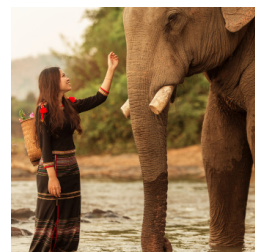




VIETNAM RIVERS NETWORK

ANNUAL REPORT 2020



Abbreviation

CEWAREC	Center for Sustainable Development for Water Resources and Climate Change Adaptation
CSRD	Center for Social Development Studies
EIA	Environmental Impacts Assessment
GreenID	Green Innovation and Development Centre
VUSTA	Vietnam Union of Science and Technology Associations
VRN	Vietnam River Network
WARECOD	Center for Water Resources Conservation and Development

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ABOUT VIETNAM RIVERS NETWORK

Vietnam Rivers Network (VRN) is an open forum attracting the participation of non-governmental organizations, researchers, scholars, and staff in government agencies, local communities, and people with a common interest in river protection and sustainable development in Vietnam.

VRN's organizational structure includes Network Council, Management Board and Network Secretariat with specific roles and tasks.

'Fresh river

-

Prosperous

life"



Message from the Founder of VRN

Dear ladies and gentlemen!

“The river nearby runs through my home village
Flowing with my childhood in mind
As it's been far bygone the river is vivid in dreams
Reflecting the beauty of cloud colors with its
full, still alluvium”

The above sentences have revealed how many rivers and streams in Vietnam are and how important and loving they are. Having recognized that rivers are the source for living, carrying and producing wealth offered by Mother Nature, the Vietnam River Network (VRN) in cooperation with individuals and member organizations has been working continuously for many years to preserve and protect rivers of rural villages and urban areas in particular and the river system of Vietnam in general.



Our rivers and streams are dense with 2360 rivers over 10 km long, so if we go along the country from North to South, we will meet a river every 20-25 km. It is a precious source of freshwater ensuring human life and the foundation for socio-economic development and the environmental landscape of the country. Vietnam is not facing water scarcity, but we are not a country that is rich in water. Nowadays, our water resources are in a great challenge, which is the risk of degradation and depletion due to overexploitation and pollution.

For each nation, rivers seem to be blood vessels, and water like blood to a human body. Protecting rivers and maintaining the health of rivers are also preserving the nation's life today and generations in the future.

Unsustainable development activities due to the interest of group of persons or a particular organization that devastated the river, will always pose risks and dangers to people, the community, and the whole society. In the context of climate change, the dangers will be greater and greater.

Therefore, the River Vietnam Network will continue to research and advocate for stakeholders who pay more attention to maintain and preserve the values of rivers in balance with economic benefits, social environment. Thus it will restore step by step the primitive and mystery of riparian nature to ensure equality with next generations through the maintenance of heritage landscapes that have been for thousands of generations.

TS. Đào Trọng Tứ
Trưởng ban Điều hành Mạng lưới Sông ngòi Việt Nam

OUTSTANDING ACTIVITIES

In the context of implementing resolution 55 of the Prime Minister on sustainable energy development, VRN continues to promote the achievements through surveys and research in previous years, to contribute to enhancing the position of VRN in social criticism of water resources protection related to the environment and livelihoods of communities in river basins. In 2020, VRN selected three (03) small studies based on evaluating 19 proposals sent from provinces and cities. These studies related to the implementation of energy development with Water Security of the VRN member organizations have been conducted for 3 months (from August to November 2020). Specifically, 1. Water security in the Lower Mekong River



ĐÁNH GIÁ TÁC ĐỘNG CỦA CÁC CHẤT HÓA HỌC PHÁT TÁN TỪ VIỆC TIÊU THỤ NHIÊN LIỆU HÓA THẠCH Ở KHU CÔNG NGHIỆP HÒA KHÁNH ĐẾN MÔI TRƯỜNG KHÔNG KHÍ VÀ MÔI TRƯỜNG NƯỚC MẶT VÙNG ĐÔNG BẮC THÀNH PHỐ ĐÀ NẴNG



AN NINH NGUỒN NƯỚC VÙNG HẠ LƯU SÔNG MÊ KÔNG VÀ SINH KẾ CỦA CÁC CỘNG ĐỒNG CƯ DÂN TỈNH AN GIANG

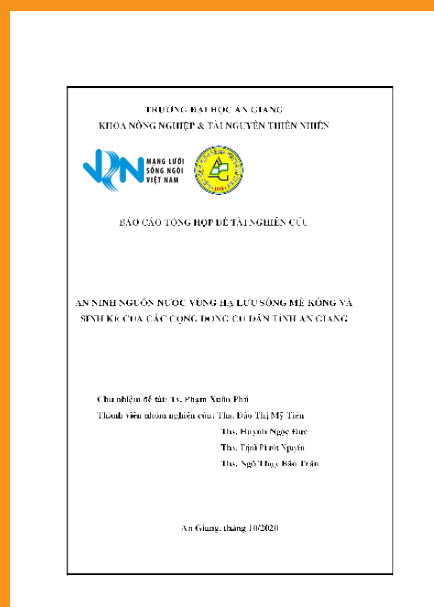
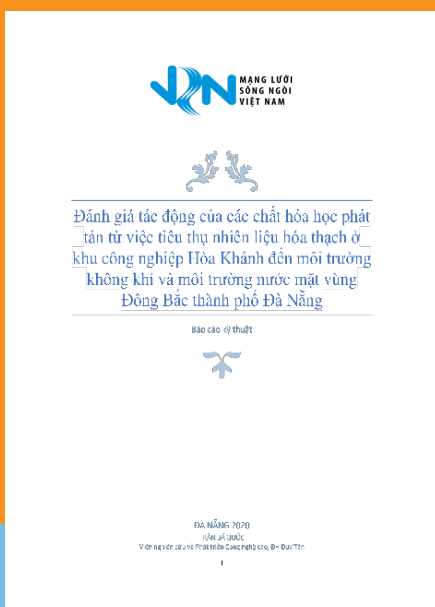


CHẤT THẢI CỦA NHÀ MÁY NHIỆT ĐIỆN THAN MẠO KHÊ VÀ AN NINH NGUỒN NƯỚC ĐẾN CỘNG ĐỒNG DÂN CƯ

OF VRN 2020

and community livelihoods (VRN Member Group, An Giang University); 2. Evaluate the impact of chemicals released from the consumption of fossil fuels in Hoa Khanh industrial zone on the air and surface water environment in the northeastern region of Danang city (High-tech Research and Development Institute Group, Duy Tan University, Da Nang); 3. Waste from Mao Khe coal thermal power plant and water security to the community (Irrigation Planning Institute).

The results of these 3 studies will be presented and discussed by the organizations and take their comments at this annual conference.





RECOGNIZING ACTIVITIES

20



FROM STRATEGIES

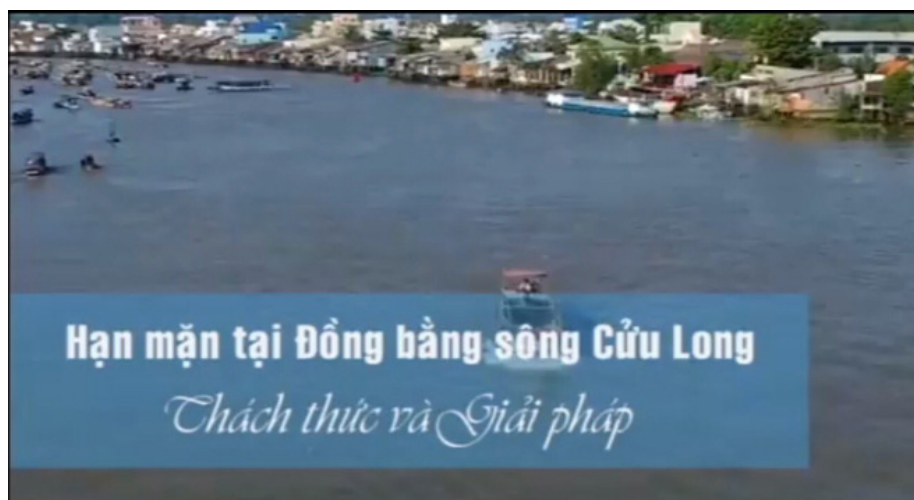
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Strategy 1

Operate as a multidimensional forum to create conditions for all subjects with the same protection rivers and water resources interests to participate in sharing, receiving information, knowledge, and experiences.

The main activities focused on communication activities to provide information, image advertisement, and position in activities related to VRN's vision associated with an ecosystem of a river basin in the context of climate change, natural disaster, and sea-level rise. Specifically:

At the beginning of the year, VRN has made a video publication on salination 2020, which is the speech of representatives from the people in the affected area. The experts identify the situation and propose solutions. The video with the participation of the group "Ben Tre Youth Creation" is considered as a sharing from representatives of the future generations to the public as well as Vietnamese NGOs and NPOs.



In terms of content, this strategy will contribute to strengthening the management capacity of the organization (including human and resources): coordination, fundraising for the Executive Board to diversify and enhance operation quality. Successful implementation of this strategy will contribute to improving VRN's organizational structure and operating regulations, strengthening relationships and cooperation among members, the commitment of 10 members in VRN. At the same time, the strategy promotes the process of sharing information and experiences related to the protection of water resources and ecosystems in river basins.

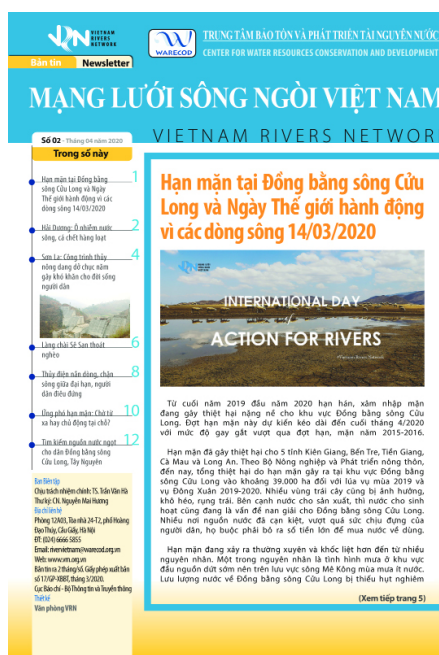
Organizing photo online contest “Echo from the jungle 2020”

Keeping the program of photo online contest 3 years ago, the contest in 2020 was organized 2 phases including “Central Highland - Land, Water, Life” and “Central Highland – Development story”. Two phases finished in November. The contest has received the attention of the public in Vietnam, which are the cherished hearts of the Central Highlands with 6,500 approaches, 2,000 likes, 16,000 views.

Moreover, there was the participation of more than 100 authors who are mainly living in the provinces of Central Highland with nearly 500 single photos and photosets. The content of these works has reflected the current situation and challenges of the land under human impact with the exploitation and using the intolerable environment and water resources. The best photos were selected and published in the photobook series “Tay Nguyen – Echo from the jungle - Challenges in development” with bilingual English – Vietnamese.



Publish a newsletter to the members of VRN, Office, Department, Organizations, Individuals



Activities of the Vietnam Rivers Network newsletter: is the mouthpiece of VRN has always been proud that the Press Department under the Ministry of Information and Communications has been licensed for 15 years because of well complying with the operating principles and purposes of the domestic press. Although the VRN's newsletter was licensed for an internal 12-page newsletter, VRN has tried to reflect with 6 issues/year which are the concerns of individuals and organizations, communities that have an interest in rivers and water resources in the context of serious harm. At the same time, the newsletter also transferred large, small domestic river situation and cross the frontier river with the original linking between people's lives and social communities facing the challenge of interest groups, narrow nationalism. From the dimensions of migration, resettlement, gender and livelihoods, hydropower, irrigation, and renewable energy, the newsletter is updated with new information from domestic and international newspapers and websites to a member of VRN. Moreover, to adapt to information technology, the VRN newsletter has recently changed the publishing format, including color prints for ethnic minority communities and the electronic version for members who have access to electronic websites.

However, the news source from VRN's members providing for the newsletter was very low because the center is based on free websites. The limitation was overwhelmed by the enthusiasm and responsibility from project news of organizations such as Warecod, Green ID, CSRD, and a few individuals from Thanh Hoa Irrigation Association, Soc Trang Women's Union,... Hopefully, this existence will gradually be closed.



2 month/issue



98 Resources and Environment Office, Province people's committee



6 issue/year



350 members

Strategy 2

Enhance knowledge and strengthen capacity for VRN's members and communities to promote direct participation in protecting, managing water resources and river system as well as adapting the risks, challenges related to water river.

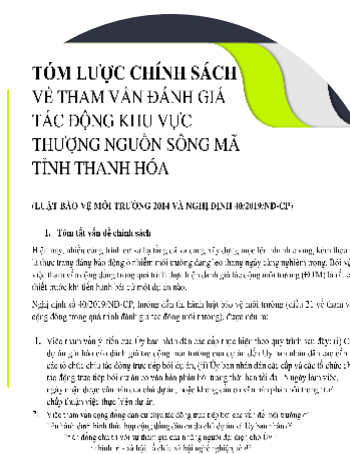
In 2020, the member organization of VRN joined many training courses by Oxfam, Vietnam sustainable energy Alliance (VSEA). The effectiveness not only increases VRN's position on forum activities but also achieves:

Skills in drafting, policy briefs (Oxfam)

Purpose: to build policy messages, advocacy plans in each specific period.

Regarding gender mainstreaming training

Purpose: to clearly define the advantage of each gender and to enhance economic rights for women.



Training: "Guidance on information security and expressive safety"

Purpose: To provide a knowledge framework and general guidance for CSOs to build a digital security foundation for the organization; from there, using appropriate tools to strengthen the capacity to protect the information, data, and expression of individuals and organizations.



Communication knowledge: to help identify interventional communication models/advocacy and risk/direction to handle communication crisis; Information gathering skill/building evidence skills

Training on "Internet safety and the Law on Network Security"

Purpose: To understand the advantage of Network security Law on the organization's activities and to practice skills for safe using networks.

This strategy will contribute to minimizing the negative effect of the process of unsustainable economic development causing water resources, rivers, biodiversity, and livelihood of residents in the river basin. The success of this strategy will create a firm foundation for the implementation of the Network's advocacy strategy.

The strategy promotes community participation in water resources management. Besides the research program above, the Center implement project of community development to enhance resilience capacity with the impacts of environmental change of some villages in Krong Na commune, Buon Don district, Dak Lak province where the final 4A hydroelectric power plant of the system consisting 7 hydroelectric power plants built on the Se rê pốk river. The project has contributed to improving access to safe drinking water as well as enhancing capacity for water resource protection and environmental sanitation in the area. With the local community, the project shows the need to strengthen the social responsibility of hydropower companies in minimizing their impacts on the environment and the community

Organize training for the community of Krong Na commune, Buon Don district, Dak Lak

"Highly trained in communication skills and legal knowledge".

The objective of the training is improving understanding of rights, obligations and responsibilities of stakeholders in environmental protection; live and work according to the constitution and the law.



Training on enhancing capacity in Jang Lanh village

Purposes: Communities participate in social development. Training courses encourage core group members of the community to have responsibility for their social problems by equipping knowledge, skills, and experience through empowerment and connection with others in a friendly and effective way towards sustainable community development.

Continuing to maintain communities

Green Group – Con Cu, Tra Vinh province
Community in Long Phu District, Soc Trang province
Center for Creation and Community Connection - CC&CC
Community in Phong Tan commune, Bac Lieu province
Social sciences & Humanities research Center
An Giang university
Young creative group Ben Tre



Strategy 3

Expand and strengthen the connection, cooperation with domestic and foreign stakeholders to protect water resources, river systems, and livelihoods of communities in the river basin.

This strategy contributes to strengthening and expanding cooperation with stakeholders about environmental protection issues and water resource governance (Cooperation), human resources, and effective access to each stakeholder and specific partner for Network Executive Committee and Network members as well as strengthening and expanding cooperation with relevant partners. If this strategy is implemented successfully, it will help popularize VRN's contributions in the river protection field, enhancing VRN's position in relationships with stakeholders and building relationships supporting VRN implementing the role of monitoring and policy contribution.

VRN participated in the seminar hosted by the Vietnam Union of Science and Technology Associations (VUSTA) combined with the Center for Sustainable Rural Development (SRD) and several other organizations in the workshop on Sustainable Development of Mekong River Delta.

At the workshop, WARECOD created favorable conditions for 2 Communities in Gia Rai district- (Bac Lieu) and Thoi Thanh (Can Tho) to introduce an agricultural development model based on their ecosystem about "Community on environmental protection and sustainable livelihood development", "Community on shrimp farming and protecting the ecosystem"

To strengthen the connection with social organizations, VRN actively responded and participated in the annual conference 2020 on social organizations with the theme: "Water security for the sustainable development in Vietnam" chaired and organized by NGO-IC with member organizations such as VUSTA, PHAD, OXFAM, LIGHT/MNet, VRN, CECR, GreenHub, CEWAREC...

Attending "Regional Forum on Sanakham Hydropower Project (Laos) on the Mekong Mainstream" is Dr. Dao Trong Tu who is VRN's representative. According to the Bangkok Post, the Sanakham hydroelectric project which installed a capacity of 684 MW with a total investment of more than 2 billion USD, is located on the Mekong River bordering the Thai-Laos border about 2km upstream in Loie province, Northern Thailand.

This consultation with stakeholders at the regional level was held in November 2020 in Ho Chi Minh City. MRC officially kicked off the consultation period about the Sanakham dam project which was support by China on 30 July 2020. However, this hydroelectric dam project with 684 MW is still started by a small company Datang International Power Generation (belong Chinese electricity corporation), and becomes the 7th project on the mainstream of the Mekong River in Laos.

A scientific workshop "Issues of drought and saline intrusion in 2020 in the Mekong Delta" was funded and organized by the Research Institute of Climate Change (Can Tho University). The scientific reports from the workshop showed that the drought and saline intrusion situation was very serious in the Mekong Delta. On that basis, scientists propose that there are specific and radical solutions for each sub-region to increase efficiency and suitable with Resolution 120/NQ-CP on sustainable development of the Mekong Delta adapting to climate change.



Strategy 4

Implement the role of monitoring, independent criticism, and advocacy on water resources based on practical activities.

This strategy will contribute to strengthening the organization's sustainability and development, the interconnection and inheritance among network activities, especially research conducted by network members to serve the monitoring work, independent criticism. Supervisory capacity, contribution, and advocacy especially the Executive Board and key member groups will also be strengthened in the process of strategy implementation and it will create momentum for the Network to promote its consultation, dialogue cooperation activities with agency management and policymakers. Successful implementation of this strategy will help VRN assert its position and have a voice to contribute to the process of completing and improving the effectiveness policies enforcement related to water resources and rivers, contributing to the reduction of negative impacts on the environment and society for sustainable development.

Implementing action plans with role of VRN, individuals and member organizations participated in the seminar "The role of the community participating in the implementation of the Environmental Impact Assessment":

Contributing to the process of amending the Law on Environmental Protection 2014, member organization VRN was CEWARED has chaired the research on the process of developing and evaluating Environmental Impact Assessment (EIA) of projects river development in Thanh Hoa province. In the framework of policy advocacy research for Decree 40/2019/ND-CP guiding the implementation of the Law on Environmental Protection (2014) on raising public awareness about participating in EIA consultation, the Vietnam Rivers Network (VRN) and Center for Water Resources and Climate Change Adaptation (CEWAREC) held a seminar on "The role of community participation in the implementation of the Environmental impact assessment". Research activities at Ma river (in Thanh Hoa province), study included:

Evaluating the implementation of consultancy process about Environmental Assessment Impact in Hydropower development, industrial facilities of 3 provinces in the upstream area of Ma river.

Sharing the results of the implementation of environmental impact assessment (EIA) in 3 districts of Quan Hoa, Ba Thuoc, and Cam Thuy in the upstream area of Ma river and proposing policies to contribute to completing the Law on Environmental Protection.

Based on survey results, the study proposes the hydropower development planning and forest product processing facility in the Ma river basin as follows:

Regarding hydropower planning: it is necessary to review 09 projects that are preparing documents to submit construction investment policies and if any projects have negative impacts on the environment, they should be excluded from the planning;

Industrial forestry product processing: It is necessary to re-plan the industrial establishments of forest product processing in the three districts: Quan Hoa, Ba Thuoc, and Cam Thuy. Moreover, industrial clusters are formed with perfect infrastructure, water supply, and drainage systems, and environmental treatment systems to consolidate existing processing facilities as well as future facilities.

Regarding consultation on environmental impact assessment (EIA): Many impacts caused by the construction are not mentioned in the EIA report. The people who want the consultation of the EIA report need to be improved with a more specific law. It is recommended to add the following issues to the revised Law on Environmental Protection, including:

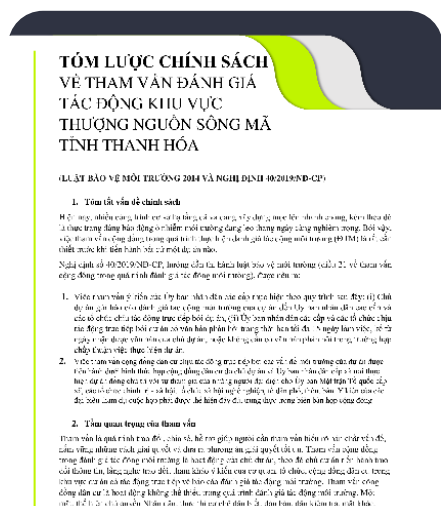
1. Information provision: The way to provide information for the EIA report should be improved. The information which is transmitted should take opinion from an organization with local experts and scientists to provide objective information; enhance communication supervision.

2. Consultation method: promoting the role of organizations with technical expertise to represent the people in consultation on EIA reports: the provincial Science and Technology Union, professional associations. there should be more responsibility regulations of the council about Environmental Impact Assessment Report related to several consultation times (at least 2 times), including the first time: when preparing the project investment; 2nd time: after reviewing the EIA and possibly post-review. Community consultation should not let the investor chaired with the People's Committee. The program should hire an independent agency to have objectivity between the investor and the people.

3. Objects of consultation: It is necessary to clearly define who will be directly affected when preparing the project and determine the spatial scope of the affected area (not limited by administrative boundaries): allowing organizations and individuals who interested in the project and local sustainable development participate in consultation; allowing international organizations, regional organizations, and foreign experts with enormous experience on environmental resources issues related to the project wishing to consult on EIA report content.

4. Consultation content: It is necessary to expand the scope of consultation which consult not only the results of environmental impact assessment but also the process and methods of implementing the environmental impact assessment;

5. EIA Reporting Funding: extract budget to built independent EIA report isolating the investor and the consultation will be more objective.



SYNTHESIZING RESULTS OF S

2017

- Newsletter: 2 months/ issue
- 05 coordination organization
- 09 LVS map in the website
- More than 250,000 access views
- 1480 follows on Facebook.
- Facebook appearance: - Attract interest: Photo online contest: Dialogue with rivers - Talkshow

2019

- Newsletter: 2 month/issue
- Surveys on the need for publishment: received 40 (10 %) feedbacks.
- 40 subscribe and received document
- Talkshow "Đi tìm những dòng sông trình nguyên" (4 regions: Hanoi, Hue, Ho Chi Minh city, Can Tho— 1600 views, 98 shares
- Video: "International action for rivers Day" on 14th March

2018

- Newsletter: 2 month/issue
- Attract interest: Photo online contest
- Workshop: "Gender and Water resources management"
- VRN and StM joined MRC DPS
- Joined forum about sustainable water management and millennium goals in Can Tho.

2020

- Newsletter: 2 month/issue
- Attract interest: Photo online contest "Tiếng vọng từ Đại ngàn" (6500 view, 48 share)
- Video about salination in 2020

Strategy 1

Operate as a multidimensional to create conditions for all subjects with the same protection rivers water resources interests to participate in sharing, receiving information knowledge, and experiences.

Strategy 4

Implement the role of monitoring, independent criticism, and advocacy on water resources based on practical activities.

Expand a cooperat stakehol systems, river basi

2017

- Consultation with Pak Beng Hydropower
- Comment on draft irrigation law.
- Recommendation to stop the project of encroaching Dong Nai river in 2017
- Give comments to Decree 72 on dam safety management

2019

- Research on the impact of hydropower on Ma river, Trung Son, and hydropower planning in Lao Cai province.
- Livestream and release on issues related to rivers and river construction
- Press against the construction of the Luang Prabang Hydropower dam.
- Press encroaching Han river and canal in Can Giuoc, Long An province => Investor must study again

2018

- Recommend stopping irrigation project in Cai Lon – Cai Be
- Evaluate Decree, circular guiding the implementation of the Water Resources Law
- Contribute comments on hydroelectric projects on the Mekong mainstream

2020

- Seminar on "The Role of Community Participation in EIA implementation".
- Videos, infographics, research on the impact of Hydropower on the ESG and the responsibilities of its stakeholders.
- Conduct a small Study: Focus on Water Pollution from Industrial and Energy Development with 3 out of 19 appropriate proposals implemented.

ADVANTAGES

Maintain main activities goals

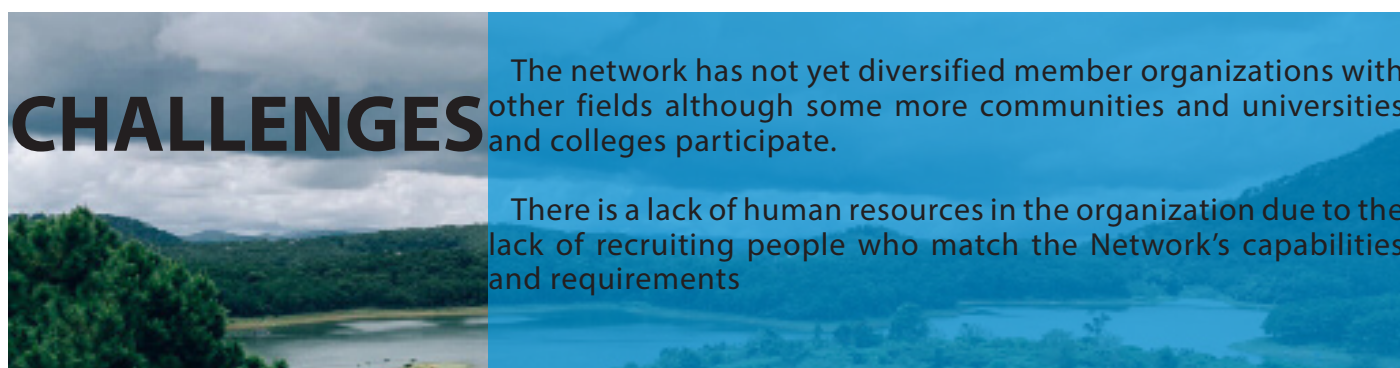
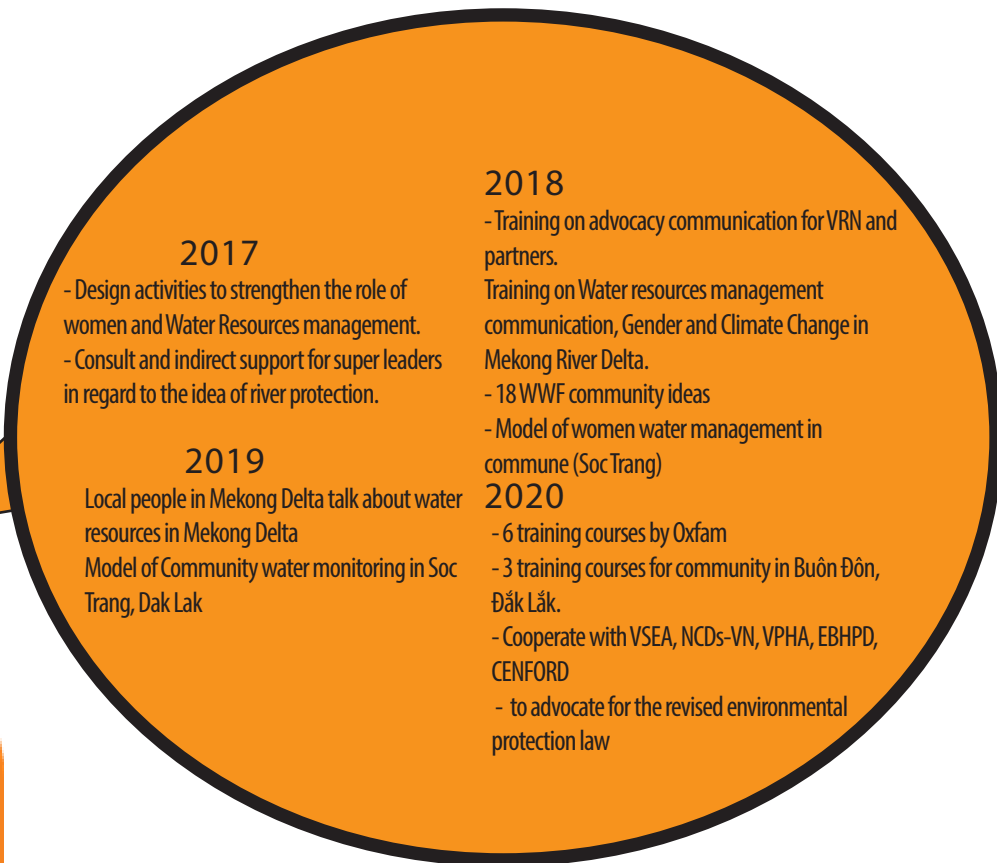
- Diverse communication ways to create attraction – Livestream, Facebook, combining a program of other organization such as VACI, VUSTA, Department of Water Resources Management,...

- Implementation topic approached properly with current challenges so it received general interest such as water security

- Increase participation of community groups through a variety of participatory approaches: research, co-management, clubs, ecosystem-based livelihood development

It can be said that it continues to receive attention although it is not strong. The strategy is to rate and received member's feedback with the newsletter, get membership registration with more than 40 people in the last 2 years, or be invited to join other alliances.

STRATEGY EXECUTION OF VRN



CHALLENGES

The network has not yet diversified member organizations with other fields although some more communities and universities and colleges participate.

There is a lack of human resources in the organization due to the lack of recruiting people who match the Network's capabilities and requirements



IMPRESSION OF THE COMMUNITY

If you had a chance to set foot in Krong Na commune, Buon Don district (Dak Lak) two or three decades ago, you would not forget the wonderful impression about majestic and rustic Central Highlands where villages of ethnic minorities living along the streams connecting to Sê rê pốk downstream and the legendary wharfs in our homeland. AS time passed, if there is a chance to visit again, one may feel surprisingly different impression on both the scenery and people in there. Therefore, at the Vietnam River Network Conference, I had few words on behalf of the community of K'ông Na commune regarding recent gains and losses.

The first change is the water source of our village. In the past, March in Central Highland is very beautiful season with green scenery of Sê rê pốk where people collect water for living and for ritual events. Now, water source becomes dry and inert even contaminated. Elders in the village said that the flood from forest or hydropower has been unusual and more intensiv. Extreme weather may be accounted for a small part, the most reason is hydropower plants have blocked Sê rê pốk river flow causing drought and polluted blowing away the traditional custom of ritual water worshipping of the local ethnic people.. The health of children and women is more and more harmful. Villagers much worry about livelihoods and disasters.



The second change is a meeting opportunity with WARECOD under a small project to express our concern regarding water pollution.. At first, we did not believe they would do anything for our local community. Through talking with the authorities and local people, the Center's staff understood the local people difficulties of water shortages, which is threatening the community's life. The other challenge is communication among us due to that the people's limited understanding VNese language, so many people are hesitate to share their ideas about the current situation. However, based on local staff, community co- research was set up to find local habits, and lifestyle of the ethnic minorities related to natural resources conservation and assessing the resilience of the community. From that, awareness of natural resource protection and heritage preservation was raised and adaptive action plan was developed. The formation of "River monitoring group for environmental protection" engages several people, mostly women, in action of "Together for protecting the living environment". First, local people worked together to clean up, collect garbage in Jang Lanh village. The Center supported them financially, promoted and guided meaningful activities such as communication event on keeping environmental sanitation, protecting water sources, developing some small models for household water filtration, household livelihoods including growing straw mushroom using water from the water filtration model; chicken rearing; local pig farming, etc. tSince then, people's awareness has gradually been raised, integrated and in all villagers's living and production activities in the commune. Initial success from the Jang Lanh village'sactivities has spreaded to other villages inluencing their actions. The "Core group" was established with selected members representing for community of Earong, Buon Tri A, Buon Don, and Thong Nhat villages. They conducted evaluate the impacts of hydropower on local water sources and livelihoods. With the support of the authorities and the Youth and Women associations, they also organized communication events with the participation of offices and units located in the commune. Thereby, the organizational and coordination capacity of community groups, especially ethnic minority women has been promoted and recognized. They have become more confident and enthusiastic to participate in community activities. This is a significant change and creates trust with local people.

On the other hand, the financial support of the Center has helped to overcome difficulties in domestic water for 45 households in Jang Lanh, Tri A, and Don village through installing small-scale water filtration tanks with sand, gravel, and charcoal.

Talking about the changes in our village through the story under the Center for Water Conservation and Development project is the way to share our belief that effective operations from small initiatives make significance changes in environmental protection and water quality improvement.

Lê Tiến Dũng
Vice-Chairman of Commune People's Committee Krong Na



The Centre for Social Research and Development (CSRD)

The Centre for Social Research and Development (CSRD) was established in 2008, CSRD seeks justice for vulnerable communities threatened by external change. CSRD has retained a geographical focus in Thua Thien Hue and adjacent provinces in the Central Region of Vietnam but has also undertaken projects throughout the lower Mekong.



Green Innovation and Development Centre (GreenID)

Green Innovation and Development Centre (GreenID) was established in 2008, works to promote sustainable development in Vietnam and the larger Mekong region, and is now on its way to become a leading and credible civil society actor promoting sustainable energy sector development.

OPERATION MEMBERS AND IND

ON OF SHIP DIVIDUALS



Center for Sustainable Water Resources Development and Climate Change Adaptation

CEWAREC was established in 2008, is an independent consulting agency, research, science, technology, and international cooperation on planning, management, development of water resources and related resources, protection environment, and climate change adaptation.



Center for Water Resources Conservation and Development

WARECOD was established in 2006, is to protect Vietnam's water resources, contribute to ensuring the well-being of river ecosystems, sustain biodiversity, and protect the livelihoods of communities that depend on these resources.

The Centre for Social Research and Development (CSRD)

Project on strengthening the capacity of natural disaster prevention for 6 localities in the Central region - Central Highlands

Natural disasters and climate change (CC) are increasingly unpredictable, causing many negative impacts, greatly affecting the community, thereby raising awareness and resilience for the local government and community is extremely important and necessary.

Since 2019, the Center for Social Development Studies (CSRD) with funding from Development Workshop France (DWF) has conducted surveys to assess the capacity, conditions, and needs of disaster prevention of localities. Activities are implemented in 06 localities, namely Thuan Loc and Hai Duong commune (Huong Tra town) of Thua Thien - Hue province, An My ward (Tam Ky city), and Dai Hong commune (Dai Loc district), Quang Nam province; Hoa Phu commune and Ea Nuol commune (Buon Don district, Dak Lak province. These provinces have specific climatic conditions, often affected by natural disasters such as floods, droughts, landslides, storms, and cyclones.

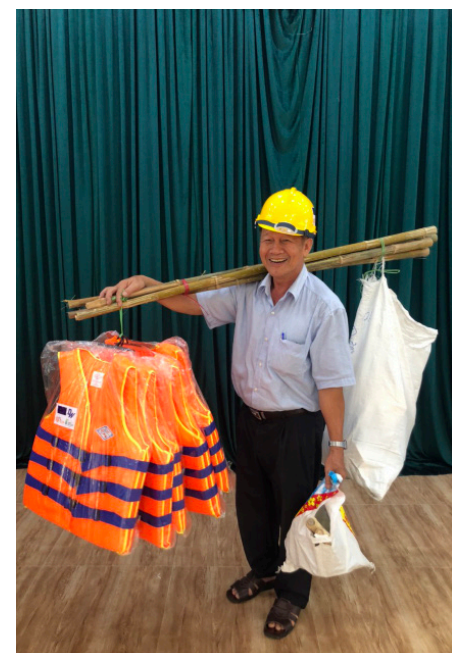
The results of assessing local awareness and needs relating to cc adaptation and disaster prevention show that people want to be supplemented with knowledge, updated information, raising their awareness and knowledge in the field of natural disaster prevention (disaster prevention) to increase resistance and resilience. The project has supported 20 million VND/community, the total funding support for 06 communities was 120 million VND to help the community to improve capacity, provided natural disaster prevention equipment.

The community conducted many different activities: training on natural disaster prevention for staff and village heads of Hai Duong commune, training on rescuing by boat on the river of Thuan Loc Ward (Thua Thien - Hue), communication event in Ea Nuol (Đắk Lắk) và An Mỹ (Quảng Nam).

Community in Dai Hong commune (Quang Nam) had planned to grow

trees to prevent landslides, protect property, arable land downstream Vu Gia - Thu Bon river. It was expected to plant trees along 3km of riverbank in Dau Di area (Dai Hong commune) in November 2020.

Funding support 's limited but communities had initially built and strengthened their local capacities. In the coming time, the project will have assessments as well as implement the next plans related to natural disaster prevention.



Green Innovation and Development Centre (GreenID)

MILLIONS OF GREENHOUSE FOR PROSPEROUS VIET NAM

The program was organized by GreenID in 2018 with the goal: To engage one million homes and buildings in Vietnam in installment of rooftop solar power and application of green solutions by 2030, contribute to reducing energy consumption, and improving income for households and small and medium businesses facilities.

Although the program is implemented in the context of the Covid-19 epidemic, the activities are still deployed continuously through many different forms:

Communication activities for raising the community awareness in both ways of online and offline at locality providing technical information and policy related to the State assistance.

Information portal and fan page "trieungoinhaxanh" regularly updated information including news

on activities, policies, finance, ... are posted and widely shared to the community. The information channel has attracted more than 600 likes, thousands of access, and interactions through question and answer.

GreenID combined with VCCA and partners to promote sustainable energy models application in Hanoi, Danang, An Giang, Dong Thap, Tien Giang with 150 models for households, office with 1143 kWp; 500 solar power models were installed for communities that have not connected to grid line; 03 models of supplying pure drinking water using solar energy; 39 solar water heater systems; 42 LED bulbs were replaced for dialysis patients in Bach Mai hospital area; 15 biogas were installed.

GreenID has currently established the model of Green Ambassadors group. Green Ambassadors will play

the role of proactive communicators, spreading the benefits of the programs to the community, and at the same time advising and connecting people who are interested and want to apply solutions with businesses providing solutions. The first Green Ambassador group was formed in Dong Thap with the participation of more than 300 veteran members, all resources obtained from the program will be used to build with 60 houses until 2023 for the members who are in difficulty in housing

For more information about the Green House for Vietnam prosperity program, please follow up at: www.trieungoinhaxanh.com.vn



Center for Sustainable Development for Water Resources and Climate Change Adaptation

Computational assessment of solutions to reduce water pollution and recommendations for solutions that contribute to the restoration of living content in Hanoi

1. Overview

Hanoi is formed from the Red River delta, the geographical feature of Hanoi city is "River City". In addition to the Red River - the second largest river in Vietnam, Ha Noi has 6 others rivers flowing are Nhue, Day, To Lich, Kim Nguu, Set, and Lu River. The river and lake system is the highlight of the green landscape of the Hanoi capital. The river system of Hanoi previously was an important source of water, the transport system connected Hanoi and other regions of the country. Nowadays, system of these river and lake is mainly used as a system for water drainage and storage to temporarily reduce urban flooding.

The process of socio-economic development, population growth, and strong urbanization are having positive impacts on the socio-economic development and the modern

appearance of the capital. However, at present, almost the entire river system in Hanoi's city has been seriously polluted and has turned into "dead rivers".

2. Urgency

From the above current situation, the g

Center for Sustainable Development for Water Resources and Climate Change Adaptation

(CEWAREC) has implemented the critical thesis "Assessing the feasibility of water cleaning solutions in Hanoi city and proposing solutions to mitigate pollution". The project is a small to assess the feasibility of solutions cleaning water in Hanoi city and recommend to the city committee and relevant agencies appropriate solutions for restoring city rivers.

The topic was discussed and shared by scientists and functional agencies at the seminar "Suggestions for completing Critical Consultancy Project Report" held on December 9, 2020, in Hanoi with the participation of more than 40 participants. The participants contributed 9 presentations and many other analysis opinions. Participants agreed to develop a policy proposal to submit to the National Assembly, the People's Committee of Hanoi, and relevant agencies.



Center for Water Resources Conservation and Development (WARECOD)

Towards harmony in investment for sustainable development

The use of water resources for economic development investment in recent years has positively changed the lives of people in Vietnam. However, this economic development at all costs has led to many consequences. The study of the interrelation and gaps between safeguard policy and implementation in practice plays a basic role in recognizing and changing regulations that apply and effectively enforce policy towards environmental protection and sustainable development in the future.

Center for Water Resources Conservation and Development (WARECOD) conducted a research on the Current Situation of Environment and Livelihoods under the impact of Hydropower Plant Construction under the project "Promoting Environmental and society Responsibility of commercial banks".

Initial study at Cam Thuy 1 hydropower plant: There are many problems in the implementation process from design, construction, environmental management measures implementation. Cam Thuy hydropower plant change location reaching 3 km. Some constructions such as ditches - drainage culverts, embankment dykes have not been completed. The area of land occupied is too large with 16.71ha / 1MW, but it is even much larger by surveyed from Google Earth .

Research on impact assessment of the terraced hydropower system on Suoi Muong Hoa - a branch of Ngoi Bo in Ban Ho commune with 3 hydropower plants and 6 other plants in the upstream such as Ta Van, Su Pan, Nam Sai.

The research results show that most of the hydropower projects that have been built in Ban Ho commune have completed legal procedures with regulations of the Lao Cai People's Committee and reporting environmental impact assessment report with environmental and social management measures. However, they were not compiled during implementation.

Ban Ho Hydropower plant is built on the preferential loans of the Joint

Stock Commercial Bank of Vietnam Industry and Trade (Vietinbank). When the legal procedures have not been completed according to the state regulations, this hydropower project is still being disbursed and built.

There are profound changes in environmental, economic, and social problems in Ban Ho commune under the impact of hydropower projects such as topography, geomorphology and flow; quality of the living environment, livelihood opportunities, and traditional cultural practices; 100% of the people surveyed said that hydropower makes no benefit even takes away natural heritages and material possessions and affect their cultural traditions.



Sustainable Exploitation, utilisation, and protection of water resources

1. Introduction

A river basin is a land in which surface water and groundwater naturally flow into a river and drain into a common outlet to the sea. The legislation on river basin water environment protection still has many shortcomings, overlapping, and contradictions. The reason is that it has not been built and operated based on unified legal principles. This article shows what principles for the formulation of legislation on River basin water environmental protection should be based on.

2. Basic principles adjusting laws on water environmental protection in river basins

The process of formulating and implementing the legislation on water environmental protection in river basins basically should be based on the following principles:

The first is the principle of integrated, interdisciplinary approach; system ecological approach; participatory approach in water environment protection in river basins.

The second principle is management on the water environment agreed in the entire river basin

The third, principle of water environment protection is based on respecting the natural rules, socio-economic development rules.

The fourth is the principle of ensuring fairness, reasonableness, and equality of obligations and interests

between the government, organizations, individuals, communities, even between countries in the exploitation, use, and management of the environmental water in the river basin.

The fifth is the principle of predictability, warning, promptness in the prevention, detection, timeliness, prevention and settlement of pollution in river basins.

The sixth is the principle that benefits from water environment in river basins which must pay, cause damage to water environment in river basins with compensation.

The seventh is the principle of socialization of water resources protection in river basins.

The eighth, the principle of completion of environment water protection law in river basin must be inline with or ensure the right to live in a healthy environment,

healthy and life rights. These are the basic rights recognized in the 2013 constitution and international treaties to which Vietnam is a member. Also, it must be associated with the preservation and promotion of traditional cultural values of river basin communities in environmental protection and the protection of national sovereignty.

3. Conclusion

To formulate and to complete the law on water environmental protection in the river basin, it is necessary to count on general and specific legal principles on water environmental protection in the river basin for rational, economical and efficient exploitation, utilization, of water resources in river basins to effectively control water pollution and biodiversity conservation towards sustainable development in the river basins.

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Viện nhà nước và pháp luật





Some feelings about river and lake pollution in Hanoi

How are Hanoi rivers and lakes now? The city rivers and lakes have been embanked, the city becomes more cleaner. In the past, when rain waterfalls, the water ran to the ponds and sewerage system, the city was with only some streets flooded. Nowadays, almost all streets suffered from flooding. This may be caused by climate change with more heavy rain? How many lakes have been backfilled? The city's development has caused a hug of soil and sand automatically filling up the sewerage? The garbage, the stagnant water has increased? Newspapers often criticize people throwing trash, propaganda to sort wastes from sources. Why taking tow truck for collecting? What do people the sorting wates for - to put the again in the same truck?

Sustainable development goals are high requirements about environmental sanitation. There is technical knowledge that becomes universal principles, such as synchronous treatment of urban drainage and sewerage, drainage systems separating wastewater from rainywater, etc.... then water- finance principles, payment for water use, payment for polluting water.

The planning project and drainage program of the city are medein high availability . t Ten years ago, the "Hanoi Drainage Plan to 2030, vision to 2050" was approved. That drainage planning has coordinated with the Irrigation Planning, ensuring

the drainage of urban water to the rivers. In addition, it builds water-filling works to ensure a continuity for river flow and reduce environmental pollution for Tich, Day, Nhue, and To Lich rivers. ThLarge-scale planning has contained the main purpose for drainage function .Why? May be drainage is function of the constructionsector , and while wastewater treatment function belongs to the Environment sector?

The investment plan for wastewater treatment of the city was focused on thirteen small-scale wastewater treatment plants. In the situation of the sewerage system and the mutual wastewater discharge, the small wastewater treatment plant has to cope with the heavy rain, the data shows that efficiency is only 20%. Achievements of reducing urban inundation and reducing environmental pollution are still too modest although there was landscape improvement and some new streets.

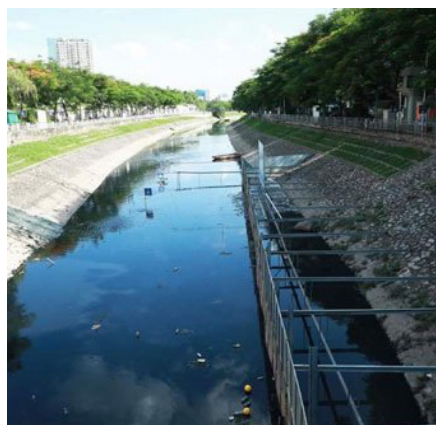
The problem of wastewater treatment separated from the

rainwater drainage system is solved by the Hanoi Wastewater Treatment System project to revive a series of polluted rivers in Hanoi, namely To Lich and Lu, Set rivers and a part of Nhue river. Characteristics are described as sewers located in the deep heart of these rivers, which does not affect the neighboring buildings and residents. The sewers will lead water to a large treatment plant in Yen Xa, Ha Dong.



There are criticisms about the project, but construction is still in progress. Hopefully, the Hanoi's rivers and lake will be green again. With the renovation of the landscape, they become more beautiful than before!

Đỗ Hồng Phấn,
Chuyên gia Tài nguyên Nước



WATER AND WASTEWATER DISPOSAL IN HANOI

The drainage system of Hanoi City is common (rainwater and wastewater). However, the rainwater drainage system can receive all kinds of wastewater (mainly domestic wastewater).

This is a common feature of the current urban drainage system in Vietnam and is the input condition for construction projects to renovate the drainage system that has been being implemented in several big cities in our country.

According to the experience of countries in the world, it is necessary to separate rainwater and wastewater drainage systems.

Sewerage systems need to be built to collect wastewater and transport it to a wastewater treatment plant. From that, different levels of treatment may be applied including:

- Pretreatment, removing large solid waste such as debris and plastics, and smaller objects such as grit from the wastewater. This prevents damage to the device during processing.
- Main treatment, remove fine particles. Wastewater is kept in a storage tank where heavier solids can settle to the bottom while any lighter solids and fat float on the surface. The sedimentation and buoyancy materials are separated while the remaining liquid is processed in secondary or discharged to the environment.
- Secondary treatment, also known as biological treatment removes residual organic matter, suspended solids, and certain bacteria, viruses, and parasites, to some extent nutrients and chemicals.

Stricter treatment is used to remove nutrients when released into sensitive waters. Specific treatment techniques, such as disinfection can be used to remove additional bacteria, viruses, and parasites which i harmful to public health, or any remaining harmful chemicals and substances.

Mud management

Waste mud formed by bacteria due to consumption of organic pollution, is generated as a by-product of wastewater treatment. A variety of treatments allow for safe mud removal. Applying lime and aerobic or anaerobic decomposition stabilizes the sludge, avoids odors, and reduces pathogenic organisms. Anaerobic digestion reduces sludge and generates biogas, while dehydration removes excess water, reduces weight and transportation costs.

Different waste lines exist, mainly depending on the national regulatory framework and mud quality. In European countries, about half of the mud is deposited on land as fertilizer, and a quarter of it is burned. Mud can contain high concentrations of metals, pathogens, and organic pollutants that are difficult to decompose, so using mud on land may be limited to protect the environment.

There is also a problem that needs to be discussed because all cross-sections of To Lich, Kim Nguu, Set, and Lu rivers are trapezoidal. The width of these rivers is quite wide. For example, To Lich river is about 20-45m wide; Kim Nguu river is 25-30m wide on average; Lu river is about 20-30m.

Thus, it can be seen that the above-mentioned rivers occupy a very large land area. Is it possible to change the

shape of a trapezoidal cross-section to a rectangle to save area while maintaining the designed drainage flow?

To find a solution for this problem, the research team, including Assoc. Prof. Bui Cong Quang (chair), with PhD: Trinh Thi Thuyet, Duong Thanh Thinh, students: Hoang Thi Minh Phuong, Le Thi Tu Anh, Dinh Thi Linh have collected and analyzed meteorological and aquatic data in Hanoi, features of the drainage system, and application SWMM model (Storm Water Management Model - Rainwater Drainage Management Model). The results achieved by the research team are only the initial scientific basis to support the idea of changing the cross-section shape of the drainage system in Hanoi.

Scenarios:

The largest three-day rain with design frequency $P = 10\%$;

The river sections of the drainage system in Kim Nguu, To Lich, and Song Set are ladder (status scenario);

The river sections of the drainage system in Kim Nguu, To Lich, and Song Set are rectangular (emulation scenario)

The results show that the water surface in the rivers in the two scenarios does not change significantly. This proves that changing the cross-section shape but keeping the cross-sectional area does not change the water level in the river.

PGS.TS.Bùi Công Quang

Total Budget 2020

Project name/ activity	Sponsor / Implementation	Total budget (VND)
Improve community capacity and understanding to promote participation in water resource management in Vietnam	McKnight Foundation (McK)	1.290.020.164
General management costs for VRN	WARECOD	279.476.200
Annual workshop on 17th December 2020	VRN/ WARECOD	124.529.500
Participate in meeting in Network and out-network	VRN /WARECOD	83.636.000
VRN publications: - Vietnam Rivers Network Newsletter (6 issues/year) - Annual report	VRN/WARECOD	117.004.284
Improve community capacity: - Researching and developing a history story of the Central Highlands	VRN/WARECOD	291.032.000
Small research topics: - Evaluate the impact of waste dispersion of Hoa Khanh industrial park on surface water in the northeastern region of Da Nang city - Security of water resources in the Mekong River downstream and livelihoods of communities in An Giang province - Waste from Mao Khe coal thermal power plant and water security to the community	- Ts. Phạm Xuân Phú - Trường đại học An Giang - Trần Bá Quốc - Giảng viên đại học Duy Tân - Ths. Trương Kim Cương- Viện Quy hoạch thủy lợi	132.000.000
Advocacy (Research and workshop)	CEWAREC, CSRD	262.342.180
Improve local authorities' understanding of the socio-environmental impacts of energy development.	ECF	232.150.000
- Join with GreenID to host energy week - Monitoring maintains Duyen Hai community group and Black Salt photo book series in Con Cu and Dong Hai communities.	WARECOD	104.620.000
- Train on integrate climate change scenarios tool in socio-economic development planning - Research on the implementation of compensation, support, and resettlement policies when the government acquires land in some projects in Ky Anh town - Thanh Hoa	Liên hiệp các hội và khoa học tỉnh Hà Tĩnh, WARECOD	127.050.000
Total		1.522.170.164



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Báo cáo thường niên 2020 Mạng lưới Sông ngòi Việt Nam

Biên tập & thiết kế: Ban thư ký VRN