



Directorate of
Water Resources



Vietnam Water
Partnership

IWRM ACTION PLAN AND WORKSHOP REPORT

Solutions to Increase Effective Use and Sustainable Development of Water Resources for Promoting Implementation of Integrated Water Resource Management in Vietnam

(The Second Workshop for implementation SDG 6 in Vietnam)

**Revised and approved by VNWP and General
Directorate of Water Resources**

June 21, 2019, Hanoi, Vietnam

Prepare by Nguyen Thi Tho

Workshop Facilitator



1. Introduction:

- Vietnam Water Partnership (VNWP) started its operation since 2002 and becomes official member of Global Water Partnership Organization in 2016. Since 2016 with the support of GWPO, VNWP was assigned to set up the plan for implementation the Sustainable Development Goal N.6 of which indicator 6.5.1 is to implement integrated water resources management (IWRM) at all level and all cross-border river basin where possible In Vietnam.
- In 2017, UN Environment has done a global assessment on SDG indicator 6.5.1 (the degree of Integrated Water Resources Management Implementation) containing database of 172 country submissions, including Viet Nam. The assessment report highlights three issues (i) the impact of IWRM on economic, social, environmental and overall national objectives in the past 20 years; (ii) the priority challenges; and (iii) the change in priority challenges. This report is expected to provide countries with a snapshot of where we are, as the basis to design strategic actions to achieve the SDGs 6.5.1 target by 2030. In Vietnam assessment has been done with Ministry of Natural Resources and Environment (MONRE) and gets score as 38/100 while global average is 49/100.
- Based on the 2017 global assessment report, in 2018 the Viet Nam Water Partnership had organized the first workshop with all stakeholders to discuss and design strategic response to improve the degree of IWRM implementation based on the country's perspective. The Senior Representative from GWPO, Mr Francoise Brikke, participated and guided for discussion during the workshop
- In 2019, VNWP organized several consultative workshops with the participation of ministries and all local partners in water resources management in Vietnam (MONRE, MOC, MARD, Directorate of Water resources, Institute of Water resources planning and projection; National Center for water resources Planning and Investigation, NGOs and others) to discuss on the priorities identified in 2018 workshop and the topic for proposals to be presented and discussed at 2019 workshop. Especially, the planning meeting to prepare the second 2019 workshop has been held on May 28 with the valuable inputs of Mr. Fany Wedahuditama, GWP-SEA Regional Program Coordinator. The Second Workshop on “Solutions to Increase Effective Use and Sustainable Development of Water Resources for Promoting Implementation of Integrated Water Resource Management in Vietnam” is held

on June 21, 2019 was chaired by VNWP and co-chaired by General Directorate of Water Resources, Ministry of Agriculture and Rural Development.

2. The Workshop Objectives:

The Workshop aims to:

- Comment on the proposals and develop plan for follow up;
- Discuss with related Development partner and line ministries concerned on the future activities,
- Prepare for the second global assessment planned to be held in 2020.

3. Participants and Agenda:

Representatives from MARD, MONRE, MOC, research institutions, NGOs Development partners, Social Organization has joined the Workshop. The Coordinator of Regional of GWP-SEA also participated at the workshop. The list of Participants is in the Annex 1.

The Workshop has been held in Hanoi on 21 June 2019, the Agenda appears in Annex 2.

4. Opening Section:

- Mr. Dong Van Tu, Deputy Director General Directorate of Water Resources has opened the Workshop. In his speech, Mr. Tu welcomed all participants and briefly introduced the mandates of Water Directorate as to support the Government on water resources management in term of irrigation and water resources exploitation in context of implementation of SDG6. Mr. Tu said that Vietnam has effective irrigation system to ensure irrigation for rice cultivation and also supply for industry as well as to support to reduce risk of disaster. Actually, the irrigation system in Vietnam is facing with climate change challenges such as extreme weather, the development at upstream affects the water resources especially in Mekong River. Water pollution in irrigation system, floods in lower stream...are key factors lead to the need to change for the irrigation sector. Mr. Tu also informs participants that the irrigation sector has applied measures to improve the quality of service. First, the legal system is basically completed with the new Irrigation Law in force from 2021 with new market approach is promoted. Reservoirs will be managed by management board. Water exploitation enterprises will be established to ensure effectiveness of water use. Mr. Tu hopes that the development partner, GWPO will continue to support the Directorate of Water Resources to ensure sustainable management of water resources in Vietnam. As conclusion he sends his sincere thanks to all participants and wished great success for the workshop.

- Mr. Fany Wedahuditama, Regional coordinator of GWP Southeast Asia Regional Secretariat also delivered his welcome remarks. Mr. Fany started by expresses his congratulations to MARD, MONRE and the Government of Vietnam for their increasing efforts in integrated water resources management in Vietnam.



Mr. Dong Van Tu opens the workshop

- Mr. Fany emphasized again that based on global assessment report of UN Environment in 2017, in December 2018 the VNWP with ministries has organized workshop to develop Action Plan and has identified 4 priorities as:
 1. Awareness raising, capacity building and behaviour changing for IWRM;
 2. Effect of river basin management and cross-border water management model;
 3. Improve water quality and pollution control;
 4. Participation and coordination of stakeholders.
- He also highlighted 02 very important issues lead to the success of IWRM in Vietnam: firstly the high commitment and responsiveness of all stakeholders in Viet Nam to improve the degree of IWRM implementation and secondly, the proposed actions that we are going to discuss today are the immediate actions that are important to be addressed in the short-medium term and should be part of national strategic action plan. Mr. Fany closes his remark with key message: “We become better not by chance but by change so let’s change for better future “.

- At his turn, Dr. Le Van Minh, Chair of VNWP briefly introduced the process of implementation SDG6.5.1 by VNWP with key milestones such as: Established task force in 2016; develop action plan in 2017; Selected by GWPO with other 3 countries to implement SDG in 2018. Mr. Minh also summarized key priorities identified in the First workshop organized in December 2018. As well as introduced the objectives of the Second workshop. Both Dr. Minh and Mr. Fany emphasized that important task of VNWP is to support Vietnam to improve the score of Vietnam on IWRM in the next global assessment report plane to be ready in 2020.



Workshop Chairmen

5. Presentations:

The presentation section is chaired by Mr. Dong Van Tu, Dr. Le Van Minh and Mr. Fany Wedahuditama

After the first workshop, the priorities identified by participants have been developed and consulted with ministries and stakeholders. Several comments made, finalized and presented at the second workshop

- Dr Le Van Minh invited representative of Department of Hydraulic Work management to present the proposal on **“Modernization of Irrigation system serving sustainable agriculture development in ecological regions in Mekong River Delta”**.
- Mekong River Delta is very important socio- economic and ecological region where 50% agricultural products of the country are produced. Mekong River Delta includes 3 ecological

areas: Upstream, Centre and downstream. With strong impacts cause by climate change, Mekong River Delta is facing with severe issues such as sea level rise, change of flow, salinization, soil erosion...With 11 old irrigation systems which could not meet the requirement of agricultural production in the region.

- In 2017, the Government issued Decree N..120 dated November 17/2017 on sustainable development of Mekong river Delta in the context of climate change and mandated the Ministry of Agriculture and Rural Development to develop project on “**Modernization of Irrigation system serving sustainable agriculture development in ecological regions in Mekong River Delta**”.
- The objectives of the project are to: Complete the infrastructure system and enhance service capacity of irrigation system; Modernization the management and operation of Irrigation system; Institution development for hydraulic work operation with clear responsibility of partner concerned to ensure effectiveness of water use and propose measures to mobilize finance sources.
- The project provides participants information and background on what MARD plans to do in the irrigation sector and will not be discussed in detail in the workshop and will not appear in the Annex of this report.

5.1. Cross-border Water resources Management in Se San – Sre Pok River basin Management, Vietnam- Proposed by Institute of Water Resources Planning and presented by Mrs. Nguyen Thi Phuong Lam



Mrs. Nguyen Thi Phuong Lam presents the proposal.

- The Se San River flows in the north-south direction to the hydropower projects of Plei Krong, Ialy, Se San 3, Se San 3A, Se San 4 and Thuong Kon Tum (under construction) and turns to the southwestern direction to the Vietnam-Cambodia border.
- Sre Pok river originates from the provinces of Dak Lak and Lam Dong with the catchment area in the territory of Vietnam is about 12,030 km², the main stream length is 291 km and the river network density is 0.55 km / km². The hydropower projects include Duc Xuyn, Ban Tuasrah, Chupong Krong, Buon Kuop, Dray H'Linh, Sre Pok 3, Sre Pok 4 and Sre Pok 4A..
- In the Se San and Sre pok river basins, Vietnam has built and put into operation a number of hydropower plants. The operation of these hydropower plants during the wet and dry seasons causes either positive or negative impacts on agriculture production and daily living for the people of Natanariki and Moldulkiri provinces in Cambodia and people of Kon Tum, Gia Lai and Dak Lak provinces of Viet Nam.
- To support the direction of water supply for agricultural production in 2019, the Forecasting water resources and developing water use plans to serve for mainly Agricultural production in Se San and Sre pok river basins is under preparation by the Institute of Water Resources Planning. This plan mainly considers the water uses of the Se San - Sre Pok basins in the territory of Vietnam and has not considered the water requirements of Cambodia downstream.

- By the time being efforts has been recognized to improve cross-border water management for example the Institute of Water Resources Planning is developing plan for cross-border water management but only for the territory of Vietnam,
- This Proposal aims to ensure sustainable water resource development in the Se San and Sre Pok river basins, minimizing negative impacts caused by upstream hydropower operation of Vietnam. With 02 key objectives as(1)Propose solutions to minimize adverse impacts by operating upstream hydropower stations in Vietnam and (2).Raising awareness on sustainable water resources development and IWRM for Vietnamese people living along the border.

The detail proposal is attached in Annex 3

5.2. Assessment and propose measures for sustainable underground water sources in Central Highland.



Mr. Ha Hai Duong presents his proposal

The proposal is prepared by Institute for Irrigation and Environment , Academia of Water Resources and presented by Dr Ha Hai Duong.

- The Central Highland plays very important role in socio-economic development of Vietnam and has very rich underground water sources (about 90 billion m³). But there are 36 communes facing with water scarcity and shortage. Water shortage happens mostly in dry season and lead to conflict of water use (for hydro power, industry and agriculture).
- The proposal has objectives to: assessment current status of underground water exploitation in Central Highland, focus in the area with water scarcity and shortage; Assesses the potential volume of underground water which could be exploited for water shortage area and propose measures for sustainable exploitation and water conservation in the region.

The detail of proposal is in Annex 4.

5.3. Assessment water pollution sources and propose management solution for An Kim Hai Irrigation system.

The proposal is prepared Institute for Irrigation and Environment and presented by Mr. Nguyen Duc Phong.

- An Kim Hai Irrigation system allocated in Kim Thanh District of Hai Duong and 3 districts of Hai Phong City: Hong Bang, Le Chan and Ngo Quyen of Red river Delta

- Re River is polluted with heavy metal, ammonia. Because the enterprises and husbandry activities discharge direct their waste into the river. The local authority could not control and prevent the pollution due to the shortage of equipment, human resources.
- The proposal has objectives to: Assess the pollution discharge into irrigation system and propose measures to improve the quality of water in irrigation system.

The detail proposal is in Annex 5.

5.4. Sustainability Assessment for Water Resources of Sre pok, upstream part of lower Mekong River Basin, Vietnam.

The proposal is developed by the National Center for Water resources Planning and investigation, MONRE and presented by Dr. Duong Bui Du.

- Mr. Duong introduce the concept of Sustainability assessment and Analytical Hierarchy Process (AHP) as a commonly use method for sustainability assessment because it enables to cope with multifaceted and unstructured sustainability problems. AHP has been widely applied to sustainable evaluation of the water pollution and regional water resources. AHP translate overall objective into a set of more specific actions, which could provide sufficient information to assist effectively. The process of decision-making Then he analyzed causes for severe droughts and water-related issues in Srepok River Basin as forest destruction, hydropower plants which lead to the change of river flow and concludes that It is thus essential to assess water resources sustainability for a river basin because achieving sustainable water resources management is one of the essential objectives for the future of many countries/ regions.
- The objectives of this proposal is : (i) To develop an indicator-based AHP for sustainability assessment of water resources of SRB (AHP-SRB); (ii) To appropriately define a set of water resources sustainability hierarchy components such as the goal, aspects and indicators for SRB; (iii) To apply the proposed AHP-SRB framework for a reasonable sustainability assessment of water resources in SRB.

Detail of the proposal is in Annex 6.

5.5. Engagement of private sector in disaster risk reduction in central coastal provinces, Vietnam.

The proposal is prepared by General Directorate for Natural Disaster Prevention and Control and presented by Mrs. Nguyen Anh Son, Disaster Management Policy and Technology Center.



Mrs. Son presents her proposal.

- Viet Nam is considered one of 30 “extreme risk countries”; Annual disaster induced fatalities average: 300 people per year, 70% population exposed to disasters, especially water-related events; the average direct annual economic loss caused by natural disasters: US\$800 million (0.8% of GDP).
- Mrs. Son said that the role of private sector is to assist in disaster-relief activities: Providing immediate economic support for households and families and provides direct services for recover after disaster. Then she highlighted some constrains for involving private sector in disaster risk reduction such as lack of regulation and incentives for private DRR investment and calls for business to integrate disaster risk into their management practices. Lack of a coordination mechanism between the DRR authorities and the private-sector in Vietnam is considered also as constraint for active involvement of private sector into disaster prevention and risk reduction.
- The objective of the proposal is to create the favourable environment for the private sector to participate in disaster risk reduction activities through raising awareness and coordination mechanism.

The detail proposal is in Annex 7

5.6. Water use assessment and proposed measures to strengthen the application of water saving irrigation technology in medium and large hydraulic work system ensuring effectiveness and sustainability of water use.

Propose by **Center for Participatory Irrigation Management** and presented by Mr. Tran Chi Trung

- Mr. Trung informed participants that the plan to promote water saving irrigation technology will strongly support the Agriculture sector Restructuring Plan and will serve to save a considerable amount of water; increase productivity, improving farmers' incomes and contribute to protect the environment.
- Effectiveness of water use in the irrigation system is also a mandate of MARD.
- The proposal 's objectives is to carry a base line study on status of water use for irrigation system and hydraulic work system and identify potential application as well as to propose measures to enhance application of water-saving technologies for upland-crops for improving water use and sustainable management of water resources in irrigation system.

The detail proposal is in Annex 8

6. Discussion section:

The discussion section is chaired by Dr. Le Van Minh

- For facilitating the discussion, Mr. Minh highly appreciated all institutions within the short time and limited budget prepared and consulted with different stakeholders and came up with good proposals. He also highlighted that the workshop participants could have comments on technical issues, geographical arrangements, financial issues and put attention on feasible road map for implementation. He informed the workshop that based on comments of this workshop the related partner will finalize their proposal then VNWP will send the most suitable to GWPO and GWP-SEA, Development Partners and ministries for consideration and funding.



Plenary discussion section

6.1. Mr. Fany started the discussion section with his sincere thanks to all presenters and appreciated the good quality of proposals.

- Fany added some more information that proposals should cover as following:
 - Clear policy recommendation in order for policy maker to react properly. Example in case of engagement of private sector in disaster risk reduction, the proposal should indicate what legal framework need to be improved to allow private sector to involve in disaster risk reduction and, what institution should be involve to support this process.
 - In term of finance, it is not enough to identify finance sources but also proposal should indicate clearly the budget flow.
 - Regarding technological framework, proposal should also indicate the feasibility of existing technological framework and what is the new technology needed.
 - Human resources for implementation of the proposal are available in place or need to be outsourcing?
- If all those questions are clearly reflected in the proposal, we will have clear roadmap for implementation.
- Regarding the proposal on Cross-border water resources management, Regional office of WPO will facilitate by bring VNWP and Cambodia Water partnership to work together to find out mechanism of cooperation. Mr. Fany promised also to share the experiences of Thailand on their success JICA project of mobilizing private sector into disaster risk reduction.

6.2. Mr. Nguyen Quoc Dzung, Deputy Chair of Vietnam Water Supply and Sewerage Association (VWSA) highly appreciated interesting topic of the workshop as well as quality of proposals. Mr. Dzung expressed his pleasure to find out that 7 proposal presented at the workshop cover all current issues of water sector from cross-border management to irrigation and water in urban area. Mr. Dzung said that VWSA would interest in awareness rising and behavior changing because there are still many problems need to be understood better. For example, so far community consider rain is disaster causing flood in urban area but in fact raining water is an asset and we should collect and storage them to be used when and where needed. Hanoi, Ho Chi Minh City paid a lot of money to respond to flood, now they should change their behavior to be pro- active in flood control and collect raining water for dry season. Regarding water quality, Mr. Dzung informs that actually there are 2 drinking water standards QC1 and QC2 with differences on water quality. VWSA has discussed with the Ministry of Health and get agree that there will be only one standard for drinking water but problem is how to control the quality both inside and outside the water enterprise VWSA would like to raise this topic for the next workshop.

6.3. Mr. Hoang Xuan Hong, member of Management Board of VNWP, Member of Vietnam High Dam Commission

- Mr. Hong concerned about the ambiguity of the proposal on Modernization of Irrigation system in Mekong River Delta since the proposal on modernization of irrigation system in Northern part of the country has been proposed for about 50 years but not successes. Mekong River is depending very much on water sources outside the country; therefore the criteria of modernization should be very clear. He suggested the presenter to check the figure of 30 billion m³ of underground water in Central highland to be more reliable.
- Regarding the proposal on enhancing the private sector into disaster risk reduction, Mr. Hong said that the idea is very good but the feasibility of implementation should be considered. because when private sector invest in building infrastructure in their production area that will serve their factory to respond to flood and should be considered as their private matter not a national one. It will be difficult if we ask private sector to support building some infrastructure for public.



Mr. Le Van Duong at the Discussion Section

6.4. Mrs. Nguyen Thi Yen, Care International Vietnam.

- Mrs. Yen totally agreed with Dr. Minh when saying that all proposals are technological driven and therefore, they could not satisfy the priorities identified in the previous workshop. In addition, the proposals focus on water pollution including of the irrigation system but do not make out challenges and barriers to deal with the issue. Pollution sources, institution and legal framework for pollution control are not indicated in the proposals and as consequence, solution to deal with is not clear. The coordination among related partner is not reflected in any proposal. CARE has carried out an assessment of Hydro power plants impacts on community and find out that community should involve into the process from the early stage of planning to coordination step. The community participation is not strong enough and we should learn more from international best practices to adjust it to be applicable at community level.

6.5. Mr. Ha Luong Thuan, Deputy Chair of Irrigation Association of Vietnam.

- Mr. Thuan appreciates the good initiatives of proposals but showed his concerns about their feasibility. He suggested that the presenter should revise them focused on the priorities identified in the previous workshop.
- Thuan informs participants that currently there are 17 laws, 25 Decrees and 4 ministries in charge of water resources management but unfortunately rivers continue to be died. There are 2,600- 3,500 small rivers closely link with farmers but almost of them are polluted. As Thuan's opinion, farmers could participate in the process of water management. We should accept the fact that when irrigation system develops, the canals bringing water to crop

paddy will disappears accordingly and lead to endanger of culture, ethic and also spirit value of people living along those river/canals, they can no more daily swim on the river. Mr. Thuan would suggest a proposal on this matter and proposed that people can participate in river management and when/where possible and could propose regulations, policies to protect rivers. This will pave the way for people to participate fully in the water resources management process.

6.6. Mr. Le Duc Dzung, Directorate of Water Resources.

- Mr. Dzung welcome the initiative to organize such interesting workshop and informs participants that in the water management sector there are complete set of regulations from management aspects to water resources exploitation activities. The Directorate of Water resources now facing with legal framework enforcement activities and would like to cooperate with partners concerned on this matter.
- Mr. Dzung also inform that the regulation on management and operation of hydraulic work is very clear and comprehensive, MARD will work with local authorities to coordinate on water discharge for dry region like Dong Nai case to serve agricultural production. The water discharge permission will be under the responsibility of local authorities. Regarding the proposal on Modernization of Irrigation system serving sustainable agriculture development in ecological regions in Mekong River Delta, Mr Dzung suggested that the proposal should focus on management aspects with monitoring system and change behaviour of people as well as water quality and coordination mechanism.



Mr...Nguyen Anh Tu delivers his closing remarks

- .Dr Nguyen Anh Tu, Deputy Director of Science, Technology and International Cooperation Department, Directorate of Water Resources on behalf of his organization expressed his sincere thanks to all participants for productive discussion section and informs that the proposal on Modernization of Irrigation system serving sustainable agriculture development in ecological regions in Mekong River Delta will be finalize and will appear on the MARD Website to get comments from all stakeholders.
- Mr. Fany is very pleased about the workshop result and emphasized that each proposal should prepare its roadmap for implementation and should help to improve the score of Vietnam in the next global assessment.

7. Conclusions:

Dr Nguyen Anh Tu authorized by Mr. Dong Van Tu delivers closing remarks by expressing his thanks to all participants for their active participation and thanks VNWP for collaboration in organizing such important workshop. Mr. Tu said that all 7 topics of proposal discussed at the workshop are key issues of water sector. Mr. Tu hopes to continue the cooperation with all partners in water resources management.

Dr. Le Van Minh concludes the workshop by summarizing the discussion as follow:

1. The water scarcity and deteriorating water quality in Vietnam become critical factors limiting national economic development, expansion of food production and provision of basic health and hygiene services to the population. In the new laws related to water resource management the IWRM is emphasized . The Government put priority on implementation of SDG and VNWP is leading in the implementation of SDG6.5.1.
2. The proposals prepared by different VNWP Partners focused on our objectives: improvement of SDG6.5. They are in good quality and cover areas of 2017 Global Assessment week points in Vietnam., which was discussed in details in workshop number 1.

The comments mentioned that the proposals should make clear on other aspects of the issue such as social, environment, financial, implementation arrangements .

3. The proposal should be revised with more information and clear road map for implementation. Coordination during implementation and participation aspects should be well designed
4. The policy recommendation should be clearer and more feasible.

5. Related to resources for implementation Dr Minh proposed the active participation of Ministries with the government budgets, provincial authorities should lead in mobilizing the community participation, support local and international NGOs to work by creating the favourable environment and advocacy.
6. Dr Minh proposed that GWPO and GWP SEA could use these proposals to support VNWP to contact with donor community for funding. For those development partners representatives in Vietnam, VNWP will meet and discuss in details the needs for implementation of SDG6.5.1 proposals.
7. The cooperation with line ministries , provincial authorities, research institutions , NGO during implementation of SDG6.5.1 is crucial. All proposals should inline with sector policy , strategy , plan and priorities. The cooperation should be inhanced from proposals preparation until implementation.

As closing, Mr. Minh thanked MARD, MONRE for effective cooperation and all participants for productive workshop. Minh also expressed sincere thank to FAO, CARE and development partner for joining the workshop. Last but not least he thanks the General Directorate of Water Resources for effective collaboration in organizing such important workshop. And GWPO, GWP-SEA and Mr. Fany for his effective support for VNWP.



Mr. Le Van Minh concludes the workshop

8. Workshop Evaluation:

- 30 questionnaires have been completed and sent back to organizer. Among them:

- 18 (60%) considered that they are satisfied with the content and organization of the workshop, while 12 (40%) of them are very satisfied.
 - 25 (83%) considers that the workshop reached its objectives. And the rest (17%) evaluate that the workshop highly reached its objectives.
- Regarding the expected themes to be discussed in the next workshop, participants propose several topics as follow:
1. Solution for improvement of IWRM in Vietnam;
 2. Water resources management for Hong River basin, Mekong river basin and cross-border water management;
 3. Awareness rising and institution development for d water resources management;
 4. Information sharing on IWRM.
 5. The participation of CSO in water resources management
 6. Water discharge into irrigation system management.
- Concerning recommendation for improve the quality of workshop there are following suggestions:
1. More experts on water resources management will be invited;
 2. More time allocated for discussion;
 3. Longer time for the workshop, for example 01 day.
 4. GWPO, GWP-SEA, and VNWP should consider the budget for implementations for the third phase../.

IWRM Action Plan

#	Title of action	Short description	Weighted Principle on Indicator match	Level	Short Survey Questions	Related SDGs
1	Moderinisation of sustainable agriculture irrigation system in Mekong River Delta.	Modernization of Irrigation system serving sustainable agriculture development in ecological regions of Mekong River Delta.	MANAGEMENT INSTRUMENTS	National	3.1b. Sustainable, efficient use management	6.4 Water efficiency, 12. Responsible consumption and production
2	Transboundary water resources management in Se San - Sre Pok River basin.	Cross-border Water resources Management in Se San – Sre Pok River basin Management, Vietnam.	ENABLING ENVIRONMENT	Transboundary	1.2c. Transboundary arrangements	6.5 Integrated water resources management & transboundary cooperation
3	Measures for sustainable underground water sources in Central Highland.	Assessment and propose measures for sustainable underground water sources in Central Highland.	MANAGEMENT INSTRUMENTS	Sub-national	3.2b. Aquifer management instruments	6.5 Integrated water resources management & transboundary cooperation
4	Assessment and Management solutions for water pollution within the An Kim Hai Irrigation system.	Assessment of water pollution sources and propose management solution for An Kim Hai Irrigation system.	MANAGEMENT INSTRUMENTS	National	3.1c. Pollution control	6.3 Water quality, treatment, safe reuse
5	Sustainability Assessment for Water Resources of Sre pok.	Sustainability Assessment for Water Resources of Sre pok, upstream part of lower Mekong River Basin, Vietnam.	MANAGEMENT INSTRUMENTS	National	3.1b. Sustainable, efficient use management	6.4 Water efficiency
6	Private sector engagement in risk reduction in central costal provinces.	Engagement of private sector in disaster risk reduction in central coastal provinces, Vietnam.	INSTITUTIONS & PARTICIPATION	National	2.1d. Private sector participation	13. Climate action, 17. Partnerships for the goals
7	Water use assessment to strengthen application of	Water use assessment and proposed measures to strengthen the application of water saving irrigation technology in	MANAGEMENT INSTRUMENTS	National	3.1d. Ecosystems management	6.4 Water efficiency

	water saving irrigation technology.	medium and large hydraulic work system ensuring effectiveness and sustainability of water use.				
--	-------------------------------------	--	--	--	--	--