

【資料】

1. 調査団員・氏名
2. 調査工程
3. 関係者（面会者）リスト
4. 討議議事録（M/D）
5. ソフトコンポーネント計画書
6. 参考資料
7. その他の資料・情報

資料 1 調査団員・氏名

資料1 調査団員・氏名

| | 氏名 | 役職 | 所属 |
|---|-------|---------------------|---|
| 1 | 三部 信雄 | 総括 | 独立行政法人 国際協力機構 資金協力技術アドバイザー／国際協力専門員 |
| 2 | 鍋田 肇 | 協力企画-1 | 独立行政法人 国際協力機構 農村開発部 第2グループ第4チーム 専任参事 |
| 3 | 寺南 智宏 | 協力企画-2 | 独立行政法人 国際協力機構 農村開発部 第2グループ第4チーム ジュニア専門員 |
| 4 | 中島 大助 | 業務主任／農業基盤整備 | 国際航業株式会社 |
| 5 | 篠田 健司 | ポンプ設備／制御計装 | 国際航業株式会社 |
| 6 | 小川 信一 | 水利用計画／設計 ／環境社会配慮 | 国際航業株式会社 |
| 7 | 杉原 千鶴 | 調達計画／積算 | 国際航業株式会社 |

資料 2 調査工程

資料2 調査工程

2-1 第1次現地調査日程

第1次現地調査日程：平成29年（2017年）1月9日～平成29年（2017年）2月20日

| 日付 | 総括 | | 協力企画-1 | 協力企画-2 | 業務主任/ 農業基盤整備 | ポンプ整備/ 制御計装 | 水利用計画/ 設計/ 環境社会配慮 | 調達計画/ 積算 |
|-------|-------|--|-----------------------------|--------------------|---|--------------------|---|--------------------|
| | 三部 信雄 | | 鍋田 肇 | 寺南 智弘 | 中島 大助 | 篠田 健司 | 小川 信一 | 杉原 千鶴 |
| 1月9日 | Mon | 移動：ジャカルタバンコク | | | | | | |
| 1月10日 | Tue | 移動：バンコクピエンチャン | 移動：羽田-バンコクピエンチャン | | | | 移動：羽田-バンコクピエンチャン | |
| | | | JICA大使館表敬 | | | | JICA大使館表敬 | |
| 1月11日 | Wed | 農林省MAF（灌漑局DOI、計画協力局DOPC）、計画投資省MoPI表敬 ミニッツ協議（MAF-DOI）、IC-R協議 | | | | | 農林省MAF（灌漑局DOI、計画協力局DOPC）、計画投資省MoPI表敬、ミニッツ協議（MAF-DOI）、IC-R協議 | |
| 1月12日 | Thu | タゴン灌漑プロジェクト事務所表敬 現場視察 | | | | | タゴン灌漑プロジェクト事務所表敬、現場視察 | |
| 1月13日 | Fri | 現場視察 ミニッツ協議（MAF-DOI） | | | | | 現場視察、ミニッツ協議（MAF-DOI） | |
| 1月14日 | Sat | 団内協議、資料整理 | | | | | 団内協議、資料整理 | |
| 1月15日 | Sun | 団内協議、資料整理 | | | | | 団内協議、資料整理 | |
| 1月16日 | Mon | ミニッツ協議（MAF-DOI） M/D署名 JICAラオス事務所報告 | | | | | サイト状況調査 | |
| 1月17日 | Tue | 移動：ピエンチャン-バンコク-ジャカルタ | MAF-DOI協議 資料整理 | 移動： ピエンチャン-バンコク | MAF-DOI協議 | | 水利施設調査 | |
| 1月18日 | Wed | | 資料整理/現場視察 移動：ピエンチャン-バンコク | 移動：-成田 | MAF-DOI協議/上位計画調査 | | 水利施設調査 | 移動：成田-バンコク-ピエンチャン |
| 1月19日 | Thu | | 移動：-成田 | | ヒアリング調査（タゴン灌漑プロジェクト事務所） | | 水利施設調査 | サイト状況 /機材計画調査 |
| 1月20日 | Fri | | | | MAF-DOI協議/上位計画調査 | | 水利施設調査 | サイト状況 /機材計画調査 |
| 1月21日 | Sat | | | | 資料整理 | 移動：成田-バンコク-ピエンチャン | 資料整理 | 資料整理 |
| 1月22日 | Sun | 団内協議 | | | | | | |
| 1月23日 | Mon | | | | MAF-DOI協議/既存施設調査 | MAF-DOI協議/サイト状況調査 | MAF-DOI協議/環境社会配慮調査 | 調達計画調査 |
| 1月24日 | Tue | | | | 上位計画調査 | 水利施設調査 | 水利施設調査 | 調達計画調査 |
| 1月25日 | Wed | | | | MAF-DOI協議/他 ドナー動向調査 | 水利施設調査 | 水利施設調査 | 調達計画調査 |
| 1月26日 | Thu | | | | ヒアリング調査（ピエンチャン特別市農林局PAFO）/資料整理 | 相手国負担事項調査（税関、電気会社） | 気象データ収集（天然資源環境省気象水文局MONRE-DMH） | 相手国負担事項調査（税関、電気会社） |
| 1月27日 | Fri | | | | ヒアリング調査（関係機関の組織・人員・予算等） | 水利施設調査 | 水利施設調査 | 調達計画調査 |
| 1月28日 | Sat | 資料整理 | | | | | | |
| 1月29日 | Sun | 資料整理 | | | | | | |
| 1月30日 | Mon | | | | ヒアリング調査（関係機関の組織・人員・予算等） | ポンプ整備計画検討 | 現場調査準備（流量調査、レベル調査等） | 調達計画調査 |
| 1月31日 | Tue | | | | 現場調査（流量調査） | 現場調査（流量調査） | 現場調査（流量調査） | 現場調査（流量調査） |
| 2月1日 | Wed | | | | 現場調査（農道調査） | 現場調査（レベル測量） | 現場調査（流量調査） | 現場調査（レベル測量） |
| 2月2日 | Thu | | | | ヒアリング調査（水利組合・タゴン灌漑プロジェクト事務所） | 現場調査（レベル測量） | 現場調査（流量調査） | 現場調査（レベル測量） |
| 2月3日 | Fri | | | | ヒアリング調査（タゴン灌漑プロジェクト事務所） | 現場調査（レベル測量） | 現場調査（流量調査） | 現場調査（レベル測量） |
| 2月4日 | Sat | 現場踏査（流量調査、分水工調査、類似プロジェクト視察） | | | | | | |
| 2月5日 | Sun | 資料整理 | | | | | | |
| 2月6日 | Mon | | | | MAF-DOI協議（基本構想確認） | ポンプ整備計画検討 | 現場調査（灌漑範囲） | 調達計画調査 |
| 2月7日 | Tue | | | | MAF-DOI協議（相手国負担事項確認） | ポンプ整備計画検討 | 現場調査（灌漑範囲） | 調達計画調査 |
| 2月8日 | Wed | | | | MAF-DOI協議/ソフトコンポーネント 計画検討 ヒアリング調査 | 機材計画調査 | 機材計画調査 | 積算計画調査 |
| 2月9日 | Thu | | | | （タゴン灌漑プロジェクト事務所/農家、企業農場） | 資料整理 | 機材計画調査 | 積算計画調査 |
| 2月10日 | Fri | | | | 大使館/JICA報告 | 大使館/JICA報告 | 機材計画調査 | 積算計画調査 |
| 2月11日 | Sat | 現場踏査（分水工調査、揚水機場調査）/団内協議 | | | | | | |
| 2月12日 | Sun | 現場踏査（流量調査）/資料整理 | | | | | | |

| 日付 | | 総括 | 協力企画-1 | 協力企画-2 | 業務主任/ 農業基盤整備 | ポンプ整備/ 制御計装 | 水利用計画/ 設計/ 環境社会配慮 | 調達計画/ 積算 |
|-------|-----|----------------|--------|--------|---------------------------------|----------------------------|----------------------------|-------------|
| | | 三部 信雄 | 鍋田 肇 | 寺南 智弘 | 中島 大助 | 篠田 健司 | 小川 信一 | 杉原 千鶴 |
| 2月13日 | Mon | | | | MAF-DOI協議 (運営維持管理状 況確認) | 機材計画に係わる 概略設計 | 機材計画調査 | 積算計画調査 |
| 2月14日 | Tue | | | | ヒアリング調査 (タゴン灌漑プロジェ クト事務所) | 機材計画に係わる 概略設計 | 調達計画調査 | 積算計画調査 |
| 2月15日 | Wed | | | | MAF-DOI協議 (相手国負担事項 確認) | 機材計画に係わる 調査 (二次水路調査) | 機材計画に係わる 調査 (二次水路調査) | 積算計画調査 |
| 2月16日 | Thu | | | | ヒアリング調査 (PAFO) | 機材・施設計画検討 | 機材・施設計画検討 | 積算計画調査 |
| 2月17日 | Fri | | | | 実施機関協議 /資料整理 | 機材・施設計画検討 | 機材・施設計画検討 | 積算計画調査 |
| 2月18日 | Sat | 資料整理 | | | | | | |
| 2月19日 | Sun | 移動：ピエンチャン-バンコク | | | | | | |
| 2月20日 | Mon | 移動：-成田 | | | | | | |

2-2 第2次現地調査日程

第2次現地調査日程：平成29年（2017年）8月1日～平成29年（2017年）8月12日

| 日付 | | 総括 | 協力企画-1 | 協力企画-2 | 業務主任/ 農業基盤整備 | ポンプ整備/ 制御計装 | 調達計画/ 積算 |
|-------|-----|---|------------|--------|-----------------|--|-----------------------|
| | | 三部 信雄 | 鍋田 肇 | 寺南 智弘 | 中島 大助 | 篠田 健司 | 杉原 千鶴 |
| 8月1日 | Tue | | | | | 移動：羽田-バンコク-ピエンチャン | |
| 8月2日 | Wed | | | | | 関係法令調査 (電気会社：ラオス電力公社) 環境社会配慮調査(天然資 源環境省MONRE) | |
| 8月3日 | Thu | | | | | 現場調査 気象データ収集(天然資源環 境省気象水文局MONRE- DMH) | |
| 8月4日 | Fri | | | | | 関係機関の組織・人員・予算 等の聞き取り調査(サイタニ郡 農林事務所DAFO/タゴン灌 漑プロジェクト事務所) | |
| 8月5日 | Sat | | | | | 報告書(案)事前説明(農 林省灌漑局MAF-DOI) | |
| 8月6日 | Sun | 移動：成田-バンコク | 移動：羽田-バンコク | | | 現地調達品免税状況調査 | 移動：羽田-バンコク- ピエンチャン |
| 8月7日 | Mon | 団内協議、資料整理 JICAラオス事務所・大使館表敬 報告書(案)・協議議事録(M/D)・相手国負担事項協議(MAF-DOI、農林省計画協力局MAF-DOPC) | | | | | |
| 8月8日 | Tue | 報告書(案)・協議議事録(M/D)・相手国負担事項協議(MAF-DOI、MAF-DOPC) 計画投資省国際協力局MoPI-DOIC表敬 ラオス国内調達品にかかる免税協議(財務省外務資金局MOF-DTD、MoPI-DOIC、MAF-DOI) | | | | | |
| 8月9日 | Wed | タゴン灌漑プロジェクト事務所協議(ワークショップ打ち合わせ) | | | | 関係機関の組織・人員・予算等の聞き取り調査 (ピエンチャン特別市農林局PAFO、DAFO、タゴン事 務所) | |
| | | 機材導入後の運営維持に関するワークショップ(タゴン農場水利組合) | | | | | |
| 8月10日 | Thu | 最終ミニッツ協議(MAF-DOI) | | | | 多ドナーによる同種案件援助状況調査(MAF-DOI) 関係機関の組織・人員・予算等(ピエンチャン特別市 財務局) | |
| | | 大使館報告 | | | | | |
| 8月11日 | Fri | 協議議事録(M/D)署名 JICAラオス事務所報告 移動：ピエンチャン-バンコク | | | | | |
| 8月12日 | Sat | 移動：バンコク-成田 | | | | | |

資料 3 関係者（面会者）リスト

資料3 関係者（面会者）リスト

相手国関係者

(1) Department of Irrigation, Ministry of Agriculture and Forestry

(農林省灌漑局)

| | |
|-----------------------------|---|
| Mr. Maykong PHONEPHOMMAVONG | Director General |
| Mr. Nouanedeng RAJVONG | Deputy Director General |
| Mr. Somphone THANASACK | Deputy Director General |
| Mr. Pasonexay INSISIENGMAY | Director of Planning and Cooperation Division |
| Mr. Khamhou PHATHAVONG | Deputy Director of Planning and Cooperation Division |
| Mr. Phommy INTHICHACK | Director of International Cooperation Division |
| Mr. Soulivanh VORAVONG | Deputy Head of International Cooperation Division |
| Mr. Bouakeo DOUANGPASEUTH | Director of Irrigation Survey and Design Center |
| Mr. Phouthone SIRIPHANTHONG | Deputy Director of Operation and Maintenance Division |
| Mr. Thanongsack CHATHALA | Technical Officer of Operation and Maintenance Division |

(2) Department of Planning and Cooperation, Ministry of Agriculture and Forestry

(農林省計画協力局)

| | |
|-------------------------|-------------------|
| Ms. Chindavone PHORPIDA | Technical Officer |
|-------------------------|-------------------|

(3) Department of International Cooperation, Ministry of Planning and Investment

(計画投資省国際協力局)

| | |
|------------------------------|--|
| Ms. Sisomboun OUNAVONG | Director General |
| Mr. Sysomphorn PHETDAOHEUANG | Deputy Director General |
| Mr. Kouthong SOMMALA | Director of Asia-Pacific and Africa Division |
| Mr. Somekhit KAOYAHOUANG | Department of International Cooperation |

(4) Provincial Agriculture and Forestry Office (PAFO), Vientiane Capital

(ビエンチャン特別市農林局 (PAFO))

| | |
|----------------------------|------------------------------------|
| Mr. Linkham DOUANGSAVANH | Director General |
| Mr. Saykham PHENGKHAMMY | Head of Irrigation Division |
| Mr. Bounthanom THOUMMAVONG | Deputy Head of Irrigation Division |
| Mr. Khamphouth SOUDAVANH | Deputy Head of Irrigation Division |

| | |
|---|--|
| Mr. Sengmouong SICTSIVORSAN | Head of Technical of Irrigation Division |
| (5) District Agriculture and Forestry Office (DAFO), Xaithany District (サイタニ郡農林事務所 (DAFO)) | |
| Mr. Thongsouk BOUALIKHANH | Chief of Xaithany District Office for the Agriculture and Forestry |
| (6) Tha Ngon Irrigation Project Office, Department of Agriculture and Forestry, Vientiane Capital (ビエンチャン特別市農林局タゴン灌漑プロジェクト事務所) | |
| Mr. Paksavant SYLOVAM | Director General |
| Mr. Soukanh PHIMMASONE | Deputy Director (Operation and Maintenance Unit) |
| Mr. Sitixay SOUDAVONE | Deputy Director (Promotion Unit) |
| Mr. Vantho CHANNGAKHAM | Deputy Director (Administration Unit) |
| Mr. Aonphone SIVONGXAY | Staff (Operation and Maintenance Unit) |
| Mr. Udomsap RADSAWAN | Staff (Promotion Unit) |
| (7) Water Users Association, Tha Ngon Irrigation Project (タゴン地区水利組合) | |
| Ms. Khamson KEDPHILA | Head of Canal No.8 |
| Mr. Pheung KNOUNPHON | Head of Canal No.9, 10, 11, 12, 13, 14, 15 |
| Mr. Somkhith SENGKHANYONG | Head of Canal No.6, 7-1, 7-2 |
| Mr. Bounchan LEVANGLIT | Water User (Thasommor Village Chief) |
| (8) Department of Customs, Ministry of Finance (財務省税関局) | |
| Mr. Canda SINPASEUTH | Technical officer of Customs Clearance and Formality Division |
| Mr. Panemalay LUANGSOUVANH | Technical officer |
| (9) Department of External Finance, Loan and Grant Management Division, Ministry of Finance (財務省外部資金局) | |
| Mr. Angkhansada Mouangkham | Deputy Director General |
| Mr. Bounpaseuth SISOUVANH | Deputy Director |
| (10) Department of Meteorology and Hydrology, Ministry of Natural Resources and Environment (天然資源環境省気象水文局) | |
| Mr. Khanmany KHOUNPHONH | Director General |

(11) Hydrological Division, Department of Meteorology and Hydrology, Ministry of Natural Resources and Environment (天然資源環境省気象水文局水文部)

Mr. Somphanh VITHAYA Deputy Chief

(12) Finance's Department, Vientiane Capital (ビエンチャン特別市財務局)

Mr Khamphan Malabandith Director

(13) Électricité du Laos (EDL) (ラオス電力公社)

Mr. Vongsa Nanthavong Deputy Director, Power Distribution Department of Vientiane Capital,

Mr. Khamsavanb PHAVONG Deputy Manager of Billing Division office

在ラオス日本国大使館

中島 健太郎 二等書記官

JICA ラオス事務所

村上 雄祐 前所長

米山 芳春 所長

牧本 小枝 次長

寺田 周平 無償・技協総括／農業・農村開発前担当

町田 豊 無償・技協総括／農業・農村開発担当

Mr. Viengsavanh SISOMBATH Program Officer

資料 4 討議議事録 (M/D)

資料4 討議議事録 (M/D)

4-1 討議議事録 (M/D) (2017年1月16日)

**Minutes of Discussions
on
The Preparatory Survey
for
The Project for Improvement of Tha Ngon Irrigation System**

In response to the request from the Government of Lao People's Democratic Republic (hereinafter referred to as "GOL"), Japan International Cooperation Agency (hereinafter referred to as "JICA") dispatched the Preparatory Survey Team for the Outline Design (hereinafter referred to as "the Team") of the Project for Improvement of Tha Ngon Irrigation System (hereinafter referred to as "the Project") to Lao People's Democratic Republic (hereinafter referred to as "Lao PDR"), headed by Mr. Nobuo Sambe, Senior Advisor to JICA, from 10th to 18th January 2017.

The Team held a series of discussions with the officials concerned of GOL and conducted field surveys. In the course of the discussions, both sides have confirmed the main items described in the Attachment.

Vientiane, 16th January 2017



三部 信雄

Mr. Nobuo Sambe
Leader
Preparatory Survey Team
Japan International Cooperation Agency
Japan

Mr. Maykong Phonephommavong
Director General
Department of Irrigation
Ministry of Agriculture and Forestry
Lao People's Democratic Republic

ATTACHMENT

1. Objective of the Project

The objective of the Project is to improve Tha Ngon irrigation system, located in Xaithany district, Vientiane capital, by rehabilitating key elements of the existing pump irrigation system used for a long time, thereby contributing to the development of a model of modernized agriculture in Lao PDR).

2. Title of the Preparatory Survey

Both sides tentatively confirmed the title of the Preparatory Survey as “the Preparatory Survey for the Project for Improvement of Tha Ngon Irrigation System.”

3. Project site

Both sides confirmed that the Project site is Tha Ngon irrigation scheme area, located in Xaithany district, Vientiane capital, which is shown in Annex 1.

4. Responsible authority for the Project

Both sides confirmed the authorities responsible for the Project as follows:

- 4-1. The Department of Irrigation (DOI), the Ministry of Agriculture and Forestry (MAF) of the Government of Lao PDR, is the executing agency for the Project (hereinafter referred to as “the Executing Agency”).

DOI as the Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project shall be properly and timely managed by relevant authorities. The organization charts are shown in Annex 2.

5. Items requested by GOL

- 5-1. As a result of discussions, both sides confirmed that the items requested by GOL, and the Team’s response as to the priorities of the requested items are as described in Annex 3.
- 5-2. JICA will assess the feasibility of the above requested items through the survey and will report the findings to the Government of Japan (GOJ). The final scope of the Project will be decided by the Government of Japan.

6. Procedures and Basic Principles of Japanese Grant

- 6-1. The GOL side agreed that the procedures and basic principles of Japanese Grant as described in Annex 4 (with Supplements) shall be applied to the Project. As for the monitoring of implementation of the Project, JICA requires GOL side to submit the Project Monitoring Report, the form of which is attached as Annex 5.
- 6-2. The GOL side agreed to take the necessary measures of undertakings, as described in Annex 6, for smooth implementation of the Project.

The contents of the Annex 6 will be elaborated and refined during the Preparatory Survey and be agreed in the next mission to be dispatched for the explanation of the Draft Preparatory Survey Report (in August 2017, tentatively). The contents of Annex 6 will also be updated as the Preparatory Survey progresses, and eventually will be used as an attachment to the Grant Agreement (G/A is explained in Annex 4).

- 6-3. GOJ requests GOL to exempt all customs duties, internal taxes and other fiscal levies including, but not limited to, VAT, commercial tax, income tax, corporate tax, resident tax, fuel tax, which may be imposed in the recipient country with respect to the purchase of the products and/or services, since the Grant fund, coming from the taxpayers of Japan, does not cover these costs. In this regard, the GOL side assured to take necessary measures and coordination including allocation of necessary budgets as precondition of implementation of the Project.

7. Schedule of the Survey

- 7-1. The Team will proceed further with the present survey in Lao PDR until 20th February 2017.
- 7-2. The official request, prepared by DOI of MAF, to GOJ for the Project was already submitted in August 2015.
- 7-3. JICA will prepare a draft Preparatory Survey Report in English and dispatch a mission to Lao PDR in order to explain its contents around August 2017.
- 7-4. If the contents of the draft Preparatory Survey Report is accepted and the undertakings for the Project are fully agreed by GOL side, JICA will finalize the Preparatory Survey Report and send it to GOL around September 2017.
- 7-5. The above schedule is tentative and subject to change.

8. Environmental and Social Considerations

- 8-1. The GOL side confirmed to give due environmental and social considerations before and during implementation, and after completion of the Project, in accordance with the JICA Guidelines for Environmental and Social Considerations (April, 2010).

- 8-2. The Project is presently categorized as “B” from the following considerations:
The Project is not located in a sensitive area, nor has sensitive characteristics, nor falls into sensitive sectors under the JICA Guidelines for Environmental and Social Considerations, and the Project is not likely to have significant adverse impact on the environment.
- 8-3. As to the possibility that the Project acquires land, both side confirmed that the Project will not require acquisition of land and/or land right because of the nature of the Project being rehabilitation of the existing irrigation scheme. Both sides further confirmed that in case physical works of the Project should require additional working space beyond the Project’s administration, GOL leases land on contract basis.
- 8-4. Both sides also confirmed that when GOL leases land, “informed consent” and “power of choice” should be ensured. Here, “informed consent” means that the landowners and/or leaseholders involved are fully knowledgeable about the Project, its implications and consequences, and they freely agree to participate in the lease contract; “power of choice” means that the landowners and/or leaseholders involved have the option to agree or disagree with the lease, without adverse consequences imposed formally or informally by the state.
- 8-5. Furthermore, both sides agreed that in case of lease, GOL examines whether any informal settlers are occupying the land, and if any, compensation and/or assistance will be provided to the Project Affected Persons (PAPs) in line with laws and regulations of GOL and JICA Guidelines.
- 8-6. Concerning the possibility of water pollution of Nam Ngum River during implementation, both sides confirmed that there would practically be no water pollution because the Project would in principle only replace existing pumps, involving no large scale civil works.

9. Other Relevant Issues

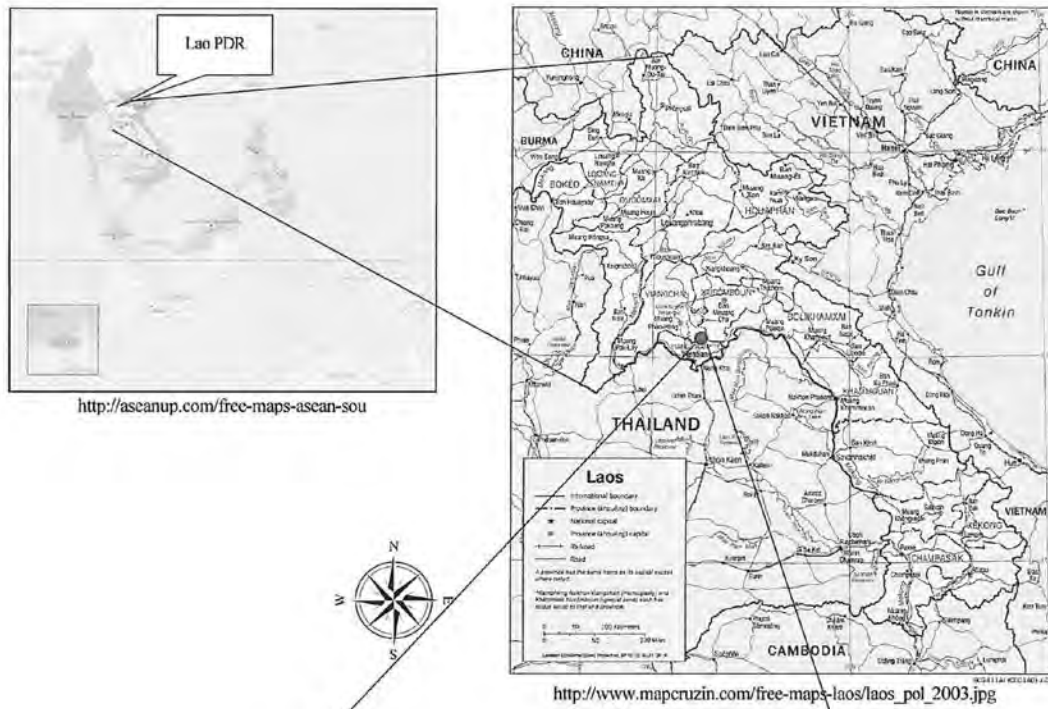
- 9-1. As to the “Title of the Preparatory Survey,” while both sides tentatively confirmed the title as shown in Section 2, Lao PDR side proposed that the title of the Project be modified as “the Project for Improvement of Irrigated Agriculture in Tha Ngon Irrigation Scheme,” because the Project will be a model of modernized irrigated agriculture in Lao PDR. The Team took note of the proposal and confirmed to convey it to the Government of Japan for consideration.
- 9-2. Some water distributions beyond the original irrigation command area were found during the field visit by the Team. Prior to formulation of the outline

design, it shall be decided if those areas should be included in the plan and design. The Team requested DOI to officially inform the Team's Chief Consultant by the end of January 2017 whether the new areas should be included. The Team also requested DOI to inform the Chief Consultant of relevant information (location, area, crops, etc.), if the answer to the above query is yes.

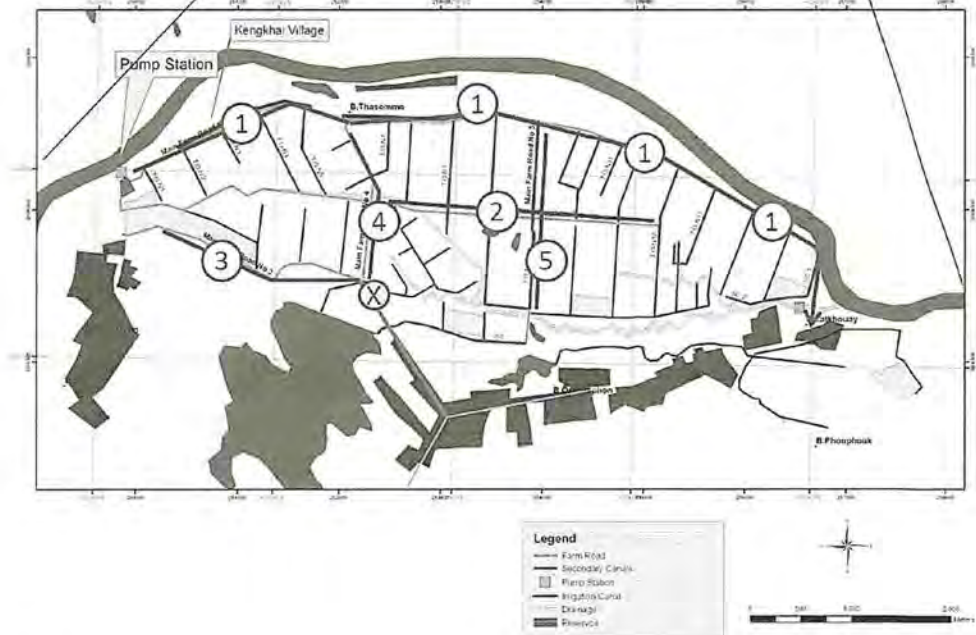
- 9-3. Contribution to the Climate Change Adaptation: Both sides agreed that the Project will contribute to the adaptation to climate change impacts, since the Project aims to expand irrigated areas at the Project site.
- 9-4. Gender consideration: Both sides agreed that the Project would consider gender aspects in planning and implementation through stakeholder consultation.
- 9-5. Questionnaire: DOI shall answer the Questionnaire, submitted by the Team, in English and with relevant documents by 1st February 2017.
- 9-6. The list of participants of the meetings is available in Annex 7.

- Annex 1: Project Site
- Annex 2: Organization Charts
- Annex 3: Items Requested by GOL and JICA Team's Response
- Annex 4: Japanese Grant (with Supplements)
- Annex 5: Project Monitoring Report (template)
- Annex 6: Major Undertakings to be Taken by GOL (tentative)
- Annex 7: List of Participants

Project Site

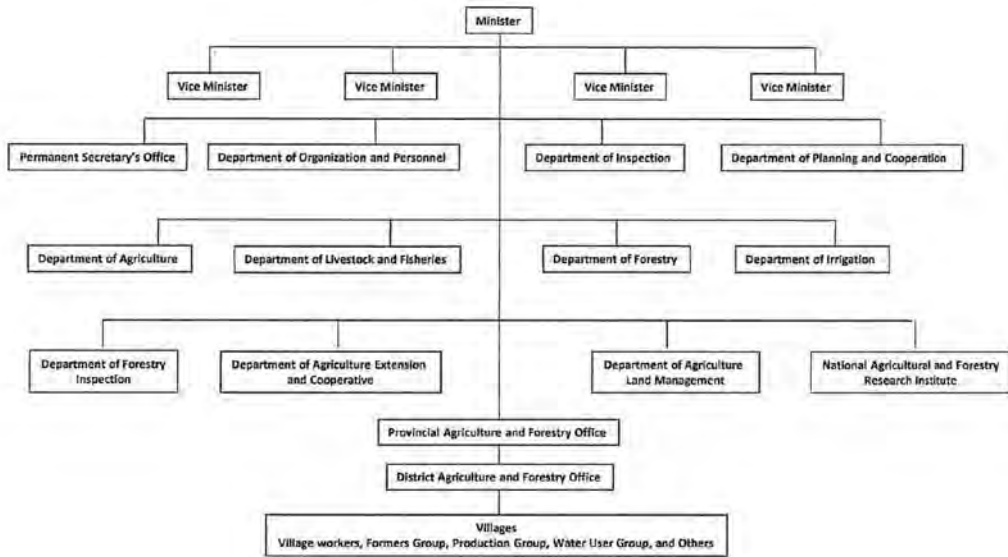


Map of Tha Ngon Irrigation Scheme

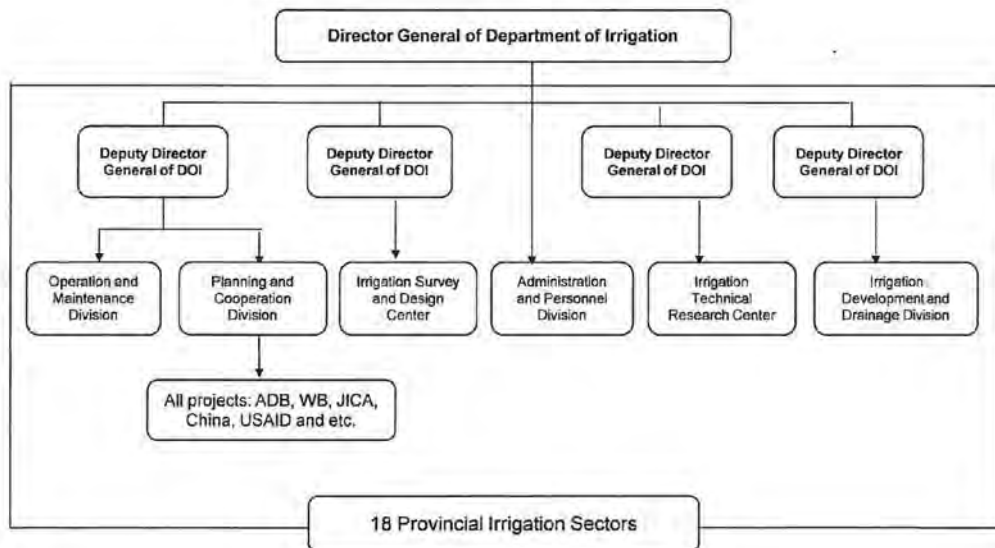


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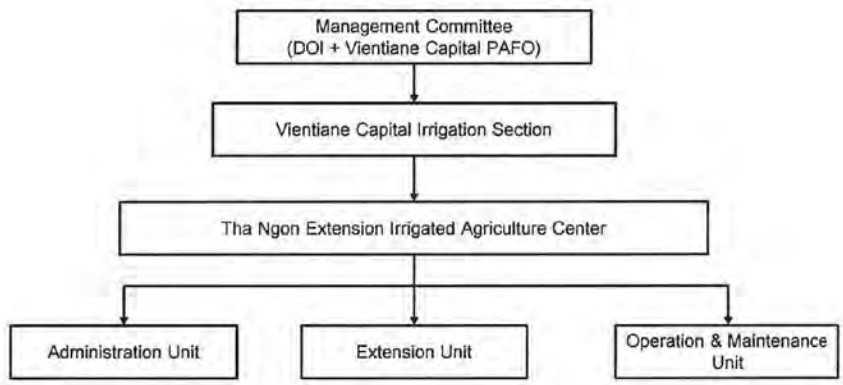
Organization Chart of Ministry of Agriculture and Forestry



Organization Chart of Department of Irrigation



Organization Chart of Tha Ngon Irrigated Agriculture Scheme



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Annex 3

Items Requested by GOL and JICA Team's Response

| No. | Items Requested in the Official Request | JICA Team's Response | Priority |
|-----|--|---|----------|
| 1 | Pump Replacement | <ul style="list-style-type: none"> - The three intake pumps will be the first priorities. - The two drainage pumps will be the second priorities. | 1 2 |
| 2 | Main Farm Road | <ul style="list-style-type: none"> - While farm roads will not be studied, possibility will be examined for provision of equipment or machinery useful for improving the roads essential to the maintenance of the irrigation system. This will be the fourth priority. - Since farm road improvement is costly, inclusion of this item is not practical for the Project with limited financial resources; alternately, examination will be done for the above-mentioned equipment or machinery so that GOL can improve roads on its own. | 4 |
| 3 | Secondary Canal Improvement with Brick Masonry | <ul style="list-style-type: none"> - As to this item, only quick and simple studies will be carried out on selective basis for GOL's own implementation. - This item is of the lowest priority for the Project with limited financial resources. | 5 |
| 4 | Turnout and Check Structure Replacement | <ul style="list-style-type: none"> - Quick and simple studies will be carried out on turnout and check structure along the main canal. - Repair and/or improvement of selected structures, essential for proper water conveyance, will be the third priority. | 3 |

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JAPANESE GRANT

The Japanese Grant is non-reimbursable fund provided to a recipient country (hereinafter referred to as "the Recipient") to purchase the products and/or services (engineering services and transportation of the products, etc.) for its economic and social development in accordance with the relevant laws and regulations of Japan. Followings are the basic features of the project grants operated by JICA (hereinafter referred to as "Project Grants").

1. Procedures of Project Grants

Project Grants are conducted through following procedures (See "PROCEDURES OF JAPANESE GRANT (Supplement 1)" for details):

(1) Preparation

- The Preparatory Survey (hereinafter referred to as "the Survey") conducted by JICA

(2) Appraisal

- Appraisal by the government of Japan (hereinafter referred to as "GOJ") and JICA, and Approval by the Japanese Cabinet

(3) Implementation

Exchange of Notes

- The Notes exchanged between the GOJ and the government of the Recipient

Grant Agreement (hereinafter referred to as "the G/A")

- Agreement concluded between JICA and the Recipient

Banking Arrangement (hereinafter referred to as "the B/A")

- Opening of bank account by the Recipient in a bank in Japan (hereinafter referred to as "the Bank") to receive the grant

Construction works/procurement

- Implementation of the project (hereinafter referred to as "the Project") on the basis of the G/A

(4) Ex-post Monitoring and Evaluation

- Monitoring and evaluation at post-implementation stage

2. Preparatory Survey

(1) Contents of the Survey

The aim of the Survey is to provide basic documents necessary for the appraisal of the the Project made by the GOJ and JICA. The contents of the Survey are as follows:

- Confirmation of the background, objectives, and benefits of the Project and also institutional capacity of

relevant agencies of the Recipient necessary for the implementation of the Project.

- Evaluation of the feasibility of the Project to be implemented under the Japanese Grant from a technical, financial, social and economic point of view.
- Confirmation of items agreed between both parties concerning the basic concept of the Project.
- Preparation of an outline design of the Project.
- Estimation of costs of the Project.
- Confirmation of Environmental and Social Considerations

The contents of the original request by the Recipient are not necessarily approved in their initial form. The Outline Design of the Project is confirmed based on the guidelines of the Japanese Grant.

JICA requests the Recipient to take measures necessary to achieve its self-reliance in the implementation of the Project. Such measures must be guaranteed even though they may fall outside of the jurisdiction of the executing agency of the Project. Therefore, the contents of the Project are confirmed by all relevant organizations of the Recipient based on the Minutes of Discussions.

(2) Selection of Consultants

For smooth implementation of the Survey, JICA contracts with (a) consulting firm(s). JICA selects (a) firm(s) based on proposals submitted by interested firms.

(3) Result of the Survey

JICA reviews the report on the results of the Survey and recommends the GOJ to appraise the implementation of the Project after confirming the feasibility of the Project.

3. Basic Principles of Project Grants

(1) Implementation Stage

1) The E/N and the G/A

After the Project is approved by the Cabinet of Japan, the Exchange of Notes (hereinafter referred to as "the E/N") will be signed between the GOJ and the Government of the Recipient to make a pledge for assistance, which is followed by the conclusion of the G/A between JICA and the Recipient to define the necessary articles, in accordance with the E/N, to implement the Project, such as conditions of disbursement, responsibilities of the Recipient, and procurement conditions. The terms and conditions generally applicable to the Japanese Grant are stipulated in the "General Terms and Conditions for Japanese Grant (January 2016)."

2) Banking Arrangements (B/A) (See "Financial Flow of Japanese Grant (A/P Type) (Supplement 2)" for details)

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a) The Recipient shall open an account or shall cause its designated authority to open an account under the name of the Recipient in the Bank, in principle. JICA will disburse the Japanese Grant in Japanese yen for the Recipient to cover the obligations incurred by the Recipient under the verified contracts.

b) The Japanese Grant will be disbursed when payment requests are submitted by the Bank to JICA under an Authorization to Pay (A/P) issued by the Recipient.

3) Procurement Procedure

The products and/or services necessary for the implementation of the Project shall be procured in accordance with JICA's procurement guidelines as stipulated in the G/A.

4) Selection of Consultants

In order to maintain technical consistency, the consulting firm(s) which conducted the Survey will be recommended by JICA to the Recipient to continue to work on the Project's implementation after the E/N and G/A.

5) Eligible source country

In using the Japanese Grant disbursed by JICA for the purchase of products and/or services, the eligible source countries of such products and/or services shall be Japan and/or the Recipient. The Japanese Grant may be used for the purchase of the products and/or services of a third country as eligible, if necessary, taking into account the quality, competitiveness and economic rationality of products and/or services necessary for achieving the objective of the Project. However, the prime contractors, namely, constructing and procurement firms, and the prime consulting firm, which enter into contracts with the Recipient, are limited to "Japanese nationals", in principle.

6) Contracts and Concurrence by JICA

The Recipient will conclude contracts denominated in Japanese yen with Japanese nationals. Those contracts shall be concurred by JICA in order to be verified as eligible for using the Japanese Grant.

7) Monitoring

The Recipient is required to take their initiative to carefully monitor the progress of the Project in order to ensure its smooth implementation as part of their responsibility in the G/A, and to regularly report to JICA about its status by using the Project Monitoring Report (PMR).

8) Safety Measures

The Recipient must ensure that the safety is highly observed during the implementation of the Project.

9) Construction Quality Control Meeting

Construction Quality Control Meeting (hereinafter referred to as the "Meeting") will be held for quality assurance and smooth implementation of the Works at each stage of the Works. The member of the Meeting will be composed by the Recipient (or executing agency), the Consultant, the Contractor and JICA. The functions of the Meeting are as followings:

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- a) Sharing information on the objective, concept and conditions of design from the Contractor, before start of construction.
- b) Discussing the issues affecting the Works such as modification of the design, test, inspection, safety control and the Client's obligation, during of construction.

(2) Ex-post Monitoring and Evaluation Stage

- 1) After the project completion, JICA will continue to keep in close contact with the Recipient in order to monitor that the outputs of the Project is used and maintained properly to attain its expected outcomes.
- 2) In principle, JICA will conduct ex-post evaluation of the Project after three years from the completion. It is required for the Recipient to furnish any necessary information as JICA may reasonably request.

(3) Others

1) Environmental and Social Considerations

The Recipient shall carefully consider environmental and social impacts by the Project and must comply with the environmental regulations of the Recipient and JICA Guidelines for Environmental and Social Considerations (April, 2010).

2) Major undertakings to be taken by the Government of the Recipient

For the smooth and proper implementation of the Project, the Recipient is required to undertake necessary measures including land acquisition, and bear an advising commission of the A/P and payment commissions paid to the Bank as agreed with the GOJ and/or JICA. The Government of the Recipient shall ensure that customs duties, internal taxes and other fiscal levies which may be imposed in the Recipient with respect to the purchase of the Products and/or the Services be exempted or be borne by its designated authority without using the Grant and its accrued interest, since the grant fund comes from the Japanese taxpayers.

3) Proper Use

The Recipient is required to maintain and use properly and effectively the products and/or services under the Project (including the facilities constructed and the equipment purchased), to assign staff necessary for this operation and maintenance and to bear all the expenses other than those covered by the Japanese Grant.

4) Export and Re-export

The products purchased under the Japanese Grant should not be exported or re-exported from the Recipient.

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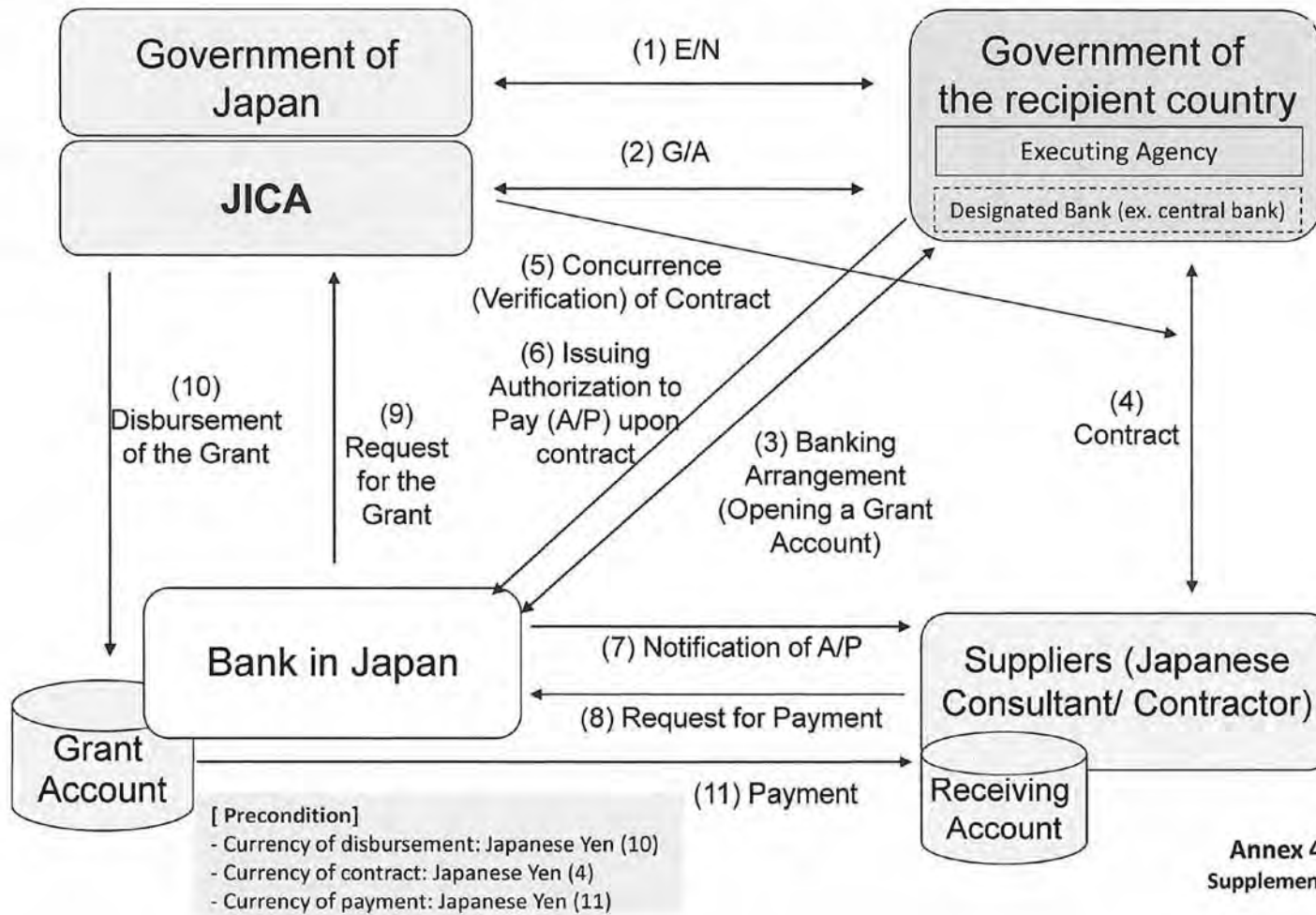
PROCEDURES OF JAPANESE GRANT

| Stage | Procedures | Remarks | Recipient Government | Japanese Government | JICA | Consultants | Contractors | Agent Bank |
|------------------------------------|--|--|----------------------|---------------------|---------|-------------|-------------|------------|
| Official Request | Request for grants through diplomatic channel | Request shall be submitted before appraisal stage. | x | x | | | | |
| 1. Preparation | (1) Preparatory Survey Preparation of outline design and cost estimate | | x | | x | x | | |
| | (2) Preparatory Survey Explanation of draft outline design, including cost estimate, undertakings, etc. | | x | | x | x | | |
| 2. Appraisal | (3) Agreement on conditions for implementation | Conditions will be explained with the draft notes (E/N) and Grant Agreement (G/A) which will be signed before approval by Japanese government. | x | x (E/N) | x (G/A) | | | |
| | (4) Approval by the Japanese cabinet | | | x | | | | |
| 3. Implementation | (5) Exchange of Notes (E/N) | | x | x | | | | |
| | (6) Signing of Grant Agreement (G/A) | | x | | x | | | |
| | (7) Banking Arrangement (B/A) | Need to be informed to JICA | x | | | | | x |
| | (8) Contracting with consultant and issuance of Authorization to Pay (A/P) | Concurrence by JICA is required | x | | | x | | x |
| | (9) Detail design (D/D) | | x | | | x | | |
| | (10) Preparation of bidding documents | Concurrence by JICA is required | x | | | x | | |
| | (11) Bidding | Concurrence by JICA is required | x | | | x | x | |
| | (12) Contracting with contractor/supplier and issuance of A/P | Concurrence by JICA is required | x | | | | x | x |
| | (13) Construction works/procurement | Concurrence by JICA is required for major modification of design and amendment of contracts. | x | | | x | x | |
| | (14) Completion certificate | | x | | | x | x | |
| 4. Ex-post monitoring & evaluation | (15) Ex-post monitoring | To be implemented generally after 1, 3, 10 years of completion, subject to change | x | | x | | | |
| | (16) Ex-post evaluation | To be implemented basically after 3 years of completion | x | | x | | | |

notes:

1. Project Monitoring Report and Report for Project Completion shall be submitted to JICA as agreed in the G/A.
2. Concurrence by JICA is required for allocation of grant for remaining amount and/or contingencies as agreed in the G/A.

Financial Flow of Japanese Grant (A/P Type)



Annex 4 Supplement 2

| |
|---|
| <p><u>Project Monitoring Report</u> on <u>Project Name</u> Grant Agreement No. <u>XXXXXXXX</u> 20XX, Month</p> |
|---|

Organizational Information

| | |
|--|--|
| Signer of the G/A (Recipient) | Person in Charge <u>(Designation)</u> _____ Contacts <u>Address:</u> <u>Phone/FAX:</u> <u>Email:</u> |
| Executing Agency | Person in Charge <u>(Designation)</u> _____ Contacts <u>Address:</u> <u>Phone/FAX:</u> <u>Email:</u> |
| Line Ministry | Person in Charge <u>(Designation)</u> _____ Contacts <u>Address:</u> <u>Phone/FAX:</u> <u>Email:</u> |

General Information:

| | |
|--------------------------|---|
| Project Title | |
| E/N | Signed date: Duration: |
| G/A | Signed date: Duration: |
| Source of Finance | Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____ |

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G/A NO. XXXXXXXX
 PMR prepared on DD/MM/YY

1: Project Description

1-1 Project Objective

| |
|--|
| |
|--|

1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

| |
|--|
| |
|--|

1-3 Indicators for measurement of "Effectiveness"

| Quantitative indicators to measure the attainment of project objectives | | |
|---|----------------|--------------|
| Indicators | Original (Yr) | Target (Yr) |
| | | |
| | | |
| Qualitative indicators to measure the attainment of project objectives | | |
| | | |

2: Details of the Project

2-1 Location

| Components | Original <i>(proposed in the outline design)</i> | Actual |
|------------|---|--------|
| 1. | | |

2-2 Scope of the work

| Components | Original* <i>(proposed in the outline design)</i> | Actual* |
|------------|--|---------|
| 1. | | |
| | | |
| | | |

Reasons for modification of scope (if any).

| |
|-------|
| (PMR) |
|-------|

2-3 Implementation Schedule

| Items | Original | | Actual |
|-------|---|---|--------|
| | <i>(proposed in the outline design)</i> | <i>(at the time of signing the Grant Agreement)</i> | |
| | | | |

Reasons for any changes of the schedule, and their effects on the project (if any)

| |
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| |
|--|

2-4 Obligations by the Recipient

2-4-1 Progress of Specific Obligations

See Attachment 2.

2-4-2 Activities

See Attachment 3.

2-4-3 Report on RD

See Attachment 11.

2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

| Components | | | Cost (Million Yen) | |
|------------|---|--|--|--------|
| | Original <i>(proposed in the outline design)</i> | Actual <i>(in case of any modification)</i> | Original ^{1),2)} <i>(proposed in the outline design)</i> | Actual |
| 1. | | | | |
| | | | | |
| | | | | |
| Total | | | | |

Note: 1) Date of estimation:
2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

| Components | | | Cost (1,000 Taka) | |
|------------|---|--|--|--------|
| | Original <i>(proposed in the outline design)</i> | Actual <i>(in case of any modification)</i> | Original ^{1),2)} <i>(proposed in the outline design)</i> | Actual |
| 1. | | | | |
| | | | | |
| | | | | |
| | | | | |

G/A NO. XXXXXXXX
 PMR prepared on DD/MM/YY

Note: 1) Date of estimation:
 2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

| |
|--|
| Original (at the time of outline design) name: role: financial situation: institutional and organizational arrangement (organogram): human resources (number and ability of staff): |
| Actual (PMR) |

2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

3: Operation and Maintenance (O&M)

3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

| |
|--|
| Original (at the time of outline design) |
| Actual (PMR) |

3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

| |
|--|
| Original (at the time of outline design) |
|--|

Actual (PMR)

4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

Assessment of Potential Risks (at the time of outline design)

| Potential Risks | Assessment |
|--------------------------|--|
| 1. (Description of Risk) | Probability: High/Moderate/Low |
| | Impact: High/Moderate/Low |
| | Analysis of Probability and Impact: |
| | |
| | Mitigation Measures: |
| | Action required during the implementation stage: |
| 2. (Description of Risk) | Probability: High/Moderate/Low |
| | Impact: High/Moderate/Low |
| | Analysis of Probability and Impact: |
| | |
| | Mitigation Measures: |
| | Action required during the implementation stage: |
| 3. (Description of Risk) | Probability: High/Moderate/Low |
| | Impact: High/Moderate/Low |
| | Analysis of Probability and Impact: |
| | |
| | Mitigation Measures: |
| | Action required during the implementation stage: |



G/A NO. XXXXXXXX
PMR prepared on DD/MM/YY

| | |
|---|-----------------------------------|
| | Contingency Plan (if applicable): |
| Actual Situation and Countermeasures (PMR) | |

5: Evaluation and Monitoring Plan (after the work completion)

5-1 Overall evaluation

Please describe your overall evaluation on the project.

| |
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| |
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5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

| |
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| |
|--|

5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

| |
|--|
| |
|--|

G/A NO. XXXXXXXX
PMR prepared on DD/MM/YY

Attachment

1. Project Location Map
 2. Specific obligations of the Recipient which will not be funded with the Grant
 3. Monthly Report submitted by the Consultant
- Appendix - Photocopy of Contractor's Progress Report (if any)
- Consultant Member List
 - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/ Agreement and Schedule of Payment)
 5. Environmental Monitoring Form / Social Monitoring Form
 6. Monitoring sheet on price of specified materials (Quarterly)
 7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
 8. Pictures (by JPEG style by CD-R) (PMR (final) only)
 9. Equipment List (PMR (final) only)
 10. Drawing (PMR (final) only)
 11. Report on RD (After project)



Monitoring sheet on price of specified materials

1. Initial Conditions (Confirmed)

| | Items of Specified Materials | Initial Volume A | Initial Unit Price (¥) B | Initial total Price C=A×B | 1% of Contract Price D | Condition of payment | |
|---|------------------------------|---------------------|--------------------------------|---------------------------------|------------------------------|----------------------------|----------------------------|
| | | | | | | Price (Decreased) E=C-D | Price (Increased) F=C+D |
| 1 | Item 1 | ● t | ● | ● | ● | ● | ● |
| 2 | Item 2 | ● t | ● | ● | ● | | |
| 3 | Item 3 | | | | | | |
| 4 | Item 4 | | | | | | |
| 5 | Item 5 | | | | | | |

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

| | Items of Specified Materials | 1st | 2nd | 3rd | 4th | 5th | 6th |
|---|------------------------------|---------------|---------------|---------------|-----|-----|-----|
| | | ● month, 2015 | ● month, 2015 | ● month, 2015 | | | |
| 1 | Item 1 | | | | | | |
| 2 | Item 2 | | | | | | |
| 3 | Item 3 | | | | | | |
| 4 | Item 4 | | | | | | |
| 5 | Item 5 | | | | | | |

(3) Summary of Discussion with Contractor (if necessary)

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Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Actual Expenditure by Construction and Equipment each)

| | Domestic Procurement (Recipient Country) A | Foreign Procurement (Japan) B | Foreign Procurement (Third Countries) C | Total D |
|-----------------------------|--|-------------------------------------|---|------------|
| Construction Cost | (A/D%) | (B/D%) | (C/D%) | |
| Direct Construction Cost | (A/D%) | (B/D%) | (C/D%) | |
| others | (A/D%) | (B/D%) | (C/D%) | |
| Equipment Cost | (A/D%) | (B/D%) | (C/D%) | |
| Design and Supervision Cost | (A/D%) | (B/D%) | (C/D%) | |
| Total | (A/D%) | (B/D%) | (C/D%) | |

Annex 6

Major Undertakings to be taken by the Government of Lao PDR

1. Specific obligations of the Government of Lao PDR which will not be funded with the Grant

(1) Before the Tender

| NO | Items | Deadline | In charge | Estimated cost | Ref. |
|----|--|--|-----------|----------------|------|
| 1 | To open bank account (B/A). | within 1 month after signing of G/A | TBD | TBD | |
| 2 | To issue authorization to pay (A/P) to the bank in Japan (the Agent Bank) for the payment to the consultant. | within 1 month after signing of contract | TBD | TBD | |
| 3 | To bear the commissions paid to the Agent Bank for banking services including authorization of pay, payment, and other relevant ones. | TBD | TBD | TBD | |
| 4 | To secure prompt issuance of visa and relevant permissions to the consultant. | TBD | TBD | TBD | |
| 5 | To prepare Master List of equipment to be procured and submit it to relevant authorities of Laos for prompt processing for exemption of tax, duty and other relevant levies. | TBD | TBD | TBD | |
| 6 | To secure and clear lands for implementation of the Project. | before notice of the bidding document | DOI | TBD | |
| 7 | To obtain planning, zoning, and building permits, including those for demolition and removal of existing buildings, necessary for the implementation of the Project. | same as above | DOI | TBD | |
| 8 | To clear, level and reclaim the sites for the implementation of the Project. | same as above | DOI | TBD | |
| 9 | To secure supply of utilities necessary for the implementation of the Project including electricity to the relevant pump stations. | same as above | DOI | TBD | |
| 10 | To coordinate with relevant local authorities and stakeholders for smooth implementation of the Project. | TBD | DOI | TBD | |
| 11 | To renew water distribution plans in cooperation with relevant water users' associations. | before preparing bidding documents | DOI | TBD | |
| 12 | To submit Project Monitoring Report (with the result of Detail Design). | same as above | DOI | TBD | |
| | | | | | |
| | This list will be elaborated as the Preparatory Survey progresses | | | | |

(2) During the Project Implementation

| NO | Items | Deadline | In charge | Estimated cost | Ref. |
|----|---|--------------------|-----------|----------------|------|
| 1 | To coordinate with relevant local authorities and stakeholders for smooth implementation of the Project. | during the Project | DOI | TBD | |
| 2 | To accord Japanese nationals and/or physical persons of third countries (contractors and/or suppliers) whose services may be required in connection with the supply of the products and the services such facilities as are necessary for their entry into Laos and stay therein for the performance of their work. | same as above | TBD | TBD | |
| 3 | To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in Laos with respect to the purchase of the products and/or the services be exempted or borne by its designated authority without using the Grant. | same as above | TBD | TBD | |
| 4 | To bear all the expenses, other than those covered by the Grant, necessary for the implementation of the Project | same as above | TBD | TBD | |
| | | | | | |
| | This list will be elaborated as the Preparatory Survey progresses | | | | |

(3) After the Project

| NO | Items | Deadline | In charge | Estimated cost | Ref. |
|----|--|-------------------|-----------|----------------|------|
| 1 | To ensure that the equipment and facilities procured for the Project should be used and maintained properly and efficiently for the implementation of the Project. | after the Project | DOI | TBD | |
| 2 | To secure and execute budgets for all the expenses, other than those covered by the Grant, necessary for the implementation of the Project. | same as above | DOI | TBD | |
| 3 | To properly operate and maintain the entire irrigation and drainage system of the Project. | same as above | DOI | TBD | |
| | | | | | |
| | This list will be elaborated as the Preparatory Survey progresses | | | | |

2. Other obligations of the Government of Lao PDR for items funded with the Grant

| NO | Items | Deadline | Amount (Million Japanese Yen)* |
|----|--|----------|-----------------------------------|
| 1 | To be discussed and confirmed as adequate. | | / |
| 2 | | | |
| | Total | | |

* The Amount is provisional. This is subject to the approval of the Government of Japan.

Annex 7

List of Participants

Ministry of Agriculture and Forestry

| Name | Department/Division | Designation |
|-----------------------------|--|---|
| Mr. Maykong Phonphommavong | Department of Irrigation | Director General |
| Mr. Nouanedeng Rajvong | do. | Deputy Director General |
| Mr. Phouthone Siriphanthong | do. | Deputy Director of O&M |
| Mr. Soulivanh Voravong | do. | Deputy Head of International Cooperation Sector |
| Mr. Thanongsack Chathala | do. | Technical Officer |
| Ms. Chindavone Phorpida | Department of Planning and Cooperation | Technical Officer |

Ministry of Planning and Investment

| Name | Department/Division | Designation |
|------------------------------|---|-------------------------|
| Mr. Sysomphorn Phetdaoheuang | Department of International Cooperation | Deputy Director General |
| Mr. Kouthong Sommala | Department of International Cooperation, Asia-Pacific and Africa Division | Director |
| Mr. Somekhit Kaoyahouang | Department of International Cooperation | |

Tha Ngon Irrigation Project Office

| Name | Department/Division | Designation |
|------------------------|------------------------|-----------------|
| Mr. Soukanh Phimmasore | | Director |
| Mr. Paksavanl Sylovam | Control and Irrigation | Deputy Director |

JICA Laos Office

| Name | Department/Division | Designation |
|---------------------------|-----------------------------------|-----------------|
| Mr. Shuhei Terada | Agriculture and Rural Development | Representative |
| Mr. Viengsavanh Sisombath | | Program Officer |

JICA Preparatory Survey Team

| Name | Department/Division | Designation |
|-------------------------|-----------------------------------|--|
| Mr. Nobuo Sambe | JICA | Leader |
| Mr. Hajime Nabeta | JICA Rural Development Department | Cooperation Planning |
| Dr. Tomohiro Teraminami | do. | Cooperation Planning 2 |
| Mr. Daisuke Nakajima | Kokusai Kogyo Co., Ltd. | Chief Consultant / Improvement of Ground Works for Agricultural Productivity |
| Mr. Shinichi Ogawa | do. | Water Usage Planning / Design / Environmental and Social Considerations |

4-2 討議議事録 (M/D) (2017年8月11日)

Minutes of Discussions
on
the Preparatory Survey
for
The Project for Improvement of Irrigated Agriculture
in Tha Ngon Irrigation Scheme
(Explanation on Draft Preparatory Survey Report)

With reference to the minutes of discussions signed between the Department of Irrigation, Ministry of Agriculture and Forestry and the Japan International Cooperation Agency (hereinafter referred to as "JICA") on 16th January 2017 and in response to the request from the Government of Lao People's Democratic Republic (hereinafter referred to as "GOL") dated 4th August 2015, JICA dispatched the Preparatory Survey Team (hereinafter referred to as "the Team") for the explanation of Draft Preparatory Survey Report (hereinafter referred to as "the Draft Report") for the Project for Improvement of Irrigated Agriculture in Tha Ngon Irrigation Scheme (hereinafter referred to as "the Project"), headed by Mr. Nobuo Sambe, Senior Advisor to JICA from 7th August to 11th August, 2017.

As a result of the discussions, both sides agreed on the main items described in the attached sheets.



Mr. Nobuo Sambe
 Leader
 Preparatory Survey Team
 Japan International Cooperation Agency
 Japan



11th August, 2017
 Mr. Maykong Phonphommavong
 Director General
 Department of Irrigation
 Ministry of Agriculture and Forestry
 Lao People's Democratic Republic

2

ATTACHEMENT

1. Objective of the Project

The objective of the Project is to improve Tha Ngon Irrigation System by rehabilitating key elements of the existing pump irrigation system used for a long time, thereby contributing to the development of a model of modernized agriculture in Lao PDR.

2. Title of the Preparatory Survey

Both sides confirmed the title of the Preparatory Survey as “the Preparatory Survey for the Project for Improvement of Irrigated Agriculture in Tha Ngon Irrigation Scheme”.

3. Project site

Both sides confirmed that the site of the Project is in Tha Ngon irrigation scheme area, located in Xaithany district, Vientiane capital, which is shown in Annex 1.

4. Responsible authority for the Project

Both sides confirmed the authorities responsible for the Project are as follows:
The Department of Irrigation (DOI), the Ministry of Agriculture and Forestry (MAF) of the GOL, will be the executing agency for the Project (hereinafter referred to as “the Executing Agency”). The Executing Agency shall coordinate with all the relevant authorities to ensure smooth implementation of the Project and ensure that the undertakings for the Project shall be taken care by relevant authorities properly and on time. The organization charts are shown in Annex 2.

5. Contents of the Draft Report

After the explanation of the contents of the Draft Report including scope of the Project summarised in Annex 3 by the Team, the GOL side agreed to its contents.

6. Cost estimate

Both sides confirmed that the cost estimate including the contingency described in Annex 4 and the Draft Report was provisional and would be examined further by the Government of Japan for its approval. The contingency would cover the additional cost attributed to natural disaster, unexpected natural conditions, etc.

7. Confidentiality of the cost estimate and technical specifications

Both sides confirmed that the cost estimate and technical specifications in the Draft Report should never be duplicated or disclosed to any third parties until all the contracts under the Project are concluded.

8. Timeline for the project implementation

The Team explained to the GOL side that the expected timeline for the project implementation is as attached in Annex 5.

9. Expected outcomes and indicators

Both sides agreed that key indicators for expected outcomes are as follows. The GOL side will be responsible for the achievement of agreed key indicators targeted in year 2022 and shall monitor the progress based on those indicators.

[Quantitative outcomes]

| Indicators | Baseline (2016) | Target (2022) 3 years after the Project completion |
|--|--------------------|---|
| Irrigation areas (ha) (dry season) | 272 | 400 |
| Amount of water supply by pump operation (m ³ /day) | 59,447 | 93,312 |
| Amount of rice production (t) (dry season) | 1,224 | 2,404 |
| Unit energy consumption (consumed energy per water supply) (kWh/m ³) | 0.045 | 0.032 |

[Qualitative outcomes]

- 1) Farmers will have a sense of security from guaranteed irrigation water and are motivated to produce more.
- 2) Farmers will transform their farming to more profitable one with surplus production and their livelihood is improved.

10. Technical assistance (“Soft Component” of the Project)

The GOL side requested the soft component to be conducted to ensure sustainable operation and maintenance of the Tha Ngon Irrigation System after completion of the Project. The both side confirmed the contents of the soft component proposed

by the Team. The GOL side agreed to assign necessary counterparts appropriate and competent in terms of its purpose of the technical assistance as described in the Draft Report.

11. Undertakings of the Project

Both sides confirmed the undertakings of the Project as described in Annex 6. With regard to exemption of customs duties, internal taxes and other fiscal levies as stipulated in (2)-5 of Annex 6, both sides confirmed that such customs duties, internal taxes and other fiscal levies include VAT, commercial tax, income tax and corporate tax, which shall be clarified in the bid documents by DOI, MAF during the implementation stage of the Project.

The GOL side assured to take the necessary measures and coordination including allocation of the necessary budget which are preconditions of implementation of the Project. It is further agreed that the costs are indicative, i.e. at Outline Design level. More accurate costs will be calculated at the Detailed Design stage.

Both sides also confirmed that the Annex 6 will be used as an attachment of G/A.

Both sides confirmed that in order for smooth implementation of the Project the master list of goods and services, which are to be procured under the Project and the subject of the above-mentioned exemption of duties, tax and fiscal levies, should be prepared by DOI and submitted by MAF to the Ministry of Finance for their timely approval after exchange of Note Verbal on the Project is concluded and as soon as the actual prices of goods and services are available.

12. Monitoring during the implementation

The Project will be monitored by the Executing Agency and reported to JICA by using the form of Project Monitoring Report (PMR) attached as Annex 7. The timing of submission of the PMR is described in Annex 6.

13. Project completion

Both sides confirmed that the project completes when all the facilities constructed and equipment procured by the grant are in operation. The completion of the Project will be reported to JICA promptly, but in any event not later than six months after completion of the Project.

(3)

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14. Ex-Post Evaluation

JICA will conduct ex-post evaluation after three (3) years from the project completion, in principle, with respect to five evaluation criteria (Relevance, Effectiveness, Efficiency, Impact, Sustainability). The result of the evaluation will be publicized. The GOL side is required to provide necessary support for the data collection.

15. Schedule of the Study

JICA will finalize the Preparatory Survey Report based on the confirmed items. The report will be sent to the GOL side around September, 2017.

16. Environmental and Social Considerations

16-1 General Issues

According to laws and regulations of GOL, no environmental study or examination is required for rehabilitation projects.

The Team explained that 'JICA Guidelines for Environmental and Social Considerations (April 2010)' (hereinafter referred to as "the Guidelines") is applicable for the Project. The Project is categorized as C because the Project is likely to have minimal adverse impact on the environment under the Guidelines.

17. Other Relevant Issues

17-1. Disclosure of Information

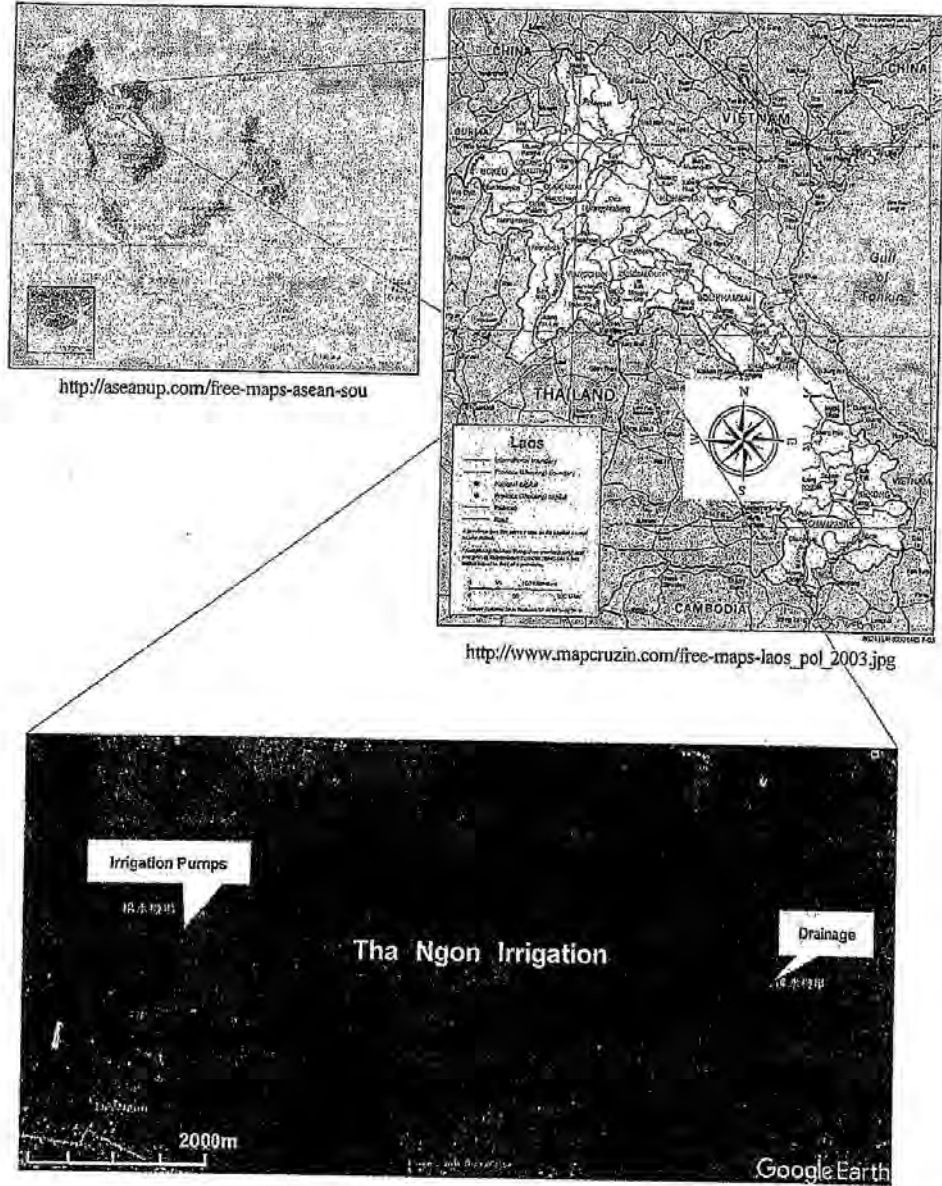
Both sides confirmed that the Preparatory Survey Report from which project cost is excluded will be disclosed to the public after completion of the Preparatory Survey. The comprehensive report including the project cost will be disclosed to the public after all the contracts under the Project are concluded.

17-2. Responsibilities of Beneficiaries

Both sides also confirmed that, as stated in the attached minutes of the meeting of the Water User's Association (Annex 8), the beneficiary farmers are ready to fulfil the responsibilities of operation and maintenance of canals and gates to manage the irrigation and drainage system effectively, and to realize more efficient and equitable use of water for the benefit of all farmers.

- Annex 1 Project Site
- Annex 2 Organization Chart
- Annex 3 Project Scope
- Annex 4 Tentative Project Cost Estimation
- Annex 5 Tentative Project Implementation Schedule
- Annex 6 Major Undertakings taken by the Government of Lao PDR
- Annex 7 Project Monitoring Report (template)
- Annex 8 Minutes of the Meeting of the Water User's Association

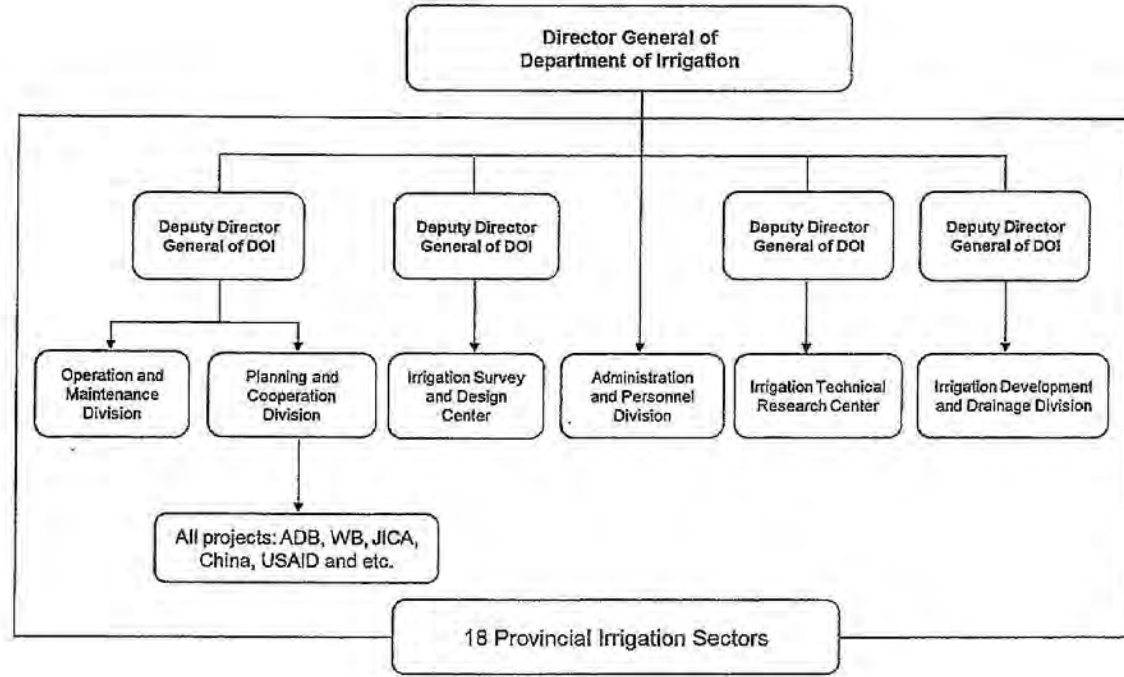
Project Site



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Organization Chart of Department of Irrigation



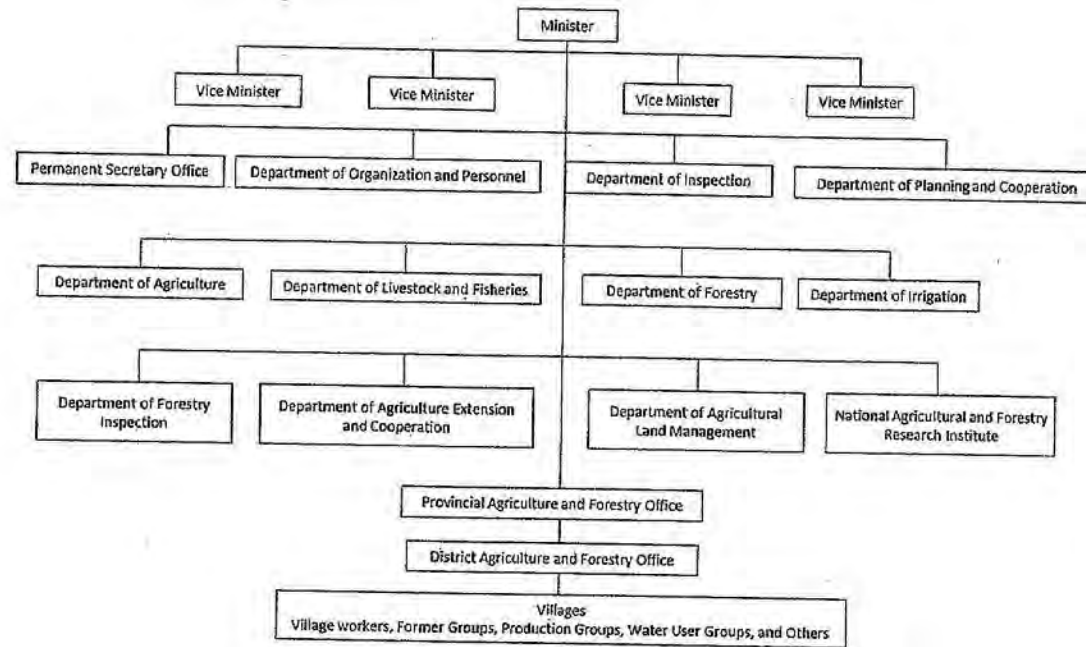
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Annex 2

Organization Chart of Ministry of Agriculture and Forestry



21

Implementation Organization



Steering Committee of the Project

Main Roles

- overall coordination

Procurement Committee of the Project

Main Roles

- prepare to select the bidding processes

DOI

Main Roles

- project coordination
- coordination of procurement (preparation of the master list)
- financial arrangement
- approval of project management issues
- selection of contractors

PAFO/DAFO

Main Roles

- financial arrangement
- setting a project management unit
- approval of project management issues
- selection of contractors
- inspection of the construction

Tha Ngon Irrigation Office

Main Roles

- carry out field activities in coordination with PAFO/DAFO

Water User's Association

Main Roles

- coordination among beneficiaries during the project implementation

PAFO: Provincial Agriculture and Forestry Office, Vientiane Capital

DAFO: District Agriculture and Forestry Office, Vientiane Capital

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Annex 3

Project Scope

| Items | Descriptions | Quantity |
|---------------------------------------|--|-------------------------------|
| Facilities | Operator House in Irrigation Pump Station and Drainage Pump Station | 2 (About 20 m ²) |
| | Control House in Irrigation Pump Station and Drainage Pump Station | 2 (About 20 m ²) |
| Equipment | Irrigation pumps | 3 |
| | Drainage pumps | 2 |
| | Floating pumps | 2 |
| | Intake gate in Irrigation Pump Station | 1 |
| | Spillway on Reservoir | 1 |
| | Head Gate to North Main Canal | 1 |
| | Check Structures on North Main Canal | 6 |
| | Turnouts on North Main Canal and Lateral and Sub lateral Canals | 76 |
| | head gates on Nong Sam Kha Dams | 3 |
| | Control Panels for Pumps | 2 |
| | Power receiving boards and Transformers | 2 |
| | Motor Grader | 1 |
| Consulting service and Soft component | Detailed design service, the supervisory service in the equipment procurement and preparing tender documents | |
| | To construct O&M system to manage information of water fee, irrigation area and flow rate of the Tha Ngon Irrigation Project Office. | |

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CONFIDENTIAL

Tentative Project Cost Estimation

1. Cost to be Borne by the Government of Japan

Total Cost:

| Components | Cost Estimation (Million Yen) |
|---|----------------------------------|
| Equipment | |
| Detail Design and Procurement Supervision | |
| Contingency | |
| Total | |

Notes:

The cost estimates in the above table are provisional and will be further examined by the Government of Japan for the approval of the Grant.

2. Cost to be Borne by the Government of LAO PDR (GOL)

Total Cost: Approximately 338.4 million LAK (Approximately 4.7 Million Yen)

| Undertakings by the GOL side | Cost Estimation | |
|---|-----------------|---------------|
| | (Million LAK) | (Million Yen) |
| Waste Disposal Cost (Concrete Debris, Surplus Earth, Etc.) | 72.0 | 1.0 |
| Preparation of the Construction Site (Removal and Re-installation of Fences) | 72.0 | 1.0 |
| Lease of the Temporary Yard | 36.0 | 0.5 |
| Furniture Purchase Cost (Beds and Desks in the Operator's Houses) | 14.4 | 0.2 |
| Electrical Work | 72.0 | 1.0 |
| Banking arrangement fee | 72.0 | 1.0 |
| Total | 338.4 | 4.7 |

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Annex 4

3. Condition of the Cost Estimation

- Estimated timing: February, 2017
- Exchange rates: LAK 1 = Yen 0.0139
USD 1 = Yen 113.97
- Others:

The Project is implemented in accordance with the system of Japan's Grant Aid

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Annex 5

Tentative Project Implementation Schedule

| Process | 2018 | | | | | | | | | | | | 2019 | | | | | | | | | | | |
|-----------------|--|---|---|----------|---|---|---|---|---|----|----|----|----------|---|---|---|---|---|---|---|---|----|----|----|
| | JPFY2017 | | | JPFY2018 | | | | | | | | | JPFY2019 | | | | | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
| Detailed Design | Final confirmation of Project Content | ■ | | | | | | | | | | | | | | | | | | | | | | |
| | Review of equipment specifiers, etc | | ■ | | | | | | | | | | | | | | | | | | | | | |
| | Preparation of tender documents | | | ■ | | | | | | | | | | | | | | | | | | | | |
| | Approval of tender documents | | | | ■ | | | | | | | | | | | | | | | | | | | |
| | Announcement of tender | | | | | ▲ | | | | | | | | | | | | | | | | | | |
| | Distribution of drawings, briefing | | | | | | ■ | | | | | | | | | | | | | | | | | |
| | Tender | | | | | | | ▲ | | | | | | | | | | | | | | | | |
| | Tender Evaluation of bids | | | | | | | | ■ | | | | | | | | | | | | | | | |
| | Procurement agreement | | | | | | | | | ▲ | | | | | | | | | | | | | | |
| Procurement | Product of equipment | | | | | | | | | ■ | | | | | | | | | | | | | | |
| | Product inspection, pre-shipment inspection | | | | | | | | | | | | | | | | | | | | | | | |
| | Pre-loading survey | | | | | | | | | | | | | | | | | | | | | | | |
| | Ocean/land freight | | | | | | | | | | | | | | | | | | | | | | | |
| | Installation of Equipment | | | | | | | | | | | | | | | | | | | | | | | |
| | Adjustment, trial operation, start-up and operation training | | | | | | | | | | | | | | | | | | | | | | | |
| | Acceptance inspection, handover | | | | | | | | | | | | | | | | | | | | | | | |

■ : Work in Lao PDR
 □ : Work in Japan

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Annex 6

Major Undertakings to be taken by the Government of Lao PDR

I. Specific obligations of the Government of Lao PDR which will not be funded with the Grant

(1) Before the Tender

| NO | Items | Deadline | In charge | Estimated cost | Ref. |
|----|---|--|-----------|-----------------|------|
| 1 | To open a bank account (B/A). | within 1 month after signing of G/A | DOI | 72 million LAK | * |
| 2 | To issue Authorization to Pay (A/P) for the payment to the consultant through the bank in Japan (the Agent Bank). | within 1 month after signing of the contract | DOI | | |
| 3 | To bear bank commission for services of the Agent Bank including authorization of payment and other relevant ones. | within 1 month after verification of contract by JICA | DOI | | |
| 4 | To secure prompt issuance of visa and relevant permissions to the consultant. | as needed | DOI | | |
| 5 | To prepare and submit Master List of equipment to be procured to relevant authorities of Laos for prompt processing exemption from tax, duty and other relevant levies. | up to 2 weeks before the procurement equipment arrival at the port from Japan or third country | DOI/MAF | | |
| 6 | To secure lands for the implementation of the Project. | before notice of the Tender document | DOI/PAFO | 36 million LAK | |
| 7 | To obtain planning, zoning and building permits including demolition and removal of existing buildings for the implementation of the Project. | same as above | DOI | | |
| 8 | To clear, level and reclaim the sites for the implementation of the Project. | same as above | DOI/PAFO | 72 million LAK | |
| 9 | To secure supply of necessary utilities for the implementation of the Project including electricity for the relevant pump stations. | same as above | DOI/PAFO | | |
| 10 | To coordinate with relevant local authorities and stakeholders for smooth implementation of the Project. | within 1 month after signing of G/A | DOI/PAFO | | |
| 11 | To renew irrigation water distribution plans in cooperation with a relevant water users' association. | before preparing Tender documents | DOI/PAFO | | |
| 12 | To submit Project Monitoring Report (with the result of Detail Design). | same as above | DOI | | |
| 13 | To coordinate with relevant authorities, acquires necessary budget to cover VAT portion for fiscal year 2019 | before tender (February 2018) | DOI | 647 million LAK | |

DOI: Department of Irrigation

PAFO: Provincial Agriculture and Forest Office, Vientiane Capital

MAF: Ministry of Agriculture and Forestry

Note: 72 million LAK in No. 1 covers all items with asterisk (*) in all three tables.

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(2) During the Project Implementation

| NO | Items | Deadline | In charge | Estimated cost | Ref. |
|----|--|---|-----------|----------------|------|
| 1 | To issue A/P to the bank in Japan (the Agent Bank) for the payment to the Supplier. | within 1 month after the signing of the contract(s) | DOI | | * |
| 2 | To bear the following commissions of the bank in Japan for the banking services based upon the B/A. | | | | |
| | 1) Advising commission of A/P. | within 1 month after the signing of the contract(s) | DOI | | * |
| | 2) Payment commission for A/P. | every payment | DOI | | * |
| 3 | To ensure prompt unloading and customs clearance at ports of disembarkation in the recipient country and to assist the Supplier with internal transportation therein. | during the Project | DOI/MOF | | |
| 4 | To secure entry into Laos and to accord with Japanese nationals and/or physical persons of third countries (contractors and/or suppliers) whose services may be required in connection with the supply of the products and the services under verified contracts | same as above | DOI | | |
| 5 | To ensure that customs duties, internal taxes and other fiscal levies which may be imposed in Laos with respect to the purchase of the products and/or the services are exempted or borne by its designated authority without using the Grant. | same as above | DOI/MOF | | |
| 6 | To bear all the expenses necessary for the implementation of the Project, other than those covered by the Grant. | same as above | DOI/MOF | | |
| 7 | To submit Project Monitoring Report after each work under the contract(s) such as shipping, hand over and installation. | within 1 month after completion of each work | DOI | | |
| 8 | To submit a report concerning completion of the Project. | within 6 months after completion of the Project | DOI | | |
| 9 | To take necessary measures for safety construction. -Traffic control -Rope off | during the Project | DOI/PAFO | | |
| 10 | To coordinate with relevant local authorities and stakeholders for smooth implementation of the Project. | during the Project | DOI/PAFO | | |
| 11 | To dispose soil, crashed concrete and removed equipment generated by the project. | during the Project | DOI/PAFO | 72 million LAK | |
| 12 | To dispose existing electricity materials such as transformers, Voltage and Current Transformers, cables, etc. | during the Project | DOI/PAFO | | |

DOI: Department of Irrigation

PAFO: Provincial Agriculture and Forest Office, Vientiane Capital

MOF: Ministry of Finance

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(3) After the Project

| NO | Items | Deadline | In charge | Estimated cost | Ref. |
|----|---|-------------------|-----------|----------------------------------|------|
| 1 | To ensure that the equipment and facilities procured for the Project are used and maintained properly and efficiently for the implementation of the Project. | after the Project | DOI/PAFO | | |
| 2 | To operate and maintain properly the entire irrigation and drainage systems of the Project. | same as above | DOI/PAFO | as indicated in the final report | |
| 3 | To take necessary measures for adequate utilization of the Project. 1) Promotion for irrigated agriculture 2) Cleaning and maintenance of irrigation facilities 3) Prepare fixtures for operator house | same as above | DOI/PAFO | 14.4 million LAK for 3) | |
| 4 | To assign trucks for transportation of soil to use for road-maintenance with a motor grader | same as above | DOI/PAFO | | |

DOI: Department of Irrigation

PAFO: Provincial Agriculture and Forest Office, Vientiane Capital

2. Other obligations of the Government of Lao PDR for items funded with the Grant

Even before the Project's implementation starts, DOI, in close coordination with relevant ministries and departments, shall initiate the processes to duly ensure exemption of taxes, duties and other levies involved in the Project stated below; DOI must timely prepare the master list and submit it to MOF and other relevant authorities for approval. DOI must also acquire budgetary allocations for their non-cash transaction in particular to cover VAT.

In order to ensure the Japanese Grant Aid's requirement that customs duties, internal taxes and other fiscal levies which may be imposed in Laos with respect to the purchase of the products and/or the services must be exempted or borne by its designated authority without using the Grant, the Team, the executing agency, i.e. DOI, and the Ministry of Planning and Investment had a meeting with the External Finance Department (EFD) of the Ministry of Finance (MOF) and confirmed the following.

- As to the items to be imported, a master list must be prepared by the executing agency, DOI/MAF in this case, and be submitted to MOF for approval for duty-and-tax-free procurement.
- As to the items to be domestically purchased, DOI/MAF must obtain relevant budgetary allocation for non-cash transaction to cover the VAT portion in terms of counterpart fund.
- As to the items for domestic purchase where the price already includes certain taxes, such as petrol, contractors must purchase the item and obtain receipt with the tax amount indicated. In that case, the contractors shall only pay the amount excluding the tax amount and DOI/MAF shall cover the tax amount with the non-cash transaction budget.
- The exemption of import tax and duties, and Value Added Tax included in domestic goods and services should comply with the instruction 2695/MOF dated 01 November 2010.

* The amounts are provisional. Finalization is subject to approval by the Government of Japan.

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Annex 7
 G/A NO. XXXXXXXX
 PMR prepared on DD/MM/YY

Project Monitoring Report
 on
Project Name
Grant Agreement No. XXXXXXXX
 20XX, Month

Organizational Information

| | |
|----------------------------------|--|
| Signer of the G/A (Recipient) | Person in Charge (Designation) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____ |
| Executing Agency | Person in Charge (Designation) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____ |
| Line Ministry | Person in Charge (Designation) _____ Contacts Address: _____ Phone/FAX: _____ Email: _____ |

General Information:

| | |
|-------------------|---|
| Project Title | |
| E/N | Signed date: Duration: |
| G/A | Signed date: Duration: |
| Source of Finance | Government of Japan: Not exceeding JPY _____ mil. Government of (_____): _____ |

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G/A NO. XXXXXXX
 PMR prepared on DD/MM/YY

1: Project Description

1-1 Project Objective

| |
|--|
| |
|--|

1-2 Project Rationale

- Higher-level objectives to which the project contributes (national/regional/sectoral policies and strategies)
- Situation of the target groups to which the project addresses

| |
|--|
| |
|--|

1-3 Indicators for measurement of "Effectiveness"

| Quantitative indicators to measure the attainment of project objectives | | |
|---|-----------------|---------------|
| Indicators | Original (Yr.) | Target (Yr.) |
| | | |
| | | |
| Qualitative indicators to measure the attainment of project objectives | | |
| | | |

2: Details of the Project

2-1 Location

| Components | Original (proposed in the outline design) | Actual |
|------------|--|--------|
| 1. | | |

2-2 Scope of the work

| Components | Original* (proposed in the outline design) | Actual* |
|------------|---|---------|
| 1. | | |
| | | |
| | | |

Reasons for modification of scope (if any).

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| (PMR) |
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 PMR prepared on DD/MM/YY

2-3 Implementation Schedule

| Items | Original | | Actual |
|-------|----------------------------------|--|--------|
| | (proposed in the outline design) | (at the time of signing the Grant Agreement) | |
| | | | |

Reasons for any changes of the schedule, and their effects on the project (if any)

2-4 Obligations by the Recipient

2-4-1 Progress of Specific Obligations

See Attachment 2.

2-4-2 Activities

See Attachment 3.

2-4-3 Report on RD

See Attachment 11.

2-5 Project Cost

2-5-1 Cost borne by the Grant(Confidential until the Bidding)

| Components | Original | | Cost (Million Yen) | |
|------------|----------------------------------|--------------------------------------|---|--------|
| | (proposed in the outline design) | Actual (in case of any modification) | Original ¹⁾²⁾ (proposed in the outline design) | Actual |
| 1. | | | | |
| | | | | |
| | | | | |
| Total | | | | |

Note: 1) Date of estimation:
 2) Exchange rate: 1 US Dollar = Yen

2-5-2 Cost borne by the Recipient

| Components | Original | | Cost (1,000 Taka) | |
|------------|----------------------------------|--------------------------------------|---|--------|
| | (proposed in the outline design) | Actual (in case of any modification) | Original ¹⁾²⁾ (proposed in the outline design) | Actual |
| 1. | | | | |
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| | | | | |
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- Note: 1) Date of estimation;
 2) Exchange rate: 1 US Dollar =

Reasons for the remarkable gaps between the original and actual cost, and the countermeasures (if any)

(PMR)

2-6 Executing Agency

- Organization's role, financial position, capacity, cost recovery etc,
- Organization Chart including the unit in charge of the implementation and number of employees.

| |
|--|
| Original (at the time of outline design) name: role: financial situation: institutional and organizational arrangement (organogram): human resources (number and ability of staff): |
| Actual (PMR) |

2-7 Environmental and Social Impacts

- The results of environmental monitoring based on Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- The results of social monitoring based on in Attachment 5 (in accordance with Schedule 4 of the Grant Agreement).
- Disclosed information related to results of environmental and social monitoring to local stakeholders (whenever applicable).

3: Operation and Maintenance (O&M)

3-1 Physical Arrangement

- Plan for O&M (number and skills of the staff in the responsible division or section, availability of manuals and guidelines, availability of spareparts, etc.)

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| Original (at the time of outline design) |
| Actual (PMR) |

3-2 Budgetary Arrangement

- Required O&M cost and actual budget allocation for O&M

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| Original (at the time of outline design) |
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Actual (PMR)

4: Potential Risks and Mitigation Measures

- Potential risks which may affect the project implementation, attainment of objectives, sustainability
- Mitigation measures corresponding to the potential risks

Assessment of Potential Risks (at the time of outline design)

| Potential Risks | Assessment |
|--------------------------|--|
| 1. (Description of Risk) | Probability: High/Moderate/Low |
| | Impact: High/Moderate/Low |
| | Analysis of Probability and Impact: |
| | Mitigation Measures: |
| | Action required during the implementation stage: |
| | Contingency Plan (if applicable): |
| | |
| 2. (Description of Risk) | Probability: High/Moderate/Low |
| | Impact: High/Moderate/Low |
| | Analysis of Probability and Impact: |
| | Mitigation Measures: |
| | Action required during the implementation stage: |
| | Contingency Plan (if applicable): |
| | |
| 3. (Description of Risk) | Probability: High/Moderate/Low |
| | Impact: High/Moderate/Low |
| | Analysis of Probability and Impact: |
| | Mitigation Measures: |
| | Action required during the implementation stage: |
| | |
| | |

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| | |
|---|-----------------------------------|
| | Contingency Plan (if applicable): |
| Actual Situation and Countermeasures (PMR) | |

5: Evaluation and Monitoring Plan (after the work completion)

5-1 Overall evaluation

Please describe your overall evaluation on the project.

| |
|--|
| |
|--|

5-2 Lessons Learnt and Recommendations

Please raise any lessons learned from the project experience, which might be valuable for the future assistance or similar type of projects, as well as any recommendations, which might be beneficial for better realization of the project effect, impact and assurance of sustainability.

| |
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5-3 Monitoring Plan of the Indicators for Post-Evaluation

Please describe monitoring methods, section(s)/department(s) in charge of monitoring, frequency, the term to monitor the indicators stipulated in 1-3.

| |
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| |
|--|

G/A NO. XXXXXXXX
PMR prepared on DD/MM/YY

Attachment

1. Project Location Map
2. Specific obligations of the Recipient which will not be funded with the Grant
3. Monthly Report submitted by the Consultant
Appendix - Photocopy of Contractor's Progress Report (if any)
 - Consultant Member List
 - Contractor's Main Staff List
4. Check list for the Contract (including Record of Amendment of the Contract/Agreement and Schedule of Payment)
5. Environmental Monitoring Form / Social Monitoring Form
6. Monitoring sheet on price of specified materials (Quarterly)
7. Report on Proportion of Procurement (Recipient Country, Japan and Third Countries) (PMR (final) only)
8. Pictures (by JPEG style by CD-R) (PMR (final) only)
9. Equipment List (PMR (final) only)
10. Drawing (PMR (final) only)
11. Report on RD (After project)

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Monitoring sheet on price of specified materials

Attachment 6

1. Initial Conditions (Confirmed)

| No. | Items or Specified Materials | Initial Volume A | Initial Unit Price (¥) B | Initial total Price C=A×B | % of Contract Price D | Condition on payments | |
|-----|------------------------------|---------------------|-----------------------------|------------------------------|--------------------------|----------------------------|----------------------------|
| | | | | | | Price (Decreased) E=C×D | Price (Increased) F=C÷D |
| 1 | Item 1 | ●●t | ● | ● | ● | | ● |
| 2 | Item 2 | ●●t | | | | | ● |
| 3 | Item 3 | | | | | | |
| 4 | Item 4 | | | | | | |
| 5 | Item 5 | | | | | | |

2. Monitoring of the Unit Price of Specified Materials

(1) Method of Monitoring : ●●

(2) Result of the Monitoring Survey on Unit Price for each specified materials

| No. | Items or Specified Materials | 1st | 2nd | 3rd | 4th | 5th | 6th |
|-----|------------------------------|-------------|-------------|-------------|-----|-----|-----|
| | | month, 2015 | month, 2015 | month, 2015 | | | |
| 1 | Item 1 | | | | | | |
| 2 | Item 2 | | | | | | |
| 3 | Item 3 | | | | | | |
| 4 | Item 4 | | | | | | |
| 5 | Item 5 | | | | | | |

(3) Summary of Discussion with Contractor (if necessary)

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-
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Attachment 7

Report on Proportion of Procurement (Recipient Country, Japan and Third Countries)
(Actual Expenditure by Construction and Equipment each)

| | Domestic Procurement (Recipient Country) A | Foreign Procurement (Japan) B | Foreign Procurement (Third Countries) C | Total D |
|-----------------------------|--|-------------------------------------|---|------------|
| Construction Cost | (A/D%) | (B/D%) | (C/D%) | |
| Direct Construction Cost | (A/D%) | (B/D%) | (C/D%) | |
| others | (A/D%) | (B/D%) | (C/D%) | |
| Equipment Cost | (A/D%) | (B/D%) | (C/D%) | |
| Design and Supervision Cost | (A/D%) | (B/D%) | (C/D%) | |
| Total | (A/D%) | (B/D%) | (C/D%) | |

**ບົດບັນທຶກກອງປະຊຸມ
ຮ່ວມກັບອຳນາດການປົກຄອງບ້ານ, ຫົວໜ້າຄອງ, ກຸ່ມຜູ້ນຳໃຊ້ນໍ້າ**

ມາຍຫຼັງກອງປະຊຸມຮ່ວມລະຫວ່າງອຳນາດການປົກຄອງບ້ານ, ຫົວໜ້າຄອງເພືອງ ແລະ ກຸ່ມຜູ້ນຳໃຊ້ນໍ້າ ທີ່ດຳເນີນການໂດຍຫົວໜ້າຫ້ອງການໂຄງການຊີນລະປະທານຫຼັກ 6 ຫ່າງອນ ໂດຍມີຕາງໜ້າກຸ່ມຊີນລະປະທານ, ກະຊວງກະສິກຳ-ປ່າໄມ້ ເປັນປະທານ, ໃນກອງປະຊຸມ ທີ່ມີວາມສຳຫຼວດຂໍ້ມູນຈາກອົງການ ໂຈກ້າ (JICA) ໄດ້ສະເໜີລາຍຮັບບັນຫາຕ່າງໆທີ່ໄດ້ເຫັນໃນໄລຍະທີ່ລົງສຳຫຼວດຂໍ້ມູນ ໂດຍສະເພາະແມ່ນສິ່ງທີ່ເປັນຂໍ້ບົກຜ່ອງໃນໜ້າວຽກຂອງການຄຸ້ມຄອງ, ການນຳໃຊ້, ການບຳລຸງຮັກສາ, ຄວາມສະເໝີພາບໃນການຈັດສັນ ແລະ ແບງບັນນຳ.

ໂດຍອີງຕາມການສະເໜີ ແລະ ການປຶກສາຫາລື ຕໍ່ບັນຫາຂ້າງເທິງ ເພື່ອເປັນການບັບປຸງແກ້ໄຂໃນຕໍ່ໜ້າ, ສະມາຊິກຜູ້ນຳໃຊ້ນໍ້າ ແມ່ນຈະໃຫ້ການຮ່ວມມື ດັ່ງຕໍ່ໄປນີ້:

1. ຕ້ອງເປັນເຈົ້າການໃນການບຳລຸງຮັກສາຄອງເພືອງຕ່າງໆ ເຊັ່ນ ມີຄວາມຕື່ມຕົວໃນການອານາໄມ ແລະ ສ້ອມແປງຄອງເພືອງ, ຕ້ອງຕັ້ງໜ້າຕິດຕາມ ແລະ ແກ້ໄຂບັນຫາທີ່ເກີດຂຶ້ນດ້ວຍຄວາມເອົາໃຈໃສ່ ໃນນາມສະມາຊິກຜູ້ນຳໃຊ້ນໍ້າ;
2. ຕ້ອງບັບປຸງການຄຸ້ມຄອງນໍ້າ, ການນຳໃຊ້ປະຕູນໍ້າ ແລະ ອາຄານຕາມຄອງເພືອງຕ່າງໆ ຢ່າງຖືກຕ້ອງ, ເໝາະສົມ ແລະ ຕ້ອງຄຳນຶງເຖິງຄວາມສະເໝີພາບໃນການແຈກຢາຍແບງບັນນຳໃຫ້ບັນດາຜູ້ນຳທັງໝົດ ແລະ ການໃຊ້ນໍ້າຢ່າງປະຢັດ (ລວມທັງຄ່າໄຟຟ້າ);

ເນື້ອໃນກອງປະຊຸມໃນຄັ້ງນີ້, ໃຫ້ຫົວໜ້າກຸ່ມຜູ້ນຳໃຊ້ນໍ້າ ສົມທົບກັບອຳນາດການປົກຄອງບ້ານສັນຂະຫຍາຍສູ່ບັນດາສະມາຊິກຜູ້ນຳໃຊ້ ທັງໝົດ ເພື່ອຄວາມເປັນເອກະພາບໃນການຈັດຕັ້ງປະຕິບັດ.

| ຊື່ບ້ານ | ລາຍເຊັນຫົວໜ້າກຸ່ມຜູ້ນຳໃຊ້ນໍ້າ | ຊື່ ແລະ ນາມສະກຸນ |
|------------|-------------------------------|-----------------------|
| ທ່າສິມມ່ວນ | | ທ. ປະສິດ ບຸກຄະວຽດ |
| ແກ້ງໂຄ້ | | ທ. ສອນ (ສັງ) ບຸກຄະວຽດ |
| ໂພຄຳ | | ທ. ສິມສິມ ພະຈິດທາ |
| ອຸດົມສິນ | | ທ. ພິມພອນ ດວງສິ ພິມ |
| ລາດຄວາຍ | | ທ. ກຸ້ ວິ ວິ/ວຽດ |

ວັນທີ 18/12/2018

ຜູ້ບັນທຶກ

ເອກະສານຄັດຕິດ:
- ລາຍຊື່ຜູ້ເຂົ້າຮ່ວມ

ວົງແກ້ວ ບານນະຄອນສີ
Vongkeo BANNAKHONESY

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ບັນຊີລາຍຊື່ຜູ້ເຂົ້າຮ່ວມກອງປະຊຸມ

ຄັ້ງວັນທີ 9/8/2017
 ຫົວຂໍ້ປະຊຸມ: ສຶກສາກ່ຽວກັບ ສົມມຸດສາດ-ບຸກຄົນ ລາວ ລາວ
 ປະທານກອງປະຊຸມ:.....

| ລ/ດ | ຊື່ ແລະ ນາມສະກຸນ | ພາກສ່ວນ | ໜ້າທີ່ສຳປິດຊ່ອຍ | ເບີໂທ | ລາຍເຊັນ |
|-----|------------------|---------|-----------------|-------------|---------|
| 1 | ທ. ສິມພັນ ສິມພັນ | ໂຄງການ | ຊຸມ | 0305142247 | ☺ |
| 2 | ທ. ສິມພັນ | # | | 56293298 | ສິມພັນ |
| 3 | ທ. ສິມພັນ | ຊຸມ | | | 6632 |
| 4 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 95074227 | ສິມພັນ |
| 5 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 55001981 | ສິມພັນ |
| 6 | ທ. ສິມພັນ | ຊຸມ | | 0305 095142 | |
| 7 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 9624430 | ສິມພັນ |
| 8 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 58112898 | ສິມພັນ |
| 9 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 22001501 | ສິມພັນ |
| 10 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | | ສິມພັນ |
| 11 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 99718335 | ສິມພັນ |
| 12 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 0309612245 | ສິມພັນ |
| 13 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 54873744 | ສິມພັນ |
| 14 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 56904564 | ສິມພັນ |
| 15 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 55679523 | ສິມພັນ |
| 16 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 03050118862 | ສິມພັນ |
| 16 | ທ. ສິມພັນ | ຊຸມ | ທ. ສິມພັນ | 55015404 | ສິມພັນ |
| | ລວມ | | | | |

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ບັນຊີລາຍຊື່ຜູ້ເຂົ້າຮ່ວມກອງປະຊຸມ

ຄັ້ງຈັບທີ ໑ / ໑ / 2017

ຫົວຂໍ້ປະຊຸມ:

ປະທານກອງປະຊຸມ:

| ລ/ດ | ຊື່ ແລະ ນາມສະກຸນ | ພາກສ່ວນ | ໜ້າທີ່ຮັບຜິດຊອບ | ເບີໂທ | ລາຍເຊັນ |
|-----|------------------------|-----------------|---------------------------|-----------------|---------|
| 1 | ທ. ພິດສະຫວະ ສີໄທສີ | ຄ/ກ | ຄ/ພວກ | 55646479 | |
| 2 | ທ. ພິດສະຫວະ ສີໄທສີ | ຄ/ກ | ຄ/ພວກ | 55646479 | |
| 3 | ທ. ສິມພັງ ພິດສະຫວະ | ຄ/ກ | ຄ/ພວກ | 55646479 | |
| 4 | ທ. ສິມພັງ | ຄ/ກ | ຄ/ພວກ | 0305230757 | |
| 5 | Hajime Nabeta | JICA | Coordinator | +81-3-5226-8927 | |
| 6 | ທ. ພິດສະຫວະ ສີໄທສີ | ຄ/ກ | ຄ/ພວກ | 0305250298 | |
| 7 | Mr. Doudomxay RASAVONG | KMB | staff | 9593555 | |
| 8 | ທ. ສິມພັງ | ຄ/ກ | ຄ/ພວກ | 22 45 3075 | |
| 9 | ທ. ສິມພັງ | ຄ/ກ | ຄ/ພວກ | 0309809809 | |
| 10 | ທ. ສິມພັງ | ຄ/ກ | ຄ/ພວກ | 0205978271 | |
| 11 | Kenji SHINOBA | JICA consultant | team member | | |
| 12 | Tomohiro Teraminami | JICA | team member | | |
| 13 | Chizuru Sugihara | consultant | Team member | | |
| 14 | Nobuo SAMBE | JICA | Mission Member | | |
| 15 | Da'suke Nakajima | consultant | Team leader of consultant | | |
| 16 | ທ. ສິມພັງ | ຄ/ກ | ຄ/ພວກ | 99664732 | |
| | ລວມ | | | | |

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資料 5 ソフトコンポーネント計画書

資料5 ソフトコンポーネント計画書

ラオス人民民主共和国

タゴン農場灌漑施設改修計画

ソフトコンポーネント計画書

2017年9月

国際航業株式会社

ソフトコンポーネント計画書

1. ソフトコンポーネントを計画する背景

『ラオス人民民主共和国タゴン農場灌漑施設改修計画』の目標は、ビエンチャン特別市サイタニ郡タゴン地区において、長年使用されてきた既存のポンプ灌漑施設を改修することにより、同地区の農業基盤の整備を図り、もってラオス国の近代的農業の振興に寄与することである。このプロジェクト目標を達成するために計画では必要な資機材の調達を実施するが、整備された機材の運用が円滑に実施されるための運営維持管理体制の構築に関し、同計画内でソフトコンポーネントによる技術支援を行う。

1-1 灌漑施設の維持管理状況

(1) 現在の運営維持管理体制

「ラ」国では、灌漑施設はその面積に応じて、小規模（100ha未満）、中規模（100～1000ha以下）、大規模（1000haより大）に分類されている。このうち、中規模、大規模灌漑施設の維持管理は政府が行うことになっている。具体的には、基幹施設の所有及び建設および更新は政府が、末端水路以下の施設は政府と水利組合が管理している。タゴン地区の場合には、揚水機場、排水機場、調整池、幹線水路、幹線排水路、揚水機場とは別の水源である第1、第2ノンサムカーダムはタゴン灌漑プロジェクト事務所（以下、本事務所）が管理している。揚水機場、排水機場のオペレーターは本事務所が配置しており、幹線水路の分土工や調整水門操作も本事務所から委託された農家が行っている。分土工より先の2次水路は水利組合が管理している。ただし、幹線水路の清掃は各村の通過箇所を各村の利用者が行うこととなっている。

一方水利費は、水利組合の各グループ（後述）に徴収担当者（グループ長兼任、後述）が選任されている。徴収された水利費のうち、グループごとに17%が徴収担当者に、3%が各グループが所属する6村の運営費として返納されている。

なお、毎年乾期前に本事務所との間で灌漑利用に関する契約書を交わした農家を、水利組合の組合員と見なしている。利用者と組合員は同一と見なせるが、契約書を取り交わさずに水利費のみを徴収している農家も存在しており、例えば幹線水路北側でサイフォンにより取水している農家がこれに該当する。契約書を交わしていない農家は水利組合規則に従う必要がなく、灌漑施設の維持管理への協力・責任義務も生じない。

(2) 本事務所の体制と活動状況

本事務所は、ビエンチャン特別市農林局の所管であり、所長を含め合計14名所属している。うち、7名がビエンチャン特別市の職員である。残りの7名は市の契約職員（1名）や水利費より給与が支払われているボランティア職員（6名）である。所長以下、3ユニットが設置されており、管理ユニット（3人）、営農普及ユニット（3人）、維持管理ユニット（5名）が所属している。なお、揚水機場に2名、排水機場に1名のオペレーターが配置されているが、これら3名は全員契約またはボランティア職員となっている。タゴン農場の組織図を図1に示す。

タゴン灌漑施設の政府としての維持管理は、主に本事務所の維持管理ユニットと管理ユニットを中心に行われている。維持管理ユニットについては、施設面の維持管理を、管理ユニットは水利費徴収等の会計業務を担当している。営農普及ユニットは、農業指導を行っており本地区の灌

概農業推進に深い関わりがある。

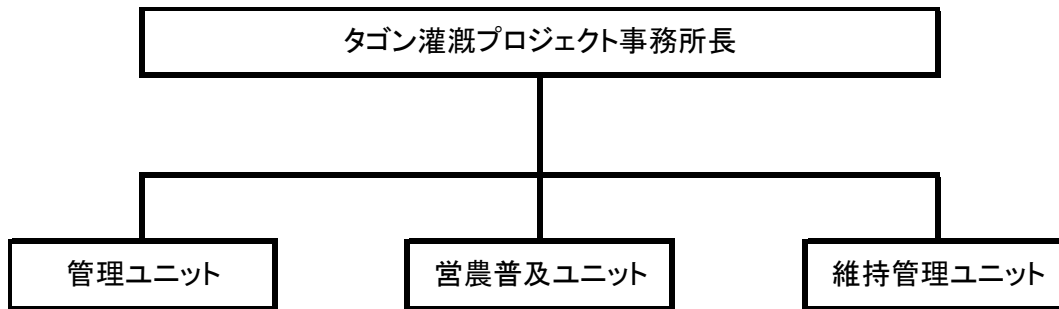


図1 タゴン灌漑プロジェクト事務所組織図

これらのユニットは毎年、灌漑施設利用前の9月から10月の間に灌漑利用者の代表を招集し、用水配分や灌漑スケジュールを周知するための会議を開催している。現状では分水工が機能していないこともあり、用水配分は本事務所が意図した通りとはなっておらず、灌漑期間中は上流先づかいの状態が継続している。さらに、灌漑期間中のポンプ運用や、維持管理に関する問題の解決は基本的には本事務所が対応している。

本事務所の営農支援ユニットは、コメ種子研究センター等とも連携しながら営農指導を実施したい意向をもっているが、担当者は着任直後であるため活動は本格化していない。

(3) 水利組合の体制と活動状況

水利組合は表1のように、各村と分水工から取水される支線をまとまりとして5村（グループ）に分かれている。上述のように、契約書を本事務所と交わした農家が組合員として扱われており、2017年乾期（2016年10月～）の契約数は同様に表1に示す通りである。

各グループにはグループ長が配置されている。グループ長は農家の互選によって選出されており、①総会での配水ルールの確認、②幹線水路の清掃、③水利用のマネージメント、④灌漑期間中の水利用モニタリング（作物栽培期間の栽培面積等のデータ収集と支払い額の算定）、⑤病虫害発生時の情報提供、⑥水利費徴収を実施することになっている。しかし、この中でもっとも比重が高いのは水利費徴収係としての役割であり、結果として水利組合の活動は本事務所主導となっている。

表1 2017年乾期組合員数

| グループ | 支線番号 | 人数（小計） | グループ人数 | 備考 |
|---------------------|-------------|--------|--------|-----------------------|
| Ban Kengkhai Group | No.1、No.4 | 13 | 30 | No.3 支線はコメ種子研究センターが使用 |
| | No.2、No.5 | 17 | | |
| Ban Thasommor Group | No.6 | 16 | 110 | |
| | No.7-1 | 14 | | |
| | No.7-2 | 12 | | |
| | No.8 | 21 | | |
| | No.9 | 24 | | |
| | No.10 | 4 | | |
| | No.11、No.12 | 19 | | |

| グループ | 支線番号 | 人数 (小計) | グループ人数 | 備考 |
|---------------------|------------------|---------|--------|---------------------------------------|
| Ban Lakhouay Group | SC1 | 21 | 31 | フローティングポンプの北幹線と西幹線 (No.13としては機能していない) |
| | SC2 | 10 | | |
| Ban Oudomphon Group | I-NS | 13 | 39 | |
| | I-SS | 19 | | |
| | その他 | 7 | | |
| Ban Phoukham Group | 2次水路:1 3次水路:3 | 35 | 35 | |
| 合計 | | | 245 | |

1-2 ソフトコンポーネントを実施する背景

本計画が実施されることにより、タゴン地区の灌漑施設はポンプ施設を中心に改修され、本来果たすべき灌漑機能を発現することとなる。「ラ」国としては、将来的に灌漑施設の運営維持管理権限を水利組合に移管する方針ではあるが、当面、灌漑施設運営維持管理は既存の組織により従来通り継続することが想定される。つまり、水利組合（各グループのグループ長）は主に水利費徴収を担うが、基本的には本事務所が主導して施設の運営維持管理を行うこととなる。

本事務所は、我が国の無償資金協力『首都圏郊外農村開発計画』（1990～1992年）で建設された灌漑施設（灌漑面積 1,700ha）を兼轄していることもあり、少人数で広範囲の施設維持管理業務にあたる必要がある。現状では、料金徴収や運営維持管理の基礎となる情報の取り扱いに関して、主に以下のような課題を有している。

課題 1：灌漑施設の運営に必要な情報が集約、整理されていない

灌漑施設の運営を効率的に実施していくためには、土地原簿や組合員名簿、水利費収支等の財務関連、議事録等の基本情報がシステムとして集約、整理されていることが前提となる。

しかし、土地原簿は一部の地区のみが整理されているだけで、料金徴収についても、担当者がどうにか作成しているものの、本事務所として集約、整理するシステムが確立されていない。

課題 2：灌漑施設の維持管理に必要な情報が集約、整理されていない

施設の維持管理は、維持管理ユニット職員が実施している。担当職員は経験則に基づき対応してきたが、システムに則った作業は行っていない。

灌漑施設のインベントリや図面は散逸し、揚水量、配水量、灌漑期間や施設の管理日誌なども各担当者が個人で保管するなど、集約、整理されていない。

課題 3：運営維持管理に必要な情報が関係者に共有されていない

担当業務は各ユニットで定められているものの、運営状況を示す各種書類の全体像は把握されておらず、職員間で共有もできていない。誰に共有すべきか基準がないため、職員間で口頭で情報共有されているだけである。

運営維持管理に必要な各種書類は、現状では担当者の手元にあるものの、各担当者が必要に応じていつでも閲覧できる状態に整理されていない。

2. ソフトコンポーネントの目標

前項の課題を踏まえて、本ソフトコンポーネントは「灌漑施設の運営・維持管理に必要な基本情報の内容および集約・整理・共有方法が確立される」ことを目標と定める。また、上位目標は、「集約、整理された基本情報を活用して運営・維持管理が継続される」こととする。

3. ソフトコンポーネントの成果

本ソフトコンポーネント完了時に達成される成果を以下の通り設定する。

成果1：灌漑施設の運営に必要な情報が集約、整理される。

成果2：灌漑施設の維持管理に必要な情報が集約、整理される。

成果3：灌漑施設の運営・維持管理に必要な情報が関係者に共有される。

4. 成果達成度の確認方法

本ソフトコンポーネントの成果達成度の確認を行うための指標を表2の通り設定する。

表2 ソフトコンポーネントの成果ごとの指標

| 成果 | 指標 |
|--|---|
| 成果1：灌漑施設の <u>運営</u> に必要な情報が <u>集約、整理</u> される | ・灌漑施設の <u>運営</u> に関連する書類（土地原簿、組合員名簿、水利費収支等の財務関連情報、議事録など）が分類・整理される。 |
| 成果2：灌漑施設の <u>維持管理</u> に必要な情報が <u>集約、整理</u> される | ・灌漑施設の <u>維持管理</u> に関連する書類（灌漑施設インベントリ、図面、揚水量、配水量、かんがい期間、管理日誌など）が分類・整理される。 |
| 成果3：灌漑施設の <u>運営・維持管理</u> に必要な情報が関係者に <u>共有</u> される | ・運営・維持管理データが紙ファイルに綴じられ、開架される。 |

5. ソフトコンポーネントの活動（投入計画）

事業完了直後から事業効果を発揮させるため、本ソフトコンポーネントで各種フォーマット等の分類・整理等を実施する。なお、技術移転は基本的にはOJTで実施し、対象者はすべて本事務所運営管理ユニット、営農指導ユニット、維持管理ユニットの職員とする。

5-1 成果1：灌漑施設の運営に必要な情報が集約、整理される

活動1：本事務所が保有する灌漑施設の運営に関連する書類の把握

活動2：灌漑施設の運営に必要な書類の内容精査、内容による分類、整理

活動3：灌漑施設の運営に必要な書類の作成方法の習得

本事務所が作成している灌漑施設の運営に関連する各種書類（土地原簿、組合員名簿、水利費収支等の財務関連情報、議事録など）を把握した上で、内容の精査と分類、整理を行う。その後、作成方法を実際のデータを用いて習得する。

5-2 成果2：灌漑施設維持管理に必要な情報が集約、整理される

活動1：本事務所が保有する灌漑施設の維持管理に関連する書類の把握

活動2：灌漑施設の維持管理に必要な書類の内容精査、内容による分類、整理

活動3：灌漑施設の維持管理に必要な書類の作成方法の習得

本事務所が作成している灌漑施設の維持管理に関連する各種書類（灌漑施設インベントリー、図面、揚水量、配水量、かんがい期間、管理日誌など）を把握した上で、内容の精査と分類、整理を行う。その後、作成方法を実際のデータを用いて習得する。

5-3 成果3：灌漑施設の運営・維持管理に必要な情報が関係者に共有される

活動1：灌漑施設の運営・維持管理に関連する書類のフロー確認

活動2：灌漑施設の運営・維持管理に関連する書類の作成者・共有者や供覧方法の検討

活動3：灌漑施設の運営・維持管理に関連する書類の共有

灌漑施設の運営・維持管理に必要な書類の共有、供覧者や方法を現状に合わせて見直し、運営・維持管理データが本事務所内で開架されるようにする。

6. ソフトコンポーネントの実施リソースの調達方法

本ソフトコンポーネントにおける活動に必要な実施リソースは、以下のとおりである。本ソフトコンポーネント実施には、参加型灌漑管理に対する技術、知識に加え、計画されている内容と類似する業務経験を有しているが必要であることから、本邦コンサルタントによる直接支援型とする。

6-1 人的リソース

(1) 本邦コンサルタント（「灌漑施設運営維持管理」専門家1名、ローカル通訳1名）

全活動において、準備、取りまとめ、報告を担当し、本ソフトコンポーネント全体の管理を行う。短期間で実施するため、灌漑施設の運営・維持管理に関する知見を有しており、ソフトコンポーネントの経験がある人材が必要である。また、現地の状況も把握していることが必要である。このため、本プロジェクト実施設計時の契約コンサルタントからの調達が適していると判断する。なお、本事務所の職員は英語を理解しないため、英語＝ラオス語の通訳が必要である。

(2) 本事務所（本ソフトコンポーネントの対象者）

本事務所の3ユニット（維持管理ユニット、営農指導ユニット、運営管理ユニット）のユニット長ならびにグループ長および副グループ長等、各ユニットから3名程度、合計9名を想定する。全活動に、各ユニットの職員の参加を依頼するが、維持管理ユニットは技術系職員、営農指導ユニットはソフト系職員、運営管理ユニットは会計・経理担当職員が所属しているため、成果1は、運営管理ユニット、成果2は維持管理ユニットと営農指導ユニットを活動の中心とする。成果3は全ユニットの職員が協働し作業するように誘導する。

(3) ビエンチャン特別市農林局 (PAFO)

PAFO は、本事務所の上位部署であり、国が支出する施設維持管理費を申請・分配する機能を有している。このため、本ソフトコンポーネント後の維持管理やモニタリング計画を実施に移すためには、PAFO の支援が必須となる。現状でも、PAFO の支援は得ているが、より一層の連携強化と相互理解を得るために、PAFO 灌漑部からオブザーバーとして職員の参加を求める。

6-2 その他のリソース

その他、本コンポーネント開始前までに必要なリソースを表 3 に示す。

表 3 必要なリソース

| 項目 | 説明 |
|---------------------|----------------------|
| 移動車両 | 本邦コンサルタント（通訳）の現場移動用 |
| パソコン・プリンター（スキャナー付き） | 各種書類の作成、保存、印刷用。 |
| ファイル | 各種書類整理用 |
| 印刷用紙 | 書類印刷用 |
| プロジェクター・スクリーン | 職員への書類内容等の説明や書類内容確認用 |
| 保管用書棚 | 各種書類開架用 |

7. ソフトコンポーネントの実施工程

本コンポーネントは、灌漑利用時期に改修後の施設を用いて実施することが望ましい。このため、工事完了後に実施することとする。本邦コンサルタントの派遣は1回として、滞在期間中は英語ーラオス語の通訳を雇用する計画とする（表 4、表 5 参照）。

表 4 ソフトコンポーネント実施計画表

| 業務工程 | 月数 | |
|---|----|---|
| | 1 | 2 |
| アサイン期間 | | |
| (1) 現地準備作業 | | |
| (2) 成果1: 灌漑施設の運営(ソフト面)に必要な情報が集約、整理される | | |
| 活動1 本事務所が保有する灌漑施設の運営に関連する書類の把握 | | |
| 活動2 灌漑施設の運営に必要な書類の内容精査、内容による分類、整理 | | |
| 活動3 灌漑施設の運営に必要な書類の作成方法の習得 | | |
| (3) 成果2 灌漑施設の維持管理(技術面)に必要な情報が集約、整理される | | |
| 活動1 本事務所が保有する灌漑施設の維持管理に関連する書類の把握 | | |
| 活動2 灌漑施設の維持管理に必要な書類の内容精査、内容による分類、整理 | | |
| 活動3 灌漑施設の維持管理に必要な書類の作成方法の習得 | | |
| (4) 成果3 灌漑施設の運営・維持管理に必要な情報が関係者に共有される | | |
| 活動1 運営・維持管理に関連する書類のフローの確認 | | |
| 活動2 灌漑施設の運営・維持管理に関連する書類の作成者・共有者や供覧方法の検討 | | |
| 活動3 灌漑施設の運営・維持管理に関連する書類の共有 | | |
| (3) 完了報告書作成 | | |

表 5 ソフトコンポーネント所要日数

| 成果 | 活動 | | 所要日数 |
|----------------------------------|---------------------------|--------------------------------------|------|
| (現地準備作業) | (運営維持管理のために作成されている書類の確認等) | | 2日 |
| 成果1：灌漑施設の運営に必要な情報が集約、整理される | 活動1 | ・本事務所が保有する灌漑施設の運営に関連する書類の把握 | 3日 |
| | 活動2 | ・灌漑施設の運営に必要な書類の内容精査、内容による分類、整理 | 3日 |
| | 活動3 | ・灌漑施設の運営に必要な書類の作成方法の習得 | 5日 |
| 成果2：灌漑施設の維持管理に必要な情報が集約、整理される | 活動1 | ・本事務所が保有する灌漑施設の維持管理に関連する書類の把握 | 3日 |
| | 活動2 | ・灌漑施設の維持管理に必要な書類の内容精査、内容による分類、整理 | 3日 |
| | 活動3 | ・灌漑施設の維持管理に必要な書類の作成方法の習得 | 5日 |
| 成果3：灌漑施設の運営・維持管理に必要な情報が関係者に共有される | 活動1 | ・灌漑施設の運営・維持管理に関連する書類のフローの確認 | 4日 |
| | 活動2 | ・灌漑施設の運営・維持管理に関連する書類の作成者・共有者や供覧方法の検討 | 4日 |
| | 活動3 | ・灌漑施設の運営・維持管理に関連する書類の共有 | 5日 |
| 完了報告書作成 | — | — | 1日 |
| 小計 | — | — | 38日 |
| 渡航 | — | — | 3日 |
| 書類整理 | — | — | 10日 |
| 合計 | — | — | 51日 |

※便宜上、各活動の所要日数を算出しているが、表5で示したとおり、各活動は同時並行で実施する予定である。

8. ソフトコンポーネントの成果品

本ソフトコンポーネントの成果品は、表6の通りである。

表 6 ソフトコンポーネント成果品

| 項目 | 成果品 |
|---------------|---|
| 成果1に関する成果品 | 灌漑施設の運営に必要な書類（土地原簿、組合員名簿、賦課金収支等の財務関連情報、議事録など） |
| 成果2に関する成果品 | 灌漑施設の維持管理に必要な書類（ポンプ運転管理書、施設維持管理記録など） |
| 成果3に関する成果品 | 灌漑施設の運営・維持管理に必要な書類の管理表 |
| ソフトコンポーネント終了時 | 完了報告書 |

9. 相手国側の責務

本ソフトコンポーネントの目標達成にあたり、ソフトコンポーネント投入による成果に加え、ビエンチャン特別市農林局・本事務所による持続的な運営維持管理が不可欠である。また、本計

画で整理された運営・維持管理体制が円滑かつ持続的に行われるよう、実施機関（農林省灌漑局）による持続的な支援が必要である。それぞれの組織レベルで必要となる責務は下記の通りである。

〔農林省灌漑局〕

- ・タゴン農場運営委員会の適時開催および施設現況把握
- ・タゴン灌漑施設維持管理計画の内容把握およびビエンチャン特別市農林局への指導
- ・タゴン灌漑施設維持管理のための適切な予算承認

〔ビエンチャン特別市農林局〕

・タゴン農場運営委員会の適時開催および農林省灌漑局へのモニタリング結果（施設現況）の報告

- ・タゴン灌漑施設維持管理計画の内容把握およびモニタリング
- ・タゴン灌漑施設維持管理のための適切な予算申請
- ・タゴン灌漑施設維持管理計画実施のための適切な人員配置

〔本事務所〕

- ・ビエンチャン特別市農林局へのモニタリング結果の報告
- ・計画に基づいた維持管理活動の実施
- ・維持管理に関する各種書類の作成・供覧
- ・水利組合への技術指導、連絡
- ・必要なリソースの準備（各種書類整理用ファイル、書類印刷用紙、各種書類開架用書棚）

以 上

資料 6 参考資料

資料 6 参考資料

6-1 降雨量データ (1985 年～2014 年 : Thangone 観測所、2010 年、2011 年は欠損)

Station : Thangone
Daily Rainfall in mm

Max 120.8
Total 479.9

Year : 1986

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-----|-----|-----|-----|-----|-------|-----|-------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.6 | 0.0 | 0.4 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.0 | 0.0 | 0.3 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 175.8 | 0.0 | 299.9 | 0.0 | 6.2 |
| Maxi | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 28.0 | 0.0 | 120.8 | 0.0 | 4.2 |

Station : Thangone
Daily Rainfall in mm

Max 66.4
Total 1817.8

Year : 1985

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 20.4 | 31.9 | 31.0 | 56.5 | 191.2 | 490.8 | 359.8 | 214.2 | 249.5 | 170.3 | 2.2 | 0.0 |
| Maxi | 16.0 | 11.7 | 17.6 | 24.0 | 66.4 | 62.3 | 65.8 | 47.2 | 53.4 | 45.0 | 2.2 | 0.0 |

Station : Thungpue
 Daily Rainfall in mm
 Year : 1987
 Max 109.0
 Total 1569.5

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|-------|------|------|-------|-------|-------|-------|------|------|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.0 | 0.0 | 35.9 | 2.0 | 15.8 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 13.8 | 0.0 | 4.4 | 44.6 | 30.9 | 11.0 | 0.0 |
| 3 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 3.0 | 55.0 | 51.2 | 0.0 | 0.5 | 0.0 |
| 4 | 0.0 | 0.0 | 0.3 | 0.0 | 11.0 | 18.8 | 0.3 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 20.0 | 0.0 | 5.0 | 39.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.2 | 0.0 | 6.2 | 0.0 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 22.0 | 0.0 | 13.5 | 0.0 | 0.0 | 44.7 | 0.8 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.1 | 0.0 | 0.6 | 5.8 | 1.2 | 0.1 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.5 | 20.5 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.0 | 0.2 | 15.6 | 8.5 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.2 | 3.8 | 0.0 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 86.0 | 0.0 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 10.0 | 0.0 | 7.0 | 2.0 | 0.0 | 0.0 | 0.5 | 0.0 | 4.2 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 | 3.6 | 0.0 | 0.0 | 5.8 | 0.0 |
| 15 | 0.0 | 0.0 | 77.2 | 0.0 | 0.0 | 2.0 | 5.7 | 7.8 | 0.0 | 0.0 | 52.2 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.4 | 76.4 | 35.0 | 2.2 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 1.0 | 109.0 | 47.8 | 0.4 | 0.0 | 9.5 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 | 0.0 | 0.8 | 17.9 | 16.4 | 14.8 | 19.4 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.2 | 0.6 | 7.2 | 4.8 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 9.2 | 0.0 | 0.0 | 0.0 | 7.8 | 0.0 | 0.4 | 10.2 | 1.2 | 0.0 | 0.0 |
| 21 | 0.0 | 33.2 | 12.8 | 4.8 | 0.0 | 15.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 0.0 | 56.2 | 0.8 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 58.0 | 73.4 | 7.2 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 4.1 | 1.2 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 1.4 | 86.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 17.4 | 0.0 | 0.0 | 5.4 | 0.8 | 14.8 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.4 | 2.0 | 52.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 25.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 4.0 | 0.0 | 14.8 | 25.0 | 0.4 | 0.0 | 37.4 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 1.0 | 4.4 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 0.0 | | 13.2 | 2.0 | | 0.0 | | 0.0 |
| Total | 0.0 | 42.4 | 152.7 | 58.4 | 63.6 | 385.5 | 327.9 | 382.0 | 329.3 | 64.7 | 83.0 | 0.0 |
| Maxi | 0.0 | 33.2 | 77.2 | 22.0 | 17.6 | 86.0 | 109.0 | 73.4 | 86.0 | 30.9 | 32.2 | 0.0 |

Station : Thungpue
 Daily Rainfall in mm
 Year : 1988
 Max 61.0
 Total 1294.0

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.0 | 6.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.7 | 0.0 | 4.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 16.4 | 0.0 | 2.5 | 10.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.2 | 0.0 | 4.0 | 2.5 | 9.7 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.9 | 0.0 | 0.0 | 19.0 | 0.0 | 14.6 | 15.8 | 1.6 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.9 | 6.8 | 6.4 | 0.0 | 3.3 | 0.0 | 16.6 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 9.1 | 0.0 | 2.2 | 0.0 | 0.0 | 23.2 | 18.2 | 38.7 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.5 | 4.0 | 20.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 1.4 | 0.0 | 0.6 | 0.0 | 2.6 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 15.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 57.2 | 0.0 | 0.0 | 1.4 | 41.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 8.7 | 0.0 | 8.7 | 11.8 | 0.0 | 1.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 61.0 | 18.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 10.2 | 11.8 | 0.0 | 45.4 | 0.2 | 14.0 | 4.4 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 38.2 | 2.6 | 0.6 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 32.6 | 0.0 | 15.0 | 28.2 | 0.0 | 5.2 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 9.4 | 0.0 | 33.0 | 3.2 | 54.0 | 0.0 | 5.8 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 5.8 | 1.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 4.1 | 58.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 11.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.6 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 0.0 | 0.0 | 18.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 31.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 40.0 | 0.0 | 2.1 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 7.1 | 5.8 | 25.0 | 1.2 | 6.8 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 2.5 | 24.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 0.0 | 27.6 | 0.0 | 57.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 0.0 | | 0.0 | 30.8 | | 0.0 | | 0.0 |
| Total | 0.0 | 0.0 | 20.6 | 81.9 | 252.8 | 157.9 | 134.5 | 401.6 | 102.0 | 142.7 | 0.0 | 0.0 |
| Maxi | 0.0 | 0.0 | 10.4 | 61.0 | 57.2 | 33.0 | 45.4 | 58.8 | 41.0 | 38.7 | 0.0 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 1989

Max 100.0
Total 1329.8

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|-----|------|------|-------|-----|-----|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | | | 0.6 | 26.2 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 3.7 | 0.0 | 8.8 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | | | 37.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | | | 100.0 | 0.0 | 4.5 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 6.5 | 0.0 | 7.7 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 39.8 | 34.2 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 5.0 | 0.0 | 0.0 | | | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 9.8 | 32.6 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 3.2 | 2.5 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | | | 33.0 | 0.0 | 1.7 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | | | 11.7 | 18.4 | 0.4 | 0.0 | 0.0 |
| 12 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 68.8 | | | 5.8 | 54.0 | 8.4 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 9.1 | 0.0 | 49.2 | | | 12.1 | 0.0 | 24.1 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 15.0 | | | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 1.2 | 0.0 | 4.0 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 12.8 | 1.2 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | | | 12.6 | 9.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | | | 23.6 | 0.2 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.7 | 0.0 | 0.0 | | | 24.0 | 58.4 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | | | 11.3 | 20.4 | 3.6 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 12.0 | 0.0 | 1.8 | | | 17.0 | 79.6 | 0.0 | 0.0 | 0.0 |
| 24 | 0.1 | 0.0 | 0.0 | 6.4 | 0.3 | | | 32.8 | 27.6 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 2.4 | 6.6 | | | 29.4 | 0.6 | 0.0 | 0.0 | 0.0 |
| 26 | 3.2 | 0.0 | 0.0 | 16.6 | 30.0 | | | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 20.6 | 0.0 | 0.0 | 1.0 | 29.5 | | | 0.4 | 1.8 | 0.6 | 0.0 | 0.0 |
| 28 | 11.0 | 0.0 | 2.6 | 0.0 | 15.8 | | | 32.8 | 0.0 | 0.2 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 7.4 | 2.7 | | | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 24.0 | 3.6 | 1.0 | | | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 5.5 | | 28.0 | | | 0.0 | | 0.0 | | 0.0 |
| Total | 35.9 | 0.0 | 60.5 | 39.6 | 267.9 | 0.0 | 0.0 | 442.7 | 355.4 | 97.8 | 0.0 | 0.0 |
| Maxi | 20.6 | 0.0 | 24.0 | 16.6 | 68.8 | 0.0 | 0.0 | 100.0 | 79.6 | 34.2 | 0.0 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 1990

Max 92.2
Total 1604.7

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|------|------|------|-------|-------|-------|-------|-------|------|------|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 33.1 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 39.2 | 8.0 | 0.0 | 14.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 45.8 | 3.6 | 15.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 92.2 | 0.7 | 12.5 | 43.6 | 4.8 | 1.6 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 0.0 | 27.8 | 1.2 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 10.6 | 0.0 | 3.0 | 1.0 | 35.2 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 24.8 | 8.7 | 8.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.3 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 39.2 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 32.2 | 0.0 | 0.0 | 11.2 | 0.0 | 7.6 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 20.6 | 0.0 | 0.0 | 0.0 |
| 11 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 49.0 | 8.4 | 10.3 | 22.4 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 | 10.6 | 0.0 | 0.6 | 0.0 |
| 13 | 0.0 | 0.0 | 26.4 | 7.2 | 0.0 | 0.2 | 0.0 | 0.0 | 58.2 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 4.0 | 0.0 | 8.8 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 18.0 | 1.1 | 1.0 | 0.2 | 5.2 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 1.6 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 6.8 | 0.0 | 26.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 14.7 | 7.6 | 33.4 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 14.8 | 0.1 | 31.9 | 0.6 | 16.6 | 0.0 | 17.4 | 5.2 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 1.2 | 0.0 | 22.9 | 4.7 | 6.8 | 0.0 | 0.8 | 0.4 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 2.6 | 0.0 | 14.4 | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 | 0.2 | 1.0 | 18.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 6.4 | 0.0 | 0.0 | 33.4 | 15.0 | 3.6 | 12.2 | 51.6 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.8 | 0.0 | 21.2 | 0.4 | 3.5 | 0.1 | 59.0 | 12.9 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | 6.4 | 17.4 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 21.8 | 0.0 | 8.4 | 42.8 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.2 | 19.6 | 6.2 | 0.4 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.0 | 21.0 | 0.0 | 0.9 | 25.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 21.0 | 0.0 | 4.0 | 5.8 | 11.8 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 11.9 | | 28.6 | 1.9 | | 0.0 | | 0.0 |
| Total | 11.3 | 11.0 | 48.4 | 30.8 | 343.6 | 279.6 | 194.1 | 226.0 | 362.9 | 44.4 | 52.6 | 0.0 |
| Maxi | 11.3 | 6.4 | 26.4 | 21.2 | 92.2 | 49.0 | 33.4 | 59.0 | 58.2 | 27.5 | 35.2 | 0.0 |

Station : Thangpue
 Daily Rainfall in mm
 Year : 1991
 Max 105.2
 Total 1294.5

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|------|-------|------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 10.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 2.0 | 7.8 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 51.4 | 8.4 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.7 | 1.2 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 2.6 | 9.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.4 | 0.0 | 3.6 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 9.2 | 64.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 22.6 | 2.6 | 0.0 | 5.4 | 9.5 | 0.8 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 81.6 | 0.0 | 0.0 | 0.0 | 47.6 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 1.2 | 0.0 | 0.0 | 32.4 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.6 | 2.8 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 8.2 | 4.2 | 0.6 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 10.8 | 0.0 | 12.6 | 2.0 | 15.2 | 3.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 | 14.8 | 9.2 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.6 | 4.4 | 0.0 | 61.4 | 19.7 | 105.2 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 0.0 | 17.4 | 0.0 | 2.7 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 19.4 | 47.3 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 22.0 | 0.0 | 0.2 | 0.0 | 6.6 | 4.2 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 1.0 | 56.2 | 0.0 | 0.0 | 24.2 | 3.4 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 4.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.9 | 34.3 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 5.0 | 32.4 | 1.2 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 29.2 | 10.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 19.6 | 1.8 | 7.8 | 16.0 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 8.8 | 0.0 | 2.4 | 48.8 | 0.0 | 0.0 | 6.2 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | 13.0 | 8.4 | 26.6 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 4.0 | 0.0 | 0.0 | 0.0 | 1.2 | 11.0 | 10.0 | 0.0 | 0.0 | 2.2 |
| 30 | 0.0 | | 28.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.2 | | 2.2 | | 0.0 | 3.3 | | 0.0 | | 0.0 |
| Total | 0.0 | 0.0 | 51.4 | 47.8 | 192.6 | 67.1 | 224.8 | 305.0 | 379.1 | 28.3 | 0.0 | 8.4 |
| Maxi | 0.0 | 0.0 | 28.0 | 22.0 | 81.6 | 15.7 | 61.4 | 64.2 | 105.2 | 10.0 | 0.0 | 6.2 |

Station : Thangpue
 Daily Rainfall in mm
 Year : 1992
 Max 128.8
 Total 2072.3

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|------|-----|------|-------|-------|-------|-------|-------|------|-----|------|
| 1 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 25.8 | 19.4 | 57.5 | 0.0 | 0.0 |
| 2 | 21.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 32.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 48.0 | 0.4 | 20.3 | 0.0 | 0.0 |
| 4 | 5.4 | 0.0 | 0.0 | 0.0 | 55.6 | 128.8 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 10.6 | 20.2 | 0.0 | 0.0 | 0.0 |
| 6 | 8.4 | 0.0 | 0.0 | 0.0 | 0.0 | 24.4 | 8.1 | 13.2 | 0.4 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 43.7 | 8.8 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 |
| 8 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 26.3 | 0.0 | 13.8 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.5 | 30.8 | 1.2 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 0.0 | 1.0 | 4.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 60.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 6.6 | 39.5 | 22.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.6 | 9.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 14.0 | 0.8 | 78.2 | 0.0 | 29.6 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 48.0 | 37.0 | 4.0 | 20.0 | 0.0 | 0.6 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 7.2 | 7.8 | 0.0 | 19.0 | 0.6 | 0.6 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.7 | 2.4 | 0.2 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 28.4 | 2.0 | 0.0 | 0.0 | 19.8 | 0.2 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 36.6 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 0.2 | 0.0 | 39.4 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 26.4 | 82.0 | 0.6 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 87.8 | 0.0 | 24.4 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 5.8 | 38.6 | 1.6 | 6.0 | 87.8 | 8.3 | 0.0 | 0.0 | 25.8 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 35.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| 26 | 0.0 | 30.0 | 0.0 | 0.0 | 8.6 | 0.0 | 28.4 | 8.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 2.5 | 0.0 | 0.0 | 4.6 | 1.5 | 1.2 | 45.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 8.5 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 16.8 | 0.0 | 0.0 | 6.4 | 119.2 | 0.0 | 2.8 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 0.0 | | 21.4 | 12.2 | | 0.0 | | 0.0 |
| Total | 68.8 | 38.9 | 0.0 | 22.6 | 315.8 | 365.3 | 453.3 | 521.9 | 177.5 | 81.6 | 0.6 | 26.0 |
| Maxi | 32.2 | 30.0 | 0.0 | 16.8 | 87.8 | 128.8 | 89.5 | 119.2 | 39.4 | 87.5 | 0.6 | 25.8 |

Station : Thangone
Daily Rainfall in mm

Year : 1993

Max 127.6
Total 1635.8

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|------|-------|-------|-------|-------|-------|-----|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 5.0 | 1.2 | 4.5 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 12.2 | 12.5 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 37.8 | 127.6 | 1.0 | 12.2 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 6.2 | 48.9 | 11.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.6 | 7.3 | 0.2 | 2.2 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 0.0 | 0.6 | 13.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 4.2 | 0.0 | 4.0 | 10.9 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 64.4 | 9.2 | 3.6 | 21.5 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 5.7 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 3.0 | 2.2 | 33.6 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.4 | 11.4 | 3.8 | 67.5 | 0.0 | 2.8 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 2.8 | 0.3 | 0.0 | 11.8 | 13.0 | 0.0 | 0.0 | 0.9 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.5 | 17.2 | 2.4 | 0.5 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 1.4 | 34.9 | 0.3 | 7.2 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 4.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 | 2.8 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 2.2 | 8.6 | 0.0 | 13.5 | 8.7 | 46.2 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 1.6 | 0.0 | 0.0 | 32.4 | 0.0 | 0.7 | 0.0 | 14.8 | 0.4 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 | 0.6 | 0.2 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 21.4 | 0.3 | 0.0 | 0.0 | 22.8 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 13.2 | 6.4 | 0.0 | 0.0 | 0.0 | 2.5 | 0.2 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 3.6 | 40.8 | 22.6 | 0.0 | 10.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 10.6 | 31.0 | 0.0 | 5.0 | 26.3 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 1.0 | 0.0 | 4.4 | 7.2 | 4.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 29.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 62.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 33.2 | 68.8 | 4.4 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 5.0 | 14.6 | 7.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.6 | 8.0 | 61.1 | 0.0 | 32.6 | 9.8 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 0.6 | 72.3 | 7.6 | 2.6 | 8.5 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | | | 14.2 | | 0.8 | 19.0 | | 0.0 | | 0.0 |
| Total | 0.0 | 5.8 | 14.2 | 21.0 | 261.2 | 544.2 | 365.3 | 171.5 | 246.4 | 5.1 | 0.9 | 0.0 |
| Maxi | 0.0 | 4.2 | 13.2 | 6.4 | 40.8 | 31.0 | 127.6 | 32.6 | 46.2 | 4.5 | 0.9 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 1994

Max 111.4
Total 2355.0

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|-------|------|-------|-------|-------|-------|-------|-------|-----|------|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.8 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.3 | 0.0 | 12.0 | 20.7 | 0.0 | 0.0 | 39.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 | 96.4 | 2.6 | 0.0 | 0.0 | 14.2 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.3 | 0.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 111.4 | 1.0 | 0.2 | 2.2 | 6.4 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 0.6 | 9.8 | 15.0 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 46.6 | 0.0 | 13.8 | 1.4 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 24.0 | 11.6 | 4.6 | 37.0 | 5.6 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 10.8 | 0.0 | 0.0 | 25.6 | 59.9 | 10.6 | 1.5 | 3.2 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 2.2 | 0.0 | 19.3 | 8.9 | 10.0 | 0.0 | 24.8 | 75.6 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 20.9 | 0.0 | 0.0 | 0.0 | 15.2 | 0.0 | 0.0 |
| 12 | 0.0 | 17.2 | 0.0 | 0.0 | 0.0 | 1.4 | 2.0 | 0.0 | 0.2 | 22.2 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.2 | 12.6 | 1.8 | 11.3 | 0.0 | 2.9 | 7.8 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 21.2 | 0.6 | 0.0 | 0.0 | 23.3 | 2.6 | 7.0 | 5.4 | 0.0 | 0.0 |
| 15 | 0.0 | 10.4 | 0.0 | 0.0 | 0.0 | 4.8 | 35.8 | 31.6 | 29.6 | 4.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 31.8 | 0.0 | 38.9 | 33.4 | 59.6 | 10.4 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 1.8 | 28.2 | 10.5 | 7.2 | 1.1 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 6.7 | 38.2 | 1.1 | 18.3 | 9.7 | 12.4 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 4.0 | 16.0 | 76.0 | 0.3 | 8.9 | 14.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 36.4 | 7.3 | 0.0 | 23.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 24.0 | 23.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 72.6 | 0.0 | 0.0 | 16.3 | 0.0 | 1.0 | 59.4 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 26.5 | 0.0 | 0.0 | 4.6 | 0.0 | 1.0 | 7.1 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 4.1 | 0.0 | 18.7 | 32.6 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.0 | 16.5 | 0.2 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 19.2 | 1.6 | 0.0 | 7.4 | 0.7 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 20.2 | 36.4 | 4.1 | 15.6 | 4.5 | 0.0 | 7.0 | 0.0 | 0.1 | 0.0 |
| 28 | 0.0 | 0.0 | 1.3 | 0.0 | 0.4 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.0 | 0.0 | 20.4 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 12.6 | 0.0 | 24.6 | 31.0 | 31.0 | 39.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 32.9 | | | 52.2 | 13.9 | | 0.0 | 0.0 |
| Total | 0.0 | 38.4 | 157.0 | 47.9 | 311.3 | 516.3 | 273.0 | 489.4 | 320.2 | 148.1 | 0.2 | 53.2 |
| Maxi | 0.0 | 17.2 | 72.6 | 36.4 | 38.2 | 111.4 | 52.2 | 96.4 | 59.6 | 75.6 | 0.1 | 39.0 |

Station : Thangpue
Daily Rainfall in mm

Year : 1995

Max 158.4
Total 2493.5

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-----|------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 44.0 | 0.0 | 18.7 | 8.4 | 21.2 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.1 | 11.5 | 0.0 | 24.6 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 47.8 | 0.0 | 43.5 | 20.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.8 | 17.0 | 71.5 | 4.5 | 4.2 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 34.4 | 61.2 | 12.2 | 0.6 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 20.6 | 0.0 | 21.2 | 32.7 | 95.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 12.3 | 1.8 | 18.2 | 37.7 | 17.5 | 16.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 16.4 | 8.9 | 2.1 | 25.5 | 2.2 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.2 | 0.0 | 0.0 | 13.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 4.0 | 0.0 | 101.3 | 61.6 | 1.6 | 63.6 | 0.0 | 2.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 16.6 | 0.4 | 7.3 | 23.5 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 10.2 | 0.0 | 19.6 | 0.6 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 37.5 | 7.1 | 69.4 | 93.4 | 0.8 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 10.0 | 27.4 | 17.5 | 88.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 39.2 | 0.0 | 50.4 | 0.0 | 0.4 | 0.0 | 1.6 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 10.4 | 0.0 | 33.4 | 5.8 | 2.2 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 0.0 | 8.2 | 0.6 | 11.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 36.4 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.5 | 6.1 | 35.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.5 | 0.0 | 20.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.1 | 8.2 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 80.9 | 0.7 | 4.2 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | 6.2 | 0.5 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 | 90.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | 6.0 | 27.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.0 | 5.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.0 | 29.2 | 5.6 | 7.4 | 133.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 0.0 | 7.3 | 29.0 | 138.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 70.6 | | 64.2 | 23.5 | | 0.0 | | 0.0 |
| Total | 0.6 | 0.0 | 4.0 | 38.3 | 262.6 | 374.5 | 638.1 | 932.0 | 191.6 | 50.2 | 1.6 | 0.0 |
| Max | 0.6 | 0.0 | 4.0 | 20.6 | 101.3 | 61.6 | 90.2 | 138.4 | 43.5 | 21.2 | 1.6 | 0.0 |

Station : Thangpue
Daily Rainfall in mm

Year : 1996

Max 99.5
Total 1728.1

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|------|-------|-------|-------|-------|-------|-------|------|------|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 11.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 7.2 | 0.0 | 29.4 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 1.2 | 2.7 | 0.0 | 0.0 | 4.6 | 54.4 | 0.0 | 5.7 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 22.6 | 4.6 | 19.4 | 24.2 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 | 0.0 | 0.0 | 15.2 | 16.6 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 2.2 | 0.0 | 0.0 | 4.2 | 12.8 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 0.0 | 16.4 | 9.6 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.2 | 20.2 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 6.4 | 0.0 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.6 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 49.4 | 2.3 | 0.0 | 86.8 | 21.0 | 7.6 | 0.0 | 0.3 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.4 | 28.2 | 28.1 | 2.8 | 0.0 | 0.0 | 0.0 |
| 13 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 12.8 | 6.5 | 8.4 | 4.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 4.2 | 39.4 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 28.2 | 0.0 | 5.0 | 31.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 58.2 | 7.7 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 55.5 | 5.4 | 1.7 | 29.6 | 0.0 | 17.8 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 15.4 | 0.0 | 0.0 | 4.0 | 10.4 | 0.0 | 0.0 | 15.4 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 13.0 | 0.0 | 22.9 | 22.3 | 0.0 | 13.4 | 3.5 | 10.8 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 15.6 | 0.0 | 0.0 | 0.0 | 9.8 | 0.0 | 0.2 | 5.4 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 7.0 | 0.0 | 2.5 | 0.0 | 1.0 | 20.8 | 0.0 | 3.5 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 8.8 | 0.0 | 0.4 | 8.6 | 54.2 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 0.8 | 18.8 | 99.5 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 20.2 | 4.0 | 0.0 | 50.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 3.4 | 12.6 | 20.5 | 49.5 | 19.0 | 4.5 | 0.0 | 0.2 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 10.7 | 0.0 | 0.0 | 0.6 | 1.8 | 37.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 44.6 | 13.4 | 0.0 | 2.4 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 6.6 | 6.0 | 6.4 | 28.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 7.3 | 12.4 | 0.2 | 17.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.9 | 5.2 | 0.5 | 7.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 0.0 | | 4.4 | 54.0 | | 0.0 | | 0.0 |
| Total | 0.6 | 51.0 | 66.3 | 172.9 | 103.1 | 267.5 | 270.7 | 322.4 | 453.2 | 65.2 | 55.2 | 0.0 |
| Max | 0.6 | 15.6 | 44.6 | 55.5 | 22.3 | 49.5 | 36.8 | 54.0 | 99.5 | 19.4 | 24.2 | 0.0 |

Station : Thangoue
Daily Rainfall in mm

Year : 1997

Max 65.8
Total 1571.2

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|-------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | 6.2 | 18.4 | 1.8 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 56.1 | 2.2 | 26.2 | 9.8 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.3 | 40.8 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.6 | 7.0 | 0.7 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 55.8 | 0.0 | 1.9 | 56.2 | 0.0 | 0.0 |
| 6 | 0.0 | 8.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.8 | 0.0 | 34.1 | 0.8 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 18.8 | 0.0 | 4.0 | 0.0 | 3.2 | 1.7 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 | 1.2 | 0.0 | 7.6 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 19.6 | 0.0 | 4.8 | 6.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 15.8 | 0.0 | 6.4 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.4 | 41.2 | 0.0 | 1.6 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 65.8 | 0.0 | 0.0 | 1.8 | 10.7 | 0.0 | 28.8 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 24.0 | 4.9 | 0.0 | 24.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 23.0 | 14.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 29.6 | 27.6 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 3.8 | 14.6 | 11.4 | 1.8 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 18.6 | 0.0 | 0.0 | 11.4 | 12.6 | 35.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 35.2 | 12.0 | 53.2 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 15.4 | 0.0 | 0.0 | 24.5 | 0.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 24.8 | 0.0 | 13.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.5 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 47.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.7 | 0.0 | 0.8 | 0.0 | 0.8 | 0.0 | 59.6 | 13.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 1.2 | 3.6 | 34.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.4 | 23.0 | 0.0 | 0.2 | 3.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 36.2 | 1.6 | 10.2 | 34.8 | 13.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.2 | 0.0 | 4.1 | 4.7 | 22.5 | 32.3 | 3.7 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 2.6 | 0.0 | 0.0 | 12.8 | 21.5 | 8.6 | 0.8 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 25.6 | 1.6 | 3.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.0 | 9.0 | 5.8 | 18.3 | 46.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 3.4 | 0.0 | 0.0 | 5.6 | 17.4 | 3.8 | 0.1 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | | | 22.7 | 25.0 | | 0.0 | | 0.0 |
| Total | 1.2 | 8.0 | 26.0 | 201.4 | 116.0 | 124.7 | 543.4 | 321.7 | 149.1 | 79.7 | 0.0 | 0.0 |
| Maxi | 0.7 | 8.0 | 18.6 | 65.8 | 35.2 | 29.6 | 59.6 | 46.3 | 40.8 | 36.2 | 0.0 | 0.0 |

Station : Thangoue
Daily Rainfall in mm

Year : 1998

Max 62.8
Total 1465.2

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|------|------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 35.6 | 38.8 | 1.9 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.7 | 16.8 | 5.0 | 25.4 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 8.0 | 21.2 | 0.0 | 6.7 | 49.9 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 10.6 | 14.4 | 0.0 | 1.9 | 3.7 | 15.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.7 | 6.0 | 0.1 | 0.0 | 34.2 | 7.3 | 6.6 | 39.6 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 1.1 | 0.0 | 0.0 | 40.0 | 3.2 | 8.0 | 10.2 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 1.6 | 0.0 | 11.0 | 30.1 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 4.4 | 9.6 | 46.4 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 50.2 | 37.0 | 49.3 | 8.0 | 20.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.0 | 16.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 3.1 | 11.6 | 0.0 | 0.0 | 2.4 | 12.4 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 40.4 | 0.0 | 0.4 | 0.0 | 0.0 | 3.6 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 3.5 | 0.0 | 24.0 | 5.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.9 | 15.5 | 5.2 | 20.1 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 13.6 | 0.0 | 0.0 | 1.2 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 12.8 | 0.0 | 0.0 | 7.1 | 9.8 | 3.8 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.1 | 11.2 | 7.8 | 0.0 | 0.0 | 0.0 | 32.2 | 0.4 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 2.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 22.5 | 0.8 | 0.0 | 7.9 | 14.6 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 2.8 | 0.0 | 0.6 | 0.0 | 14.2 | 0.0 | 0.0 | 1.6 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 2.2 | 0.0 | 15.8 | 0.6 | 0.0 | 1.9 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.1 | 0.0 | 13.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.9 | 31.4 | 5.2 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 5.5 | 0.0 | 20.6 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 2.2 | 57.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 31.2 | 0.0 | 21.6 | 14.2 | 0.0 | 0.0 | 5.8 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.0 | 6.6 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 12.2 | 40.5 | 3.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 26.6 | | 0.0 | | 3.4 | 62.8 | | 0.0 | | 0.0 |
| Total | 0.0 | 11.3 | 96.1 | 53.6 | 148.6 | 233.6 | 316.4 | 321.1 | 212.4 | 68.2 | 3.9 | 0.0 |
| Maxi | 0.0 | 10.6 | 31.2 | 21.2 | 40.4 | 40.5 | 57.2 | 62.8 | 46.4 | 32.2 | 1.9 | 0.0 |

Station : Thungpue
 Daily Rainfall in mm
 Year : 1999
 Max 146.0
 Total 2422.9

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.2 | 19.2 | 1.6 | 0.0 | 0.2 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.9 | 2.0 | 0.6 | 0.7 | 25.2 | 2.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 4.4 | 15.8 | 2.4 | 0.0 | 3.1 | 0.0 | 0.2 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 23.2 | 0.1 | 9.8 | 5.2 | 71.6 | 4.0 | 0.0 | 0.4 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 134.6 | 0.0 | 45.0 | 2.0 | 146.0 | 0.0 | 0.0 | 0.2 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 24.0 | 0.8 | 0.0 | 9.9 | 0.0 | 0.0 | 0.7 |
| 7 | 0.0 | 0.0 | 0.0 | 12.2 | 97.2 | 13.7 | 0.0 | 0.0 | 6.9 | 0.8 | 1.2 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 88.4 | 48.4 | 0.6 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 39.2 | 1.2 | 27.2 | 1.0 | 0.0 | 5.9 | 38.6 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 1.1 | 0.8 | 5.8 | 0.0 | 20.7 | 6.6 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 2.4 | 0.7 | 2.7 | 67.8 | 5.4 | 0.0 | 0.0 |
| 12 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 17.7 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 |
| 13 | 0.8 | 0.0 | 0.0 | 11.8 | 62.0 | 27.8 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 24.3 | 1.6 | 32.0 | 1.6 | 4.4 | 63.0 | 0.0 | 0.0 | 1.6 |
| 15 | 0.0 | 0.0 | 0.0 | 10.1 | 4.4 | 0.0 | 0.0 | 0.0 | 29.0 | 3.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 1.0 | 2.5 | 6.0 | 3.8 | 2.1 | 7.4 | 5.6 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 1.9 | 0.0 | 0.0 | 12.6 | 1.2 | 6.6 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 32.2 | 29.3 | 35.2 | 2.8 | 4.7 | 1.4 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 5.5 | 0.0 | 29.6 | 7.2 | 5.4 | 72.7 | 1.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 10.0 | 7.2 | 13.6 | 0.0 | 0.0 | 52.3 | 5.2 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 56.6 | 5.0 | 6.0 | 0.0 | 11.5 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.5 | 0.0 | 19.4 | 0.0 | 0.2 | 3.4 | 40.4 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 10.0 | 0.0 | 15.2 | 11.4 | 7.4 | 39.3 | 4.3 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.4 | 0.0 | 23.3 | 0.0 | 21.3 | 6.2 | 2.5 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 5.6 | 3.6 | 6.7 | 29.2 | 9.6 | 5.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 25.6 | 4.5 | 0.0 | 0.0 | 50.8 | 1.0 | 2.2 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 2.9 | 0.0 | 2.2 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 15.1 | 0.0 | 9.6 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 5.2 | 1.0 | 14.9 | 1.6 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 20.5 | 51.1 | 0.0 | 17.5 | 0.0 | 0.0 |
| Total | 2.3 | 0.0 | 16.5 | 267.0 | 594.9 | 308.8 | 207.1 | 258.9 | 646.3 | 114.6 | 3.4 | 3.1 |
| Maxi | 1.5 | 0.0 | 10.0 | 88.4 | 134.6 | 35.2 | 45.0 | 51.1 | 146.0 | 38.6 | 2.0 | 1.6 |

Station : Thungpue
 Daily Rainfall in mm
 Year : 2000
 Max 117.8
 Total 1789.4

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|-----|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1 | 0.0 | 0.0 | 2.2 | 0.0 | 9.4 | 0.0 | 0.0 | 2.6 | 5.4 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.4 | 0.0 | 6.6 | 6.1 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 50.2 | 0.0 | 0.2 | 29.3 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 13.2 | 0.3 | 117.8 | 1.1 | 11.8 | 11.5 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 3.4 | 10.1 | 0.0 | 0.0 | 0.2 | 1.3 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.8 | 4.3 | 17.3 | 3.2 | 0.0 | 0.0 | 0.0 |
| 7 | 2.7 | 0.0 | 0.0 | 0.0 | 0.0 | 25.1 | 0.0 | 10.4 | 2.5 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.7 | 5.5 | 39.4 | 2.5 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 7.9 | 6.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 3.7 | 1.0 | 16.6 | 7.1 | 0.0 | 11.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.3 | 6.8 | 1.2 | 40.0 | 0.0 | 18.5 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 2.8 | 14.9 | 5.6 | 3.9 | 1.6 | 75.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 4.4 | 0.2 | 0.0 | 0.2 | 0.0 | 45.7 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 1.0 | 6.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 20.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 3.0 | 10.6 | 41.4 | 2.0 | 0.5 | 0.0 | 2.8 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 34.9 | 41.0 | 4.6 | 30.8 | 0.0 | 1.4 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 90.4 | 7.2 | 0.0 | 23.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 4.5 | 13.6 | 24.2 | 0.5 | 1.4 | 0.0 | 1.2 | 0.0 | 0.0 |
| 20 | 0.0 | 1.2 | 0.0 | 18.4 | 17.4 | 33.2 | 0.0 | 22.2 | 0.0 | 24.8 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 14.6 | 17.3 | 0.4 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 1.9 | 0.8 | 15.1 | 0.0 | 1.2 | 0.0 | 68.6 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 6.6 | 0.0 | 2.0 | 20.5 | 0.0 | 0.0 | 8.2 | 1.2 | 0.0 | 0.0 |
| 24 | 0.0 | 3.0 | 0.0 | 0.0 | 2.1 | 0.4 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 6.8 | 0.0 | 58.6 | 1.2 | 15.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 9.7 | 0.0 | 13.3 | 0.0 | 40.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 2.5 | 1.0 | 35.0 | 26.9 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.1 | 0.0 | 25.7 | 1.4 | 0.0 | 18.0 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 9.8 | 0.0 | 38.0 | 11.5 | 7.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 67.6 | 0.0 | 14.4 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 2.7 | 16.1 | 3.8 | 125.7 | 325.1 | 447.0 | 234.3 | 258.8 | 254.4 | 116.5 | 0.0 | 0.0 |
| Maxi | 2.7 | 9.8 | 6.6 | 38.0 | 90.4 | 58.6 | 117.8 | 40.5 | 75.0 | 68.6 | 0.0 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 2001

Max 45.4
Total 1278.3

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 2.2 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 0.4 | 0.0 | 43.6 | 1.2 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 10.6 | 0.0 | 9.0 | 9.8 | 9.0 | 2.6 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 35.2 | 0.0 | 14.7 | 0.0 | 29.2 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 9.2 | 0.0 | 0.2 | 0.6 | 9.1 | 9.7 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 1.4 | 0.0 | 0.0 | 5.8 | 0.0 | 19.3 | 1.4 | 7.5 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 4.6 | 0.2 | 32.8 | 5.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 9.2 | 0.0 | 0.0 | 4.0 | 30.1 | 13.1 | 15.8 | 8.2 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 31.0 | 0.0 | 1.0 | 0.4 | 7.4 | 6.5 | 2.7 | 5.4 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 3.8 | 0.0 | 1.2 | 0.2 | 5.1 | 5.2 | 14.8 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 1.6 | 3.7 | 0.0 | 11.6 | 1.9 | 31.9 | 6.8 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 7.8 | 1.6 | 0.0 | 37.0 | 0.0 | 2.2 | 11.6 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 6.0 | 0.0 | 0.0 | 1.2 | 3.6 | 9.6 | 1.4 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.7 | 0.0 | 45.4 | 0.0 | 6.9 | 11.0 | 0.0 | 0.0 | 2.5 | 0.0 |
| 15 | 0.0 | 0.0 | 2.1 | 0.0 | 7.8 | 8.6 | 2.7 | 0.9 | 0.0 | 0.4 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 3.0 | 7.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 40.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 5.0 | 0.0 | 16.6 | 0.0 | 7.0 | 11.4 | 2.4 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 5.6 | 0.0 | 4.8 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 24.6 | 0.0 | 25.0 | 4.4 | 0.4 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 6.8 | 0.0 | 8.8 | 0.0 | 9.4 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 22.0 | 10.0 | 31.5 | 0.0 | 2.5 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 1.1 | 7.2 | 7.2 | 5.4 | 0.0 | 15.5 | 7.8 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 1.6 | 33.8 | 5.2 | 30.4 | 2.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 17.0 | 11.0 | 3.6 | 0.0 | 0.0 | 20.1 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 14.7 | 0.0 | 0.0 | 8.0 | 13.0 | 17.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 27.5 | 9.4 | 0.0 | 3.2 | 0.0 | 0.9 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 15.0 | 1.6 | 0.0 | 14.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 13.0 | 3.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 0.0 | 17.6 | 8.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 0.0 | 0.0 | 97.3 | 40.2 | 344.9 | 170.3 | 187.3 | 245.3 | 132.5 | 58.0 | 2.5 | 0.0 |
| Maxi | 0.0 | 0.0 | 31.0 | 33.8 | 45.4 | 37.0 | 31.8 | 43.6 | 29.2 | 20.1 | 2.5 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 2002

Max 87.0
Total 1907.8

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|------|------|-------|-------|-------|-------|-------|------|------|------|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 17.8 | 18.4 | 10.2 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 13.2 | 3.2 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.7 | 0.0 | 23.2 | 0.8 | 0.0 | 13.6 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 5.4 | 6.4 | 35.0 | 0.0 | 38.4 | 6.8 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 2.5 | 0.1 | 26.0 | 26.2 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 9.8 | 17.4 | 9.7 | 8.0 | 8.8 | 38.6 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 3.4 | 0.0 | 0.0 | 9.6 | 0.0 | 5.9 | 52.1 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.4 | 0.7 | 2.6 | 9.1 | 0.0 | 0.0 | 2.4 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 22.3 | 22.0 | 0.0 | 4.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 8.6 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.6 | 0.0 | 32.6 | 28.8 | 8.0 | 9.2 | 2.6 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 41.0 | 2.6 | 8.7 | 42.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 2.8 | 0.0 | 0.0 | 0.0 | 19.3 | 2.9 | 0.0 | 1.8 | 3.7 | 0.0 | 0.0 | 0.0 |
| 14 | 0.6 | 0.0 | 0.0 | 5.5 | 6.2 | 41.7 | 0.4 | 1.6 | 5.2 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 26.0 | 0.0 | 40.2 | 7.2 | 37.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 10.2 | 18.5 | 27.3 | 0.0 | 2.8 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 5.6 | 0.0 | 24.3 | 5.6 | 4.6 | 6.6 | 12.2 | 0.0 | 14.8 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 32.4 | 34.8 | 0.0 | 1.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.9 | 0.0 | 4.6 | 5.8 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.2 | 5.6 | 0.0 | 3.8 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 19.1 | 13.4 | 0.4 | 2.6 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 2.9 | 3.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 8.8 | 1.4 | 0.0 | 36.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 30.2 | 4.6 | 0.4 | 39.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 12.4 | 0.0 | 0.2 | 1.5 | 2.4 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 47.4 | 0.7 | 0.0 | 0.0 | 7.8 | 0.0 | 31.0 |
| 27 | 0.0 | 10.4 | 0.0 | 16.6 | 9.0 | 0.0 | 20.4 | 38.4 | 1.0 | 8.1 | 0.6 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 1.5 | 4.4 | 27.4 | 45.2 | 10.8 | 50.6 | 3.2 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 13.7 | 19.8 | 87.0 | 7.7 | 28.0 | 18.2 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 4.0 | 0.0 | 0.4 | 0.0 | 35.0 | 46.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 2.1 | 0.0 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 3.4 | 22.8 | 15.7 | 30.7 | 249.9 | 358.0 | 340.2 | 418.8 | 329.8 | 88.7 | 16.4 | 35.4 |
| Maxi | 2.8 | 12.4 | 5.6 | 16.6 | 41.0 | 47.4 | 87.0 | 46.6 | 52.1 | 38.6 | 14.8 | 31.0 |

Station : Thangone
 Daily Rainfall in mm
 Year : 2003
 Max Total 118.4 2032.5

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|------|------|------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 40.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 28.5 | 0.0 | 0.0 | 12.6 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.5 | 13.7 | 0.0 | 36.8 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.6 | 0.0 | 0.0 | 10.2 | 0.0 | 0.0 | 0.0 |
| 5 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 | 29.5 | 0.0 | 0.0 | 7.5 | 0.2 | 0.0 | 0.0 |
| 6 | 9.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 10.3 | 3.8 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.7 | 27.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 4.0 | 0.0 | 11.8 | 17.8 | 10.3 | 0.0 | 69.0 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 48.5 | 10.1 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 70.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 | 0.0 | 52.6 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.2 | 0.0 | 0.0 | 40.0 | 0.0 | 14.3 | 0.0 | 42.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 8.7 | 20.4 | 0.0 | 7.2 | 0.0 | 0.0 | 0.0 | 16.9 | 16.4 | 0.0 | 0.0 |
| 14 | 0.0 | 0.2 | 0.0 | 0.0 | 90.0 | 0.0 | 0.0 | 0.0 | 20.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.1 | 6.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 3.3 | 0.0 | 34.4 | 5.7 | 0.0 | 14.1 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 73.5 | 0.0 | 0.0 | 23.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 41.6 | 0.8 | 5.3 | 0.0 | 41.2 | 69.4 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.7 | 2.4 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 4.4 | 0.0 | 13.4 | 17.5 | 0.0 | 26.5 | 16.9 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 15.9 | 44.5 | 2.2 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 0.0 | 27.8 | 44.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 49.0 | 0.0 | 118.4 | 80.0 | 38.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 5.3 | 17.3 | 13.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 26.5 | 5.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 12.2 | 0.0 | 0.0 | 0.0 | 0.0 | 6.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.6 | 0.8 | 57.0 | 16.6 | 6.5 | 0.0 | 0.8 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 16.6 | 0.0 | 8.3 | 63.7 | 14.7 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 45.8 | | 12.7 | 0.0 | | 0.0 | | 0.0 |
| Total | 11.0 | 21.3 | 47.2 | 94.7 | 314.4 | 494.3 | 243.2 | 307.3 | 482.5 | 16.6 | 0.0 | 0.0 |
| Maxi | 9.9 | 12.2 | 20.4 | 49.0 | 90.0 | 118.4 | 80.0 | 48.5 | 70.4 | 16.4 | 0.0 | 0.0 |

Station : Thangone
 Daily Rainfall in mm
 Year : 2004
 Max Total 102.4 1872.5

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|-----|-------|-------|-------|-------|-------|-------|-----|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 35.2 | 0.0 | 0.1 | 0.0 | 18.0 | 3.2 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 25.6 | 20.0 | 0.0 | 0.8 | 11.2 | 51.4 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 10.6 | 9.2 | 0.0 | 7.0 | 34.2 | 30.8 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 8.2 | 5.5 | 4.0 | 16.3 | 1.8 | 15.4 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 3.6 | 0.0 | 0.0 | 1.0 | 0.2 | 3.0 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 39.0 | 0.0 | 0.0 | 0.2 | 0.6 | 3.8 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 20.0 | 0.0 | 0.0 | 1.2 | 2.8 | 12.0 | 18.2 | 9.2 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 10.1 | 0.0 | 4.7 | 15.8 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.3 | 5.8 | 44.0 | 49.1 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.6 | 0.4 | 0.1 | 23.2 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 27.4 | 0.0 | 13.4 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 | 9.4 | 58.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 17.2 | 28.6 | 2.0 | 40.8 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 2.2 | 40.1 | 102.4 | 7.0 | 2.4 | 15.8 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 5.6 | 0.0 | 71.8 | 28.4 | 0.0 | 59.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 23.6 | 2.2 | 1.7 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 4.5 | 0.0 | 0.0 | 42.2 | 0.0 | 2.6 | 0.0 | 59.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 6.9 | 10.6 | 0.8 | 0.0 | 5.0 | 69.6 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 20.0 | 15.2 | 25.3 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.7 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 1.2 | 20.0 | 0.0 | 0.0 | 23.8 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.8 | 10.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 32.8 | 0.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 4.0 | 0.0 | 0.5 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 | 9.6 | 0.0 | 0.0 | 0.0 | 3.2 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 85.2 | 8.6 | 37.0 | 14.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 4.8 | 5.0 | 4.7 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 | 0.0 | 1.2 | 2.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 2.8 | 0.0 | 8.6 | 14.6 | 5.0 | 5.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 30.4 | | 44.2 | 7.8 | | 0.0 | | 0.0 |
| Total | 4.5 | 67.6 | 9.6 | 240.9 | 292.4 | 251.0 | 315.4 | 320.2 | 367.2 | 0.0 | 3.7 | 0.0 |
| Maxi | 4.5 | 39.0 | 5.6 | 85.2 | 71.8 | 102.4 | 58.6 | 59.2 | 69.6 | 0.0 | 3.2 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 2005

Max 92.8
Total 2111.3

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|------|------|------|-------|-------|-------|-------|-------|------|-----|
| 1 | 0.0 | 0.0 | 0.0 | 37.8 | 0.0 | 0.0 | 53.8 | 3.6 | 0.0 | 12.3 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 15.8 | 18.2 | 4.4 | 21.0 | 0.5 | 4.2 | 0.0 |
| 3 | 0.0 | 25.2 | 0.0 | 0.0 | 0.0 | 0.5 | 0.8 | 0.0 | 0.0 | 48.6 | 0.0 | 0.0 |
| 4 | 0.0 | 6.0 | 0.0 | 0.2 | 0.0 | 0.0 | 31.4 | 0.6 | 13.0 | 20.8 | 1.1 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 0.1 | 0.4 | 0.0 | 59.0 | 0.0 | 3.8 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.2 | 0.0 | 1.2 | 15.4 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 12.6 | 12.2 | 0.0 | 37.4 | 4.8 | 0.0 | 26.2 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 2.6 | 65.6 | 9.2 | 3.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 48.4 | 1.8 | 41.6 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.2 | 0.2 | 0.0 | 6.8 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 19.0 | 0.0 | 63.5 | 41.3 | 0.0 | 3.4 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.7 | 8.0 | 0.5 | 5.8 | 42.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 1.8 | 33.6 | 7.4 | 2.4 | 37.6 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 10.6 | 0.0 | 27.4 | 9.7 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.6 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.6 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.2 | 1.0 | 31.4 | 0.0 | 1.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 6.8 | 31.5 | 0.0 | 66.4 | 82.4 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 24.2 | 19.4 | 1.0 | 11.9 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.3 | 2.6 | 0.0 | 10.8 | 0.0 | 66.5 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 4.9 | 59.4 | 2.8 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 3.6 | 4.1 | 78.4 | 32.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 89.8 | 7.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.5 | 5.0 | 18.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 12.4 | 0.0 | 0.0 | 7.2 | 5.0 | 0.0 | 0.8 | 1.4 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 17.0 | 0.0 | 15.8 | 4.8 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 0.0 | 15.0 | 1.1 | 0.0 | 37.2 | 92.8 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 0.6 | 9.3 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 2.8 | 0.2 | 28.0 | 0.8 | 4.6 | 0.2 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 5.7 | 3.2 | 0.0 | 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 17.0 | 0.0 | 0.8 | 11.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 0.0 | 31.2 | 15.0 | 67.0 | 82.5 | 425.6 | 320.1 | 548.7 | 462.5 | 122.0 | 38.7 | 0.0 |
| Maxi | 0.0 | 25.2 | 12.4 | 37.8 | 17.0 | 89.8 | 78.4 | 90.0 | 92.8 | 48.6 | 26.2 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 2006

Max 93.4
Total 1800.7

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-------|-------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 4.0 | 1.2 | 1.5 | 4.8 | 0.0 | 0.1 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.4 | 1.2 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 1.8 | 0.0 | 5.0 | 0.0 | 23.6 | 0.6 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 8.8 | 0.0 | 1.0 | 0.2 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 6.8 | 2.2 | 0.0 | 0.0 | 1.6 | 0.0 | 0.6 | 0.5 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 5.8 | 61.4 | 0.0 | 4.9 | 4.4 | 0.0 | 0.1 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 10.0 | 0.0 | 0.0 | 0.0 | 10.8 | 0.0 | 3.1 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 31.2 | 5.4 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 7.2 | 0.0 | 30.6 | 0.4 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 29.8 | 0.0 | 2.4 | 0.0 | 1.5 | 0.5 | 0.0 | 0.0 |
| 12 | 0.0 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 6.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.2 | 9.9 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 1.2 | 0.0 | 23.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 0.0 | 0.6 | 17.5 | 3.4 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.8 | 1.4 | 10.2 | 4.2 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 14.2 | 13.8 | 19.8 | 3.2 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 10.8 | 1.8 | 22.8 | 91.0 | 31.9 | 19.3 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 50.2 | 0.0 | 0.4 | 8.4 | 3.5 | 25.2 | 1.4 | 3.2 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 6.6 | 0.0 | 0.6 | 9.0 | 0.8 | 0.0 | 18.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 | 2.2 | 24.8 | 3.6 | 1.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 22.0 | 3.1 | 57.2 | 0.0 | 0.0 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 12.2 | 0.0 | 24.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 2.2 | 15.3 | 0.0 | 93.4 | 45.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.4 | 68.2 | 2.5 | 16.6 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 6.9 | 0.0 | 13.2 | 12.6 | 37.4 | 0.8 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 39.0 | 0.0 | 0.8 | 0.0 | 15.6 | 6.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 22.4 | 3.8 | 20.6 | 15.6 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 17.0 | 57.4 | 29.6 | 7.4 | 3.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 7.2 | 59.4 | 19.4 | 90.0 | 78.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 50.4 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 0.0 | 1.6 | 125.0 | 151.6 | 309.9 | 214.0 | 523.4 | 316.9 | 142.8 | 15.5 | 0.0 | 0.0 |
| Maxi | 0.0 | 1.5 | 50.2 | 57.4 | 61.4 | 23.8 | 93.4 | 78.6 | 30.6 | 5.4 | 0.0 | 0.0 |

Station : Thangone
 Daily Rainfall in mm
 Year : 2007
 Max 105.2
 Total 1674.3

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|------|-----|------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 8.8 | 0.4 | 12.0 | 0.0 | 6.4 | 0.0 |
| 2 | 0.0 | 0.0 | 0.8 | 0.0 | 3.2 | 0.0 | 0.0 | 4.1 | 10.4 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 4.0 | 3.4 | 2.6 | 0.0 | 0.0 | 9.5 | 3.2 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 7.0 | 1.8 | 0.4 | 0.0 | 63.5 | 55.2 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 17.5 | 2.1 | 21.2 | 0.3 | 3.2 | 62.6 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 0.0 | 4.0 | 4.6 | 48.6 | 35.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 19.7 | 2.0 | 44.6 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.9 | 3.3 | 0.1 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 13.6 | 100.1 | 0.5 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 0.0 | 23.6 | 9.7 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 10.6 | 0.0 | 0.0 | 0.0 | 0.9 | 7.3 | 0.0 | 0.9 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.9 | 0.0 | 0.0 | 18.4 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.6 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 3.8 | 0.0 | 2.5 | 66.0 | 0.0 | 0.0 | 0.0 | 15.7 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 8.7 | 6.6 | 2.4 | 18.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 38.8 | 0.4 | 1.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 6.2 | 1.2 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 1.3 | 4.3 | 38.8 | 0.0 | 11.4 | 26.2 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 10.8 | 0.7 | 0.2 | 56.6 | 1.3 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 30.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 5.0 | 0.6 | 2.6 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 | 31.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.1 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.4 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 6.8 | 0.0 | 0.0 | 4.0 | 68.8 | 0.0 | 3.0 | 1.9 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 1.3 | 0.0 | 0.0 | 0.0 | 72.5 | 0.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 1.2 | 13.8 | 1.0 | 0.0 | 48.4 | 55.7 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 0.0 | 0.2 | 0.0 | 31.4 | 19.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | | 0.0 | 0.0 | 40.2 | 0.0 | 103.2 | 12.1 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | 11.4 | | 15.6 | 3.6 | | 2.8 | | 0.0 |
| Total | 0.0 | 11.9 | 0.8 | 23.1 | 211.9 | 314.6 | 194.9 | 325.1 | 375.7 | 209.0 | 7.3 | 0.0 |
| Maxi | 0.0 | 6.8 | 0.8 | 10.6 | 66.0 | 88.8 | 103.2 | 56.6 | 100.1 | 62.6 | 6.4 | 0.0 |

Station : Thangone
 Daily Rainfall in mm
 Year : 2008
 Max 67.6
 Total 2352.8

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|------|------|------|-------|-------|-------|-------|-------|-------|-------|-----|
| 1 | 0.0 | 12.0 | 0.0 | 3.3 | 1.8 | 51.4 | 1.9 | 3.4 | 12.5 | 0.0 | 53.0 | 0.0 |
| 2 | 0.0 | 3.0 | 0.0 | 2.0 | 0.0 | 10.4 | 29.2 | 5.4 | 0.0 | 0.0 | 67.4 | 0.0 |
| 3 | 0.0 | 3.2 | 0.0 | 0.0 | 57.2 | 12.3 | 13.0 | 0.0 | 15.2 | 1.0 | 5.4 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 49.9 | 0.0 | 4.6 | 10.6 | 1.1 | 3.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 14.2 | 11.6 | 0.0 | 6.8 | 14.4 | 20.8 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 13.6 | 61.0 | 2.3 | 23.2 | 0.3 | 24.6 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 2.3 | 39.4 | 0.6 | 1.7 | 0.6 | 14.6 | 4.8 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 1.4 | 19.2 | 39.2 | 1.0 | 6.0 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 25.2 | 0.0 | 31.3 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 26.6 | 3.6 | 0.8 | 2.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 40.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 0.7 | 31.7 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 5.3 | 0.0 | 31.8 | 1.8 | 1.6 | 4.8 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 26.2 | 46.8 | 3.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 14.4 | 4.4 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 3.6 | 0.0 | 1.0 | 18.2 | 6.4 | 0.0 | 18.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 9.0 | 4.2 | 4.1 | 0.0 | 39.6 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 31.3 | 31.0 | 47.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 47.7 | 29.6 | 4.4 | 3.6 | 19.8 | 12.4 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 15.0 | 0.0 | 0.0 | 9.4 | 0.8 | 0.0 | 3.6 | 15.6 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 22.2 | 0.0 | 0.0 | 0.0 | 67.6 | 4.2 | 27.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 16.2 | 2.6 | 5.4 | 0.0 | 27.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 1.0 | 0.0 | 0.0 | 0.0 | 3.0 | 25.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 1.5 | 0.0 | 0.4 | 0.0 | 7.4 | 0.0 | 18.2 | 36.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.1 | 0.0 | 5.2 | 0.0 | 13.0 | 23.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 16.6 | 17.5 | 3.8 | 4.2 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 46.2 | 2.2 | 2.0 | 2.2 | 0.0 | 0.0 | 7.6 | 0.0 | 0.0 |
| 28 | 0.8 | 0.0 | 0.0 | 21.4 | 5.4 | 40.4 | 12.8 | 37.8 | 23.4 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 1.6 | 34.4 | 1.1 | 0.0 | 0.1 | 0.0 | 1.4 | 0.0 | 0.0 |
| 30 | 41.0 | | 23.0 | 1.0 | 0.4 | 21.8 | 61.2 | 62.8 | 23.8 | 17.8 | 0.0 | 0.0 |
| 31 | 7.0 | | 0.0 | | 3.0 | | 21.6 | 30.6 | | 5.8 | | 0.0 |
| Total | 50.3 | 18.2 | 31.5 | 91.7 | 303.4 | 434.4 | 458.6 | 415.0 | 248.8 | 121.5 | 128.8 | 0.6 |
| Maxi | 41.0 | 12.0 | 23.0 | 46.2 | 57.2 | 61.0 | 67.6 | 62.8 | 38.6 | 24.6 | 67.4 | 0.6 |

Station : Thangone
Daily Rainfall in mm

Year : 2009

Max 124.6
Total 1949.7

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-----|-----|
| 1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 25.0 | 1.0 | 0.0 | 12.4 | 0.0 | 0.0 | 0.0 |
| 2 | 1.2 | 0.0 | 0.0 | 0.0 | 2.2 | 0.0 | 1.3 | 0.0 | 0.0 | 15.3 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 16.0 | 25.8 | 0.0 | 0.3 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 9.8 | 0.0 | 1.0 | 11.5 | 0.0 | 16.8 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.4 | 8.7 | 1.4 | 0.0 | 15.8 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.6 | 8.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 12.0 | 0.0 | 18.2 | 1.4 | 1.6 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 1.8 | 10.2 | 0.0 | 0.0 | 23.4 | 0.2 | 34.4 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 10.2 | 0.5 | 37.4 | 0.0 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 26.6 | 0.4 | 49.5 | 12.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 2.0 | 0.8 | 0.0 | 0.0 | 42.0 | 22.5 | 10.4 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 12.6 | 3.6 | 4.9 | 6.3 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 6.0 | 16.2 | 91.0 | 0.6 | 21.9 | 98.6 | 0.5 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 2.8 | 25.4 | 34.4 | 1.9 | 12.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 56.0 | 56.9 | 18.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 3.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 14.8 | 0.0 | 1.2 | 26.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 4.4 | 0.0 | 0.0 | 2.8 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.5 | 54.5 | 20.8 | 25.3 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 8.0 | 2.2 | 124.6 | 19.9 | 1.0 | 0.8 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 24.8 | 0.0 | 0.8 | 24.6 | 6.3 | 1.7 | 1.1 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 9.6 | 0.0 | 2.6 | 0.0 | 0.0 | 0.1 | 50.3 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.8 | 120.6 | 13.4 | 0.0 | 47.6 | 6.3 | 22.2 | 14.2 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 0.0 | 86.4 | 0.0 | 16.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.8 | 0.0 | 14.6 | 11.2 | 0.0 | 4.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 3.2 | 0.0 | 0.0 | 5.0 | 4.8 | 26.4 | 31.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 11.8 | 1.6 | 10.6 | 10.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.2 | 0.0 | 18.2 | 2.0 | 2.4 | 23.4 | 1.4 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 1.4 | 5.6 | 53.0 | 151.2 | 249.8 | 367.4 | 492.2 | 269.4 | 255.6 | 102.1 | 0.0 | 0.0 |
| Maxi | 1.2 | 4.4 | 24.8 | 120.6 | 86.4 | 91.0 | 124.6 | 54.5 | 98.6 | 34.4 | 0.0 | 0.0 |

Station : Thangone
Daily Rainfall in mm

Year : 2012

Max 129.9
Total 1717.9

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|------|------|------|-------|-------|-------|-------|-------|-------|------|------|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 37.3 | 0.0 | 3.4 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 4.5 | 0.0 | 0.0 | 7.7 | 30.6 | 0.3 | 0.0 | 26.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 13.5 | 11.6 | 0.0 | 8.5 | 11.2 | 0.9 | 0.0 | 0.0 | 2.4 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 16.8 | 0.0 | 0.0 | 75.7 | 1.1 | 19.6 | 7.4 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 18.7 | 0.0 | 1.0 | 0.0 | 2.2 | 7.8 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 9.3 | 20.0 | 31.6 | 0.0 | 0.0 | 5.4 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 2.1 | 5.0 | 23.3 | 0.0 | 7.5 | 33.9 | 0.2 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.2 | 10.0 | 39.0 | 70.3 | 104.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 8.8 | 0.0 | 2.9 | 0.4 | 80.5 | 16.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 3.4 | 12.4 | 0.0 | 0.0 | 0.0 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.3 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.2 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 6.9 | 0.0 | 32.7 | 0.0 | 21.0 | 7.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 3.0 | 0.0 | 0.0 | 77.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 16.6 | 37.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 19.6 | 0.0 | 0.0 | 1.5 | 1.3 | 0.5 | 0.0 | 4.8 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 4.5 | 0.0 | 0.0 | 13.8 | 7.9 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 23.3 | 0.0 | 0.3 | 3.3 | 5.7 | 0.0 | 0.0 | 0.0 |
| 20 | 4.8 | 0.0 | 0.0 | 0.0 | 2.2 | 24.5 | 0.0 | 0.4 | 6.7 | 0.0 | 0.0 | 0.0 |
| 21 | 27.2 | 0.0 | 0.0 | 48.0 | 2.5 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 3.2 | 10.9 | 15.4 | 22.4 | 7.7 | 41.4 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.0 | 15.8 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 5.1 | 0.2 | 5.4 | 5.0 | 9.9 | 0.0 | 6.2 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 12.5 | 0.0 | 0.0 | 14.0 | 15.0 | 0.4 | 0.0 | 2.2 | 0.0 |
| 27 | 0.0 | 0.8 | 0.0 | 4.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 17.2 | 35.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 5.4 | 0.0 |
| 29 | 0.0 | 0.0 | 0.0 | 0.0 | 13.4 | 0.0 | 17.8 | 12.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | 0.0 | 0.0 | 5.0 | 0.8 | 19.5 | 15.6 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 |
| 31 | 0.0 | 0.0 | 0.0 | 0.0 | 129.9 | 0.0 | 10.0 | 2.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| Total | 32.0 | 22.0 | 59.6 | 116.6 | 343.9 | 215.6 | 298.9 | 309.1 | 284.0 | 22.6 | 12.4 | 1.2 |
| Maxi | 27.2 | 13.5 | 19.6 | 48.0 | 129.9 | 37.4 | 75.7 | 80.5 | 104.4 | 7.8 | 6.2 | 1.2 |

Station : Thungue
 Daily Rainfall in mm
 Year : 2013
 Max 98.9
 Total 1637.7

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|------|------|-------|-------|-------|-------|-------|------|-----|------|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.2 | 20.8 | 1.4 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.1 | 7.6 | 1.0 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 60.5 | 0.0 | 11.0 | 10.2 | 14.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 1.3 | 0.0 | 28.3 | 1.0 | 0.0 | 8.2 | 40.9 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 98.9 | 0.0 | 0.0 | 12.3 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 0.0 | 61.0 | 2.6 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 17.8 | 0.0 | 19.7 | 30.0 | 8.4 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 29.7 | 18.8 | 58.1 | 19.8 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 53.0 | 19.0 | 45.1 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 16.4 | 25.0 | 26.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 0.9 | 2.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 17.9 | 0.0 | 0.0 | 0.0 | 33.0 | 2.3 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 6.7 | 24.0 | 11.3 | 5.5 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 22.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 | 0.0 | 23.7 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 17.0 | 3.0 | 11.5 | 42.8 | 0.0 | 2.1 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 16.6 | 0.0 | 0.1 | 0.3 | 1.0 | 5.9 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 24.8 | 7.6 | 20.6 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 17.3 | 1.2 | 10.1 | 23.6 | 14.8 | 1.3 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 2.0 | 4.4 | 6.0 | 16.4 | 50.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 18.7 | 4.3 | 22.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.0 | 0.0 | 6.0 | 13.3 | 0.2 | 7.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 7.8 | 61.4 | 3.9 | 10.9 | 4.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.0 | 0.0 | 5.4 | 10.1 | 9.9 | 0.0 | 0.6 | 0.4 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 3.9 | 24.6 | 0.5 | 4.6 | 0.0 | 0.6 | 0.0 | 0.0 | 0.0 |
| 27 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.3 | 1.1 | 4.4 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 3.1 | 0.0 | 0.3 | 0.0 | 0.0 | 30.0 | 0.0 | 38.0 | 0.0 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 6.4 | 0.0 | 0.0 | 4.0 | 20.0 | 0.7 | 0.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 1.5 | 0.0 | 5.6 | 12.5 | 8.7 | 0.0 | 0.0 | 0.0 |
| 31 | 3.0 | | 0.0 | | | | 0.0 | 8.1 | | 0.0 | | 0.0 |
| Total | 7.1 | 3.1 | 61.8 | 28.9 | 165.2 | 238.4 | 377.4 | 393.3 | 273.2 | 62.5 | 0.0 | 23.8 |
| Maxi | 4.1 | 3.1 | 60.5 | 17.3 | 28.3 | 98.9 | 61.4 | 61.0 | 45.1 | 42.8 | 0.0 | 23.7 |

Station : Thungue
 Daily Rainfall in mm
 Year : 2014
 Max 96.9
 Total 1911.4

| Date | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-------|-----|-----|-----|-------|-------|-------|-------|-------|-------|------|-----|-----|
| 1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 3.4 | 0.0 | 61.7 | 0.0 | 0.0 | 0.0 |
| 2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.3 | 46.3 | 0.0 | 0.0 | 0.0 |
| 3 | 0.0 | 0.0 | 0.0 | 6.4 | 0.0 | 0.0 | 0.0 | 4.9 | 38.6 | 0.0 | 0.0 | 0.0 |
| 4 | 0.0 | 0.0 | 0.0 | 17.3 | 0.0 | 0.0 | 0.0 | 19.8 | 96.9 | 0.0 | 0.0 | 0.0 |
| 5 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 1.9 | 0.0 | 14.5 | 54.0 | 0.0 | 0.0 | 0.0 |
| 6 | 0.0 | 0.0 | 0.0 | 29.6 | 0.0 | 1.8 | 4.8 | 6.6 | 0.0 | 0.0 | 0.0 | 0.0 |
| 7 | 0.0 | 0.0 | 0.0 | 0.0 | 39.3 | 5.1 | 3.2 | 18.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 8 | 0.0 | 0.0 | 0.0 | 0.0 | 4.1 | 9.5 | 4.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 9 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | 2.0 | 31.6 | 29.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 10 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 31.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 11 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.6 | 0.4 | 2.3 | 0.2 | 0.0 | 0.0 | 0.0 |
| 12 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.1 | 7.6 | 0.0 | 71.4 | 0.0 | 0.0 | 0.0 |
| 13 | 0.0 | 0.0 | 0.0 | 13.0 | 36.5 | 9.0 | 18.2 | 0.9 | 25.0 | 0.0 | 0.0 | 0.0 |
| 14 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 11.2 | 7.1 | 29.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 15 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 12.5 | 18.1 | 22.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 16 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 | 18.0 | 4.5 | 5.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| 17 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.4 | 38.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| 18 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 32.7 | 9.9 | 0.0 | 3.2 | 0.0 | 0.0 | 0.0 |
| 19 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.2 | 14.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 20 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 49.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 21 | 0.0 | 0.0 | 0.0 | 0.0 | 13.2 | 0.1 | 2.9 | 44.3 | 0.5 | 0.0 | 0.0 | 0.0 |
| 22 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.2 | 21.6 | 0.1 | 7.6 | 1.2 | 0.0 | 0.0 |
| 23 | 0.0 | 0.0 | 0.4 | 0.0 | 0.0 | 5.2 | 0.0 | 26.8 | 1.5 | 7.9 | 0.0 | 0.0 |
| 24 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 9.5 | 52.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 25 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 9.8 | 46.8 | 46.5 | 0.1 | 0.0 | 0.0 | 0.0 |
| 26 | 0.0 | 0.0 | 0.0 | 2.0 | 0.0 | 5.6 | 67.4 | 4.7 | 0.5 | 0.0 | 0.0 | 0.0 |
| 27 | 0.0 | 0.0 | 0.0 | 28.6 | 0.0 | 0.1 | 15.9 | 9.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 28 | 0.0 | 0.0 | 0.0 | 48.0 | 3.3 | 0.0 | 1.4 | 35.8 | 14.2 | 1.2 | 0.0 | 0.0 |
| 29 | 0.0 | | 0.0 | 72.6 | 11.5 | 17.6 | 4.0 | 9.7 | 0.2 | 2.0 | 0.0 | 0.0 |
| 30 | 0.0 | | 0.0 | 0.0 | 5.8 | 19.8 | 70.7 | 41.8 | 2.4 | 0.8 | 0.0 | 0.0 |
| 31 | 0.0 | | 0.0 | | | | 0.4 | 0.0 | | 0.0 | | 0.0 |
| Total | 0.0 | 0.0 | 0.7 | 217.7 | 122.1 | 227.6 | 467.2 | 434.8 | 428.0 | 13.3 | 0.0 | 0.0 |
| Maxi | 0.0 | 0.0 | 0.4 | 72.6 | 39.3 | 32.7 | 70.7 | 49.9 | 96.9 | 7.9 | 0.0 | 0.0 |

6-2 ナム・ナム川水位データ (1994年1月～2017年7月: Venkham 観測所)

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : ,000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 1994

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 1.39 | 1.57 | 1.59 | 1.61 | 1.24 | 1.97 | 4.28 | 9.79 | 12.27 | 5.98 | 2.96 | 2.00 |
| 2 | 1.86 | 1.67 | 1.34 | 1.53 | 1.06 | 2.01 | 4.18 | 10.55 | 12.73 | 5.93 | 2.82 | 1.98 |
| 3 | 1.86 | 1.51 | 1.35 | 1.40 | 1.07 | 2.12 | 4.02 | 10.71 | 13.35 | 5.86 | 2.75 | 1.99 |
| 4 | 1.82 | 1.59 | 1.32 | 1.41 | 1.07 | 2.05 | 5.15 | 10.49 | 14.06 | 5.74 | 2.73 | 1.96 |
| 5 | 1.53 | 1.51 | 1.11 | 1.38 | 1.09 | 2.46 | 5.50 | 10.30 | 14.48 | 5.69 | 2.68 | 1.94 |
| 6 | 1.39 | 1.48 | 1.10 | 1.41 | 1.11 | 2.59 | 5.85 | 10.86 | 14.63 | 5.88 | 2.67 | 1.93 |
| 7 | 1.36 | 1.47 | 1.10 | 1.49 | 1.12 | 2.94 | 7.20 | 11.65 | 14.68 | 6.00 | 2.57 | 1.89 |
| 8 | 1.38 | 1.41 | 1.11 | 1.52 | 1.13 | 2.83 | 7.05 | 12.12 | 14.68 | 5.88 | 2.48 | 1.75 |
| 9 | 1.32 | 1.34 | 1.11 | 1.53 | 1.16 | 2.96 | 7.02 | 12.59 | 14.55 | 5.77 | 2.41 | 1.85 |
| 10 | 1.31 | 1.28 | 1.02 | 1.47 | 1.18 | 3.33 | 7.58 | 12.25 | 14.32 | 5.60 | 2.64 | 1.92 |
| 11 | 1.29 | 1.00 | 1.00 | 1.42 | 1.14 | 3.59 | 7.07 | 12.21 | 14.04 | 5.32 | 2.35 | 1.89 |
| 12 | 1.28 | 1.29 | 1.00 | 1.45 | 1.26 | 3.72 | 6.37 | 12.10 | 13.74 | 5.12 | 2.36 | 1.89 |
| 13 | 1.29 | 1.37 | 0.98 | 1.46 | 1.48 | 4.18 | 5.85 | 12.02 | 13.49 | 4.70 | 2.34 | 1.93 |
| 14 | 1.22 | 1.40 | 1.01 | 1.58 | 1.45 | 5.11 | 5.65 | 12.17 | 13.20 | 4.34 | 2.55 | 1.90 |
| 15 | 1.20 | 1.41 | 1.13 | 1.62 | 1.48 | 5.14 | 5.95 | 12.34 | 12.78 | 4.22 | 2.32 | 1.92 |
| 16 | 1.10 | 1.02 | 1.36 | 1.54 | 1.99 | 5.93 | 6.39 | 12.54 | 12.41 | 4.35 | 2.72 | 1.92 |
| 17 | 1.00 | 1.06 | 1.49 | 1.55 | 1.92 | 5.36 | 7.43 | 8.28 | 9.59 | 6.16 | 2.36 | 2.00 |
| 18 | 1.09 | 1.07 | 1.52 | 1.54 | 1.92 | 4.78 | 8.76 | 9.55 | 9.78 | 5.80 | 2.32 | 1.95 |
| 19 | 1.10 | 1.03 | 1.47 | 1.52 | 2.17 | 4.38 | 9.39 | 10.32 | 9.93 | 5.52 | 2.32 | 1.99 |
| 20 | 1.13 | 1.01 | 1.35 | 1.50 | 2.53 | 4.24 | 9.32 | 10.90 | 10.24 | 5.28 | 2.32 | 1.99 |
| 21 | 1.15 | 1.00 | 1.55 | 1.42 | 2.75 | 4.82 | 8.95 | 11.26 | 10.23 | 5.19 | 2.33 | 1.93 |
| 22 | 1.15 | 1.00 | 1.35 | 1.25 | 3.22 | 4.74 | 8.53 | 11.48 | 10.21 | 5.02 | 2.30 | 1.96 |
| 23 | 1.13 | 0.99 | 1.41 | 1.02 | 4.15 | 4.62 | 7.85 | 11.60 | 10.54 | 4.82 | 2.26 | 1.96 |
| 24 | 1.09 | 0.96 | 1.47 | 1.02 | 3.97 | 5.01 | 7.25 | 11.67 | 10.33 | 4.65 | 2.18 | 1.96 |
| 25 | 1.08 | 0.92 | 1.57 | 1.33 | 3.51 | 5.63 | 6.76 | 11.66 | 10.22 | 4.34 | 2.13 | 1.95 |
| 26 | 1.06 | 0.94 | 1.55 | 1.35 | 2.39 | 5.35 | 6.35 | 11.56 | 10.04 | 4.18 | 2.30 | 1.95 |
| 27 | 1.03 | 1.00 | 1.54 | 1.33 | 2.03 | 6.30 | 5.92 | 11.47 | 9.62 | 4.07 | 2.19 | 1.93 |
| 28 | 1.05 | 1.00 | 1.55 | 1.33 | 2.30 | 6.65 | 5.67 | 11.39 | 9.33 | 4.02 | 2.12 | 1.90 |
| 29 | 1.22 | | 1.90 | 1.36 | 2.96 | 6.70 | 5.58 | 11.28 | 9.16 | 3.99 | 2.12 | 1.90 |
| 30 | 1.65 | | 1.96 | 1.36 | 2.51 | 6.62 | 5.77 | 11.29 | 8.90 | 3.86 | 2.18 | 1.92 |
| 31 | 1.80 | | 1.78 | | 3.11 | | 6.25 | 11.65 | | 3.60 | | 1.91 |
| Mean | 1.16 | 1.19 | 1.33 | 1.39 | 2.17 | 5.62 | 6.77 | 9.65 | 10.41 | 5.71 | 2.45 | 2.06 |
| Max | 1.65 | 1.65 | 1.96 | 1.68 | 4.15 | 8.95 | 9.39 | 11.67 | 12.02 | 8.60 | 3.28 | 2.41 |
| Min | 0.99 | 0.92 | 0.87 | 1.02 | 1.25 | 3.29 | 5.36 | 6.83 | 8.90 | 3.60 | 2.12 | 1.90 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : ,000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 1994

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 1.60 | 1.51 | 1.00 | 1.68 | 1.32 | 3.42 | 6.61 | 7.34 | 11.89 | 8.60 | 3.28 | 2.36 |
| 2 | 1.60 | 1.50 | 1.01 | 1.60 | 1.28 | 3.75 | 6.65 | 8.34 | 12.02 | 8.26 | 2.92 | 2.35 |
| 3 | 1.56 | 1.50 | 1.00 | 1.57 | 1.28 | 3.71 | 6.63 | 8.63 | 12.01 | 7.92 | 2.85 | 2.41 |
| 4 | 1.10 | 1.58 | 0.99 | 1.39 | 1.40 | 3.38 | 6.18 | 9.26 | 11.94 | 7.56 | 2.69 | 2.24 |
| 5 | 1.13 | 1.65 | 1.36 | 1.31 | 1.32 | 3.29 | 5.90 | 10.05 | 11.82 | 7.20 | 2.65 | 2.18 |
| 6 | 1.10 | 1.61 | 1.42 | 1.32 | 1.27 | 3.85 | 5.51 | 9.84 | 11.62 | 6.88 | 2.68 | 2.18 |
| 7 | 1.14 | 1.62 | 1.45 | 1.32 | 1.26 | 5.24 | 5.36 | 9.50 | 11.39 | 6.59 | 2.50 | 2.18 |
| 8 | 1.11 | 1.58 | 0.88 | 1.36 | 1.35 | 5.70 | 5.83 | 9.21 | 11.11 | 6.33 | 2.54 | 2.14 |
| 9 | 1.11 | 1.30 | 0.96 | 1.45 | 1.34 | 6.30 | 5.63 | 8.91 | 10.90 | 6.08 | 2.56 | 2.14 |
| 10 | 1.05 | 1.03 | 0.98 | 1.49 | 1.55 | 7.86 | 5.62 | 8.56 | 10.68 | 5.88 | 2.56 | 2.10 |
| 11 | 1.02 | 1.03 | 1.10 | 1.44 | 2.01 | 8.76 | 6.99 | 8.20 | 10.45 | 5.77 | 2.52 | 2.08 |
| 12 | 1.01 | 1.14 | 0.91 | 1.33 | 2.04 | 8.95 | 7.48 | 7.79 | 10.25 | 5.68 | 2.52 | 2.06 |
| 13 | 1.02 | 1.14 | 0.87 | 1.30 | 2.24 | 8.85 | 6.95 | 7.32 | 9.92 | 5.68 | 2.46 | 2.06 |
| 14 | 0.99 | 1.01 | 1.40 | 1.31 | 2.27 | 7.58 | 6.38 | 6.97 | 9.57 | 5.78 | 2.46 | 1.99 |
| 15 | 1.02 | 1.01 | 1.35 | 1.37 | 2.11 | 6.66 | 6.06 | 6.83 | 9.29 | 6.10 | 2.40 | 2.03 |
| 16 | 1.10 | 1.02 | 1.36 | 1.54 | 1.99 | 5.93 | 6.39 | 6.96 | 9.38 | 6.28 | 2.35 | 2.03 |
| 17 | 1.00 | 1.06 | 1.49 | 1.55 | 1.92 | 5.36 | 7.43 | 8.28 | 9.59 | 6.16 | 2.36 | 2.00 |
| 18 | 1.09 | 1.07 | 1.52 | 1.54 | 1.92 | 4.78 | 8.76 | 9.55 | 9.78 | 5.80 | 2.32 | 1.95 |
| 19 | 1.10 | 1.03 | 1.47 | 1.52 | 2.17 | 4.38 | 9.39 | 10.32 | 9.93 | 5.52 | 2.32 | 1.99 |
| 20 | 1.13 | 1.01 | 1.35 | 1.50 | 2.53 | 4.24 | 9.32 | 10.90 | 10.24 | 5.28 | 2.32 | 1.99 |
| 21 | 1.15 | 1.00 | 1.55 | 1.42 | 2.75 | 4.82 | 8.95 | 11.26 | 10.23 | 5.19 | 2.33 | 1.93 |
| 22 | 1.15 | 1.00 | 1.35 | 1.25 | 3.22 | 4.74 | 8.53 | 11.48 | 10.21 | 5.02 | 2.30 | 1.96 |
| 23 | 1.13 | 0.99 | 1.41 | 1.02 | 4.15 | 4.62 | 7.85 | 11.60 | 10.54 | 4.82 | 2.26 | 1.96 |
| 24 | 1.09 | 0.96 | 1.47 | 1.02 | 3.97 | 5.01 | 7.25 | 11.67 | 10.33 | 4.65 | 2.18 | 1.96 |
| 25 | 1.08 | 0.92 | 1.57 | 1.33 | 3.51 | 5.63 | 6.76 | 11.66 | 10.22 | 4.34 | 2.13 | 1.95 |
| 26 | 1.06 | 0.94 | 1.55 | 1.35 | 2.39 | 5.35 | 6.35 | 11.56 | 10.04 | 4.18 | 2.30 | 1.95 |
| 27 | 1.03 | 1.00 | 1.54 | 1.33 | 2.03 | 6.30 | 5.92 | 11.47 | 9.62 | 4.07 | 2.19 | 1.93 |
| 28 | 1.05 | 1.00 | 1.55 | 1.33 | 2.30 | 6.65 | 5.67 | 11.39 | 9.33 | 4.02 | 2.12 | 1.90 |
| 29 | 1.22 | | 1.90 | 1.36 | 2.96 | 6.70 | 5.58 | 11.28 | 9.16 | 3.99 | 2.12 | 1.90 |
| 30 | 1.65 | | 1.96 | 1.36 | 2.51 | 6.62 | 5.77 | 11.29 | 8.90 | 3.86 | 2.18 | 1.92 |
| 31 | 1.80 | | 1.78 | | 3.11 | | 6.25 | 11.65 | | 3.60 | | 1.91 |
| Mean | 1.16 | 1.19 | 1.33 | 1.39 | 2.17 | 5.62 | 6.77 | 9.65 | 10.41 | 5.71 | 2.45 | 2.06 |
| Max | 1.65 | 1.65 | 1.96 | 1.68 | 4.15 | 8.95 | 9.39 | 11.67 | 12.02 | 8.60 | 3.28 | 2.41 |
| Min | 0.99 | 0.92 | 0.87 | 1.02 | 1.25 | 3.29 | 5.36 | 6.83 | 8.90 | 3.60 | 2.12 | 1.90 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 1996

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|------|------|------|------|
| 1 | 1.80 | 1.60 | 1.47 | 1.24 | 1.89 | 2.08 | 3.27 | 7.57 | 8.94 | 6.60 | 3.21 | 2.84 |
| 2 | 1.87 | 1.58 | 1.43 | 1.23 | 1.61 | 2.08 | 2.97 | 7.47 | 9.12 | 6.03 | 2.95 | 2.87 |
| 3 | 1.42 | 1.48 | 1.41 | 1.31 | 1.60 | 2.14 | 2.75 | 7.18 | 9.89 | 5.72 | 2.75 | 2.90 |
| 4 | 1.32 | 1.52 | 1.42 | 1.33 | 1.85 | 2.24 | 2.83 | 7.59 | 9.91 | 5.03 | 2.72 | 2.80 |
| 5 | 1.29 | 1.51 | 1.43 | 1.29 | 1.98 | 2.22 | 3.84 | 6.94 | 9.60 | 4.79 | 2.93 | 2.80 |
| 6 | 1.29 | 1.48 | 1.42 | 1.32 | 1.84 | 2.22 | 4.37 | 7.37 | 9.10 | 4.88 | 3.43 | 2.79 |
| 7 | 1.30 | 1.49 | 1.38 | 1.30 | 1.69 | 2.18 | 3.65 | 7.13 | 8.42 | 5.16 | 3.79 | 2.76 |
| 8 | 1.32 | 1.49 | 1.37 | 1.32 | 1.64 | 2.28 | 3.51 | 6.73 | 8.12 | 5.45 | 3.88 | 2.77 |
| 9 | 1.51 | 1.48 | 1.04 | 1.29 | 1.55 | 2.46 | 3.52 | 6.40 | 7.68 | 6.19 | 4.31 | 2.71 |
| 10 | 1.26 | 1.48 | 1.41 | 1.27 | 1.56 | 2.50 | 3.59 | 5.99 | 7.11 | 6.44 | 4.34 | 2.56 |
| 11 | 2.27 | 1.48 | 1.44 | 1.27 | 1.54 | 2.38 | 3.32 | 5.60 | 6.90 | 6.43 | 3.89 | 2.51 |
| 12 | 1.21 | 1.46 | 1.45 | 1.61 | 1.49 | 2.26 | 3.31 | 5.36 | 6.70 | 6.07 | 3.77 | 2.70 |
| 13 | 1.19 | 1.46 | 1.46 | 1.76 | 1.47 | 2.19 | 3.60 | 5.33 | 6.36 | 5.68 | 3.64 | 2.73 |
| 14 | 1.18 | 1.45 | 1.56 | 1.76 | 1.46 | 2.45 | 3.83 | 6.37 | 5.98 | 5.36 | 3.47 | 2.62 |
| 15 | 1.20 | 1.41 | 1.58 | 1.79 | 1.47 | 3.06 | 3.84 | 6.71 | 5.83 | 5.17 | 3.34 | 2.52 |
| 16 | 1.19 | 1.41 | 1.57 | 1.77 | 1.68 | 3.27 | 3.76 | 7.30 | 5.99 | 5.01 | 3.46 | 2.50 |
| 17 | 1.18 | 1.48 | 1.49 | 1.74 | 1.86 | 3.32 | 3.66 | 8.19 | 6.44 | 4.86 | 3.04 | 2.50 |
| 18 | 1.24 | 1.56 | 1.56 | 1.42 | 1.97 | 3.40 | 3.76 | 8.46 | 6.86 | 4.70 | 2.90 | 2.54 |
| 19 | 1.24 | 1.64 | 1.51 | 1.62 | 2.01 | 3.52 | 4.80 | 9.01 | 6.66 | 4.59 | 2.83 | 2.58 |
| 20 | 1.17 | 1.66 | 1.64 | 1.76 | 2.05 | 3.82 | 5.20 | 9.59 | 6.84 | 4.35 | 2.82 | 2.59 |
| 21 | 1.25 | 1.66 | 1.25 | 1.67 | 2.05 | 3.69 | 4.82 | 9.60 | 6.15 | 4.29 | 2.68 | 2.58 |
| 22 | 1.20 | 1.69 | 1.14 | 2.04 | 2.06 | 4.12 | 4.42 | 9.27 | 7.47 | 4.22 | 2.82 | 2.59 |
| 23 | 1.20 | 1.70 | 1.11 | 1.64 | 2.24 | 3.66 | 4.74 | 8.98 | 8.60 | 4.02 | 3.03 | 2.57 |
| 24 | 1.15 | 1.71 | 1.13 | 1.47 | 2.10 | 3.24 | 4.86 | 9.64 | 9.36 | 3.88 | 3.04 | 2.54 |
| 25 | 1.06 | 1.66 | 1.11 | 1.35 | 2.16 | 2.99 | 4.61 | 10.93 | 9.32 | 3.80 | 3.09 | 2.51 |
| 26 | 1.39 | 1.56 | 1.11 | 1.30 | 2.13 | 3.44 | 5.06 | 11.01 | 9.00 | 3.72 | 3.02 | 2.55 |
| 27 | 1.50 | 1.50 | 1.18 | 1.43 | 2.24 | 3.66 | 5.72 | 10.79 | 8.81 | 3.62 | 3.94 | 2.41 |
| 28 | 1.53 | 1.50 | 1.19 | 1.96 | 2.24 | 3.64 | 6.84 | 10.44 | 8.38 | 3.45 | 2.94 | 1.97 |
| 29 | 1.56 | 1.44 | 1.22 | 2.11 | 2.09 | 3.45 | 6.79 | 9.92 | 7.83 | 3.49 | 2.90 | 1.96 |
| 30 | 1.60 | | 1.27 | 2.06 | 2.06 | 3.45 | 6.97 | 9.37 | 7.21 | 3.47 | 2.89 | 1.95 |
| 31 | 1.70 | | 1.29 | | 2.04 | | 7.28 | 9.16 | | 3.45 | | 2.01 |
| Mean | 1.37 | 1.54 | 1.35 | 1.55 | 1.86 | 2.91 | 4.37 | 8.10 | 7.82 | 4.84 | 3.23 | 2.56 |
| Max | 2.27 | 1.71 | 1.58 | 2.11 | 2.24 | 4.12 | 7.28 | 11.01 | 9.91 | 6.60 | 4.34 | 2.90 |
| Min | 1.06 | 1.41 | 1.04 | 1.23 | 1.46 | 2.09 | 2.75 | 5.33 | 5.83 | 3.45 | 2.68 | 1.95 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 1997

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|-------|-------|-------|------|------|------|
| 1 | 2.00 | 1.58 | 1.31 | 1.89 | 1.24 | 2.41 | 2.55 | 10.60 | 8.87 | 8.52 | 3.32 | 2.34 |
| 2 | 2.00 | 1.72 | 1.31 | 1.89 | 1.26 | 2.51 | 3.90 | 10.32 | 8.48 | 5.81 | 3.11 | 2.25 |
| 3 | 1.90 | 1.73 | 1.28 | 1.89 | 1.25 | 2.55 | 5.33 | 10.03 | 10.42 | 6.20 | 2.88 | 2.23 |
| 4 | 1.99 | 1.75 | 1.11 | 1.89 | 1.23 | 2.51 | 4.45 | 9.52 | 11.18 | 6.24 | 2.78 | 2.19 |
| 5 | 2.01 | 1.72 | 1.11 | 1.87 | 1.26 | 2.56 | 4.87 | 9.25 | 11.62 | 6.24 | 2.80 | 2.13 |
| 6 | 1.88 | 1.78 | 1.11 | 1.81 | 1.26 | 2.48 | 4.35 | 9.07 | 11.86 | 6.56 | 2.80 | 2.12 |
| 7 | 1.99 | 1.83 | 1.19 | 1.83 | 1.25 | 2.42 | 4.15 | 8.65 | 12.09 | 6.51 | 2.80 | 2.09 |
| 8 | 1.25 | 1.82 | 1.30 | 1.81 | 1.26 | 2.40 | 3.72 | 8.05 | 12.14 | 6.56 | 2.70 | 2.11 |
| 9 | 1.40 | 1.87 | 1.30 | 1.82 | 1.28 | 2.39 | 3.58 | 7.54 | 12.07 | 6.79 | 2.65 | 2.08 |
| 10 | 1.42 | 1.82 | 1.31 | 1.84 | 1.30 | 1.29 | 3.44 | 7.09 | 11.84 | 6.09 | 2.65 | 2.09 |
| 11 | 1.30 | 1.80 | 1.21 | 1.84 | 1.30 | 1.27 | 3.43 | 6.52 | 11.63 | 5.90 | 2.65 | 2.19 |
| 12 | 1.30 | 1.23 | 1.17 | 1.82 | 1.31 | 1.29 | 3.65 | 6.76 | 11.24 | 5.69 | 2.63 | 2.10 |
| 13 | 1.35 | 1.31 | 1.15 | 1.81 | 1.36 | 2.24 | 4.78 | 6.56 | 10.76 | 5.64 | 2.60 | 1.95 |
| 14 | 1.40 | 1.38 | 1.21 | 1.84 | 1.98 | 2.21 | 5.22 | 7.10 | 10.13 | 5.69 | 2.59 | 1.93 |
| 15 | 1.41 | 1.38 | 1.21 | 1.82 | 1.99 | 2.16 | 5.47 | 7.12 | 9.39 | 5.52 | 2.49 | 1.94 |
| 16 | 1.41 | 1.30 | 1.23 | 1.81 | 2.03 | 2.31 | 6.68 | 7.02 | 8.48 | 5.34 | 2.46 | 1.98 |
| 17 | 1.48 | 1.30 | 1.19 | 1.83 | 2.10 | 2.34 | 7.21 | 7.08 | 7.76 | 5.10 | 2.46 | 1.99 |
| 18 | 1.47 | 1.30 | 1.11 | 1.80 | 2.03 | 2.36 | 7.54 | 7.09 | 7.24 | 4.78 | 2.46 | 1.95 |
| 19 | 1.45 | 1.30 | 1.11 | 1.82 | 2.26 | 2.60 | 8.14 | 7.14 | 6.83 | 4.60 | 2.36 | 1.99 |
| 20 | 1.46 | 1.30 | 1.18 | 1.82 | 2.24 | 2.70 | 9.00 | 6.83 | 6.58 | 4.40 | 2.34 | 1.99 |
| 21 | 1.45 | 1.29 | 1.20 | 1.82 | 2.21 | 2.71 | 9.06 | 6.55 | 6.21 | 4.32 | 2.33 | 1.88 |
| 22 | 1.34 | 1.31 | 1.23 | 1.75 | 2.16 | 2.71 | 9.49 | 6.20 | 6.19 | 4.20 | 2.34 | 1.84 |
| 23 | 1.37 | 1.33 | 1.28 | 1.73 | 2.31 | 2.70 | 10.22 | 5.81 | 6.05 | 4.03 | 2.33 | 1.83 |
| 24 | 1.33 | 1.32 | 1.29 | 1.71 | 2.28 | 2.69 | 10.66 | 5.70 | 5.81 | 3.88 | 2.34 | 1.68 |
| 25 | 1.34 | 1.32 | 1.23 | 1.22 | 2.55 | 2.81 | 10.79 | 5.90 | 5.51 | 3.82 | 2.38 | 1.61 |
| 26 | 1.32 | 1.31 | 1.21 | 1.22 | 2.57 | 2.83 | 10.78 | 5.91 | 5.23 | 3.76 | 2.36 | 1.61 |
| 27 | 1.31 | 1.31 | 1.32 | 1.23 | 2.52 | 3.17 | 10.54 | 6.03 | 5.30 | 3.70 | 2.32 | 1.59 |
| 28 | 1.30 | 1.31 | 1.84 | 1.25 | 1.47 | 3.18 | 10.54 | 6.11 | 6.21 | 3.76 | 2.25 | 1.55 |
| 29 | 1.32 | | 1.88 | 1.31 | 2.49 | 3.24 | 10.60 | 6.00 | 6.16 | 3.78 | 2.22 | 1.53 |
| 30 | 1.34 | | 1.57 | 1.29 | 2.50 | 3.29 | 10.78 | 6.60 | 5.81 | 3.64 | 2.23 | 1.53 |
| 31 | 1.56 | | 1.87 | | 2.80 | | 10.85 | 8.44 | | 3.53 | | 1.51 |
| Mean | 1.51 | 1.49 | 1.30 | 1.71 | 1.82 | 2.48 | 6.96 | 7.38 | 8.64 | 5.08 | 2.55 | 1.93 |
| Max | 2.01 | 1.87 | 1.88 | 1.89 | 2.57 | 3.29 | 10.85 | 10.60 | 12.14 | 6.79 | 3.52 | 2.25 |
| Min | 1.25 | 1.23 | 1.11 | 1.22 | 1.23 | 1.27 | 2.55 | 5.70 | 5.23 | 3.53 | 2.22 | 1.51 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 1998

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 1.80 | 1.42 | 1.19 | 1.38 | 1.43 | 2.21 | 3.07 | 4.96 | 6.31 | 2.66 | 1.36 | 0.79 |
| 2 | 1.51 | 1.39 | 1.09 | 1.38 | 1.43 | 3.00 | 3.35 | 4.95 | 6.43 | 2.38 | 1.25 | 0.79 |
| 3 | 1.52 | 1.40 | 1.16 | 1.42 | 1.43 | 3.08 | 4.86 | 4.89 | 6.41 | 2.32 | 1.19 | 0.81 |
| 4 | 1.53 | 1.40 | 1.13 | 1.56 | 1.31 | 2.65 | 7.32 | 4.71 | 6.35 | 2.29 | 1.23 | 0.79 |
| 5 | 1.52 | 1.40 | 1.22 | 1.47 | 1.34 | 2.47 | 7.70 | 4.55 | 6.25 | 2.14 | 1.22 | 0.84 |
| 6 | 1.54 | 1.43 | 1.23 | 1.39 | 1.39 | 2.46 | 6.95 | 4.44 | 6.73 | 2.05 | 1.23 | 0.88 |
| 7 | 1.53 | 1.42 | 1.22 | 1.38 | 1.42 | 3.03 | 6.28 | 4.63 | 7.42 | 1.99 | 1.23 | 0.86 |
| 8 | 1.53 | 1.42 | 1.21 | 1.39 | 1.39 | 3.31 | 5.36 | 5.29 | 8.24 | 1.91 | 1.15 | 0.89 |
| 9 | 1.52 | 1.43 | 1.05 | 1.50 | 1.44 | 3.16 | 5.12 | 5.90 | 8.70 | 1.89 | 1.04 | 0.82 |
| 10 | 1.52 | 1.48 | 1.17 | 1.49 | 1.42 | 2.85 | 5.22 | 6.22 | 8.73 | 1.83 | 1.21 | 0.87 |
| 11 | 1.53 | 1.48 | 1.17 | 1.47 | 1.41 | 2.83 | 5.34 | 6.96 | 8.45 | 1.79 | 1.21 | 0.87 |
| 12 | 1.53 | 1.49 | 1.17 | 1.52 | 1.35 | 3.69 | 5.55 | 7.27 | 8.09 | 1.65 | 1.13 | 0.88 |
| 13 | 1.51 | 1.44 | 1.17 | 1.47 | 1.45 | 3.72 | 4.72 | 6.39 | 7.64 | 1.73 | 1.11 | 0.91 |
| 14 | 1.54 | 1.48 | 1.48 | 1.73 | 1.58 | 3.10 | 4.52 | 6.74 | 7.25 | 1.74 | 1.07 | 0.94 |
| 15 | 1.55 | 1.42 | 1.55 | 1.80 | 1.82 | 2.49 | 4.64 | 6.79 | 6.72 | 1.74 | 1.09 | 0.91 |
| 16 | 1.55 | 1.23 | 1.24 | 1.84 | 1.82 | 2.47 | 6.20 | 6.45 | 6.20 | 1.76 | 0.97 | 0.93 |
| 17 | 1.56 | 1.46 | 1.61 | 1.81 | 1.86 | 2.37 | 6.50 | 6.25 | 5.66 | 1.79 | 0.99 | 0.92 |
| 18 | 1.53 | 1.50 | 1.56 | 1.90 | 1.58 | 2.35 | 6.56 | 6.31 | 5.51 | 1.76 | 1.00 | 0.95 |
| 19 | 1.55 | 1.25 | 1.36 | 2.13 | 1.80 | 2.26 | 6.51 | 6.14 | 5.29 | 2.36 | 0.99 | 0.91 |
| 20 | 1.54 | 1.16 | 1.15 | 1.80 | 1.99 | 2.18 | 6.08 | 6.12 | 5.23 | 2.33 | 1.01 | 0.92 |
| 21 | 1.53 | 1.12 | 1.17 | 1.69 | 1.96 | 2.03 | 5.38 | 6.35 | 5.07 | 2.19 | 1.02 | 0.91 |
| 22 | 1.54 | 1.14 | 1.22 | 1.44 | 2.00 | 1.77 | 5.16 | 6.62 | 4.67 | 1.97 | 0.98 | 0.88 |
| 23 | 1.54 | 1.14 | 1.16 | 1.40 | 1.92 | 2.09 | 5.32 | 7.35 | 4.28 | 1.82 | 0.98 | 0.82 |
| 24 | 1.37 | 1.16 | 1.12 | 1.36 | 1.87 | 2.10 | 4.90 | 8.30 | 4.07 | 1.67 | 0.90 | 0.84 |
| 25 | 1.45 | 1.16 | 1.22 | 1.33 | 1.83 | 2.08 | 4.66 | 8.79 | 3.84 | 1.63 | 0.93 | 0.84 |
| 26 | 1.41 | 1.19 | 1.23 | 1.42 | 1.95 | 2.08 | 4.43 | 9.04 | 3.52 | 1.55 | 0.90 | 0.84 |
| 27 | 1.40 | 1.19 | 1.19 | 1.32 | 2.15 | 2.28 | 4.30 | 8.48 | 3.33 | 1.44 | 0.85 | 0.83 |
| 28 | 1.39 | 1.17 | 1.38 | 1.33 | 2.08 | 2.52 | 4.31 | 7.29 | 3.20 | 1.43 | 0.84 | 0.72 |
| 29 | 1.39 | | 1.37 | 1.32 | 2.08 | 2.88 | 4.33 | 6.73 | 3.03 | 1.42 | 0.81 | 0.71 |
| 30 | 1.36 | | 1.21 | 1.37 | 2.04 | 3.12 | 4.22 | 6.38 | 2.87 | 1.42 | 0.80 | 0.73 |
| 31 | 1.39 | | 1.34 | | 2.12 | | 4.89 | 6.28 | | 1.35 | | 0.74 |
| Mean | 1.50 | 1.33 | 1.25 | 1.54 | 1.70 | 2.62 | 5.27 | 6.37 | 5.85 | 1.87 | 1.06 | 0.85 |
| Max | 1.56 | 1.50 | 1.61 | 2.13 | 2.15 | 3.72 | 7.70 | 9.04 | 8.73 | 2.66 | 1.36 | 0.95 |
| Min | 1.36 | 1.12 | 1.05 | 1.32 | 1.31 | 1.77 | 3.07 | 4.44 | 2.87 | 1.35 | 0.80 | 0.71 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 1999

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|-------|------|------|------|
| 1 | 0.75 | 0.75 | 0.85 | 0.71 | 0.96 | 3.90 | 4.22 | 4.54 | 9.86 | 8.72 | 3.57 | 2.27 |
| 2 | 0.76 | 0.77 | 0.84 | 0.71 | 1.01 | 3.87 | 4.62 | 5.37 | 10.12 | 7.96 | 3.66 | 2.23 |
| 3 | 0.75 | 0.75 | 0.81 | 0.70 | 0.98 | 3.56 | 4.81 | 6.03 | 9.97 | 7.53 | 3.53 | 2.26 |
| 4 | 0.74 | 0.75 | 0.72 | 0.70 | 0.95 | 3.60 | 4.52 | 6.23 | 9.62 | 7.31 | 3.60 | 2.23 |
| 5 | 0.75 | 0.75 | 0.70 | 0.71 | 1.06 | 3.66 | 4.73 | 6.31 | 9.40 | 7.11 | 3.52 | 2.22 |
| 6 | 0.79 | 0.76 | 0.68 | 0.70 | 1.62 | 3.70 | 6.17 | 6.76 | 9.28 | 6.88 | 3.46 | 2.18 |
| 7 | 0.78 | 0.75 | 0.70 | 0.71 | 2.16 | 3.60 | 7.47 | 7.00 | 9.26 | 6.42 | 3.54 | 2.21 |
| 8 | 0.81 | 0.78 | 0.67 | 0.73 | 2.68 | 3.54 | 7.50 | 6.89 | 9.10 | 6.09 | 3.73 | 2.19 |
| 9 | 0.83 | 0.80 | 0.68 | 0.76 | 3.05 | 3.42 | 6.90 | 6.64 | 9.22 | 6.01 | 3.68 | 2.20 |
| 10 | 0.83 | 0.81 | 0.62 | 0.93 | 2.89 | 3.33 | 6.17 | 6.36 | 9.08 | 5.85 | 3.59 | 2.17 |
| 11 | 0.81 | 0.79 | 0.61 | 0.97 | 3.18 | 3.99 | 5.51 | 6.27 | 8.99 | 6.00 | 3.52 | 1.99 |
| 12 | 0.80 | 0.80 | 0.61 | 0.87 | 2.97 | 5.30 | 5.28 | 7.09 | 9.87 | 5.76 | 3.57 | 2.12 |
| 13 | 0.83 | 0.82 | 0.61 | 0.85 | 2.70 | 7.75 | 5.05 | 7.53 | 10.56 | 5.71 | 3.57 | 2.22 |
| 14 | 0.85 | 0.86 | 0.64 | 0.91 | 2.28 | 6.19 | 4.64 | 7.33 | 10.77 | 5.59 | 3.27 | 2.07 |
| 15 | 0.85 | 0.90 | 0.68 | 0.86 | 2.10 | 6.19 | 4.39 | 7.16 | 10.73 | 5.30 | 3.11 | 2.09 |
| 16 | 0.84 | 0.90 | 0.64 | 0.86 | 2.00 | 5.27 | 4.22 | 6.95 | 10.66 | 5.06 | 2.98 | 2.20 |
| 17 | 0.75 | 0.87 | 0.64 | 0.91 | 2.20 | 5.04 | 4.12 | 6.82 | 10.48 | 4.93 | 3.03 | 2.18 |
| 18 | 0.73 | 0.96 | 0.66 | 1.02 | 2.28 | 4.63 | 4.12 | 7.52 | 10.40 | 4.67 | 2.93 | 2.18 |
| 19 | 0.75 | 0.97 | 0.68 | 0.92 | 2.48 | 4.92 | 4.29 | 8.12 | 10.18 | 4.53 | 2.76 | 2.13 |
| 20 | 0.75 | 0.97 | 0.66 | 0.92 | 2.81 | 5.13 | 4.39 | 8.06 | 10.46 | 4.39 | 2.59 | 2.13 |
| 21 | 0.74 | 0.77 | 0.67 | 0.97 | 2.81 | 6.09 | 4.33 | 7.53 | 10.88 | 4.21 | 2.64 | 2.11 |
| 22 | 0.76 | 0.84 | 0.68 | 0.97 | 2.89 | 6.79 | 4.36 | 7.07 | 11.08 | 4.17 | 2.47 | 2.08 |
| 23 | 0.83 | 0.82 | 0.65 | 0.97 | 3.57 | 7.37 | 4.39 | 6.90 | 11.24 | 4.08 | 2.44 | 2.09 |
| 24 | 0.75 | 0.86 | 0.65 | 0.95 | 4.11 | 6.56 | 4.56 | 6.99 | 11.39 | 3.97 | 2.37 | 2.08 |
| 25 | 0.76 | 0.88 | 0.67 | 0.96 | 4.19 | 5.33 | 5.79 | 7.04 | 11.40 | 3.87 | 2.35 | 2.06 |
| 26 | 0.74 | 0.90 | 0.64 | 0.96 | 4.15 | 5.46 | 6.33 | 7.00 | 11.18 | 3.77 | 2.35 | 2.00 |
| 27 | 0.74 | 0.86 | 0.68 | 0.99 | 4.06 | 5.64 | 6.05 | 7.26 | 10.83 | 3.46 | 2.31 | 2.07 |
| 28 | 0.74 | 0.87 | 0.72 | 0.96 | 3.88 | 5.58 | 5.62 | 8.15 | 10.45 | 3.50 | 2.29 | 2.14 |
| 29 | 0.74 | | 0.72 | 0.95 | 3.67 | 5.05 | 5.33 | 8.79 | 10.09 | 3.90 | 2.29 | 2.16 |
| 30 | 0.75 | | 0.71 | 0.95 | 4.13 | 4.40 | 5.05 | 9.00 | 9.46 | 3.97 | 2.26 | 2.19 |
| 31 | 0.75 | | 0.71 | | 4.12 | | 4.54 | 9.38 | | 3.82 | | 2.18 |
| Mean | 0.78 | 0.83 | 0.68 | 0.87 | 2.71 | 4.99 | 5.14 | 7.10 | 10.20 | 5.31 | 3.01 | 2.15 |
| Max | 0.85 | 0.97 | 0.85 | 1.02 | 4.19 | 7.75 | 7.50 | 9.38 | 11.40 | 8.72 | 3.73 | 2.27 |
| Min | 0.73 | 0.75 | 0.61 | 0.70 | 0.95 | 3.33 | 4.12 | 4.54 | 8.99 | 3.46 | 2.26 | 1.99 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 2000

| DAY | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 2.18 | 1.45 | 1.56 | 1.61 | 1.97 | 3.36 | 7.11 | 9.09 | 8.06 | 6.74 | 4.02 | 3.81 |
| 2 | 1.86 | 1.42 | 1.56 | 1.62 | 1.79 | 3.80 | 6.03 | 9.00 | 8.27 | 6.57 | 3.95 | 3.89 |
| 3 | 1.83 | 1.41 | 1.56 | 1.61 | 1.77 | 3.79 | 5.38 | 8.94 | 8.40 | 6.24 | 3.81 | 3.76 |
| 4 | 1.74 | 1.43 | 1.57 | 1.60 | 1.80 | 3.83 | 4.93 | 8.34 | 9.39 | 6.01 | 3.74 | 3.65 |
| 5 | 1.66 | 1.42 | 1.71 | 1.63 | 1.96 | 3.89 | 5.14 | 7.94 | 10.39 | 5.69 | 3.66 | 3.67 |
| 6 | 1.63 | 1.41 | 1.68 | 1.66 | 2.06 | 3.93 | 5.35 | 8.96 | 11.05 | 5.54 | 3.61 | 3.75 |
| 7 | 1.64 | 1.43 | 1.65 | 1.63 | 2.16 | 3.73 | 5.12 | 9.93 | 11.41 | 5.60 | 3.61 | 3.78 |
| 8 | 1.57 | 1.43 | 1.61 | 1.62 | 2.15 | 3.69 | 4.83 | 10.35 | 11.50 | 5.48 | 3.59 | 3.79 |
| 9 | 1.56 | 1.42 | 1.62 | 1.65 | 2.05 | 4.74 | 4.75 | 10.68 | 11.59 | 5.40 | 3.38 | 3.80 |
| 10 | 1.60 | 1.42 | 1.58 | 1.64 | 1.92 | 6.53 | 4.85 | 10.58 | 11.71 | 5.41 | 3.10 | 3.69 |
| 11 | 1.63 | 1.43 | 1.58 | 1.68 | 1.97 | 6.26 | 4.78 | 10.92 | 11.59 | 5.22 | 3.12 | 3.61 |
| 12 | 1.64 | 1.44 | 1.55 | 1.65 | 2.06 | 5.46 | 4.98 | 10.40 | 11.43 | 5.05 | 3.85 | 3.69 |
| 13 | 1.62 | 1.43 | 1.59 | 1.69 | 2.16 | 4.71 | 6.33 | 9.73 | 11.55 | 4.88 | 2.73 | 3.72 |
| 14 | 1.63 | 1.44 | 1.61 | 1.88 | 2.16 | 4.23 | 7.29 | 8.80 | 11.73 | 4.53 | 2.65 | 3.73 |
| 15 | 1.62 | 1.42 | 1.60 | 1.68 | 2.26 | 3.88 | 7.70 | 8.33 | 11.80 | 4.39 | 2.63 | 3.78 |
| 16 | 1.65 | 1.42 | 1.61 | 1.65 | 2.44 | 3.76 | 7.61 | 7.89 | 11.74 | 4.21 | 2.56 | 2.18 |
| 17 | 1.63 | 1.46 | 1.61 | 1.52 | 2.75 | 3.87 | 7.47 | 7.90 | 11.49 | 4.07 | 2.47 | 2.21 |
| 18 | 1.63 | 1.44 | 1.43 | 1.55 | 5.58 | 4.46 | 7.53 | 8.12 | 11.23 | 3.99 | 2.35 | 3.89 |
| 19 | 1.62 | 1.44 | 1.48 | 1.54 | 4.11 | 6.08 | 7.74 | 8.00 | 10.77 | 3.92 | 2.24 | 3.16 |
| 20 | 1.62 | 1.46 | 1.61 | 1.53 | 4.56 | 6.68 | 7.60 | 7.79 | 10.35 | 3.84 | 2.14 | 2.16 |
| 21 | 1.62 | 1.47 | 1.63 | 1.55 | 5.06 | 6.84 | 7.50 | 7.57 | 9.83 | 3.84 | 2.16 | 2.21 |
| 22 | 1.62 | 1.47 | 1.63 | 1.71 | 5.37 | 7.06 | 7.89 | 7.18 | 8.60 | 4.03 | 2.06 | 2.34 |
| 23 | 1.62 | 1.46 | 1.64 | 1.71 | 4.88 | 7.25 | 8.34 | 6.70 | 8.41 | 4.41 | 2.00 | 2.52 |
| 24 | 1.64 | 1.46 | 1.63 | 1.71 | 4.43 | 7.56 | 8.91 | 6.36 | 7.84 | 4.50 | 1.97 | 2.49 |
| 25 | 1.64 | 1.46 | 1.62 | 1.69 | 4.07 | 7.88 | 9.10 | 6.13 | 7.50 | 4.99 | 1.87 | 2.41 |
| 26 | 1.63 | 1.46 | 1.64 | 1.56 | 3.81 | 7.34 | 9.10 | 6.19 | 7.21 | 4.75 | 1.84 | 2.50 |
| 27 | 1.62 | 1.46 | 1.62 | 1.67 | 3.83 | 8.66 | 9.10 | 6.58 | 6.57 | 4.49 | 1.80 | 2.53 |
| 28 | 1.52 | 1.46 | 1.62 | 1.69 | 3.73 | 9.32 | 9.09 | 7.13 | 6.79 | 4.30 | 1.81 | 2.52 |
| 29 | 1.55 | 1.57 | 1.63 | 1.76 | 3.52 | 8.96 | 9.18 | 8.27 | 7.07 | 4.15 | 1.82 | 2.52 |
| 30 | 1.56 | | 1.62 | 1.94 | 3.40 | 7.98 | 9.19 | 8.36 | 6.20 | 4.04 | 1.78 | 2.53 |
| 31 | 1.52 | | 1.61 | | 3.28 | | 9.15 | 8.39 | | 4.00 | | 2.51 |
| Mean | 1.65 | 1.44 | 1.60 | 1.65 | 3.07 | 5.67 | 7.07 | 9.41 | 9.72 | 4.86 | 2.71 | 2.06 |
| Max. | 2.18 | 1.57 | 1.71 | 1.94 | 5.58 | 9.32 | 9.19 | 10.92 | 11.80 | 6.74 | 4.02 | 2.53 |
| Min. | 1.52 | 1.41 | 1.43 | 1.52 | 1.77 | 3.36 | 4.75 | 6.18 | 6.20 | 3.84 | 1.78 | 3.61 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 2000

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 2.33 | 1.79 | 1.64 | 1.86 | 1.98 | 4.92 | 6.22 | 7.49 | 10.36 | 6.39 | 4.55 | 2.54 |
| 2 | 1.94 | 1.80 | 1.63 | 1.83 | 2.00 | 4.92 | 5.57 | 7.31 | 10.00 | 5.97 | 4.60 | 2.43 |
| 3 | 1.78 | 1.78 | 1.62 | 1.81 | 2.02 | 4.49 | 5.03 | 7.30 | 9.69 | 5.69 | 4.68 | 2.33 |
| 4 | 1.67 | 1.72 | 1.70 | 1.82 | 2.08 | 3.94 | 5.28 | 7.97 | 9.84 | 5.61 | 4.95 | 2.41 |
| 5 | 1.67 | 1.67 | 1.71 | 1.80 | 2.10 | 4.06 | 6.65 | 8.66 | 9.97 | 5.59 | 4.72 | 2.39 |
| 6 | 1.65 | 1.71 | 1.72 | 1.78 | 1.97 | 4.23 | 7.11 | 8.79 | 10.22 | 5.66 | 4.54 | 2.40 |
| 7 | 1.68 | 1.72 | 1.73 | 2.05 | 1.77 | 4.22 | 6.88 | 9.03 | 10.04 | 5.59 | 4.28 | 2.41 |
| 8 | 1.64 | 1.72 | 1.73 | 2.13 | 1.91 | 4.48 | 6.25 | 9.61 | 11.29 | 5.37 | 4.19 | 2.39 |
| 9 | 1.63 | 1.69 | 1.80 | 2.15 | 1.98 | 4.67 | 6.26 | 10.37 | 11.26 | 5.23 | 4.10 | 2.41 |
| 10 | 1.63 | 1.68 | 1.87 | 2.13 | 2.05 | 4.67 | 7.20 | 10.92 | 11.20 | 5.66 | 3.99 | 2.23 |
| 11 | 1.61 | 1.71 | 1.99 | 2.14 | 2.09 | 4.74 | 7.37 | 11.04 | 11.19 | 5.90 | 3.66 | 2.30 |
| 12 | 1.63 | 1.75 | 1.96 | 2.14 | 2.18 | 5.31 | 6.99 | 11.21 | 11.14 | 5.84 | 3.35 | 2.28 |
| 13 | 1.62 | 1.76 | 1.96 | 2.15 | 2.06 | 5.58 | 6.62 | 11.40 | 11.09 | 5.75 | 3.13 | 2.27 |
| 14 | 1.63 | 1.70 | 1.96 | 2.20 | 1.92 | 5.26 | 6.33 | 11.66 | 10.89 | 5.60 | 3.06 | 2.27 |
| 15 | 1.62 | 1.72 | 2.04 | 2.23 | 2.09 | 4.74 | 6.57 | 11.94 | 10.64 | 5.44 | 3.04 | 2.29 |
| 16 | 1.59 | 1.69 | 2.02 | 2.22 | 2.14 | 4.50 | 6.80 | 12.08 | 10.18 | 5.68 | 3.04 | 2.30 |
| 17 | 1.54 | 1.71 | 2.13 | 2.20 | 2.28 | 4.17 | 6.88 | 12.12 | 9.67 | 5.52 | 3.10 | 2.59 |
| 18 | 1.50 | 1.69 | 2.38 | 2.19 | 2.31 | 3.97 | 6.89 | 12.15 | 9.25 | 5.18 | 3.10 | 2.61 |
| 19 | 1.51 | 1.64 | 2.46 | 2.18 | 2.31 | 3.97 | 6.74 | 12.15 | 8.86 | 4.82 | 2.86 | 2.62 |
| 20 | 1.51 | 1.65 | 2.66 | 2.14 | 2.33 | 3.82 | 6.78 | 12.08 | 8.34 | 4.41 | 2.70 | 2.61 |
| 21 | 1.72 | 1.68 | 2.59 | 2.16 | 2.31 | 3.73 | 6.75 | 11.90 | 8.27 | 4.41 | 2.60 | 2.70 |
| 22 | 1.72 | 1.68 | 2.58 | 2.14 | 2.52 | 3.62 | 7.89 | 11.57 | 7.71 | 4.25 | 2.94 | 2.81 |
| 23 | 1.59 | 1.72 | 1.99 | 2.13 | 2.79 | 3.58 | 8.47 | 11.17 | 7.54 | 4.16 | 2.92 | 2.83 |
| 24 | 1.62 | 1.70 | 1.91 | 2.15 | 2.83 | 3.88 | 8.42 | 10.65 | 7.39 | 4.10 | 2.74 | 2.80 |
| 25 | 1.71 | 1.69 | 1.87 | 2.15 | 2.87 | 4.23 | 8.17 | 10.30 | 7.37 | 4.10 | 2.72 | 2.62 |
| 26 | 1.81 | 1.55 | 1.85 | 2.13 | 2.74 | 4.46 | 8.39 | 10.04 | 7.21 | 4.23 | 2.54 | 2.76 |
| 27 | 1.84 | 1.57 | 1.85 | 2.02 | 2.78 | 4.51 | 8.58 | 9.72 | 7.05 | 4.54 | 2.56 | 2.75 |
| 28 | 1.89 | 1.73 | 1.92 | 1.98 | 3.12 | 5.06 | 8.66 | 9.72 | 6.91 | 4.49 | 2.58 | 2.67 |
| 29 | 1.89 | | 2.04 | 2.00 | 3.93 | 6.52 | 8.40 | 10.00 | 6.81 | 4.51 | 2.58 | 2.66 |
| 30 | 1.83 | | 1.95 | 2.00 | 4.03 | 6.63 | 8.08 | 10.34 | 6.61 | 4.50 | 2.56 | 2.66 |
| 31 | 1.80 | | 1.88 | | 4.21 | | 7.82 | 10.44 | | 4.51 | | 2.65 |
| Mean | 1.70 | 1.70 | 1.97 | 2.07 | 2.44 | 4.56 | 7.10 | 10.36 | 9.27 | 5.12 | 3.42 | 2.52 |
| Max. | 2.33 | 1.80 | 2.66 | 2.23 | 4.21 | 6.63 | 8.66 | 12.15 | 11.29 | 6.39 | 4.95 | 2.83 |
| Min. | 1.50 | 1.55 | 1.62 | 1.78 | 1.77 | 3.58 | 5.03 | 7.30 | 6.61 | 4.10 | 2.54 | 2.23 |

Station Characteristics of station : 231201

Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 2002

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 2.47 | 1.91 | 1.94 | 2.10 | 2.09 | 4.45 | 5.40 | 9.77 | 10.96 | 6.39 | 4.42 | 2.96 |
| 2 | 2.04 | 1.88 | 2.09 | 2.11 | 2.06 | 3.93 | 5.20 | 9.84 | 10.72 | 5.86 | 3.87 | 2.73 |
| 3 | 1.88 | 1.88 | 2.15 | 2.11 | 2.06 | 3.53 | 4.92 | 10.18 | 10.71 | 5.86 | 3.80 | 2.72 |
| 4 | 1.71 | 1.82 | 2.09 | 2.11 | 2.07 | 3.32 | 4.61 | 10.20 | 10.59 | 5.71 | 3.75 | 2.83 |
| 5 | 1.70 | 1.78 | 1.88 | 2.12 | 2.05 | 3.51 | 4.47 | 10.23 | 10.48 | 5.64 | 3.59 | 2.83 |
| 6 | 1.67 | 1.74 | 1.78 | 2.10 | 2.06 | 3.55 | 4.56 | 10.63 | 10.48 | 5.68 | 3.48 | 2.77 |
| 7 | 1.67 | 1.74 | 1.72 | 2.10 | 2.05 | 3.89 | 4.73 | 10.80 | 10.75 | 6.00 | 3.37 | 2.74 |
| 8 | 1.71 | 1.73 | 1.72 | 2.09 | 2.04 | 4.33 | 5.29 | 11.36 | 10.84 | 6.29 | 3.25 | 2.72 |
| 9 | 1.70 | 1.73 | 1.72 | 2.07 | 2.01 | 4.48 | 5.52 | 11.42 | 10.85 | 6.63 | 3.17 | 2.73 |
| 10 | 1.74 | 1.73 | 1.71 | 2.07 | 2.03 | 5.45 | 5.83 | 11.42 | 10.62 | 5.72 | 3.11 | 2.75 |
| 11 | 1.72 | 1.73 | 1.73 | 2.11 | 2.04 | 5.44 | 6.34 | 11.32 | 10.04 | 5.38 | 3.06 | 2.89 |
| 12 | 1.71 | 1.83 | 1.73 | 2.11 | 2.14 | 6.52 | 6.50 | 11.18 | 9.33 | 5.15 | 3.00 | 2.87 |
| 13 | 1.70 | 1.82 | 1.71 | 2.13 | 2.59 | 6.24 | 6.23 | 11.15 | 8.69 | 4.82 | 2.96 | 2.81 |
| 14 | 1.74 | 1.82 | 1.72 | 2.13 | 2.93 | 5.51 | 6.06 | 11.22 | 7.91 | 4.61 | 2.91 | 2.80 |
| 15 | 1.85 | 1.82 | 1.69 | 2.12 | 2.94 | 5.51 | 6.03 | 11.30 | 7.33 | 4.41 | 2.90 | 2.75 |
| 16 | 1.80 | 1.81 | 1.71 | 2.14 | 2.96 | 6.27 | 6.19 | 11.33 | 7.63 | 4.25 | 2.89 | 2.74 |
| 17 | 1.81 | 1.82 | 1.70 | 2.15 | 3.02 | 5.54 | 6.80 | 11.32 | 7.07 | 4.12 | 2.91 | 2.73 |
| 18 | 1.80 | 1.80 | 1.71 | 2.15 | 3.37 | 4.71 | 7.93 | 11.33 | 7.17 | 4.17 | 2.96 | 2.70 |
| 19 | 1.84 | 1.80 | 1.71 | 2.13 | 4.18 | 4.30 | 8.34 | 11.53 | 7.23 | 3.92 | 3.26 | 2.69 |
| 20 | 1.85 | 1.80 | 1.71 | 2.13 | 3.99 | 4.16 | 7.96 | 11.76 | 7.33 | 3.92 | 3.06 | 2.75 |
| 21 | 1.85 | 1.81 | 1.73 | 2.12 | 3.82 | 4.01 | 7.65 | 11.75 | 7.47 | 3.85 | 3.28 | 2.67 |
| 22 | 1.84 | 1.82 | 2.12 | 2.12 | 3.72 | 3.85 | 7.64 | 11.55 | 7.18 | 3.80 | 3.15 | 2.69 |
| 23 | 1.82 | 1.80 | 2.54 | 2.08 | 3.43 | 3.68 | 8.42 | 11.31 | 6.83 | 3.80 | 3.21 | 2.68 |
| 24 | 1.82 | 1.80 | 2.02 | 2.09 | 3.32 | 3.53 | 8.76 | 11.20 | 6.51 | 3.76 | 3.22 | 2.50 |
| 25 | 1.82 | 1.80 | 2.16 | 2.09 | 3.32 | 3.48 | 8.53 | 11.25 | 6.35 | 3.83 | 3.16 | 2.35 |
| 26 | 1.92 | 1.81 | 2.20 | 2.09 | 3.56 | 3.63 | 8.19 | 11.17 | 5.99 | 3.87 | 3.09 | 2.52 |
| 27 | 1.90 | 1.80 | 2.10 | 2.08 | 4.16 | 3.65 | 8.06 | 11.31 | 5.63 | 3.80 | 3.07 | 2.78 |
| 28 | 1.86 | 1.80 | 2.09 | 2.10 | 4.30 | 5.45 | 8.13 | 10.87 | 5.30 | 3.79 | 3.12 | 2.97 |
| 29 | 1.89 | | 2.13 | 2.09 | 4.04 | 5.85 | 8.38 | 10.93 | 5.65 | 3.84 | 3.06 | 3.00 |
| 30 | 1.89 | | 2.09 | 2.08 | 3.86 | 5.56 | 9.00 | 11.09 | 6.21 | 4.38 | 3.00 | 2.96 |
| 31 | 1.90 | | 2.11 | | 4.67 | | 9.54 | 11.04 | | 5.07 | | 2.94 |
| Mean | 1.83 | 1.80 | 1.90 | 2.11 | 3.00 | 4.58 | 6.81 | 11.06 | 8.31 | 4.78 | 3.24 | 2.76 |
| Max | 2.47 | 1.91 | 2.54 | 2.15 | 4.67 | 6.52 | 9.54 | 11.76 | 10.96 | 6.63 | 4.42 | 3.00 |
| Min | 1.67 | 1.73 | 1.69 | 2.07 | 2.01 | 3.32 | 4.47 | 9.77 | 5.30 | 3.76 | 2.89 | 2.35 |

Station Characteristics of station : 231201

Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 2003

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 2.87 | 2.10 | 1.80 | 1.73 | 1.84 | 3.17 | 3.49 | 6.69 | 5.24 | 4.64 | 2.25 | 1.68 |
| 2 | 2.78 | 2.11 | 1.81 | 1.78 | 1.83 | 3.40 | 4.60 | 6.62 | 5.08 | 4.84 | 2.30 | 1.80 |
| 3 | 2.70 | 2.11 | 1.76 | 1.73 | 1.82 | 3.36 | 4.53 | 6.03 | 5.20 | 4.70 | 2.24 | 1.83 |
| 4 | 2.74 | 2.10 | 1.67 | 1.74 | 1.81 | 3.34 | 4.30 | 5.34 | 5.44 | 4.51 | 2.23 | 1.94 |
| 5 | 2.66 | 2.10 | 1.64 | 1.85 | 1.81 | 3.53 | 4.05 | 4.99 | 5.89 | 4.28 | 2.15 | 1.89 |
| 6 | 2.69 | 2.09 | 1.62 | 2.17 | 1.80 | 4.54 | 3.84 | 4.80 | 6.18 | 4.00 | 2.12 | 1.87 |
| 7 | 2.32 | 2.08 | 1.61 | 2.15 | 1.80 | 4.52 | 3.46 | 4.86 | 6.54 | 3.56 | 2.12 | 1.79 |
| 8 | 2.20 | 2.08 | 1.74 | 2.22 | 1.80 | 3.85 | 3.45 | 4.63 | 6.45 | 3.37 | 2.12 | 1.63 |
| 9 | 2.17 | 2.05 | 1.77 | 2.25 | 1.79 | 3.42 | 3.61 | 4.39 | 6.65 | 3.27 | 2.10 | 1.79 |
| 10 | 2.16 | 2.04 | 1.77 | 2.29 | 1.79 | 3.23 | 3.84 | 4.15 | 6.89 | 3.19 | 2.01 | 1.84 |
| 11 | 2.13 | 2.02 | 1.77 | 2.36 | 1.85 | 3.40 | 3.84 | 4.07 | 7.36 | 3.11 | 2.01 | 1.81 |
| 12 | 2.17 | 2.05 | 1.74 | 2.43 | 1.85 | 3.86 | 3.79 | 3.89 | 8.53 | 3.32 | 2.00 | 1.82 |
| 13 | 2.21 | 2.02 | 1.78 | 2.45 | 1.86 | 3.80 | 4.16 | 3.71 | 9.37 | 3.37 | 1.98 | 1.85 |
| 14 | 2.21 | 2.09 | 1.79 | 2.48 | 1.84 | 3.72 | 4.18 | 3.71 | 9.81 | 3.33 | 1.95 | 1.73 |
| 15 | 2.18 | 2.13 | 1.79 | 2.48 | 1.90 | 3.64 | 4.49 | 3.88 | 9.80 | 3.07 | 1.94 | 1.72 |
| 16 | 2.12 | 2.14 | 1.81 | 2.49 | 1.88 | 3.64 | 4.29 | 3.87 | 9.32 | 3.22 | 1.98 | 1.80 |
| 17 | 2.10 | 2.08 | 1.81 | 2.49 | 2.24 | 3.84 | 4.16 | 3.68 | 8.75 | 3.64 | 1.87 | 1.79 |
| 18 | 2.10 | 1.93 | 1.83 | 2.46 | 2.59 | 3.05 | 4.09 | 4.11 | 8.07 | 3.82 | 1.92 | 1.83 |
| 19 | 2.08 | 1.86 | 1.68 | 2.56 | 2.58 | 3.20 | 3.84 | 4.59 | 8.69 | 3.92 | 1.96 | 1.85 |
| 20 | 2.07 | 1.84 | 1.73 | 2.56 | 2.53 | 3.21 | 3.52 | 5.11 | 7.08 | 2.75 | 1.98 | 1.84 |
| 21 | 2.05 | 1.82 | 1.76 | 2.57 | 2.54 | 3.14 | 3.77 | 5.68 | 6.61 | 2.70 | 1.99 | 1.81 |
| 22 | 2.05 | 1.82 | 1.74 | 2.59 | 2.68 | 3.02 | 3.62 | 5.81 | 6.31 | 2.67 | 1.99 | 1.85 |
| 23 | 2.04 | 1.81 | 1.74 | 2.66 | 2.84 | 3.13 | 3.76 | 7.02 | 6.02 | 2.55 | 1.98 | 1.75 |
| 24 | 2.02 | 1.79 | 1.77 | 1.92 | 2.73 | 3.49 | 6.51 | 7.52 | 5.63 | 2.56 | 1.74 | 1.81 |
| 25 | 2.02 | 1.82 | 1.83 | 1.88 | 2.69 | 3.54 | 7.58 | 7.42 | 5.33 | 2.43 | 1.87 | 1.86 |
| 26 | 2.01 | 1.81 | 1.82 | 1.89 | 2.62 | 3.46 | 6.56 | 7.44 | 5.09 | 2.43 | 1.91 | 1.86 |
| 27 | 2.01 | 1.80 | 1.75 | 1.86 | 2.65 | 3.26 | 5.54 | 7.04 | 4.83 | 2.38 | 1.90 | 1.87 |
| 28 | 1.99 | 1.81 | 1.75 | 1.85 | 2.64 | 3.00 | 5.42 | 6.62 | 4.54 | 2.32 | 1.91 | 1.71 |
| 29 | 2.11 | | 1.76 | 1.84 | 2.55 | 2.85 | 7.53 | 5.98 | 4.29 | 2.22 | 1.92 | 1.69 |
| 30 | 2.11 | | 1.77 | 1.83 | 2.57 | 2.89 | 8.96 | 5.76 | 4.42 | 2.25 | 1.77 | 1.76 |
| 31 | 2.10 | | 1.76 | | 2.79 | | 8.76 | 8.66 | | 2.25 | | 1.80 |
| Mean | 2.23 | 1.98 | 1.75 | 2.16 | 2.21 | 3.45 | 4.57 | 5.32 | 6.65 | 3.25 | 2.01 | 1.79 |
| Max | 2.87 | 2.14 | 1.83 | 2.57 | 2.84 | 4.54 | 7.68 | 7.52 | 9.81 | 4.84 | 2.30 | 1.94 |
| Min | 1.99 | 1.79 | 1.61 | 1.73 | 1.79 | 2.85 | 3.45 | 3.68 | 4.29 | 2.22 | 1.74 | 1.55 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 2004

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|-------|------|------|------|
| 1 | 1.83 | 1.42 | 1.68 | 2.17 | 2.25 | 3.08 | 3.62 | 7.04 | 6.58 | 7.14 | 2.30 | 1.92 |
| 2 | 1.81 | 1.47 | 1.70 | 2.20 | 2.24 | 3.77 | 3.69 | 7.41 | 6.72 | 6.74 | 2.28 | 1.92 |
| 3 | 1.77 | 1.60 | 1.88 | 2.31 | 2.27 | 4.23 | 3.70 | 7.39 | 7.48 | 6.44 | 2.36 | 1.90 |
| 4 | 1.76 | 1.63 | 1.89 | 2.40 | 2.33 | 4.04 | 3.05 | 7.56 | 8.32 | 6.16 | 2.36 | 1.80 |
| 5 | 1.56 | 1.66 | 1.90 | 2.45 | 2.34 | 3.70 | 3.31 | 7.55 | 9.06 | 5.83 | 2.48 | 1.82 |
| 6 | 1.72 | 1.68 | 1.91 | 2.37 | 2.29 | 3.50 | 3.68 | 7.56 | 9.43 | 5.60 | 2.33 | 1.80 |
| 7 | 1.77 | 1.73 | 1.86 | 2.32 | 2.28 | 3.30 | 4.95 | 7.20 | 9.72 | 5.30 | 2.22 | 1.76 |
| 8 | 1.82 | 1.82 | 1.88 | 2.29 | 2.59 | 3.22 | 8.20 | 7.49 | 9.56 | 5.03 | 2.20 | 1.87 |
| 9 | 1.85 | 1.77 | 1.88 | 2.25 | 1.81 | 3.31 | 6.20 | 7.96 | 9.02 | 4.78 | 2.12 | 1.88 |
| 10 | 1.80 | 1.72 | 1.88 | 2.24 | 1.79 | 3.42 | 5.83 | 8.17 | 9.55 | 4.62 | 2.18 | 1.86 |
| 11 | 1.71 | 1.72 | 1.87 | 2.37 | 2.17 | 3.53 | 4.66 | 8.52 | 10.74 | 4.66 | 2.17 | 1.83 |
| 12 | 1.82 | 1.70 | 1.87 | 2.39 | 2.20 | 3.48 | 4.62 | 8.53 | 11.57 | 4.60 | 2.14 | 1.92 |
| 13 | 1.74 | 1.59 | 1.80 | 2.36 | 2.19 | 3.36 | 6.12 | 8.26 | 12.04 | 4.48 | 2.17 | 1.66 |
| 14 | 1.75 | 1.41 | 1.98 | 2.41 | 2.23 | 3.32 | 8.05 | 7.93 | 12.24 | 4.44 | 2.16 | 1.70 |
| 15 | 1.69 | 1.62 | 1.89 | 2.31 | 2.21 | 3.24 | 9.13 | 7.61 | 12.38 | 4.12 | 1.94 | 1.78 |
| 16 | 1.66 | 1.30 | 1.89 | 2.28 | 2.25 | 3.61 | 8.57 | 7.32 | 12.37 | 4.34 | 2.07 | 1.76 |
| 17 | 1.68 | 1.57 | 1.95 | 2.24 | 2.45 | 4.87 | 8.10 | 7.51 | 12.31 | 4.28 | 2.18 | 1.76 |
| 18 | 1.59 | 1.70 | 2.10 | 2.21 | 2.64 | 6.30 | 7.82 | 8.25 | 12.21 | 4.19 | 2.19 | 1.76 |
| 19 | 1.51 | 1.67 | 1.64 | 2.28 | 2.80 | 6.58 | 6.85 | 8.48 | 11.96 | 3.76 | 2.16 | 1.78 |
| 20 | 1.63 | 1.66 | 1.50 | 2.27 | 2.72 | 5.98 | 6.09 | 8.23 | 11.67 | 3.26 | 2.13 | 1.78 |
| 21 | 1.62 | 1.66 | 1.58 | 2.31 | 2.79 | 5.06 | 5.85 | 8.33 | 11.53 | 3.18 | 2.06 | 1.96 |
| 22 | 1.63 | 1.66 | 2.13 | 2.28 | 2.84 | 4.57 | 6.18 | 8.14 | 11.42 | 3.10 | 1.86 | 2.06 |
| 23 | 1.63 | 1.64 | 2.18 | 2.27 | 2.60 | 4.07 | 6.27 | 8.29 | 11.20 | 2.94 | 1.96 | 2.06 |
| 24 | 1.62 | 1.65 | 2.20 | 2.22 | 2.28 | 3.65 | 6.28 | 7.76 | 10.94 | 2.90 | 2.01 | 2.04 |
| 25 | 1.42 | 1.64 | 2.19 | 2.23 | 2.15 | 3.40 | 6.67 | 8.36 | 10.50 | 2.84 | 1.94 | 2.03 |
| 26 | 1.42 | 1.64 | 2.17 | 2.23 | 2.29 | 3.22 | 6.94 | 8.32 | 9.87 | 2.80 | 2.04 | 2.02 |
| 27 | 1.54 | 1.62 | 2.16 | 2.21 | 2.59 | 3.13 | 7.14 | 8.19 | 9.33 | 2.72 | 2.00 | 2.01 |
| 28 | 1.59 | 1.63 | 2.17 | 2.26 | 2.68 | 3.29 | 7.80 | 7.80 | 8.73 | 2.62 | 1.91 | 2.04 |
| 29 | 1.59 | 1.66 | 2.18 | 2.29 | 2.71 | 3.61 | 7.82 | 7.24 | 8.11 | 2.54 | 1.81 | 2.07 |
| 30 | 1.58 | | 2.18 | 2.31 | 2.59 | 3.81 | 7.57 | 6.82 | 7.61 | 2.45 | 1.90 | 2.08 |
| 31 | 1.58 | | 2.17 | | 2.64 | | 7.27 | 6.57 | | 2.43 | | 2.08 |
| Mean | 1.66 | 1.63 | 1.94 | 2.29 | 2.39 | 3.92 | 6.13 | 7.79 | 10.13 | 4.20 | 2.12 | 1.89 |
| Max | 1.85 | 1.82 | 2.20 | 2.45 | 2.84 | 6.58 | 9.13 | 8.53 | 12.38 | 7.14 | 2.48 | 2.08 |
| Min | 1.42 | 1.30 | 1.50 | 2.17 | 1.79 | 3.08 | 3.05 | 6.57 | 6.58 | 2.43 | 1.81 | 1.66 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 2005

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|-------|------|------|
| 1 | 2.07 | 1.91 | 2.63 | 2.53 | 2.27 | 1.17 | 4.37 | 6.83 | 11.90 | 12.01 | 3.64 | 2.22 |
| 2 | 1.79 | 1.32 | 2.62 | 2.58 | 2.02 | 1.13 | 4.87 | 6.89 | 11.77 | 12.09 | 3.48 | 2.31 |
| 3 | 1.66 | 1.97 | 2.62 | 2.58 | 1.93 | 1.02 | 6.86 | 8.00 | 11.56 | 11.92 | 3.15 | 2.31 |
| 4 | 1.76 | 2.03 | 2.62 | 2.59 | 1.93 | 1.15 | 7.91 | 7.83 | 11.48 | 11.52 | 3.05 | 2.30 |
| 5 | 1.77 | 2.11 | 2.62 | 2.60 | 1.82 | 1.19 | 7.73 | 7.37 | 11.37 | 11.17 | 3.13 | 2.29 |
| 6 | 1.76 | 2.10 | 2.56 | 2.63 | 1.88 | 1.03 | 7.12 | 6.80 | 11.20 | 10.59 | 3.21 | 2.29 |
| 7 | 1.78 | 2.07 | 2.54 | 2.62 | 2.00 | 1.10 | 6.21 | 6.32 | 11.25 | 10.08 | 3.23 | 2.36 |
| 8 | 1.96 | 2.13 | 2.58 | 2.58 | 1.83 | 1.60 | 5.17 | 5.91 | 11.29 | 9.28 | 3.41 | 2.34 |
| 9 | 1.94 | 2.11 | 2.58 | 2.57 | 1.74 | 1.78 | 4.79 | 5.70 | 11.32 | 8.68 | 3.63 | 2.25 |
| 10 | 1.71 | 2.10 | 2.58 | 2.58 | 1.79 | 1.75 | 5.52 | 5.25 | 11.32 | 8.01 | 3.73 | 2.24 |
| 11 | 1.83 | 2.08 | 2.58 | 2.54 | 1.74 | 2.02 | 6.90 | 6.29 | 11.35 | 7.32 | 3.63 | 2.23 |
| 12 | 1.89 | 2.02 | 2.57 | 2.56 | 1.71 | 2.11 | 7.08 | 5.76 | 11.51 | 6.78 | 3.61 | 2.22 |
| 13 | 2.22 | 2.07 | 2.57 | 2.57 | 1.63 | 2.05 | 6.58 | 7.95 | 11.57 | 6.36 | 3.63 | 2.22 |
| 14 | 2.46 | 2.25 | 2.56 | 2.54 | 1.66 | 1.74 | 6.39 | 9.50 | 11.45 | 6.13 | 3.62 | 2.22 |
| 15 | 2.43 | 2.39 | 2.56 | 2.54 | 1.70 | 1.72 | 6.25 | 10.45 | 10.97 | 5.85 | 3.53 | 2.22 |
| 16 | 2.39 | 2.05 | 2.55 | 2.54 | 1.45 | 1.55 | 5.84 | 10.70 | 10.46 | 5.53 | 3.49 | 2.22 |
| 17 | 1.99 | 2.07 | 2.55 | 2.56 | 1.60 | 1.54 | 5.42 | 10.62 | 9.67 | 5.27 | 3.47 | 2.22 |
| 18 | 2.30 | 2.35 | 2.57 | 2.53 | 1.40 | 1.99 | 5.16 | 10.55 | 8.88 | 5.04 | 3.42 | 2.21 |
| 19 | 2.38 | 2.60 | 2.56 | 2.50 | 1.25 | 2.71 | 5.45 | 10.85 | 8.52 | 4.85 | 2.97 | 2.21 |
| 20 | 2.14 | 2.65 | 2.55 | 2.50 | 1.26 | 3.30 | 5.65 | 11.11 | 9.20 | 4.69 | 2.82 | 2.20 |
| 21 | 1.93 | 2.64 | 2.56 | 2.56 | 1.42 | 3.20 | 5.63 | 11.25 | 9.96 | 4.56 | 2.77 | 2.20 |
| 22 | 1.96 | 2.64 | 2.53 | 2.56 | 1.29 | 3.15 | 5.80 | 11.39 | 10.12 | 4.43 | 2.71 | 2.20 |
| 23 | 1.92 | 2.64 | 2.54 | 2.50 | 1.02 | 2.73 | 7.34 | 11.67 | 9.95 | 4.18 | 2.45 | 2.19 |
| 24 | 1.62 | 2.67 | 2.56 | 2.28 | 1.11 | 2.71 | 8.74 | 11.88 | 9.55 | 4.05 | 2.31 | 2.16 |
| 25 | 1.88 | 2.69 | 2.56 | 2.23 | 0.97 | 3.90 | 9.54 | 11.90 | 9.27 | 3.98 | 2.28 | 2.16 |
| 26 | 1.93 | 2.64 | 2.57 | 2.18 | 0.96 | 6.35 | 9.70 | 11.85 | 9.00 | 3.92 | 2.24 | 2.15 |
| 27 | 1.96 | 2.64 | 2.55 | 2.22 | 0.86 | 6.67 | 9.74 | 11.84 | 9.11 | 3.91 | 2.25 | 2.16 |
| 28 | 2.02 | 2.34 | 2.53 | 2.28 | 1.07 | 5.82 | 9.26 | 11.83 | 9.59 | 3.87 | 2.28 | 2.14 |
| 29 | 2.01 | | 2.52 | 2.30 | 1.05 | 4.92 | 8.51 | 11.82 | 11.10 | 3.83 | 2.22 | 2.16 |
| 30 | 2.01 | | 2.52 | 2.30 | 1.08 | 4.39 | 7.76 | 11.82 | 11.71 | 3.77 | 2.13 | 2.17 |
| 31 | 1.77 | | 2.50 | | 1.09 | | 7.00 | 11.90 | | 3.72 | | 2.17 |
| Mean | 1.98 | 2.26 | 2.56 | 2.49 | 1.50 | 2.58 | 6.78 | 9.32 | 10.58 | 6.69 | 3.05 | 2.22 |
| Max | 2.46 | 2.69 | 2.63 | 2.63 | 2.27 | 6.67 | 9.74 | 11.90 | 11.90 | 12.09 | 3.73 | 2.36 |
| Min | 1.62 | 1.32 | 2.50 | 2.18 | 0.86 | 1.02 | 4.37 | 5.25 | 8.52 | 3.72 | 2.13 | 2.14 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 2006

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 2.13 | 2.73 | 1.95 | 2.48 | 2.57 | 4.03 | 2.67 | 7.48 | 9.45 | 4.09 | 2.80 | 1.88 |
| 2 | 2.12 | 2.72 | 1.96 | 2.47 | 2.87 | 4.32 | 2.75 | 7.44 | 9.52 | 4.03 | 2.81 | 1.89 |
| 3 | 2.13 | 2.71 | 1.97 | 2.43 | 2.69 | 5.01 | 3.11 | 7.40 | 9.24 | 3.91 | 2.72 | 1.87 |
| 4 | 2.34 | 2.72 | 1.96 | 2.39 | 2.01 | 4.99 | 3.05 | 6.97 | 8.74 | 3.73 | 2.62 | 1.86 |
| 5 | 2.28 | 2.71 | 1.96 | 2.40 | 1.68 | 5.22 | 2.92 | 6.52 | 8.06 | 3.63 | 2.59 | 1.82 |
| 6 | 2.04 | 2.71 | 1.97 | 2.36 | 1.54 | 4.93 | 3.81 | 5.96 | 7.74 | 3.79 | 2.43 | 1.79 |
| 7 | 2.04 | 2.72 | 2.06 | 2.36 | 1.58 | 4.23 | 4.36 | 5.80 | 7.21 | 4.23 | 2.33 | 1.81 |
| 8 | 2.03 | 2.70 | 2.00 | 2.36 | 1.67 | 3.91 | 4.48 | 5.59 | 6.58 | 3.91 | 2.23 | 1.84 |
| 9 | 2.03 | 2.69 | 1.98 | 2.35 | 1.70 | 3.77 | 4.18 | 5.59 | 6.41 | 4.32 | 2.17 | 1.84 |
| 10 | 2.00 | 2.70 | 2.08 | 2.36 | 2.52 | 3.59 | 3.65 | 5.90 | 6.21 | 5.92 | 2.15 | 1.81 |
| 11 | 2.00 | 2.70 | 2.30 | 2.37 | 2.61 | 3.36 | 3.53 | 5.91 | 6.10 | 6.58 | 2.11 | 1.68 |
| 12 | 2.00 | 2.71 | 2.59 | 2.38 | 2.60 | 3.36 | 3.93 | 6.01 | 6.12 | 6.16 | 2.10 | 1.76 |
| 13 | 2.00 | 2.72 | 2.62 | 2.37 | 2.59 | 3.15 | 4.30 | 5.58 | 6.47 | 5.66 | 1.99 | 1.77 |
| 14 | 2.00 | 2.50 | 2.58 | 2.33 | 2.59 | 3.01 | 3.87 | 5.86 | 5.68 | 5.92 | 2.03 | 1.78 |
| 15 | 2.01 | 2.06 | 2.46 | 2.33 | 2.58 | 3.05 | 3.76 | 5.75 | 5.34 | 6.37 | 2.01 | 1.79 |
| 16 | 2.01 | 2.03 | 2.39 | 2.33 | 2.59 | 2.99 | 3.66 | 5.55 | 4.97 | 6.49 | 1.98 | 1.73 |
| 17 | 2.02 | 2.00 | 2.38 | 2.37 | 2.60 | 2.97 | 3.72 | 5.33 | 4.70 | 6.45 | 1.96 | 1.73 |
| 18 | 2.01 | 2.00 | 2.38 | 2.37 | 2.59 | 2.89 | 3.81 | 5.37 | 3.88 | 6.15 | 1.94 | 1.66 |
| 19 | 2.01 | 2.00 | 2.38 | 2.37 | 2.58 | 2.93 | 4.41 | 5.88 | 4.05 | 5.75 | 1.96 | 1.64 |
| 20 | 2.00 | 1.99 | 2.48 | 2.32 | 2.54 | 2.49 | 4.79 | 7.12 | 4.00 | 5.31 | 2.08 | 1.69 |
| 21 | 2.02 | 1.99 | 2.53 | 2.32 | 2.26 | 3.08 | 6.61 | 7.90 | 4.09 | 4.94 | 2.29 | 1.71 |
| 22 | 2.01 | 1.99 | 2.53 | 2.32 | 2.22 | 3.03 | 6.73 | 8.39 | 4.20 | 4.62 | 2.23 | 1.70 |
| 23 | 2.01 | 1.91 | 2.52 | 2.32 | 2.40 | 2.98 | 6.30 | 7.77 | 4.96 | 4.12 | 1.96 | 1.67 |
| 24 | 2.01 | 1.68 | 2.52 | 2.26 | 4.23 | 2.92 | 6.53 | 7.39 | 5.32 | 3.83 | 1.90 | 1.61 |
| 25 | 2.00 | 1.89 | 2.41 | 2.30 | 5.64 | 2.91 | 6.35 | 7.24 | 5.21 | 3.55 | 1.93 | 1.65 |
| 26 | 2.11 | 1.95 | 2.40 | 2.47 | 5.33 | 2.77 | 6.64 | 7.33 | 5.14 | 3.35 | 1.86 | 1.66 |
| 27 | 2.41 | 1.95 | 2.40 | 2.48 | 4.94 | 2.51 | 8.72 | 7.79 | 4.99 | 3.23 | 1.75 | 1.72 |
| 28 | 2.45 | 1.92 | 2.39 | 2.43 | 4.28 | 2.43 | 8.78 | 8.72 | 4.80 | 3.13 | 1.92 | 1.62 |
| 29 | 2.73 | | 2.40 | 2.41 | 3.83 | 2.60 | 7.98 | 9.19 | 4.57 | 3.05 | 1.92 | 1.62 |
| 30 | 2.74 | | 2.45 | 2.45 | 3.58 | 2.67 | 7.11 | 9.26 | 4.82 | 2.90 | 1.90 | 1.60 |
| 31 | 2.74 | | 2.47 | | 4.35 | | 6.63 | 9.32 | | 2.84 | | 1.61 |
| Mean | 2.14 | 2.32 | 2.30 | 2.37 | 2.89 | 3.40 | 4.94 | 6.88 | 5.95 | 4.58 | 2.15 | 1.73 |
| Max | 2.74 | 2.73 | 2.62 | 2.48 | 5.64 | 5.22 | 8.75 | 9.32 | 9.52 | 6.58 | 2.81 | 1.89 |
| Min | 2.00 | 1.68 | 1.95 | 2.26 | 1.54 | 2.43 | 2.67 | 5.33 | 3.88 | 2.34 | 1.75 | 1.46 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Venkham
 WATER LEVEL HISTORICAL, YEAR 2007

| Day | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|-------|------|------|------|
| 1 | 1.42 | 1.61 | 2.16 | 2.02 | 2.18 | 2.62 | 3.71 | 4.66 | 6.11 | 3.82 | 3.07 | 1.83 |
| 2 | 1.45 | 1.52 | 2.14 | 2.01 | 2.19 | 2.37 | 3.51 | 5.35 | 6.13 | 3.73 | 3.11 | 1.76 |
| 3 | 1.73 | 1.54 | 2.12 | 2.08 | 2.09 | 2.13 | 3.49 | 6.28 | 5.59 | 3.55 | 3.10 | 1.49 |
| 4 | 1.79 | 1.45 | 2.09 | 2.08 | 2.07 | 2.31 | 3.66 | 6.10 | 6.20 | 3.39 | 2.54 | 1.76 |
| 5 | 1.74 | 1.28 | 1.75 | 2.14 | 2.14 | 2.23 | 3.53 | 5.42 | 7.68 | 3.37 | 1.98 | 1.82 |
| 6 | 1.63 | 1.53 | 1.81 | 1.99 | 2.12 | 2.25 | 3.41 | 4.84 | 9.46 | 4.79 | 2.83 | 1.80 |
| 7 | 1.51 | 1.63 | 1.83 | 1.87 | 1.97 | 2.31 | 3.28 | 5.01 | 10.09 | 8.00 | 2.94 | 1.80 |
| 8 | 1.50 | 1.75 | 1.84 | 1.87 | 2.15 | 2.24 | 3.23 | 5.22 | 10.43 | 9.46 | 2.90 | 1.78 |
| 9 | 1.59 | 1.74 | 1.85 | 1.88 | 2.14 | 2.20 | 3.19 | 5.56 | 10.01 | 9.42 | 2.96 | 1.43 |
| 10 | 1.74 | 1.77 | 2.03 | 1.88 | 2.15 | 1.86 | 3.14 | 5.68 | 9.54 | 9.08 | 2.94 | 1.42 |
| 11 | 1.78 | 1.70 | 2.13 | 2.09 | 2.12 | 1.48 | 3.21 | 5.70 | 9.37 | 8.54 | 2.58 | 1.63 |
| 12 | 1.67 | 1.59 | 1.76 | 2.18 | 2.05 | 1.60 | 3.20 | 5.60 | 9.08 | 8.25 | 2.38 | 1.74 |
| 13 | 1.62 | 1.85 | 2.02 | 2.27 | 1.98 | 1.67 | 3.17 | 5.16 | 9.00 | 7.65 | 2.59 | 1.77 |
| 14 | 1.68 | 1.95 | 2.09 | 2.18 | 1.94 | 1.52 | 2.97 | 4.53 | 8.55 | 6.81 | 2.61 | 1.78 |
| 15 | 1.55 | 1.98 | 1.97 | 2.21 | 1.95 | 1.45 | 2.26 | 4.47 | 8.63 | 6.35 | 2.60 | 1.74 |
| 16 | 1.57 | 1.98 | 2.08 | 2.07 | 2.06 | 1.40 | 2.37 | 3.94 | 7.49 | 6.17 | 2.34 | 1.76 |
| 17 | 1.57 | 1.99 | 2.06 | 2.13 | 2.16 | 2.09 | 2.59 | 4.12 | 7.08 | 5.75 | 2.51 | 1.35 |
| 18 | 1.57 | 1.94 | 2.11 | 2.16 | 2.20 | 1.92 | 2.63 | 4.71 | 7.12 | 6.03 | 2.52 | 1.62 |
| 19 | 1.62 | 1.66 | 1.82 | 2.17 | 2.44 | 2.85 | 2.69 | 4.48 | 7.62 | 5.30 | 2.52 | 1.67 |
| 20 | 1.61 | 1.84 | 2.01 | 2.16 | 2.24 | 2.98 | 2.72 | 4.81 | 8.15 | 4.97 | 2.50 | 1.75 |
| 21 | 1.55 | 1.97 | 2.04 | 2.20 | 2.16 | 2.82 | 2.78 | 5.17 | 7.88 | 4.24 | 2.48 | 1.92 |
| 22 | 1.47 | 2.02 | 2.07 | 2.27 | 2.41 | 2.61 | 2.12 | 5.66 | 6.98 | 3.83 | 2.50 | 1.96 |
| 23 | 1.54 | 2.06 | 2.09 | 2.06 | 2.46 | 2.79 | 2.10 | 5.71 | 6.79 | 3.88 | 2.50 | 1.55 |
| 24 | 1.55 | 2.07 | 2.10 | 2.16 | 2.47 | 2.20 | 2.17 | 6.19 | 6.67 | 3.75 | 2.47 | 1.56 |
| 25 | 1.57 | 1.89 | 2.09 | 2.18 | 2.40 | 2.07 | 3.14 | 6.03 | 5.29 | 3.61 | 2.43 | 1.79 |
| 26 | 1.40 | 1.69 | 1.73 | 2.23 | 2.46 | 2.56 | 3.13 | 6.60 | 5.37 | 3.54 | 1.92 | 1.90 |
| 27 | 1.70 | 1.94 | 1.88 | 2.19 | 2.48 | 2.99 | 3.26 | 6.58 | 4.56 | 3.48 | 2.05 | 1.86 |
| 28 | 1.67 | 2.12 | 1.94 | 2.20 | 2.37 | 3.79 | 3.62 | 6.02 | 4.31 | 3.30 | 2.06 | 1.88 |
| 29 | 1.45 | | 1.95 | 2.21 | 2.46 | 4.14 | 3.88 | 5.46 | 4.10 | 2.79 | 1.83 | 1.90 |
| 30 | 1.57 | | 1.97 | 1.94 | 2.47 | 3.99 | 4.04 | 5.48 | 3.98 | 3.05 | 1.86 | 1.44 |
| 31 | 1.65 | | 1.92 | | 2.44 | | 4.23 | 5.68 | | 2.62 | | 1.54 |
| Mean | 1.59 | 1.79 | 1.98 | 2.10 | 2.22 | 2.38 | 3.12 | 5.37 | 7.32 | 5.25 | 2.52 | 1.69 |
| Max | 1.79 | 2.12 | 2.16 | 2.27 | 2.48 | 4.14 | 4.23 | 6.60 | 10.43 | 9.46 | 3.11 | 1.96 |
| Min | 1.40 | 1.28 | 1.73 | 1.87 | 1.94 | 1.40 | 2.10 | 3.94 | 3.98 | 2.62 | 1.83 | 1.34 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 400 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 2008

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|-------|-------|------|------|------|------|
| 1 | 1.78 | 1.74 | 1.74 | 2.06 | 2.32 | 3.42 | 6.48 | 11.95 | 9.95 | 6.68 | 4.02 | 2.62 |
| 2 | 1.81 | 1.71 | 1.66 | 2.34 | 2.36 | 3.99 | 7.25 | 12.18 | 9.69 | 6.73 | 4.00 | 2.55 |
| 3 | 1.84 | 1.58 | 1.69 | 2.78 | 2.28 | 4.10 | 7.27 | 12.35 | 9.47 | 6.51 | 4.26 | 2.50 |
| 4 | 1.83 | 1.60 | 1.91 | 2.86 | 2.26 | 4.21 | 6.93 | 12.39 | 9.20 | 6.35 | 4.68 | 2.50 |
| 5 | 1.93 | 1.66 | 2.16 | 2.81 | 2.34 | 4.79 | 6.51 | 12.35 | 8.89 | 6.26 | 4.95 | 2.50 |
| 6 | 1.26 | 1.53 | 2.18 | 2.27 | 2.24 | 4.86 | 6.18 | 12.31 | 8.83 | 6.14 | 4.86 | 2.45 |
| 7 | 1.14 | 1.51 | 2.20 | 2.15 | 2.66 | 6.33 | 6.02 | 12.23 | 9.17 | 6.29 | 4.93 | 2.34 |
| 8 | 1.31 | 1.44 | 2.18 | 2.30 | 3.04 | 6.23 | 5.87 | 12.14 | 9.22 | 7.02 | 5.02 | 2.41 |
| 9 | 1.57 | 1.29 | 1.86 | 2.36 | 3.20 | 5.73 | 5.77 | 12.08 | 9.42 | 7.47 | 4.97 | 2.42 |
| 10 | 1.57 | 1.30 | 1.71 | 2.30 | 3.21 | 5.24 | 7.06 | 12.03 | 9.27 | 7.10 | 4.92 | 2.43 |
| 11 | 1.53 | 1.24 | 2.18 | 2.37 | 3.14 | 5.04 | 7.57 | 11.99 | 8.76 | 6.68 | 4.62 | 2.40 |
| 12 | 1.58 | 1.21 | 1.62 | 2.33 | 3.56 | 5.33 | 7.80 | 11.99 | 8.64 | 6.22 | 4.21 | 2.43 |
| 13 | 1.23 | 1.23 | 1.93 | 2.08 | 3.75 | 4.81 | 7.72 | 12.3 | 8.34 | 5.90 | 4.01 | 2.42 |
| 14 | 1.45 | 1.58 | 1.75 | 1.94 | 3.38 | 5.29 | 7.61 | 12.64 | 8.05 | 5.60 | 3.74 | 2.32 |
| 15 | 1.58 | 1.66 | 1.76 | 1.96 | 3.24 | 6.22 | 7.90 | 12.86 | 7.72 | 5.30 | 3.82 | 2.27 |
| 16 | 1.58 | 1.74 | 1.77 | 1.96 | 3.15 | 6.98 | 7.49 | 12.96 | 7.51 | 5.03 | 3.35 | 2.38 |
| 17 | 1.57 | 1.61 | 1.79 | 1.96 | 2.65 | 6.86 | 6.85 | 12.94 | 7.36 | 4.79 | 3.24 | 2.38 |
| 18 | 1.53 | 1.52 | 1.79 | 2.25 | 2.75 | 6.54 | 7.34 | 12.86 | 7.28 | 4.62 | 3.11 | 2.36 |
| 19 | 1.53 | 1.64 | 1.82 | 2.32 | 2.83 | 6.45 | 8.30 | 12.77 | 7.40 | 4.50 | 3.03 | 2.32 |
| 20 | 1.27 | 1.72 | 1.81 | 2.19 | 3.12 | 7.25 | 10.80 | 12.65 | 7.70 | 4.41 | 2.96 | 2.36 |
| 21 | 1.11 | 1.72 | 1.85 | 2.09 | 3.29 | 7.61 | 11.38 | 12.54 | 8.19 | 4.51 | 2.91 | 2.22 |
| 22 | 1.44 | 1.75 | 1.91 | 2.05 | 3.25 | 6.99 | 11.55 | 12.44 | 8.37 | 4.43 | 2.86 | 2.13 |
| 23 | 1.58 | 1.72 | 1.92 | 1.96 | 3.54 | 6.39 | 11.45 | 12.3 | 8.45 | 4.30 | 2.84 | 2.23 |
| 24 | 1.54 | 1.59 | 1.97 | 1.94 | 3.41 | 5.98 | 11.18 | 12.14 | 8.20 | 4.28 | 2.81 | 2.32 |
| 25 | 1.56 | 1.51 | 1.93 | 1.94 | 3.28 | 5.41 | 11.05 | 11.98 | 7.65 | 4.45 | 3.01 | 2.28 |
| 26 | 1.55 | 1.74 | 1.88 | 1.94 | 3.73 | 5.16 | 11.17 | 11.73 | 7.17 | 4.35 | 2.91 | 2.23 |
| 27 | 1.20 | 1.72 | 1.86 | 1.96 | 3.26 | 4.98 | 11.57 | 11.43 | 6.76 | 4.12 | 2.83 | 2.19 |
| 28 | 1.09 | 1.74 | 2.00 | 2.00 | 3.24 | 4.85 | 11.47 | 11.11 | 6.46 | 4.20 | 2.80 | 2.03 |
| 29 | 1.44 | 1.83 | 2.06 | 1.91 | 3.32 | 5.38 | 11.61 | 10.69 | 6.30 | 4.28 | 2.93 | 1.95 |
| 30 | 1.56 | | 1.96 | 2.03 | 3.26 | 6.09 | 11.69 | 10.38 | 6.59 | 4.16 | 2.73 | 2.00 |
| 31 | 1.65 | | 1.99 | | 3.28 | | 11.76 | 10.06 | | 3.84 | | 2.14 |
| Mean | 1.50 | 1.57 | 1.90 | 2.18 | 3.04 | 5.63 | 8.72 | 12.09 | 8.20 | 5.37 | 3.70 | 2.33 |
| Max | 1.93 | 1.83 | 2.2 | 2.86 | 3.75 | 7.61 | 11.76 | 12.96 | 9.95 | 7.47 | 5.02 | 2.62 |
| Min | 1.09 | 1.21 | 1.62 | 1.91 | 2.24 | 3.42 | 5.77 | 10.06 | 6.3 | 3.84 | 2.73 | 1.95 |

Station Characteristics of station : 231201
 Station name : Vennkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 400 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vennkham
 WATER LEVEL HISTORICAL, YEAR 2009

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 2.14 | 2.01 | 3.49 | 2.02 | 2.18 | 5.18 | 5.56 | 5.72 | 6.40 | 4.70 | 2.42 | 1.52 |
| 2 | 2.14 | 1.84 | 4.77 | 2.04 | 2.10 | 4.87 | 5.65 | 4.97 | 6.19 | 4.44 | 2.37 | 1.37 |
| 3 | 2.15 | 1.85 | 5.14 | 2.04 | 2.00 | 4.36 | 5.83 | 5.09 | 5.96 | 4.32 | 2.27 | 1.37 |
| 4 | 2.08 | 1.90 | 5.28 | 2.02 | 1.98 | 4.48 | 5.78 | 5.00 | 5.88 | 3.80 | 2.26 | 1.40 |
| 5 | 2.10 | 2.00 | 5.21 | 2.01 | 2.02 | 3.51 | 5.46 | 4.93 | 5.84 | 3.76 | 2.23 | 1.33 |
| 6 | 2.00 | 2.00 | 5.18 | 2.02 | 1.98 | 3.41 | 6.62 | 4.75 | 5.36 | 3.92 | 2.21 | 1.29 |
| 7 | 2.00 | 2.01 | 5.73 | 2.04 | 1.94 | 4.04 | 7.87 | 4.61 | 5.78 | 3.93 | 2.19 | 1.36 |
| 8 | 2.24 | 2.02 | 3.42 | 2.03 | 1.94 | 4.51 | 7.92 | 4.58 | 5.73 | 4.02 | 2.15 | 1.32 |
| 9 | 2.32 | 2.06 | 4.67 | 2.02 | 1.64 | 4.22 | 8.06 | 4.98 | 5.59 | 4.06 | 2.11 | 1.25 |
| 10 | 2.35 | 2.34 | 5.04 | 2.03 | 1.92 | 3.79 | 7.97 | 5.15 | 5.21 | 4.10 | 1.84 | 1.85 |
| 11 | 2.15 | 2.32 | 5.10 | 2.00 | 1.94 | 3.36 | 7.41 | 5.35 | 4.90 | 3.60 | 1.79 | 1.73 |
| 12 | 2.10 | 2.41 | 5.10 | 2.03 | 1.95 | 3.15 | 6.77 | 5.77 | 4.88 | 3.54 | 1.72 | 1.61 |
| 13 | 2.12 | 2.43 | 5.13 | 2.02 | 2.06 | 3.01 | 6.56 | 5.90 | 4.80 | 3.78 | 1.85 | 1.42 |
| 14 | 2.22 | 2.25 | 4.62 | 2.04 | 2.03 | 2.90 | 6.77 | 6.14 | 4.70 | 3.62 | 1.81 | 1.39 |
| 15 | 2.15 | 2.22 | 4.50 | 2.10 | 2.06 | 2.80 | 6.72 | 7.33 | 4.79 | 3.56 | 1.69 | 1.55 |
| 16 | 2.15 | 1.98 | 5.61 | 2.03 | 2.18 | 2.85 | 6.50 | 8.47 | 5.50 | 3.43 | 1.63 | 1.55 |
| 17 | 2.12 | 2.31 | 5.65 | 2.02 | 2.30 | 3.09 | 6.32 | 7.95 | 6.22 | 3.40 | 1.62 | 1.39 |
| 18 | 2.10 | 2.28 | 5.30 | 2.03 | 2.30 | 3.75 | 6.53 | 7.29 | 7.51 | 3.12 | 1.58 | 1.51 |
| 19 | 2.08 | 2.72 | 5.01 | 1.79 | 2.28 | 4.28 | 6.68 | 6.55 | 7.99 | 3.07 | 1.64 | 1.30 |
| 20 | 2.05 | 2.77 | 5.00 | 1.78 | 2.26 | 4.53 | 6.54 | 6.30 | 7.09 | 3.47 | 1.57 | 1.24 |
| 21 | 2.06 | 2.62 | 4.64 | 1.96 | 2.22 | 4.59 | 6.17 | 6.05 | 6.36 | 3.64 | 1.57 | 1.02 |
| 22 | 2.08 | 2.68 | 4.56 | 1.95 | 2.28 | 4.35 | 5.93 | 5.94 | 6.04 | 4.24 | 1.52 | 1.14 |
| 23 | 2.08 | 2.40 | 4.74 | 2.02 | 2.28 | 3.83 | 6.31 | 6.60 | 5.50 | 3.92 | 1.55 | 1.09 |
| 24 | 2.06 | 2.13 | 5.17 | 1.99 | 2.56 | 3.73 | 7.11 | 6.81 | 5.68 | 3.80 | 1.52 | 1.07 |
| 25 | 2.04 | 2.10 | 4.98 | 1.96 | 2.50 | 3.97 | 7.25 | 6.50 | 5.56 | 3.32 | 1.52 | 1.05 |
| 26 | 2.05 | 2.12 | 4.92 | 2.02 | 2.63 | 3.97 | 7.05 | 6.25 | 5.35 | 3.02 | 1.53 | 1.03 |
| 27 | 2.05 | 2.10 | 4.96 | 2.00 | 2.90 | 3.83 | 6.71 | 6.16 | 4.98 | 2.90 | 1.55 | 1.04 |
| 28 | 2.03 | 2.10 | 4.89 | 2.12 | 3.70 | 3.95 | 6.21 | 6.12 | 4.96 | 3.04 | 1.55 | 1.19 |
| 29 | 2.05 | | 4.82 | 2.08 | 3.44 | 4.07 | 5.62 | 6.51 | 5.11 | 2.76 | 1.59 | 1.03 |
| 30 | 2.02 | | 4.91 | 2.08 | 5.11 | 4.70 | 5.40 | 6.73 | 4.89 | 2.60 | 1.60 | 1.06 |
| 31 | 2.02 | | 4.94 | | 5.95 | | 5.19 | 6.52 | | 2.54 | | 1.05 |
| Mean | 2.11 | 2.21 | 4.85 | 2.01 | 2.54 | 3.90 | 6.53 | 6.03 | 5.72 | 3.59 | 1.81 | 1.30 |
| Max | 2.35 | 2.77 | 5.65 | 2.12 | 5.95 | 5.18 | 8.06 | 8.47 | 7.99 | 4.70 | 2.42 | 1.85 |
| Min | 2.00 | 1.84 | 3.42 | 1.78 | 1.64 | 2.80 | 5.19 | 4.58 | 4.70 | 2.54 | 1.52 | 1.02 |

Station Characteristics of station : 231201
 Station name : Vengkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vengkham
 WATER LEVEL HISTORICAL, YEAR 2010

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|-------|------|------|------|
| 1 | 1.02 | 1.12 | 1.15 | 1.64 | 1.80 | 2.07 | 2.43 | 4.93 | 9.69 | 6.79 | 2.96 | 2.33 |
| 2 | 1.01 | 1.30 | 1.56 | 1.65 | 1.67 | 2.00 | 2.19 | 4.81 | 10.00 | 6.39 | 2.89 | 2.38 |
| 3 | 1.10 | 1.35 | 1.72 | 1.66 | 1.65 | 2.16 | 2.56 | 5.85 | 9.97 | 6.00 | 2.88 | 2.40 |
| 4 | 1.12 | 1.39 | 1.78 | 1.58 | 1.82 | 2.14 | 3.25 | 6.75 | 9.39 | 5.81 | 2.82 | 2.31 |
| 5 | 1.06 | 1.42 | 1.72 | 1.49 | 1.93 | 2.16 | 3.33 | 7.46 | 8.93 | 5.66 | 2.68 | 2.25 |
| 6 | 1.07 | 1.38 | 1.74 | 1.63 | 1.98 | 1.94 | 2.92 | 8.35 | 8.59 | 5.38 | 2.62 | 2.20 |
| 7 | 1.05 | 1.19 | 1.30 | 1.70 | 1.99 | 2.16 | 2.65 | 9.01 | 8.59 | 5.14 | 2.43 | 2.31 |
| 8 | 1.08 | 1.15 | 1.43 | 1.72 | 1.86 | 2.26 | 2.92 | 8.99 | 8.28 | 4.88 | 2.33 | 2.31 |
| 9 | 1.08 | 1.30 | 1.54 | 1.76 | 1.88 | 2.92 | 3.24 | 8.91 | 7.85 | 4.71 | 2.41 | 2.29 |
| 10 | 1.06 | 1.41 | 1.66 | 1.72 | 1.92 | 2.96 | 3.09 | 8.39 | 7.70 | 4.18 | 2.45 | 2.47 |
| 11 | 1.05 | 1.39 | 1.72 | 1.56 | 1.86 | 2.76 | 2.33 | 7.82 | 7.48 | 4.16 | 2.41 | 2.53 |
| 12 | 1.04 | 1.40 | 1.70 | 1.66 | 2.00 | 2.60 | 2.27 | 7.60 | 7.14 | 3.93 | 2.38 | 2.56 |
| 13 | 1.03 | 1.42 | 1.72 | 1.80 | 2.02 | 2.24 | 2.64 | 7.78 | 7.03 | 3.57 | 2.35 | 2.56 |
| 14 | 1.40 | 1.28 | 1.56 | 1.86 | 1.31 | 2.28 | 2.62 | 7.99 | 8.17 | 3.41 | 2.20 | 2.55 |
| 15 | 1.44 | 1.31 | 1.52 | 1.72 | 1.96 | 2.42 | 2.55 | 7.95 | 9.70 | 3.51 | 2.11 | 2.57 |
| 16 | 1.42 | 1.31 | 1.84 | 1.71 | 1.94 | 2.45 | 2.49 | 7.95 | 11.10 | 3.58 | 2.24 | 2.56 |
| 17 | 1.08 | 1.34 | 1.89 | 1.73 | 1.90 | 2.40 | 2.52 | 8.11 | 11.54 | 3.47 | 2.28 | 2.57 |
| 18 | 1.30 | 1.44 | 1.33 | 1.72 | 1.98 | 2.30 | 2.71 | 9.44 | 11.52 | 3.45 | 2.49 | 2.59 |
| 19 | 1.28 | 1.43 | 1.69 | 1.74 | 2.10 | 2.24 | 4.50 | 10.01 | 11.21 | 3.44 | 2.46 | 2.82 |
| 20 | 1.25 | 1.44 | 1.68 | 1.87 | 2.12 | 1.94 | 5.73 | 10.11 | 10.73 | 3.47 | 2.49 | 3.11 |
| 21 | 1.34 | 1.24 | 1.54 | 1.92 | 2.14 | 1.80 | 5.46 | 9.40 | 10.37 | 3.41 | 2.48 | 3.18 |
| 22 | 1.40 | 1.12 | 1.50 | 1.90 | 1.12 | 2.30 | 4.74 | 8.19 | 9.79 | 3.39 | 2.29 | 3.19 |
| 23 | 1.49 | 1.32 | 1.66 | 1.97 | 1.67 | 2.58 | 4.51 | 7.61 | 9.48 | 3.14 | 2.40 | 3.17 |
| 24 | 1.37 | 1.41 | 1.70 | 1.97 | 1.80 | 2.42 | 4.79 | 7.22 | 8.90 | 2.94 | 2.25 | 3.17 |
| 25 | 1.29 | 1.42 | 1.69 | 1.86 | 2.00 | 2.67 | 5.70 | 7.28 | 9.14 | 2.91 | 2.33 | 3.15 |
| 26 | 1.44 | 1.45 | 1.66 | 1.54 | 2.15 | 3.89 | 6.63 | 8.53 | 8.97 | 2.95 | 2.19 | 3.16 |
| 27 | 1.45 | 1.42 | 1.65 | 1.71 | 2.20 | 3.06 | 6.49 | 9.15 | 8.10 | 3.32 | 2.21 | 3.14 |
| 28 | 1.42 | 1.24 | 1.63 | 1.72 | 2.23 | 2.46 | 5.67 | 8.67 | 8.28 | 3.76 | 2.03 | 3.12 |
| 29 | 1.39 | | 1.60 | 1.74 | 2.22 | 2.22 | 4.94 | 7.87 | 7.78 | 3.70 | 2.10 | 3.14 |
| 30 | 1.37 | | 1.64 | 1.81 | 1.80 | 2.42 | 5.01 | 7.42 | 7.35 | 2.55 | 2.16 | 3.13 |
| 31 | 1.22 | | 1.67 | | 1.68 | | 4.96 | 8.27 | | 3.30 | | 3.13 |
| Mean | 1.23 | 1.34 | 1.64 | 1.74 | 1.89 | 2.41 | 3.80 | 7.99 | 9.09 | 4.07 | 2.41 | 2.72 |
| Max | 1.49 | 1.45 | 1.89 | 1.97 | 2.23 | 3.88 | 6.63 | 10.11 | 11.54 | 6.79 | 2.96 | 3.19 |
| Min | 1.01 | 1.12 | 1.15 | 1.49 | 1.12 | 1.80 | 2.19 | 4.81 | 7.03 | 2.53 | 2.03 | 2.20 |

Station Characteristics of station : 231201
 Station name : Vengkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : .000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR

Vengkham
 WATER LEVEL HISTORICAL, YEAR 2011

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|-------|------|-------|-------|-------|------|------|
| 1 | 3.14 | 2.14 | 2.81 | 2.32 | 2.46 | 2.92 | 7.98 | 9.40 | 11.72 | 11.73 | 3.89 | 3.13 |
| 2 | 3.14 | 2.40 | 2.42 | 2.31 | 2.52 | 2.66 | 7.82 | 10.50 | 11.31 | 10.60 | 3.86 | 3.13 |
| 3 | 3.24 | 2.53 | 2.26 | 2.30 | 2.55 | 2.57 | 9.05 | 10.98 | 10.86 | 10.75 | 3.86 | 3.12 |
| 4 | 3.28 | 2.94 | 2.23 | 2.30 | 2.47 | 2.58 | 9.24 | 11.34 | 10.52 | 10.79 | 3.88 | 3.12 |
| 5 | 3.26 | 2.87 | 2.24 | 2.27 | 2.46 | 2.61 | 8.74 | 11.32 | 10.55 | 10.88 | 3.87 | 3.11 |
| 6 | 3.23 | 2.15 | 2.11 | 2.28 | 2.52 | 2.99 | 8.08 | 11.02 | 10.45 | 10.18 | 3.84 | 3.06 |
| 7 | 3.24 | 1.70 | 2.21 | 2.28 | 2.59 | 3.68 | 7.66 | 10.64 | 10.46 | 9.52 | 3.79 | 2.84 |
| 8 | 3.23 | 2.62 | 2.33 | 2.28 | 2.58 | 4.60 | 7.18 | 10.27 | 10.56 | 8.90 | 3.76 | 2.82 |
| 9 | 2.78 | 2.61 | 2.24 | 2.27 | 2.57 | 3.63 | 6.10 | 9.97 | 10.52 | 8.32 | 3.74 | 2.81 |
| 10 | 3.22 | 2.56 | 2.24 | 2.31 | 2.53 | 3.36 | 6.02 | 9.56 | 10.43 | 7.72 | 3.74 | 2.76 |
| 11 | 3.23 | 2.59 | 2.23 | 2.30 | 2.57 | 3.29 | 6.57 | 9.37 | 10.24 | 7.22 | 3.76 | 2.79 |
| 12 | 3.21 | 2.50 | 2.24 | 2.32 | 2.76 | 3.02 | 6.65 | 9.72 | 10.01 | 6.74 | 3.72 | 2.77 |
| 13 | 2.52 | 2.44 | 2.24 | 2.28 | 2.78 | 3.72 | 7.88 | 9.98 | 10.05 | 6.44 | 3.68 | 2.75 |
| 14 | 2.51 | 2.06 | 2.25 | 2.32 | 2.76 | 4.12 | 6.81 | 10.23 | 10.53 | 6.28 | 3.60 | 2.75 |
| 15 | 2.49 | 2.33 | 2.30 | 2.35 | 2.76 | 3.83 | 6.90 | 10.32 | 10.92 | 6.20 | 3.12 | 2.75 |
| 16 | 2.42 | 2.56 | 2.36 | 2.34 | 2.88 | 3.55 | 7.84 | 10.17 | 11.33 | 6.44 | 2.95 | 2.74 |
| 17 | 2.16 | 2.60 | 2.44 | 2.34 | 3.06 | 3.27 | 8.76 | 9.80 | 11.55 | 6.32 | 2.92 | 2.74 |
| 18 | 2.24 | 2.68 | 2.57 | 2.34 | 2.98 | 3.04 | 9.15 | 9.89 | 11.85 | 6.04 | 2.90 | 2.75 |
| 19 | 2.44 | 3.15 | 2.72 | 2.31 | 3.02 | 2.91 | 8.97 | 10.24 | 12.21 | 5.76 | 2.87 | 2.79 |
| 20 | 2.82 | 2.85 | 2.77 | 2.33 | 3.37 | 2.85 | 8.62 | 11.22 | 12.52 | 5.44 | 2.97 | 3.02 |
| 21 | 2.47 | 2.67 | 2.58 | 2.33 | 3.97 | 2.96 | 7.99 | 12.00 | 12.67 | 5.27 | 2.98 | 3.03 |
| 22 | 2.46 | 2.92 | 2.50 | 2.34 | 4.06 | 3.82 | 7.82 | 12.36 | 12.63 | 5.07 | 2.84 | 3.05 |
| 23 | 2.41 | 3.17 | 2.44 | 2.34 | 3.87 | 3.96 | 7.75 | 12.56 | 12.50 | 4.84 | 2.80 | 3.07 |
| 24 | 2.20 | 3.23 | 2.36 | 2.36 | 3.73 | 3.50 | 7.79 | 12.67 | 12.38 | 4.72 | 2.80 | 3.11 |
| 25 | 2.22 | 3.14 | 2.36 | 2.34 | 3.64 | 3.24 | 8.34 | 12.72 | 12.31 | 4.52 | 2.86 | 3.07 |
| 26 | 2.44 | 3.12 | 2.32 | 2.42 | 3.31 | 4.94 | 8.35 | 12.72 | 12.14 | 4.28 | 2.92 | 3.05 |
| 27 | 2.47 | 2.71 | 2.31 | 2.38 | 3.57 | 9.87 | 8.51 | 12.67 | 11.86 | 4.15 | 2.93 | 3.24 |
| 28 | 2.45 | 2.55 | 2.32 | 2.56 | 8.79 | 10.65 | 8.33 | 12.61 | 11.53 | 4.10 | 2.86 | 3.26 |
| 29 | 2.47 | | 2.30 | 2.41 | 3.70 | 10.35 | 8.12 | 12.48 | 11.42 | 4.03 | 3.03 | 3.28 |
| 30 | 2.16 | | 2.34 | 2.42 | 8.72 | 9.34 | 7.84 | 12.29 | 11.15 | 4.00 | 3.14 | 3.27 |
| 31 | 1.88 | | | 2.34 | | 3.38 | | 7.86 | 12.02 | | 3.95 | 3.28 |
| Mean | 2.68 | 2.63 | 2.36 | 2.33 | 3.06 | 4.24 | 7.89 | 11.07 | 11.31 | 6.50 | 3.53 | 2.98 |
| Max | 3.26 | 3.23 | 2.81 | 2.42 | 4.06 | 10.65 | 9.24 | 12.72 | 12.67 | 11.73 | 3.89 | 3.28 |
| Min | 1.88 | 1.70 | 2.11 | 2.27 | 2.46 | 2.57 | 6.02 | 9.37 | 10.01 | 8.95 | 2.80 | 2.74 |

Station Characteristics of station : 231201
 Station name : Venkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR
 WATER LEVEL HISTORICAL, YEAR 2012

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 3.27 | 2.58 | 3.20 | 2.45 | 2.60 | 3.56 | 2.78 | 6.58 | 7.40 | 4.53 | 2.80 | 2.55 |
| 2 | 3.27 | 2.70 | 3.19 | 2.42 | 2.57 | 3.75 | 2.95 | 6.86 | 8.02 | 4.53 | 2.76 | 2.67 |
| 3 | 3.26 | 2.90 | 3.20 | 2.47 | 2.56 | 4.56 | 4.38 | 6.96 | 8.57 | 4.20 | 2.74 | 2.58 |
| 4 | 3.26 | 3.01 | 3.31 | 2.47 | 2.51 | 5.08 | 4.54 | 6.92 | 8.91 | 4.05 | 2.70 | 2.56 |
| 5 | 3.27 | 2.88 | 3.12 | 2.52 | 2.51 | 4.92 | 4.10 | 6.57 | 8.90 | 3.98 | 2.70 | 2.55 |
| 6 | 3.27 | 3.32 | 2.61 | 2.40 | 2.50 | 4.52 | 4.22 | 6.08 | 8.52 | 3.99 | 2.84 | 2.54 |
| 7 | 3.28 | 3.38 | 2.48 | 2.51 | 2.54 | 4.36 | 4.18 | 5.54 | 8.14 | 3.76 | 2.87 | 2.53 |
| 8 | 3.32 | 3.40 | 2.47 | 2.51 | 2.56 | 4.26 | 4.62 | 5.33 | 8.04 | 3.52 | 2.85 | 2.53 |
| 9 | 3.33 | 3.13 | 2.45 | 2.52 | 2.58 | 4.45 | 4.98 | 5.62 | 7.99 | 3.45 | 2.91 | 2.43 |
| 10 | 3.32 | 3.30 | 2.42 | 2.53 | 2.59 | 4.46 | 5.30 | 6.96 | 7.94 | 3.40 | 2.64 | 2.52 |
| 11 | 3.31 | 3.30 | 2.44 | 2.50 | 2.68 | 4.40 | 5.19 | 9.37 | 7.42 | 3.32 | 2.54 | 2.52 |
| 12 | 3.31 | 3.39 | 2.42 | 2.50 | 2.88 | 4.31 | 5.02 | 9.58 | 6.78 | 3.34 | 2.61 | 2.52 |
| 13 | 3.32 | 3.39 | 2.43 | 2.50 | 2.88 | 4.00 | 4.96 | 8.94 | 6.30 | 3.00 | 2.59 | 2.54 |
| 14 | 3.32 | 3.42 | 2.47 | 2.51 | 2.77 | 3.70 | 5.30 | 8.03 | 6.04 | 3.22 | 2.59 | 2.57 |
| 15 | 3.16 | 3.26 | 2.69 | 2.50 | 2.88 | 3.26 | 5.38 | 7.44 | 5.80 | 3.20 | 2.58 | 2.54 |
| 16 | 3.29 | 3.10 | 2.36 | 2.49 | 2.89 | 3.03 | 5.10 | 6.85 | 5.66 | 3.10 | 2.57 | 2.52 |
| 17 | 3.32 | 3.05 | 2.44 | 2.48 | 2.72 | 3.02 | 4.78 | 6.45 | 5.57 | 3.02 | 2.56 | 2.50 |
| 18 | 3.30 | 3.06 | 2.46 | 2.46 | 2.64 | 3.19 | 4.55 | 6.42 | 5.52 | 2.90 | 2.54 | 2.49 |
| 19 | 2.80 | 3.05 | 2.44 | 2.46 | 2.69 | 3.51 | 4.34 | 6.10 | 5.60 | 2.96 | 2.53 | 2.49 |
| 20 | 2.63 | 3.04 | 2.47 | 2.46 | 2.69 | 3.42 | 4.25 | 6.06 | 5.88 | 2.94 | 2.52 | 2.48 |
| 21 | 2.62 | 3.03 | 2.50 | 2.45 | 2.69 | 3.39 | 4.36 | 6.02 | 5.79 | 2.93 | 2.51 | 2.49 |
| 22 | 2.61 | 3.18 | 2.50 | 2.52 | 2.62 | 3.40 | 4.30 | 6.12 | 5.34 | 2.92 | 2.51 | 2.50 |
| 23 | 2.61 | 3.17 | 2.52 | 2.52 | 2.86 | 3.36 | 4.21 | 6.27 | 4.96 | 2.76 | 2.51 | 2.49 |
| 24 | 2.61 | 3.18 | 2.72 | 2.51 | 2.96 | 3.32 | 4.17 | 6.50 | 4.86 | 2.72 | 2.53 | 2.48 |
| 25 | 2.60 | 3.18 | 2.68 | 2.50 | 3.00 | 3.29 | 4.30 | 7.02 | 5.12 | 2.68 | 2.56 | 2.67 |
| 26 | 2.59 | 3.06 | 2.51 | 2.46 | 3.16 | 3.26 | 5.40 | 7.24 | 5.07 | 2.70 | 2.57 | 2.30 |
| 27 | 2.58 | 3.18 | 2.49 | 2.46 | 3.44 | 3.14 | 5.62 | 7.31 | 4.96 | 2.76 | 2.57 | 2.80 |
| 28 | 2.52 | 3.18 | 2.47 | 2.45 | 3.33 | 2.85 | 5.37 | 7.48 | 4.74 | 2.77 | 2.58 | 2.72 |
| 29 | 2.58 | | 2.46 | 2.44 | 2.97 | 2.78 | 5.28 | 7.35 | 4.60 | 2.74 | 2.65 | 2.69 |
| 30 | 2.59 | | 2.46 | 2.58 | 3.45 | 2.74 | 5.52 | 7.34 | 4.58 | 2.70 | 2.89 | 2.68 |
| 31 | 2.60 | | 2.46 | | 3.18 | | 6.01 | 7.35 | | 2.79 | | 2.65 |
| Mean | 3.00 | 3.14 | 2.61 | 2.49 | 2.80 | 3.71 | 4.69 | 6.92 | 6.43 | 3.25 | 2.64 | 2.56 |
| Max | 3.33 | 3.42 | 3.31 | 2.58 | 3.45 | 5.08 | 6.01 | 9.58 | 8.91 | 4.53 | 2.89 | 2.85 |
| Min | 2.52 | 2.58 | 2.36 | 2.40 | 2.50 | 2.74 | 2.78 | 5.33 | 4.58 | 2.68 | 2.51 | 2.30 |

Station Characteristics of station : 231201
 Station name : Venkham Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR
 WATER LEVEL HISTORICAL, YEAR 2013

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|------|------|------|------|
| 1 | 2.74 | 2.54 | 2.34 | 2.96 | 3.08 | 3.05 | 4.28 | 7.41 | 7.19 | 5.98 | 4.09 | 2.49 |
| 2 | 3.08 | 3.04 | 2.42 | 2.96 | 3.13 | 3.66 | 4.33 | 7.52 | 7.18 | 5.72 | 3.72 | 2.06 |
| 3 | 3.00 | 3.14 | 2.40 | 2.95 | 3.16 | 3.05 | 3.85 | 7.56 | 6.92 | 5.35 | 2.98 | 2.50 |
| 4 | 2.56 | 3.15 | 2.42 | 2.87 | 3.11 | 3.11 | 3.98 | 7.80 | 6.60 | 5.14 | 2.95 | 2.65 |
| 5 | 2.33 | 3.14 | 2.42 | 2.79 | 3.05 | 3.38 | 4.13 | 7.97 | 6.38 | 4.98 | 3.02 | 2.59 |
| 6 | 2.36 | 3.12 | 2.41 | 2.82 | 2.99 | 3.83 | 3.94 | 8.92 | 8.42 | 4.82 | 3.06 | 2.39 |
| 7 | 2.38 | 3.12 | 2.40 | 2.83 | 3.06 | 4.41 | 3.64 | 8.19 | 9.23 | 4.67 | 3.07 | 2.40 |
| 8 | 2.39 | 3.12 | 2.40 | 2.84 | 3.10 | 4.24 | 4.16 | 7.90 | 9.99 | 4.52 | 3.05 | 2.56 |
| 9 | 2.47 | 3.12 | 2.75 | 2.81 | 3.09 | 4.04 | 4.45 | 8.90 | 9.98 | 4.39 | 3.01 | 2.51 |
| 10 | 2.46 | 3.12 | 2.95 | 2.84 | 3.07 | 4.15 | 4.31 | 10.35 | 9.96 | 4.32 | 2.97 | 3.06 |
| 11 | 2.46 | 3.13 | 3.00 | 2.82 | 3.07 | 4.37 | 4.42 | 10.93 | 9.51 | 4.26 | 2.95 | 2.94 |
| 12 | 2.48 | 3.11 | 3.09 | 2.84 | 3.10 | 4.12 | 5.46 | 11.13 | 9.47 | 4.14 | 2.93 | 3.04 |
| 13 | 2.45 | 2.71 | 3.00 | 2.83 | 3.01 | 4.36 | 5.65 | 11.13 | 9.17 | 3.66 | 2.90 | 3.27 |
| 14 | 2.46 | 2.51 | 2.99 | 3.08 | 3.02 | 4.22 | 5.49 | 10.97 | 9.50 | 3.52 | 2.58 | 3.41 |
| 15 | 2.47 | 2.47 | 2.98 | 3.18 | 3.08 | 4.03 | 5.32 | 10.75 | 8.84 | 3.51 | 2.58 | 3.16 |
| 16 | 2.50 | 2.45 | 2.63 | 3.20 | 3.07 | 3.71 | 5.21 | 10.32 | 8.52 | 3.65 | 2.87 | 3.03 |
| 17 | 2.50 | 2.45 | 2.35 | 3.18 | 3.06 | 3.42 | 4.85 | 9.79 | 8.07 | 3.60 | 2.84 | 3.24 |
| 18 | 2.50 | 2.44 | 2.32 | 2.97 | 3.05 | 3.21 | 5.45 | 9.15 | 7.66 | 3.39 | 2.84 | 2.66 |
| 19 | 2.53 | 2.44 | 2.31 | 2.86 | 3.06 | 3.09 | 5.96 | 8.45 | 7.46 | 3.35 | 2.82 | 2.47 |
| 20 | 2.53 | 2.44 | 2.28 | 2.86 | 3.06 | 3.06 | 5.64 | 7.79 | 7.27 | 3.38 | 2.78 | 2.92 |
| 21 | 2.49 | 2.43 | 2.24 | 3.01 | 3.08 | 3.12 | 5.40 | 7.05 | 7.01 | 3.15 | 2.53 | 3.40 |
| 22 | 2.51 | 2.44 | 2.30 | 3.03 | 3.08 | 3.28 | 5.48 | 6.86 | 6.78 | 3.34 | 2.75 | 3.09 |
| 23 | 2.51 | 2.44 | 2.32 | 3.04 | 3.04 | 3.27 | 6.14 | 7.26 | 6.55 | 2.93 | 2.67 | 2.63 |
| 24 | 2.51 | 2.44 | 2.32 | 2.97 | 3.08 | 3.33 | 6.07 | 7.79 | 6.28 | 2.58 | 2.26 | 2.57 |
| 25 | 2.51 | 2.45 | 2.32 | 3.03 | 3.13 | 3.38 | 6.12 | 7.90 | 5.93 | 2.52 | 2.09 | 2.47 |
| 26 | 2.52 | 2.44 | 2.33 | 3.04 | 3.19 | 4.70 | 6.68 | 7.64 | 5.84 | 3.19 | 2.24 | 2.36 |
| 27 | 2.48 | 2.43 | 2.32 | 3.06 | 3.31 | 4.96 | 6.86 | 7.11 | 6.23 | 3.35 | 2.65 | 2.31 |
| 28 | 2.53 | 2.42 | 2.31 | 3.04 | 3.28 | 4.69 | 6.84 | 7.25 | 6.44 | 3.44 | 2.65 | 2.33 |
| 29 | 2.48 | | 2.30 | 3.05 | 2.95 | 4.47 | 6.59 | 6.61 | 6.51 | 3.58 | 2.63 | 1.90 |
| 30 | 2.44 | | 2.53 | 3.04 | 2.57 | 4.40 | 7.15 | 6.61 | 6.35 | 3.58 | 2.61 | 2.02 |
| 31 | 2.42 | | 2.58 | | 2.90 | | 7.58 | 6.78 | | 3.35 | | 2.21 |
| Mean | 2.52 | 2.72 | 2.52 | 2.96 | 3.06 | 3.80 | 5.33 | 8.44 | 7.72 | 5.94 | 2.85 | 2.66 |
| Max | 3.05 | 3.15 | 3.00 | 3.20 | 3.31 | 4.96 | 7.58 | 11.13 | 9.99 | 5.98 | 4.09 | 3.41 |
| Min | 2.33 | 2.42 | 2.24 | 2.79 | 2.57 | 3.05 | 3.64 | 6.61 | 5.84 | 2.85 | 2.09 | 1.90 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 53' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR
 WATER LEVEL HISTORICAL, YEAR 2014

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 2.31 | 2.51 | 2.50 | 2.52 | 2.64 | 2.59 | 3.00 | 6.94 | 8.64 | 6.02 | 3.38 | 2.36 |
| 2 | 2.28 | 2.48 | 2.58 | 2.64 | 2.63 | 2.44 | 3.01 | 6.73 | 8.43 | 5.51 | 3.06 | 2.39 |
| 3 | 2.28 | 2.50 | 2.50 | 2.67 | 2.62 | 2.27 | 2.95 | 6.48 | 9.64 | 5.72 | 2.52 | 2.42 |
| 4 | 2.30 | 2.50 | 2.49 | 2.70 | 2.58 | 2.29 | 2.82 | 6.47 | 9.72 | 5.61 | 3.02 | 2.43 |
| 5 | 2.32 | 2.49 | 2.50 | 2.67 | 2.54 | 2.26 | 2.73 | 6.80 | 9.81 | 5.47 | 3.00 | 2.42 |
| 6 | 2.33 | 2.50 | 2.50 | 2.72 | 2.52 | 2.20 | 2.65 | 7.69 | 9.87 | 5.29 | 3.16 | 2.42 |
| 7 | 2.47 | 2.50 | 2.48 | 2.62 | 2.52 | 2.27 | 2.59 | 8.56 | 9.78 | 5.00 | 3.10 | 2.27 |
| 8 | 2.57 | 2.48 | 2.48 | 2.58 | 2.55 | 2.32 | 2.46 | 8.06 | 9.54 | 4.96 | 3.19 | 2.10 |
| 9 | 2.80 | 2.48 | 2.49 | 2.69 | 2.59 | 2.28 | 2.55 | 7.49 | 9.14 | 4.83 | 3.18 | 2.28 |
| 10 | 2.58 | 2.47 | 2.48 | 2.70 | 2.76 | 2.16 | 2.71 | 7.08 | 8.46 | 4.73 | 3.07 | 2.38 |
| 11 | 2.54 | 2.46 | 2.50 | 2.70 | 2.85 | 2.24 | 2.88 | 6.81 | 7.86 | 4.66 | 3.19 | 2.40 |
| 12 | 2.54 | 2.40 | 2.50 | 2.70 | 2.85 | 2.38 | 3.23 | 6.39 | 7.49 | 4.59 | 3.18 | 2.40 |
| 13 | 2.53 | 2.45 | 2.49 | 2.67 | 2.86 | 2.44 | 3.62 | 5.97 | 7.42 | 4.42 | 3.16 | 2.56 |
| 14 | 2.53 | 2.46 | 2.44 | 2.57 | 2.81 | 2.45 | 4.09 | 5.56 | 7.56 | 4.25 | 3.14 | 2.42 |
| 15 | 2.54 | 2.47 | 2.48 | 2.53 | 2.81 | 2.38 | 4.22 | 5.80 | 7.66 | 4.14 | 3.12 | 2.35 |
| 16 | 2.54 | 2.48 | 2.52 | 2.52 | 2.90 | 2.37 | 4.09 | 6.25 | 7.40 | 4.10 | 3.10 | 2.53 |
| 17 | 2.52 | 2.44 | 2.50 | 2.53 | 2.92 | 2.61 | 3.93 | 6.23 | 7.10 | 4.08 | 2.96 | 2.57 |
| 18 | 2.51 | 2.44 | 2.50 | 2.51 | 2.92 | 2.84 | 4.21 | 6.21 | 7.24 | 4.12 | 3.02 | 2.57 |
| 19 | 2.52 | 2.43 | 2.63 | 2.51 | 2.90 | 3.11 | 4.70 | 6.15 | 7.30 | 4.11 | 3.10 | 2.57 |
| 20 | 2.52 | 2.43 | 2.66 | 2.49 | 2.88 | 3.44 | 4.94 | 6.26 | 7.36 | 4.03 | 3.09 | 2.57 |
| 21 | 2.53 | 2.44 | 2.67 | 2.46 | 2.85 | 3.46 | 4.88 | 6.48 | 7.14 | 3.99 | 2.87 | 2.22 |
| 22 | 2.50 | 2.44 | 2.68 | 2.46 | 2.63 | 3.30 | 4.81 | 6.69 | 6.85 | 3.63 | 2.75 | 2.07 |
| 23 | 2.50 | 2.45 | 2.67 | 2.47 | 2.76 | 3.06 | 4.62 | 6.79 | 6.90 | 3.63 | 2.55 | 2.32 |
| 24 | 2.50 | 2.45 | 2.68 | 2.48 | 2.77 | 2.90 | 4.36 | 6.84 | 7.54 | 3.57 | 2.43 | 2.36 |
| 25 | 2.53 | 2.44 | 2.56 | 2.48 | 2.67 | 2.91 | 4.59 | 6.59 | 7.94 | 3.40 | 2.58 | 2.32 |
| 26 | 2.58 | 2.44 | 2.57 | 2.51 | 2.54 | 3.11 | 5.60 | 6.40 | 7.86 | 2.96 | 2.68 | 2.39 |
| 27 | 2.51 | 2.44 | 2.65 | 2.54 | 2.53 | 3.14 | 6.29 | 6.83 | 7.37 | 2.80 | 2.64 | 2.39 |
| 28 | 2.50 | 2.48 | 2.69 | 2.54 | 2.53 | 3.08 | 7.17 | 6.75 | 6.89 | 3.41 | 2.64 | 2.39 |
| 29 | 2.51 | | 2.67 | 2.58 | 2.56 | 2.97 | 7.85 | 6.63 | 6.33 | 3.44 | 2.64 | 2.38 |
| 30 | 2.51 | | 2.68 | 2.62 | 2.56 | 2.96 | 7.54 | 7.83 | 6.02 | 3.43 | 2.49 | 2.51 |
| 31 | 2.52 | | 2.58 | | 2.60 | | 7.02 | 8.52 | | 3.40 | | 2.34 |
| Mean | 2.49 | 2.46 | 2.56 | 2.58 | 2.70 | 2.67 | 4.26 | 6.78 | 7.94 | 4.31 | 2.93 | 2.39 |
| Max | 2.80 | 2.51 | 2.69 | 2.72 | 2.92 | 3.46 | 7.85 | 8.56 | 9.87 | 6.02 | 3.38 | 2.57 |
| Min | 2.28 | 2.40 | 2.44 | 2.46 | 2.52 | 2.16 | 2.46 | 5.56 | 6.02 | 2.80 | 2.43 | 2.07 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 53' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR
 WATER LEVEL HISTORICAL, YEAR 2015

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-------|------|------|------|------|
| 1 | 2.34 | 2.12 | 2.64 | 2.80 | 3.60 | 5.28 | 2.81 | 7.58 | 5.97 | 6.08 | 3.51 | 3.57 |
| 2 | 2.12 | 1.97 | 2.62 | 2.66 | 3.64 | 3.27 | 2.85 | 7.97 | 7.09 | 5.71 | 3.40 | 3.56 |
| 3 | 1.98 | 2.04 | 2.59 | 2.64 | 3.64 | 3.28 | 2.88 | 9.05 | 7.70 | 5.74 | 3.56 | 3.56 |
| 4 | 1.62 | 2.05 | 2.53 | 2.81 | 3.60 | 3.26 | 2.86 | 9.61 | 9.14 | 5.56 | 3.53 | 3.20 |
| 5 | 1.35 | 2.03 | 2.50 | 2.68 | 3.62 | 3.24 | 2.83 | 10.42 | 9.57 | 5.15 | 3.21 | 3.57 |
| 6 | 1.80 | 2.00 | 2.48 | 2.34 | 3.65 | 3.17 | 2.81 | 10.60 | 9.40 | 5.54 | 3.18 | 2.52 |
| 7 | 1.92 | 2.00 | 2.49 | 2.59 | 3.64 | 3.12 | 2.79 | 10.35 | 9.18 | 5.36 | 3.18 | 2.59 |
| 8 | 1.92 | 1.96 | 2.50 | 2.77 | 3.64 | 3.07 | 2.89 | 10.01 | 8.83 | 5.46 | 3.08 | 2.71 |
| 9 | 1.89 | 2.10 | 2.50 | 2.82 | 3.63 | 3.14 | 2.98 | 9.37 | 8.05 | 5.66 | 2.85 | 2.96 |
| 10 | 1.88 | 1.98 | 2.49 | 2.82 | 3.64 | 3.14 | 3.31 | 8.62 | 7.65 | 6.47 | 2.86 | 2.98 |
| 11 | 1.90 | 1.99 | 2.51 | 2.82 | 3.63 | 3.17 | 3.12 | 7.77 | 7.42 | 6.77 | 2.84 | 2.99 |
| 12 | 1.92 | 1.96 | 2.53 | 2.82 | 3.62 | 3.22 | 3.11 | 7.33 | 7.09 | 6.19 | 2.86 | 2.96 |
| 13 | 2.10 | 1.98 | 2.52 | 2.82 | 3.60 | 3.22 | 3.02 | 7.40 | 7.14 | 6.54 | 2.79 | 2.66 |
| 14 | 2.15 | 2.00 | 2.49 | 2.82 | 3.61 | 3.22 | 3.12 | 7.62 | 6.93 | 6.74 | 2.77 | 2.42 |
| 15 | 2.18 | 1.99 | 2.54 | 2.80 | 3.61 | 3.16 | 3.40 | 7.44 | 6.51 | 6.01 | 2.79 | 2.58 |
| 16 | 2.16 | 1.99 | 2.54 | 2.81 | 3.60 | 3.32 | 3.42 | 7.30 | 6.60 | 7.16 | 2.72 | 2.67 |
| 17 | 2.16 | 1.98 | 2.52 | 2.81 | 3.61 | 3.65 | 3.58 | 6.91 | 6.27 | 6.65 | 2.67 | 2.69 |
| 18 | 2.18 | 2.00 | 2.52 | 2.83 | 3.62 | 3.58 | 3.74 | 6.66 | 5.89 | 6.27 | 2.63 | 2.77 |
| 19 | 1.85 | 2.00 | 2.53 | 2.82 | 3.63 | 3.44 | 3.84 | 6.20 | 5.77 | 5.82 | 2.65 | 2.67 |
| 20 | 2.04 | 2.00 | 2.59 | 2.84 | 3.63 | 3.30 | 4.79 | 5.89 | 6.31 | 5.33 | 2.66 | 2.59 |
| 21 | 2.10 | 2.04 | 2.72 | 2.82 | 3.62 | 3.24 | 4.63 | 6.00 | 6.50 | 5.11 | 2.70 | 2.58 |
| 22 | 2.12 | 2.03 | 2.66 | 2.82 | 3.61 | 3.17 | 5.78 | 6.19 | 6.35 | 5.00 | 2.34 | 2.53 |
| 23 | 2.30 | 2.25 | 2.62 | 2.84 | 3.60 | 2.96 | 5.94 | 6.01 | 6.89 | 4.86 | 2.25 | 2.65 |
| 24 | 2.08 | 2.44 | 2.59 | 2.82 | 3.60 | 2.90 | 5.53 | 5.73 | 7.86 | 4.73 | 2.22 | 2.83 |
| 25 | 2.08 | 2.46 | 2.56 | 2.86 | 3.61 | 2.90 | 5.12 | 5.46 | 8.23 | 4.19 | 2.43 | 2.82 |
| 26 | 2.04 | 2.49 | 2.82 | 2.86 | 3.61 | 2.91 | 5.12 | 5.27 | 8.00 | 4.06 | 3.16 | 2.90 |
| 27 | 2.05 | 2.52 | 2.69 | 2.86 | 3.63 | 2.86 | 5.21 | 5.45 | 7.66 | 4.32 | 3.37 | 3.09 |
| 28 | 2.05 | 2.59 | 2.62 | 2.84 | 3.70 | 2.85 | 5.19 | 5.58 | 7.31 | 4.34 | 3.57 | 3.14 |
| 29 | 2.12 | | 2.62 | 2.84 | 3.80 | 2.82 | 5.30 | 5.48 | 6.87 | 4.32 | 3.38 | 3.17 |
| 30 | 2.10 | | 2.34 | 3.38 | 3.54 | 2.85 | 5.92 | 5.54 | 6.48 | 4.30 | 3.37 | 3.10 |
| 31 | 1.90 | | 2.52 | | 3.39 | | 5.62 | 5.48 | | 3.79 | | 3.31 |
| Mean | 2.03 | 2.11 | 2.56 | 2.80 | 3.62 | 3.16 | 3.95 | 7.30 | 7.36 | 5.77 | 2.93 | 2.90 |
| Max | 2.80 | 2.59 | 2.82 | 3.38 | 3.80 | 3.65 | 5.94 | 10.60 | 9.57 | 9.54 | 3.51 | 3.57 |
| Min | 1.35 | 1.96 | 2.34 | 2.34 | 3.39 | 2.82 | 2.79 | 5.27 | 5.77 | 3.79 | 2.22 | 2.42 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR
 WATER LEVEL HISTORICAL, YEAR 2016

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 3.21 | 3.28 | 3.06 | 3.15 | 3.19 | 3.21 | 5.24 | 4.86 | 6.25 | 6.08 | 3.69 | 2.85 |
| 2 | 2.64 | 3.33 | 3.12 | 3.16 | 3.18 | 3.40 | 5.33 | 4.24 | 6.12 | 5.69 | 3.53 | 2.86 |
| 3 | 2.44 | 3.36 | 3.12 | 3.14 | 3.14 | 3.37 | 6.00 | 4.12 | 5.73 | 5.57 | 3.37 | 3.28 |
| 4 | 2.49 | 3.35 | 3.11 | 3.15 | 3.14 | 3.42 | 6.14 | 4.01 | 5.30 | 5.21 | 3.28 | 3.49 |
| 5 | 3.00 | 2.95 | 3.13 | 3.15 | 3.15 | 3.35 | 5.36 | 4.31 | 4.93 | 4.81 | 3.23 | 3.52 |
| 6 | 3.00 | 2.65 | 3.13 | 3.14 | 3.14 | 3.45 | 4.75 | 5.60 | 5.80 | 4.88 | 3.24 | 3.50 |
| 7 | 3.00 | 2.71 | 3.14 | 3.15 | 3.13 | 3.59 | 4.58 | 6.02 | 6.48 | 5.23 | 3.25 | 3.51 |
| 8 | 2.97 | 2.58 | 3.14 | 3.13 | 3.10 | 3.49 | 4.85 | 5.51 | 6.90 | 4.72 | 3.17 | 3.51 |
| 9 | 2.90 | 2.57 | 3.12 | 3.13 | 3.10 | 3.46 | 4.96 | 5.11 | 7.97 | 4.39 | 3.37 | 3.51 |
| 10 | 2.72 | 2.57 | 3.13 | 3.12 | 3.10 | 3.37 | 5.00 | 4.87 | 8.43 | 4.60 | 3.74 | 3.51 |
| 11 | 2.61 | 2.56 | 3.13 | 3.10 | 3.09 | 3.28 | 4.82 | 4.74 | 7.95 | 4.96 | 4.05 | 3.48 |
| 12 | 2.57 | 2.57 | 3.12 | 3.10 | 3.08 | 3.25 | 4.81 | 4.73 | 7.99 | 5.11 | 4.04 | 3.39 |
| 13 | 2.54 | 2.56 | 3.11 | 3.09 | 3.08 | 3.24 | 4.59 | 4.80 | 7.78 | 4.89 | 3.77 | 3.25 |
| 14 | 2.47 | 2.56 | 3.11 | 3.12 | 3.08 | 3.15 | 4.40 | 4.96 | 7.68 | 4.40 | 3.54 | 3.21 |
| 15 | 2.70 | 2.46 | 3.10 | 3.12 | 3.08 | 3.13 | 4.87 | 5.26 | 7.27 | 4.40 | 3.43 | 3.20 |
| 16 | 2.86 | 2.47 | 3.10 | 3.12 | 3.08 | 3.11 | 5.52 | 6.38 | 6.86 | 3.89 | 3.41 | 3.20 |
| 17 | 3.13 | 2.43 | 3.11 | 3.10 | 3.07 | 3.13 | 5.06 | 7.26 | 6.43 | 3.78 | 3.45 | 3.19 |
| 18 | 3.18 | 2.44 | 3.11 | 3.09 | 3.06 | 3.28 | 4.60 | 7.01 | 6.33 | 3.56 | 3.45 | 3.18 |
| 19 | 3.22 | 2.45 | 3.11 | 3.09 | 3.07 | 3.39 | 4.35 | 6.63 | 6.11 | 3.60 | 3.40 | 3.17 |
| 20 | 3.25 | 2.41 | 3.12 | 3.08 | 3.07 | 3.30 | 4.18 | 6.80 | 6.40 | 3.50 | 3.32 | 2.89 |
| 21 | 3.29 | 2.40 | 3.09 | 3.08 | 3.06 | 3.19 | 4.25 | 8.39 | 6.84 | 3.47 | 3.23 | 2.81 |
| 22 | 2.95 | 2.45 | 3.12 | 3.07 | 3.11 | 3.13 | 4.25 | 8.68 | 7.37 | 3.42 | 3.15 | 2.96 |
| 23 | 2.98 | 2.53 | 3.03 | 3.07 | 3.08 | 2.97 | 4.24 | 8.28 | 7.09 | 3.57 | 3.09 | 3.07 |
| 24 | 2.97 | 2.53 | 3.09 | 3.06 | 3.09 | 3.11 | 4.23 | 7.80 | 6.82 | 3.82 | 3.02 | 3.03 |
| 25 | 2.96 | 2.54 | 3.03 | 3.05 | 3.09 | 3.51 | 4.23 | 7.51 | 6.52 | 4.07 | 2.99 | 2.61 |
| 26 | 3.23 | 2.67 | 3.09 | 3.04 | 3.09 | 3.99 | 4.16 | 7.36 | 6.54 | 4.16 | 2.94 | 2.46 |
| 27 | 3.39 | 2.66 | 3.11 | 3.04 | 3.14 | 3.60 | 4.64 | 7.17 | 6.66 | 4.03 | 2.93 | 2.42 |
| 28 | 3.39 | 2.63 | 3.13 | 3.05 | 3.26 | 4.19 | 4.81 | 7.01 | 6.97 | 3.93 | 2.90 | 2.43 |
| 29 | 3.36 | 2.67 | 3.14 | 3.11 | 3.29 | 4.16 | 4.96 | 6.67 | 7.03 | 3.88 | 2.88 | 2.39 |
| 30 | 3.53 | | 2.64 | 3.14 | 3.14 | 4.48 | 5.16 | 6.64 | 6.60 | 3.83 | 2.87 | 2.30 |
| 31 | 3.33 | | 2.65 | | 3.10 | | 5.17 | 6.38 | | 3.85 | | 2.27 |
| Mean | 2.97 | 2.66 | 3.08 | 3.10 | 3.11 | 3.42 | 4.82 | 6.10 | 6.77 | 4.36 | 3.32 | 3.04 |
| Max | 3.39 | 3.36 | 3.14 | 3.16 | 3.29 | 4.48 | 6.14 | 8.68 | 8.43 | 6.08 | 4.05 | 3.52 |
| Min | 2.44 | 2.40 | 2.63 | 3.04 | 3.06 | 2.97 | 3.16 | 4.01 | 4.93 | 3.42 | 2.87 | 2.27 |

Station Characteristics of station : 231201
 Station name : Venkham Latitude : 18° 10' 37" North Longitude : 102° 33' 53" East
 River : Nam Ngum Altitude : 178.00 m Catchment area : 000 km2
 Province : Vientiane Capital Country : Lao PDR Agency : Hydro-met Lao PDR
 WATER LEVEL HISTORICAL, YEAR 2017

| Days | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|
| 1 | 2.27 | 3.04 | 2.52 | 3.41 | 3.23 | 3.76 | 3.59 | | | | | |
| 2 | 2.27 | 3.29 | 2.55 | 3.37 | 3.30 | 3.66 | 3.59 | | | | | |
| 3 | 2.29 | 3.26 | 2.50 | 3.21 | 3.48 | 3.67 | 3.68 | | | | | |
| 4 | 2.30 | 3.25 | 2.48 | 3.20 | 3.54 | 3.65 | 3.59 | | | | | |
| 5 | 2.68 | 3.22 | 2.48 | 3.37 | 3.56 | 3.60 | 3.49 | | | | | |
| 6 | 2.73 | 3.09 | 2.47 | 3.45 | 3.56 | 3.58 | 3.44 | | | | | |
| 7 | 2.92 | 3.03 | 2.47 | 3.43 | 3.44 | 3.56 | 3.07 | | | | | |
| 8 | 2.78 | 3.07 | 2.47 | 3.45 | 3.21 | 3.38 | 3.44 | | | | | |
| 9 | 2.74 | 3.11 | 2.47 | 3.39 | 3.18 | 3.79 | 3.82 | | | | | |
| 10 | 2.73 | 3.06 | 2.47 | 3.22 | 3.41 | 3.64 | 4.37 | | | | | |
| 11 | 2.74 | 3.13 | 2.46 | 3.22 | 3.51 | 3.76 | 3.90 | | | | | |
| 12 | 2.80 | 3.00 | 2.47 | 3.37 | 3.60 | 3.51 | 4.44 | | | | | |
| 13 | 3.06 | 2.71 | 2.53 | 3.47 | 3.67 | 3.83 | 4.42 | | | | | |
| 14 | 3.14 | 2.51 | 2.47 | 3.49 | 3.68 | 3.69 | 4.58 | | | | | |
| 15 | 2.97 | 2.50 | 2.46 | 3.51 | 3.60 | 3.51 | 4.63 | | | | | |
| 16 | 2.97 | 2.50 | 2.46 | 3.48 | 3.69 | 4.00 | 4.70 | | | | | |
| 17 | 2.99 | 2.45 | 2.46 | 3.33 | 4.04 | 4.09 | 4.66 | | | | | |
| 18 | 3.11 | 2.50 | 2.47 | 3.23 | 4.22 | 3.43 | 5.27 | | | | | |
| 19 | 3.26 | 2.42 | 2.48 | 3.28 | 4.34 | 3.03 | 6.78 | | | | | |
| 20 | 3.15 | 2.44 | 2.64 | 3.29 | 4.72 | 3.26 | 7.01 | | | | | |
| 21 | 3.24 | 2.55 | 2.92 | 3.33 | 4.66 | 3.37 | 6.70 | | | | | |
| 22 | 3.11 | 2.58 | 3.07 | 3.35 | 4.45 | 3.50 | 6.60 | | | | | |
| 23 | 3.06 | 2.53 | 3.21 | 3.35 | 4.36 | 3.44 | 6.43 | | | | | |
| 24 | 3.09 | 2.59 | 3.22 | 3.24 | 4.18 | 3.30 | 6.11 | | | | | |
| 25 | 3.22 | 2.60 | 3.21 | 3.15 | 4.06 | 3.12 | 5.93 | | | | | |
| 26 | 3.17 | 2.54 | 3.06 | 3.34 | 4.04 | 3.11 | 5.74 | | | | | |
| 27 | 3.16 | 2.51 | 2.92 | 3.43 | 4.03 | 3.42 | 5.82 | | | | | |
| 28 | 3.24 | 2.56 | 3.16 | 3.43 | 4.02 | 3.46 | 5.87 | | | | | |
| 29 | 3.21 | | 3.34 | 3.42 | 3.88 | 3.55 | 6.36 | | | | | |
| 30 | 3.15 | | 3.37 | 3.43 | 3.82 | 3.65 | 6.88 | | | | | |
| 31 | 3.11 | | 3.39 | | 3.72 | | 7.30 | | | | | |
| Mean | 2.92 | 2.78 | 2.73 | 3.35 | 3.81 | 3.55 | 5.04 | | | | | |
| Max | 3.26 | 3.29 | 3.39 | 3.51 | 4.72 | 4.09 | 7.30 | | | | | |
| Min | 2.27 | 2.42 | 2.46 | 3.15 | 3.18 | 3.03 | 5.07 | | | | | |

資料 7 その他の資料・情報

資料7 その他の資料・情報

収集資料リスト

| No | 名称 | 形態 図書・ビデオ・写真等 | オリジナル/ コピー | 発行機関 | 発行年 |
|----|---|------------------|---------------|---|------|
| 1 | 8th Five-Year National Socio-economic Development Plan (2016-2020) (8th NSEDP) (第8次5カ年国家社会経済開発計画2016-2020) | 図書 | コピー | Ministry of Planning and Investment (計画投資省) | 2016 |
| 2 | Agriculture Development Strategy to 2025 and Vision to the Year 2030 (農業開発戦略2025とビジョン2030) | 図書 | コピー | Ministry of Agriculture and Forestry (農林省) | 2015 |
| 3 | Eighth (8th) Five-Year Agricultural and Forestry Development Plan (2016-2020) | 図書 | コピー | Ministry of Agriculture and Forestry (農林省) | 2016 |
| 4 | Agricultural Master Plan 2011 to 2015 | 図書 | コピー | Ministry of Agriculture and Forestry (農林省) | 2010 |
| 5 | Strategy for Agricultural Development 2011 to 2020 | 図書 | コピー | Ministry of Agriculture and Forestry (農林省) | 2010 |
| 6 | Agricultural Statistics Yearbook 2016 | 図書 | コピー | Ministry of Agriculture and Forestry, Department of Planning and Cooperation (農林省計画協力局) | 2017 |
| 7 | Lao Census of Agriculture 2010/11 Highlights | 図書 | コピー | Steering Committee for the Agricultural Census, Agricultural Census Office (農業センサス運営委員会 農業センサス事務所) | 2012 |
| 8 | Water and Water Resources Law | 図書 | コピー | Lao PDR | 1996 |
| 9 | Law on Agriculture | 図書 | コピー | Lao PDR | 1998 |
| 10 | Law on aquatic and wildlife | 図書 | コピー | Lao PDR | 2007 |
| 11 | Law on Fisheries | 図書 | コピー | Lao PDR | 2009 |
| 12 | Law on Forestry | 図書 | コピー | Lao PDR | 2007 |
| 13 | Law on Irrigation | 図書 | コピー | Lao PDR | 2013 |
| 14 | Law on livestock and veterinary | 図書 | コピー | Lao PDR | 2008 |
| 15 | Law on Plant Protection | 図書 | コピー | Lao PDR | 2008 |
| 16 | Tax Law | 図書 | コピー | Lao PDR | 2015 |
| 17 | Instructions of the Minister of Finance on the Implementation of Value Added Tax Law | 図書 | コピー | Lao PDR | 2014 |
| 18 | Law on Value-Added Tax | 図書 | コピー | Lao PDR | 2014 |
| 19 | Decision on Official Development Assistance Financial Management Rules | 図書 | コピー | Lao PDR | 2010 |