



PEOPLE'S DEMOCRATIC REPUBLIC
Peace Independence Democracy Unity Prosperity

Ministry of Natural Resources and Environment
Department of Water Resources

No. 1144/DWR-MONRE
Vientiane Capital, 29 Dec 2020

Dear: Dr. Joakim Harlin
Head of the Freshwater Ecosystems Unit
UN Environment Programme
United Nations Environment Programme.

Attention to: Dr. Yumiko Yasuda
Senior Network Officer for Asia
Global Water Partnership Organization

Sub: Submit the Country Report for SDG Indicator 6.5.2 the proportion of transboundary basin area with an operational arrangement for water cooperation.

Dear Dr. Joakim Harlin,

It is referred to the Letter from UN Environment Programme, date 19 February 2020 regarding collect, compile and verify country data for global reporting on SDG progress. On behalf of the Department of Water Resources, Ministry of Natural Resources and Environment, Lao PDR, I would like to submit the Country Report for SDG Indicator 6.5.2 the proportion of transboundary basin area with an operational arrangement for water cooperation 2020 for your kind information.

Should you need further information please do not hesitate to contact Ms. Sengphasouk Xayavong, Email: xsengphasouk@yahoo.com, the executive secretary of Lao Water Partnership.

Thank you for your support and cooperation,

Sincerely,

Inthavong Ashcharattha
Director General
Department of Water Resources
Ministry of Natural Resources and Environment
Vientiane, Lao PDR.

Reporting on global SDG indicator 6.5.2
TEMPLATE of the second cycle for reporting

Content of the template

The template is divided into four parts:

- Section I - Calculation of SDG indicator 6.5.2
- Section II - Information on each transboundary basin or group of basins
- Section III - General information on transboundary water management at the national level
- Section IV - Final questions

Country name: [fill in]

I. Calculation of Sustainable Development Goal indicator 6.5.2

Methodology

1. Using the information gathered in section II, the information gathered in this section allows for the calculation of Sustainable Development Goal global indicator 6.5.2, which is defined as the proportion of transboundary basin area with an operational arrangement for water cooperation.

2. The step-by-step monitoring methodology for indicator 6.5.2, developed by UNECE and UNESCO in the framework of UN-Water, should be referred to for details on the necessary data, the definitions and the calculation.^a

3. The value of the indicator at the national level is derived by adding up the surface area in a country of those transboundary basins (river and lake basins and aquifers) that are covered by an operational arrangement and dividing the area obtained by the aggregate total area in a country of all transboundary basins (both river and lake basins, and aquifers).

4. Transboundary basins are basins of transboundary waters, that is, of any surface waters (notably rivers, lakes) or groundwaters which mark, cross or are located on boundaries between by two or more States. For the purpose of the calculation of this indicator, for a transboundary river or lake, the basin area is determined by the extent of its catchment. For groundwater, the area to be considered is the extent of the aquifer.

5. An “arrangement for water cooperation” is a bilateral or multilateral treaty, convention, agreement or other formal arrangement among riparian countries that provides a framework for cooperation on transboundary water management.

6. For an arrangement to be considered “operational” all the following criteria need to be in place in practice:

(a) There is a joint body, joint mechanism or commission (e.g., a river basin organization) for transboundary cooperation (criterion 1);

(b) There are regular (at least once per year) formal communications between riparian countries in form of meetings (either at the political or technical level) (criterion 2);

(c) Joint objectives, a common strategy, a joint or coordinated management plan, or an action plan have been agreed upon by the riparian countries (criterion 3);

(d) There is a regular (at least once per year) exchange of data and information (criterion 4).

Calculation of indicator 6.5.2

7. Please list in the tables below the transboundary basins (rivers and lakes and aquifers) in your country’s territory and provide the following information for each of them:

^a Available from the UN-Water website: <https://www.sdg6monitoring.org/indicators/target-65/indicators652/> (updated version “2020”).

- (a) The country/ies with which the basin is shared;
- (b) The surface area of the basin (the catchment of rivers or lakes and the aquifer in the case of groundwater) within the territory of your country (in square kilometres (km²));
- (c) Whether a map and/or a geographical information system (GIS) shapefile of the basin has been provided;
- (d) Whether there is an arrangement in force for the basin;
- (e) The verification of each of the four criteria to assess operationality;
- (f) The surface area of the basin within the territory of your country which is covered by a cooperation arrangement that is operational according to the above criteria.

8. In case an operational arrangement is in place only for a sub-basin or a portion of a basin, please list this sub-basin just after the transboundary basin it is part of. In case there is an operational arrangement for the whole basin, do not list sub-basins in the table below.

Table 1
Transboundary river or lake basin (please add rows as needed)

<i>Name of transboundary river or lake basin/sub-basin</i>	<i>It is a basin or a sub-basin?^b</i>	<i>Countries shared with</i>	<i>Surface area of the basin/sub-basin (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the basin/sub-basin (in km²) covered by an operational arrangement within the territory of the country</i>
Mekong River Basin	Basin	China, Myanmar, Laos, Thailand, Cambodia and Vietnam	202,000 km ² in Laos	No	Under Mekong Agreement 1995					202,000 km ²
Sekong River Basin	Sub-basin of Mekong River Basin	Laos and Cambodia	22,565 km ² in Laos	No						
Nam Ma	Basin	Vietnam	6,156	No	No	No	No	No	No	n/a
Nam Neun	Basin	Vietnam	6,903	No	No	No	No	No	No	n/a
Nam Xam	Basin	Vietnam	446	No	No	No	No	No	No	n/a
Nam Mo	Basin	Vietnam	2,288	No	No	No	No	No	No	n/a
(A) Total surface area of transboundary basins/sub-basins of rivers and lakes covered by operational arrangements within the										

^b List sub-basins after the basin they belong to.

<i>Name of transboundary river or lake basin/sub-basin</i>	<i>It is a basin or a sub-basin?</i>	<i>Countries shared with</i>	<i>Surface area of the basin/sub-basin (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the basin/sub-basin (in km²) covered by an operational arrangement within the territory of the country</i>
territory of the country (in km²) (do not double count sub-basins)										
(B) Total surface area of transboundary basins of rivers and lakes within the territory of the country (in km²) (do not double count sub-basins)										

Table 2
Transboundary aquifers (please add rows as needed)

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer^c (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer^d (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km²) covered by an operational arrangement within the territory of the country</i>
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
The Sakon Nakkon geologic subbasin of the Khorat Plateau, including portions of Lao PDR along the Mekong River, the Vientiane plain as well as portions of northeastern Thailand.	Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Alluvial deposits located along the Mekong River along the Thailand – Lao PDR border.	Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mesozoic and Upper Paleozoic aquifers of along	Thailand	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

^c For a transboundary aquifer, the extent is derived from the aquifer system delineation which is commonly done relying on information of the subsurface (notably the extent of geological formations). As a general rule, the delineation of aquifer systems is based on the delineation of the extent of the hydraulically connected water-bearing geological formations. Aquifer systems are three-dimensional objects and the aquifer area taken into account is the projection on the land surface of the system. Ideally, when different aquifer systems not hydraulically connected are vertically superposed, the different relevant projected areas are to be considered separately, unless the different aquifer systems are managed conjunctively.

^d In the text of the agreement or arrangement or in the practice.

<i>Name of the transboundary aquifer</i>	<i>Countries shared with</i>	<i>Surface area of the aquifer^e (in km²) within the territory of the country</i>	<i>Map and/or GIS shapefile provided (yes/no)</i>	<i>Covered by an aquifer specific arrangement (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Covered within an arrangement not specific to the aquifer^d (entirely, partly, no) (Ref. to questions in sect. II)</i>	<i>Criterion 1 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 2 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 3 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Criterion 4 applied (yes/no) (Ref. to questions in sect. II)</i>	<i>Surface area of the aquifer (in km²) covered by an operational arrangement within the territory of the country</i>	
the northern section of the Thailand – Lao PDR border.											
(C) Sub-total: surface area of transboundary aquifers covered by operational arrangements (in km ²)											
(D) Total surface area of transboundary aquifers (in km ²)		N/A									

Indicator value for the country

Surface waters:

Percentage of surface area of transboundary basins of rivers and lakes covered by an operational arrangement:

$$A/B \times 100 =$$

$$207,145/222,938 * 100 = 93\%$$

Aquifers:

Percentage of surface area of transboundary aquifers covered by an operational arrangement:

$$C/D \times 100 =$$

N/A

Sustainable Development Goal indicator 6.5.2:

Percentage of surface area of transboundary basins covered by an operational arrangement:

$$((A + C)/(B + D)) \times 100 =$$

N/A

Spatial information

If a map (or maps) of the transboundary surface water catchments and transboundary aquifers (i.e., “transboundary basins”) is available, please consider attaching them. Ideally, shapefiles of the basin and aquifer delineations that can be viewed in GIS should be sent.

Additional information

If the respondent has comments that clarify assumptions or interpretations made for the calculation, or the level of certainty of the spatial information, please write them here:

Does your country have transboundary agreements or arrangements for the protection and/or management of transboundary waters (i.e., rivers, lakes or groundwater), whether bilateral or multilateral?

Yes /No

If yes, list the bilateral and multilateral agreements or arrangements (listing for each of the countries concerned): [fill in]

II. Questions for each transboundary basin, sub-basin, part of a basin, or group of basins (river, lake or aquifer)

Please complete this second section for each transboundary basin (river or lake basin, or aquifer), sub-basin, part of a basin or a group of basins covered by the same agreement or arrangement where conditions are similar.¹ In some instances, you may provide information on both a basin and one or more of its sub-basins or parts thereof, for example, where you have agreements² or arrangements on both the basin and its sub-basin. You may coordinate your responses with other States with which your country shares transboundary waters, or even prepare a joint report. General information on transboundary water management at the national level should be provided in section III and not repeated here.

Please reproduce this whole section with its questions for each transboundary basin, sub-basin, part of a basin or group of basins for which you will provide a reply.

Name of the transboundary basin, sub-basin, part of a basin or group of basins:
[Mekong River Basin]

List of the riparian States: **[China, Myanmar, Laos, Thailand, Cambodia and Vietnam]**

In the case of an aquifer, what is the nature of the aquifer and its relation with the river or lake basin:

Unconfined aquifer connected to a river or lake

Unconfined aquifer with no or limited relation with surface water

Confined aquifer connected to surface water

Confined aquifer with no or limited relation with surface water

Other

Please describe: [fill in]

Unknown

Percentage of your country's territory within the basin, sub-basin, part of a basin or group of basins: [fill in]

1. Is there one or more transboundary (bilateral or multilateral) agreement(s) or arrangement(s) on this basin, sub-basin, part of a basin or group of basins?

¹ In principle, section II should be submitted for every transboundary basin, river, lake or aquifer, in the country, but States may decide to group basins in which their share is small or leave out basins in which their share is very minor, e.g., below 1 per cent.

² In section II, "agreement" covers all kinds of treaties, conventions and agreements ensuring cooperation in the field of transboundary waters. Section II can also be completed for other types of arrangements, such as memorandums of understanding.

One or more agreements or arrangements exist and are in force

Agreement or arrangement developed but not in force

Agreement or arrangement developed, but not in force for all riparians

Please insert the name of the agreement(s) or arrangement(s)

[Mekong Agreement 1995 on Cooperation for Sustainable Development in Mekong River Basin]

[Mekong – Lancang Cooperation Framework]

Agreement or arrangement is under development

No agreement or arrangement

If there is no agreement or arrangement or it is not in force, please explain briefly why not and provide information on any plans to address the situation: [fill in]

If there is no agreement or arrangement and no joint body or mechanism for the transboundary basin, sub-basin, part of a basin or group of basins then jump to question 4; if there is no agreement or arrangement, but a joint body or mechanism then go to question 3.

Questions 2 and 3 to be completed for each bilateral or multilateral agreement or arrangement in force in the transboundary basin, sub-basin, part of a basin or group of basins.

2. (a) Does this agreement or arrangement specify the area subject to cooperation?

Yes /No

If yes, does it cover the entire basin or group of basins and all riparian States?

Yes /No

Additional explanations? [fill in]

Or, if the agreement or arrangement relates to a sub-basin, does it cover the entire sub-basin?

Yes /No

Additional explanations? [fill in]

Which States (including your own) are bound by the agreement or arrangement?
(Please list): [Cambodia, Laos, Thailand and Vietnam are the member states under the 1995 Mekong Agreement]

[Cambodia, China, Myanmar, Laos, Thailand and Vietnam are the member states under Mekong-Lancang Cooperation Framework]

(b) If the agreement or arrangement relates to a river or lake basin or sub-basin, does it also cover aquifers?

Yes /No

If yes, please list the aquifers covered by the agreement or arrangement: [fill in]

(c) What is the sectoral scope of the agreement or arrangement?

All water uses

A single water use or sector

Several water uses or sectors

If one or several water uses or sectors, please list (check as appropriate):

Water uses or sectors

- | | |
|---|-------------------------------------|
| Industry | <input type="checkbox"/> |
| Agriculture | <input checked="" type="checkbox"/> |
| Transport (e.g., navigation) | <input checked="" type="checkbox"/> |
| Households | <input checked="" type="checkbox"/> |
| Energy: hydropower and other energy types | <input checked="" type="checkbox"/> |
| Fisheries | <input checked="" type="checkbox"/> |
| Tourism | <input type="checkbox"/> |
| Nature protection | <input checked="" type="checkbox"/> |
| Other (<i>please list</i>): [fill in] | |

(d) What topics or subjects of cooperation are included in the agreement or arrangement?

Procedural and institutional issues

- | | |
|--|-------------------------------------|
| Dispute and conflict prevention and resolution | <input checked="" type="checkbox"/> |
| Institutional cooperation (joint bodies) | <input checked="" type="checkbox"/> |
| Consultation on planned measures | <input checked="" type="checkbox"/> |
| Mutual assistance | <input checked="" type="checkbox"/> |

Topics of cooperation

- | | |
|---|-------------------------------------|
| Joint vision and management objectives | <input checked="" type="checkbox"/> |
| Joint significant water management issues | <input checked="" type="checkbox"/> |
| Navigation | <input checked="" type="checkbox"/> |
| Human health | <input checked="" type="checkbox"/> |
| Environmental protection (ecosystem) | <input checked="" type="checkbox"/> |
| Water quality | <input checked="" type="checkbox"/> |
| Water quantity or allocation | <input type="checkbox"/> |
| Cooperation in addressing floods | <input type="checkbox"/> |
| Cooperation in addressing droughts | <input checked="" type="checkbox"/> |
| Climate change adaptation | <input checked="" type="checkbox"/> |

Monitoring and exchange

- | | |
|---|-------------------------------------|
| Joint assessments | <input checked="" type="checkbox"/> |
| Data collection and exchange | <input checked="" type="checkbox"/> |
| Joint monitoring | <input checked="" type="checkbox"/> |
| Maintenance of joint pollution inventories | <input checked="" type="checkbox"/> |
| Elaboration of joint water quality objectives | <input checked="" type="checkbox"/> |
| Common early warning and alarm procedures | <input checked="" type="checkbox"/> |

Exchange of experience between riparian States

Exchange of information on planned measures

Joint planning and management

Development of joint regulations on specific topics

Development of international or joint river, lake or aquifer basin management or action plans

Management of shared infrastructure

Development of shared infrastructure

Other (*please list*): [fill in]

(e) What are the main difficulties and challenges that your country faces with the agreement or arrangement and its implementation, if any?

Aligning implementation of agreement or arrangement with national laws, policies and programmes

Aligning implementation of agreement or arrangement with regional laws, policies and programmes

Lack of financial resources

Insufficient human capacity

Insufficient technical capacity

Tense diplomatic relations

Non-participation of certain riparian countries in the agreement

No significant difficulties

Other (*please describe*): [fill in]

(f) What are the main achievements in implementing the agreement or arrangement and what were the keys to achieving such success? [The significant achievement of cooperation among member state through the joint effort in implementation of the Mekong agreement:]

- The various works and achievements was done as following:
 - The Siem Reap Declaration on ‘Enhancing Joint Efforts and Partnerships towards achievement of the Sustainable Development Goals in the Mekong River Basin’- it is called for strengthening of the MRC basin-wide monitoring networks and forecasting systems, and the data and information management systems underpinning them. This declaration comes with the urgency and the increasing recognition of the critical importance of these systems in enabling the MRC to successfully deliver its mandate.;
 - The adoption of MRC State of Basin Report 2018 – it is a flagship product of the organisation and an integral part of the organisation’s strategic planning cycle. Envisioned to be published every five years to coincide with the MRC’s 5-year

strategic planning cycle, the SOBR aims to provide an overall picture of the state of the Mekong Basin in terms of its ecological health, social and economic circumstances of the Mekong countries and its people, and the degree to which cooperation between riparian countries envisaged under the 1995 Mekong Agreement is enhancing these conditions;

- [The adoption of MRC Drought Management Strategy 2020-2025](#) – it is a regional strategy that serves as a response of MRC member countries to the urgent needs of the region to address the increasing risk of drought;
- [Mekong Strategy for Basin-wide Environmental Management for Environmental Assets of Regional Importance in the Lower Mekong Basin 2021-2025](#) – it is developed as a cooperative regional environmental strategy in response to the need to protect environmental and ecological assets, including ecosystem services in the basin. A Project-Based Action Plan for the implementation of the Strategy is expected to be completed in 2020.
- [The Agreement on the Draft Joint Environment Monitoring Programme and Proposed Pilot Testing](#) - There is a strong need to determine impacts, including the transboundary impacts of mainstream hydropower projects, and to distinguish project-specific induced changes to the basin from the cumulative basin-wide impacts of all other developments. Ascertaining the impacts attributable to a specific project is crucial in identifying and implementing appropriate adaptive management approaches for that project in order to avoid, minimise, and mitigate negative impacts including both localized and transboundary impacts. MRC's Joint Environment Monitoring for Mekong Mainstream Hydropower Projects (JEM) Programme is designed to address this critical knowledge gap and to serve as a decision-support framework to elevate joint cooperation and enable Member Countries to monitor and assess with more certainty whether targeted mainstream hydropower projects are having any impacts, and if there are concerns, to build confidence about any proposals for revised management approaches for these projects. The pilot design for the Xayaburi and Don Sahong pilot projects have been finalized and were agreed upon during the EGEM meeting in Luang Prabang in May 2019. The implementation of the two pilots involves testing the proposed monitoring approaches for the five key environment disciplines mentioned earlier with the aim of testing, fine-tuning, and finalising the draft JEM Programme.

The fisheries monitoring discipline includes several monitoring activities: the monitoring of fish abundance and diversity (FADM), larvae drift and juvenile monitoring, and the monitoring of fish passage efficiency and effectiveness. For the initial piloting, fish passage monitoring will be carried out only at the Don Sahong HPP.

- **Successful conclusion of the PNPCA Prior Consultation of Pak Lay Hydropower project**

- The vision for the MRC to be financially sustained by the member countries by 2030 was adopted with the preparation undertaken by the MRC for decentralised implementation of core river basin management functions outlines in one regional and four updated national roadmaps including priorities and milestones;
- the extension cooperation was made between the MRC and international, regional and local partners including MRC's Dialogue Partners, namely the People's Republic of China and the Union of Myanmar, and its development partners;
- The establishment of a working relationship was made with the ASEAN and the Mississippi River Commission with exploring synergies with other regional and international cooperation to further promote the sustainable development and management of the Mekong Basin's water resources.

(g) Please attach a copy of the agreement or arrangement or provide the web address of the document (*please attach document or insert web address, if applicable*): [fill in]

3. Is your country a member of any joint body or mechanism for this agreement or arrangement?

Yes /No

If no, why not? (please explain): [fill in]

Where there is a joint body or mechanism

(a) If there is a joint body or mechanism, which kind of joint body or mechanism (*please tick one*)?

Plenipotentiaries

Bilateral commission

Basin or similar commission

Expert group meeting or meeting of national focal points

Other (*please describe*): [fill in]

(b) Does the joint body or mechanism cover the entire transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(c) Which States (including your own) are members of the joint body or mechanism? (*Please list*): [Cambodia, Laos, Thailand and Vietnam]

(d) Are there any riparian States that are not members of the joint body or mechanism? (please list): [fill in]

(e) If not all riparian States are members of the joint body or mechanism how does the joint body or mechanism cooperate with them?

No cooperation

They have observer status

Other (*please describe*): [fill in]

(f) Does the joint body or mechanism have any of the following features (*please tick the ones applicable*)?

A secretariat

If the secretariat is a permanent one, is it a joint secretariat or does each country host its own secretariat? (Please describe): [Under the MRC governance, there is the MRC Secretariat as an operational arm of the organisation and performs technical and administrative functions under the management of a Chief Executive Officer and provides technical and administrative services to the Joint Committee and the Council of the member states. The member states also have their own Secretariats acts as a key focal point for liaison with MRC secretariat and coordination with national ministries and agencies]

A subsidiary body or bodies

Please list (e.g., working groups on specific topics): [fill in]

Other features (*please list*): [fill in]

(g) What are the tasks and activities of this joint body or mechanism?³

Identification of pollution sources

Data collection and exchange

Joint monitoring

Maintenance of joint pollution inventories

Setting emission limits

Elaboration of joint water quality objectives

Management and prevention of flood or drought risks

Preparedness for extreme events, e.g., common early warning and alarm procedures

Surveillance and early warning of water related disease

Water allocation and/or flow regulation

Policy development

³ This may include tasks according to the agreement or tasks added by the joint body, or its subsidiaries. Both tasks which joint bodies coordinate and tasks which they implement should be included.

-
- Control of implementation
 - Exchange of experience between riparian States
 - Exchange of information on existing and planned uses of water and related installations
 - Settling of differences and conflicts
 - Consultations on planned measures
 - Exchange of information on best available technology
 - Participation in transboundary EIA
 - Development of river, lake or aquifer basin management or action plans
 - Management of shared infrastructure
 - Addressing hydromorphological alterations
 - Climate change adaptation
 - Joint communication strategy
 - Basin-wide or joint public participation and consultation of, for example, basin management plans
 - Joint resources to support transboundary cooperation
 - Capacity-building
 - Any other tasks (*please list*): [fill in]

(h) What are the main difficulties and challenges that your country faces with the operation of the joint body or mechanism, if any?

- Governance issues
- Please describe, if any:* [fill in]
- Unexpected planning delays
- Please describe, if any:* [fill in]
- Lack of resources

Please describe, if true: [the resources as funding is still the key factor to support the implementation of water management planning and also support in term of technical capacity building in the member states]

- Lack of mechanism for implementing measures
- Please describe, if true:* [fill in]
- Lack of effective measures
- Please describe, if true:* [fill in]
- Unexpected extreme events
- Please describe, if any:* [fill in]
- Lack of information and reliable forecasts
- Please describe, if any:* [fill in]
- Others (*please list and describe, as appropriate*): [fill in]

(i) Does the joint body or mechanism, or its subsidiary bodies meet regularly?

Yes /No

If yes, how frequently does it meet? Under the institutional framework of the 1995 Mekong Agreement, the structure of Mekong River commission consists of three permanent bodies:

- Council: consists of one member from each country at ministerial or cabinet level and meets once a year. It makes policy decisions and provides other necessary guidance concerning the promotion, support, cooperation and coordination of joint activities and programmes to implement the 1995 Agreement. It has overall governance of the MRC.
- Joint Committee: consists of one member from each country at no less than Head of Department level and meets two times a year. It is responsible for the implementation of the policies and decisions of the Council and supervises the activities of the MRC Secretariat. This body functions as a board of management.
- Secretariat: is the operational arm of the MRC. It provides technical and administrative services to the Joint Committee and the Council, and is under the direction of a Chief Executive Officer (CEO) who is appointed by the Council. Under the supervision of the Joint Committee, the CEO is responsible for the day-to-day operations with professional and general support staff.

(j) What are the main achievements with regards to the joint body or mechanism? [Throughout the Mekong Agreement, the four member states of Lower Mekong Basin undertake to work in collaboration to develop and safeguard the river ecosystem, to share information all aspects of mutual importance, to agree on water sharing rules, and to seek mutually beneficial development of water and related resources. The agreement represents a significant move away from a narrow to the broad view of river management and also modern view of integrated and sustainable development of lower Mekong basin]

(k) Did the joint body or mechanism ever invite a non-riparian coastal State to cooperate?

Yes /No

If yes, please give details. If no, why not, e.g. are the relevant coastal States also riparian States and therefore already members of the joint body or mechanism? [fill in]

4. Have joint objectives, a common strategy, a joint or coordinated management plan or action plan been agreed for the basin, sub-basin, part of a basin or group of basins?

Yes /No

If yes, please provide further details: [The IWRM-based Basin Development Strategy has been developed and as a statement of four member states (Cambodia, Laos, Thailand and Vietnam) setting out how they will utilise, manage and conserve the water and related resources of Mekong Basin in line with the 1995 Mekong Agreement on Cooperation for sustainable Development in the Mekong Basin. Until now, the Strategy was updated for the year 2016-2020 which contributes to a wide adaptative planning

process linking regional and national planning to achieve the basin-wide vision of an economically prosperous, socially just and environmentally sound Mekong Basin. It also provides an integrated basin perspective for the assessment and improvement of national plans and projects to ensure the acceptable balance of economic, social and environment outcomes in the basin and mutual benefit to the Mekong member states. The strategy also defines opportunities to promote sustainable development in the basin, set out the medium term strategic priorities for all relevant actors in the basin with prescribe the strategic actions for the next five years (2016-2020) to address with the basin-wide strategic priorities. In dealing with the mentioned strategic priorities and actions, the MRC Strategic Plan 2016 was also prepared to be implemented at the regional level by MRC and Each member states has to prepare their own National Indicative Plan 2016-2020 to address with relevant strategic priorities and actions at the national level]

5. How is the transboundary basin, sub-basin, part of a basins or group of basins protected, including the protection of ecosystems, in the context of sustainable and rational water use?

- Regulation of urbanization, deforestation, and sand and gravel extraction.
- Environmental flow norms, including consideration of levels and seasonality
- Water quality protection, e.g. nitrates, pesticides, faecal coliforms, heavy metals
- Water-related species and habitats protection
- Other measures (*please describe*): [fill in]

6. (a) Does your country regularly exchange information and data with other riparian States in the basin, sub-basin, part of a basin or group of basins?

Yes /No

- (b) If yes, how often:

- More than once per year
- Once per year
- Less than once per year

- (c) Please describe how information is exchanged (e.g. in connection with meetings of joint bodies): [under MRC Procedure on Data and Information Exchange and Sharing]

- (d) If yes, on what subjects are information and data exchanged?

- Environmental conditions
- Research activities and application of best available techniques
- Emission monitoring data
- Planned measures taken to prevent, control or reduce transboundary impacts
- Point source pollution sources
- Diffuse pollution sources
- Existing hydromorphological alterations (dams, etc.)

-
- Flows or water levels (including groundwater levels)
 - Water abstractions
 - Climatological information
 - Future planned measures with transboundary impacts, such as infrastructure development
 - Other subjects (*please list*): [fill in]
 - Other comments, e.g. spatial coverage of data and information exchange: [fill in]

(e) Is there a shared database or information platform?

Yes /No

(f) Is the database publicly available?

Yes /No

If yes, please provide the web address: [fill in]

(g) What are the main difficulties and challenges to data exchange, if applicable?

- Frequency of exchanges
- Timing of exchanges
- Comparability of data and information
- Limited spatial coverage
- Inadequate resources (technical and/or financial)

Other (*please describe*): [fill in]

Additional comments: [fill in]

(h) What are the main benefits of data exchange on the basin, sub-basin, part of a basin or group of basins? (*please describe*): [fill in]

7. Do the riparian States carry out joint monitoring in the transboundary basin, sub-basin, part of a basin or group of basins?

Yes /No

(a) If yes, what does the joint monitoring cover?

	<i>Hydrological</i>	<i>Ecological</i>	<i>Chemical</i>
Border surface waters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters in the entire basin	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Surface waters on the main watercourse	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Surface waters in part of the basin please describe [fill in]	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Transboundary aquifer(s) (connected or unconnected)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Aquifer(s) in the territory of one	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

riparian hydraulically connected to a transboundary river or lake

(b) If joint monitoring is carried out, how is this done?

National monitoring stations connected through a network or common stations

Please describe: [fill in]

Joint and agreed methodologies

Please describe: [fill in]

Joint sampling

Please describe: [fill in]

Common monitoring network

Please describe: [fill in]

Common agreed parameters

Please describe: [fill in]

(c) Please describe the main achievements regarding joint monitoring, if any: [transparency, cooperation and information]

(d) Please describe any difficulties experienced with joint monitoring: [time arrangement, For example, joint monitoring between Laos and Thailand on Mekong flow and sediment, the available times for both countries need to be set before the implementation as Mekong River is as border between two countries]

8. Do the riparian States carry out joint assessment of the transboundary basin, sub-basin, part of a basin or group of basins?

To achieving the objective of the shared vision for “an economically prosperous, socially just and environmentally sound Mekong Basin, it was required to have a detail assessment of the positive and negative impact of water resources development across sector and borders. In the 18th MRC Council meeting agreed in principle to implement a **“study on sustainable management and development of the Mekong River Basin including impact of mainstream hydropower projects”** . **the study has been called as a Council Study and stated since 2014 and ended in 2017.** The study addresses the current uncertainties in assessing the impact of different development opportunities in the Mekong River Basin and provide a clear, strategic, pragmatic and actionable set of recommendations to facilitate informed development planning in the mainstream of Lower Mekong Basin. It also attempts to fill some of the significant knowledge gaps on the impact of water resources developments in the social, environmental and economic knowledge gaps towards supporting better-informed basin management.

Yes /No

If yes, please provide the date of the last or only assessment, the frequency and scope (e.g., surface waters or groundwaters only, pollution sources, etc.) of the assessment, and assessment methodology applied: [fill in]

9. Have the riparian States agreed to use joint water quality standards?

Yes /No

If yes, what standards have been applied, e.g. international or regional standards (please specify which), or have national standards of the riparian States been applied? [fill in]

10. What are the measures implemented to prevent or limit the transboundary impact of accidental pollution?

Notification and communication

Coordinated or joint early warning or alarm system for accidental water pollution

Other (*please list*): [fill in]

No measures

If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]

11. What are the measures implemented to prevent or limit the transboundary impact of extreme weather events and climate change?

Notification and communication

Coordinated or joint alarm system for floods

Coordinated or joint alarm system for droughts

Joint climate change adaptation strategy

Joint disaster risk reduction strategy

Other (*please list*): [fill in]

No measures

If not, why not? What difficulties does your country face in putting in place such measures?: [fill in]

12. Are procedures in place for mutual assistance in case of a critical situation?

Yes /No

If yes, please provide a brief summary: [fill in]

13. Are the public or relevant stakeholders involved in transboundary water management in the basin, sub-basin, part of a basin or group of basins?

Yes /No

If yes, how? (please tick all applicable)

Stakeholders have observer status in a joint body or mechanism

Stakeholders have an advisory role in the joint body

Stakeholders have a decision-making role in the joint body

If yes, please specify the stakeholders for the joint body or mechanism: [fill in]

Intergovernmental organizations

Private sectors organizations or associations

Water user groups or associations

Academic or research institutions	<input checked="" type="checkbox"/>
Other non-governmental organizations	<input checked="" type="checkbox"/>
General public	<input checked="" type="checkbox"/>
Other (please specify): [fill in]	
Availability of information to the public	<input checked="" type="checkbox"/>
Consultation on planned measures or river basin management plans ⁴	<input checked="" type="checkbox"/>
Public involvement	<input checked="" type="checkbox"/>
Other (<i>please specify</i>): [fill in]	

⁴ Or, where applicable, aquifer management plans.

Please remember to complete section II for each of the transboundary basins, sub-basin, part of a basin or group of basins. Please also remember to attach copies of agreements or arrangements, if any.

III. **Water management at the national level**

In this section, you are requested to provide general information on water management at the national level as it relates to transboundary waters. Information on specific transboundary basins, sub-basins, part of basins and groups of basins, should be presented in section II and not repeated here.

Lao PDR, a landlocked country with a total area of 236,800 km², has a population of approximately 7.2 million (2020). Population density is quite low at 32 people per square kilometre, which presents unique water management issues in this mostly mountainous country. Water resources and runoff in Lao PDR are amongst Asia's highest. More than 90 percent of the total area of the Lao PDR is located in the Mekong basin, accounting for approximately 41 percent of the total area of Mekong river basin. The discharge of rivers in Lao PDR is about 80 percent during the rainy season and 20 percent in the dry season. It contributes to the Mekong system of 41 percent of its water which is highest proportion in the Lower Mekong River Basin. In particular, for some rivers (Nam Ngum, Sebangfai, Sebanghieng, Sedone), the dry-season flow is reduced even further, to around 10 to 15 percent of the annual flow.

Lao PDR possesses the largest per-capita volume of internal renewable water resources in the region of about 55,000 cubic meters per capita per year. However, utilization of water for development of the country is still limited, equivalent to 2.8 percent of annual surface water. The utilization of water for socio-economic development in Lao PDR continues to increase, which likely to face water scarcity and generate impacts on water quality, human health and environment in future. At the same time, natural disasters such as flood and drought will be more exacerbated and frequent because of climate change. It has suffered from both severe droughts and floods in the past 15 years. In addition, changing climate may also affect the hydro-cycle as well as the variability of river flow, so floods and droughts could become even more serious in the future and pose mounting challenges for sustainable water management in the country. Therefore, integrated and cooperated measures and concrete plans of adaptation need to be identified as well as promote the cross-sectoral collaboration and sharing information.

Key progress and achievements on water resource management and river basin development and management are indicated in terms of legislative, policy, strategy and institutional applications of Integrated Water Resource Management (IWRM), funding for river basin management and development, balanced/sustainable water use in different sectors, good quality and quantity of water so forth.

An IRBM plan is essential in implementing IWRM in the basin and sub-basin level nationwide, and the government ensures the IRWM is a priority at the basin and sub-basin levels which have been set at least ten major river basins in the next five year plan – Nam Ngum, Nam Theun-Kading, Sebangfai, Sebanghieng, Sekong, Sedone, Nam Ou, Nam Ngiep, Nam Tha and Nam Xam. The plan must also be heavily involved in water resource management and development, environmental protection, natural resource management, and sustainable development and related cross cutting issues including gender.

ASEAN: Cooperation with ASEAN countries in water resource management has started since 2002 until now, with the vision: “achieve sustainable water resource management to ensure sufficiency and acceptable water quality and quantity to assure and meet the needs of people in ASEAN countries in terms of health, food, economy and environment”. It established the ASEAN working group on water resource management

(AWGWRM) which chairs by Malaysia so far 2015-2018. AWGWRM has developed an ASEAN Strategic Plan of Action on Water Resources Management in 2005 and it has been discussed on the implementation of the joint action plan and also other IWRM topics including country strategy guidelines on IWRM implementation in ASEAN region, IWRM long term awareness, etc.

Mekong Cooperation: the cooperation particularly under the Agreement in 1995 of four countries: Lao PDR, Vietnam, Cambodia and Thailand, have covered all aspects in sustainable development, utilization, management, protection of water and related resources in Mekong river basin including irrigation, hydropower, boat transportation, flood protection, fishery, river logging, recreation and tourism through optimal use of many models and for mutual benefits of the party countries and impact mitigation from natural phenomena and man-made activities.

1. (a) Does your country's national legislation, policies, action plans and strategies refer to measures to prevent, control and reduce any transboundary impact?

Yes No

If yes, please briefly describe the main national laws, policies, action plans and strategies [fill in]

The main national legislation related to transboundary are indicated in Water and Water Resources Law, Draft of National Water and Water Resources Management Strategy and Mekong Agreement in 1995, which describe below:

➤ Water and Water Resources Law (Amended version), approved by National Assembly, No. 23/NA, Vientiane Capital, 11 May 2017 indicated the transboundary water resources management issues in two Article 9 and 75.

Article 9: International cooperation. The State promotes foreign, regional and international cooperation in the management, protection, development, use and restoration of water and water resources through the exchange of lessons, data and information, science and technology, and implementation of international treaties and conventions to which Lao PDR is a Party.

Article 75: Resolution of Dispute of International Characters. A dispute arisen between Lao PDR and other countries relating to water and water resources exploitation, use, management, protection and prevention from water and water resources shall be resolved in compliance with the relevant laws and regulations of the Lao PDR, and international treaties and conventions to which Lao PDR is a Party.

➤ National Water and Water Resources Management Strategy is in process of drafting and target to propose to Government for approval end of year 2020. The draft of National Water and Water Resources Management Strategy determine 10 strategies. The transboundary issue stated in strategy 10: International Cooperation on Water Resources, Wetland and Groundwater Management IWRM and cooperation on its international river basins, wetlands and aquifers Four rivers within Lao PDR are considered international rivers. The largest is the Mekong River whose mainstream passes for through Lao PDR and whose tributaries comprise 91.5% of Lao national territory. Part of the Red River rises in Lao PDR in the Nam Lam River basin; while the Chu-Ma River basin has headwaters in the Nam Ma, Nam Xam, Nam Louang, Nam Niam, and Nam Sim river basins. In addition, the Sekong, a major tributary of the Mekong is also an international river in its own right. For the Red and Chu-Ma rivers, no agreement or organisational structure attempts to manage the transboundary issues of these basins at present. For the Mekong (including Sekong) efforts at cooperative transboundary water management have existed since the establishment of the Mekong Committee in 1957. In 1995 the countries of Cambodia, Lao PDR, Thailand

and Vietnam signed the Mekong Agreement a constitutional framework that formally established the Mekong River Commission (MRC) (Browder et al, 2000). The agreement includes 42 articles that outline a framework for coordinated management of water resource development in the shared Mekong River Basin (Box D). Noting the spirit of regional cooperation that Lao PDR has embraced under the MRC and ASEAN agreements, the NWMS seeks to extend practical efforts at cooperation on water management issues with its riparian neighbours. During this cycle of planning, regional cooperation will focus on the downstream states of Cambodia and Viet Nam in the Sekong, Chu-Ma and Red River basins and efforts will seek to pilot initiatives that extend existing areas of nascent cooperation established under the MRC 1995 Agreement. In subsequent planning cycles the more complex Mekong mainstream should also be a focal point of transboundary cooperation. In addition, during this planning cycle efforts should be made to include co-management of groundwater aquifers in the transboundary river basins.

The NWMS promotes the active exploration of Lao PDRs accession to the Water Convention, utilising it as a platform to strengthen bilateral cooperation on transboundary water management with other Greater Mekong Countries. The Water convention has some advantages over the MRC 1995 Agreement, which complement and open up different channels of cooperation for Lao PDR. First, the water convention is better suited to bilateral cooperation which is beneficial for the non-Mekong mainstream transboundary rivers of Lao PDR. Second, the convention works through existing bilateral modalities that Lao PDR uses for other agreements with its neighbours (e.g. on trade or transport connection), so that it does not require elaborate new modalities; rather it establishes an agreed set of rules and principles for engagement that form the basis of discussion on transboundary cooperation. Within the current planning cycle, the NWMS prioritises employing the Water Convention for three priority areas of transboundary cooperation on the non-Mekong mainstream, namely piloting: i. Transboundary environmental flows regime program. ii. Cooperative initiatives on agricultural water efficiency and drought management. iii. Cooperative initiatives on flood management and early warning systems. These areas would further Lao PDRs advancement on SDG6. Strengthening of multi-modal transport corridors. River navigation remains an important mode of transport for communities in Lao PDR as well as for cargo. Large-scale inland shipping is constrained by the lack of access to a coastal port. The NWMS promotes the Dept. of Navigation strategy to link the Mekong waterways to a coastal port in central Vietnam by a road/rail link across the Annamite Mountain ranges at Savannakhet. Such a route would unlock the potential of water-based transport in Lao PDR, connecting commercial agriculture, industrial and other economic centres with the wide ASEAN region and beyond.

➤ Agreement in 1995

Strengthen the international framework for cooperation. In 1992, under the auspices of the United Nations Economic Commission for Europe (UNECE), the Convention on the Protection and Use of Transboundary Watercourses and International Lakes (hereafter the Water Convention) was adopted. In Box D: The MRC 1995 Agreement – the main instrument of regional cooperation on the Mekong Main contents of the Agreement: > Agreement to cooperate in all fields related to water resources (Article 1) > Principle to “promote, support, cooperate and coordinate” water resource development which includes the requirement to formulate a non-binding Basin Development Plan (BDP) (Article 2). > Protection of the environment, natural resources, aquatic life and ecological balance of the Mekong basin from harmful effects of development (Article 3). > Cooperate based on the principle of ‘sovereign equality and territorial integrity’ (Article 4). > Principle of ‘reasonable and equitable utilisation’ of international waters (Article 5) which was later (2003) expanded into the procedures for prior notification and prior consultation (PNPCA) for water development with the potential to affect other states. > Maintenance of natural dry season flows (Article 6A) > Maintenance of wet season flows to sustain the reversal of flow in the Tonle Sap (Article 6B) > Prevention of daily peak flows greater than natural conditions (Article 6C). > Principle to make every effort to avoid, minimise or mitigate harmful effects (Article 7). > State responsibility for damages caused to one or more other riparian countries (Article 8) > Freedom of navigation (Article 9). > Notification during emergency situations (Article 10). > Design and establishment of the MRC comprising three arms of governance: the

Council, the Joint-Committee and the Secretariat (Articles 11-33). > Approach for conflict resolution (Articles 34-35). 60 1996 the water convention entered into force and since then almost all countries in the UNECE which share international waters have become party to it. The water convention is a framework agreement that strengthens transboundary water cooperation in the interest of preventing, controlling and reducing transboundary impacts. It is based around three pillars: (i) prevent, control and reduce transboundary impacts; (ii) ensure reasonable and equitable use; and (iii) cooperate through agreements and joint bodies. In 2003 the water convention was amended to allow accession by countries outside the UNECE region, and since 2016 all United Nations Member States can become party to the convention, making it an effective, proven and global, legal framework for transboundary cooperation.

(b) Does your country's legislation provide for the following principles?

- Precautionary principle Yes ✓
 Polluter pays principle Yes ✓
 Sustainable development Yes ✓
 User pays principle Yes ✓

If yes, please briefly describe how these principles are implemented at the national level: [fill in]

These principles are discrib in Water and Water Resources Law and Draft of Water Utilization Permit Guideline.

(c) Does your country have a national licensing or permitting system for wastewater discharges and other point source pollution? (e.g., in industry, mining, energy, municipal, wastewater management or other sectors)?

Yes ✓

If yes, for which sectors?

- | | |
|-------------------|----------------------------|
| Industry | <input type="checkbox"/> ✓ |
| Mining | <input type="checkbox"/> ✓ |
| Energy | <input type="checkbox"/> ✓ |
| Municipal | <input type="checkbox"/> |
| Livestock raising | <input type="checkbox"/> |
| Aquaculture | <input type="checkbox"/> |

Other (please list): [fill in]

Please briefly describe the licensing or permitting system, indicating whether the system provides for setting emission limits based on best available technology?

If yes, for which sectors? (please list): [fill in]

If not, please explain why not (giving the most important reasons) or provide information if there are plans to introduce a licensing or permitting system:
[fill in]

The national licensing or permitting system for wastewater discharges and other point source pollution is there, especially National Environment Standard, No.81/Govt., date 21 February 2017; Wastewater Discharge and Water Quality from Industry Agreement, No. 326, date 06 October 2005 and Draft of Water Quality and Waste Water Discharges Management Agreement.

(d) Are the authorized discharges monitored and controlled?

Yes

If yes, how? (Please tick the ones applicable):

Monitoring of discharges

Monitoring of physical and chemical impacts on water

Monitoring of ecological impacts on water

Conditions on permits

Inspectorate

Other means (*please list*): [fill in]

If your country does not have a discharge monitoring system, please explain why not or provide information if there are plans to introduce a discharge monitoring system: [fill in]

(e) What are the main measures which your country takes to reduce diffuse sources of water pollution on transboundary waters (e.g., from agriculture, transport, forestry or aquaculture)? The measures listed below relate to agriculture, but other sectors may be more significant. Please be sure to include these under "others":

Legislative measures

Norm for uses of fertilizers

Norms for uses of manure

Permitting system

Bans on or norms for use of pesticides

Others (*please list*): [fill in]

Economic and financial measures

Monetary incentives

Environmental taxes (such as fertilizer taxes)

Others (*please list*): [fill in]

Agricultural extension services

Technical measures

Source control measures

Crop rotation

Tillage control

Winter cover crops

Others (*please list*): [fill in]

Other measures

Buffer/filter strips

Wetland reconstruction

Sedimentation traps

Chemical measures x

Others (*please list*): [fill in]

Other types of measures

If yes, please list: [fill in]

(f) What are the main measures which your country takes to enhance water resources allocation and use efficiency?

Please tick as appropriate (not all might be relevant)

A regulatory system regarding water abstraction ✓

Monitoring and control of abstractions ✓

Water rights are defined ✓

Water allocation priorities are listed ✓

Water-saving technologies ✓

Advanced irrigation techniques ✓

Demand management activities ✓

Other means (*please list*)

(g) Does your country apply the ecosystems approach?

Yes ✓

If yes, please describe how: [fill in]

The main measures to enhance water resources allocation and use efficiency are direct enforce under Water and Water Resources Law (Amended version), approved by National Assembly, No. 23/NA, Vientiane Capital, 11 May 2017 and Environmental Impact Assessment Agreement, No.112/PM, date 16 February 2010. Currently, we pilot testing to implement the guideline by issuing water uses permission certificate for Beer Laos company, No. 0346/DWR, date 08 May 2020; In addition, we are working with other water uses company about 6 companies at national level as big water user scale;

(h) Does your country take specific measures to prevent the pollution of groundwaters?

Yes

If yes, please briefly describe the most important measures: [fill in]

There are two 1. Water and Water Resources Law approved by National Assembly, No. 23/NA, Vientiane Capital, 11 May 2017 and 2. Grondwater Management Agreement, No. 1508/MoNRE, date 21 March 2019.

The umbrella of groundwater management is Water and Water Resources Law which state that: Section 2. Uses of Underground Water

Article 45: Underground Water. Underground water means water beneath the land surface , such as, wells, borehole water , spring water, mineral water, underground flowing water.

Article 46: Targets of Underground Water Use.

Targets of the use of the underground water are as follows:

1. 1. Drinking and consumption of people;
2. Irrigation, husbandry, forestry and agricultural production;
3. Electrical power production and mining;
4. Mining;
5. Medicine, health protection and hygiene;
6. Other authorized targets.

Underground water can be used in one or more targets as the case may be and as appropriated.

Article 47: Rights of Use of Underground Water. Any individuals, legal entities and organizations have the rights to use the underground water in any targets provided that such uses must be economic, reasonable and have minimum impacts to the environment, society and nature. Use of underground are of three scale: small, medium and large scales.

The use of underground water of small scale with water quantity less than twenty cubic meters shall not requires any water use permits and shall not pay the levy for the use of natural resources, fees and service charges provided that such use shall be notified to the relevant village administrations.

The use of underground water of medium scale with water quantity more than twenty cubic meters to fifty cubic meters shall be applied for authorization with the district, municipality, city Offices of Natural Resources and Environment, and shall pay the levy for the use of natural resources, fees and service charges in accordance with the relevant regulations.

The use of underground water of small scale with water quantity more than fifty cubic meters shall be applied for authorization with the Divisions of Natural Resources and Environment, and shall pay the levy for the use of natural resources, fees and service charges in accordance with the relevant regulations.

The Ministry of Natural Resources and Environment is in charge of determination of the regulations on the underground water management in collaboration with line ministries, ministry-equivalent organizations and relevant local administrations.

2. Do your national laws require transboundary environmental impact assessment (EIA)?

Yes

If yes, please briefly describe the legislative basis, and any related implementing procedures. [fill in]

If not, do other measures provide for transboundary EIA? [fill in]

IV. Final questions

1. What are the main challenges your country faces in cooperating on transboundary waters?

- Differences between national administrative and legal frameworks
- Lack of relevant data and information
- Difficulties in data and information exchange
- Sectoral fragmentation at the national level
- Language barrier
- Resource constraints
- Environmental pressures, e.g. extreme events
- Sovereignty concerns

Please list other challenges and/or provide further details: [fill in]

2. What have been the main achievements in-cooperating on transboundary waters?

- Improved water management
- Enhanced regional integration, i.e. beyond water
- Adoption of cooperative arrangements
- Adoption of joint plans and programmes
- Long-lasting and sustained cooperation
- Financial support for joint activities
- Stronger political will for transboundary water cooperation
- Better knowledge and understanding
- Dispute avoidance
- Stakeholder engagement

Please list other achievements, keys to achieving success, and/or provide concrete examples: [fill in]

3. Please indicate which institutions were consulted during the completion of the questionnaire

- Joint body or mechanism
- Other riparian or aquifer countries
- National water management authority
- Environment agency/ authority

-
- Basin authority (national)
 - Local or provincial government
 - Geological survey (national)
 - Non-water specific ministries, e.g. foreign affairs, finance, forestry and energy
 - Civil society organizations
 - Water user associations
 - Private sector
 - Other (please list): [fill in]

Please briefly describe the process by which the questionnaire was completed: [fill in]

4. If you have any other comments please add them here (*insert comments*): [fill in]
5. Name and contact details of the person(s) who filled out the questionnaire (*please insert*): [Ms. Sengphasouk Xayavong]



Date: [12 Dec 2020] Signature: [..... ]

Thank you very much for taking the time to complete this report.