

# BLUE PEACE IN INTERNATIONAL FINANCE





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# Foreword

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The Swiss Agency for Development and Cooperation has been engaged in water diplomacy for several years. In the last ten years, it has been pursuing and advocating the Blue Peace framework for using water to promote peace and cooperation.

The importance of water for sanitation, health and development has long been established. Water is one of the most important resources on the planet. Indispensable for life, water has no substitute. It is also one of the main inputs across many industrial processes, for households, and other sectors of the real economy. Long-term access to water is as such a necessity for human well-being and economic development. A decade ago water was accepted as a human right. The Global High Level Panel on Water and Peace, which was convened by 15 countries and presented its report to the United Nations in 2017, has clearly demonstrated the linkage between water, peace and security.

Thus, water is now at the centre of a triad of development, human rights and peace. It is also recognised as a Sustainable Development Goal by the United Nations. The Blue Peace framework harnesses this virtuous triangle.

The Global High Level Panel has recommended financial innovation to promote water cooperation. It builds on the ethical, sustainability and governance (ESG) discourse. These ideas have been further developed in recent publications such as those by the Earth Security Group, the United Nations Capital Development Fund, the Geneva Water Hub and also the Global Cooperation Domain of the SDC with its thematic approach including Global Programmes on Water, Climate Change, Agriculture and Food Security, Health, Migration.

The report “Blue Peace in International Finance” connects various dots and brings together many different facets of the potential for blue innovation in international finance. It highlights new trends such as the consideration of the role of peace as well as inter-faith understanding in developing new approaches to international finance. It also explains the role of multilateral development banks, green bonds and other

emerging instruments. The paper is a product of international consultations in different parts of the world, including Asia, Africa and Europe.

Switzerland has a history of 150 years of integrated water management within its borders and across its borders, with lessons learned and still learning in managing the different uses, for example water for energy, for industrial use, water for households and water for agriculture and preservation of ecosystems. It also looks back on a long tradition of dialogue and mediation to reconcile different interests among different actors.

The cooperative and multisectoral approach of the Blue Peace concept is more relevant than ever at a time when population growth, rapid urbanization and industrial expansion are putting more and more pressure on water supplies. This pressure is growing even faster due to the rising impact of climate change. It is time to start investing in water in a smarter way, through a more holistic multi-sectoral and transboundary approach.

The Swiss Agency for Development and Cooperation has enjoyed a decade long knowledge partnership with the Strategic Foresight Group in our work on water diplomacy. It has encompassed many regional and global initiatives. We are pleased that it has also resulted in new thinking on international finance.

I hope that this report provides a valuable input for discourse on this important issue. As introducing Blue Peace in the international financial sphere is a new idea, we need the involvement of many different stakeholders to advance our thinking on this subject. It is only through our collective efforts that we will be together able to make a positive difference to the world.

**Pio Wennubst**

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Development and Cooperation of the Federal Department of Foreign Affairs, Bern

# Executive Summary

- The Global High Level Panel on Water and Peace has recommended that the Blue Peace approach should be promoted in international finance. Blue Peace is transforming water from a potential source of crisis into an instrument of peace and cooperation. An important strategy to achieve this objective is to foster collaborative infrastructure projects jointly owned or managed by riparian countries in trans-boundary or shared basins, which requires providing innovative political and financial incentives.
- The publication of the Global High Level Panel report was followed by a detailed report mapping opportunities for the financial community in water and peace by the London-based Earth Security Group in October 2018 and a report 'Blue Peace: Invest in Peace through Water' by a team led by Pio Wennubst at the Swiss Agency for Development and Cooperation in February 2019.
- The three publications mentioned above reflect on a new momentum by the international community to encourage the financial sector not only to refrain from causing environmental and social harm but also to encourage sustainability, good governance and social stability. Rating agencies now assist investors with Environment Social Governance (ESG) analysis of their investments. Several agencies and industry associations are providing standards and tools for investors to consider the non-financial factors that can affect sustainability of their projects in the long run. In addition to ESG Framework, a beginning has been made to add peace and humanitarian principles. Some of these standards and tools can be extended to include the Blue Peace framework.
- The International Hydropower Association (IHA) has developed the Hydropower Sustainability Assessment Protocol, which assesses projects based on a number of factors – environmental, social, technical and economic – and Hydropower Sustainability Environmental, Social and Governance Gap Analysis Tool (ESG Tool). Both of these instruments can be slightly modified to include trans-boundary concerns.

- The IHA has developed a river basin development programme which can offer a useful path to developers and investors to foster trans-boundary cooperation, an idea already proposed by London-based Earth Security Group.
- The Global Reporting Initiative (GRI) Sustainability Reporting Guidelines are periodically reviewed to provide the best and most up-to-date guidance for effective sustainability reporting. It already has provisions for reporting on sources significantly affected by water withdrawal and quality of water in terms of effluents contents. These provisions can be modified to include international and trans-boundary dimensions.
- ESG standards are evaluated by independent rating agencies mainly for investors and asset managers. As there are several different ESG rating companies, there are no common ESG standards that are universally applicable. Therefore, inclusion of Blue Peace framework would have to be considered by an individual rating agency, either because of their own conviction, or because of demand from investors and asset management companies.
- Equator Principles (EP) is a risk management framework for determining, assessing and managing environmental and social risk, including those related to water, in projects to support responsible risk decision-making. These are developed by a voluntary association of financial institutions and revised regularly. EP Version IV will be released in 2019, which could provide an opportunity for inclusion of the Blue Peace framework.
- Investors in Geneva have taken a bold step forward by introducing Peace Building Business Criteria, as an addition to the ESG standards, and launched a Peace Investment Fund. Further elaboration of Peace Building Business Criteria to include Blue Peace principles in the future is possible. Besides, International Committee of the Red Cross (ICRC) has launched Humanitarian Impact Bonds. A new High Level Group established at Davos 2019 is expected to propose innovative financial ideas for humanitarian issues.
- There is also a new discussion on 'faith and finance', among faith-based groups to develop ethical financial principles that meet with faith and religious belief.
- Blue Peace Framework Standards can be developed to include elements related

to no harm, active peace-building, benefit sharing and importance of basin institutions.

- While there is a potential to include Blue Peace principles in international finance through modification of standards and tools, the current patterns indicate that much of the funding is provided to domestic water related projects with hardly any resources being channelled to collaborative trans-boundary projects.
- About 1 trillion USD per annum is available through Multilateral Development Banks (MDBs) for development projects; MDBs can provide funds for a 30-year cycle. About 1 trillion USD per annum is available through climate aligned bonds of which Green Bonds are important component; Green Bonds can provide funds for a 15-20 year cycle.
- However, hardly any of these funds are provided for trans-boundary water infrastructure projects outside Senegal and Gambia river basins in West Africa as most demand from the water sector is for urban water supply systems. Out of 1.6 billion USD disbursed by Green Climate Fund on 93 projects as of December 2018, 22 were related to water - but none related to trans-boundary, cooperative water infrastructure.
- Much of the funding provided by bilateral aid agencies, UN agencies and Global Environment Facility (GEF) is for institution building projects and demonstration projects with budgets under 10 million USD. The examples of such projects include formation and operation of river basin organisations, small scale technical data exchange, training, legal assistance and dialogue platforms.
- There is no indication of significant commitment to invest in trans-boundary collaborative infrastructure projects with outlays of hundreds of millions of US dollars which would make a real difference to the living conditions of people and have substantial relevance for conflict or cooperation. The examples of such projects include hydro-power plants, navigation lines,

irrigation projects, eco-tourism, among others. It is possible for riparian countries to explore funding from the conventional sources with bankable proposals for collaborative infrastructure projects.

- In order to encourage the private sector and development banks to invest in Blue Peace infrastructure projects, the Blended Finance path can be explored. Blended Finance represents a new trend to mix conventional and concessional sources of finance to meet non-financial goals. Currently, Blended Finance is mostly used to support marginal entrepreneurs like farmers and women, and for projects related to climate risks. There is potential to extend the concept to include projects that meet Blue Peace goals, since Blended Finance has emerged in response to Sustainable Development Goals, and Blue Peace meets SDG Goal 6.5.2 and Goal 16.
- It is essential for projects to secure investment under Blended Finance facilities for a project that is economically viable and the concessional finance is only sought to help achieve additional requirements that conventional finance does not cater to. It should not be seen as an alternative to conventional finance.
- Another innovation is the Blue Fund which is a special type of Blended Finance instrument to use concessional funds or grants to meet ancillary costs such as interest subsidies, insurance premia, feasibility studies and a limited portion of capital costs. As of early 2019, Congo Basin countries are preparing a feasibility study for an ambitious basin wide Blue Fund; and Seychelles has launched Blue Bond, with support of the World Bank and the GEF.
- Green Bonds, another relatively new instrument, serve a wide range of environment projects. These include, water infrastructure, renewable energy, low carbon transportation, waste management, low-carbon buildings and sustainable land use. Global political efforts during COP21 in Paris, summoned the global green finance community to reach 1 trillion USD annually by 2020 and 90 trillion USD of investment in climate projects by 2030. This has encouraged issuers to float bonds with large principal amounts and attractive interest rates. In 2017, total value of labelled Green Bonds was 221 billion USD. By September 2018, this increased to 389 billion USD. While Green Bonds are used for water and hydropower, it is for urban water supply infrastructure and domestic power projects. It should be possible to explore this market for projects that meet Blue



Peace framework in future.

- The main attraction of Green Bonds is that they offer a rate that is lower than the commercial lending rate for the issuer and a rate that is higher than the bank deposit rate to the investor, along with the possibility of long term maturity. Moreover, in some countries, Green Bonds enjoy sovereign guarantees.
- Luxembourg is an important market for Green Bonds. It has so far mostly been used by China among developing countries. However African countries can also use it in the future. African diaspora living in Europe and Europeans interested in Africa may also invest. While costs are low, exchange rate fluctuations could provide serious risk over the long run. The alternative is to float Green Bonds in the local market, but this presupposes a well-functioning domestic capital market.
- The Global High Level Panel on Water and Peace has urged the international community to encourage riparian countries to undertake Joint Investment Plans. These are normally long term plans with application across a river basin. Some plans concentrate on one sector - such as hydroelectricity. Some plans have a multi-sectoral approach. The objective of Joint Investment Plans is to rationalise allocation of resources as per the needs of member countries and different sectors in a shared river basin. This strategy recognises multiplier impact of investments made in collaborative projects.
- Some shared river basins have excelled in the development of Joint Investment Plans. These include Senegal, Gambia, Niger in Africa; Trifinio in Central America and Mekong in Asia. Other shared river basins can draw lessons from these experiences to craft their own Joint Investment Plans.

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- The most important question for a new concept such as Blue Peace is how to structure a financial product in order to attract a correct mix of investments. Any project must be viable and guided by Investment Rate of Return, which is the direct dividend an investor can expect, and Economic Rate of Return, which calculates the primary, secondary and tertiary economic impact of the project, as well as alternative costs and benefits scenarios for the given investment. Generally, Joint Investment Plans are a better strategy than individual infrastructure projects for factoring in both Investment Rate of Return and Economic Rate of Return. However, where necessary, individual projects will need to raise funds and take these rates of return into account.
  
  - A typical financial product for a collaborative project will require a 'Special Purpose Vehicle' (SPV) to receive and manage investment. The SPV could be created for managing a particular project or an entire Joint Investment Plans.
  
  - The financial product will have the following elements:
    - Credit Rating
    - Insurance
    - Risk Guarantees
    - Special Purpose Vehicle to operate the project
    - Financial Consortium.
  
  - There is often a mismatch of expectation of different types of investors. Some investors such as commercial banks want to lend only for a period of 5 to 10 years. Some like pension funds and Green Bonds are interested in long term investments for a period of 15 to 20 years. Some MDBs can lend for periods beyond 30 years. Therefore, the most critical aspect of the financial product is to structure a financial consortium that addresses mismatch of investor expectations.
  
  - The precise structure of the financial product, as well as the entity governing the project, will depend on the specific requirements of the basin countries, approximate capital costs, and projections about returns.

# CONTENT

<b>I</b>	<b>Foreword</b>	
		<b>III</b>
		<b>Executive Summary</b>
<b>02</b>	<b>Introduction</b>	
		<b>04</b>
		<b>Part I: Principles</b>
<b>15</b>	<b>Part II: Practices</b>	
		<b>30</b>
		<b>Part III: Plans</b>
<b>37</b>	<b>Part IV: Possibilities</b>	
		<b>46</b>
		<b>References</b>



# Introduction

The objective of this paper is to contribute to the current debate on financial innovation for Blue Peace. Blue Peace is aimed at using water as a potential instrument of peace and cooperation through concrete action. Among various reports, papers and articles on the subject, three publications must be mentioned in particular. The report of the Global High Level Panel on Water and Peace published in November 2017 explains why there is need for financial innovation in promoting water as an instrument of peace – i.e. Blue Peace. A report by the Earth Security Group published in October 2018 explains what and where opportunities for financial innovation are present. A paper by Pio Wennubst, et al at Swiss Agency for Development and Cooperation (SDC) explains how some of these opportunities could be translated into a reality. This report by Strategic Foresight Group (SFG) builds on the valuable set of ideas provided by these and other publications.

The Global High Level Panel on Water and Peace, co-convened by fifteen countries from different parts of the world, has presented its report 'A Matter of Survival'. One of its key recommendations is to introduce the Blue Peace framework in the functioning of the international financial markets. This is a novel approach, building on recent developments in the financial sector where sensitivity towards environmental and governance standards is gradually seen to be on the rise.

The significance of water in global development and human rights agenda has been recognised for a long time. About a decade ago, SFG conceived the Blue Peace framework, exploring the linkage between shared water resources and peace. At its heart, the concept aims to transform water from a source of potential crisis into an instrument of peace and cooperation.

In the last ten years, SFG, SDC and other partners have applied the Blue Peace framework in critical regions of the world. The Global High Level Panel on Water and Peace helped transform Blue Peace into a global concept. At the same time, the panel recognised that Blue Peace needs political and financial incentives for which structured and systematic efforts are required.

This report builds on the earlier reports mentioned above to explain the standards promoted by various agencies. It explains the role of MDBs, Development Finance Institutions (DFIs), Climate Bonds, Blended Finance initiatives, Blue Funds and other institutions in trans-boundary water cooperation. It examines potential role of the private sector in conjunction with the conventional sources of finance. It also introduces new practices in ethical finance such as Peace Building Fund and faith-based financial initiatives.

We hope that the discussion on this paper will lead to further exploration of this emerging subject by scholars and practitioners.



# Part I Principles

The Global High Level Panel on Water and Peace has recommended: “the international financial sector should gradually include trans-boundary water cooperation in expanded ESG Principles. Ultimately, the ESG framework should include a Blue Peace framework and serve as an incentive in trans-boundary water projects.”

As the Global High Level Panel has noted, rating agencies have already begun to incorporate ESG Principles into their methodologies. This implies incorporating non-financial information into the plans of capital providers. The fact that there is a demand for such ratings shows that sections of the investment community are interested in sustainability of financial markets in ways that are more comprehensive than only the concerns of profitability.

There seems to be a momentum by the international community to encourage the financial sector not only to refrain from causing environmental and social harm, but also to encourage sustainability, good governance and social stability. The most recent addition to this trend has been the consideration of humanitarian issues in financial innovation. In January 2019, the World Economic Forum, ICRC and the World Bank launched a High Level Group on Humanitarian Investing in fragile countries.

Within this trend and framework of peace building, the idea of Blue Peace could also be incorporated. Conceptualized by Strategic Foresight Group, Blue Peace involves transforming water from a potential source of crisis into a potential instrument of cooperation and peace, through concrete actions. The goal of Blue Peace is not only joint action towards preservation and better management of dwindling water resources for the benefit of all, but also building peace, stability, and security in society through this cooperation. While Blue Peace is relevant in developing and developed economies alike, its greatest relevance is in fragile countries facing conflicts.

Cooperation over shared water to achieve peace is an important criterion which will ultimately benefit the private

sector as well as build regional peace. For instance, there are often delays in building infrastructure projects on shared water resources, caused due to disputes between countries. This could be avoided if all countries sharing the water resource could be brought on board and the execution of the project not be performed in a unilateral manner. When such delays are reduced, overall costs of building the infrastructure are also reduced. The cost optimization alone would be highly beneficial for the private sector, as well as the governments and strengthen the ultimate goal of regional peace.

In order to introduce Blue Peace into investment practices, it would be beneficial to build on what is already available.

## Standards and Tools

In order for the financial sector to proactively pursue the goals of sustainability and social security, various standards or indicators were developed beginning with the Financial Sector Supplement of the Global Reporting Initiative, which was the first to standardise sustainable financial reporting. This was followed by the Equator Principles (EP) and Principles for Responsible Investment (PRI) for the implementation of ESG Principles. Today,

there are several such standards from which a financial entity could choose from. The ones which are most relevant for potential inclusion of the Blue Peace framework are the following:

- International Hydropower Association (IHA): IHA has a wide scope, several tools that evaluate long term sustainability of projects and is exclusively focused on hydropower infrastructure.
- ISEAL: It is the standard upon which numerous other voluntary sustainability standards (VSS) are based. Approaching ISEAL can have the benefit of having Blue Peace principles incorporated into numerous VSS including Alliance for Water Stewardship and others.
- Equator Principles (EP): EP requires that a financial institution must not fund projects where its use of water would cause harm to a third party or community. This could be expanded to include trans-boundary harm as well.
- Global Reporting Initiative (GRI): The GRI guidelines require entities to report on the impact of businesses on water and related environmental issues. The scope of this guideline could be expanded to include impact on trans-boundary waters too.

- Environment Social and Governance (ESG): The ratings institutions which are often private entities can design their indicators to include Blue Peace principles since ESG is also linked to the United Nations' Sustainable Development Goals.

- Peace-building Business Criteria (PBBC): This criteria requires inclusion of factors that affect stability and peace, in the markets or investment zones where a company operates.

- Humanitarian Investment Criteria: It is likely to be developed by the High Level Group on Humanitarian Investing in fragile countries, which was established in January 2019 by the World Economic Forum, ICRC and the World Bank.

It is important to note that the overall thrust of most of these standards, inherent in their design, is the prevention and mitigation of harm to people, societies and the environment. There is limited action towards the goals of promoting positive impacts on environmental sustainability and social security, much less towards the goal of active peace-building. However, some of these standards can be modified in the following ways to include the Blue Peace framework.



## International Hydropower Association (IHA)

The International Hydropower Association is a non-profit membership organisation that works around the world, with over 100 member organizations, on sustainable hydropower. It was established in 1995 under the auspices of UNESCO and still maintains a close relationship with UNESCO. While the IHA does not have any standards, it has developed a multitude of tools that are intended to advance the sustainability of hydropower projects.

- The Hydropower Sustainability Environmental, Social and Governance Gap Analysis Tool (ESG Tool) launched on 11 July 2018, enables hydropower project proponents and investors to identify and address gaps in international good practice. It assesses projects against the requirements of the Protocol's environmental, social and governance topics. Unlike a full Protocol assessment, an ESG Tool assessment does not seek to establish a score underpinned by a detailed report; instead it provides an action plan to help project teams address any gaps within a reasonable timeframe. The tool is divided into 12 sections which

are compatible with International Finance Corporation's Environmental and Social Performance Standards and the World Bank's new Environmental and Social Framework.

Two of its 12 sections have the potential to be amended slightly to include principles of Blue Peace - the 11th section (Communications and Consultations) and the 12th section (Governance and Procurement). At present, these involve communications and consultations primarily with stakeholders within a country and governance and political risks within the country. These can be expanded along the lines of the Blue Peace principles to include the trans-boundary perspective as well.

- The Hydropower Sustainability Protocol which is intended to assess hydropower projects for long term sustainability across a range of social, environmental, technical and economic criteria. The Protocol aims to provide an international common language on how these criteria can be addressed at all stages of a project's lifecycle, including planning, preparation, implementation and operation. Assessments use objective evidence to create a sustainability profile, which can be used to identify gaps and drive continuous improvement.

Blue Peace principles can be either built into one of the existing factors, or be created as a cross-cutting issue. Under the cross-cutting issues in the Hydropower Sustainability Assessment Protocol, the issues of integrated water resources management are addressed in a number of sections including - Policies & Plans (ES-3), Demonstrated Need & Strategic Fit (P-3), Siting & Design (P-4) and Hydrological Resource (P-7, O-4). Trans-boundary issues are directly addressed under Political Risk (ES-4) as well as indirectly in Governance (P-2, I-2, O-2), Environmental and Social Impact Assessment & Management (P-5), Environmental and Social Issues Management (I-3, O-3), Hydrological Resources (P-7) and Downstream Flow Regimes (P-23, I-20, O-19).

In addition, Earth Security Group comments:

*In hydropower, the most common are the World Commission on Dams (WCD) Framework for Decision Making and the International Hydropower Association's (IHA) Hydropower Sustainability Assessment Protocol. Both have integrated guidance on promoting trans-boundary water cooperation. The IHA's river basin development programme helps members understand how to design collaborative, adaptive approaches to river basin development. The programme highlights best practices in basin development*

*among hydropower companies and project developers and is convening a River Basin Development Knowledge Network. These tools offer a useful path for policymakers to communicate opportunities for trans-boundary cooperation to project developers and investors.*

## Global Reporting Initiative (GRI)

The GRI Sustainability Reporting Guidelines are periodically reviewed to provide the best and most up-to-date guidance for effective sustainability reporting. The overall canvass of GRI is vast covering many sectors but we will confine our observations to the water sector as relevant to this paper. The most relevant updated version of the guidelines is G4 relating to Water is EN clauses 8-10.

**G-4 EN 9** states: Sources significantly affected by the withdrawal of water:

**a. Report the total number of water sources significantly affected by withdrawal by type: Size of water source, Whether or not the source is designated as a protected area (nationally or internationally), Biodiversity value (such as species diversity and endemism, total number of protected species), Value or importance of water source to local communities and indigenous peoples**



**b. Report standards, methodologies and assumptions used.**

Also of relevance is GRI 303: Water and Effluents 2018 – From water management to water stewardship (Updated Standards on Water dated June 2018):

- Introduces a holistic approach to collecting information about an organization's water interactions, from withdrawal, to consumption, to discharge.
- Includes a new disclosure for water consumption, to help measure water that is not returned back to the environment.
- Requires more detail on reporting water discharge information – including the quality of water discharges, substances of concern present in effluent and the approach to setting the minimum standards for the quality of effluent discharges.
- Has a new emphasis on areas with water stress, to best understand how these areas are affected and where action is most needed to address the impacts.
- Introduces requirements to report impacts across the full value chain, to encourage companies to start measuring this data and managing impacts.

- Has more extensive guidance, including example tables for presenting data in a consolidated way and recommended formulas for calculating the data.

In brief, as per the GRI guidelines, the entities must ensure that their consumption of water for their business is reduced and they follow sustainable methods of water use. GRI guidelines require that any water resource that has been significantly affected by the business due to withdrawal must be reported. Along with it, biodiversity value, such as those mentioned in G-4 EN Clause 9 must also be reported.

It would be pertinent to note that effects on water could be trans-boundary and can have a detrimental impact across borders as well. Hence, the element of Blue Peace can be easily added. If the withdrawal of water or any use of water is from shared or trans-boundary water resources, the GRI guidelines could be used to report the effects of such water usage at a basin level including on flora and fauna, as well as impact on communities and population in countries across the border sharing the same water resource.

This would ensure a holistic and sustainable usage of water resource and would also bring about a coordinated response across borders, leading to

better relations between countries and broader peace.

## Environment Sustainability Governance (ESG) standards

ESG standards are evaluated by independent rating agencies mainly for investors and asset managers. They are in demand by certain kind of investors who believe in good governance and sustainability practices. The underlying philosophy of these goals is “do no harm”, with regards to corrupt practices, environmental damage and consumer rights. The overall objective is to ensure that the company follows healthy and safe policies.

As there are several different ESG rating companies, there are no common ESG standards that are universally applicable. Therefore, inclusion of Blue Peace framework would have to be considered by an individual rating agency, either because of their own conviction, or because of demand from investors and asset management companies.

## Equator Principles (EP)

Equator Principles is a voluntary association of financial institutions from around the world. EP can be described as a risk management framework for determining, assessing and managing

environmental and social risk in projects to support responsible risk decision-making.

EP version III was released in 2013. EP version IV is expected to be released in 2019.

The Norton Rose Fulbright Practical Guide clarifies further EP version III relating to water as follows:

- Implement technically and financially feasible and cost effective measures for improving efficiency in the consumption of energy, water and other resources and material inputs.
- Undertake measures that avoid or reduce water usage so that the project’s water consumption does not have a significant adverse impact on third parties and affected communities.

The drafting of EP version IV in 2019 may provide a good opportunity to include Blue Peace framework.

## Peace-building Business Index (PBBI)

Peace-building has gone a step further with certain financial entities looking at how the financial sector can actively contribute. An example is the ‘Peace Investment Fund’ the scope of which

is defined by the Peace-building Business Index (PBBI) developed by The PeaceNexus Foundation and Covalence, an independent ESG rating agency in Geneva. Through the index, a set of 30 companies have been shortlisted for investors to invest in via the fund. The companies that have been shortlisted have actively contributed to the peace and stability of nations. Along with de Pury Pictet Turrettini, a fund management company in Geneva, the PeaceNexus Foundation launched the Peace Investment Fund in January 2018 to allow investors supporting peace-building.

The Index was built using Peace-building Business Criteria (PBBC) which are intended to be applied to businesses that operate in fragile and conflict-affected states. The following criteria are considered:

- Inclusive hiring and giving jobs to vulnerable groups
- Promoting the local economy and heightened due diligence in fragile contexts
- Conflict-sensitive community relations including creating space for dialogue
- Promoting transparency and accountability in fragile contexts
- Seeking new business models for underdeveloped markets and at-

risk populations

- Security provisions protecting key stakeholder groups
- Conflict-sensitive environmental policy and practice

Also notable is the fact that the PBBC go beyond the principles of 'do no harm' and 'compliance' which many other standards and indices focused on sustainability are built on. The PBBC adds in the layer of peace-building so that companies can contribute to stability, by collaborating with other stakeholders to improve state accountability and public services.

## Humanitarian Investing Initiative

This is a new initiative jointly launched by World Economic Forum, ICRC and the World Bank in January 2019. It is particularly designed to address fragile societies. It is expected to recommend innovative principles and practices for the financial sector. ICRC has already launched the Humanitarian Impact Bond raising 26 million CHF from social investors to manage projects for the benefit of disabled population in Africa. The Bond is designed for repayment to the original investor in five years time, either on par or at a premium or discount. A number of governments and foundations will buy the stakes of the original social investors.

## Faith and Finance

There is a trend, not much noticed by wider public, to link faith and finance by Christian and Islamic institutions. New initiatives are launched to examine Christian and Islamic theological framework for ethical financial stewardship as per the faith of the respective institution. London and Kuala Lumpur are emerging as centres of Islamic faith based finance. Diverse institutions in the United States and elsewhere are encouraging discussion on Christian theological framework and financial ethics. Several centres of learning, including Boston University, offer modules linking Biblical stewardship principles to the modern investment practices.

There are now efforts being made to develop new ethical frameworks bringing together Islamic and Christian theological initiatives on faith-based finance and investments. In October 2018, the Church of Scotland and Islamic Finance Council UK established Shared Values Framework, thus for the first time bringing together Biblical and Islamic principles of finance to create a new faith-based universal ethical framework for financial markets and investments. The Shared Values Framework has identified the following values as principles for faith-based socially

conscious financial management:

- Stewardship
- Love of the neighbour
- Human flourishing
- Sustainability and purposefulness
- Justice and equity
- Common good.

## Blue Peace Framework Standards

In order to assess any existing and new projects for their contribution to Blue Peace, a new set of indicators can be devised. These could be based on a number of factors, including SFG's Water Cooperation Quotient methodology and the Peace Nexus Foundation's Peace-building Business Criteria which has a three-tiered system ranging from 'compliance' to 'do no harm' to 'peace-building'.

- Compliance – Ensuring that projects adhere to national standards of all countries that share the water resource are met with regards to water withdrawal and pollution, as well as international standards
- No Harm – Ensuring that any project does not cause harm to any shared water resources, including conducting environment impact assessments and being aware of any potential for conflict



over the use of the shared water resource

...Active Peace Building – Creating space for agreement and dialogue to ensure that all relevant countries sharing a water resource are involved in the project in one of the following ways:

- Communication - other riparian countries kept abreast of the project and developments. This can be considered as the lowest level of dialogue, i.e. this is the very least that countries must do
- Consent - other riparian countries 'no-objection' sought for any project on shared water resource
- Coordination - other riparian's needs taken into consideration when conceptualizing, constructing and operating of project
- Cooperation - other riparian is party to project, undertakes risks and receives benefits. This can be considered Blue Peace at a very high level
- Coordination with any relevant trans-boundary water authorities already in place such as river basin organizations (RBO), river basin authorities (RBA), Ministerial Committees, Inter-governmental Working Groups etc.

- Benefits sharing for all - employment for persons from all the riparian countries, preferential rates to buy the product (for example, electricity), etc.

## Conclusion

**In reality, incorporating Blue Peace principles into global standards for investment and infrastructure may be a medium-to-long term process, taking several years before its effects are visible or discernible. However, earlier efforts in the field of environment or social security took years to crystallize into the mainstream; yet they are widely-used considerations today. It is also important to remember that conserving shared water resources, reducing potential for conflict over them and cooperation over them to build peace are urgent needs. Therefore, there is hope that acceptance of Blue Peace principles may happen more expediently.**





## Part II Practices

The Global High Level Panel on Water and Peace has emphasised the need to develop sustainable financial mechanisms for Blue Peace. The report of the Panel says: “the development of blue instruments for preferential and concessional finance for trans-boundary water infrastructure would be an important element of the way forward. Such incentives would induce parties to prefer collaborative approaches to nationalistic ones, whenever and wherever possible, which would also generate direct financial benefits.”

The Global High Level Panel had to draw attention to the financial aspect as most of the resources available at present for promoting trans-boundary water cooperation are utilised for capacity building and institution building. However, it is important to build high stakes in relations between riparian countries through projects that make significant difference to the life of people in the basin.

This normally happens through infrastructure projects such as dams, hydro-power plants, irrigation, navigation and eco-tourism. If the countries have to cooperate, they need to ensure that such large projects are ecologically sustainable and politically collaborative. A large amount of funding is required on concessional and preferential basis for such collaborative projects. The current patterns indicate that much of the funding is provided to domestic water related projects with hardly any resources being channelled to the collaborative trans-boundary projects.

- ... About 1 trillion USD per annum is available through MDBs for development projects; MDBs can provide funds for 30-year cycle
- ... About 1 trillion USD per annum is available through climate aligned bonds of which Green Bonds are an important component; Green Bonds can provide funds for a 15-20 year cycle
- ... European Investment Bank (EIB) guarantees of 20 billion USD available for development projects from 2021 to 2026.

However,

- ... Hardly any of these funds (maybe 2-3 billion USD except two big

ticket items involving Zambia of USD 3 billion each) are provided for trans-boundary water infrastructure projects outside the Senegal and Gambia river basins as most demand from the water sector is for urban water supply systems

- ... Out of 1.6 billion USD disbursed by Green Climate Fund on 93 projects as of December 2018, 22 were related to water - but none related to trans-boundary, cooperative water infrastructure
- ... Almost all of the demand for collaborative water infrastructure projects is so far from Sub-Saharan Africa, but there is potential future demand from Central Asia because of the change in political dynamics.

In order to examine the potential for enhanced funding for trans-boundary collaborative projects, it is necessary to understand the pattern of current practices- including funding from MDBs, DFIs, Green Bonds, Blended Finance and other sources.

## Development Finance Institutions (DFIs)

The development finance institutions including multilateral banks and bilateral aid agencies provide three types of

funding for trans-boundary water cooperation.

••• Institution Building Projects (normally 1 to 2 million USD) - These are small-scale projects which seek to establish platforms for facilitating cooperation between riparian countries. Some examples of these are:

- Development and implementation of a legal framework between nations for trans-boundary water cooperation
- Establishment and/or strengthening of institutional arrangements such as River Basin Organizations/ River Basin Commissions (RBO/RBC)
- Funding of the management and activities of the RBOs/RBCs
- Capacity building for actors involved in trans-boundary water cooperation
- Projects for hydro-metric data exchange.

••• Demonstrative Projects (normally 1 to 5 million USD) - These are mid-scale projects which demonstrate cooperation through projects undertaken on trans-boundary water resources. Some examples of these are:

- Supply of equipment such as river boats that are scientifically and

technically equipped

- Hydrological modelling to monitor the hydrological cycles of shared water resources
- Feasibility studies and/or providing technical assistance for hydro-power plants or other large infrastructure projects

••• Infrastructure Projects (normally above 100 million USD) - These are often large scale projects that are undertaken cooperatively by two or more countries on shared water resources. Some examples of these are:

- Hydropower plants and dams
- Transmission lines to connect various hydro-power projects and create a common electricity grid
- Irrigation lines
- Navigation projects, including building ports, bridges and dredging of rivers
- Trans-boundary eco-tourism has not been much explored so far but holds major potential to create a peace-building and revenue generating platform for the riparian countries.

Much of the funding provided by bilateral aid agencies, UN agencies, and GEF is for institution building projects and demonstration projects with

budgets under 10 million USD.

The funding for infrastructure projects is provided by MDBs and DFIs.

Strategic Foresight Group undertook a survey of 63 multi-lateral institutions to examine their interest in funding trans-boundary water projects from 2015 to 2018. (See Table 1)

As of December 2018,

1. Out of 63 institutions surveyed by SFG,  
11 MDBs have funded trans-boundary cooperative projects post-2015  
2 MDBs have funded trans-boundary cooperative projects pre-2015  
Remaining 50 MDBs do not seem to have interest in trans-boundary collaborative infrastructure projects. Some of them are willing to fund institution building and demonstrative projects in trans-boundary basins.
2. Out of over 250 billion USD of the outlay of 11 institutions that have shown some interest in trans-boundary cooperative water infrastructure, there are 2 big ticket items of about 3 billion USD each. Otherwise, the total outlay for this objective does not appear to be more than 2 billion dollars.

3. Most trans-boundary cooperative projects are in Sub-Saharan Africa with a few in the Mekong region and potentially Central Asia.

4. The Green Climate Fund (GCF) is a potential source of funding for trans-boundary collaborative water projects. It has disbursed 1.6 billion USD as of December 2018 for 93 projects, including 22 water related projects. However, it has so far not funded any trans-boundary infrastructure project.

5. China has emerged as a new player in the global financial markets, including development finance sector. Exim Bank of China provides substantial portion of infrastructure funding in parts of Africa, Latin America and Asia. The bank has shown openness to fund trans-boundary water and hydro-electricity projects. Additionally, China is the largest contributor of the World Bank's Global Infrastructure Fund (GIF), having contributed 20 million USD. China is also the main promoter of important multilateral financial institutions, including the Asian International Infrastructure Bank and the New Development Bank.

These observations reveal that the development finance community has not accorded priority to trans-boundary

water infrastructure. There is a tremendous scope for riparian countries to raise investments from multilateral institutions for collaborative projects as it appears to be a relatively unexplored terrain.

### Table 1: Funding by Multilateral Development Banks for Trans-boundary Cooperative Infrastructure Projects (Post 2015)

(All figures in US Dollars)

Institution	Annual Outlay
Trans-boundary Cooperative Water Infrastructure	
<b>European Bank for Reconstruction and Development (EBRD)</b>	<b>10 billion</b>
Negligible	
<b>World Bank</b>	<b>66 billion</b>
3 billion for hydro-power project between Zambia and DR Congo + 1 billion for different projects in Sub-Saharan Africa	
<b>African Development Bank (AfDB)</b>	<b>9 billion</b>
2 billion for several projects + Co-financing of 4 billion project between Zambia and Zimbabwe	
<b>West African Development Bank (BOAD)</b>	<b>87 million</b>
Few million to Senegal and Gambia River Basin Organisations (exact amount not known)	
<b>Asian Development Bank (ADB)</b>	<b>32 million</b>
Negligible	
<b>Japan Bank for International Cooperation (JBIC)</b>	<b>6 billion</b>
Small amount - exact details not known	

<b>Exim Bank of China</b>	<b>100 billion</b>
Several projects mostly in Africa - details not known	
<b>KfW Development Fund</b>	<b>500 million</b>
50 million in African hydropower projects	
<b>Export Import Bank of Korea</b>	<b>15 billion</b>
Marginal in Mekong area - details not known	
<b>French Development Agency (AFD)</b>	<b>12 billion</b>
100 million in Niger basin	
<b>EU-AITF (EU- Africa Infrastructure Trust Fund)</b>	<b>Less than 1 billion</b>
Technical assistance for a few cooperative projects in Africa	

Source: Annual Reports of multilateral institutions

MDBs could also play a key role in mobilising funding from private investors for large scale trans-boundary infrastructure projects from developing countries or least developed countries where investments may be considered ‘high risk’.

## Blended Finance

As multilateral financial institutions tend to be risk averse, and particularly avoid politically sensitive issues, a new trend of Blended Finance has emerged. This practise involves combining concessional funding or grants with market lending of DFIs. Such a combination helps to reduce the risk of investors. International Finance Corporation (IFC) leads a group of development finance institutions which together are developing the norms for Blended Finance.

So far, the Blended Finance practice is primarily used to cover climate and environmental risk and to some extent gender sensitivity. However, this can be potentially used to support infrastructure projects using the Blue Peace framework. It is therefore necessary to understand the dynamics of this emerging sector.

The DFI Working Group led by IFC treats Blended Finance as a combination of concessional resources with private investments in the service of Sustainable Development Goals (SDGs). As SDG 6.5.2 promotes trans-boundary water cooperation, and SDG 16 promotes peace-building, in theory, projects within the Blue Peace framework should find it possible to raise Blended Finance. However, as this is a very new practice, it will take time to translate the theoretical aspiration into reality.

Besides the norms being developed by the DFI Working Group, OECD Development Assistance Committee (DAC) is also engaged in exploring Blended Finance practices. The main difference is that the DFI Working Group is narrowly focussed on private sector; the OECD DAC work is broader to cover both private and public sectors.

The introduction of the concessional element in Blended Finance cannot be done at the cost of commercial viability of the project. Therefore, all practitioners and agencies involved in setting norms insist on the following:

- The project must be commercially viable
- The use of Blended Finance should not cause distortions in markets

- The concessional element should have “additionality value”, meaning thereby that it should support objectives and risks which are socially desirable but are otherwise difficult to finance.

- The project must follow high ESG standards.

So far, Blended Finance is used at local level to support underserved entrepreneurs such as innovators of new technologies, small and medium enterprises, women, farmers, projects involving climate change risks, and projects aimed at increasing the efficiency of energy and water sectors. Thus, water and environment are very much on the radar of Blended Finance but trans-boundary water cooperation is not. There may be scope to introduce a new category that meets Blue Peace criteria through persistent discussions with the members of the DFI Working Group and OECD DAC.

## Blue Funds

A unique example of using Blended Finance for infrastructure projects on shared water resources is the Blue Fund. The Global High Level Panel on Water and Peace has introduced the Blue Fund concept in the following way: “We provide a possible Blue Fund model







that meets the objective of incentive financing for using water for peace.”

The Blue Fund is conceived as a fund that can be replenished on an annual basis for concessional and preferential funding of trans-boundary water cooperation on freshwater resources only, such as rivers, lakes and aquifers, and is not meant for seas and oceans. The Blue Fund could subsidize any combination of interest, insurance and feasibility costs in a joint project promoting trans-boundary water cooperation between riparian countries, which has an investment promise from MDBs, and which involves capital costs of 100 million USD or above. At the very least, the Blue Fund should aim to cover about 3 per cent of the annual cost of the project, including interest subsidies, insurance and project proposal preparatory expenses. The Blue Fund will provide financing only if the following conditions are met:

1. **Developing countries:** The Fund will be available only for countries that are in most need of assistance.
2. **Trans-boundary freshwater resources:** The Fund will only be available for infrastructure related to shared fresh watercourses between nations, such as lakes, rivers and aquifers.
3. **Substantial Infrastructure projects:**

The Fund is for water infrastructure projects that are worth 100 million USD and above, and not for capacity building or institutional strengthening activities, which are the priorities of many conventional funds.

4. **Enabling finance:** The Blue Fund is not envisaged to finance infrastructure projects, but to ensure that interest rates and other related costs of such projects are covered. Due to the fact that interest rates grow when countries borrow a substantial sum of money from MDBs or bilateral donors, they are often discouraged from taking the loans. The Blue Fund can help by granting them access to larger funds.
5. **Formal third-party approval:** Any project that seeks the support of the Blue Fund must have been approved by MDBs or other donor agencies which are willing to support the capital costs, implying that feasibility studies and an environmental impact assessment have been carried out.

Technical issues such as cost coverage by the Blue Fund, and currency risks, among others will need to be reviewed separately by experts. The Blue Fund is being recommended precisely at a time when the UN/World Bank High-Level Panel on Water is aiming to increase water financing to meet the SDGs. The Blue Fund will encourage the

international community to set aside a part of those water funds for trans-boundary water cooperation.

So far, there are two Blue Funds in the making. The countries in the Congo Basin are preparing a feasibility study (as of January 2019) to launch a Congo Basin Blue Fund to harness water resources and reduce the dependence on deforestation for livelihood of the common people. The Fund is endorsed by the Heads of States and an agreement to establish the Fund has been signed by the Environment Ministers of the countries in the basin. It is envisaged to be used for ancillary costs and to a limited extent, capital cost of projects that are trans-boundary in nature or have a trans-boundary impact. This fund is an original initiative of the Brazzaville Foundation, now expected to be managed by UNDP, with no involvement of CICOS, which is the regional river basin organisation in the Congo Basin.

Seychelles has launched a Blue Fund for developing ocean resources, which is in fact a combination of a Blue Grants Fund and a Blue Investment Fund. It involves guarantee and technical expertise from the World Bank and concessional support from the GEF. The proceeds are to be used for the fisheries sector and other related aspects of the ocean economy.

The two Blue Funds which have been conceived so far, are in fact innovative examples of using Blended Finance and the bonds market for environmentally sustainable projects. The experience of these two initiatives can be very helpful in developing future Blue Fund initiatives to advance the Blue Peace framework in different parts of the world.

## Green Bonds

Various public and private establishments that have entered the space of green finance recognize it as a means to deliver long term environment projects that have impact on ground with the motive of economic gain. The features of green finance include –

- delivery of projects focused on environment
- market based finance instruments
- internalization of environmental externalities
- investments resilient to risk
- establishment of a new perception of finance, mutually beneficial to issuers and investors.

The core instruments which enable mobility of finance for 'green' include a variety of Green Bonds, blue bonds, green equity, green loans, Islamic finance and synchronized loans. However, within the basket of

instruments, the finance community has repeatedly shown faith in Green Bonds. The reasons are rather clear: perception, quantity, returns and safety.

Green finance issuers or issuers of Green Bonds include sovereign funds, municipalities, multilateral banks, national banks, wealth management firms and even a growing number of high net worth individuals. Issuers decide to float a Green Bond on the basis of their perception of certain macro indicators. These include commercial lending rate of banks, power of their determined base currency, inflation, political environment and general mood of investors as reflected in stock and bond exchanges. Having established this understanding, the issuers publicise a thorough design of the bond they wish to float in the market.

Green Bonds serve a range of environment projects, including water infrastructure, renewable energy, low carbon transportation, waste management, low-carbon buildings and sustainable land use. Global political efforts during COP21 in Paris, summoned the global green finance community to reach 1 trillion USD annually by 2020 and 90 trillion USD of investment in climate projects by 2030. This has encouraged issuers to float bonds with large principal amounts and

attractive (subject to geographic position of the project and bond exchange) interest rates.

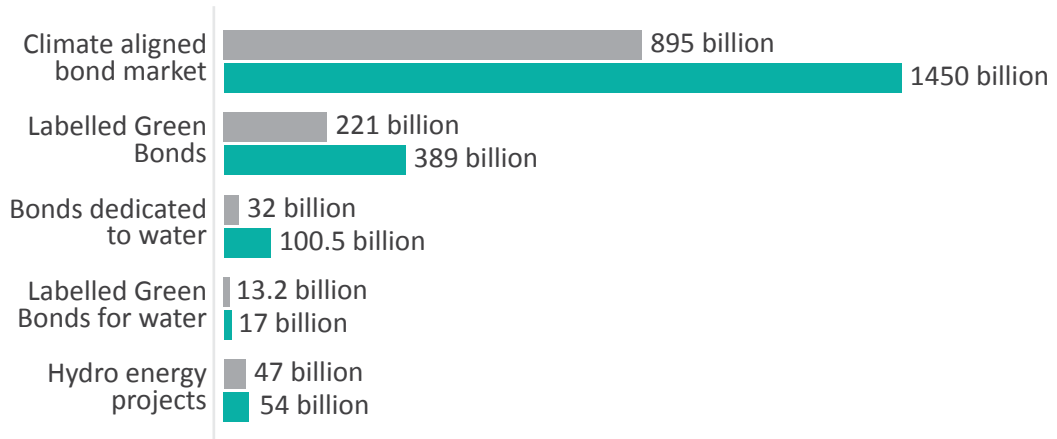
Furthermore, sovereigns have taken an interest to motivate investors by guaranteeing them repayment of their principle amount if the Green Bond were to default. Such initiative, inclusive of uniform interest rate returns, a safety net against appreciation and depreciation of foreign currency value has resulted in an organic global upswing in Green Bonds. In 2017, total value of labelled Green Bonds was 221 billion USD. By September 2018, this class increased to 389 billion USD. Thus, Green Bonds present a promising stage for new issuers and investors to come and test the markets.

The private sector can also participate through equity and bond market. So far, there is no evidence of private sector participation in the equity of collaborative water projects. However, the emergence of a climate aligned bond market can provide scope for the private sector to enter this domain. Among the climate aligned bonds, some are specifically labelled as “Green Bonds” as they meet standards and criteria suggested by the financial community through the Climate Bonds Initiative (CBI) or the International Capital Market Association (ICMA).

**Table 2: Green Bond Flows in 2017 and 2018**

(All figures in US Dollars)

■ 2017 ■ 2018



Source: Climate Bonds Initiative Report, 2017 and 2018

The total size of the Bonds Market is 100 trillion USD. Out of that, 1.5 trillion USD is climate aligned bond market in 2018, as reflected in Table 2.

Out of 80 billion USD committed in 2017, and 155 billion USD committed in 2018, towards water and hydro-energy together by the Green Bonds Market, it is not clear what percentage was allocated for trans-boundary projects. Most of the Green Bonds issued for water were for urban water supply system and therefore outside the trans-boundary area. It is doubtful if any significant amount of funds were raised for trans-boundary water or hydro-energy projects through Green Bonds.

Green Bond Principles (GBP), established in 2014, are voluntary guidelines

prepared collectively, by a consortium of investment banks, inclusive of, Bank of America, Merrill Lynch, Citi, Crédit Agricole Corporate and Investment Bank, JPMorgan Chase, BNP Paribas, Daiwa, Deutsche Bank, Goldman Sachs, HSBC, Mizuho Securities, Morgan Stanley, Rabobank and SEB.

GBP were established for the benefit of Green Bond market stakeholders. GBP provide issuers guidance on key points in the preparation of drafting terms of a Green Bond; and investors, complete information on use of proceeds and support underwriters by moving the market towards standard disclosures which will facilitate transactions. Hereby, GBP serve as universal standard and common language for Green Bonds.

Updated annually, on-going monitoring and development of guidelines is the responsibility of an independent secretariat hosted by the International Capital Market Association (ICMA).

The core criterion of GBP includes a four step process:

1. Use of Proceeds – appropriate documentation on use of investor money for green projects
2. Process for project evaluation and selection – discloses environmental sustainability objectives, eligibility criteria with help of External Review to investors
3. Management of Proceeds – The GBP encourage a high level of transparency and recommend that an issuer's management of proceeds be supplemented by the use of an auditor, or other third party, to verify the internal tracking method and the allocation of funds from the Green Bond proceeds
4. Reporting – Preparation of annual report inclusive of use of proceeds, finances for benefit of investors.

In exploring the Green Bonds market, it is important to study the Luxembourg Green Exchange (LGX), which was established only in September 2016 and already lists 50 per cent of the world's

Green Bonds, making it the world's first dedicated green stock exchange.

The main reason for the success of the LGX is the currency factor, as LGX is a part of the Luxembourg Stock Exchange which trades in over 57 currencies. This means, issuers listed on the LGX have the possibility to float Green Bonds in a plethora of currencies.

Issuing a Green Bond in a foreign currency is largely attractive when the home currency proves to be volatile and is easily affected by domestic political situation or market based tension. In the case of LGX, where Luxembourg follows Euro currency, the perception is that the Euro is a mature currency with minimum fluctuation in value. Such a perception of stability has made LGX an attractive exchange for Green Bond issuance.

The main attraction of Green Bonds is that they offer a rate that is lower than the commercial lending rate for the issuer and a rate that is higher than the bank deposit rate to the investor. Moreover, it offers possibility of long term maturity. Furthermore, in some countries, Green Bonds enjoy sovereign guarantees. Thus, Green Bonds are structured as attractive investment instruments for issuers and investors who want to find a via media in the cost of finance. (See Table 3)

**Table 3: Financial Parameters of Three Countries:**

<b>Name of Project</b>	KomInv Sverige	BEI	Lietuvos Energij
<b>Currency, Country</b>	SEK, Sweden	USD, USA	EUR, Lithuania
<b>Green Bond Coupon Rate (expense for issuer, earning for investor)</b>	0.625% from 2018 to 2023	2.875% from 2018 to 2025	2% from 2017 to 2027
<b>Commercial Bank Prime Lending Rate (expense)</b>	2%	4.30%	2.90%
<b>Fixed Deposit Interest Rate (earning)</b>	0.15%	2.65%	0.00%

Source: Luxembourg Bourse

Luxembourg is an important market for Green Bonds. So far it has mostly been used by China among developing countries. However African countries can also use it in the future. The African diaspora living in Europe and Europeans interested in Africa may also invest. While costs are low, exchange rate fluctuations could provide serious risk over the long run.

The alternative is to develop local Green Bond markets. The raising of funds locally would eliminate risk of exchange rate fluctuations. However, it pre-supposes the existence of a local, mature capital market. Currently, among the developing countries, only India and China have well developed capital markets and also a fast emerging

Green Bonds market. In most countries in Africa and some other parts of the developing world, where there is potential for collaborative water projects, there are no mature local capital markets. To a limited extent, this problem can be addressed by convening round-tables of private equity suppliers in a creative way. This is already happening with regards to small water and sanitation projects. The methodology can be extended to collaborative infrastructure projects.

## Conclusion

Conventional financial practices have been used for capacity building and institution building in trans-boundary river basins. The financial commitment

to collaborative infrastructure projects by multilateral finance institutions has been limited. There is scope for the countries planning collaborative water infrastructure projects to raise funds from DFIs. They also need to explore how to take advantage of the new practices in financial innovation. These include Blended Finance, Green Bonds and various innovative mixtures of them, including Blue Fund proposed by the Global High Level Panel on Water and Peace. These are extremely new concepts and in the early stage of evolving. The current focus is on environmental and climate risk reduction and addressing the needs of marginal entrepreneurs such as farmers, women, technology pioneers and small scale enterprises. There is significant scope to introduce Blue Peace framework in the emerging innovative practices. It would certainly require dedicated efforts to extend the coverage of the new practices to Blue Peace projects in the developing world.



## Part III Plans

The Global High Level Panel on Water and Peace has urged the international community to encourage riparian countries to undertake Joint Investment Plans. These are normally long term plans with application across a river basin. Some plans concentrate on one sector - such as hydroelectricity. Some plans have a multi-sectoral approach. The objective of Joint Investment Plans is to rationalise allocation of resources as per the needs of member countries and different sectors in a shared river basin. This strategy recognises multiplier impact of investments made in collaborative projects. For instance, an investment may be sought for hydroelectricity plant. In reality, gains are made not only from the sale of electricity but also from agricultural, industrial, services and other economic activities that come up in the area due to the availability of electricity.



The Global High Level Panel recognises that Joint Investment Plans are not easy as they have to overcome parochial objectives, but they have the potential to reduce the risk. The Panel states: “if interventions are sequenced correctly and political and financial wills come together, Joint Investment Plans may become a reality in the near future..... Even if partners do not strictly abide by the Plans, having a Joint Investment Plan in place is better than having no plan at all. The international community should be prepared to accept initially the risk that the Plans might not actually be followed due to a lack of real political commitment but this risk will decline over time once such Plans become a standard practice and the ESG framework is expanded to include the Blue Peace framework.”

Currently, several basins have made early progress in developing Joint Investment Plans. Most of them are in Africa. However, there are also a few in Asia and Latin America. The Senegal and Niger river basins in West Africa have most extensive experience in developing Joint Investment Plans with support from the highest political leaders of their respective countries. These basins have efficient River Basin Organisations (RBOs) which make it possible to prepare and implement the Joint Investment Plans. Joint Investment Plans developed by RBOs could also provide

assessments of the risks of investments in the sectors and geographical areas throughout the river basin.

The following are examples of how some RBOs are developing Joint Investment Plans in actuality, including multi-sectoral plans for holistic basin development and single sector plans for impacting what is considered as a key driving factor of development.

### **1. The Organisation for Development of the Senegal River (Organisation pour la Mise en Valeur du fleuve Sénégal) (OMVS)**

Countries - Mauritania, Mali, Senegal and Guinea

...The Senegal River Basin Multi-Purpose Water Resources Development (MWRD2) Project (2013-2023) is the second phase of a 10-year Program which is being funded by the World Bank with the objective of “improving coordinated management of water resources for socially, environmentally and economically sustainable development in the Senegal river basin.” It aims to strengthen trans-boundary water resources management in the Senegal River Basin through -

- Institutional development for water resources

- Multi-Purpose water resources development including agricultural development, protection of water resources, sustainable fisheries management and aquaculture, reduction of the incidence of water-related diseases and new approaches to improve climate resilience
- Infrastructure management and planning including dam management and hydropower development and development of navigation along the Senegal river basin.

∞∞ Master Plan for Water Resources Management on the Senegal River (SDAGE) (2011-2035) was adopted in 2011 by the Council of Ministers of OMVS which seeks to establish until 2035 a global vision of the development of the Senegal River basin incorporating various sectoral objectives such as hydropower, navigation, the development of drinking water and sanitation, transport, rural development, mining and industry. Additionally, this Plan is intended to reduce the risks of conflict related to the availability or accessibility of water resources, thus contributing to the peace and stability of the basin. SDAGE plans to fill the critical technical and capacity gaps by -

- Improving tools for multi-objective water resources management
- Establishing hydro-economic modelling for Senegal Basin and sub-basins and increasing the understanding of benefits of joint water resources management
- Identifying of cross-boundary investment areas to enhance cooperative and joint management of water resources
- Assessing trade-offs between water for energy production and water for agriculture and fisheries development.

## **2. Gambia River Basin Development Organisation/ Organisation pour la mise en valeur du fleuve Gambie(OMVG)**

Countries – Guinea, Guinea-Bissau, Gambia, Senegal

∞∞ OMVG has single sector plan for hydroelectricity as this is considered as the core development need. As of March 2019, they have initiated a process to develop an integrated master plan encompassing different relevant sectors.

∞∞ OMVG Energy Project (2015-2030)

- This project aims to develop the hydropower potential of the Gambia river basin and the

Konkoure river in Guinea.

- The first phase of the project includes the construction of the Sambangalou Hydroelectric Facility on the Gambia river along the borders of Senegal and Guinea, with an estimated installed capacity of 128 megawatts (MW) and an average of annual production of 402 gigawatt per hour (GWh). The total cost of this project is estimated to be 454 million USD. (Construction is yet to begin)
- The second phase is the construction of the Kaleta Hydroelectric Facility on the Konkoure river in Guinea with an installed capacity of 240 megawatts (MH) and an average annual production of 946 gigawatts per hour (GWh). The total cost of this project is 450 million USD. (This facility has been operational since 2017)
- The third phase is the construction of a 225 high voltage interconnection network of 1,677 km linking the electricity networks of its member states and 15 high voltage/medium voltage (HV/MV) transformer stations. There is no information available as regards the cost of the interconnection network.
- Ultimately, by completing the

construction of the three projects mentioned earlier before 2030, the OMVG Energy Project seeks to lead to the gradual integration of isolated national grids into the West African Power Pool's (WAPP) unified regional interconnection system.

### 3. Niger Basin Authority (NBA)

Countries - Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Guinea, Mali, Niger, Nigeria and Chad

...The Strategic Plan 2013-2022

- Development of irrigated agricultural areas (areas currently exploited in irrigation: 535000 ha; exploitable potential: between 2500000 and 6000000 ha)
- Identification of potential hydroelectric and energy exploitation (Kenie dam and other projects)
- Improving water transport in the Niger basin.

### 4. Nile Basin Initiative (NBI)

Countries - Burundi, DR Congo, Egypt, Ethiopia, Kenya, Rwanda, South Sudan, Sudan, Tanzania and Uganda

...NBI ten year (2017-2027) strategy

- Enhance availability and sustainable utilization and management of trans-boundary water resources of the Nile Basin



- Enhance hydropower development in the basin and increase interconnectivity of electric grids and power trade
- Enhance efficient agricultural water use and promote a basin approach to address the linkages between water and food security
- Protect, restore and promote sustainable use of water related ecosystems across the basin
- Improve basin resilience to climate change impacts
- Strengthen trans-boundary water governance in the Nile Basin.

## 5. Mekong River Commission (MRC)

Countries - Cambodia, China, Laos, Myanmar, Thailand, Vietnam

### ... Strategic Plan and Basin Development Strategy 2016-2020

- Promote and coordinate sustainable development and management of the Mekong's water and related natural resources.
- Enhancement of national plans, projects and resources based on basin-wide perspectives
- Strengthen regional cooperation
- Improve the monitoring and communication of the Basin conditions
- Create a leaner and more efficient RBO

- The current national plans in the Mekong Basin include 670 million USD of enabling and non-infrastructural projects, of which about a third are currently unfunded. The full cost of planned joint projects has yet to be established, but may be in the order of 2-4 billion USD.

## Conclusion

Joint Investment Plan as an idea can help countries to allocate resources in a rational way on a sustainable basis. The implementation of the idea would depend on specific realities of the given basin. In some cases, a plan can be merely a guiding document. In other cases, it can be a tool for investment with concrete figures and modes of raising investments. In the short run, such plans may encounter competing national and sectoral objectives but in the long run, they are helpful precisely to help make best use of resources in different sectors and member countries of a basin. There are already successful examples of basins that use this instrument. Creation of Joint Investment Plans would be a way to go for several trans-boundary river basins in the future, especially if the financial sector is able to integrate the Blue Peace framework into its investment considerations.

## Water Cooperation Quotient

Water Cooperation Quotient is a decision support tool that enables the riparian countries to measure the intensity of cooperation. A parallel examination of water cooperation in 286 shared river basins in 146 countries and the 28 countries that are currently at risk of war suggest that any two countries that are engaged in active water cooperation do not go to war for any reason. Measuring and promoting water cooperation is required not only for the sustainable management of natural resources but also for peace and stability in the world. The Quotient explains phases in cooperation at different levels of intensity and in different forms that the riparian countries can adapt to the local environment.

It is also a tool for industry associations, investors and lenders to enable them to assess willingness for cooperation in different shared river basins on a comparative basis and therefore providing signals for investment risk.



## Part IV Possibilities

The Global High Level Panel on Water and Peace has recommended concessional and preferential funding for collaborative water projects in shared river basins. However, the panel appreciates that such projects have to be economically viable. Several programmes for institution building and capacity building are supported by bilateral and multilateral donors to the tune of a few million dollars. However, water infrastructure such as hydro-electricity, irrigation, navigation, eco-tourism and ancillary industries depending on them costs hundreds of millions of dollars. It is not realistic to finance such projects with donor assistance alone, though soft funds can be a small part of the Blended Finance package. It is imperative that infrastructure projects have market viability.



This section focuses on infrastructure projects such as those in hydro-power, irrigation, navigation and related sectors. It does not address the financing of river basin organisations or data exchange and management, issues which have been extensively covered in various publications and dialogues.

Since collaborative projects carry political risks, normal market conditions may not favour them and it may not be feasible to raise finance through conventional methods. It is, therefore, necessary to design innovative products, which combine different kinds of funding with novel delivery vehicles.

Financial packages can be prepared for Joint Investment Plans, as discussed in Part III or for individual projects such as a dam or a navigation line. The Joint Investment Plans tend to spread risks over years, countries and sectors and thereby address a major concern of investors. Therefore, they have advantages over singular projects. On the other hand, specific projects provide more clear indications of the investment rate of return and economic viability.

The key to prepare a suitable financial product is the expected rate of return. There are two kinds of rate of returns:

- Investment Rate of Return (IRR)
- Economic Rate of Return (ERR)

IRR represents direct return on commercial investment. For instance, if an investor invests Euro 100 million in a project and is able to earn a profit of Euro 10 million, the Investment Rate of Return is 10%. The investor can compare it to other investment avenues.

ERR is a complex term, which considers return on the entire economy of the project and not only its financial returns. For instance, if the project proposal is to build a large dam, return on such a project may be compared to an alternative of a project involving a cascade of small dams. Or the returns on a dam at a particular location may be compared to another location after taking into account costs and benefits of electricity trade. Also, ERR considers comprehensive benefits from investment in the project.

- Direct benefits such as sale from the products generated by the project such as electricity purchased by government utilities or navigation licenses purchased by water transport companies
- Benefits generated by ancillary industries and businesses that come up as a result of a new energy source being made available through the project – a hydro-electric plant may make it possible for many industrial units to come up in the area or a



river navigation project may create scope for workshops for sale and maintenance of boats, restaurants, tourism destinations, among other possibilities

- Multiplier impact on the local GDP as a result of the project.

It is much easier to generate a high Economic Rate of Return through the medium of Joint Investment Plans. However, it is also possible to calculate it for individual projects. Commercial banks tend to be primarily interested in Investment Rate of Return whereas the World Bank and other multilateral development finance institutions tend to be sensitive to ERR. In any case, both rates of return are critical to structuring any financial product for trans-boundary water projects.

Once the rate of return is considered, a typical innovative finance product will have the following components:

1. **Credit Rating**
2. **Insurance**
3. **Risk Guarantees**
4. **Special Purpose Vehicle to operate the project**
5. **Financial Consortium.**

**Credit Rating:**

The response from Financial Institutions is bound to be influenced by Credit Ratings. There are two considerations-

- i. Prepare a strategy to improve Credit Rating through strong cooperative arrangements, and sovereign risk guarantees.
- ii. Identify investment funds which do not necessarily want AAA ratings and are willing to take a risk to invest in collaborative infrastructure projects.

**Insurance:**

As many collaborative projects in the developing world might be located in “C” Category countries, a special insurance package will be needed to be developed. Overseas Private Investment Corporation (OPIC) of the United States and equivalent institutions in Europe and elsewhere can be useful. Here also, risk guarantees at the sovereign level can be helpful.

**Risk Guarantees:**

There are two levels to examine risk guarantees-

- i. Sovereign guarantees by the basin countries
- ii. Supporting sovereign guarantees by United States, European Union, Switzerland, Japan, China, either singularly or jointly

In order to reduce the risk and attract guarantees, the governments of the

basin countries will have to ensure the following:

- i. Before the start of the project design, Environment Impact Assessment is done and accepted by all the relevant parties
- ii. Land titles are clear where the infrastructure project is to be located
- iii. Execution within the set time frame is guaranteed and a credible process is put in place.

The European Investment Bank (EIB) plans to provide 20 billion USD guarantees during 2021-2026. This option can be explored.

**Special Purpose Vehicle (SPV):**

It is necessary for the countries to set up a SPV for managing investment of an entire Joint Investment Plan or investment in each type of project, or each project, depending on the requirements to build and operate the project. The functions of the company registered as a SPV are envisaged to be the following:

- i. Raise funding- investments as well as credit
- ii. Issue tenders for design and construction of the project
- iii. Make arrangements for transmission or distribution of the products resulting from the project
- iv. Collect revenue from the distribution

company

- v. Pay creditors and dividend to the investors.

The SPV can structure the project with benefit projection at different levels in order to attract financiers and investors, taking into account the IRR and ERR.

- i. Benefits with clear and direct income stream (e.g. Revenue by selling hydropower to electricity distribution companies)
- ii. Benefits to enhance income stream (e.g. Increased agricultural productivity, industry and services which depend on the electricity output)
- iii. Benefits for the regional economy (e.g. Growth of ancillary commercial activities, expansion of social sector projects like schools and hospitals, increase in demand in the economy, cumulative effect to enhance the GDP growth of the region).

The structure of the SVP can be of two types:

- i. Government entities in the basin as shareholders and dependence on credit from financial consortium for the project
- ii. Complex shareholder base with governments, investors in the region, investors outside the region and financial instruments and



international financial institutions acting as investors.

**Financial Consortium:**

There is normally a mismatch of term periods for which different kinds of financial institutions are willing to make commitments. It is therefore necessary to structure a package.

An ideal package can consist of:

- Large private banks like JP Morgan and others to finance the first 10 years +
- Life and pension funds to provide funding for returns beyond 10 years (they will typically provide funds to the large commercial banks for managing them) +
- Bonds, particularly including Green Bonds, subscribed by a combination of large banks and pension funds for long term (also bonds purchased by individual investors in exceptional cases) +
- Loans by multi-lateral banks which are normally structured at LIBOR plus 1.5 % plus various fees = average of 3% +
- Risk guarantees as discussed earlier.

The main concern of many developing countries is the cost of interest and resulting increase in the Debt/GDP ratio.

In order to address this, the following options need to be considered:

- i. Blue Fund – blending grants for subsidising interest, insurance, preparatory costs, and additional costs arising from acceptable environmental impact assessments, combined with the financial package described above. The grants component can be structured at 2-3% per annum to make it attractive for the basin countries and viable for the financial institutions. It will need to be provided by donor countries as a part of Overseas Development Assistance (ODA). This will be a qualitative change in ODA practise as the funds hitherto given for capital costs can now be used for the grant element in the Blended Finance package. Thus, converting them into enabling costs.
- ii. Exceptionally low interest rate package at maximum 1.25% which is similar to some of the schemes of the Indian aid programme and regional funds of the World Bank. It can be provided on a matching basis. Normally, when it is provided through a national aid programme, it is done in return for project contracts to be awarded to the companies from the financing country.
- iii. Funding for preparatory studies, technical assessment and initial stakeholder dialogues can be secured

from GEF or other conventional donors where the costs are normally below 5 million USD.

- iv. Another innovative option is for external stakeholders to create a project company and develop the project on Build, Operate, Transfer (BOT) principles and hand it over to the basin countries at the end of an agreed time frame.
- v. Green Bonds are relatively new and can be tapped. Typically a Green Bond for water can provide funding for 15 to 20 years. The coupon rate is normally lower than local commercial lending rate but higher than bank deposit rate, thus providing incentive for the issuer as well as the investor. Green Bonds can be also issued in overseas markets (e.g. Luxembourg) but will carry exchange rate risks.

Overall, the Blue Fund approach mentioned in (i) above can be combined in a Blended Finance project and a SPV. The solution could be SPV + Financial Consortium + Blue Fund + Green Bonds. The option of SPV in any of the formats doesn't work if the Debt/GDP ratio is too high in the basin countries and they are unable to raise funds. Here the option (iv) above of an external company creating the project and transferring it at a later stage on BOT principles could be viable. This option has been used by Thailand in Cambodia and by Iran in

Armenia. Besides,

- Banks can tap non-resident capital markets (for instance, Luxembourg as already mentioned)
- Pension funds and other institutional investors can be approached to purchase the bonds.

However, it is essential to have clear analytics on expected IRR and ERR.

## Crowd Sourcing with Block Chain

Our discussion so far is based on government funding in the basin countries with input from international markets directly to the host governments. With the development of new technologies, it is possible to develop a shared economy of the basin and seek investments from local populations.

Block chain technology brings about transparency and connectivity in an unprecedented way. It can help in optimum distribution of energy from a hydro-electric plant and help small enterprises to emerge using the energy. Block chain technology is particularly helpful in creating reliable land records and therefore land transfers, as all contracts are digitally signed and locked. This can enable the governments to

secure land for projects such as a dam or hydro-electric plant from local inhabitants without any risk of future dispute over titles and with proper compensation. It can also make land available for dependent industrial units and services. It can increase efficiency, reduce risk and create a positive cycle of growth in a shared economic zone. It can also generate a positive external economy by minimizing wastage in the management of water and electricity with good implication for the local ecology.

The most significant use of the block chain technology can be made for crowd sourcing investments. It should be possible to issue bonds or shares to secure funding from common people in all the riparian countries. Block chain can therefore open the market for small investors, who can function with only a smartphone. The use of technology is particularly useful in trans-boundary basins as it creates trust between investors due to transparency and security of the investments. The returns on investments can be managed in a secure and streamlined way without risk of manipulation by politics and administrative structures of the respective governments. Without block chain, it is theoretically possible to float a bond, but the response may be dull due to lack of trust. Investment specialists can develop sophisticated

instruments as the technology evolves.

Many African and other developing countries do not have financial markets. Block chain technology can help them to create trans-boundary regional financial markets through a leap frogging process. Obviously due precautions will need to be taken as any technology is in the end the instrument of its users. But at least a new source of investments and business development may open enabling the governments in a basin to develop a regional shared economy.

## Conclusion

From the investor perspective, rate of return is critical and will have to be considered before structuring any financial product. The precise structure of the financial product as well as the entity governing the project will depend on the specific requirements of the basin countries, approximate capital costs and projections about returns.

If we combine the key observations from our four parts – Principles, Practices, Plans and Possibilities – a common conclusion can be derived. The combination of new principles, standards and tools, along with changes in practices of multilateral development finance institutions, and introduction of joint plans and innovative blended products can together have an impact

on the future application of finance for water cooperation and peace.

Conventionally, trans-boundary water cooperation has been funded by multilateral development finance institutions but only to a limited extent as compared to the potential of collaborative infrastructure on water. This paper, along with some of the publications mentioned above, demonstrates that the conventional sources can be blended with new sources of finance from the private sector and the bond market. New strategies such as joint investment master plans and new products to support different stages of plans and projects can be explored for enhancing the potential of using finance for Blue Peace.

A few decades ago when the idea of sustainability was introduced in international financial practices, it was considered an ambitious approach. Similarly, when Blue Peace is a new idea, it may be considered ambitious. However, the potential benefits to be derived from the application of Blue Peace would introduce a pragmatic dimension in the next wave of changes in international finance.

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## About Strategic Foresight Group

Strategic Foresight Group (SFG) has launched a number of global and regional initiatives to use water as a force for peace. There are 286 shared river basins in the world. Over 2 billion people live in shared river basins of the developing world. Substantial improvements in trans-boundary water relations can lead to better utilisation of this vital natural resource, reduce the risk of conflict, and generate a peace dividend of several billion dollars.

SFG has played a critical role in recognition of the strategic importance of water by important countries including the convening of the first ever debate on water, peace and security in the United Nations Security Council. It has created the Water Cooperation Quotient to measure the intensity of cooperation between countries sharing water resources. It cooperated with the Government of Switzerland to establish the Global High Level Panel on Water and Peace, co-convened by 15 countries that recommended a new architecture for positive water and peace linkages. SFG has collaborated with the Brazzaville Foundation for Peace and Conservation to conceive the Congo Basin Blue Fund for water cooperation among 11 countries of the Congo Basin in Africa. It has helped create a regional institution for Blue Peace in the Middle East at a time when violent conflicts have engulfed the region. It has sensitised several million people from all continents through articles on water cooperation in over 100 different newspapers in various languages.

Strategic Foresight Group is an international think-tank based in Mumbai which is known for creating new forms of intellectual capital. Its recommendations have been discussed in the United Nations, World Bank, World Economic Forum (Davos), European Parliament, Indian Parliament, UK House of Commons and House of Lords, UN Alliance of Civilizations, among other institutions from around the world.

**[www.strategicforesight.com](http://www.strategicforesight.com)**



# BLUE PEACE IN INTERNATIONAL FINANCE

