Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
803	Myaing Chaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
804	Myaing Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
805	Myaing Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
806	Myaing Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
807	N Ga Chin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
808	N Ga Chin Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
809	N Ga Chin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
810	N Ga Chin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
811	Naga Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
812	Naga Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
813	Naga Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
814	Naga Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
815	Naga Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
816	Natmauk Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/09/2019
817	Natmauk Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/09/2019
818	Natmauk Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/09/2019
819	Natmauk Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/09/2019
820	Natmauk Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/09/2019
821	Natmauk Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/09/2019
822	Ngamin Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
823	Ngamin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
824	Ngamin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
825	Ngamin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
826	Ngamin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
827	Ngamin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
828	Ngamin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
829	Nwetamae Canal	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
830	Nwetamae Canal	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
831	Pade Dam Project	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
832	Pade Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
833	Pade Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
834	Pade Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
835	Pade Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
836	Pade Dam Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
837	Palin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
838	Palin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
839	Palin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
840	Palin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
841	Palin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
842	Palin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
843	Phoe Ni Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
844	Phoe Ni Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
845	Phoe Ni Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
846	Phoe Ni Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
847	Phoe Ni Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
848	Pin Tank	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
849	Pin Tank	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
850	Pin Tank	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
851	Pin Tank	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
852	Pin Tank	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
853	Pwetha Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
854	Pwetha Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
855	Pwetha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
856	Pwetha Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
857	Pwetha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
858	Pwetha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
859	Pwetha Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
860	Sabe Dam	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
861	Sabe Dam	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
862	Sabe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
863	Sabe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
864	Saddan Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015
865	Saddan Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
866	Saddan Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
867	Saddan Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
868	Saddan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
869	Saddan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
870	Saddan Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
871	Salin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
872	Salin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
873	Salin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
874	Salin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
875	Salin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
876	Salin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
877	Sin Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
878	Sin Chaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
879	Sin Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
880	Sin Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
881	Sin Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
882	Sin Chaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
883	Sin Gyo Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
884	Sin Gyo Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
885	SouthMan Canal	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
886	SouthMan Canal	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
887	South Yamar Dam	Not available	Not available	Domestic Water	Monthly	01/01/2011	01/12/2015
888	South Yamar Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
889	South Yamar Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
890	South Yamar Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
891	South Yamar Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
892	South Yamar Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
893	South Yamar Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
894	Sunchaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
895	Sunchaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
896	Sunchaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
897	Sunchaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
898	Sunchaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
899	Sunchaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
900	Ta Mar Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
901	Ta Mar Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
902	Ta Mar Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
903	Ta Mar Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
904	Tagun Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
905	Tagun Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
906	Tagun Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
907	Tagun Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
908	Tattu Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
909	Tattu Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
910	Tattu Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
911	Tattu Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
912	Tattu Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
913	Taung Kha Yan Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
914	Taung Kha Yan Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
915	Taung Kha Yan Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
916	Taung Kha Yan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
917	Taung Kha Yan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
918	Taung Kha Yan Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
919	Te Gyi Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
920	Te Gyi Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
921	Te Gyi Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
922	Te Gyi Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
923	Thadut Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
924	Thadut Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
925	Thadut Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
926	Thadut Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
927	Thadut Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
928	Than U Chauk Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
929	Than U Chauk Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
930	Than U Chauk Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
931	Than U Chauk Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
932	Than U Chauk Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
933	Thirinandar Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
934	Thirinandar Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
935	Thirinandar Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
936	Thirinandar Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
937	Thirinandar Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
938	Thitgyidaw Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
939	Thitgyidaw Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
940	Thitgyidaw Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
941	Thitgyidaw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
942	Thitgyidaw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
943	Thitgyidaw Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
944	Twin Ma Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
945	Twin Ma Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
946	Twin Ma Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
947	Twin Ma Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
948	Twin Ma Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
949	Wun Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
950	Wun Chaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
951	Wun Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
952	Wun Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
953	Wun Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
954	Wun Chaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
955	Wun Lo Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
956	Wun Lo Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
957	Wun Lo Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
958	Wun Lo Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
959	Wun Lo Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
960	Wun Lo Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
961	Wun Yu Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
962	Wun Yu Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
963	Wun Yu Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
964	Wun Yu Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
965	Wun Yu Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
966	Wun Yu Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
967	YInshae Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
968	YInshae Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
969	YInshae Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
970	YInshae Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
971	Yinshae Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
972	Yinshae Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
973	Yanpe Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2011	01/12/2015
974	Yanpe Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
975	Yanpe Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
976	Yanpe Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
977	Yanpe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
978	Yanpe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
979	Yanpe Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
980	Ye Poke Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
981	Ye Poke Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
982	Ye Poke Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
983	Ye Poke Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
984	Yinmale Weir	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
985	Yinmale Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
986	Yinmale Weir	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
987	Alaungsi Thu	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
988	Alaungsi Thu	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
989	Alaungsi Thu	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
990	Alaungsi Thu	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
991	Alaungsi Thu	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
992	Alaungsi Thu	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
993	Be Kan	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
994	Chaungmagyi	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
995	Chaungmagyi	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
996	Chaungmagyi	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
997	Chaungmagyi	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
998	Chaungmagyi	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
999	Chaungmagyi	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1000	Chaung Magyi Wair	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1001	Chaung Magyi Wair	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1002	Chaung Magyi Wair	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1003	Chaung Magyi Wair	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1004	Chaung Magyi Wair	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1005	Chaung Manet Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1006	Chaung Manet Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1007	Chaung Manet Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1008	Chaung Manet Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1009	Chaung Manet Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1010	Chaung Manet Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1011	Chaung Gauk Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1012	Chaung Gauk Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1013	Chaung Gauk Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1014	Chaung Gauk Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1015	Chaung Gauk Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1016	Chaung Gauk Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1017	Chaung Mange Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1018	Chaung Mange Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1019	Chaung Mange Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1020	Chaung Mange Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1021	Chaung Mange Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2012
1022	Chaung Mange Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1023	Chaung Mange Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1024	DOE GWIN DAM	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1025	DOE GWIN DAM	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1026	DOE GWIN DAM	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1027	DOE GWIN DAM	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1028	DOE GWIN DAM	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1029	DOE GWIN DAM	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1030	Ka Din	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1031	Ka Din	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1032	Ka Din	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1033	Ka Din	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1034	Ka Din	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1035	Kanna Dam	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
1036	Kanna Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2013	01/12/2015
1037	Kanna Dam	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
1038	Kanna Dam	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
1039	Kanna Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
1040	Kanna Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2013	01/12/2015
1041	Khet Lan Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1042	Khet Lan Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1043	Khet Lan Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1044	Khet Lan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1045	Khet Lan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1046	Kin Tha Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1047	Kin Tha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1048	Kin Tha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1049	Kin Tha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1050	Kinda Mutipurpose project	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1051	Kinda Mutipurpose project	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1052	Kinda Mutipurpose project	Not available	Not available	Power Output	Monthly	01/01/2011	01/12/2015
1053	Kinda Mutipurpose project	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1054	Kinda Mutipurpose project	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1055	Kinda Mutipurpose project	Not available	Not available	Turbine Running	Monthly	01/01/2011	01/12/2015
1056	Kinda Mutipurpose project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1057	KyaukSe	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1058	KyaukSe	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1059	KyaukSe	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1060	KyaukSe	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1061	KyaukSe	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1062	KyaukSe	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1063	Kyauk Ta Lone Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1064	Kyauk Ta Lone Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1065	Kyauk Ta Lone Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1066	Kyauk Ta Lone Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1067	Kyauk Ta Lone Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1068	Kyauk Ta Lone Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1069	Kyauk Ta Lone modulating	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1070	Kyauk Ta Lone modulating	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1071	Kyauk Ta Lone modulating	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1072	Kyauk Ta Lone modulating	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1073	Kye Ni	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1074	Kye Ni	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1075	Kye Ni	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1076	Kye Ni	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1077	Kye Ni	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1078	Kyin Tha	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1079	Kyin Tha	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1080	Kyin Tha	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1081	Kyin Tha	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1082	Kyin Tha	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1083	Kyin Tha	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1084	Let Khope Pin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1085	Let Khope Pin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1086	Let Khope Pin Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1087	Let Khope Pin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1088	Let Khope Pin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1089	Lun Guin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1090	Lun Guin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1091	Lun Guin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1092	Lun Guin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1093	Madam Dam Project	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
1094	Madam Dam Project	Not available	Not available	Irrigation Supply	Monthly	01/01/2013	01/12/2015
1095	Madam Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
1096	Madam Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
1097	Madam Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
1098	Male Nat Taung DAM	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1099	Male Nat Taung DAM	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1100	Male Nat Taung DAM	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1101	Male Nat Taung DAM	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1102	Male Nat Taung DAM	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1103	Male Nat Taung DAM	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1104	Meiktila Tank	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
1105	Meiktila Tank	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1106	Meiktila Tank	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1107	Meiktila Tank	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1108	Meiktila Tank	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1109	Meiktila Tank	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1110	Min Hla	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1111	Min Hla	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1112	Min Hla	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1113	Min Hla	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1114	Min Hla	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1115	Mon Retention Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1116	Mon Retention Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1117	Mon Retention Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1118	Mon Retention Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1119	Mondaing Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1120	Mondaing Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1121	Mondaing Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1122	Mondaing Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1123	Mondaing Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1124	Mondaing Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1125	Mya Kan	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1126	Mya Kan	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1127	Mya Kan	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1128	Mya Kan	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1129	Myaing Tha Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1130	Myaing Tha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1131	Myaing Tha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1132	Myaing Tha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1133	Myaing Tha Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1134	Myauk pin Le Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1135	Myauk pin Le Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1136	Myauk pin Le Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1137	Myauk pin Le Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1138	Myauk pin Le Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1139	Myo Hla Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1140	Myo Hla Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1141	Myo Hla Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1142	Myo Hla Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1143	Myo Hla Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1144	Myo Tha Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1145	Myo Tha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1146	Myo Tha Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1147	Myo Tha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1148	Myo Tha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1149	Nag Tha Yauk	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1150	Nag Tha Yauk	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1151	Nag Tha Yauk	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1152	Nag Tha Yauk	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1153	Naglaik Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1154	Naglaik Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1155	Naglaik Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1156	Naglaik Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1157	Naglaik Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1158	Naglaik Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1159	NatKa	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1160	NatKa	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1161	NatKa	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1162	NatKa	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1163	NatKa	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1164	Natha Daw Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1165	Natha Daw Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1166	Natha Daw Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1167	Natha Daw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1168	Natha Daw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1169	Naung Ngoke To	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1170	Naung Ngoke To	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1171	Naung Ngoke To	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1172	Naung Ngoke To	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1173	Naung Ngoke To	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1174	Nyaung Bin Tha	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1175	Nyaung Bin Tha	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1176	Nyaung Bin Tha	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1177	Nyaung Bin Tha	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1178	Nyaung Bin Tha	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1179	Nyaung Gon	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1180	Nyaung Gon	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1181	Nyaung Gon	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1182	Nyaung Gon	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1183	Nyaung Gon	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1184	Nyaung Gon	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1185	Nyaung Yan	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1186	Nyaung Yan	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1187	Nyaung Yan	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1188	Nyaung Yan	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1189	Nyaung Yan	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1190	PYUGAN TANK	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1191	PYUGAN TANK	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1192	PYUGAN TANK	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1193	PYUGAN TANK	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1194	PYUGAN TANK	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1195	Pan Zwe Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1196	Pan Zwe Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1197	Pan Zwe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1198	Pan Zwe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1199	Paung Laiing Dam Project	Not available	Not available	Hydro Power	Monthly	01/01/2011	01/12/2015
1200	Paung Laiing Dam Project	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1201	Paung Laiing Dam Project	Not available	Not available	Power Output	Monthly	01/01/2011	01/12/2015
1202	Paung Laiing Dam Project	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1203	Paung Laiing Dam Project	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1204	Paung Laiing Dam Project	Not available	Not available	Turbine Running	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1205	Paung Laiing Dam Project	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1206	Paung Laiing Dam Project	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1207	Phaung Ga Daw Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1208	Phaung Ga Daw Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1209	Phaung Ga Daw Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1210	Phaung Ga Daw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1211	Phaung Ga Daw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1212	Pinn Chaung	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1213	Pinn Chaung	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1214	Pinn Chaung	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1215	Pinn Chaung	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1216	Pinn Chaung	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1217	Pon Ma Gyi	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1218	Pon Ma Gyi	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1219	Pon Ma Gyi	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1220	Pon Ma Gyi	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1221	Pon Ma Gyi	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1222	Pyaung Bya	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1223	Pyaung Bya	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1224	Pyaung Bya	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1225	Pyaung Bya	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1226	Pyaung Bya	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1227	Pyo Kan	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1228	Pyo Kan	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1229	Pyo Kan	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1230	Pyo Kan	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1231	Pyo Kan	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1232	Pyo Kan	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1233	Sedawlay Weir	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2014
1234	Sedawlay Weir	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2014
1235	Sedawlay Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2014
1236	Sedawlay Weir	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2014
1237	Sedawlay Weir	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2014
1238	Si Tha Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1239	Si Tha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1240	Si Tha Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1241	Si Tha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1242	Si Tha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1243	Si Tha Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1244	Si Tha Modunation Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1245	Si Tha Modunation Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1246	Si Tha Modunation Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1247	Si Tha Modunation Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1248	Si Tha Modunation Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1249	Sa Mon	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1250	Sa Mon	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1251	Sa Mon	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1252	Sa Mon	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1253	Sa Mon	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1254	Sa Mon	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1255	SedawgyiDam	Not available	Not available	Hydro Power	Monthly	01/01/2011	01/12/2015
1256	SedawgyiDam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1257	SedawgyiDam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1258	SedawgyiDam	Not available	Not available	Power Output	Monthly	01/01/2011	01/12/2015
1259	SedawgyiDam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1260	SedawgyiDam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1261	SedawgyiDam	Not available	Not available	Turbine Running	Monthly	01/01/2011	01/12/2015
1262	SedawgyiDam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1263	SedawgyiDam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1264	Shan Ma Nge Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1265	Shan Ma Nge Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1266	Shan Ma Nge Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1267	Shan Ma Nge Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1268	Shan Ma Nge Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1269	Sin De Wa Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1270	Sin De Wa Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1271	Sin De Wa Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1272	Sin De Wa Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1273	Sin De Wa Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1274	Sin De Wa Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1275	Sin Lan Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1276	Sin Lan Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1277	Sin Lan Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1278	Sin Lan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1279	Sin Lan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1280	Sin Lan Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1281	Sinthe Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1282	Sinthe Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1283	Sinthe Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1284	Sinthe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1285	Sinthe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1286	Sun Lun Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1287	Sun Lun Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1288	Sun Lun Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1289	Sun Lun Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1290	Sun Lun Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1291	Ta Gon Daing	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1292	Ta Gon Daing	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1293	Ta Gon Daing	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1294	Ta Gon Daing	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1295	Ta Gon Daing	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1296	Tauk Pyo Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1297	Tauk Pyo Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1298	Tauk Pyo Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1299	Tauk Pyo Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1300	Tauk Pyo Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1301	Taung Pu Lu	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1302	Taung Pu Lu	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1303	Taung Pu Lu	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1304	Taung Pu Lu	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1305	Taung Pu Lu	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1306	Taung Pu Lu	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1307	Taung Tha Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2012	01/12/2015
1308	Taung Tha Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1309	Taung Tha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1310	Taung Tha Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1311	Taung Tha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1312	Taung Tha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1313	Taung Tha Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1314	Taung Ye	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1315	Taung Ye	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1316	Taung Ye	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1317	Taung Ye	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1318	Taung Ye	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1319	Taung pin Le Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1320	Taung pin Le Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1321	Taung pin Le Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1322	Taung pin Le Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1323	Taung pin Le Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1324	Tha Baye Yoe Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1325	Tha Baye Yoe Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1326	Tha Baye Yoe Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1327	Tha Baye Yoe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1328	Tha Baye Yoe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1329	Tha Baye Yoe Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1330	Tha Phan Chaung	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1331	Tha Phan Chaung	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1332	Tha Phan Chaung	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1333	Tha Phan Chaung	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1334	Tha Phan Chaung	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1335	Tha Phan Chaung	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1336	That Taw I	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1337	That Taw I	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1338	That Taw I	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1339	That Taw I	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1340	That Taw I	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1341	That Taw II	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1342	That Taw II	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1343	That Taw II	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1344	That Taw II	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1345	That Taw II	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1346	The Byu Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1347	The Byu Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1348	The Byu Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1349	The Byu Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1350	The Byu Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1351	Thin Bon Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1352	Thin Bon Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1353	Thin Bon Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1354	Thin Bon Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1355	Thin Bon Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1356	Thit Son	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1357	Thit Son	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1358	Thit Son	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1359	Thit Son	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1360	Thit Son	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1361	U Ka We	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1362	We Laung Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1363	We Laung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1364	We Laung Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1365	We Laung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1366	We Laung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1367	Yar Gyi	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1368	Yar Gyi	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1369	Yar Gyi	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1370	Yar Gyi	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1371	YeZin Dam	Not available	Not available	Domestic Water	Monthly	01/01/2011	01/12/2012
1372	YeZin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1373	YeZin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1374	YeZin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1375	YeZin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1376	YeZin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1377	Yin Daw	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1378	Yin Daw	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1379	Yin Daw	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1380	Yin Daw	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1381	Yin Daw	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1382	Zi Daw Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1383	Zi Daw Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1384	Zi Daw Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1385	Zi Daw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1386	Zi Daw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1387	Zi Daw Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1388	kyet Mauk Taung	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
1389	kyet Mauk Taung	Not available	Not available	Irrigation Supply	Monthly	01/01/2013	01/12/2015
1390	kyet Mauk Taung	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
1391	kyet Mauk Taung	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
1392	kyet Mauk Taung	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
1393	Aingya Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1394	Aingya Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1395	Aingya Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1396	Aingya Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1397	Ayadaw Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1398	Ayadaw Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1399	Ayadaw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1400	Ayadaw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1401	Ayadaw Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1402	Bawditahtaung Dam	Not available	Not available	Domestic Water	Monthly	01/01/2011	01/12/2015
1403	Bawditahtaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1404	Bawditahtaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1405	Bawditahtaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1406	Bawditahtaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1407	Bawditahtaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1408	Gyo Gya	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1409	Gyo Gya	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1410	Gyo Gya	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1411	Gyo Gya	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1412	Gyo Gya	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1413	Hlaing Chaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1414	Hlaing Chaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1415	Hlaing Chaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1416	Hlaing Chaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1417	Hlaing Chaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1418	Htanzaloke Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1419	Htanzaloke Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1420	Htanzaloke Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1421	Htanzaloke Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1422	Htanzaloke Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1423	Htanzaloke Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1424	Ingyibin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1425	Ingyibin Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1426	Ingyibin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1427	Ingyibin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1428	Ingyithabo Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1429	Ingyithabo Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1430	Ingyithabo Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1431	Ingyithabo Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1432	Kabo Weir	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1433	Kabo Weir	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1434	Kabo Weir	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1435	Kabo Weir	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
1436	Kabo Weir	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1437	Kandaung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1438	Kandaung Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1439	Kandaung Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1440	Kandaung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1441	Kandaung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1442	Kandaung Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1443	Kintat Diversion Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1444	Kintat Diversion Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1445	Kintat Diversion Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1446	Kintat Diversion Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1447	Kintat Diversion Dam	Not available	Not available	Total Outflow	Monthly	01/01/2013	01/12/2013

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1448	Kintat Diversion Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1449	Kintat Diversion Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2013	01/12/2015
1450	Koe Bin	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1451	Koe Bin	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1452	Koe Bin	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1453	Koe Bin	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1454	Koe Bin	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1455	Koe Bin	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1456	Kyebinet	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1457	Kyebinet	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1458	Kyebinet	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1459	Kyebinet	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1460	Kyebinet	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1461	Kyebinet	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1462	Let Pan dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1463	Let Pan dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1464	Let Pan dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1465	Let Pan dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1466	Let Pan dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1467	Let Pan dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1468	Linpan Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1469	Linpan Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1470	Linpan Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1471	Linpan Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1472	Linpan Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1473	Linpan Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1474	Min Myin Dam	Not available	Not available	Inflow	Monthly	01/01/2013	01/12/2015
1475	Min Myin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2013	01/12/2015
1476	Min Myin Dam	Not available	Not available	Rainfall	Monthly	01/01/2013	01/12/2015
1477	Min Myin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2013	01/12/2015
1478	Min Myin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2013	01/12/2015
1479	Myo Thit Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1480	Myo Thit Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1481	Myo Thit Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1482	Myo Thit Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1483	Myo Thit Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1484	Myo Thit Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1485	New Gwe Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1486	New Gwe Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1487	New Gwe Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1488	New Gwe Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1489	New Gwe Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1490	New Gwe Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1491	Ngwe Tha Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1492	Ngwe Tha Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1493	Ngwe Tha Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1494	Ngwe Tha Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1495	Ngwe Tha Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1496	Ngwe Tha Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1497	North Yama Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1498	North Yama Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1499	North Yama Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1500	North Yama Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1501	North Yama Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1502	North Yama Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1503	North Yamar Modulation Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
1504	North Yamar Modulation Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1505	North Yamar Modulation Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1506	North Yamar Modulation Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1507	North Yamar Modulation Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1508	North Yamar Modulation Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1509	North Yamar Modulation Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1510	Okpo Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1511	Okpo Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1512	Okpo Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1513	Pegyi	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1514	Pegyi	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1515	Pegyi	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1516	Pegyi	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1517	Pegyi	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1518	Phaungada Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1519	Phaungada Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1520	Phaungada Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1521	Phaungada Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1522	Phaungada Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1523	Phaungada Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1524	Saligyí Dam	Not available	Not available	Inflow	Monthly	01/01/2014	01/12/2015
1525	Saligyí Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2014	01/12/2015
1526	Saligyí Dam	Not available	Not available	Rainfall	Monthly	01/01/2014	01/12/2015
1527	Saligyí Dam	Not available	Not available	Storage Balance	Monthly	01/01/2014	01/12/2015
1528	Saligyí Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2014	01/12/2015
1529	Saligyí Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2014	01/12/2015
1530	Thapanzeik Dam	Not available	Not available	Hydro Power	Monthly	01/01/2011	01/12/2015
1531	Thapanzeik Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1532	Thapanzeik Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1533	Thapanzeik Dam	Not available	Not available	Power Output	Monthly	01/01/2011	01/12/2015
1534	Thapanzeik Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1535	Thapanzeik Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1536	Thapanzeik Dam	Not available	Not available	Turbine Running	Monthly	01/01/2011	01/12/2015
1537	Thapanzeik Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1538	Thapanzeik Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1539	Thazi Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1540	Thazi Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1541	Thazi Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1542	Thazi Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1543	Thazi Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1544	Thazi Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1545	Thein Yin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1546	Thein Yin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1547	Thein Yin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1548	Thein Yin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1549	Thein Yin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1550	Ban Bwe Gone Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
1551	Ban Bwe Gone Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1552	Ban Bwe Gone Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1553	Ban Bwe Gone Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1554	Ban Bwe Gone Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1555	Ban Bwe Gone Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2015
1556	Ban Bwe Gone Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1557	Ban Bwe Gone Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1558	Kalihtaw Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
1559	Kalihtaw Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1560	Kalihtaw Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1561	Kalihtaw Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1562	Kalihtaw Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1563	Kalihtaw Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2015
1564	Kalihtaw Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1565	Kalihtaw Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1566	Lagunbyin Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
1567	Lagunbyin Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1568	Lagunbyin Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1569	Lagunbyin Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1570	Lagunbyin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1571	Lagunbyin Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2015
1572	Lagunbyin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1573	Lagunbyin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1574	Mahuya Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
1575	Mahuya Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1576	Mahuya Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1577	Mahuya Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1578	Mahuya Dam	Not available	Not available	Total Outflow	Monthly	01/01/2013	01/12/2015
1579	Mahuya Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1580	Mahuya Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1581	Ngamoeyeik Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
1582	Ngamoeyeik Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1583	Ngamoeyeik Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1584	Ngamoeyeik Dam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1585	Ngamoeyeik Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1586	Ngamoeyeik Dam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2015
1587	Ngamoeyeik Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1588	Ngamoeyeik Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015
1589	Paunglin Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
1590	Paunglin Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015

ID	Station	Latitude	Longitude	Variable	Time step	Start Date	End Date
1591	Paunglin Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1592	Paunglin Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1593	Paunglin Dam	Not available	Not available	Total Outflow	Monthly	01/01/2013	01/12/2015
1594	Paunglin Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1595	Paunglin Dam	Not available	Not available	Wastage Spilled	Monthly	01/01/2012	01/12/2015
1596	Tabuhla Dam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2012	01/12/2015
1597	Tabuhla Dam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
1598	Tabuhla Dam	Not available	Not available	Inflow	Monthly	01/01/2012	01/12/2015
1599	Tabuhla Dam	Not available	Not available	Irrigation Supply	Monthly	01/01/2012	01/12/2015
1600	Tabuhla Dam	Not available	Not available	Rainfall	Monthly	01/01/2012	01/12/2015
1601	Tabuhla Dam	Not available	Not available	Storage Balance	Monthly	01/01/2012	01/12/2015
1602	Tabuhla Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2012	01/12/2015
1603	Taung Lone Myoung Dam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1604	Taung Lone Myoung Dam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1605	Taung Lone Myoung Dam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1606	ZarmaniDam	Not available	Not available	Domestic Drinking Water	Monthly	01/01/2011	01/12/2015
1607	ZarmaniDam	Not available	Not available	Domestic Industrial Use	Monthly	01/01/2012	01/12/2015
1608	ZarmaniDam	Not available	Not available	Inflow	Monthly	01/01/2011	01/12/2015
1609	ZarmaniDam	Not available	Not available	Irrigation Supply	Monthly	01/01/2011	01/12/2015
1610	ZarmaniDam	Not available	Not available	Rainfall	Monthly	01/01/2011	01/12/2015
1611	ZarmaniDam	Not available	Not available	Storage Balance	Monthly	01/01/2011	01/12/2015
1612	ZarmaniDam	Not available	Not available	Total Outflow	Monthly	01/01/2011	01/12/2015
1613	ZarmaniDam	Not available	Not available	Wastage Evap & Other	Monthly	01/01/2011	01/12/2015
1614	ZarmaniDam	Not available	Not available	Wastage Spilled	Monthly	01/01/2011	01/12/2015

Appendix B: Spatial data compiled

This Annex provides a short description of the spatial data compiled but not included in the time series database.

Digital elevation model, catchment delineation and stream lines

Digital Elevation Model (DEM – 30m cell size), catchment delineation and stream lines spatial files were provided by the International Institute of Water Management (IWMI) and Myanmar Information Management Unit (MIMU). These files were analysed to identify their scope, resolution and appropriateness for Source modelling.

The DEM and catchment delineation layers cover the Ayeryarwady basin within the Myanmar borders but are missing some highland sections located in India (flowing into the Chindwin basin) and China (flowing into the Mytinge/Ayeyarwady basins) (Figure 33 and Figure 34). The stream network covers the entire Ayeryarwady basin (Figure 35).

The sub catchment delineation and drainage lines for the Ayeyarwady Basin have been obtained at two scales: i) broad hydro-ecological zones and major waterways (Figure 33) and; ii) fine scale catchment delineation and drainage (Figure 34 and Figure 35). The fine scale sub catchment delineation layer contains 2,954 sub catchments, which range between 0.2 to 498 km² with an average sub catchment size of 132 km². The stream networks are well defined except for within the delta region, where some reaches are disconnected due to low gradient definition within the DEM (i.e. flat areas). The meta data for the stream networks does not include stream order information.

Land use and soil type

Two land use/vegetation layers have been provided: i) LULC UNEP 2000 provided by IWMI and MIMU; and ii) a Forest Cover raster provided by the Forest Department.

The LULC UNEP 2000 layer contains coarse polygons of vegetation types including deciduous forest, evergreen forest, mangrove, scrubland, agriculture and waterbodies (Figure 36). This layer does not include any spatial information on urban and/or settlement areas or roads and does not extend beyond the border of Myanmar. This layer currently does not provide enough detail (resolution and categories) for use within the Source model and would require further refinement and additional information (e.g. urban and/or settlement areas).

The Forest Cover raster (Forest_cover1.tif) has a higher resolution (30m cell size) compared to the LULC UNEP 2000 layer. The difference in resolution between the two land use layers around the Myanmar city of Mandalay is shown in Figure 37. The Forest Cover layer is not limited to vegetation, and contains the following categories: closed forest, open forest, other woodland, cropland, settlements, wetlands, mangroves, snow, water and grasslands. This layer only covers the Myanmar area of the Ayeryarwady basin and is missing some highland sections located in India and China. The Forest Cover raster layer would be suitable for use within the Source model, although it does not include roads as a classification.

A hardcopy geological map of Myanmar has been provided to the PMU by the Myanmar Geosciences Society but to date this has not been obtained in softcopy. The geological map shows locations and descriptions of sedimentary, metasedimentary, metamorphic and igneous rocks for the whole basin. No soil map has been identified to date and the team have been advised by the PMU that it is unlikely to exist.

Figure 33: DEM, hydro-ecological zones and major waterways of the Ayeyarwady Basin

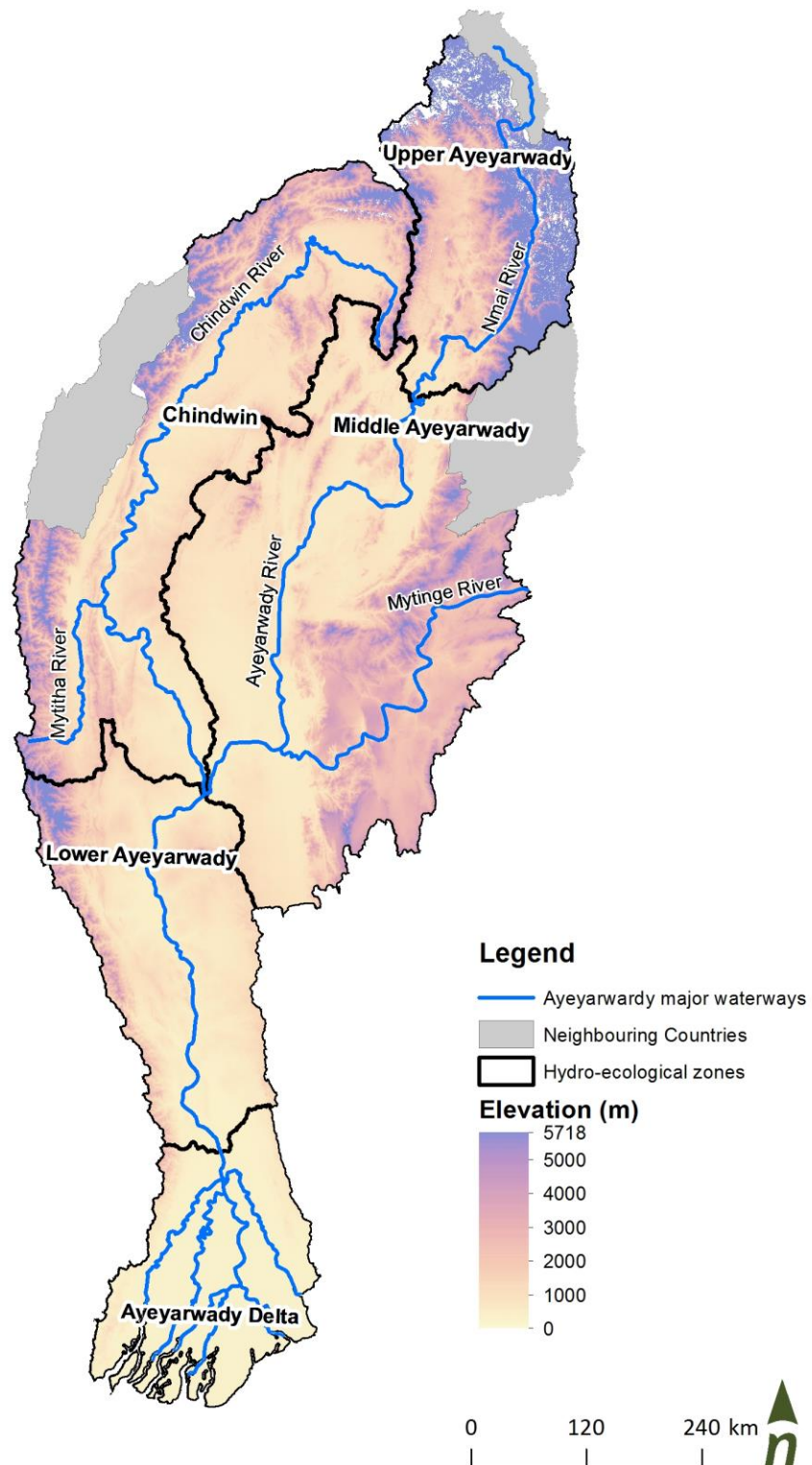


Figure 34: DEM and sub catchments of the Ayeyarwady Basin (2,954 sub catchments excluding the basin area located in India and China)

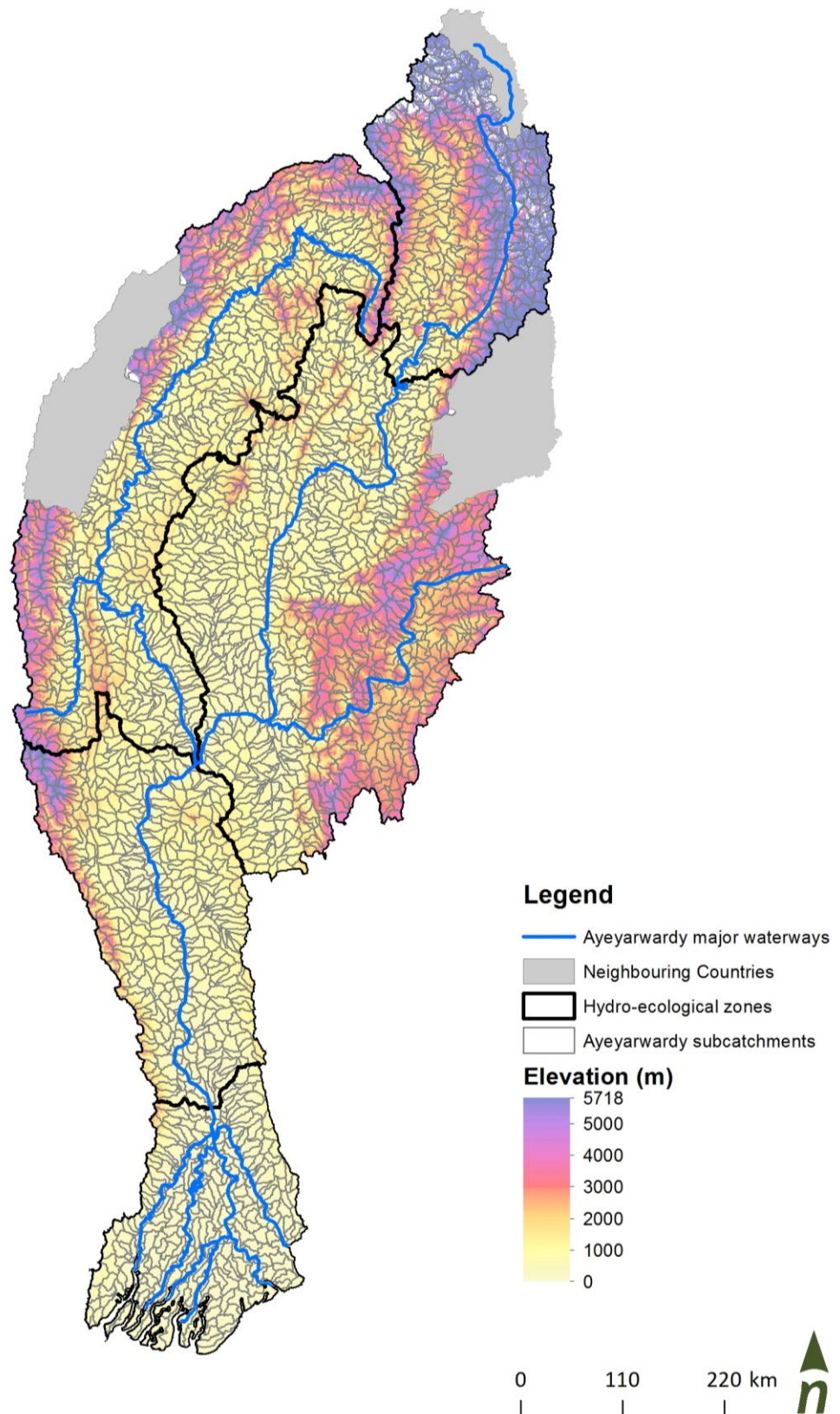


Figure 35: DEM and drainage lines of the Ayeyarwady basin

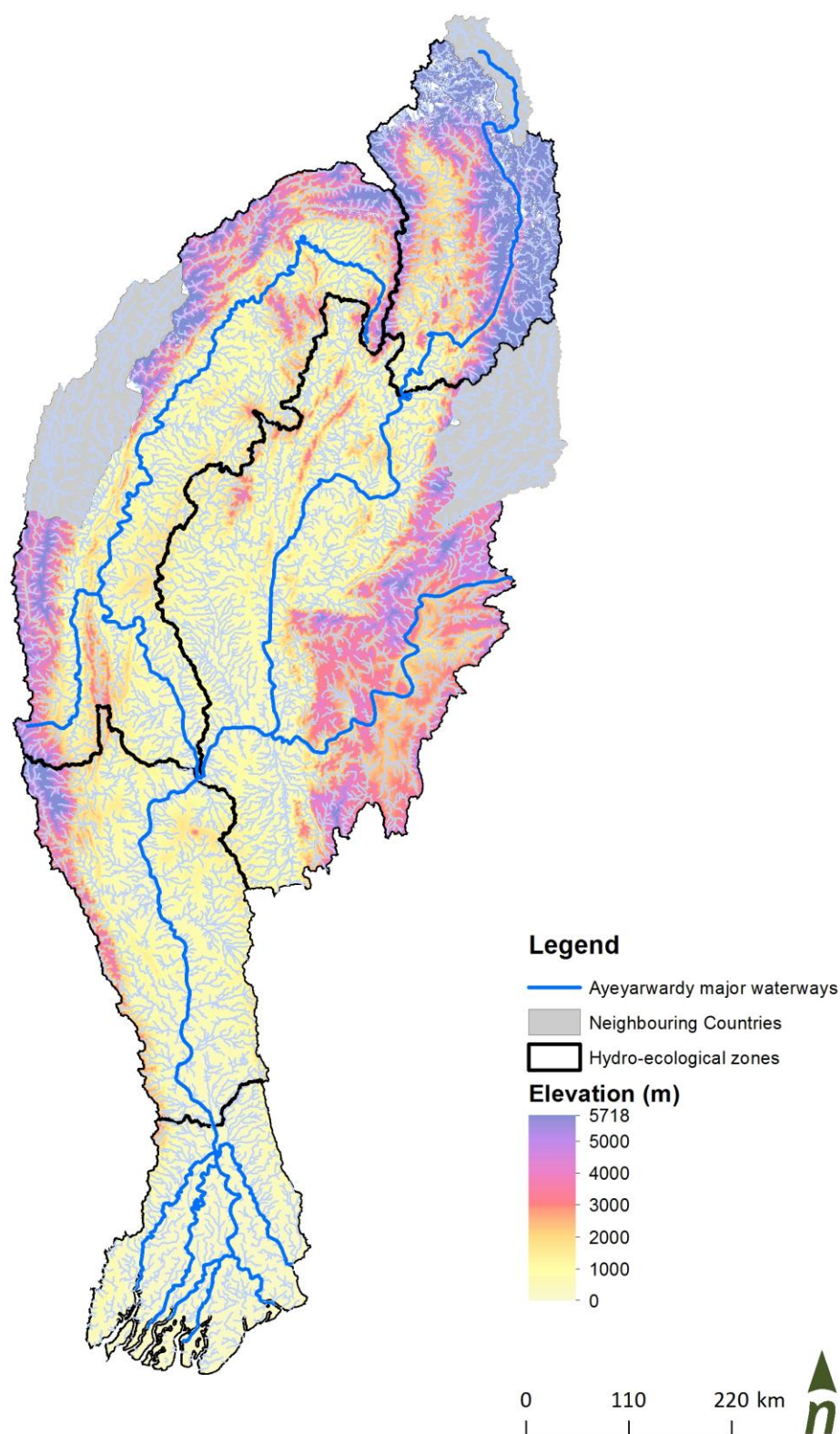


Figure 36: LULC UNEP 2000 land use map of the Ayeyarwardy Basin (data not available for India and China sections of the basin)

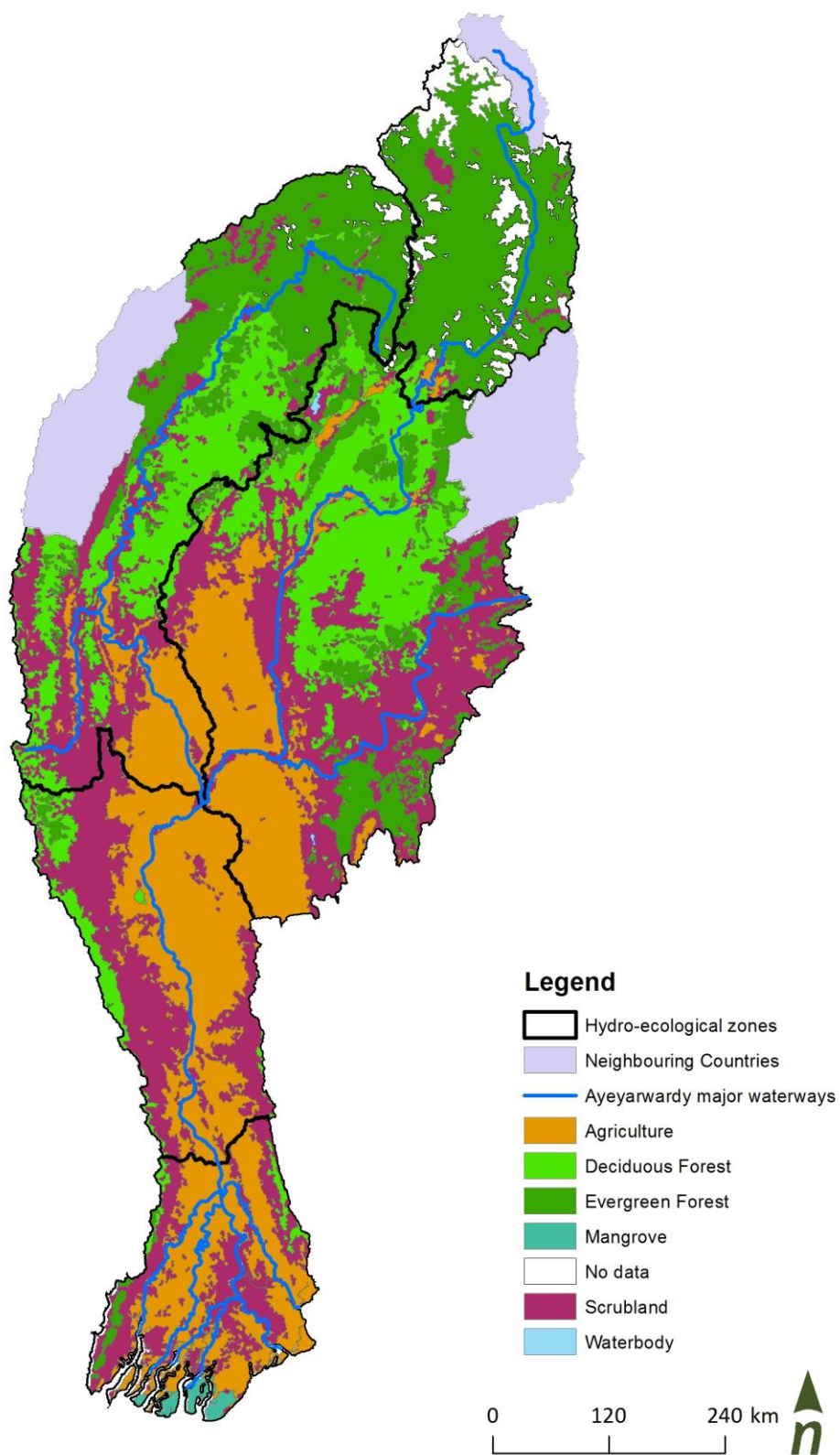
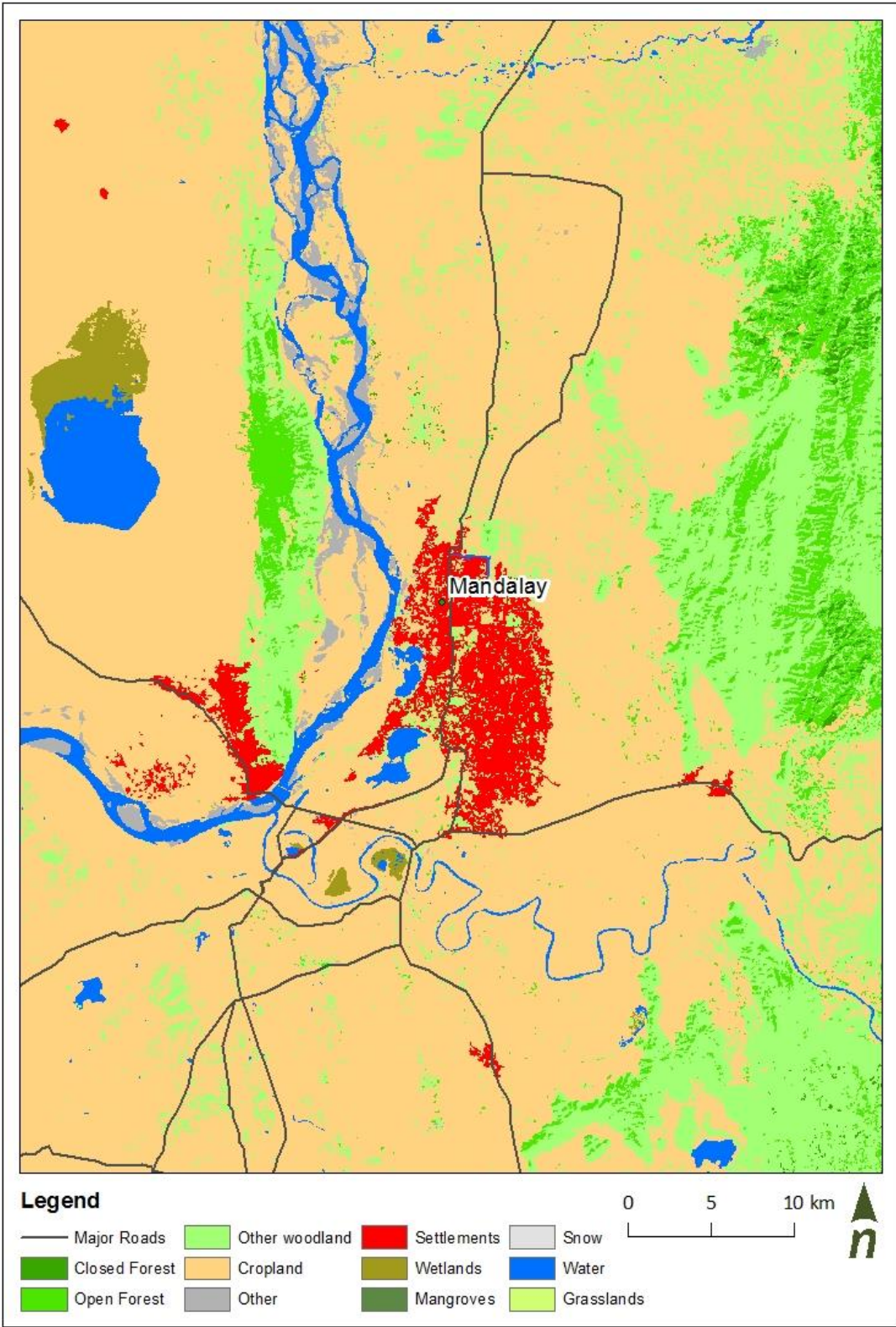
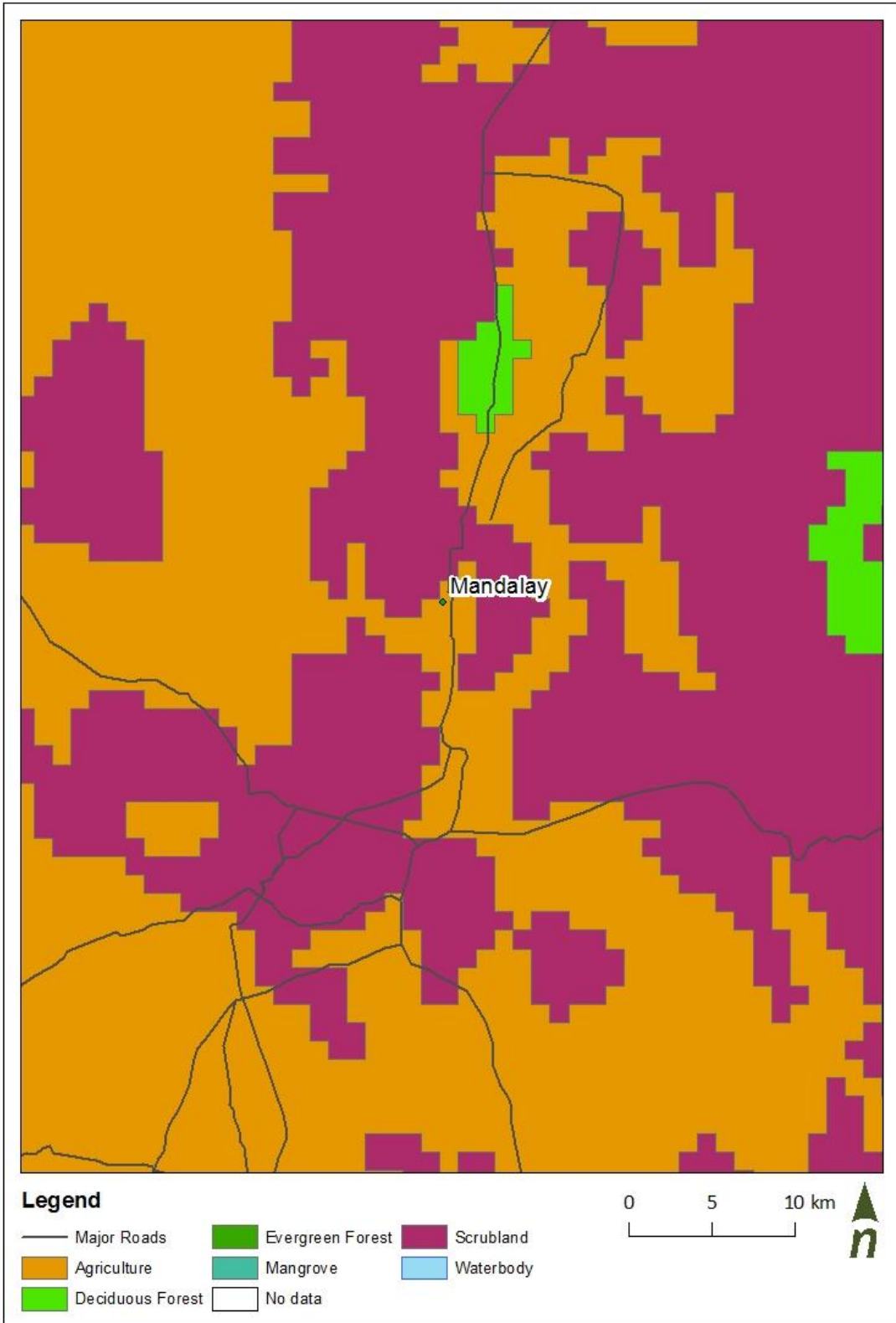


Figure 37: Resolution and data quality comparison between the LULC UNEP 2000 and Forest Cover land use layers. The Forest Cover raster layer is suitable for input into the Source model and the LULC layer is too coarse



Forest_Cover1.tif land use layer resolution around Mandalay, Myanmar with major roads overlayed. The urban area of Mandalay and river network are well defined.



LULC_UNEP_2000 land use layer resolution around Mandalay, Myanmar with major roads overlayed. The urban areas of Mandalay and river network is not represented in this layer

Other spatial datasets

An additional 22 spatial datasets were compiled and are summarised in Table 18.

Table 18. Other spatial datasets compiled

ID	Data type	Received from	Notes
1	Water supply network map for Mandalay	Mandalay City Development Council	In JPEG format
5	Salinity intrusion maps (2012 to 2016, in Myanmar font, A3 & A4 size) [Yangon River (Hlaing River), Twantay Canal, Patheingyi River, Pya Ma Law River, Ayeyarwady River (Yar Zu River), Bogalay River, Pyapon River, Toe River]	Irrigation and Water Utilization Management Department	In PDF format
7	Village spatial data	International Water Management Institute and Myanmar Information Management Unit	Shapefile Attributes: State Regi, D_Pcode, District, TS_Pcode, Township, VT_Pcode, Village, Longitude, Latitude, VT, Vill_Pcode
8	State/Regional census boundaries. Includes census data inc area, total population, female, male	International Water Management Institute and Myanmar Information Management Unit	Shapefile
9	Township census boundaries - population data	International Water Management Institute and Myanmar Information Management Unit	Shapefile
10	State, District, Township, area	International Water Management Institute and Myanmar Information Management Unit	Shapefile
11	Township data.	International Water Management Institute and Myanmar Information Management Unit	Shapefile Attributes: State Divi, D_Pcode, District, TS_Pcode, Township, Town_Pcode, Town, Longitude, Latitude, Level, Elev_meter
12	District Level Population Density	International Water Management Institute and Myanmar Information Management Unit	Shapefile
13	Township Level Population Density	International Water Management Institute and Myanmar Information Management Unit	Shapefile

14	Water bodies spatial layers	International Water Management Institute and Myanmar Information Management Unit	Shapefiles
15	Road layers	International Water Management Institute and Myanmar Information Management Unit	Shapefile
16	Railway layer.	International Water Management Institute and Myanmar Information Management Unit	Shapefile
17	Myanmar boundary	International Water Management Institute and Myanmar Information Management Unit	Shapefile
18	States of Myanmar	International Water Management Institute and Myanmar Information Management Unit	Shapefile
19	Districts of Myanmar including pop density	International Water Management Institute and Myanmar Information Management Unit	Shapefile
20	Townships of Myanmar including State, District	International Water Management Institute and Myanmar Information Management Unit	Shapefile
21	Administration boundary - sea, international border and three classes of internal borders for states, districts and townships	International Water Management Institute and Myanmar Information Management Unit	Shapefile
22	Self administered zone boundaries	International Water Management Institute and Myanmar Information Management Unit	Shapefile

Appendix C: Quality check and infilling approaches adopted

Variable Type	Parameters	QA/QC approaches
Highly/moderately autocorrelated daily time series	Discharge	<p>Consistency check and outlier detection</p> <ol style="list-style-type: none"> 1. Use a sliding-window prediction model to identify if the central value falls within a prediction bound. Refer to paper, Yu (2014) for equations and explanations. 2. Use two-sided neighbour windows with window width $k = 5$ (i.e. $2k$ is the size of the neighbourhood window, starting at $i - k$ and ending at $i + k$ (not including i). The window width illustrates the relations between the data point of interest and its nearest neighbours and can account for autocorrelation commonly found in hydrologic time series $\eta_i^{(k)} = \{d_{i-k}, \dots, d_{i-1}, d_{i+1}, \dots, d_{i+k}\}.$ $d_i = (v_1, t_1) \text{ where measurement } v_1 \text{ at moment } t_1 \text{ at any given point}$ <ol style="list-style-type: none"> 3. Predict v_1 using the equations below: $\bar{v}_i = \frac{(\sum_{j=1}^k w_{i-j} v_{i-j} + \sum_{j=1}^k w_{i+j} v_{i+j})}{(\sum_{j=1}^k w_{i-j} + \sum_{j=1}^k w_{i+j})},$ <p>Where $\langle w_{i-k}, \dots, w_{i-1}, w_{i+1}, w_{i+k} \rangle$ = weight of the neighbourhood which can be assigned values as $\langle 1, 2, \dots, k, k, \dots, 2, 1 \rangle$.</p> <ol style="list-style-type: none"> 4. A confidence boundary, <i>PCI</i> can be calculated via the predicted value and confidence coefficient of $p = 99$, $\alpha = 0.01$ (i.e.g 99% prediction confidence interval) with s being the standard deviation of the model residuals: $PCI = \bar{v}_i \pm t_{\alpha/2, 2k-1} \times s \sqrt{1 + \frac{1}{2k}}$ <ol style="list-style-type: none"> 5. Apply a tolerance rate of either ± 5 absolute values of the predicted values or $\pm 2\%$ of the predicted values for all parameters to decrease chances of false positive detection. 6. Any values that fall outside of the tolerance rate will be flagged as outliers where flow events are more likely to rise and fall within one to two days, and values are retained for manual inspection. 7. Data codes used to identify possible errors but no infilling completed
	Sediment Discharge	
	Water Level (Stream)	
	Reservoir inflows	

Variable Type	Parameters	QA/QC approaches
	Water Level (Reservoir)	<p>Consistency check and outlier detection</p> <ol style="list-style-type: none"> 1. Ensure that the values are ≥ 0 and flag any negative values as outliers. 2. Use a sliding-window prediction model to identify if the central value falls within a prediction bound. Refer to paper, Yu (2014) for equations and explanations. 3. Use one-sided neighbour windows with window width k = 5 (i.e. $2k$ is the size of the neighbourhood window, starting at $i - 2k$ and ending at $i - 1$. The window width illustrates the relations between the data point of interest and its nearest neighbours and can account for autocorrelation commonly found in hydrologic time series. $\eta_i^{(k)} = \{d_{i-2k}, d_{i-2k+1}, \dots, d_{i-1}\}$ <ol style="list-style-type: none"> 4. Predict v_1 using the equations below: $\bar{v}_i = \frac{\sum_{j=1}^{2k} w_{i-j} v_{i-j}}{\sum_{j=1}^{2k} w_{i-j}}$, where the weight vector $\langle w_{i-2k}, w_{i-2k+1}, \dots, w_{i-1} \rangle$ is assigned with values of $\langle 1, 2, \dots, 2k \rangle$ 5. A confidence boundary, <i>PCI</i> can be calculated via the predicted value and confidence coefficient of $p = 99$, $\alpha = 0.01$ (i.e.g 99% prediction confidence interval) with s being the standard deviation of the model residuals: $PCI = \bar{v}_i \pm t_{\alpha/2, 2k-1} \times s \sqrt{1 + \frac{1}{2k}}$ 6. Use a tolerance level of 3m for reservoir water level, and a tolerance of 10% of the full supply volume for reservoir storage. 7. Any outlier detected will be flagged. If a value is flagged as an outlier, that value is excluded in subsequent calculations as the window moves forward in time. 8. If information is available, check for a consistent storage-level-area relationship to confirm the detected outliers. If confirmed, treat the outliers as gaps, if the storage-level curve is available, use the recorded water level to calculate storage, otherwise the values are flagged and will not be infilled. 9. If the number of outliers exceeds 100, review the whole dataset for reliability. It is not recommended to use the dataset for modelling if the dataset is unreliable. 10. Assign quality codes to flag daily records which have been altered as part of the quality control.
	Reservoir storage	

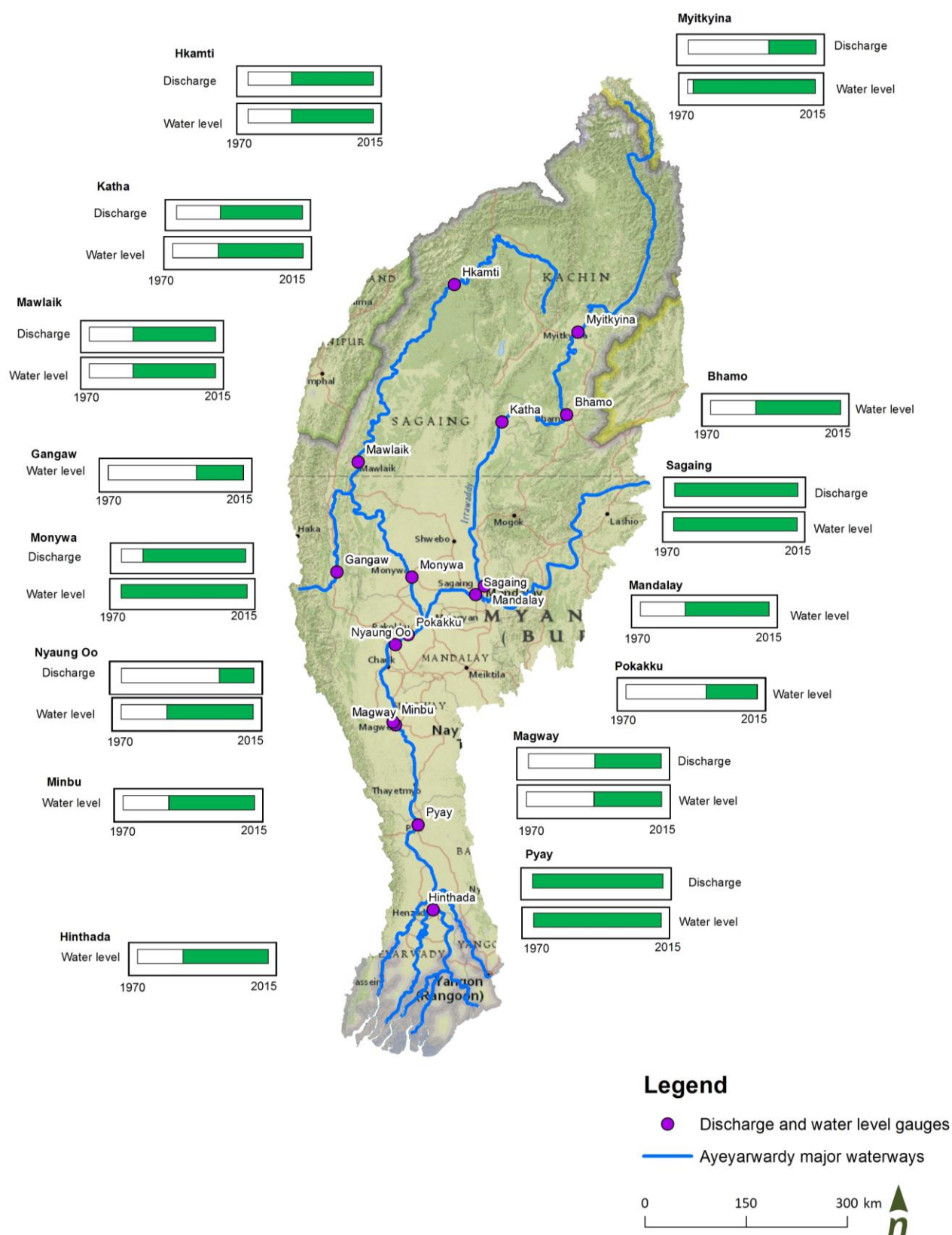
Variable Type	Parameters	QA/QC approaches
Low autocorrelated daily time series	Rainfall	<p>Consistency check and outlier detection</p> <ol style="list-style-type: none"> 1. Consistency checks of rainfall data with seasons e.g. average rainfall should be lower in non-monsoon seasons (mid-Oct to mid-May) 2. Consistency checks of rainfall data ensuring values are not negative. <p>Infilling data gaps</p> <ol style="list-style-type: none"> 3. Construct a correlation table of all climate stations comparing CHIRPS dataset and actual dataset and displays the regression equations and R² values. Daily time series of all dataset should be aggregated to a monthly time series. 4. Construct a correlation table of all climate stations comparing neighbouring stations and display the regression equations and R² values. 5. Use the best R² values from the correlation table of the CHIRPS dataset and neighbouring stations* for stations that have gaps of less than 5 days. For example if gaps in Bhamo need to be infilled, check if R² between neighbouring gauged station or the R² of CHIRPS data and gauged data of Bhamo is higher, then use the higher R² values for infilling) 6. SPECIAL CASE: Due to the rainfall variability among the stations, Bhamo and Myitkyina are classified as “unimodal” and other stations are classified as “bimodal”. For infilling these stations, they should only be compared with each other, or with the closest station at Katha. 7. For large data gaps (more than 5 days) found during the processing stage, do not infill and flag with a quality code 8. Assign quality codes to flag daily records which have been altered as part of the quality control
	Temperature	<p>Consistency check and outlier detection</p> <ol style="list-style-type: none"> 1. Consistency checks of temperature data with seasons e.g. temperature should be lower in non-monsoon seasons (mid-Oct to mid-May) 2. Since temperature data follows a normal distribution, use the Grubb's outlier test to identify any outlier. <p>Infilling data</p> <ol style="list-style-type: none"> 3. Any outlier will be treated as a gap and infilled using correlation with another site if gaps are less than 5 days. Construct a correlation table of all stations and use the best R² relationship for any infill 4. For large data gaps (more than 5 days) found during the processing stage, do not infill and flag with a quality code 5. Assign quality codes to flag daily records which have been altered as part of the quality control
	Relative Humidity	<p>Consistency check and outlier detection</p> <ol style="list-style-type: none"> 1. Consistency checks of relative humidity data with temperature e.g. when temperature increases, humidity decreases 2. As relative humidity follows a Weibull distribution, refer to van der Loo (2010) for methods of identifying outliers. There is also an R package created by the same author called “extremevalues” and it is available via the CRAN web archive which could be checked and used if appropriate

Variable Type	Parameters	QA/QC approaches
		Infilling data <ol style="list-style-type: none"> Any outlier will be treated as a gap and infilled using correlation with another site if gaps are less than 5 days. Construct a correlation table of all stations and use the best R^2 relationship for any infill For large data gaps (more than 5 days) found during the processing stage, do not infill and flag with a quality code Assign quality codes to flag daily records which have been altered as part of the quality control
Others	Wind Speed	Consistency check and outlier detection <ol style="list-style-type: none"> Cross – check wind speed data with wind direction (e.g. if wind speed = 0 then wind direction = “calm”) Undertake a frequency count analysis for the different numbers of consecutive repetition of wind speed ≤ 2.5mph (or 1.1176m/s) and wind speed > 2.5 mph (or 1.1176 m/s) to identify the maximum number of consecutive records to be valid. Refer to Chávez-Arroyo and Probst (2015) for explanation and equation. For low wind speed (≤ 2.5mph or 1.1176m/s), the threshold value of which the maximum number of consecutive records to be accepted is then selected when the value first exceeds the 99.5% of cumulated frequencies. For high wind speed (> 2.5 mph or 1.1176 m/s), the threshold value of which the maximum number of consecutive records to be accepted is 7 consecutive days. Number of consecutive records above the threshold values will be flagged as outliers. Infilling data <ol style="list-style-type: none"> Identified outliers will be treated as gaps and will be infilled using correlation with another site if gaps are less than 5 consecutive days. Construct a correlation table of all stations and use the best R^2 relationship for any infill. Flagged outliers will not be treated as gaps and will not be infilled. For large data gaps (more than 5 days) found during the processing stage, do not infill and flag with a quality code Assign quality codes to flag daily records which have been altered as part of the quality control
	Reservoir outflows	Consistency check and outlier detection <ol style="list-style-type: none"> Check that all values ≥ 0. Where turbine outflow is separated from spillway (e.g. Shweli1), flag any outlier that lies outside of 3 standard deviations from the mean value. Where only total outflow is available (e.g. spillway + turbine at Yeywa), flag any outlier that lies outside of 3 standard deviations from the mean value when reservoir water level is less than 184.5m at Yeywa hydropower station. Infilling data <ol style="list-style-type: none"> Any outlier will be treated as a gap and infilled using linear interpolation if gaps are less than 2 days. Any outlier with gaps more than 2 days, do not infill and flag with a quality code. Assign quality codes to flag daily records which have been altered as part of the quality control

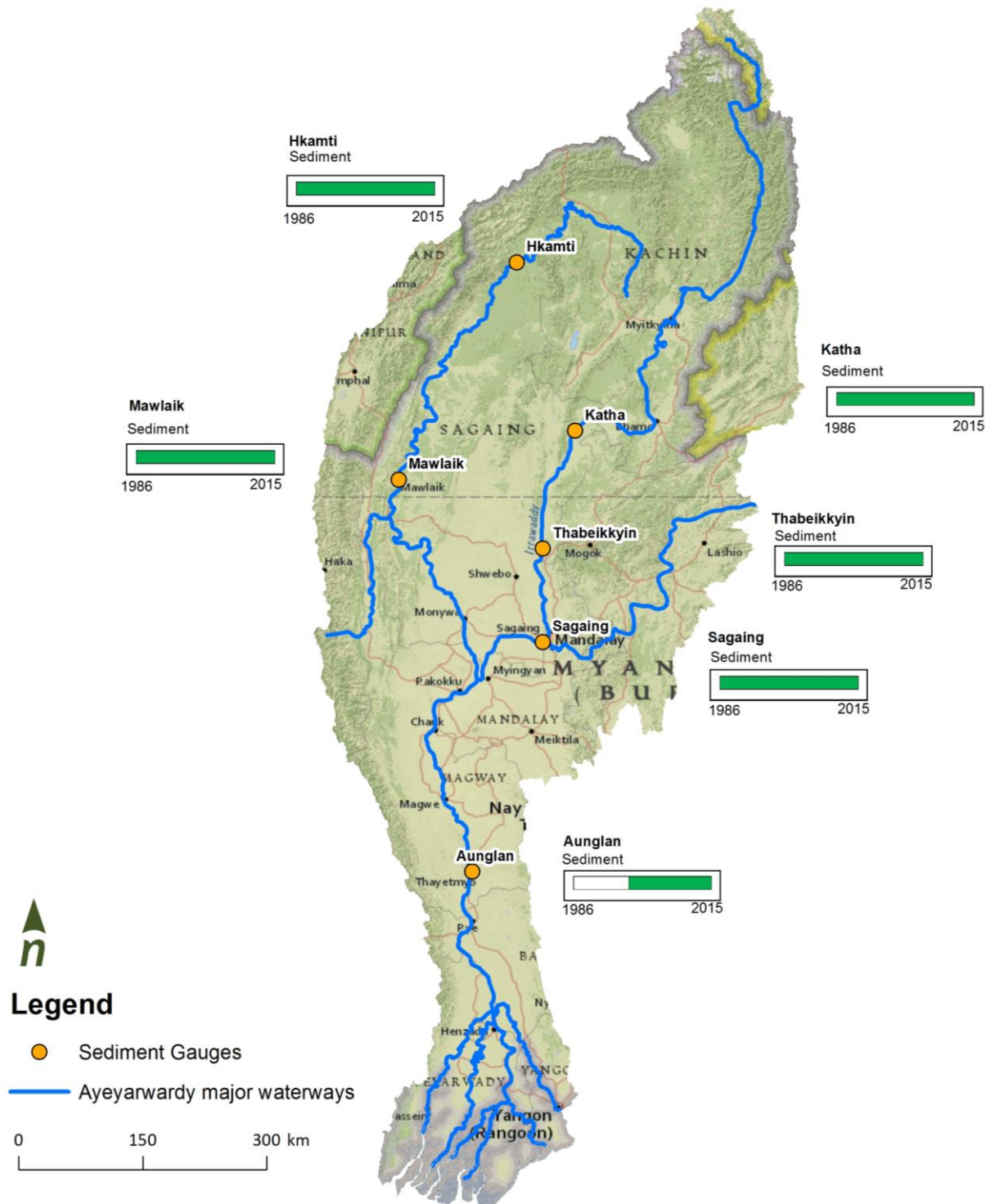
Appendix D: Station locations within Ayeyarwady WISDM time series database

Location of water level, discharge and meteorological* stations provided by DMH showing periods of record for discharge and water level

*Meteorological parameters include rainfall, maximum temperature, minimum temperature, wind speed, wind direction and relative humidity



Location and length of records for sediment discharge stations provided by DMH



The location of the following stations could not be obtained: Butalin river pumping station; Chit Thu; Danuphyu; Daydaye; Homalin/ Kalaewa; Khaing Kang; Manipura; Myinchan; and Sintku



Location of hydropower and multipurpose reservoirs showing length of records for the two reservoirs for which more than one year of data has been obtained (Shweli and Yeywa)

Shweli

Inflow



Outflow totals



Rainfall



Storage

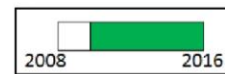


Water level



Yeywa

Inflow



Outflow totals



Rainfall



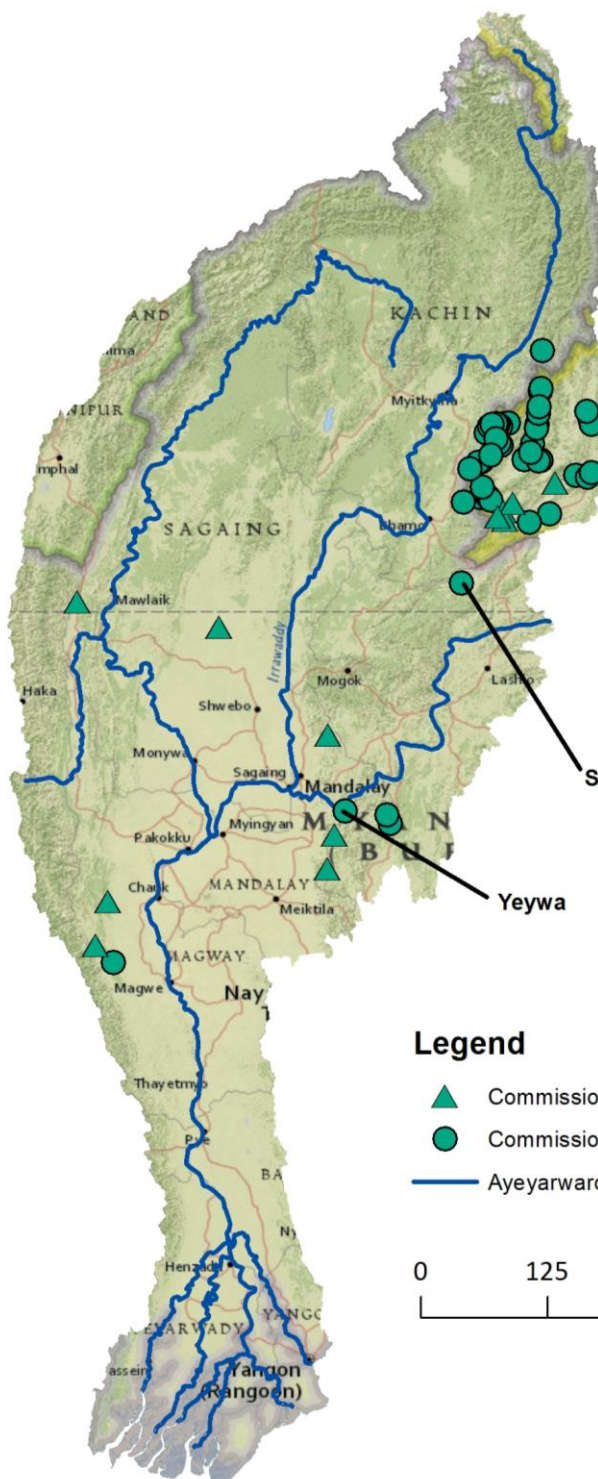
Storage



Water level



Temperature



Legend

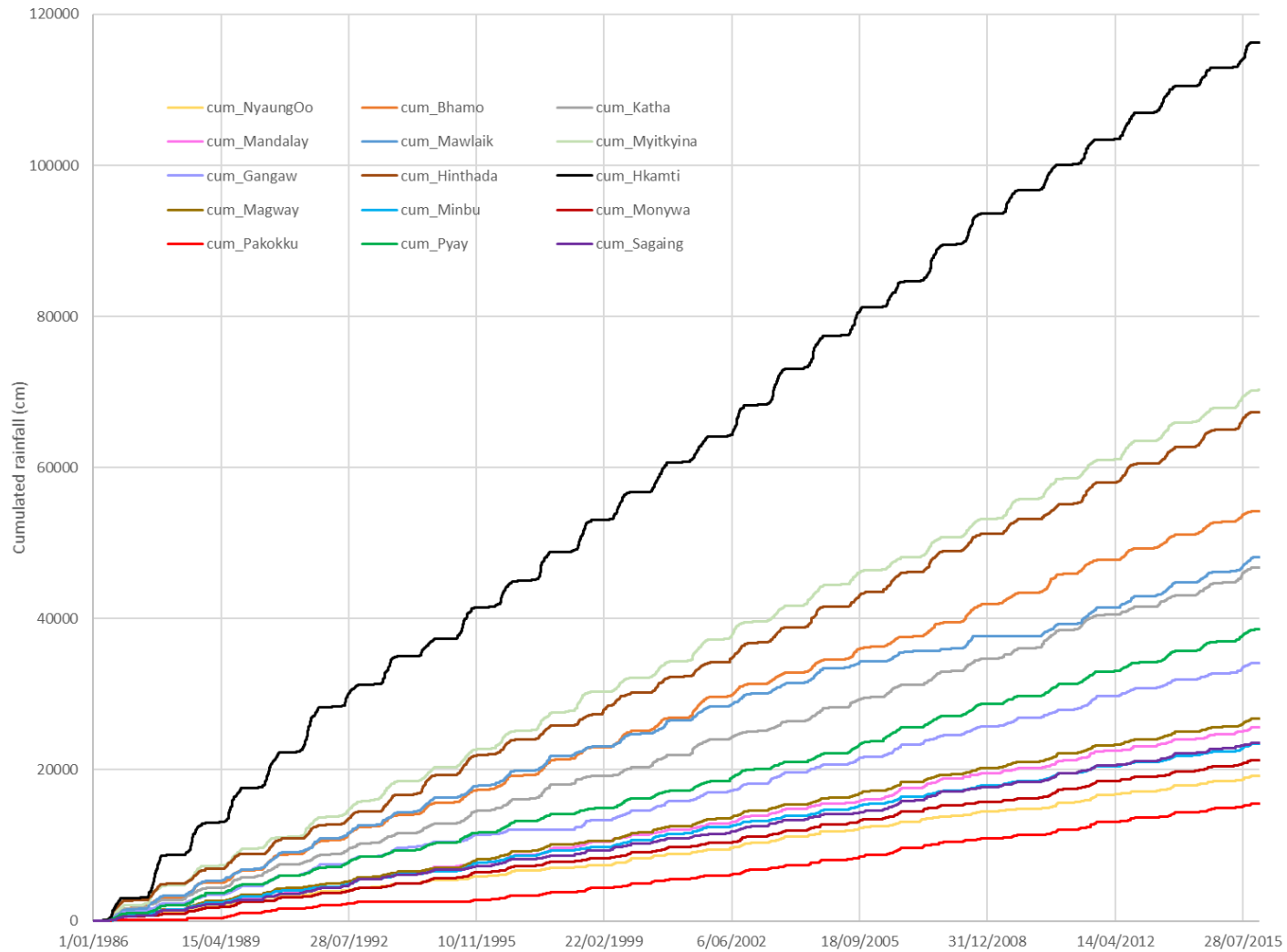
- ▲ Commissioned multipurpose reservoirs
- Commissioned hydropower reservoirs
- Ayeyarwady major waterways

0 125 250 km



Appendix E: Rainfall station analysis

Single mass curves



Rainfall station and CHIRPS dataset correlations

Station	Regression Slope	R2
Bhamo	0.98	0.90
Gangaw	0.70	0.80
Hinthada	0.88	0.86
Hkamti	1.30	0.89
Katha	1.00	0.83
Magway	0.85	0.84
Mahu	0.29	0.67
Mandalay	1.05	0.77
Mawlaik	0.90	0.83
Minbu	0.76	0.82
Monywa	0.75	0.77
Myitkyina	1.06	0.92
Nyaung_Oo	0.71	0.73
Pyay	0.96	0.88
Sagaing	0.89	0.77

Appendix F: Processing summary

Note that the water quality datasets have not undergone quality assurance processing and are therefore not included in the summary provided below.

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
1	DMH	Aunglan	Mean Sediment Discharge	6,574	6,556	0	18	0	0	18
2	DMH	Bhamo	Water Level	10,957	10,937	0	20	0	0	20
3	DMH	Bhamo	Maximum Temperature	10,937	10,933	20	4	6	18	0
4	DMH	Bhamo	Minimum Temperature	10,935	10,935	22	0	4	18	0
5	DMH	Bhamo	Rainfall	10,938	10,892	19	0	1	18	0
6	DMH	Bhamo	Relative Humidity	10,939	10,939	18	0	0	18	0
7	DMH	Bhamo	Wind Speed	10,939	10,629	18	310	0	328	0
8	DMH	Bhamo	Wind Direction	10,938	6,420	19	0	1	18	0
9	DMH	Gangaw	Water Level	5,844	5,822	0	22	0	0	22
10	DMH	Gangaw	Maximum Temperature	10,576	10,575	381	1	5	377	0
11	DMH	Gangaw	Minimum Temperature	10,578	10,578	379	0	3	376	0
12	DMH	Gangaw	Rainfall	10,467	10,462	490	0	3	487	0
13	DMH	Gangaw	Relative Humidity	10,109	10,109	848	0	1	847	0
14	DMH	Gangaw	Wind Speed	10,089	7,077	868	3,012	1	3,879	0
15	DMH	Gangaw	Wind Direction	10,089	4,115	868	0	1	867	0
16	DMH	Hinthada	Water Level	10,957	10,939	0	18	0	0	18
17	DMH	Hinthada	Maximum Temperature	10,922	10,921	35	1	5	31	0
18	DMH	Hinthada	Minimum Temperature	10,886	10,886	71	0	6	65	0
19	DMH	Hinthada	Rainfall	10,926	10,891	31	0	0	31	0
20	DMH	Hinthada	Relative Humidity	10,834	10,834	123	0	1	122	0
21	DMH	Hinthada	Wind Speed	10,834	10,596	123	238	1	360	0
22	DMH	Hinthada	Wind Direction	10,830	8,137	127	0	5	122	0
23	DMH	Hkamti	Water Level	10,957	10,944	0	13	0	0	13
24	DMH	Hkamti	Mean Discharge	10,957	10,862	0	95	0	0	95
25	DMH	Hkamti	Mean Sediment Discharge	10,957	10,928	0	29	0	0	29
26	DMH	Hkamti	Maximum Temperature	10,447	10,444	510	3	4	509	0
27	DMH	Hkamti	Minimum Temperature	10,713	10,713	244	0	1	243	0
28	DMH	Hkamti	Rainfall	10,923	10,659	34	0	3	31	0
29	DMH	Hkamti	Relative Humidity	10,683	10,681	274	2	3	273	0
30	DMH	Hkamti	Wind Speed	10,684	9,809	273	875	0	1,148	0
31	DMH	Hkamti	Wind Direction	10,656	6,404	301	0	0	301	0
32	DMH	Katha	Water Level	10,957	10,951	0	6	0	0	6
33	DMH	Katha	Mean Discharge	10,957	10,868	0	89	0	0	89
34	DMH	Katha	Mean Sediment Discharge	10,957	10,936	0	21	0	0	21
35	DMH	Katha	Maximum Temperature	10,793	10,786	164	7	7	164	0
36	DMH	Katha	Minimum Temperature	10,374	10,374	583	0	11	572	0

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
37	DMH	Katha	Rainfall	10,833	10,487	124	0	4	120	0
38	DMH	Katha	Relative Humidity	10,823	10,823	134	0	0	134	0
39	DMH	Katha	Wind Speed	10,823	10,183	134	640	0	774	0
40	DMH	Katha	Wind Direction	10,821	7,033	136	0	2	134	0
41	DMH	Magway	Water Level	8,341	8,327	0	14	0	0	14
42	DMH	Magway	Mean Discharge	8,341	8,266	0	75	0	0	75
43	DMH	Magway	Maximum Temperature	10,957	10,955	0	2	2	0	0
44	DMH	Magway	Minimum Temperature	10,957	10,957	0	0	0	0	0
45	DMH	Magway	Rainfall	10,956	10,875	1	0	1	0	0
46	DMH	Magway	Relative Humidity	10,939	10,939	18	0	18	0	0
47	DMH	Magway	Wind Speed	9,771	9,448	1,186	323	0	1,509	0
48	DMH	Magway	Wind Direction	9,770	7,215	1,187	0	1	1,186	0
49	DMH	Mandalay	Water Level	10,957	10,951	0	6	0	0	6
50	DMH	Mandalay	Maximum Temperature	10,957	10,948	0	9	9	0	0
51	DMH	Mandalay	Minimum Temperature	10,957	10,957	0	0	0	0	0
52	DMH	Mandalay	Rainfall	10,949	10,603	8	0	8	0	0
53	DMH	Mandalay	Relative Humidity	10,957	10,957	0	0	0	0	0
54	DMH	Mandalay	Wind Speed	10,954	10,565	3	389	3	389	0
55	DMH	Mandalay	Wind Direction	10,676	7,457	281	0	218	63	0
56	DMH	Mawlaik	Water Level	10,957	10,951	0	6	0	0	6
57	DMH	Mawlaik	Mean Discharge	10,957	10,888	0	69	0	0	69
58	DMH	Mawlaik	Mean Sediment Discharge	10,957	10,935	0	22	0	0	22
59	DMH	Mawlaik	Maximum Temperature	10,042	10,042	915	0	0	916	-1
60	DMH	Mawlaik	Minimum Temperature	10,041	10,041	916	0	0	916	0
61	DMH	Mawlaik	Rainfall	9,980	9,545	977	0	2	976	-1
62	DMH	Mawlaik	Relative Humidity	10,040	10,040	917	0	1	916	0
63	DMH	Mawlaik	Wind Speed	10,041	9,701	916	340	0	1,256	0
64	DMH	Mawlaik	Wind Direction	10,040	4,757	917	0	1	916	0
65	DMH	Minbu	Water Level	10,957	10,948	0	9	0	0	9
66	DMH	Minbu	Maximum Temperature	10,956	10,954	1	2	3	0	0
67	DMH	Minbu	Minimum Temperature	10,943	10,943	14	0	0	14	0
68	DMH	Minbu	Rainfall	10,957	10,937	0	0	0	0	0
69	DMH	Minbu	Relative Humidity	10,957	10,957	0	0	0	0	0
70	DMH	Minbu	Wind Speed	10,957	8,430	0	2,527	1	2,526	0
71	DMH	Minbu	Wind Direction	10,956	8,822	1	0	1	0	0
72	DMH	Monywa	Water Level	10,957	10,951	0	6	0	0	6
73	DMH	Monywa	Mean Discharge	10,957	10,899	0	58	0	0	58
74	DMH	Monywa	Maximum Temperature	10,949	10,946	8	3	11	0	0
75	DMH	Monywa	Minimum Temperature	10,951	10,951	6	0	6	0	0
76	DMH	Monywa	Rainfall	10,956	10,842	1	0	1	0	0

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
77	DMH	Monywa	Relative Humidity	10,924	10,924	33	0	2	31	0
78	DMH	Monywa	Wind Speed	10,926	10,770	31	156	0	187	0
79	DMH	Monywa	Wind Direction	10,924	10,077	33	0	2	31	0
80	DMH	Myitkyina	Water Level	10,957	10,867	0	90	0	0	90
81	DMH	Myitkyina	Mean Discharge	6,209	6,068	0	141	0	0	141
82	DMH	Myitkyina	Maximum Temperature	10,902	10,899	55	3	3	55	0
83	DMH	Myitkyina	Minimum Temperature	10,941	10,941	16	0	1	15	0
84	DMH	Myitkyina	Rainfall	10,957	10,416	0	0	0	0	0
85	DMH	Myitkyina	Relative Humidity	10,956	10,956	1	0	1	0	0
86	DMH	Myitkyina	Wind Speed	10,957	10,931	0	26	0	26	0
87	DMH	Myitkyina	Wind Direction	10,957	7,511	0	0	0	0	0
88	DMH	Nyaung Oo	Water Level	10,957	10,951	0	6	0	0	6
89	DMH	Nyaung Oo	Mean Discharge	4,383	4,346	0	37	0	0	37
90	DMH	Nyaung Oo	Maximum Temperature	10,921	10,918	36	3	3	36	0
91	DMH	Nyaung Oo	Minimum Temperature	10,926	10,926	31	0	0	31	0
92	DMH	Nyaung Oo	Rainfall	10,954	9,787	3	0	3	0	0
93	DMH	Nyaung Oo	Relative Humidity	10,953	10,953	4	0	4	0	0
94	DMH	Nyaung Oo	Wind Speed	10,951	10,494	6	457	0	463	0
95	DMH	Nyaung Oo	Wind Direction	10,950	10,559	7	0	2	5	0
96	DMH	Pakokku	Water Level	6,574	6,569	0	5	0	0	5
97	DMH	Pakokku	Maximum Temperature	9,414	9,410	1,392	4	18	1,378	0
98	DMH	Pakokku	Minimum Temperature	9,525	9,525	1,281	0	34	1,247	0
99	DMH	Pakokku	Rainfall	9,303	9,001	1,503	0	5	1,498	0
100	DMH	Pakokku	Relative Humidity	9,536	9,536	1,270	0	7	1,263	0
101	DMH	Pakokku	Wind Speed	7,463	6,725	3,343	738	0	4,081	0
102	DMH	Pakokku	Wind Direction	7,462	3,705	3,344	0	10	3,334	0
103	DMH	Pyay	Water Level	10,957	10,947	0	10	0	0	10
104	DMH	Pyay	Mean Discharge	10,957	10,879	0	78	0	0	78
105	DMH	Pyay	Mean Sediment Discharge	10957	10926	0	31	0	0	31
106	DMH	Pyay	Maximum Temperature	10,957	10,953	0	4	4	0	0
107	DMH	Pyay	Minimum Temperature	10,956	10,956	1	0	1	0	0
108	DMH	Pyay	Rainfall	10,956	10,951	1	0	1	0	0
109	DMH	Pyay	Relative Humidity	10,939	10,939	18	0	19	0	-1
110	DMH	Pyay	Wind Speed	10,957	10,728	0	229	0	229	0
111	DMH	Pyay	Wind Direction	10,954	8,327	3	0	3	0	0
112	DMH	Sagaing	Water Level	10,957	10,950	0	7	0	0	7
113	DMH	Sagaing	Mean Discharge	10,957	10,876	0	81	0	0	81
114	DMH	Sagaing	Mean Sediment Discharge	10,957	10,934	0	23	0	0	23
115	DMH	Sagaing	Maximum Temperature	10,647	10,642	310	5	9	306	0
116	DMH	Sagaing	Minimum Temperature	10,649	10,649	308	0	2	306	0

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
117	DMH	Sagaing	Rainfall	10,651	10,146	306	0	0	306	0
118	DMH	Sagaing	Relative Humidity	10,650	10,649	307	1	2	306	0
119	DMH	Sagaing	Wind Speed	10,649	10,321	308	328	2	634	0
120	DMH	Sagaing	Wind Direction	10,637	7,711	320	0	14	307	-1
121	DMH	Thabeikkyin	Mean Sediment Discharge	10,957	10,940	0	17	0	0	17
122	DMH	Zalun	Mean Sediment Discharge	6,939	6,904	0	35	0	0	35
123	IWUMD	Ayartaw	Water Level	2,769	2,747	61	22	0	61	22
124	IWUMD	Ayartaw	Rainfall	7,315	7,315	1,267	0	0	1,267	0
125	IWUMD	Ayartaw	Evaporation	2,707	2,707	0	0	0	0	0
126	IWUMD	Chit Thu	Rainfall	1,095	1,095	0	0	0	0	0
127	IWUMD	Hnget Pyaw Tie	Water Level	5,038	4,939	441	99	0	441	99
128	IWUMD	Khaing Kang	Water Level	1,071	1,071	162	0	0	162	0
129	IWUMD	Kyauk Talone	Rainfall	1,185	1,185	1	0	1	0	0
130	IWUMD	Mahu	Rainfall	1,095	1,095	0	0	0	0	0
131	IWUMD	Manipura	Water Level	1,847	1,847	3	0	3	0	0
132	IWUMD	Paytawlay	Water Level	2,829	2,821	1	8	1	0	8
133	IWUMD	Sagyo	Water Level	412	412	1	0	1	0	0
134	IWUMD	Si-Thaung	Water Level	3,652	3,556	1	96	1	0	96
135	IWUMD	Tat Ywa	Water Level	1,950	1,943	242	7	0	242	7
136	IWUMD	Ywatha	Rainfall	10,436	10,436	2,926	0	3	2,923	0
137	DHPI	Shweli1	Inflow	2,921	2,894	1	27	1	0	27
138	DHPI	Shweli1	Outflow Total	2,920	2,920	2	0	2	0	0
139	DHPI	Shweli1	Outflow Spillway	2,921	2,921	1	0	1	0	0
140	DHPI	Shweli1	Outflow Turbine	2,921	2,887	1	34	3	6	26
141	DHPI	Shweli1	Storage	2,921	2,773	1	148	2	1	146
142	DHPI	Shweli1	Rainfall	2,921	2,521	1	400	0	401	0
143	DHPI	Shweli1	Water Level	2,921	2,773	1	148	0	122	27
144	DHPI	Yeywa	Inflow	2,550	2,108	6	442	5	425	18
145	DHPI	Yeywa	Outflow Total	2,550	2,125	6	162	7	161	0
146	DHPI	Yeywa	Storage	2,550	1,735	6	562	5	467	96
147	DHPI	Yeywa	Rainfall	2,550	1,821	6	729	4	731	0
148	DHPI	Yeywa	Water Level	2,550	2,124	6	163	8	151	10
149	DHPI	Yeywa	Minimum Temperature	2,469	2,369	0	100	0	100	0
150	DHPI	Yeywa	Maximum Temperature	2,469	2,369	0	100	0	100	0
151	DHPI	Yeywa	Average Temperature	2,469	2,369	0	100	0	100	0
152	IWUMD	Kanyin Dam Project	Inflow	48	48	0	0	0	0	0
153	IWUMD	Kanyin Dam Project	Irrigation Supply	48	48	0	0	0	0	0
154	IWUMD	Kanyin Dam Project	Rainfall	48	48	0	0	0	0	0
155	IWUMD	Kanyin Dam Project	Storage Balance	48	48	0	0	0	0	0
156	IWUMD	Kanyin Dam Project	Wastage Evap & Other	48	48	0	0	0	0	0

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
157	IWUMD	Kanyin Dam Project	Wastage Spilled	48	48	0	0	0	0	0
158	IWUMD	Kunchaung Dam	Domestic Drinking Water	60	43	0	17	0	0	0
159	IWUMD	Kunchaung Dam	Domestic Released	12	1	0	11	0	0	0
160	IWUMD	Kunchaung Dam	Inflow	60	43	0	17	0	0	0
161	IWUMD	Kunchaung Dam	Irrigation Supply	60	43	0	17	0	0	0
162	IWUMD	Kunchaung Dam	Rainfall	60	60	0	0	0	0	0
163	IWUMD	Kunchaung Dam	Storage Balance	60	43	0	17	0	0	0
164	IWUMD	Kunchaung Dam	Total Outflow	12	1	0	11	0	0	0
165	IWUMD	Kunchaung Dam	Wastage Evap & Other	60	43	0	17	0	0	0
166	IWUMD	Kunchaung Dam	Wastage Spilled	60	43	0	17	0	0	0
167	IWUMD	Kyaunggya Dam Project	Inflow	35	32	0	3	0	0	0
168	IWUMD	Kyaunggya Dam Project	Irrigation Supply	35	32	0	3	0	0	0
169	IWUMD	Kyaunggya Dam Project	Rainfall	35	35	0	0	0	0	0
170	IWUMD	Kyaunggya Dam Project	Storage Balance	35	32	0	3	0	0	0
171	IWUMD	Kyaunggya Dam Project	Wastage Evap & Other	35	32	0	3	0	0	0
172	IWUMD	Kyaunggya Dam Project	Wastage Spilled	35	32	0	3	0	0	0
173	IWUMD	Ma Mya Dam	Inflow	60	50	0	10	0	0	0
174	IWUMD	Ma Mya Dam	Irrigation Supply	60	50	0	10	0	0	0
175	IWUMD	Ma Mya Dam	Rainfall	60	60	0	0	0	0	0
176	IWUMD	Ma Mya Dam	Storage Balance	60	50	0	10	0	0	0
177	IWUMD	Ma Mya Dam	Wastage Evap & Other	60	50	0	10	0	0	0
178	IWUMD	Mokka Dam	Inflow	60	55	0	5	0	0	0
179	IWUMD	Mokka Dam	Irrigation Supply	60	55	0	5	0	0	0
180	IWUMD	Mokka Dam	Rainfall	60	60	0	0	0	0	0
181	IWUMD	Mokka Dam	Storage Balance	60	55	0	5	0	0	0
182	IWUMD	Mokka Dam	Wastage Evap & Other	60	55	0	5	0	0	0
183	IWUMD	Mokka Dam	Wastage Spilled	60	55	0	5	0	0	0
184	IWUMD	Nankathu Dam	Domestic Drinking Water	59	43	0	16	0	0	0
185	IWUMD	Nankathu Dam	Inflow	59	43	0	16	0	0	0
186	IWUMD	Nankathu Dam	Irrigation Supply	59	43	0	16	0	0	0
187	IWUMD	Nankathu Dam	Rainfall	59	59	0	0	0	0	0
188	IWUMD	Nankathu Dam	Storage Balance	59	43	0	16	0	0	0
189	IWUMD	Nankathu Dam	Wastage Evap & Other	59	43	0	16	0	0	0
190	IWUMD	Nankathu Dam	Wastage Spilled	59	43	0	16	0	0	0
191	IWUMD	Ye Gyaw Dam Project	Inflow	48	46	0	2	0	0	0
192	IWUMD	Ye Gyaw Dam Project	Irrigation Supply	48	46	0	2	0	0	0
193	IWUMD	Ye Gyaw Dam Project	Rainfall	48	48	0	0	0	0	0
194	IWUMD	Ye Gyaw Dam Project	Storage Balance	48	46	0	2	0	0	0
195	IWUMD	Ye Gyaw Dam Project	Wastage Evap & Other	48	46	0	2	0	0	0
196	IWUMD	Ye Gyaw Dam Project	Wastage Spilled	48	46	0	2	0	0	0

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
197	IWUMD	Alain Gni Dam	Domestic Industrial Use	48	45	0	3	0	0	0
198	IWUMD	Alain Gni Dam	Inflow	60	56	0	4	0	0	0
199	IWUMD	Alain Gni Dam	Irrigation Supply	60	56	0	4	0	0	0
200	IWUMD	Alain Gni Dam	Rainfall	60	60	0	0	0	0	0
201	IWUMD	Alain Gni Dam	Storage Balance	60	56	0	4	0	0	0
202	IWUMD	Alain Gni Dam	Total Outflow	12	11	0	1	0	0	0
203	IWUMD	Alain Gni Dam	Wastage Evap & Other	60	56	0	4	0	0	0
204	IWUMD	Baingda Dam Project	Inflow	60	59	0	1	0	0	0
205	IWUMD	Baingda Dam Project	Irrigation Supply	60	59	0	1	0	0	0
206	IWUMD	Baingda Dam Project	Rainfall	60	60	0	0	0	0	0
207	IWUMD	Baingda Dam Project	Storage Balance	60	59	0	1	0	0	0
208	IWUMD	Baingda Dam Project	Wastage Evap & Other	60	59	0	1	0	0	0
209	IWUMD	Baw Ni	Inflow	48	48	0	0	0	0	0
210	IWUMD	Baw Ni	Irrigation Supply	48	48	0	0	0	0	0
211	IWUMD	Baw Ni	Rainfall	48	48	0	0	0	0	0
212	IWUMD	Baw Ni	Storage Balance	48	48	0	0	0	0	0
213	IWUMD	Baw Ni	Wastage Evap & Other	48	48	0	0	0	0	0
214	IWUMD	Baw Ni	Wastage Spilled	48	48	0	0	0	0	0
215	IWUMD	Bawbin Dam	Conduit Outlet	60	59	0	0	0	0	0
216	IWUMD	Bawbin Dam	Inflow	71	13	0	58	0	0	0
217	IWUMD	Bawbin Dam	Irrigation Supply	70	13	0	57	0	0	0
218	IWUMD	Bawbin Dam	Rainfall	65	63	0	0	0	0	0
219	IWUMD	Bawbin Dam	Storage Balance	72	13	0	59	0	0	0
220	IWUMD	Bawbin Dam	Total Outflow	60	1	0	59	0	0	0
221	IWUMD	Bawbin Dam	Wastage Evap & Other	72	13	0	59	0	0	0
222	IWUMD	Bawbin Dam	Wastage Spilled	56	13	0	43	0	0	0
223	IWUMD	Bawbln Dam Bawbin Chaung	Conduit Outlet	12	12	0	0	0	0	0
224	IWUMD	Bawbln Dam Bawbin Chaung	Inflow	24	12	0	12	0	0	0
225	IWUMD	Bawbln Dam Bawbin Chaung	Irrigation Supply	24	12	0	12	0	0	0
226	IWUMD	Bawbln Dam Bawbin Chaung	Rainfall	24	24	0	0	0	0	0
227	IWUMD	Bawbln Dam Bawbin Chaung	Storage Balance	24	12	0	12	0	0	0
228	IWUMD	Bawbln Dam Bawbin Chaung	Total Outflow	12	1	0	11	0	0	0
229	IWUMD	Bawbln Dam Bawbin Chaung	Wastage Evap & Other	24	12	0	12	0	0	0
230	IWUMD	Bawbln Dam Bawbin Chaung	Wastage Spilled	24	12	0	12	0	0	0
231	IWUMD	Chaungmagyi	Inflow	48	40	0	8	0	0	0
232	IWUMD	Chaungmagyi	Irrigation Supply	48	40	0	8	0	0	0
233	IWUMD	Chaungmagyi	Rainfall	48	48	0	0	0	0	0
234	IWUMD	Chaungmagyi	Storage Balance	48	40	0	8	0	0	0
235	IWUMD	Chaungmagyi	Wastage Evap & Other	48	40	0	8	0	0	0
236	IWUMD	Gamone Dam	Inflow	48	32	0	16	0	0	0

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237	IWUMD	Gamone Dam	Irrigation Supply	48	32	0	16	0	0	0
238	IWUMD	Gamone Dam	Rainfall	48	48	0	0	0	0	0
239	IWUMD	Gamone Dam	Storage Balance	48	32	0	16	0	0	0
240	IWUMD	Gamone Dam	Total Outflow	12	0	0	12	0	0	0
241	IWUMD	Gamone Dam	Wastage Evap & Other	48	32	0	16	0	0	0
242	IWUMD	Gamone Dam	Wastage Spilled	48	32	0	16	0	0	0
243	IWUMD	Kabaung Dam Project	Hydro Power	36	36	0	0	0	0	0
244	IWUMD	Kabaung Dam Project	Inflow	36	1	0	35	0	0	0
245	IWUMD	Kabaung Dam Project	Power Output	36	36	0	0	0	0	0
246	IWUMD	Kabaung Dam Project	Rainfall	36	36	0	0	0	0	0
247	IWUMD	Kabaung Dam Project	Storage Balance	36	1	0	35	0	0	0
248	IWUMD	Kabaung Dam Project	Turbine Running	36	36	0	0	0	0	0
249	IWUMD	Kabaung Dam Project	Wastage Evap & Other	36	1	0	35	0	0	0
250	IWUMD	Kadugwe Dam Project	Inflow	48	37	0	11	0	0	0
251	IWUMD	Kadugwe Dam Project	Rainfall	48	48	0	0	0	0	0
252	IWUMD	Kadugwe Dam Project	Storage Balance	48	37	0	11	0	0	0
253	IWUMD	Kadugwe Dam Project	Total Outflow	24	24	0	0	0	0	0
254	IWUMD	Kadugwe Dam Project	Wastage Evap & Other	48	37	0	11	0	0	0
255	IWUMD	Kangyi Gone Dam	Inflow	60	56	0	4	0	0	0
256	IWUMD	Kangyi Gone Dam	Irrigation Supply	60	56	0	4	0	0	0
257	IWUMD	Kangyi Gone Dam	Rainfall	60	60	0	0	0	0	0
258	IWUMD	Kangyi Gone Dam	Storage Balance	60	56	0	4	0	0	0
259	IWUMD	Kangyi Gone Dam	Wastage Evap & Other	60	56	0	4	0	0	0
260	IWUMD	Kangyi Gone Dam	Wastage Spilled	60	56	0	4	0	0	0
261	IWUMD	Kantin Bilin Dam	Inflow	48	45	0	3	0	0	0
262	IWUMD	Kantin Bilin Dam	Irrigation Supply	48	45	0	3	0	0	0
263	IWUMD	Kantin Bilin Dam	Rainfall	48	48	0	0	0	0	0
264	IWUMD	Kantin Bilin Dam	Storage Balance	48	45	0	3	0	0	0
265	IWUMD	Kantin Bilin Dam	Wastage Evap & Other	48	45	0	3	0	0	0
266	IWUMD	Kantin Bilin Dam	Wastage Spilled	48	45	0	3	0	0	0
267	IWUMD	Kawliya Dam	Inflow	48	45	0	3	0	0	0
268	IWUMD	Kawliya Dam	Irrigation Supply	48	45	0	3	0	0	0
269	IWUMD	Kawliya Dam	Rainfall	48	48	0	0	0	0	0
270	IWUMD	Kawliya Dam	Storage Balance	48	45	0	3	0	0	0
271	IWUMD	Kawliya Dam	Wastage Evap & Other	48	45	0	3	0	0	0
272	IWUMD	Khawa Dam	Inflow	60	55	0	5	0	0	0
273	IWUMD	Khawa Dam	Irrigation Supply	60	55	0	5	0	0	0
274	IWUMD	Khawa Dam	Rainfall	60	60	0	0	0	0	0
275	IWUMD	Khawa Dam	Storage Balance	60	55	0	5	0	0	0
276	IWUMD	Khawa Dam	Wastage Evap & Other	60	55	0	5	0	0	0

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277	IWUMD	Khawa Dam	Wastage Spilled	60	55	0	5	0	0	0
278	IWUMD	Mazin	Conduit Outlet	36	36	0	0	0	0	0
279	IWUMD	Mazin	Inflow	60	19	0	41	0	0	0
280	IWUMD	Mazin	Irrigation Supply	60	19	0	41	0	0	0
281	IWUMD	Mazin	Rainfall	60	60	0	0	0	0	0
282	IWUMD	Mazin	Storage Balance	60	19	0	41	0	0	0
283	IWUMD	Mazin	Total Outflow	48	13	0	35	0	0	0
284	IWUMD	Mazin	Wastage Evap & Other	60	19	0	41	0	0	0
285	IWUMD	Min Hla Dam	Conduit Outlet	36	36	0	0	0	0	0
286	IWUMD	Min Hla Dam	Inflow	60	25	0	35	0	0	0
287	IWUMD	Min Hla Dam	Irrigation Supply	60	25	0	35	0	0	0
288	IWUMD	Min Hla Dam	Rainfall	60	60	0	0	0	0	0
289	IWUMD	Min Hla Dam	Storage Balance	60	25	0	35	0	0	0
290	IWUMD	Min Hla Dam	Total Outflow	48	13	0	35	0	0	0
291	IWUMD	Min Hla Dam	Wastage Evap & Other	60	25	0	35	0	0	0
292	IWUMD	Min Ye Dam	Inflow	60	50	0	10	0	0	0
293	IWUMD	Min Ye Dam	Irrigation Supply	60	50	0	10	0	0	0
294	IWUMD	Min Ye Dam	Rainfall	60	60	0	0	0	0	0
295	IWUMD	Min Ye Dam	Storage Balance	60	50	0	10	0	0	0
296	IWUMD	Min Ye Dam	Wastage Evap & Other	60	50	0	10	0	0	0
297	IWUMD	Min Ye Dam	Wastage Spilled	60	50	0	10	0	0	0
298	IWUMD	Naung Gain Dam	Inflow	48	45	0	3	0	0	0
299	IWUMD	Naung Gain Dam	Irrigation Supply	48	45	0	3	0	0	0
300	IWUMD	Naung Gain Dam	Rainfall	48	48	0	0	0	0	0
301	IWUMD	Naung Gain Dam	Storage Balance	48	45	0	3	0	0	0
302	IWUMD	Naung Gain Dam	Wastage Evap & Other	48	45	0	3	0	0	0
303	IWUMD	Naung Gain Dam	Wastage Spilled	48	45	0	3	0	0	0
304	IWUMD	Nga Mwe Dam	Inflow	60	59	0	1	0	0	0
305	IWUMD	Nga Mwe Dam	Irrigation Supply	60	59	0	1	0	0	0
306	IWUMD	Nga Mwe Dam	Rainfall	60	60	0	0	0	0	0
307	IWUMD	Nga Mwe Dam	Storage Balance	60	59	0	1	0	0	0
308	IWUMD	Nga Mwe Dam	Wastage Evap & Other	60	59	0	1	0	0	0
309	IWUMD	Nga Mwe Dam	Wastage Spilled	60	59	0	1	0	0	0
310	IWUMD	North Nawin Dam	Inflow	60	56	0	4	0	0	0
311	IWUMD	North Nawin Dam	Irrigation Supply	60	56	0	4	0	0	0
312	IWUMD	North Nawin Dam	Rainfall	60	60	0	0	0	0	0
313	IWUMD	North Nawin Dam	Storage Balance	60	56	0	4	0	0	0
314	IWUMD	North Nawin Dam	Wastage Evap & Other	60	56	0	4	0	0	0
315	IWUMD	North Nawin Dam	Wastage Spilled	60	56	0	4	0	0	0
316	IWUMD	Pathi Dam	Domestic Drinking Water	60	50	0	10	0	0	0

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317	IWUMD	Pathi Dam	Inflow	60	50	0	10	0	0	0
318	IWUMD	Pathi Dam	Irrigation Supply	60	50	0	10	0	0	0
319	IWUMD	Pathi Dam	Rainfall	60	60	0	0	0	0	0
320	IWUMD	Pathi Dam	Storage Balance	60	50	0	10	0	0	0
321	IWUMD	Pathi Dam	Wastage Evap & Other	60	50	0	10	0	0	0
322	IWUMD	Pathi Dam	Wastage Spilled	60	50	0	10	0	0	0
323	IWUMD	Phyu Chaung Dam	Hydro Power	24	24	0	0	0	0	0
324	IWUMD	Phyu Chaung Dam	Inflow	36	15	0	21	0	0	0
325	IWUMD	Phyu Chaung Dam	Power Output	24	24	0	0	0	0	0
326	IWUMD	Phyu Chaung Dam	Rainfall	36	36	0	0	0	0	0
327	IWUMD	Phyu Chaung Dam	Storage Balance	36	15	0	21	0	0	0
328	IWUMD	Phyu Chaung Dam	Turbine Running	24	24	0	0	0	0	0
329	IWUMD	Phyu Chaung Dam	Wastage Evap & Other	36	15	0	21	0	0	0
330	IWUMD	Pyin Bon	Domestic Drinking Water	60	56	0	4	0	0	0
331	IWUMD	Pyin Bon	Domestic Industrial Use	60	56	0	4	0	0	0
332	IWUMD	Pyin Bon	Inflow	60	56	0	4	0	0	0
333	IWUMD	Pyin Bon	Irrigation Supply	60	56	0	4	0	0	0
334	IWUMD	Pyin Bon	Rainfall	60	60	0	0	0	0	0
335	IWUMD	Pyin Bon	Storage Balance	60	56	0	4	0	0	0
336	IWUMD	Pyin Bon	Wastage Evap & Other	60	56	0	4	0	0	0
337	IWUMD	Pyin Bon	Wastage Spilled	60	56	0	4	0	0	0
338	IWUMD	Salu Dam Project	Domestic Drinking Water	48	46	0	2	0	0	0
339	IWUMD	Salu Dam Project	Inflow	48	46	0	2	0	0	0
340	IWUMD	Salu Dam Project	Irrigation Supply	48	46	0	2	0	0	0
341	IWUMD	Salu Dam Project	Rainfall	48	48	0	0	0	0	0
342	IWUMD	Salu Dam Project	Storage Balance	48	46	0	2	0	0	0
343	IWUMD	Salu Dam Project	Wastage Evap & Other	48	46	0	2	0	0	0
344	IWUMD	Salu Dam Project	Wastage Spilled	48	46	0	2	0	0	0
345	IWUMD	Shwe Daung Dam	Inflow	60	59	0	1	0	0	0
346	IWUMD	Shwe Daung Dam	Irrigation Supply	60	59	0	1	0	0	0
347	IWUMD	Shwe Daung Dam	Rainfall	60	60	0	0	0	0	0
348	IWUMD	Shwe Daung Dam	Storage Balance	60	59	0	1	0	0	0
349	IWUMD	Shwe Daung Dam	Wastage Evap & Other	60	59	0	1	0	0	0
350	IWUMD	Shwe Daung Dam	Wastage Spilled	60	59	0	1	0	0	0
351	IWUMD	Shwe Laung Dam	Conduit Outlet	36	36	0	0	0	0	0
352	IWUMD	Shwe Laung Dam	Domestic Drinking Water	48	3	0	45	0	0	0
353	IWUMD	Shwe Laung Dam	Inflow	48	3	0	45	0	0	0
354	IWUMD	Shwe Laung Dam	Irrigation Supply	36	3	0	33	0	0	0
355	IWUMD	Shwe Laung Dam	Rainfall	48	48	0	0	0	0	0
356	IWUMD	Shwe Laung Dam	Storage Balance	48	3	0	45	0	0	0

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357	IWUMD	Shwe Laung Dam	Total Outflow	36	3	0	33	0	0	0
358	IWUMD	Shwe Laung Dam	Wastage Evap & Other	48	3	0	45	0	0	0
359	IWUMD	Shwe Laung Dam	Wastage Spilled	48	3	0	45	0	0	0
360	IWUMD	Singu Chaung Gaung Dam	Inflow	59	57	0	2	0	0	0
361	IWUMD	Singu Chaung Gaung Dam	Irrigation Supply	59	57	0	2	0	0	0
362	IWUMD	Singu Chaung Gaung Dam	Rainfall	59	59	0	0	0	0	0
363	IWUMD	Singu Chaung Gaung Dam	Storage Balance	59	57	0	2	0	0	0
364	IWUMD	Singu Chaung Gaung Dam	Wastage Evap & Other	59	57	0	2	0	0	0
365	IWUMD	Singu Chaung Gaung Dam	Wastage Spilled	59	57	0	2	0	0	0
366	IWUMD	South Nawin Dam Diversion	Domestic Industrial Use	48	45	0	3	0	0	0
367	IWUMD	South Nawin Dam Diversion	Inflow	48	45	0	3	0	0	0
368	IWUMD	South Nawin Dam Diversion	Irrigation Supply	48	45	0	3	0	0	0
369	IWUMD	South Nawin Dam Diversion	Rainfall	48	48	0	0	0	0	0
370	IWUMD	South Nawin Dam Diversion	Storage Balance	48	45	0	3	0	0	0
371	IWUMD	South Nawin Dam Diversion	Wastage Evap & Other	48	45	0	3	0	0	0
372	IWUMD	South Nawin Dam Diversion	Wastage Spilled	48	45	0	3	0	0	0
373	IWUMD	South Nawin Dam Main	Inflow	48	48	0	0	0	0	0
374	IWUMD	South Nawin Dam Main	Irrigation Supply	48	48	0	0	0	0	0
375	IWUMD	South Nawin Dam Main	Rainfall	48	48	0	0	0	0	0
376	IWUMD	South Nawin Dam Main	Storage Balance	48	48	0	0	0	0	0
377	IWUMD	South Nawin Dam Main	Wastage Evap & Other	48	48	0	0	0	0	0
378	IWUMD	South Nawin Dam Main	Wastage Spilled	48	48	0	0	0	0	0
379	IWUMD	Swa Chaung Dam	Domestic Industrial Use	60	52	0	8	0	0	0
380	IWUMD	Swa Chaung Dam	Inflow	60	52	0	8	0	0	0
381	IWUMD	Swa Chaung Dam	Irrigation Supply	60	52	0	8	0	0	0
382	IWUMD	Swa Chaung Dam	Rainfall	60	60	0	0	0	0	0
383	IWUMD	Swa Chaung Dam	Storage Balance	60	52	0	8	0	0	0
384	IWUMD	Swa Chaung Dam	Wastage Evap & Other	60	52	0	8	0	0	0
385	IWUMD	Swa Chaung Dam	Wastage Spilled	60	52	0	8	0	0	0
386	IWUMD	Taung Nyo Dam	Inflow	60	54	0	6	0	0	0
387	IWUMD	Taung Nyo Dam	Irrigation Supply	60	54	0	6	0	0	0
388	IWUMD	Taung Nyo Dam	Rainfall	60	60	0	0	0	0	0
389	IWUMD	Taung Nyo Dam	Storage Balance	60	54	0	6	0	0	0
390	IWUMD	Taung Nyo Dam	Wastage Evap & Other	60	54	0	6	0	0	0
391	IWUMD	Taung Nyo Dam	Wastage Spilled	60	54	0	6	0	0	0
392	IWUMD	The Gaw Dam	Inflow	60	55	0	5	0	0	0
393	IWUMD	The Gaw Dam	Irrigation Supply	60	55	0	5	0	0	0
394	IWUMD	The Gaw Dam	Rainfall	60	60	0	0	0	0	0
395	IWUMD	The Gaw Dam	Storage Balance	60	55	0	5	0	0	0
396	IWUMD	The Gaw Dam	Wastage Evap & Other	60	55	0	5	0	0	0

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397	IWUMD	The Gaw Dam	Wastage Spilled	60	55	0	5	0	0	0
398	IWUMD	Thonze Dam Project	Inflow	60	55	0	5	0	0	0
399	IWUMD	Thonze Dam Project	Irrigation Supply	60	55	0	5	0	0	0
400	IWUMD	Thonze Dam Project	Rainfall	60	60	0	0	0	0	0
401	IWUMD	Thonze Dam Project	Storage Balance	60	55	0	5	0	0	0
402	IWUMD	Thonze Dam Project	Wastage Evap & Other	60	55	0	5	0	0	0
403	IWUMD	Wagadok Dam	Inflow	48	48	0	0	0	0	0
404	IWUMD	Wagadok Dam	Irrigation Supply	48	48	0	0	0	0	0
405	IWUMD	Wagadok Dam	Rainfall	48	48	0	0	0	0	0
406	IWUMD	Wagadok Dam	Storage Balance	48	48	0	0	0	0	0
407	IWUMD	Wagadok Dam	Wastage Evap & Other	48	48	0	0	0	0	0
408	IWUMD	Wegyl Dam	Inflow	60	60	0	0	0	0	0
409	IWUMD	Wegyl Dam	Irrigation Supply	60	60	0	0	0	0	0
410	IWUMD	Wegyl Dam	Rainfall	60	60	0	0	0	0	0
411	IWUMD	Wegyl Dam	Storage Balance	60	60	0	0	0	0	0
412	IWUMD	Wegyl Dam	Wastage Evap & Other	60	60	0	0	0	0	0
413	IWUMD	Wegyl Dam	Wastage Spilled	60	60	0	0	0	0	0
414	IWUMD	Yenwe Damproject	Hydro Power	60	60	0	0	0	0	0
415	IWUMD	Yenwe Damproject	Inflow	60	4	0	56	0	0	0
416	IWUMD	Yenwe Damproject	Irrigation Supply	60	4	0	56	0	0	0
417	IWUMD	Yenwe Damproject	Power Output	60	60	0	0	0	0	0
418	IWUMD	Yenwe Damproject	Rainfall	60	60	0	0	0	0	0
419	IWUMD	Yenwe Damproject	Storage Balance	60	4	0	56	0	0	0
420	IWUMD	Yenwe Damproject	Turbine Running	60	60	0	0	0	0	0
421	IWUMD	Yenwe Damproject	Wastage Evap & Other	60	4	0	56	0	0	0
422	IWUMD	Yetho Dam	Inflow	60	50	0	10	0	0	0
423	IWUMD	Yetho Dam	Irrigation Supply	60	50	0	10	0	0	0
424	IWUMD	Yetho Dam	Rainfall	60	60	0	0	0	0	0
425	IWUMD	Yetho Dam	Storage Balance	60	50	0	10	0	0	0
426	IWUMD	Yetho Dam	Wastage Evap & Other	60	50	0	10	0	0	0
427	IWUMD	Yetho Dam	Wastage Spilled	60	50	0	10	0	0	0
428	IWUMD	Zalataw	Inflow	48	44	0	4	0	0	0
429	IWUMD	Zalataw	Irrigation Supply	48	44	0	4	0	0	0
430	IWUMD	Zalataw	Rainfall	48	48	0	0	0	0	0
431	IWUMD	Zalataw	Storage Balance	48	44	0	4	0	0	0
432	IWUMD	Zalataw	Wastage Evap & Other	48	44	0	4	0	0	0
433	IWUMD	Zalataw	Wastage Spilled	48	44	0	4	0	0	0
434	IWUMD	Laiva	G1 Power Output	47	47	0	0	0	0	0
435	IWUMD	Laiva	G1 Running Time	47	47	0	0	0	0	0
436	IWUMD	Laiva	G2 Power Output	47	47	0	0	0	0	0

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437	IWUMD	Laiva	G2 Running Time	47	47	0	0	0	0	0
438	IWUMD	Laiva	Hydro Power	57	57	0	0	0	0	0
439	IWUMD	Laiva	Inflow	57	7	0	50	0	0	0
440	IWUMD	Laiva	Rainfall	57	57	0	0	0	0	0
441	IWUMD	Laiva	Storage Balance	57	7	0	50	0	0	0
442	IWUMD	Laiva	Wastage Evap & Other	57	7	0	50	0	0	0
443	IWUMD	Laiva	Wastage Spilled	57	7	0	50	0	0	0
444	IWUMD	Kalagone Weir	Inflow	57	57	0	0	0	0	0
445	IWUMD	Kalagone Weir	Irrigation Supply	57	57	0	0	0	0	0
446	IWUMD	Kalagone Weir	Rainfall	57	57	0	0	0	0	0
447	IWUMD	Kalagone Weir	Wastage Spilled	57	57	0	0	0	0	0
448	IWUMD	Myothigole Weir	Inflow	48	48	0	0	0	0	0
449	IWUMD	Myothigole Weir	Irrigation Supply	48	48	0	0	0	0	0
450	IWUMD	Myothigole Weir	Rainfall	48	48	0	0	0	0	0
451	IWUMD	Myothigole Weir	Wastage Spilled	48	48	0	0	0	0	0
452	IWUMD	Washaung Weir	Inflow	60	50	0	10	0	0	0
453	IWUMD	Washaung Weir	Irrigation Supply	60	50	0	10	0	0	0
454	IWUMD	Washaung Weir	Rainfall	60	60	0	0	0	0	0
455	IWUMD	Washaung Weir	Storage Balance	60	50	0	10	0	0	0
456	IWUMD	Washaung Weir	Wastage Spilled	60	50	0	10	0	0	0
457	IWUMD	Aingma	Inflow	48	48	0	0	0	0	0
458	IWUMD	Aingma	Irrigation Supply	48	48	0	0	0	0	0
459	IWUMD	Aingma	Rainfall	48	48	0	0	0	0	0
460	IWUMD	Aingma	Wastage Spilled	48	48	0	0	0	0	0
461	IWUMD	Bangon Dam	Domestic Industrial Use	60	59	0	1	0	0	0
462	IWUMD	Bangon Dam	Inflow	60	59	0	1	0	0	0
463	IWUMD	Bangon Dam	Irrigation Supply	60	59	0	1	0	0	0
464	IWUMD	Bangon Dam	Rainfall	60	60	0	0	0	0	0
465	IWUMD	Bangon Dam	Storage Balance	60	59	0	1	0	0	0
466	IWUMD	Bangon Dam	Wastage Evap & Other	60	59	0	1	0	0	0
467	IWUMD	Bangon Dam	Wastage Spilled	60	59	0	1	0	0	0
468	IWUMD	Boke Chaung Dam	Inflow	60	59	0	1	0	0	0
469	IWUMD	Boke Chaung Dam	Irrigation Supply	60	59	0	1	0	0	0
470	IWUMD	Boke Chaung Dam	Rainfall	60	60	0	0	0	0	0
471	IWUMD	Boke Chaung Dam	Storage Balance	60	59	0	1	0	0	0
472	IWUMD	Boke Chaung Dam	Wastage Evap & Other	60	59	0	1	0	0	0
473	IWUMD	Boke Chaung Dam	Wastage Spilled	60	59	0	1	0	0	0
474	IWUMD	Bwetgyi Dam	Domestic Drinking Water	47	46	0	1	0	0	0
475	IWUMD	Bwetgyi Dam	Domestic Industrial Use	47	46	0	1	0	0	0
476	IWUMD	Bwetgyi Dam	Inflow	47	46	0	1	0	0	0

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477	IWUMD	Bwetgyi Dam	Irrigation Supply	47	46	0	1	0	0	0
478	IWUMD	Bwetgyi Dam	Rainfall	47	47	0	0	0	0	0
479	IWUMD	Bwetgyi Dam	Storage Balance	47	46	0	1	0	0	0
480	IWUMD	Bwetgyi Dam	Wastage Evap & Other	47	46	0	1	0	0	0
481	IWUMD	Bwetgyi Dam	Wastage Spilled	47	46	0	1	0	0	0
482	IWUMD	Gwecho Dam	Inflow	60	60	0	0	0	0	0
483	IWUMD	Gwecho Dam	Irrigation Supply	60	60	0	0	0	0	0
484	IWUMD	Gwecho Dam	Rainfall	60	60	0	0	0	0	0
485	IWUMD	Gwecho Dam	Storage Balance	60	60	0	0	0	0	0
486	IWUMD	Gwecho Dam	Wastage Evap & Other	60	60	0	0	0	0	0
487	IWUMD	Gwecho Dam	Wastage Spilled	60	60	0	0	0	0	0
488	IWUMD	Gyo Pyan Dam	Inflow	59	54	0	5	0	0	0
489	IWUMD	Gyo Pyan Dam	Rainfall	59	59	0	0	0	0	0
490	IWUMD	Gyo Pyan Dam	Storage Balance	59	54	0	5	0	0	0
491	IWUMD	Gyo Pyan Dam	Wastage Evap & Other	59	54	0	5	0	0	0
492	IWUMD	Gyo Pyan Dam	Wastage Spilled	59	54	0	5	0	0	0
493	IWUMD	Inbet Dam	Inflow	60	59	0	1	0	0	0
494	IWUMD	Inbet Dam	Rainfall	60	60	0	0	0	0	0
495	IWUMD	Inbet Dam	Storage Balance	60	59	0	1	0	0	0
496	IWUMD	Inbet Dam	Wastage Evap & Other	60	59	0	1	0	0	0
497	IWUMD	Kantawgyi Tank	Inflow	59	56	0	3	0	0	0
498	IWUMD	Kantawgyi Tank	Irrigation Supply	59	56	0	3	0	0	0
499	IWUMD	Kantawgyi Tank	Rainfall	59	59	0	0	0	0	0
500	IWUMD	Kantawgyi Tank	Storage Balance	59	56	0	3	0	0	0
501	IWUMD	Kantawgyi Tank	Wastage Evap & Other	59	56	0	3	0	0	0
502	IWUMD	Kantawgyi Tank	Wastage Spilled	59	56	0	3	0	0	0
503	IWUMD	Khin Mon Dam	Inflow	36	36	0	0	0	0	0
504	IWUMD	Khin Mon Dam	Irrigation Supply	36	36	0	0	0	0	0
505	IWUMD	Khin Mon Dam	Rainfall	36	36	0	0	0	0	0
506	IWUMD	Khin Mon Dam	Storage Balance	36	36	0	0	0	0	0
507	IWUMD	Khin Mon Dam	Wastage Evap & Other	36	36	0	0	0	0	0
508	IWUMD	Khine Canal	Inflow	60	60	0	0	0	0	0
509	IWUMD	Khine Canal	Irrigation Supply	60	60	0	0	0	0	0
510	IWUMD	Khine Canal	Wastage Spilled	60	60	0	0	0	0	0
511	IWUMD	Khingyi Baluck Dam	Inflow	60	59	0	1	0	0	0
512	IWUMD	Khingyi Baluck Dam	Rainfall	60	60	0	0	0	0	0
513	IWUMD	Khingyi Baluck Dam	Storage Balance	60	59	0	1	0	0	0
514	IWUMD	Khingyi Baluck Dam	Wastage Evap & Other	60	59	0	1	0	0	0
515	IWUMD	Khingyi Baluck Dam	Wastage Spilled	60	59	0	1	0	0	0
516	IWUMD	Kinmundaung Dam	Domestic Industrial Use	48	46	0	2	0	0	0

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517	IWUMD	Kinmundaung Dam	Inflow	48	46	0	2	0	0	0
518	IWUMD	Kinmundaung Dam	Irrigation Supply	48	46	0	2	0	0	0
519	IWUMD	Kinmundaung Dam	Rainfall	48	48	0	0	0	0	0
520	IWUMD	Kinmundaung Dam	Storage Balance	48	46	0	2	0	0	0
521	IWUMD	Kinmundaung Dam	Wastage Evap & Other	48	46	0	2	0	0	0
522	IWUMD	Kinmundaung Dam	Wastage Spilled	48	46	0	2	0	0	0
523	IWUMD	Kinmundaung Weir	Inflow	60	60	0	0	0	0	0
524	IWUMD	Kinmundaung Weir	Irrigation Supply	60	60	0	0	0	0	0
525	IWUMD	Kinmundaung Weir	Rainfall	60	60	0	0	0	0	0
526	IWUMD	Kyauk Sauk Dam	Inflow	48	48	0	0	0	0	0
527	IWUMD	Kyauk Sauk Dam	Irrigation Supply	48	48	0	0	0	0	0
528	IWUMD	Kyauk Sauk Dam	Rainfall	48	48	0	0	0	0	0
529	IWUMD	Kyauk Sauk Dam	Storage Balance	48	48	0	0	0	0	0
530	IWUMD	Kyauk Sauk Dam	Wastage Evap & Other	48	48	0	0	0	0	0
531	IWUMD	Kyauk Sauk Dam	Wastage Spilled	48	48	0	0	0	0	0
532	IWUMD	Kyaukdaga Dam	Inflow	60	57	0	3	0	0	0
533	IWUMD	Kyaukdaga Dam	Irrigation Supply	60	57	0	3	0	0	0
534	IWUMD	Kyaukdaga Dam	Rainfall	60	60	0	0	0	0	0
535	IWUMD	Kyaukdaga Dam	Storage Balance	60	57	0	3	0	0	0
536	IWUMD	Kyaukdaga Dam	Wastage Evap & Other	60	57	0	3	0	0	0
537	IWUMD	Kyeeon Kyeewa Dam	G1 Power Output	24	24	0	0	0	0	0
538	IWUMD	Kyeeon Kyeewa Dam	G1 Running Time	24	24	0	0	0	0	0
539	IWUMD	Kyeeon Kyeewa Dam	G2 Power Output	24	24	0	0	0	0	0
540	IWUMD	Kyeeon Kyeewa Dam	G2 Running Time	24	24	0	0	0	0	0
541	IWUMD	Kyeeon Kyeewa Dam	Hydro Power	36	36	0	0	0	0	0
542	IWUMD	Kyeeon Kyeewa Dam	Inflow	24	1	0	23	0	0	0
543	IWUMD	Kyeeon Kyeewa Dam	Rainfall	36	36	0	0	0	0	0
544	IWUMD	Kyeeon Kyeewa Dam	Storage Balance	36	1	0	35	0	0	0
545	IWUMD	Kyeeon Kyeewa Dam	Wastage Evap & Other	36	1	0	35	0	0	0
546	IWUMD	Kyeeon Kyeewa Dam	Wastage Spilled	36	1	0	35	0	0	0
547	IWUMD	Kyet Mauk Dam	Inflow	60	58	0	2	0	0	0
548	IWUMD	Kyet Mauk Dam	Irrigation Supply	60	58	0	2	0	0	0
549	IWUMD	Kyet Mauk Dam	Rainfall	60	60	0	0	0	0	0
550	IWUMD	Kyet Mauk Dam	Storage Balance	60	58	0	2	0	0	0
551	IWUMD	Kyet Mauk Dam	Wastage Evap & Other	60	58	0	2	0	0	0
552	IWUMD	Kyet Mauk Dam	Wastage Spilled	60	58	0	2	0	0	0
553	IWUMD	La Pa Na Dam	Inflow	48	48	0	0	0	0	0
554	IWUMD	La Pa Na Dam	Rainfall	48	48	0	0	0	0	0
555	IWUMD	La Pa Na Dam	Storage Balance	48	48	0	0	0	0	0
556	IWUMD	La Pa Na Dam	Wastage Evap & Other	48	48	0	0	0	0	0

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557	IWUMD	Laydaingzin Dam	Domestic Drinking Water	60	54	0	6	0	0	0
558	IWUMD	Laydaingzin Dam	Inflow	60	54	0	6	0	0	0
559	IWUMD	Laydaingzin Dam	Rainfall	60	60	0	0	0	0	0
560	IWUMD	Laydaingzin Dam	Storage Balance	60	54	0	6	0	0	0
561	IWUMD	Laydaingzin Dam	Wastage Evap & Other	60	54	0	6	0	0	0
562	IWUMD	Laydaingzin Dam	Wastage Spilled	60	54	0	6	0	0	0
563	IWUMD	Linzin	Inflow	48	48	0	0	0	0	0
564	IWUMD	Linzin	Irrigation Supply	48	48	0	0	0	0	0
565	IWUMD	Linzin	Rainfall	48	48	0	0	0	0	0
566	IWUMD	Linzin	Wastage Spilled	48	48	0	0	0	0	0
567	IWUMD	Maday Dam	Conduit Outlet	48	48	0	0	0	0	0
568	IWUMD	Maday Dam	Domestic Drinking Water	60	25	0	35	0	0	0
569	IWUMD	Maday Dam	Domestic Industrial Use	60	25	0	35	0	0	0
570	IWUMD	Maday Dam	Inflow	60	25	0	35	0	0	0
571	IWUMD	Maday Dam	Irrigation Supply	60	25	0	35	0	0	0
572	IWUMD	Maday Dam	Rainfall	60	60	0	0	0	0	0
573	IWUMD	Maday Dam	Storage Balance	60	25	0	35	0	0	0
574	IWUMD	Maday Dam	Total Outflow	48	13	0	35	0	0	0
575	IWUMD	Maday Dam	Wastage Evap & Other	60	25	0	35	0	0	0
576	IWUMD	Maday Dam	Wastage Spilled	60	25	0	35	0	0	0
577	IWUMD	Magyi Thonepin Dam	Inflow	60	50	0	10	0	0	0
578	IWUMD	Magyi Thonepin Dam	Rainfall	60	60	0	0	0	0	0
579	IWUMD	Magyi Thonepin Dam	Storage Balance	60	50	0	10	0	0	0
580	IWUMD	Magyi Thonepin Dam	Wastage Evap & Other	60	50	0	10	0	0	0
581	IWUMD	Magyi Thonepin Dam	Wastage Spilled	60	50	0	10	0	0	0
582	IWUMD	Mann Dam	Inflow	60	55	0	5	0	0	0
583	IWUMD	Mann Dam	Irrigation Supply	60	55	0	5	0	0	0
584	IWUMD	Mann Dam	Rainfall	60	60	0	0	0	0	0
585	IWUMD	Mann Dam	Storage Balance	60	55	0	5	0	0	0
586	IWUMD	Mann Dam	Wastage Evap & Other	60	55	0	5	0	0	0
587	IWUMD	Mann Dam	Wastage Spilled	60	55	0	5	0	0	0
588	IWUMD	Mezali	Inflow	48	48	0	0	0	0	0
589	IWUMD	Mezali	Irrigation Supply	48	48	0	0	0	0	0
590	IWUMD	Mezali	Rainfall	48	48	0	0	0	0	0
591	IWUMD	Mezali	Wastage Spilled	48	48	0	0	0	0	0
592	IWUMD	Min Kan Dam	Inflow	48	43	0	5	0	0	0
593	IWUMD	Min Kan Dam	Rainfall	48	48	0	0	0	0	0
594	IWUMD	Min Kan Dam	Storage Balance	48	43	0	5	0	0	0
595	IWUMD	Min Kan Dam	Wastage Evap & Other	48	43	0	5	0	0	0
596	IWUMD	Mono Multipurpose Dam Project	Hydro Power	12	12	0	0	0	0	0

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597	IWUMD	Mono Multipurpose Dam Project	Inflow	12	12	0	0	0	0	0
598	IWUMD	Mono Multipurpose Dam Project	Power Output	12	12	0	0	0	0	0
599	IWUMD	Myaegetaung Dam	Inflow	48	48	0	0	0	0	0
600	IWUMD	Myaegetaung Dam	Irrigation Supply	48	48	0	0	0	0	0
601	IWUMD	Myaegetaung Dam	Rainfall	48	48	0	0	0	0	0
602	IWUMD	Myaegetaung Dam	Storage Balance	48	48	0	0	0	0	0
603	IWUMD	Myaegetaung Dam	Wastage Evap & Other	48	48	0	0	0	0	0
604	IWUMD	Myaing Ciaung Dam	Inflow	60	59	0	1	0	0	0
605	IWUMD	Myaing Ciaung Dam	Irrigation Supply	60	59	0	1	0	0	0
606	IWUMD	Myaing Ciaung Dam	Rainfall	60	60	0	0	0	0	0
607	IWUMD	Myaing Ciaung Dam	Storage Balance	60	59	0	1	0	0	0
608	IWUMD	Myaing Ciaung Dam	Wastage Evap & Other	60	59	0	1	0	0	0
609	IWUMD	N Ga Chin Dam	Inflow	48	48	0	0	0	0	0
610	IWUMD	N Ga Chin Dam	Rainfall	48	48	0	0	0	0	0
611	IWUMD	N Ga Chin Dam	Storage Balance	48	48	0	0	0	0	0
612	IWUMD	N Ga Chin Dam	Wastage Evap & Other	48	48	0	0	0	0	0
613	IWUMD	Naga Dam	Domestic Drinking Water	60	60	0	0	0	0	0
614	IWUMD	Naga Dam	Inflow	60	60	0	0	0	0	0
615	IWUMD	Naga Dam	Rainfall	60	60	0	0	0	0	0
616	IWUMD	Naga Dam	Storage Balance	60	60	0	0	0	0	0
617	IWUMD	Naga Dam	Wastage Evap & Other	60	60	0	0	0	0	0
618	IWUMD	Natmauk Dam	Inflow	53	45	0	8	0	0	0
619	IWUMD	Natmauk Dam	Irrigation Supply	53	45	0	8	0	0	0
620	IWUMD	Natmauk Dam	Rainfall	53	53	0	0	0	0	0
621	IWUMD	Natmauk Dam	Storage Balance	53	45	0	8	0	0	0
622	IWUMD	Natmauk Dam	Wastage Evap & Other	53	45	0	8	0	0	0
623	IWUMD	Natmauk Dam	Wastage Spilled	53	45	0	8	0	0	0
624	IWUMD	Ngamin Dam	Domestic Industrial Use	60	54	0	6	0	0	0
625	IWUMD	Ngamin Dam	Inflow	60	54	0	6	0	0	0
626	IWUMD	Ngamin Dam	Irrigation Supply	60	54	0	6	0	0	0
627	IWUMD	Ngamin Dam	Rainfall	60	60	0	0	0	0	0
628	IWUMD	Ngamin Dam	Storage Balance	60	54	0	6	0	0	0
629	IWUMD	Ngamin Dam	Wastage Evap & Other	60	54	0	6	0	0	0
630	IWUMD	Ngamin Dam	Wastage Spilled	60	54	0	6	0	0	0
631	IWUMD	Nwetamae Canal	Inflow	60	60	0	0	0	0	0
632	IWUMD	Nwetamae Canal	Irrigation Supply	60	60	0	0	0	0	0
633	IWUMD	Pade Dam Project	Inflow	59	56	0	3	0	0	0
634	IWUMD	Pade Dam Project	Irrigation Supply	59	56	0	3	0	0	0
635	IWUMD	Pade Dam Project	Rainfall	59	59	0	0	0	0	0
636	IWUMD	Pade Dam Project	Storage Balance	59	56	0	3	0	0	0

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637	IWUMD	Pade Dam Project	Wastage Evap & Other	59	56	0	3	0	0	0
638	IWUMD	Pade Dam Project	Wastage Spilled	59	56	0	3	0	0	0
639	IWUMD	Palin Dam	Inflow	59	57	0	2	0	0	0
640	IWUMD	Palin Dam	Irrigation Supply	59	57	0	2	0	0	0
641	IWUMD	Palin Dam	Rainfall	59	59	0	0	0	0	0
642	IWUMD	Palin Dam	Storage Balance	59	57	0	2	0	0	0
643	IWUMD	Palin Dam	Wastage Evap & Other	59	57	0	2	0	0	0
644	IWUMD	Palin Dam	Wastage Spilled	59	57	0	2	0	0	0
645	IWUMD	Phoe NI Dam	Inflow	48	48	0	0	0	0	0
646	IWUMD	Phoe NI Dam	Irrigation Supply	48	48	0	0	0	0	0
647	IWUMD	Phoe NI Dam	Rainfall	48	48	0	0	0	0	0
648	IWUMD	Phoe NI Dam	Storage Balance	48	48	0	0	0	0	0
649	IWUMD	Phoe NI Dam	Wastage Evap & Other	48	48	0	0	0	0	0
650	IWUMD	Pin Tank	Inflow	60	55	0	5	0	0	0
651	IWUMD	Pin Tank	Irrigation Supply	60	55	0	5	0	0	0
652	IWUMD	Pin Tank	Rainfall	60	60	0	0	0	0	0
653	IWUMD	Pin Tank	Storage Balance	60	55	0	5	0	0	0
654	IWUMD	Pin Tank	Wastage Evap & Other	60	55	0	5	0	0	0
655	IWUMD	Pwetha Dam	Domestic Drinking Water	60	58	0	2	0	0	0
656	IWUMD	Pwetha Dam	Inflow	60	58	0	2	0	0	0
657	IWUMD	Pwetha Dam	Irrigation Supply	60	58	0	2	0	0	0
658	IWUMD	Pwetha Dam	Rainfall	60	60	0	0	0	0	0
659	IWUMD	Pwetha Dam	Storage Balance	60	58	0	2	0	0	0
660	IWUMD	Pwetha Dam	Wastage Evap & Other	60	58	0	2	0	0	0
661	IWUMD	Pwetha Dam	Wastage Spilled	60	58	0	2	0	0	0
662	IWUMD	Sabe Dam	Inflow	36	36	0	0	0	0	0
663	IWUMD	Sabe Dam	Rainfall	36	36	0	0	0	0	0
664	IWUMD	Sabe Dam	Storage Balance	36	36	0	0	0	0	0
665	IWUMD	Sabe Dam	Wastage Evap & Other	36	36	0	0	0	0	0
666	IWUMD	Saddan Dam	Domestic Industrial Use	59	53	0	6	0	0	0
667	IWUMD	Saddan Dam	Inflow	59	53	0	6	0	0	0
668	IWUMD	Saddan Dam	Irrigation Supply	59	53	0	6	0	0	0
669	IWUMD	Saddan Dam	Rainfall	59	59	0	0	0	0	0
670	IWUMD	Saddan Dam	Storage Balance	59	53	0	6	0	0	0
671	IWUMD	Saddan Dam	Wastage Evap & Other	59	53	0	6	0	0	0
672	IWUMD	Saddan Dam	Wastage Spilled	59	53	0	6	0	0	0
673	IWUMD	Salin Dam	Inflow	60	56	0	4	0	0	0
674	IWUMD	Salin Dam	Irrigation Supply	60	56	0	4	0	0	0
675	IWUMD	Salin Dam	Rainfall	60	60	0	0	0	0	0
676	IWUMD	Salin Dam	Storage Balance	60	56	0	4	0	0	0

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677	IWUMD	Salin Dam	Wastage Evap & Other	60	56	0	4	0	0	0
678	IWUMD	Salin Dam	Wastage Spilled	60	56	0	4	0	0	0
679	IWUMD	Sin Chaung Dam	Inflow	60	44	0	16	0	0	0
680	IWUMD	Sin Chaung Dam	Irrigation Supply	60	44	0	16	0	0	0
681	IWUMD	Sin Chaung Dam	Rainfall	60	60	0	0	0	0	0
682	IWUMD	Sin Chaung Dam	Storage Balance	60	44	0	16	0	0	0
683	IWUMD	Sin Chaung Dam	Wastage Evap & Other	60	44	0	16	0	0	0
684	IWUMD	Sin Chaung Dam	Wastage Spilled	60	44	0	16	0	0	0
685	IWUMD	Sin Gyo Dam	Rainfall	48	48	0	0	0	0	0
686	IWUMD	Sin Gyo Dam	Storage Balance	48	47	0	1	0	0	0
687	IWUMD	Southman Canal	Inflow	48	48	0	0	0	0	0
688	IWUMD	Southman Canal	Irrigation Supply	48	48	0	0	0	0	0
689	IWUMD	South Yamar Dam	Domestic Water	60	26	0	34	0	0	0
690	IWUMD	South Yamar Dam	Inflow	60	26	0	34	0	0	0
691	IWUMD	South Yamar Dam	Irrigation Supply	59	25	0	34	0	0	0
692	IWUMD	South Yamar Dam	Rainfall	60	60	0	0	0	0	0
693	IWUMD	South Yamar Dam	Storage Balance	59	25	0	34	0	0	0
694	IWUMD	South Yamar Dam	Wastage Evap & Other	60	26	0	34	0	0	0
695	IWUMD	South Yamar Dam	Wastage Spilled	59	25	0	34	0	0	0
696	IWUMD	Sunchaung Dam	Inflow	60	58	0	2	0	0	0
697	IWUMD	Sunchaung Dam	Irrigation Supply	60	58	0	2	0	0	0
698	IWUMD	Sunchaung Dam	Rainfall	60	60	0	0	0	0	0
699	IWUMD	Sunchaung Dam	Storage Balance	60	58	0	2	0	0	0
700	IWUMD	Sunchaung Dam	Wastage Evap & Other	60	58	0	2	0	0	0
701	IWUMD	Sunchaung Dam	Wastage Spilled	60	58	0	2	0	0	0
702	IWUMD	Ta Mar Dam	Inflow	60	60	0	0	0	0	0
703	IWUMD	Ta Mar Dam	Rainfall	60	60	0	0	0	0	0
704	IWUMD	Ta Mar Dam	Storage Balance	60	60	0	0	0	0	0
705	IWUMD	Ta Mar Dam	Wastage Evap & Other	60	60	0	0	0	0	0
706	IWUMD	Tagun Dam	Inflow	60	60	0	0	0	0	0
707	IWUMD	Tagun Dam	Rainfall	60	60	0	0	0	0	0
708	IWUMD	Tagun Dam	Storage Balance	60	60	0	0	0	0	0
709	IWUMD	Tagun Dam	Wastage Evap & Other	60	60	0	0	0	0	0
710	IWUMD	Tattu Dam	Inflow	60	60	0	0	0	0	0
711	IWUMD	Tattu Dam	Irrigation Supply	60	60	0	0	0	0	0
712	IWUMD	Tattu Dam	Rainfall	60	60	0	0	0	0	0
713	IWUMD	Tattu Dam	Storage Balance	60	60	0	0	0	0	0
714	IWUMD	Tattu Dam	Wastage Evap & Other	60	60	0	0	0	0	0
715	IWUMD	Taung Kha Yan Dam	Inflow	60	50	0	10	0	0	0
716	IWUMD	Taung Kha Yan Dam	Irrigation Supply	60	50	0	10	0	0	0

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717	IWUMD	Taung Kha Yan Dam	Rainfall	60	60	0	0	0	0	0
718	IWUMD	Taung Kha Yan Dam	Storage Balance	60	50	0	10	0	0	0
719	IWUMD	Taung Kha Yan Dam	Wastage Evap & Other	60	50	0	10	0	0	0
720	IWUMD	Taung Kha Yan Dam	Wastage Spilled	60	50	0	10	0	0	0
721	IWUMD	Te Gyi Dam	Inflow	48	48	0	0	0	0	0
722	IWUMD	Te Gyi Dam	Rainfall	48	48	0	0	0	0	0
723	IWUMD	Te Gyi Dam	Storage Balance	48	48	0	0	0	0	0
724	IWUMD	Te Gyi Dam	Wastage Evap & Other	48	48	0	0	0	0	0
725	IWUMD	Thadut Dam	Inflow	60	54	0	6	0	0	0
726	IWUMD	Thadut Dam	Irrigation Supply	60	54	0	6	0	0	0
727	IWUMD	Thadut Dam	Rainfall	60	60	0	0	0	0	0
728	IWUMD	Thadut Dam	Storage Balance	60	54	0	6	0	0	0
729	IWUMD	Thadut Dam	Wastage Evap & Other	60	54	0	6	0	0	0
730	IWUMD	Than U Chauk Dam	Inflow	60	59	0	1	0	0	0
731	IWUMD	Than U Chauk Dam	Irrigation Supply	60	59	0	1	0	0	0
732	IWUMD	Than U Chauk Dam	Rainfall	60	60	0	0	0	0	0
733	IWUMD	Than U Chauk Dam	Storage Balance	60	59	0	1	0	0	0
734	IWUMD	Than U Chauk Dam	Wastage Evap & Other	60	59	0	1	0	0	0
735	IWUMD	Thirinandar Dam	Inflow	48	45	0	3	0	0	0
736	IWUMD	Thirinandar Dam	Irrigation Supply	48	45	0	3	0	0	0
737	IWUMD	Thirinandar Dam	Rainfall	48	48	0	0	0	0	0
738	IWUMD	Thirinandar Dam	Storage Balance	48	45	0	3	0	0	0
739	IWUMD	Thirinandar Dam	Wastage Evap & Other	48	45	0	3	0	0	0
740	IWUMD	Thitgyidaw Dam	Inflow	60	59	0	1	0	0	0
741	IWUMD	Thitgyidaw Dam	Irrigation Supply	60	59	0	1	0	0	0
742	IWUMD	Thitgyidaw Dam	Rainfall	60	60	0	0	0	0	0
743	IWUMD	Thitgyidaw Dam	Storage Balance	60	59	0	1	0	0	0
744	IWUMD	Thitgyidaw Dam	Wastage Evap & Other	60	59	0	1	0	0	0
745	IWUMD	Thitgyidaw Dam	Wastage Spilled	60	59	0	1	0	0	0
746	IWUMD	Twin Ma Dam	Inflow	60	59	0	1	0	0	0
747	IWUMD	Twin Ma Dam	Irrigation Supply	60	59	0	1	0	0	0
748	IWUMD	Twin Ma Dam	Rainfall	60	60	0	0	0	0	0
749	IWUMD	Twin Ma Dam	Storage Balance	60	59	0	1	0	0	0
750	IWUMD	Twin Ma Dam	Wastage Evap & Other	60	59	0	1	0	0	0
751	IWUMD	Wun Chaung Dam	Inflow	60	55	0	5	0	0	0
752	IWUMD	Wun Chaung Dam	Irrigation Supply	60	55	0	5	0	0	0
753	IWUMD	Wun Chaung Dam	Rainfall	60	60	0	0	0	0	0
754	IWUMD	Wun Chaung Dam	Storage Balance	60	55	0	5	0	0	0
755	IWUMD	Wun Chaung Dam	Wastage Evap & Other	60	55	0	5	0	0	0
756	IWUMD	Wun Chaung Dam	Wastage Spilled	60	55	0	5	0	0	0

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757	IWUMD	Wun Lo Dam	Inflow	48	48	0	0	0	0	0
758	IWUMD	Wun Lo Dam	Irrigation Supply	48	48	0	0	0	0	0
759	IWUMD	Wun Lo Dam	Rainfall	48	48	0	0	0	0	0
760	IWUMD	Wun Lo Dam	Storage Balance	48	48	0	0	0	0	0
761	IWUMD	Wun Lo Dam	Wastage Evap & Other	48	48	0	0	0	0	0
762	IWUMD	Wun Lo Dam	Wastage Spilled	48	48	0	0	0	0	0
763	IWUMD	Wun Yu Dam	Inflow	60	50	0	10	0	0	0
764	IWUMD	Wun Yu Dam	Irrigation Supply	60	50	0	10	0	0	0
765	IWUMD	Wun Yu Dam	Rainfall	60	60	0	0	0	0	0
766	IWUMD	Wun Yu Dam	Storage Balance	60	50	0	10	0	0	0
767	IWUMD	Wun Yu Dam	Wastage Evap & Other	60	50	0	10	0	0	0
768	IWUMD	Wun Yu Dam	Wastage Spilled	60	50	0	10	0	0	0
769	IWUMD	Yinshae Dam	Inflow	60	59	0	1	0	0	0
770	IWUMD	Yinshae Dam	Irrigation Supply	60	59	0	1	0	0	0
771	IWUMD	Yinshae Dam	Rainfall	60	60	0	0	0	0	0
772	IWUMD	Yinshae Dam	Storage Balance	60	59	0	1	0	0	0
773	IWUMD	Yinshae Dam	Wastage Evap & Other	60	59	0	1	0	0	0
774	IWUMD	Yinshae Dam	Wastage Spilled	60	59	0	1	0	0	0
775	IWUMD	Yanpe Dam	Domestic Industrial Use	60	57	0	3	0	0	0
776	IWUMD	Yanpe Dam	Inflow	60	57	0	3	0	0	0
777	IWUMD	Yanpe Dam	Irrigation Supply	60	57	0	3	0	0	0
778	IWUMD	Yanpe Dam	Rainfall	60	60	0	0	0	0	0
779	IWUMD	Yanpe Dam	Storage Balance	60	57	0	3	0	0	0
780	IWUMD	Yanpe Dam	Wastage Evap & Other	60	57	0	3	0	0	0
781	IWUMD	Yanpe Dam	Wastage Spilled	60	57	0	3	0	0	0
782	IWUMD	Ye Poke Dam	Inflow	60	56	0	4	0	0	0
783	IWUMD	Ye Poke Dam	Rainfall	60	60	0	0	0	0	0
784	IWUMD	Ye Poke Dam	Storage Balance	60	56	0	4	0	0	0
785	IWUMD	Ye Poke Dam	Wastage Evap & Other	60	56	0	4	0	0	0
786	IWUMD	Yinmale Weir	Inflow	60	60	0	0	0	0	0
787	IWUMD	Yinmale Weir	Irrigation Supply	60	60	0	0	0	0	0
788	IWUMD	Yinmale Weir	Rainfall	60	60	0	0	0	0	0
789	IWUMD	Alaungsi Thu	Inflow	60	60	0	0	0	0	0
790	IWUMD	Alaungsi Thu	Irrigation Supply	60	60	0	0	0	0	0
791	IWUMD	Alaungsi Thu	Rainfall	60	60	0	0	0	0	0
792	IWUMD	Alaungsi Thu	Storage Balance	60	60	0	0	0	0	0
793	IWUMD	Alaungsi Thu	Wastage Evap & Other	60	60	0	0	0	0	0
794	IWUMD	Alaungsi Thu	Wastage Spilled	60	60	0	0	0	0	0
795	IWUMD	Be Kan	Storage Balance	48	48	0	0	0	0	0
796	IWUMD	Chaungmagyi	Inflow	48	43	0	5	0	0	0

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797	IWUMD	Chaungmagyi	Irrigation Supply	48	43	0	5	0	0	0
798	IWUMD	Chaungmagyi	Rainfall	48	48	0	0	0	0	0
799	IWUMD	Chaungmagyi	Storage Balance	48	43	0	5	0	0	0
800	IWUMD	Chaungmagyi	Wastage Evap & Other	48	43	0	5	0	0	0
801	IWUMD	Chaungmagyi	Wastage Spilled	48	43	0	5	0	0	0
802	IWUMD	Chaung Magyi Wair	Inflow	48	48	0	0	0	0	0
803	IWUMD	Chaung Magyi Wair	Irrigation Supply	48	48	0	0	0	0	0
804	IWUMD	Chaung Magyi Wair	Rainfall	48	48	0	0	0	0	0
805	IWUMD	Chaung Magyi Wair	Wastage Evap & Other	48	48	0	0	0	0	0
806	IWUMD	Chaung Magyi Wair	Wastage Spilled	48	48	0	0	0	0	0
807	IWUMD	Chaung Manet Dam	Inflow	60	47	0	13	0	0	0
808	IWUMD	Chaung Manet Dam	Irrigation Supply	60	47	0	13	0	0	0
809	IWUMD	Chaung Manet Dam	Rainfall	60	60	0	0	0	0	0
810	IWUMD	Chaung Manet Dam	Storage Balance	60	47	0	13	0	0	0
811	IWUMD	Chaung Manet Dam	Wastage Evap & Other	60	47	0	13	0	0	0
812	IWUMD	Chaung Manet Dam	Wastage Spilled	60	47	0	13	0	0	0
813	IWUMD	Chaung Gauk Dam	Inflow	48	48	0	0	0	0	0
814	IWUMD	Chaung Gauk Dam	Irrigation Supply	48	48	0	0	0	0	0
815	IWUMD	Chaung Gauk Dam	Rainfall	48	48	0	0	0	0	0
816	IWUMD	Chaung Gauk Dam	Storage Balance	48	48	0	0	0	0	0
817	IWUMD	Chaung Gauk Dam	Wastage Evap & Other	48	48	0	0	0	0	0
818	IWUMD	Chaung Gauk Dam	Wastage Spilled	48	48	0	0	0	0	0
819	IWUMD	Chaung Mange Dam	Inflow	60	18	0	42	0	0	0
820	IWUMD	Chaung Mange Dam	Irrigation Supply	48	18	0	30	0	0	0
821	IWUMD	Chaung Mange Dam	Rainfall	60	60	0	0	0	0	0
822	IWUMD	Chaung Mange Dam	Storage Balance	60	18	0	42	0	0	0
823	IWUMD	Chaung Mange Dam	Total Outflow	24	8	0	16	0	0	0
824	IWUMD	Chaung Mange Dam	Wastage Evap & Other	48	18	0	30	0	0	0
825	IWUMD	Chaung Mange Dam	Wastage Spilled	48	18	0	30	0	0	0
826	IWUMD	Doe Gwin Dam	Inflow	48	43	0	5	0	0	0
827	IWUMD	Doe Gwin Dam	Irrigation Supply	48	43	0	5	0	0	0
828	IWUMD	Doe Gwin Dam	Rainfall	48	48	0	0	0	0	0
829	IWUMD	Doe Gwin Dam	Storage Balance	48	43	0	5	0	0	0
830	IWUMD	Doe Gwin Dam	Wastage Evap & Other	48	43	0	5	0	0	0
831	IWUMD	Doe Gwin Dam	Wastage Spilled	48	43	0	5	0	0	0
832	IWUMD	Ka Din	Inflow	48	48	0	0	0	0	0
833	IWUMD	Ka Din	Irrigation Supply	48	48	0	0	0	0	0
834	IWUMD	Ka Din	Rainfall	48	48	0	0	0	0	0
835	IWUMD	Ka Din	Storage Balance	48	48	0	0	0	0	0
836	IWUMD	Ka Din	Wastage Evap & Other	48	48	0	0	0	0	0

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837	IWUMD	Kanna Dam	Inflow	36	36	0	0	0	0	0
838	IWUMD	Kanna Dam	Irrigation Supply	36	36	0	0	0	0	0
839	IWUMD	Kanna Dam	Rainfall	36	36	0	0	0	0	0
840	IWUMD	Kanna Dam	Storage Balance	36	36	0	0	0	0	0
841	IWUMD	Kanna Dam	Wastage Evap & Other	36	36	0	0	0	0	0
842	IWUMD	Kanna Dam	Wastage Spilled	36	36	0	0	0	0	0
843	IWUMD	Khet Lan Dam	Inflow	48	48	0	0	0	0	0
844	IWUMD	Khet Lan Dam	Irrigation Supply	48	48	0	0	0	0	0
845	IWUMD	Khet Lan Dam	Rainfall	48	48	0	0	0	0	0
846	IWUMD	Khet Lan Dam	Storage Balance	48	48	0	0	0	0	0
847	IWUMD	Khet Lan Dam	Wastage Evap & Other	48	48	0	0	0	0	0
848	IWUMD	Kin Tha Dam	Inflow	59	49	0	10	0	0	0
849	IWUMD	Kin Tha Dam	Irrigation Supply	59	49	0	10	0	0	0
850	IWUMD	Kin Tha Dam	Storage Balance	59	49	0	10	0	0	0
851	IWUMD	Kin Tha Dam	Wastage Evap & Other	59	49	0	10	0	0	0
852	IWUMD	Kinda Mutipurpose Project	Inflow	60	58	0	2	0	0	0
853	IWUMD	Kinda Mutipurpose Project	Irrigation Supply	60	58	0	2	0	0	0
854	IWUMD	Kinda Mutipurpose Project	Power Output	60	60	0	0	0	0	0
855	IWUMD	Kinda Mutipurpose Project	Rainfall	60	60	0	0	0	0	0
856	IWUMD	Kinda Mutipurpose Project	Storage Balance	60	58	0	2	0	0	0
857	IWUMD	Kinda Mutipurpose Project	Turbine Running	60	60	0	0	0	0	0
858	IWUMD	Kinda Mutipurpose Project	Wastage Evap & Other	60	58	0	2	0	0	0
859	IWUMD	Kyaukse	Inflow	60	58	0	2	0	0	0
860	IWUMD	Kyaukse	Irrigation Supply	60	58	0	2	0	0	0
861	IWUMD	Kyaukse	Rainfall	60	60	0	0	0	0	0
862	IWUMD	Kyaukse	Storage Balance	60	58	0	2	0	0	0
863	IWUMD	Kyaukse	Wastage Evap & Other	60	58	0	2	0	0	0
864	IWUMD	Kyaukse	Wastage Spilled	60	58	0	2	0	0	0
865	IWUMD	Kyauk Ta Lone Dam	Inflow	48	45	0	3	0	0	0
866	IWUMD	Kyauk Ta Lone Dam	Irrigation Supply	48	45	0	3	0	0	0
867	IWUMD	Kyauk Ta Lone Dam	Rainfall	48	48	0	0	0	0	0
868	IWUMD	Kyauk Ta Lone Dam	Storage Balance	48	45	0	3	0	0	0
869	IWUMD	Kyauk Ta Lone Dam	Wastage Evap & Other	48	45	0	3	0	0	0
870	IWUMD	Kyauk Ta Lone Dam	Wastage Spilled	48	45	0	3	0	0	0
871	IWUMD	Kyauk Ta Lone Modulating	Inflow	48	48	0	0	0	0	0
872	IWUMD	Kyauk Ta Lone Modulating	Rainfall	48	48	0	0	0	0	0
873	IWUMD	Kyauk Ta Lone Modulating	Storage Balance	48	48	0	0	0	0	0
874	IWUMD	Kyauk Ta Lone Modulating	Wastage Evap & Other	48	48	0	0	0	0	0
875	IWUMD	Kye Ni	Inflow	60	49	0	11	0	0	0
876	IWUMD	Kye Ni	Irrigation Supply	60	49	0	11	0	0	0

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877	IWUMD	Kye Ni	Rainfall	60	60	0	0	0	0	0
878	IWUMD	Kye Ni	Storage Balance	60	49	0	11	0	0	0
879	IWUMD	Kye Ni	Wastage Evap & Other	60	49	0	11	0	0	0
880	IWUMD	Kyin Tha	Inflow	60	58	0	2	0	0	0
881	IWUMD	Kyin Tha	Irrigation Supply	60	58	0	2	0	0	0
882	IWUMD	Kyin Tha	Rainfall	60	60	0	0	0	0	0
883	IWUMD	Kyin Tha	Storage Balance	60	58	0	2	0	0	0
884	IWUMD	Kyin Tha	Wastage Evap & Other	60	58	0	2	0	0	0
885	IWUMD	Kyin Tha	Wastage Spilled	60	58	0	2	0	0	0
886	IWUMD	Let Khope Pin Dam	Inflow	48	47	0	1	0	0	0
887	IWUMD	Let Khope Pin Dam	Irrigation Supply	48	47	0	1	0	0	0
888	IWUMD	Let Khope Pin Dam	Rainfall	48	48	0	0	0	0	0
889	IWUMD	Let Khope Pin Dam	Storage Balance	48	47	0	1	0	0	0
890	IWUMD	Let Khope Pin Dam	Wastage Evap & Other	48	47	0	1	0	0	0
891	IWUMD	Lun Guin Dam	Inflow	48	47	0	1	0	0	0
892	IWUMD	Lun Guin Dam	Irrigation Supply	48	47	0	1	0	0	0
893	IWUMD	Lun Guin Dam	Storage Balance	48	47	0	1	0	0	0
894	IWUMD	Lun Guin Dam	Wastage Evap & Other	48	47	0	1	0	0	0
895	IWUMD	Madam Dam	Inflow	36	36	0	0	0	0	0
896	IWUMD	Madam Dam	Irrigation Supply	36	36	0	0	0	0	0
897	IWUMD	Madam Dam	Rainfall	36	36	0	0	0	0	0
898	IWUMD	Madam Dam	Storage Balance	36	36	0	0	0	0	0
899	IWUMD	Madam Dam	Wastage Evap & Other	36	36	0	0	0	0	0
900	IWUMD	Male Nat Taung Dam	Inflow	60	57	0	3	0	0	0
901	IWUMD	Male Nat Taung Dam	Irrigation Supply	60	57	0	3	0	0	0
902	IWUMD	Male Nat Taung Dam	Rainfall	60	60	0	0	0	0	0
903	IWUMD	Male Nat Taung Dam	Storage Balance	60	57	0	3	0	0	0
904	IWUMD	Male Nat Taung Dam	Wastage Evap & Other	60	57	0	3	0	0	0
905	IWUMD	Male Nat Taung Dam	Wastage Spilled	60	57	0	3	0	0	0
906	IWUMD	Meiktila Tank	Domestic Drinking Water	60	60	0	0	0	0	0
907	IWUMD	Meiktila Tank	Inflow	60	60	0	0	0	0	0
908	IWUMD	Meiktila Tank	Irrigation Supply	60	60	0	0	0	0	0
909	IWUMD	Meiktila Tank	Rainfall	60	60	0	0	0	0	0
910	IWUMD	Meiktila Tank	Storage Balance	60	60	0	0	0	0	0
911	IWUMD	Meiktila Tank	Wastage Evap & Other	60	60	0	0	0	0	0
912	IWUMD	Min Hla	Inflow	60	56	0	4	0	0	0
913	IWUMD	Min Hla	Irrigation Supply	60	56	0	4	0	0	0
914	IWUMD	Min Hla	Rainfall	60	60	0	0	0	0	0
915	IWUMD	Min Hla	Storage Balance	60	56	0	4	0	0	0
916	IWUMD	Min Hla	Wastage Evap & Other	60	56	0	4	0	0	0

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917	IWUMD	Mon Retention Dam	Inflow	60	56	0	4	0	0	0
918	IWUMD	Mon Retention Dam	Irrigation Supply	60	56	0	4	0	0	0
919	IWUMD	Mon Retention Dam	Storage Balance	60	56	0	4	0	0	0
920	IWUMD	Mon Retention Dam	Wastage Evap & Other	60	56	0	4	0	0	0
921	IWUMD	Mondaing Dam	Inflow	48	48	0	0	0	0	0
922	IWUMD	Mondaing Dam	Irrigation Supply	48	48	0	0	0	0	0
923	IWUMD	Mondaing Dam	Rainfall	48	48	0	0	0	0	0
924	IWUMD	Mondaing Dam	Storage Balance	48	48	0	0	0	0	0
925	IWUMD	Mondaing Dam	Wastage Evap & Other	48	48	0	0	0	0	0
926	IWUMD	Mondaing Dam	Wastage Spilled	48	48	0	0	0	0	0
927	IWUMD	Mya Kan	Inflow	48	47	0	1	0	0	0
928	IWUMD	Mya Kan	Rainfall	48	48	0	0	0	0	0
929	IWUMD	Mya Kan	Storage Balance	48	47	0	1	0	0	0
930	IWUMD	Mya Kan	Wastage Evap & Other	48	47	0	1	0	0	0
931	IWUMD	Myaing Tha Dam	Inflow	48	48	0	0	0	0	0
932	IWUMD	Myaing Tha Dam	Irrigation Supply	48	48	0	0	0	0	0
933	IWUMD	Myaing Tha Dam	Storage Balance	48	48	0	0	0	0	0
934	IWUMD	Myaing Tha Dam	Wastage Evap & Other	48	48	0	0	0	0	0
935	IWUMD	Myaing Tha Dam	Wastage Spilled	48	48	0	0	0	0	0
936	IWUMD	Myauk Pin Le Dam	Inflow	48	48	0	0	0	0	0
937	IWUMD	Myauk Pin Le Dam	Irrigation Supply	48	48	0	0	0	0	0
938	IWUMD	Myauk Pin Le Dam	Rainfall	48	48	0	0	0	0	0
939	IWUMD	Myauk Pin Le Dam	Storage Balance	48	48	0	0	0	0	0
940	IWUMD	Myauk Pin Le Dam	Wastage Evap & Other	48	48	0	0	0	0	0
941	IWUMD	Myo Hla Dam	Inflow	60	54	0	6	0	0	0
942	IWUMD	Myo Hla Dam	Irrigation Supply	60	54	0	6	0	0	0
943	IWUMD	Myo Hla Dam	Rainfall	60	60	0	0	0	0	0
944	IWUMD	Myo Hla Dam	Storage Balance	60	54	0	6	0	0	0
945	IWUMD	Myo Hla Dam	Wastage Evap & Other	60	54	0	6	0	0	0
946	IWUMD	Myo Tha Dam	Inflow	60	60	0	0	0	0	0
947	IWUMD	Myo Tha Dam	Irrigation Supply	60	60	0	0	0	0	0
948	IWUMD	Myo Tha Dam	Rainfall	60	60	0	0	0	0	0
949	IWUMD	Myo Tha Dam	Storage Balance	60	60	0	0	0	0	0
950	IWUMD	Myo Tha Dam	Wastage Evap & Other	60	60	0	0	0	0	0
951	IWUMD	Nag Tha Yauk	Inflow	36	35	0	1	0	0	0
952	IWUMD	Nag Tha Yauk	Rainfall	36	36	0	0	0	0	0
953	IWUMD	Nag Tha Yauk	Storage Balance	36	35	0	1	0	0	0
954	IWUMD	Nag Tha Yauk	Wastage Evap & Other	36	35	0	1	0	0	0
955	IWUMD	Naglaik Dam	Inflow	48	36	0	12	0	0	0
956	IWUMD	Naglaik Dam	Irrigation Supply	48	36	0	12	0	0	0

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957	IWUMD	Naglaik Dam	Rainfall	48	48	0	0	0	0	0
958	IWUMD	Naglaik Dam	Storage Balance	48	36	0	12	0	0	0
959	IWUMD	Naglaik Dam	Wastage Evap & Other	48	36	0	12	0	0	0
960	IWUMD	Naglaik Dam	Wastage Spilled	48	36	0	12	0	0	0
961	IWUMD	Natka	Inflow	48	46	0	2	0	0	0
962	IWUMD	Natka	Irrigation Supply	48	46	0	2	0	0	0
963	IWUMD	Natka	Rainfall	48	48	0	0	0	0	0
964	IWUMD	Natka	Storage Balance	48	46	0	2	0	0	0
965	IWUMD	Natka	Wastage Evap & Other	48	46	0	2	0	0	0
966	IWUMD	Natha Daw Dam	Inflow	36	35	0	1	0	0	0
967	IWUMD	Natha Daw Dam	Irrigation Supply	36	35	0	1	0	0	0
968	IWUMD	Natha Daw Dam	Rainfall	36	36	0	0	0	0	0
969	IWUMD	Natha Daw Dam	Storage Balance	36	35	0	1	0	0	0
970	IWUMD	Natha Daw Dam	Wastage Evap & Other	36	35	0	1	0	0	0
971	IWUMD	Naung Ngoke To	Inflow	48	47	0	1	0	0	0
972	IWUMD	Naung Ngoke To	Irrigation Supply	48	47	0	1	0	0	0
973	IWUMD	Naung Ngoke To	Storage Balance	48	47	0	1	0	0	0
974	IWUMD	Naung Ngoke To	Wastage Evap & Other	48	47	0	1	0	0	0
975	IWUMD	Naung Ngoke To	Wastage Spilled	48	47	0	1	0	0	0
976	IWUMD	Nyaung Bin Tha	Inflow	60	59	0	1	0	0	0
977	IWUMD	Nyaung Bin Tha	Irrigation Supply	60	59	0	1	0	0	0
978	IWUMD	Nyaung Bin Tha	Rainfall	60	60	0	0	0	0	0
979	IWUMD	Nyaung Bin Tha	Storage Balance	60	59	0	1	0	0	0
980	IWUMD	Nyaung Bin Tha	Wastage Evap & Other	60	59	0	1	0	0	0
981	IWUMD	Nyaung Gon	Inflow	60	58	0	2	0	0	0
982	IWUMD	Nyaung Gon	Irrigation Supply	60	58	0	2	0	0	0
983	IWUMD	Nyaung Gon	Rainfall	60	60	0	0	0	0	0
984	IWUMD	Nyaung Gon	Storage Balance	60	58	0	2	0	0	0
985	IWUMD	Nyaung Gon	Wastage Evap & Other	60	58	0	2	0	0	0
986	IWUMD	Nyaung Gon	Wastage Spilled	60	58	0	2	0	0	0
987	IWUMD	Nyaung Yan	Inflow	48	48	0	0	0	0	0
988	IWUMD	Nyaung Yan	Irrigation Supply	48	48	0	0	0	0	0
989	IWUMD	Nyaung Yan	Rainfall	48	48	0	0	0	0	0
990	IWUMD	Nyaung Yan	Storage Balance	48	48	0	0	0	0	0
991	IWUMD	Nyaung Yan	Wastage Evap & Other	48	48	0	0	0	0	0
992	IWUMD	Pyugan Tank	Inflow	59	46	0	13	0	0	0
993	IWUMD	Pyugan Tank	Irrigation Supply	59	46	0	13	0	0	0
994	IWUMD	Pyugan Tank	Rainfall	59	59	0	0	0	0	0
995	IWUMD	Pyugan Tank	Storage Balance	59	46	0	13	0	0	0
996	IWUMD	Pyugan Tank	Wastage Evap & Other	59	46	0	13	0	0	0

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997	IWUMD	Pan Zwe Dam	Inflow	47	47	0	0	0	0	0
998	IWUMD	Pan Zwe Dam	Irrigation Supply	47	47	0	0	0	0	0
999	IWUMD	Pan Zwe Dam	Storage Balance	47	47	0	0	0	0	0
1000	IWUMD	Pan Zwe Dam	Wastage Evap & Other	47	47	0	0	0	0	0
1001	IWUMD	Paung Laiing Dam Project	Hydro Power	60	60	0	0	0	0	0
1002	IWUMD	Paung Laiing Dam Project	Inflow	60	1	0	59	0	0	0
1003	IWUMD	Paung Laiing Dam Project	Power Output	60	60	0	0	0	0	0
1004	IWUMD	Paung Laiing Dam Project	Rainfall	60	60	0	0	0	0	0
1005	IWUMD	Paung Laiing Dam Project	Storage Balance	60	1	0	59	0	0	0
1006	IWUMD	Paung Laiing Dam Project	Turbine Running	60	60	0	0	0	0	0
1007	IWUMD	Paung Laiing Dam Project	Wastage Evap & Other	60	1	0	59	0	0	0
1008	IWUMD	Paung Laiing Dam Project	Wastage Spilled	60	1	0	59	0	0	0
1009	IWUMD	Phaung Ga Daw Dam	Inflow	48	46	0	2	0	0	0
1010	IWUMD	Phaung Ga Daw Dam	Irrigation Supply	48	46	0	2	0	0	0
1011	IWUMD	Phaung Ga Daw Dam	Rainfall	48	48	0	0	0	0	0
1012	IWUMD	Phaung Ga Daw Dam	Storage Balance	48	46	0	2	0	0	0
1013	IWUMD	Phaung Ga Daw Dam	Wastage Evap & Other	48	46	0	2	0	0	0
1014	IWUMD	Pinn Chaung	Inflow	48	48	0	0	0	0	0
1015	IWUMD	Pinn Chaung	Irrigation Supply	48	48	0	0	0	0	0
1016	IWUMD	Pinn Chaung	Rainfall	48	48	0	0	0	0	0
1017	IWUMD	Pinn Chaung	Storage Balance	48	48	0	0	0	0	0
1018	IWUMD	Pinn Chaung	Wastage Evap & Other	48	48	0	0	0	0	0
1019	IWUMD	Pon Ma Gyi	Inflow	48	45	0	3	0	0	0
1020	IWUMD	Pon Ma Gyi	Irrigation Supply	48	45	0	3	0	0	0
1021	IWUMD	Pon Ma Gyi	Rainfall	48	48	0	0	0	0	0
1022	IWUMD	Pon Ma Gyi	Storage Balance	48	45	0	3	0	0	0
1023	IWUMD	Pon Ma Gyi	Wastage Evap & Other	48	45	0	3	0	0	0
1024	IWUMD	Pyaung Bya	Inflow	60	59	0	1	0	0	0
1025	IWUMD	Pyaung Bya	Irrigation Supply	60	59	0	1	0	0	0
1026	IWUMD	Pyaung Bya	Rainfall	60	60	0	0	0	0	0
1027	IWUMD	Pyaung Bya	Storage Balance	60	59	0	1	0	0	0
1028	IWUMD	Pyaung Bya	Wastage Evap & Other	60	59	0	1	0	0	0
1029	IWUMD	Pyo Kan	Inflow	60	58	0	2	0	0	0
1030	IWUMD	Pyo Kan	Irrigation Supply	60	58	0	2	0	0	0
1031	IWUMD	Pyo Kan	Rainfall	60	60	0	0	0	0	0
1032	IWUMD	Pyo Kan	Storage Balance	60	58	0	2	0	0	0
1033	IWUMD	Pyo Kan	Wastage Evap & Other	60	58	0	2	0	0	0
1034	IWUMD	Pyo Kan	Wastage Spilled	60	58	0	2	0	0	0
1035	IWUMD	Sedawlay Weir	Domestic Drinking Water	48	48	0	0	0	0	0
1036	IWUMD	Sedawlay Weir	Inflow	48	48	0	0	0	0	0

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1037	IWUMD	Sedawlay Weir	Irrigation Supply	48	48	0	0	0	0	0
1038	IWUMD	Sedawlay Weir	Rainfall	48	48	0	0	0	0	0
1039	IWUMD	Sedawlay Weir	Wastage Spilled	48	48	0	0	0	0	0
1040	IWUMD	Si Tha Dam	Inflow	60	8	0	52	0	0	0
1041	IWUMD	Si Tha Dam	Irrigation Supply	60	8	0	52	0	0	0
1042	IWUMD	Si Tha Dam	Rainfall	60	60	0	0	0	0	0
1043	IWUMD	Si Tha Dam	Storage Balance	60	8	0	52	0	0	0
1044	IWUMD	Si Tha Dam	Wastage Evap & Other	60	8	0	52	0	0	0
1045	IWUMD	Si Tha Dam	Wastage Spilled	60	8	0	52	0	0	0
1046	IWUMD	Si Tha Modunation Dam	Inflow	48	24	0	24	0	0	0
1047	IWUMD	Si Tha Modunation Dam	Irrigation Supply	48	24	0	24	0	0	0
1048	IWUMD	Si Tha Modunation Dam	Rainfall	48	48	0	0	0	0	0
1049	IWUMD	Si Tha Modunation Dam	Storage Balance	48	24	0	24	0	0	0
1050	IWUMD	Si Tha Modunation Dam	Wastage Evap & Other	48	24	0	24	0	0	0
1051	IWUMD	Sa Mon	Inflow	60	57	0	3	0	0	0
1052	IWUMD	Sa Mon	Irrigation Supply	60	57	0	3	0	0	0
1053	IWUMD	Sa Mon	Rainfall	60	60	0	0	0	0	0
1054	IWUMD	Sa Mon	Storage Balance	60	57	0	3	0	0	0
1055	IWUMD	Sa Mon	Wastage Evap & Other	60	57	0	3	0	0	0
1056	IWUMD	Sa Mon	Wastage Spilled	60	57	0	3	0	0	0
1057	IWUMD	Sedawgyidam	Hydro Power	60	60	0	0	0	0	0
1058	IWUMD	Sedawgyidam	Inflow	60	13	0	47	0	0	0
1059	IWUMD	Sedawgyidam	Irrigation Supply	60	13	0	47	0	0	0
1060	IWUMD	Sedawgyidam	Power Output	60	60	0	0	0	0	0
1061	IWUMD	Sedawgyidam	Rainfall	60	60	0	0	0	0	0
1062	IWUMD	Sedawgyidam	Storage Balance	60	13	0	47	0	0	0
1063	IWUMD	Sedawgyidam	Turbine Running	60	60	0	0	0	0	0
1064	IWUMD	Sedawgyidam	Wastage Evap & Other	60	13	0	47	0	0	0
1065	IWUMD	Sedawgyidam	Wastage Spilled	60	13	0	47	0	0	0
1066	IWUMD	Shan Ma Nge Dam	Inflow	48	48	0	0	0	0	0
1067	IWUMD	Shan Ma Nge Dam	Irrigation Supply	48	48	0	0	0	0	0
1068	IWUMD	Shan Ma Nge Dam	Rainfall	48	48	0	0	0	0	0
1069	IWUMD	Shan Ma Nge Dam	Storage Balance	48	48	0	0	0	0	0
1070	IWUMD	Shan Ma Nge Dam	Wastage Evap & Other	48	48	0	0	0	0	0
1071	IWUMD	Sin De Wa Dam	Inflow	48	41	0	7	0	0	0
1072	IWUMD	Sin De Wa Dam	Irrigation Supply	48	41	0	7	0	0	0
1073	IWUMD	Sin De Wa Dam	Rainfall	48	48	0	0	0	0	0
1074	IWUMD	Sin De Wa Dam	Storage Balance	48	41	0	7	0	0	0
1075	IWUMD	Sin De Wa Dam	Wastage Evap & Other	48	41	0	7	0	0	0
1076	IWUMD	Sin De Wa Dam	Wastage Spilled	48	41	0	7	0	0	0

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1077	IWUMD	Sin Lan Dam	Inflow	48	1	0	47	0	0	0
1078	IWUMD	Sin Lan Dam	Irrigation Supply	48	1	0	47	0	0	0
1079	IWUMD	Sin Lan Dam	Rainfall	48	48	0	0	0	0	0
1080	IWUMD	Sin Lan Dam	Storage Balance	48	1	0	47	0	0	0
1081	IWUMD	Sin Lan Dam	Wastage Evap & Other	48	1	0	47	0	0	0
1082	IWUMD	Sin Lan Dam	Wastage Spilled	48	1	0	47	0	0	0
1083	IWUMD	Sinthe Dam	Inflow	60	58	0	2	0	0	0
1084	IWUMD	Sinthe Dam	Irrigation Supply	60	58	0	2	0	0	0
1085	IWUMD	Sinthe Dam	Rainfall	60	60	0	0	0	0	0
1086	IWUMD	Sinthe Dam	Storage Balance	60	58	0	2	0	0	0
1087	IWUMD	Sinthe Dam	Wastage Evap & Other	60	58	0	2	0	0	0
1088	IWUMD	Sun Lun Dam	Inflow	48	48	0	0	0	0	0
1089	IWUMD	Sun Lun Dam	Irrigation Supply	48	48	0	0	0	0	0
1090	IWUMD	Sun Lun Dam	Rainfall	48	48	0	0	0	0	0
1091	IWUMD	Sun Lun Dam	Storage Balance	48	48	0	0	0	0	0
1092	IWUMD	Sun Lun Dam	Wastage Evap & Other	48	48	0	0	0	0	0
1093	IWUMD	Ta Gon Daing	Inflow	60	58	0	2	0	0	0
1094	IWUMD	Ta Gon Daing	Irrigation Supply	60	58	0	2	0	0	0
1095	IWUMD	Ta Gon Daing	Storage Balance	60	58	0	2	0	0	0
1096	IWUMD	Ta Gon Daing	Wastage Evap & Other	60	58	0	2	0	0	0
1097	IWUMD	Ta Gon Daing	Wastage Spilled	60	58	0	2	0	0	0
1098	IWUMD	Tauk Pyo Dam	Inflow	60	55	0	5	0	0	0
1099	IWUMD	Tauk Pyo Dam	Irrigation Supply	60	55	0	5	0	0	0
1100	IWUMD	Tauk Pyo Dam	Rainfall	60	60	0	0	0	0	0
1101	IWUMD	Tauk Pyo Dam	Storage Balance	60	55	0	5	0	0	0
1102	IWUMD	Tauk Pyo Dam	Wastage Evap & Other	60	55	0	5	0	0	0
1103	IWUMD	Taung Pu Lu	Inflow	60	60	0	0	0	0	0
1104	IWUMD	Taung Pu Lu	Irrigation Supply	60	60	0	0	0	0	0
1105	IWUMD	Taung Pu Lu	Rainfall	60	60	0	0	0	0	0
1106	IWUMD	Taung Pu Lu	Storage Balance	60	60	0	0	0	0	0
1107	IWUMD	Taung Pu Lu	Wastage Evap & Other	60	60	0	0	0	0	0
1108	IWUMD	Taung Pu Lu	Wastage Spilled	60	60	0	0	0	0	0
1109	IWUMD	Taung Tha Dam	Domestic Drinking Water	48	48	0	0	0	0	0
1110	IWUMD	Taung Tha Dam	Inflow	48	48	0	0	0	0	0
1111	IWUMD	Taung Tha Dam	Irrigation Supply	48	48	0	0	0	0	0
1112	IWUMD	Taung Tha Dam	Rainfall	48	48	0	0	0	0	0
1113	IWUMD	Taung Tha Dam	Storage Balance	48	48	0	0	0	0	0
1114	IWUMD	Taung Tha Dam	Wastage Evap & Other	48	48	0	0	0	0	0
1115	IWUMD	Taung Tha Dam	Wastage Spilled	48	48	0	0	0	0	0
1116	IWUMD	Taung Ye	Inflow	47	40	0	7	0	0	0

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1117	IWUMD	Taung Ye	Irrigation Supply	47	40	0	7	0	0	0
1118	IWUMD	Taung Ye	Rainfall	47	47	0	0	0	0	0
1119	IWUMD	Taung Ye	Storage Balance	47	40	0	7	0	0	0
1120	IWUMD	Taung Ye	Wastage Evap & Other	47	40	0	7	0	0	0
1121	IWUMD	Taung Pin Le Dam	Inflow	47	46	0	1	0	0	0
1122	IWUMD	Taung Pin Le Dam	Irrigation Supply	47	46	0	1	0	0	0
1123	IWUMD	Taung Pin Le Dam	Rainfall	47	47	0	0	0	0	0
1124	IWUMD	Taung Pin Le Dam	Storage Balance	47	46	0	1	0	0	0
1125	IWUMD	Taung Pin Le Dam	Wastage Evap & Other	47	46	0	1	0	0	0
1126	IWUMD	Tha Baye Yoe Dam	Inflow	60	59	0	1	0	0	0
1127	IWUMD	Tha Baye Yoe Dam	Irrigation Supply	60	59	0	1	0	0	0
1128	IWUMD	Tha Baye Yoe Dam	Rainfall	60	60	0	0	0	0	0
1129	IWUMD	Tha Baye Yoe Dam	Storage Balance	60	59	0	1	0	0	0
1130	IWUMD	Tha Baye Yoe Dam	Wastage Evap & Other	60	59	0	1	0	0	0
1131	IWUMD	Tha Baye Yoe Dam	Wastage Spilled	60	59	0	1	0	0	0
1132	IWUMD	Tha Phan Chaung	Inflow	48	48	0	0	0	0	0
1133	IWUMD	Tha Phan Chaung	Irrigation Supply	48	48	0	0	0	0	0
1134	IWUMD	Tha Phan Chaung	Rainfall	48	48	0	0	0	0	0
1135	IWUMD	Tha Phan Chaung	Storage Balance	48	48	0	0	0	0	0
1136	IWUMD	Tha Phan Chaung	Wastage Evap & Other	48	48	0	0	0	0	0
1137	IWUMD	Tha Phan Chaung	Wastage Spilled	48	48	0	0	0	0	0
1138	IWUMD	That Taw I	Inflow	60	58	0	2	0	0	0
1139	IWUMD	That Taw I	Irrigation Supply	60	58	0	2	0	0	0
1140	IWUMD	That Taw I	Rainfall	60	60	0	0	0	0	0
1141	IWUMD	That Taw I	Storage Balance	60	58	0	2	0	0	0
1142	IWUMD	That Taw I	Wastage Evap & Other	60	58	0	2	0	0	0
1143	IWUMD	That Taw li	Inflow	60	58	0	2	0	0	0
1144	IWUMD	That Taw li	Irrigation Supply	60	58	0	2	0	0	0
1145	IWUMD	That Taw li	Rainfall	60	60	0	0	0	0	0
1146	IWUMD	That Taw li	Storage Balance	60	58	0	2	0	0	0
1147	IWUMD	That Taw li	Wastage Evap & Other	60	58	0	2	0	0	0
1148	IWUMD	The Byu Dam	Inflow	60	59	0	1	0	0	0
1149	IWUMD	The Byu Dam	Irrigation Supply	60	59	0	1	0	0	0
1150	IWUMD	The Byu Dam	Rainfall	60	60	0	0	0	0	0
1151	IWUMD	The Byu Dam	Storage Balance	60	59	0	1	0	0	0
1152	IWUMD	The Byu Dam	Wastage Evap & Other	60	59	0	1	0	0	0
1153	IWUMD	Thin Bon Dam	Inflow	60	44	0	16	0	0	0
1154	IWUMD	Thin Bon Dam	Irrigation Supply	60	44	0	16	0	0	0
1155	IWUMD	Thin Bon Dam	Rainfall	60	60	0	0	0	0	0
1156	IWUMD	Thin Bon Dam	Storage Balance	60	44	0	16	0	0	0

ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
1157	IWUMD	Thin Bon Dam	Wastage Evap & Other	60	44	0	16	0	0	0
1158	IWUMD	Thit Son	Inflow	60	58	0	2	0	0	0
1159	IWUMD	Thit Son	Irrigation Supply	60	58	0	2	0	0	0
1160	IWUMD	Thit Son	Rainfall	60	60	0	0	0	0	0
1161	IWUMD	Thit Son	Storage Balance	60	58	0	2	0	0	0
1162	IWUMD	Thit Son	Wastage Evap & Other	60	58	0	2	0	0	0
1163	IWUMD	U Ka We	Storage Balance	48	48	0	0	0	0	0
1164	IWUMD	We Laung Dam	Inflow	36	35	0	1	0	0	0
1165	IWUMD	We Laung Dam	Irrigation Supply	36	35	0	1	0	0	0
1166	IWUMD	We Laung Dam	Rainfall	36	36	0	0	0	0	0
1167	IWUMD	We Laung Dam	Storage Balance	36	35	0	1	0	0	0
1168	IWUMD	We Laung Dam	Wastage Evap & Other	36	35	0	1	0	0	0
1169	IWUMD	Yar Gyi	Inflow	48	46	0	2	0	0	0
1170	IWUMD	Yar Gyi	Irrigation Supply	48	46	0	2	0	0	0
1171	IWUMD	Yar Gyi	Storage Balance	48	46	0	2	0	0	0
1172	IWUMD	Yar Gyi	Wastage Evap & Other	48	46	0	2	0	0	0
1173	IWUMD	Yezin Dam	Domestic Water	24	22	0	2	0	0	0
1174	IWUMD	Yezin Dam	Inflow	59	22	0	37	0	0	0
1175	IWUMD	Yezin Dam	Irrigation Supply	59	22	0	37	0	0	0
1176	IWUMD	Yezin Dam	Rainfall	59	59	0	0	0	0	0
1177	IWUMD	Yezin Dam	Storage Balance	59	22	0	37	0	0	0
1178	IWUMD	Yezin Dam	Wastage Evap & Other	59	22	0	37	0	0	0
1179	IWUMD	Yin Daw	Inflow	60	59	0	1	0	0	0
1180	IWUMD	Yin Daw	Irrigation Supply	60	59	0	1	0	0	0
1181	IWUMD	Yin Daw	Rainfall	60	60	0	0	0	0	0
1182	IWUMD	Yin Daw	Storage Balance	60	59	0	1	0	0	0
1183	IWUMD	Yin Daw	Wastage Evap & Other	60	59	0	1	0	0	0
1184	IWUMD	Zi Daw Dam	Inflow	60	58	0	2	0	0	0
1185	IWUMD	Zi Daw Dam	Irrigation Supply	60	58	0	2	0	0	0
1186	IWUMD	Zi Daw Dam	Rainfall	60	60	0	0	0	0	0
1187	IWUMD	Zi Daw Dam	Storage Balance	60	58	0	2	0	0	0
1188	IWUMD	Zi Daw Dam	Wastage Evap & Other	60	58	0	2	0	0	0
1189	IWUMD	Zi Daw Dam	Wastage Spilled	60	58	0	2	0	0	0
1190	IWUMD	Kyet Mauk Taung	Inflow	24	23	0	1	0	0	0
1191	IWUMD	Kyet Mauk Taung	Irrigation Supply	24	23	0	1	0	0	0
1192	IWUMD	Kyet Mauk Taung	Rainfall	24	24	0	0	0	0	0
1193	IWUMD	Kyet Mauk Taung	Storage Balance	24	23	0	1	0	0	0
1194	IWUMD	Kyet Mauk Taung	Wastage Evap & Other	24	23	0	1	0	0	0
1195	IWUMD	Aingya Dam	Inflow	60	57	0	3	0	0	0
1196	IWUMD	Aingya Dam	Rainfall	60	60	0	0	0	0	0

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1197	IWUMD	Aingya Dam	Storage Balance	60	57	0	3	0	0	0
1198	IWUMD	Aingya Dam	Wastage Evap & Other	60	57	0	3	0	0	0
1199	IWUMD	Ayadaw Dam	Inflow	48	44	0	4	0	0	0
1200	IWUMD	Ayadaw Dam	Rainfall	48	48	0	0	0	0	0
1201	IWUMD	Ayadaw Dam	Storage Balance	48	44	0	4	0	0	0
1202	IWUMD	Ayadaw Dam	Wastage Evap & Other	48	44	0	4	0	0	0
1203	IWUMD	Ayadaw Dam	Wastage Spilled	36	32	0	4	0	0	0
1204	IWUMD	Bawditahatung Dam	Domestic Water	60	47	0	13	0	0	0
1205	IWUMD	Bawditahatung Dam	Inflow	60	47	0	13	0	0	0
1206	IWUMD	Bawditahatung Dam	Rainfall	60	60	0	0	0	0	0
1207	IWUMD	Bawditahatung Dam	Storage Balance	60	47	0	13	0	0	0
1208	IWUMD	Bawditahatung Dam	Wastage Evap & Other	60	47	0	13	0	0	0
1209	IWUMD	Bawditahatung Dam	Wastage Spilled	36	36	0	0	0	0	0
1210	IWUMD	Gyo Gya	Inflow	60	59	0	1	0	0	0
1211	IWUMD	Gyo Gya	Irrigation Supply	60	59	0	1	0	0	0
1212	IWUMD	Gyo Gya	Rainfall	60	60	0	0	0	0	0
1213	IWUMD	Gyo Gya	Storage Balance	60	59	0	1	0	0	0
1214	IWUMD	Gyo Gya	Wastage Evap & Other	60	59	0	1	0	0	0
1215	IWUMD	Hlaing Chaung Dam	Inflow	60	29	0	31	0	0	0
1216	IWUMD	Hlaing Chaung Dam	Rainfall	60	60	0	0	0	0	0
1217	IWUMD	Hlaing Chaung Dam	Storage Balance	60	29	0	31	0	0	0
1218	IWUMD	Hlaing Chaung Dam	Wastage Evap & Other	60	29	0	31	0	0	0
1219	IWUMD	Hlaing Chaung Dam	Wastage Spilled	36	16	0	20	0	0	0
1220	IWUMD	Htanzaloke Dam	Inflow	60	28	0	32	0	0	0
1221	IWUMD	Htanzaloke Dam	Irrigation Supply	60	28	0	32	0	0	0
1222	IWUMD	Htanzaloke Dam	Rainfall	60	60	0	0	0	0	0
1223	IWUMD	Htanzaloke Dam	Storage Balance	60	28	0	32	0	0	0
1224	IWUMD	Htanzaloke Dam	Wastage Evap & Other	60	28	0	32	0	0	0
1225	IWUMD	Htanzaloke Dam	Wastage Spilled	36	17	0	19	0	0	0
1226	IWUMD	Ingyibin Dam	Inflow	48	48	0	0	0	0	0
1227	IWUMD	Ingyibin Dam	Rainfall	48	48	0	0	0	0	0
1228	IWUMD	Ingyibin Dam	Storage Balance	48	48	0	0	0	0	0
1229	IWUMD	Ingyibin Dam	Wastage Evap & Other	48	48	0	0	0	0	0
1230	IWUMD	Ingyithabo Dam	Inflow	48	46	0	2	0	0	0
1231	IWUMD	Ingyithabo Dam	Rainfall	48	48	0	0	0	0	0
1232	IWUMD	Ingyithabo Dam	Storage Balance	48	46	0	2	0	0	0
1233	IWUMD	Ingyithabo Dam	Wastage Evap & Other	48	46	0	2	0	0	0
1234	IWUMD	Kabo Weir	Inflow	60	50	0	10	0	0	0
1235	IWUMD	Kabo Weir	Irrigation Supply	60	50	0	10	0	0	0
1236	IWUMD	Kabo Weir	Rainfall	60	60	0	0	0	0	0

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1237	IWUMD	Kabo Weir	Storage Balance	24	14	0	10	0	0	0
1238	IWUMD	Kabo Weir	Wastage Spilled	36	26	0	10	0	0	0
1239	IWUMD	Kandaung Dam	Inflow	60	23	0	37	0	0	0
1240	IWUMD	Kandaung Dam	Irrigation Supply	60	23	0	37	0	0	0
1241	IWUMD	Kandaung Dam	Rainfall	60	60	0	0	0	0	0
1242	IWUMD	Kandaung Dam	Storage Balance	60	23	0	37	0	0	0
1243	IWUMD	Kandaung Dam	Wastage Evap & Other	60	23	0	37	0	0	0
1244	IWUMD	Kandaung Dam	Wastage Spilled	48	23	0	25	0	0	0
1245	IWUMD	Kintat Diversion Dam	Inflow	48	13	0	35	0	0	0
1246	IWUMD	Kintat Diversion Dam	Irrigation Supply	48	13	0	35	0	0	0
1247	IWUMD	Kintat Diversion Dam	Rainfall	60	60	0	0	0	0	0
1248	IWUMD	Kintat Diversion Dam	Storage Balance	60	14	0	46	0	0	0
1249	IWUMD	Kintat Diversion Dam	Total Outflow	12	2	0	10	0	0	0
1250	IWUMD	Kintat Diversion Dam	Wastage Evap & Other	48	14	0	34	0	0	0
1251	IWUMD	Kintat Diversion Dam	Wastage Spilled	24	13	0	11	0	0	0
1252	IWUMD	Koe Bin	Inflow	60	58	0	2	0	0	0
1253	IWUMD	Koe Bin	Irrigation Supply	60	58	0	2	0	0	0
1254	IWUMD	Koe Bin	Rainfall	60	60	0	0	0	0	0
1255	IWUMD	Koe Bin	Storage Balance	60	58	0	2	0	0	0
1256	IWUMD	Koe Bin	Wastage Evap & Other	60	58	0	2	0	0	0
1257	IWUMD	Koe Bin	Wastage Spilled	60	58	0	2	0	0	0
1258	IWUMD	Kyebinet	Inflow	59	55	0	4	0	0	0
1259	IWUMD	Kyebinet	Irrigation Supply	59	55	0	4	0	0	0
1260	IWUMD	Kyebinet	Rainfall	59	59	0	0	0	0	0
1261	IWUMD	Kyebinet	Storage Balance	59	55	0	4	0	0	0
1262	IWUMD	Kyebinet	Wastage Evap & Other	59	55	0	4	0	0	0
1263	IWUMD	Kyebinet	Wastage Spilled	59	55	0	4	0	0	0
1264	IWUMD	Let Pan Dam	Inflow	60	35	0	25	0	0	0
1265	IWUMD	Let Pan Dam	Irrigation Supply	60	35	0	25	0	0	0
1266	IWUMD	Let Pan Dam	Rainfall	60	60	0	0	0	0	0
1267	IWUMD	Let Pan Dam	Storage Balance	60	35	0	25	0	0	0
1268	IWUMD	Let Pan Dam	Wastage Evap & Other	60	35	0	25	0	0	0
1269	IWUMD	Let Pan Dam	Wastage Spilled	36	17	0	19	0	0	0
1270	IWUMD	Linpan Dam	Inflow	60	42	0	18	0	0	0
1271	IWUMD	Linpan Dam	Irrigation Supply	60	42	0	18	0	0	0
1272	IWUMD	Linpan Dam	Rainfall	60	60	0	0	0	0	0
1273	IWUMD	Linpan Dam	Storage Balance	60	42	0	18	0	0	0
1274	IWUMD	Linpan Dam	Wastage Evap & Other	60	42	0	18	0	0	0
1275	IWUMD	Linpan Dam	Wastage Spilled	48	41	0	7	0	0	0
1276	IWUMD	Min Myin Dam	Inflow	36	33	0	3	0	0	0

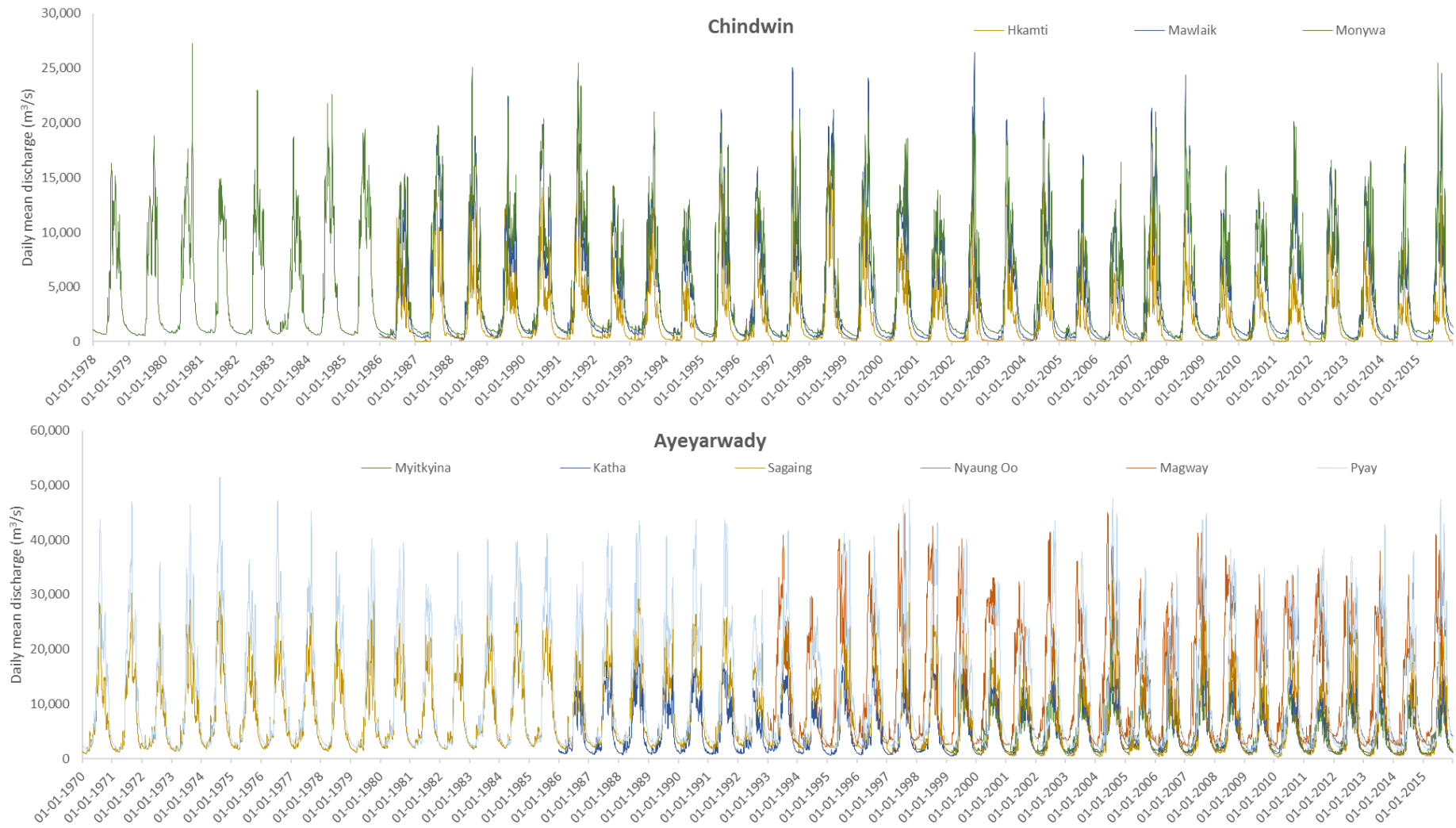
ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
1277	IWUMD	Min Myin Dam	Irrigation Supply	36	33	0	3	0	0	0
1278	IWUMD	Min Myin Dam	Rainfall	36	36	0	0	0	0	0
1279	IWUMD	Min Myin Dam	Storage Balance	36	33	0	3	0	0	0
1280	IWUMD	Min Myin Dam	Wastage Evap & Other	36	33	0	3	0	0	0
1281	IWUMD	Myo Thit Dam	Inflow	60	40	0	20	0	0	0
1282	IWUMD	Myo Thit Dam	Irrigation Supply	60	40	0	20	0	0	0
1283	IWUMD	Myo Thit Dam	Rainfall	60	60	0	0	0	0	0
1284	IWUMD	Myo Thit Dam	Storage Balance	60	40	0	20	0	0	0
1285	IWUMD	Myo Thit Dam	Wastage Evap & Other	60	40	0	20	0	0	0
1286	IWUMD	Myo Thit Dam	Wastage Spilled	36	28	0	8	0	0	0
1287	IWUMD	New Gwe Dam	Inflow	60	27	0	33	0	0	0
1288	IWUMD	New Gwe Dam	Irrigation Supply	60	27	0	33	0	0	0
1289	IWUMD	New Gwe Dam	Rainfall	60	60	0	0	0	0	0
1290	IWUMD	New Gwe Dam	Storage Balance	60	27	0	33	0	0	0
1291	IWUMD	New Gwe Dam	Wastage Evap & Other	60	27	0	33	0	0	0
1292	IWUMD	New Gwe Dam	Wastage Spilled	36	21	0	15	0	0	0
1293	IWUMD	Ngwe Tha Dam	Inflow	60	19	0	41	0	0	0
1294	IWUMD	Ngwe Tha Dam	Irrigation Supply	60	19	0	41	0	0	0
1295	IWUMD	Ngwe Tha Dam	Rainfall	60	60	0	0	0	0	0
1296	IWUMD	Ngwe Tha Dam	Storage Balance	60	19	0	41	0	0	0
1297	IWUMD	Ngwe Tha Dam	Wastage Evap & Other	48	12	0	36	0	0	0
1298	IWUMD	Ngwe Tha Dam	Wastage Spilled	36	9	0	27	0	0	0
1299	IWUMD	North Yama Dam	Inflow	48	14	0	34	0	0	0
1300	IWUMD	North Yama Dam	Irrigation Supply	48	14	0	34	0	0	0
1301	IWUMD	North Yama Dam	Rainfall	48	48	0	0	0	0	0
1302	IWUMD	North Yama Dam	Storage Balance	48	14	0	34	0	0	0
1303	IWUMD	North Yama Dam	Wastage Evap & Other	48	14	0	34	0	0	0
1304	IWUMD	North Yama Dam	Wastage Spilled	36	13	0	23	0	0	0
1305	IWUMD	North Yamar Modulation Dam	Domestic Drinking Water	60	13	0	47	0	0	0
1306	IWUMD	North Yamar Modulation Dam	Inflow	60	13	0	47	0	0	0
1307	IWUMD	North Yamar Modulation Dam	Irrigation Supply	60	13	0	47	0	0	0
1308	IWUMD	North Yamar Modulation Dam	Rainfall	60	60	0	0	0	0	0
1309	IWUMD	North Yamar Modulation Dam	Storage Balance	60	13	0	47	0	0	0
1310	IWUMD	North Yamar Modulation Dam	Wastage Evap & Other	48	13	0	35	0	0	0
1311	IWUMD	North Yamar Modulation Dam	Wastage Spilled	36	11	0	25	0	0	0
1312	IWUMD	Okpo Dam	Inflow	60	60	0	0	0	0	0
1313	IWUMD	Okpo Dam	Storage Balance	60	60	0	0	0	0	0
1314	IWUMD	Okpo Dam	Wastage Evap & Other	60	60	0	0	0	0	0
1315	IWUMD	Pegyi	Inflow	60	45	0	15	0	0	0
1316	IWUMD	Pegyi	Irrigation Supply	60	45	0	15	0	0	0

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1317	IWUMD	Pegyi	Rainfall	60	60	0	0	0	0	0
1318	IWUMD	Pegyi	Storage Balance	60	45	0	15	0	0	0
1319	IWUMD	Pegyi	Wastage Evap & Other	60	45	0	15	0	0	0
1320	IWUMD	Phaungada Dam	Inflow	59	21	0	38	0	0	0
1321	IWUMD	Phaungada Dam	Irrigation Supply	59	21	0	38	0	0	0
1322	IWUMD	Phaungada Dam	Rainfall	59	59	0	0	0	0	0
1323	IWUMD	Phaungada Dam	Storage Balance	59	21	0	38	0	0	0
1324	IWUMD	Phaungada Dam	Wastage Evap & Other	59	21	0	38	0	0	0
1325	IWUMD	Phaungada Dam	Wastage Spilled	35	19	0	16	0	0	0
1326	IWUMD	Saligyí Dam	Inflow	24	17	0	7	0	0	0
1327	IWUMD	Saligyí Dam	Irrigation Supply	24	17	0	7	0	0	0
1328	IWUMD	Saligyí Dam	Rainfall	24	24	0	0	0	0	0
1329	IWUMD	Saligyí Dam	Storage Balance	24	17	0	7	0	0	0
1330	IWUMD	Saligyí Dam	Wastage Evap & Other	24	17	0	7	0	0	0
1331	IWUMD	Saligyí Dam	Wastage Spilled	24	17	0	7	0	0	0
1332	IWUMD	Thapanzeik Dam	Hydro Power	58	58	0	0	0	0	0
1333	IWUMD	Thapanzeik Dam	Inflow	58	2	0	56	0	0	0
1334	IWUMD	Thapanzeik Dam	Irrigation Supply	58	2	0	56	0	0	0
1335	IWUMD	Thapanzeik Dam	Power Output	58	58	0	0	0	0	0
1336	IWUMD	Thapanzeik Dam	Rainfall	58	58	0	0	0	0	0
1337	IWUMD	Thapanzeik Dam	Storage Balance	58	2	0	56	0	0	0
1338	IWUMD	Thapanzeik Dam	Turbine Running	58	58	0	0	0	0	0
1339	IWUMD	Thapanzeik Dam	Wastage Evap & Other	58	2	0	56	0	0	0
1340	IWUMD	Thapanzeik Dam	Wastage Spilled	58	2	0	56	0	0	0
1341	IWUMD	Thazi Dam	Inflow	60	1	0	59	0	0	0
1342	IWUMD	Thazi Dam	Irrigation Supply	60	1	0	59	0	0	0
1343	IWUMD	Thazi Dam	Rainfall	60	60	0	0	0	0	0
1344	IWUMD	Thazi Dam	Storage Balance	60	1	0	59	0	0	0
1345	IWUMD	Thazi Dam	Wastage Evap & Other	60	1	0	59	0	0	0
1346	IWUMD	Thazi Dam	Wastage Spilled	36	0	0	36	0	0	0
1347	IWUMD	Thein Yin Dam	Inflow	60	29	0	31	0	0	0
1348	IWUMD	Thein Yin Dam	Irrigation Supply	60	29	0	31	0	0	0
1349	IWUMD	Thein Yin Dam	Rainfall	60	60	0	0	0	0	0
1350	IWUMD	Thein Yin Dam	Storage Balance	60	29	0	31	0	0	0
1351	IWUMD	Thein Yin Dam	Wastage Evap & Other	60	29	0	31	0	0	0
1352	IWUMD	Ban Bwe Gone Dam	Domestic Drinking Water	59	55	0	4	0	0	0
1353	IWUMD	Ban Bwe Gone Dam	Inflow	59	55	0	4	0	0	0
1354	IWUMD	Ban Bwe Gone Dam	Irrigation Supply	59	55	0	4	0	0	0
1355	IWUMD	Ban Bwe Gone Dam	Rainfall	59	59	0	0	0	0	0
1356	IWUMD	Ban Bwe Gone Dam	Storage Balance	59	55	0	4	0	0	0

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1357	IWUMD	Ban Bwe Gone Dam	Total Outflow	48	45	0	3	0	0	0
1358	IWUMD	Ban Bwe Gone Dam	Wastage Evap & Other	59	55	0	4	0	0	0
1359	IWUMD	Ban Bwe Gone Dam	Wastage Spilled	59	55	0	4	0	0	0
1360	IWUMD	Kalihtaw Dam	Domestic Industrial Use	24	22	0	2	0	0	0
1361	IWUMD	Kalihtaw Dam	Inflow	60	46	0	14	0	0	0
1362	IWUMD	Kalihtaw Dam	Irrigation Supply	60	46	0	14	0	0	0
1363	IWUMD	Kalihtaw Dam	Rainfall	60	60	0	0	0	0	0
1364	IWUMD	Kalihtaw Dam	Storage Balance	60	46	0	14	0	0	0
1365	IWUMD	Kalihtaw Dam	Total Outflow	48	34	0	14	0	0	0
1366	IWUMD	Kalihtaw Dam	Wastage Evap & Other	60	46	0	14	0	0	0
1367	IWUMD	Kalihtaw Dam	Wastage Spilled	60	46	0	14	0	0	0
1368	IWUMD	Lagunbyin Dam	Domestic Industrial Use	23	21	0	2	0	0	0
1369	IWUMD	Lagunbyin Dam	Inflow	59	54	0	5	0	0	0
1370	IWUMD	Lagunbyin Dam	Irrigation Supply	59	54	0	5	0	0	0
1371	IWUMD	Lagunbyin Dam	Rainfall	59	59	0	0	0	0	0
1372	IWUMD	Lagunbyin Dam	Storage Balance	59	54	0	5	0	0	0
1373	IWUMD	Lagunbyin Dam	Total Outflow	48	45	0	3	0	0	0
1374	IWUMD	Lagunbyin Dam	Wastage Evap & Other	59	54	0	5	0	0	0
1375	IWUMD	Lagunbyin Dam	Wastage Spilled	59	54	0	5	0	0	0
1376	IWUMD	Mahuya Dam	Domestic Industrial Use	23	21	0	2	0	0	0
1377	IWUMD	Mahuya Dam	Inflow	47	45	0	2	0	0	0
1378	IWUMD	Mahuya Dam	Rainfall	47	47	0	0	0	0	0
1379	IWUMD	Mahuya Dam	Storage Balance	47	45	0	2	0	0	0
1380	IWUMD	Mahuya Dam	Total Outflow	36	34	0	2	0	0	0
1381	IWUMD	Mahuya Dam	Wastage Evap & Other	47	45	0	2	0	0	0
1382	IWUMD	Mahuya Dam	Wastage Spilled	47	45	0	2	0	0	0
1383	IWUMD	Ngamoeyeik Dam	Domestic Drinking Water	60	58	0	2	0	0	0
1384	IWUMD	Ngamoeyeik Dam	Inflow	60	58	0	2	0	0	0
1385	IWUMD	Ngamoeyeik Dam	Irrigation Supply	60	58	0	2	0	0	0
1386	IWUMD	Ngamoeyeik Dam	Rainfall	60	60	0	0	0	0	0
1387	IWUMD	Ngamoeyeik Dam	Storage Balance	60	58	0	2	0	0	0
1388	IWUMD	Ngamoeyeik Dam	Total Outflow	48	46	0	2	0	0	0
1389	IWUMD	Ngamoeyeik Dam	Wastage Evap & Other	60	58	0	2	0	0	0
1390	IWUMD	Ngamoeyeik Dam	Wastage Spilled	60	58	0	2	0	0	0
1391	IWUMD	Paunglin Dam	Domestic Industrial Use	23	23	0	0	0	0	0
1392	IWUMD	Paunglin Dam	Inflow	47	47	0	0	0	0	0
1393	IWUMD	Paunglin Dam	Rainfall	47	47	0	0	0	0	0
1394	IWUMD	Paunglin Dam	Storage Balance	47	47	0	0	0	0	0
1395	IWUMD	Paunglin Dam	Total Outflow	36	36	0	0	0	0	0
1396	IWUMD	Paunglin Dam	Wastage Evap & Other	47	47	0	0	0	0	0

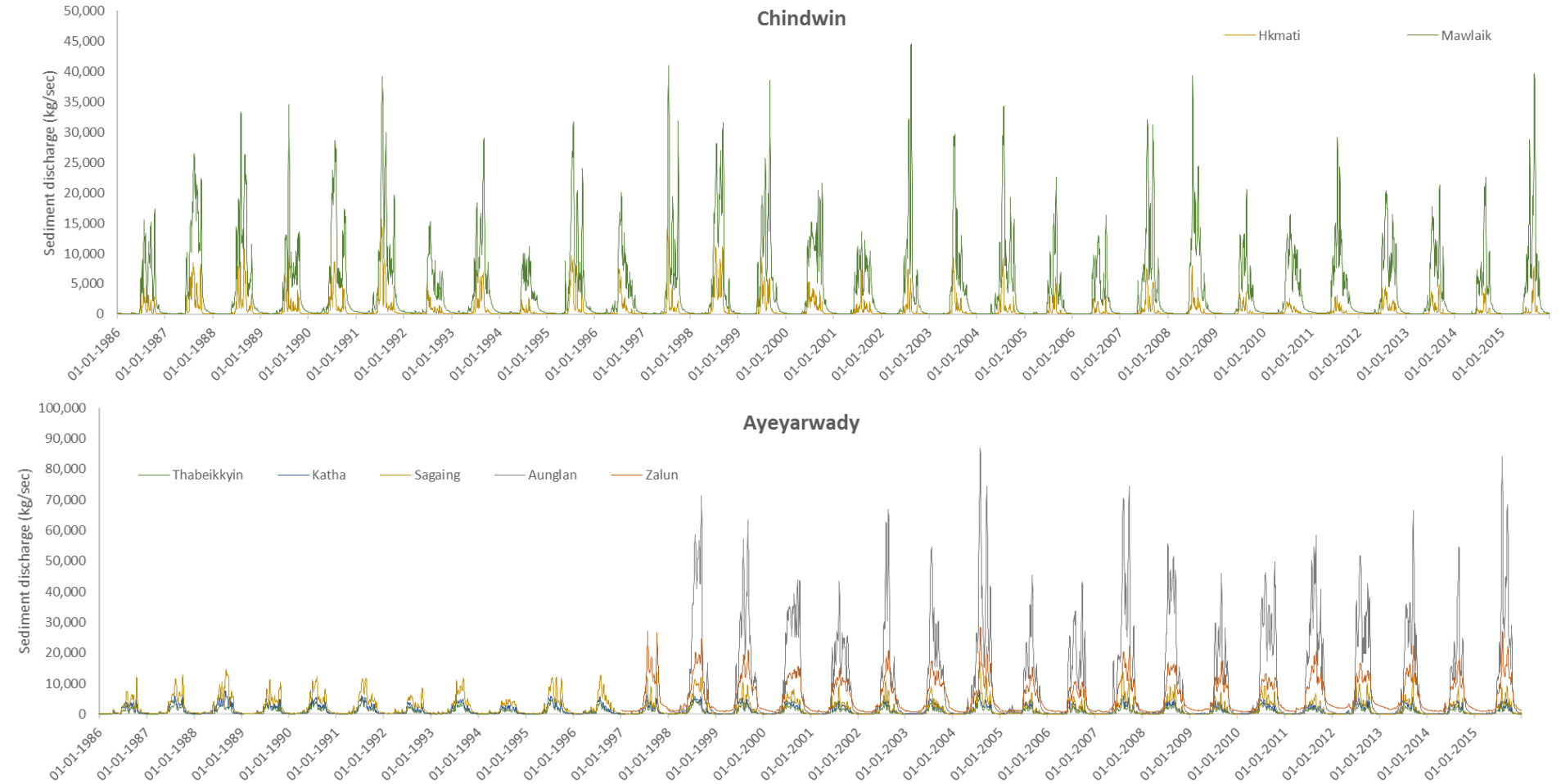
ID	Agency	Station	Variable	Number of values	Values identified as valid	Data gaps	Values identified as outlier/error	Gap or outlier/error infilled	Gap or outlier/errors not filled	Outlier identified but value not altered
1397	IWUMD	Paunglin Dam	Wastage Spilled	47	47	0	0	0	0	0
1398	IWUMD	Tabuhla Dam	Domestic Drinking Water	24	11	0	13	0	0	0
1399	IWUMD	Tabuhla Dam	Domestic Industrial Use	24	11	0	13	0	0	0
1400	IWUMD	Tabuhla Dam	Inflow	24	11	0	13	0	0	0
1401	IWUMD	Tabuhla Dam	Irrigation Supply	24	11	0	13	0	0	0
1402	IWUMD	Tabuhla Dam	Rainfall	24	24	0	0	0	0	0
1403	IWUMD	Tabuhla Dam	Storage Balance	24	11	0	13	0	0	0
1404	IWUMD	Tabuhla Dam	Wastage Evap & Other	24	11	0	13	0	0	0
1405	IWUMD	Taung Lone Myoung Dam	Inflow	47	40	0	7	0	0	0
1406	IWUMD	Taung Lone Myoung Dam	Storage Balance	47	40	0	7	0	0	0
1407	IWUMD	Taung Lone Myoung Dam	Wastage Evap & Other	47	40	0	7	0	0	0
1408	IWUMD	Zarmanidam	Domestic Drinking Water	59	56	0	3	0	0	0
1409	IWUMD	Zarmanidam	Domestic Industrial Use	23	22	0	1	0	0	0
1410	IWUMD	Zarmanidam	Inflow	59	56	0	3	0	0	0
1411	IWUMD	Zarmanidam	Irrigation Supply	59	56	0	3	0	0	0
1412	IWUMD	Zarmanidam	Rainfall	59	59	0	0	0	0	0
1413	IWUMD	Zarmanidam	Storage Balance	59	56	0	3	0	0	0
1414	IWUMD	Zarmanidam	Total Outflow	48	46	0	2	0	0	0
1415	IWUMD	Zarmanidam	Wastage Evap & Other	59	56	0	3	0	0	0
1416	IWUMD	Zarmanidam	Wastage Spilled	59	56	0	3	0	0	0

Appendix G: Graphs of daily discharge time series contained in the database



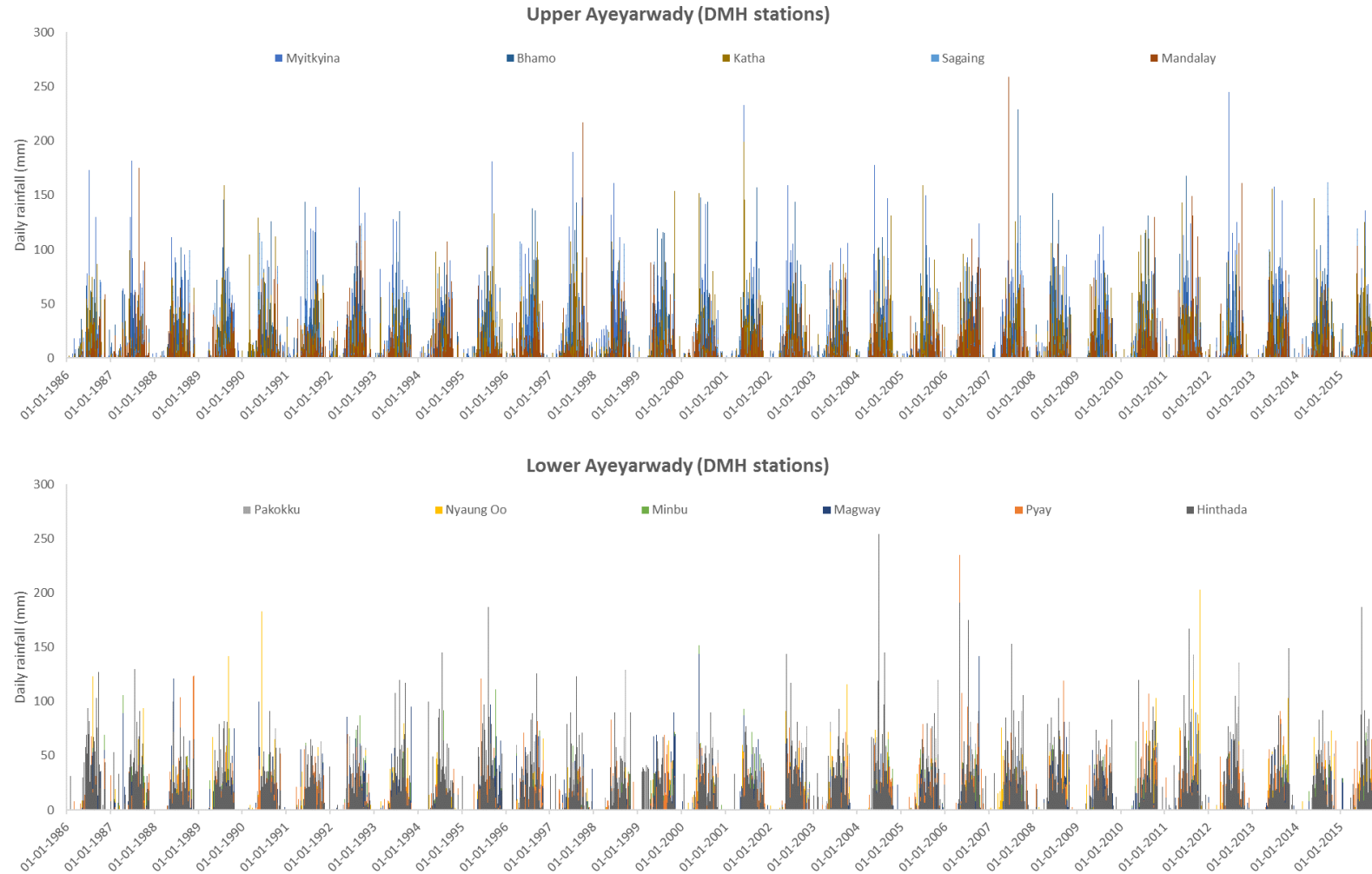
Appendix H: Graphs of daily discharge time series contained in the database

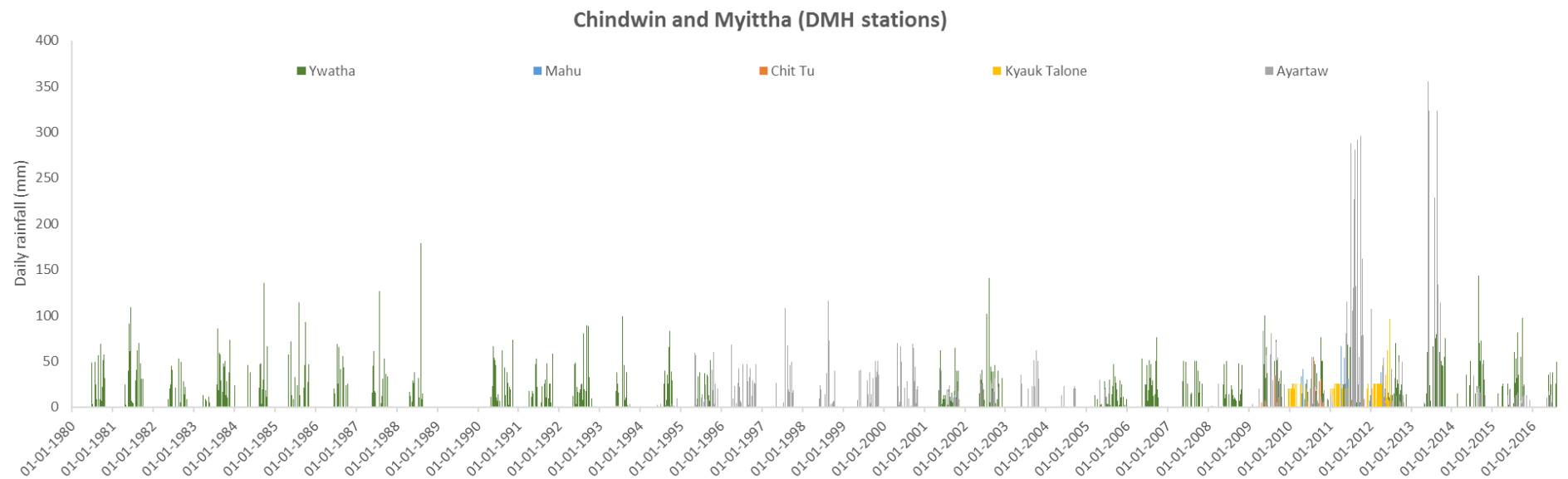
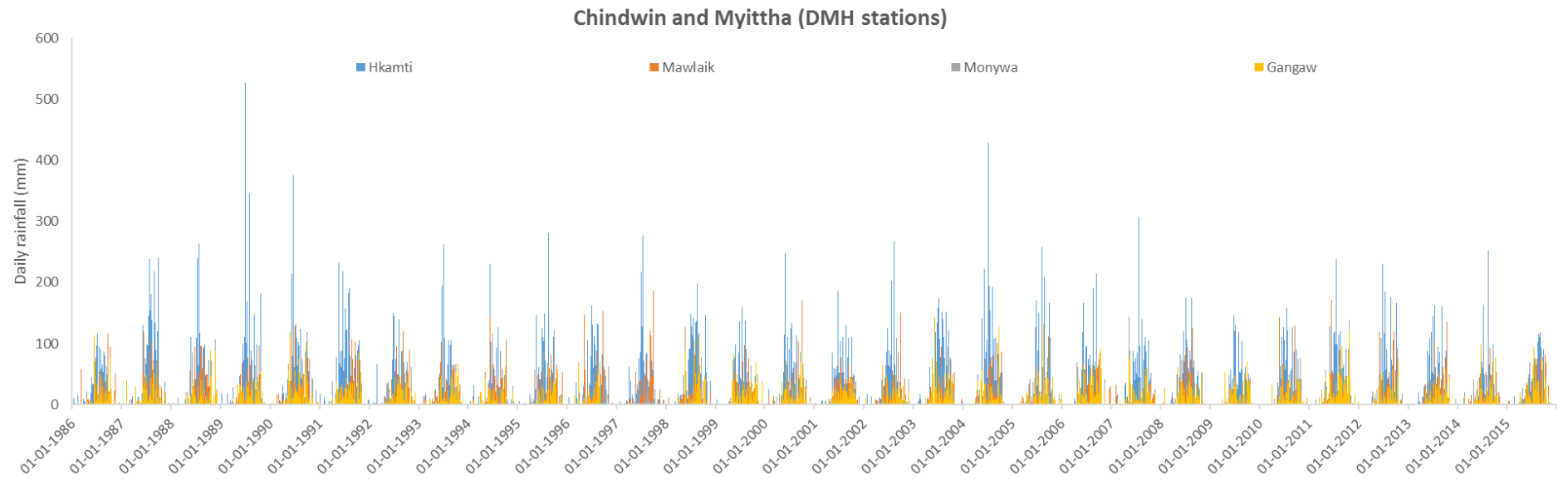
Note: the Zalun and Aunglan time series start at 1st Jan 1997 and 1st Jan 1998 respectively



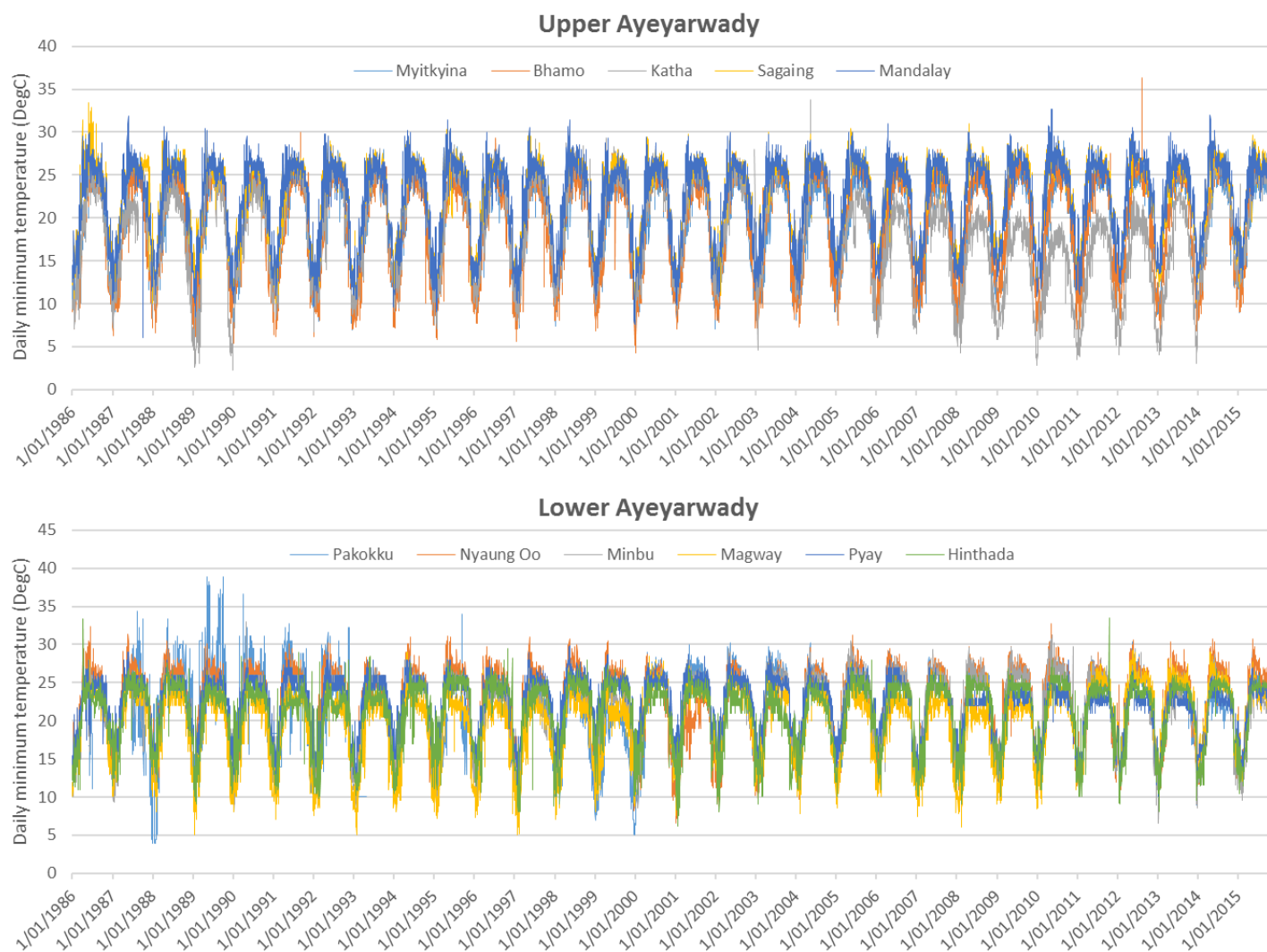
Appendix I: Graphs of meteorological time series contained in the database

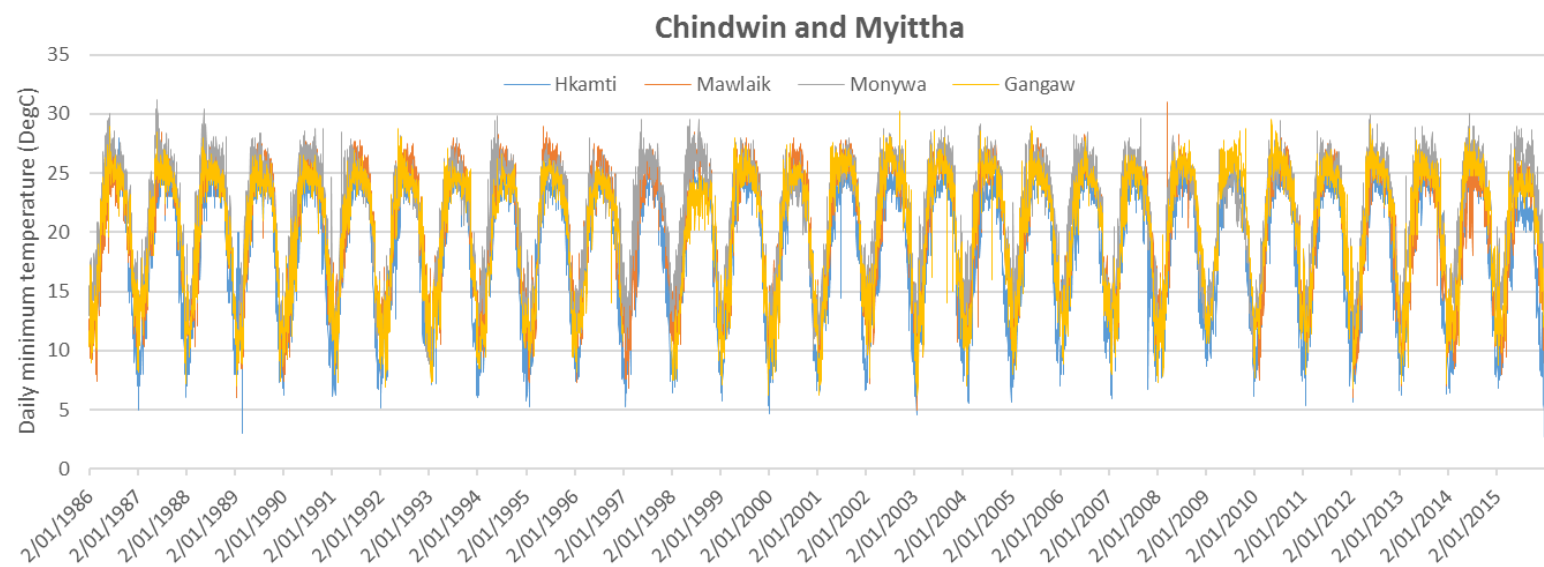
Rainfall



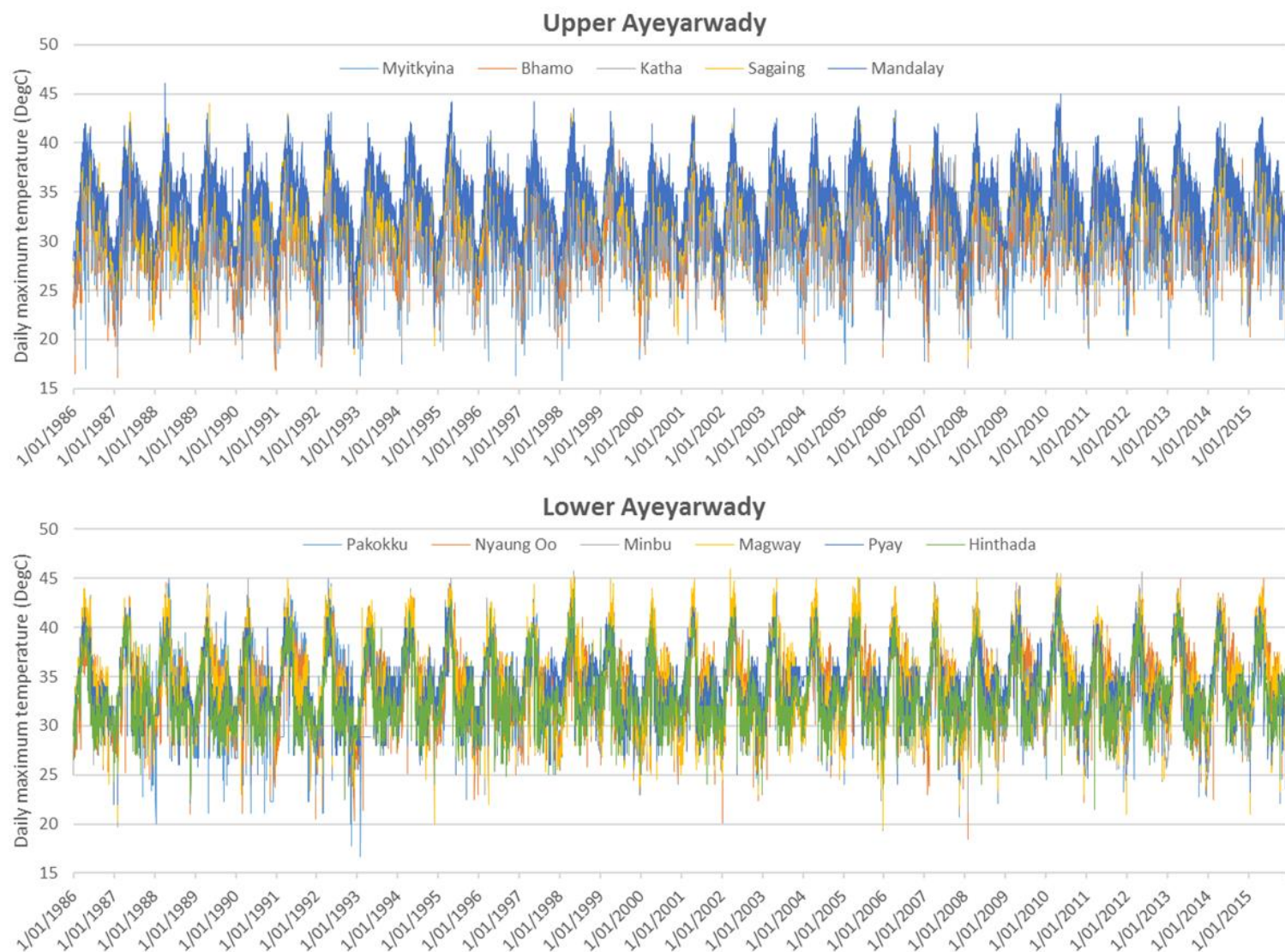


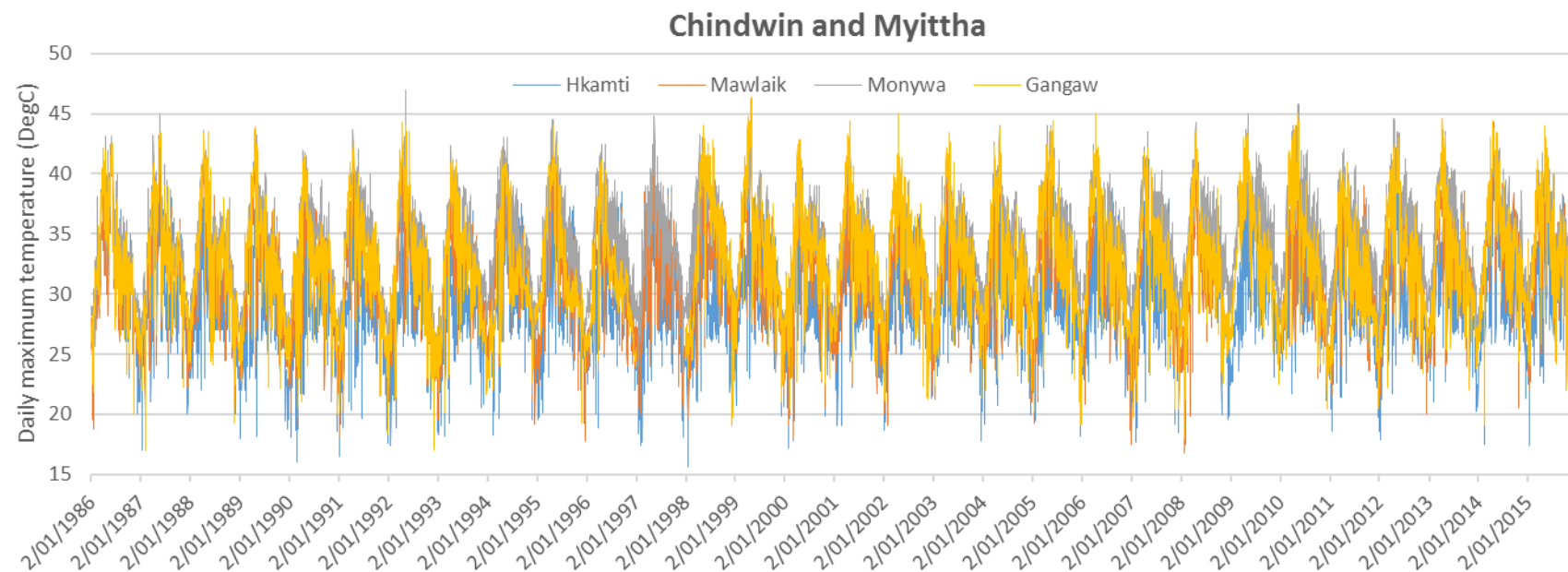
Minimum temperature



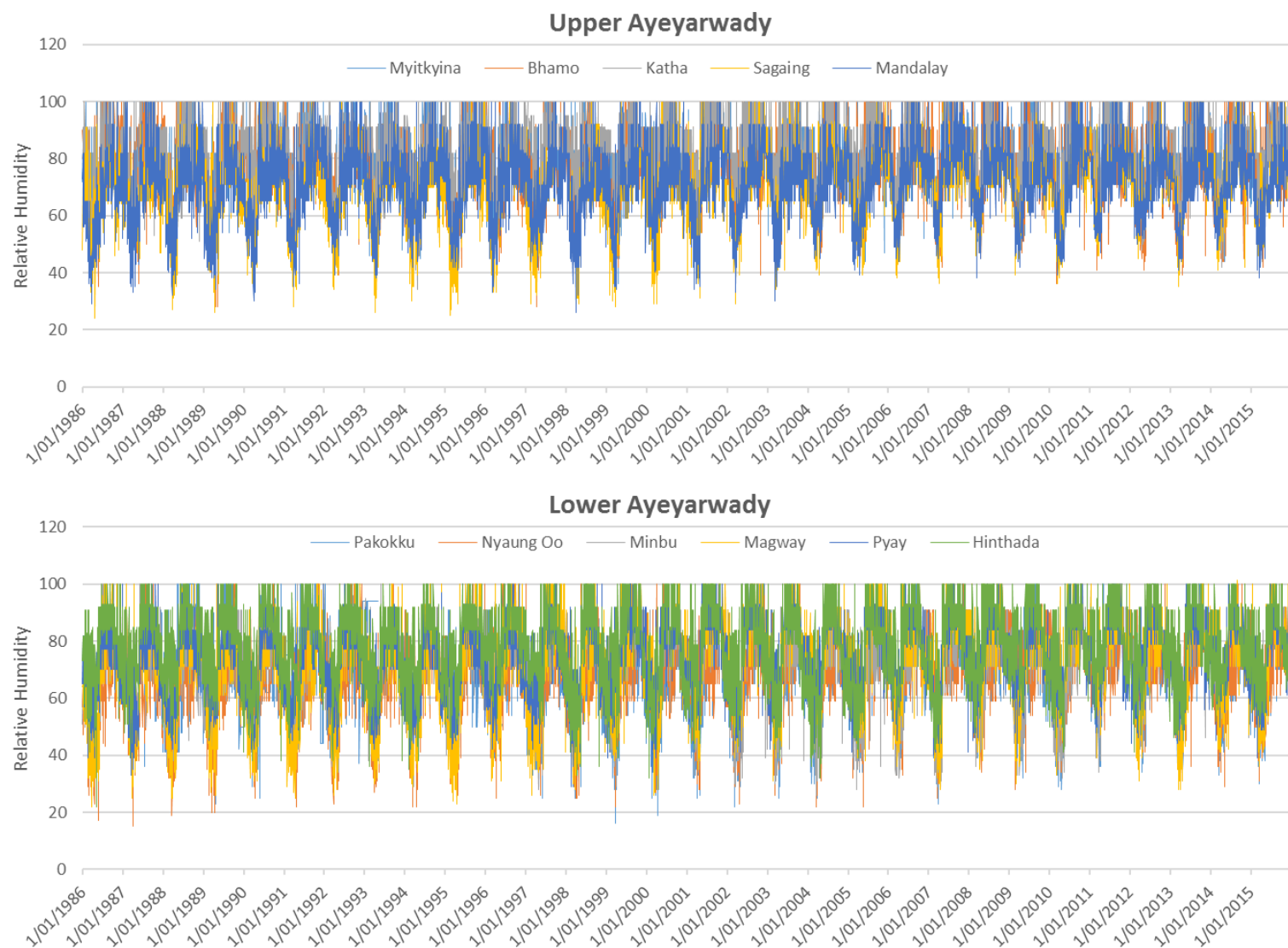


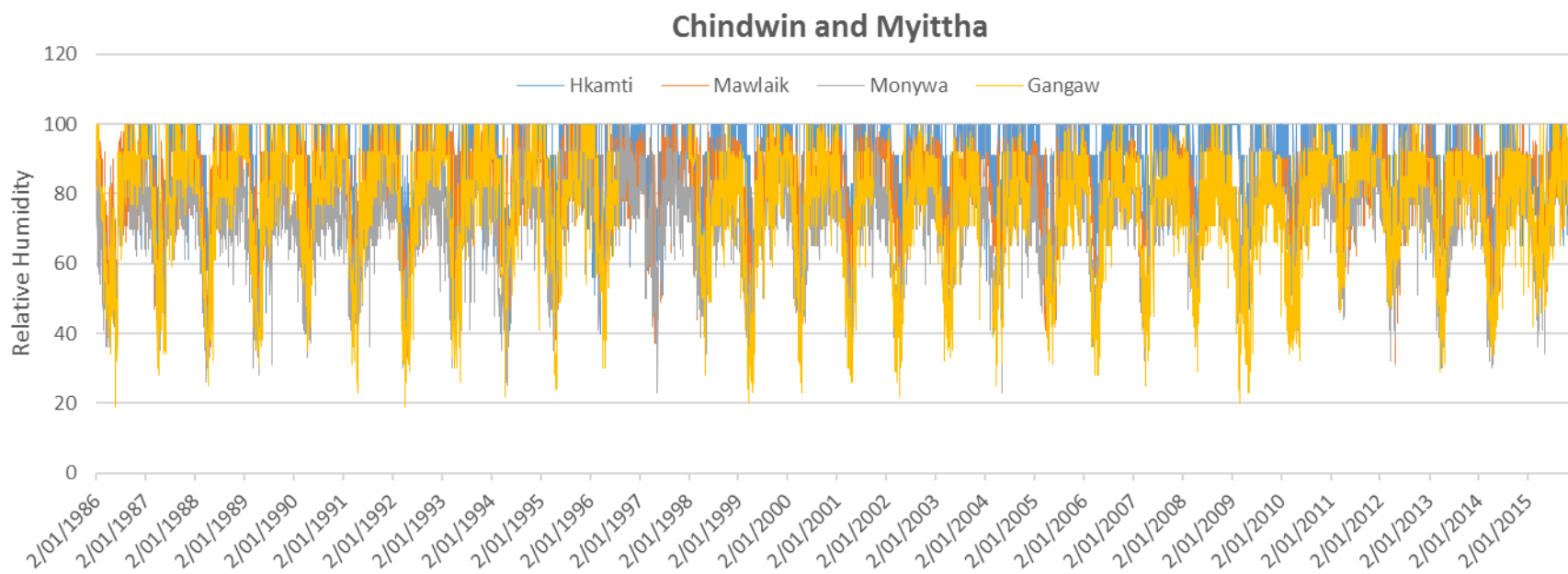
Maximum temperature



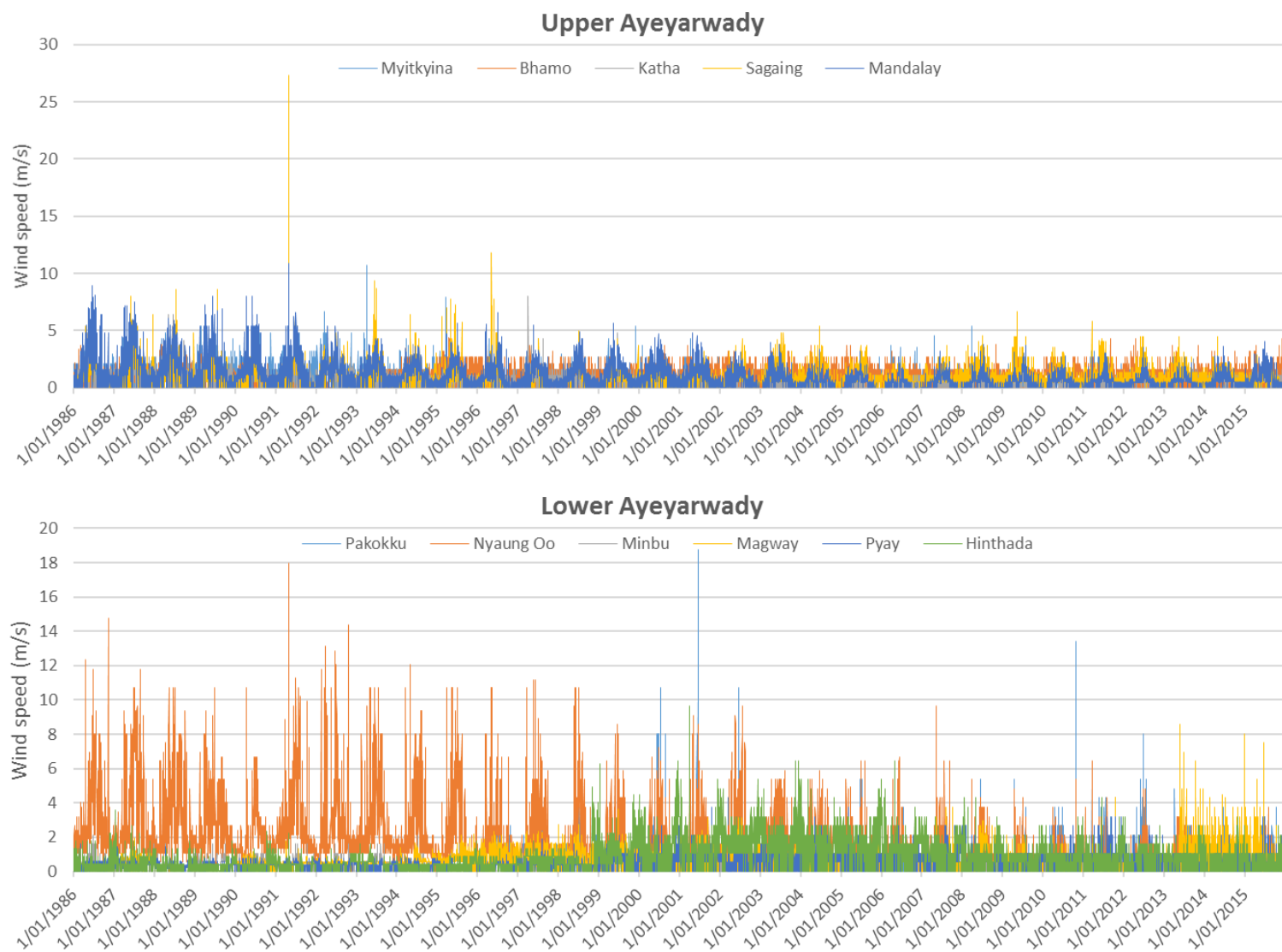


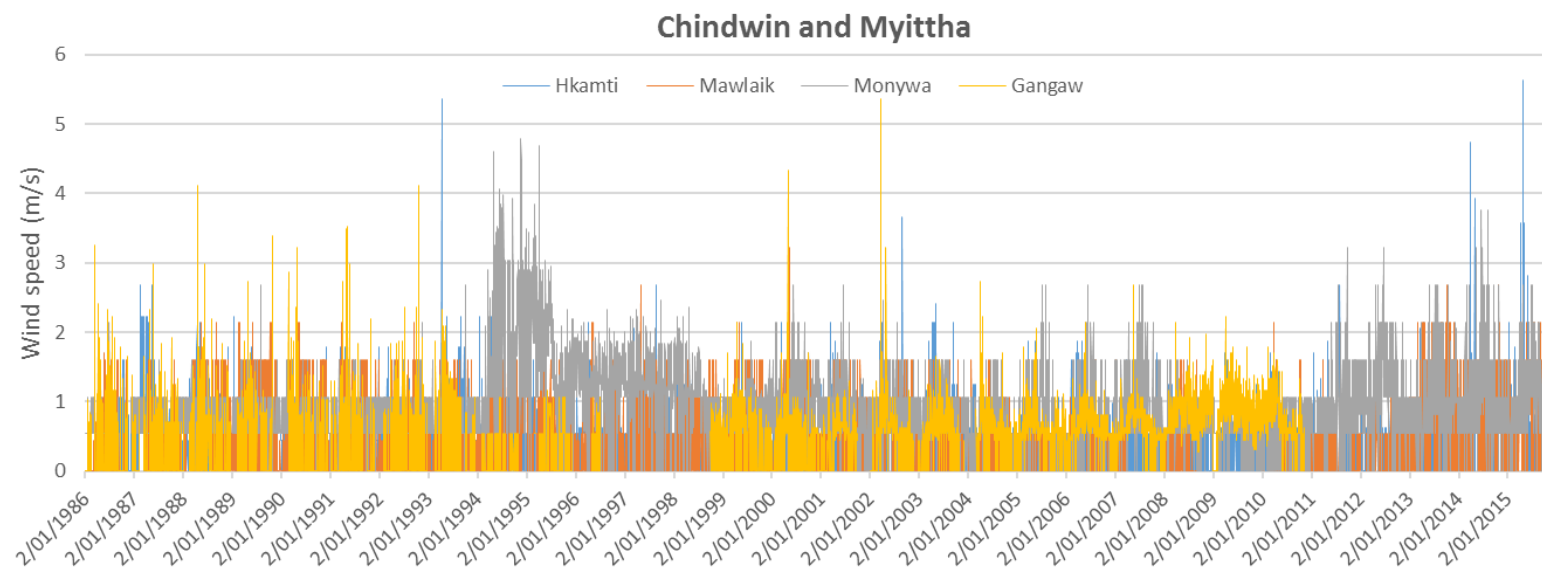
Relative humidity





Wind speed





Appendix J: Graphs of hydropower reservoir hydrological time series contained in the database

