Inaugural State of the Mekong Address
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- ***Members of the MRC Council, Joint Committee, Secretariat***
- ***Ambassadors and Representatives of Partners, International Organizations, Civil Society Organizations, the Private Sector, Academia***
- ***My fellow Mekong citizens,***

Welcome to Mekong Day.

Today, April 5th, marks a day in 1995 when our Lower Mekong riparian countries came together to sign the historic Mekong Agreement, which has not only continued the Mekong cooperation that dated back to 1957, but has also elevated this cooperation to a higher level when the countries established the Mekong River Commission. This reminds us that, that kind of intergovernmental cooperation is just as essential today, as it was back then.

I chose Mekong Day to launch the inaugural State of the Mekong Address. It is based on the knowledge that our organization has accumulated over the years about the condition, status, and trend the Basin has faced; what has been done; and what needs to be done. It is our effort to bring the science directly to the people, so that we can discuss Mekong issues based on facts and not feelings. It is our effort to show what our Member Countries, with support of partners, are doing to address these challenges.

Being in Mekong development and protection business is not like selling ice cream, although there is nothing wrong with enjoying ice cream, as my daughter would say. What I mean is, given the state of the Mekong today, we just cannot relax. Our feet should be on fire, and we need to act, to survive and prosper.

I wish I could bring you only good news about the health of our river. However, it is my duty to continue to sound the alarm about a waterway, one of the world's greatest, that's the lifeblood for some 70 million Southeast Asians. **The Mekong is facing unprecedented challenge**, experiencing four straight years of low-flow. Our wetlands

are disappearing, nourishing sediment is reduced, and rising salinity is spoiling rice crops. Coupled with the COVID-19 pandemic and its sometimes harsh response, all of these are creating hardship for millions of vulnerable fishing and farming families. Some of this is caused by nature and climate-change, of course. But much is also human-made.

At the MRC, we have developed the state of the Basin monitoring and reporting system that tracks Mekong status and trend in key strategic indicators in five areas: environmental, social, economic, climate change and cooperation. I'll detail the situation within each sphere, while highlighting our greatest concerns and the urgent attention they require.

However, the news isn't all gloomy. I'll finish today by describing the significant strides we've taken to sustainably develop and protect this great river. Especially, our Basin Development Strategy 2021–2030 "represents both an evolution and a break from the past." Moreover, I'll describe why I believe that more knowledge, innovation and cooperation are the keys to a healthier, prosperous and peaceful Mekong.

Dear friends,

Let's start with the challenges we face. Most of our environment indicators are **RED**.

First, water-flow conditions. In short, the water-flows are standing at a level we consider **far from ideal** in the long-term. Consider the raw data.

It wasn't so long ago – during the decade that stretched from 2008 to 2017 – that we saw, with a few exceptions, normal, healthy levels of water flow throughout the Lower Mekong River Basin. Storages in the Upper Mekong even brought more dry season flow and less of it in the wet season. This brought opportunities in terms of irrigation expansion, reduced flooding, and pushing out the sea water intrusion in the Delta. There were challenges of course. Operation of reservoirs combined with heavy rainfall events contributes to rapid changes in water levels of up to two meters a day in the upper part of the Lower Mekong.

But, in the last four-plus years, the wet-season water-flow of the Mekong, Southeast Asia's largest river, has been, on average, 50% lower. Remarkably, the wet season has shrunk from five months – June to October – down to four months – from July to October. At the Tonle Sap Lake, during 2020 and 2021, the pattern of water-levels was the lowest ever recorded. For example, at Kampong Luong station, normally during September, it is about 6 meters on average; in 2021, it was 3.8 meters. The Upper Mekong River Basin also experienced drought.

Why does all this matter? Because, vulnerable people will suffer hardship, as a direct consequence. The Tonle Sap region is home to the largest wetland ecosystem in Southeast Asia, and, as one of the world's richest inland fishing grounds, supports high aquatic diversity. Our survey suggests that fisheries help sustain some 3.6 million people through their daily catch and bring work to about 35% of the households. During the dry season, low flows also make navigation and transporting goods extremely difficult in parts, if not impossible.

At the heart of this challenge are the issues of how much water is held back in storage reservoirs, the reduced flows due to drought, and the increased flows due to flood.

Turning now to water-quality. The mainstream water-quality is relatively good, according to our latest reports. While we have found no direct risk to human health and aquatic life throughout most of the Lower Mekong, we've detected cause for concern in the Mekong Delta: lower concentrations of dissolved oxygen and elevated levels of nutrients, which could affect aquatic fauna and cause *poor* or *moderate* water quality for aquatic life.

All aquatic animals need dissolved oxygen to breathe. Chronically low levels of it could lead to a hypoxia condition that affects sensitive aquatic animals, leading to their decline in health, even death.

Meanwhile, the growth of algae and increased electrical conductivity may be evidence of increased salinity in the lower Mekong Delta, extending 50 kilometers inland and affecting close to two million hectares of land. Such salinity is troubling because when salty water enters your rice fields, the seedlings die or they can't provide any yield. And that may render farming impossible for countless families.

Yet, we should always be aware that these challenges are rarely limited to one country, but are instead transboundary. For example, we'd detected evidence of a water-quality issue at the border between Laos and Cambodia. At Stung Treng, we find elevated nutrient levels, compared with levels at Pakse.

Then there is an issue of sediment.

Sediment concentrations in the mainstream are observed to be much reduced largely as a consequence of sediment trapping and sand mining. Our 2018 State of the Basin report shows that the concentration of suspended sediment have decreased considerably since 2001. For example, from 1994 to 2013, sampling at Chiang Saen decreased about 85 Megatons/year to 11 Megatons/year. In 2018, the sediment fluxes were 36 Megatons at Chiang Khan and 23 Megatons at Nong Khai. In 2020 they were 4 Megatons and 7 Megatons, respectively. This is a decrease of some 80%. While some may debate these numbers, the trend is unmistakable. Reduction of sediment has all

sorts of implications, for floodplain productivity as well as river bank stability. To combat bank erosion, for instance, we need USD 6 billion of investment.

There's also the ongoing loss of what we call "environmental assets" – namely, the areas of natural wetlands and riverine, coastal and estuarine habitats. Across the Basin, recent years have seen us lose nearly 80% of our natural wetlands; and in one country, the reality is even more dramatic, with 99% lost.

The wetland benefits are particularly important for poorer, more vulnerable groups. They have few alternative sources of income, limited food and weak access to basic services.

The wetlands also actually benefit all socio-economic strata of society, including the rich. They support local and regional food, water and energy security. They carry immense social and cultural significance. And they're central to our ability to respond to climate change. The wetlands also support a biodiversity that deserves conservation, as they comprise many unique habitats and a wide array of nationally and globally threatened species.

While nature plays a role, of course, we attribute much of the wetlands crisis to human action – and inaction. There's insufficient coordination between different bodies to manage the wetlands and watersheds; a lack of sustainable, appropriate or up-to-date management plans; and not enough commitment to responsible development. This is reflected in insufficient funding and staff capacity.

All of this has real consequences, as natural and human-made causes affect captured fisheries, fish abundance and even fish size. Back to the Tonle Sap, our monitoring suggests that the drier years from 2019 to 2021 led to 35% lower catch than normal. Not only does each effort result, on average, in fewer fish caught, but the fish were indeed smaller.

The Tonle Sap Lake's fisheries contribute to more than 60% of the total annual fish-catch in Cambodia – roughly equal to 770,000 tons. The significant delays and lower reverse-flows affect food security and income for the most vulnerable peoples.

Human nature with weak regulation is also a problem. Overfishing or 'exploitative fishing practice' is one of the culprits. For example, the use of a gillnet is problematic. A gillnet can be expanded to four kilometers, which is very long and traps so many fishes – large and small. With less catch, smaller size of fish to catch, this would push more people to aquaculture or other means. While the change is adaptable to better-off families or communities, the reduction of capture fisheries or degradation of aquatic biodiversity dramatically affects, again, the most vulnerable. On the bright

side, our report has shown that aqua culture or farmed fish has increased in Viet Nam, and Thailand.

Moreover, the number of introduced species has increased: up to 14 exotic, new or alien fish species are now found in the Lower Mekong. That said, the presence of exotic and alien species brings good news and bad news. For example, Tilapia is now found everywhere. Extremely affordable and quite fulfilling. Though some may question its taste.

Now let's turn to the social dimension, and issues like the living conditions and well-being of the estimated 70 million people who rely on the Mekong, in some capacity.

According to our State of the Basin Report, the region has seen gradually improving social conditions and well-being – in terms of food, water, health, energy security, and employment. This is largely thanks to economic development across the Member Countries, and fueled by factors such as irrigated agriculture, fisheries, aquaculture, hydropower, tourism, navigation, and transport of goods. Before COVID, the countries' economies grew 3.2 – 8.1 % for the decade, lifting significant amount of people out of poverty. Mekong water and related resources development contribute much to this growth.

However, the picture is less rosy for the communities that are more directly dependent on water resources, including traditional livelihoods such as fishing or collecting of other aquatic animals and plants.

The reduced natural resources, compounded by flood and drought, have made these occupations less viable. For the fishing villagers, this increases their vulnerability, at least in the short-term. Based on our study, about one-third of the households surveyed noted that their income was lower compared with five years earlier; and more than 60% of the households reported losses due to flood and drought.

In terms of employment, jobs in fisheries, agriculture and forestry have declined over the past two decades. BUT – thanks to economic growth in industry, and services like aquaculture, trade, navigation, transporting goods, river tourism, and hydropower projects – these jobs have gone up.

Nevertheless, the region continues to be heavily dependent upon agriculture. In 2017, research suggests that in Cambodia, 70% relied upon agriculture; while in Laos, the figure was 61%.

But looking into the future, the Basin population is projected to be 100 million by 2040, with 50-70% living in cities. This will add a lot of pressure on our natural and water related resources that are already under stress.

Economically speaking, the Mekong is critical to the economies of the lower Mekong countries, accounting for a large percentage of rice production (51%, valued at USD 14 billion), a sizeable percentage of energy demand of about 9% worth USD 2 billion, almost half of the fisheries production worth USD 16.9 billion, and one third of overall tourism value of USD 21.2 billion. In Laos, where the MRC Headquarters is located, the percentages are even higher– 69% of rice, nearly 100% of energy, 91% of wild fisheries, and 91% of tourism.

The Lower Mekong and its water-related sectors continue to contribute significantly to the broader national and regional economy, though this has been affected by the COVID pandemic and its response.

For the Basin economy, specifically, the success of the industrial zone relies upon transporting products to hub ports for exportation. In the opposite direction, importing materials to these industrial zones is equally important. Meanwhile, hydropower projects clearly bring jobs, contribute to energy security, and significant foreign exchange revenue to government coffers.

That said, with so many of these issues inter-connected and trans-boundary, our Member Countries should continue to shape policies that benefit the collective well-being. Especially, with rural-development projects that support local communities and improve living standards. National power generation should be subject to a proper coordination management mechanism, and future plans must consider the full range of viable generation sources that are environmentally friendly, logistically feasible and economically sound.

Now, the impact of climate change. Our State of the Basin report points out that greenhouse gases in the Lower Mekong Basin contributed to 1.5% of global emissions. In response, it's worth noting that at the 2021 United Nations Climate Change Conference, or COP26, all four of our Member Countries committed to reaching carbon neutrality by 2050.

Our research also observes a steady rise in average annual temperature of 0.03 degrees Celsius, or 0.22 degrees over the previous decade. In turn, sea levels are rising, with flood and drought damage more pronounced. It can create much damage, as Viet Nam reports that severe salinity intrusion into their crops; rural parts of Cambodia and Lao PDR have also experienced shortages of water for drinking and agriculture.

Finally, turning to the cooperation dimension. In fact, we should publicize the fact that greater cooperation can also deliver concreate benefits. The Member Countries have continued to fulfill their obligations by notifying and undergoing consultations for major infrastructure projects worth billions. Up to 2020, the so-called National

Indicative Plans of the countries identified $838 million (dollar's) worth of projects that called for cooperation. The new NIPs planned for 2021 to 2025, called for cooperation with an estimated value of $461 million.

As for the MRC itself it is the only treaty-based river basin organization, with a mandate to promote and coordinate the sustainable development of the Mekong. While I'm only the third riparian to assume the position of Chief Executive, it's clearly one sign of how Mekong citizens are gradually taking ownership of the MRC. We also have increased leadership and guidance from our Member Countries through Council and Joint Committee. Our Prime Ministers have convened three summits. Through increased contributions from our Member States, we have reached nearly 50% self-financing by this time; and on track for 75% by 2025; then the full 100% by 2030. Along the way, we're also taking necessary steps to improve our financial systems and enhance internal controls, in line with a world-class international organization status.

Now that I've painted for you a broader picture of the Basin, let me describe what the MRC has been doing about this crisis and the opportunities it presents.

Over the last five years, our recent Achievement Report documented the new heights of cooperation among our four Member Countries as well as with partners and stakeholders. I will highlight three points: knowledge, innovation and cooperation – and why I think they are the key to addressing Mekong issues.

First, we have expanded our river and environment monitoring, including joint monitoring of mainstream dams whose initial findings and recommendations are being discussed with countries and operators to improve adaptative management. Just last week, we launched a new monitoring station at Xieng Kok, which sits on Laos' northern border with Myanmar. It's the first cutting edge automatic station to be positioned atop the Lower Mekong and one of several new stations now in place.

Relatedly, in 2020, we hit a milestone in MRC-China cooperation. Beijing agreed to share their year-round hydrological data, not just its wet-season data.

Both of these give us advance information and better prepare our countries and Mekong citizens about impending restriction and release of water.

We also integrated our flood and drought forecasting, and secured partnership to develop medium to long term forecast. Our Regional Flood and Drought Management Centre, based in Phnom Penh, has since helped to save lives and protect property.

Second, for the next three years, we will strive for technological innovation with data collection, management and knowledge dissemination. We will create an App and get data and information directly into the hands of people. It will connect and make alive

our new Core River Monitoring Network, a system that reports data on river level, flow, sediment, fish, and ecological health. Our Member Countries are now also integrating socio-economic data related to vulnerability and gender within their efforts to better monitor and target policies to those in need.

Third, we will work hard to ensure the MRC continues to strengthen its role as a cooperative platform. Such so-called "Water Diplomacy" is essential for the MRC, its members, our neighbors, and our partners. We will work actively and sincerely with China and the Lancang Mekong Cooperation, including timely completing the Joint Study. We will cooperate with ASEAN, building on the successful "Water Security Dialogue" last year.

We will continue to promote stakeholder engagement and communication, through our open, inclusive Prior Consultation process. Prior Consultation is neither a yes or no process, nor an open or end process. It is about finding ways to work together in different steps to secure meaningful results that address key concerns. For medium term planning challenges, we need to come up with better development options through joint investment projects with multiple purposes, by continuing to work together on proactive regional planning, coordination of water infrastructures, and implement our existing strategies, plans and guidelines on environment, fisheries, drought and climate change.

Through such dialogue, communication and cooperation, we can prevent smaller problems from growing into greater challenges.

I would like to end with a call. Our Basin Development Strategy is a path-breaking Strategy. We believe, if implemented properly, it will turn the tide for a much improved state of the basin than the one I reported to you today.

The Strategy is responsive to the needs of our countries and people:

There is a call from downstream nations for upstream states to share more data and information, and to better warn about impending emergencies…

There is a call from upstream states for downstream nations to understand their legitimate needs for water use and water resource development…

There is a call from vulnerable communities to either help them protect their way of life or adapt to impending changes with better information and support…

There is a call from concerned partners and organizations for our riparian nations to continue to cooperate based on the Mekong Agreement and the One Mekong, One Spirit…

There is a call from people everywhere for the services of organizations like the MRC to better serve their needs, to be more easily understood and accessible…

Will we respond to these calls?

It's not just governments that must assume responsibility for the mighty Mekong. All of us can play a role. With our vital waterway facing so many challenges, will we just sit and hope our problems go away? Or will we rise to the occasion and together, build knowledge, make innovation and maintain cooperation. **The choice is yours, but I hope you choose to join us.**

Thank you very much.

Happy Mekong Day!

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