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# Environment

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- **Act together for a Resilient, Sustainable and Life-affirming Planet**
- **Enhancing marine plastic waste in Việt Nam**
- **Need for transforming business as usual economy to circular economy**



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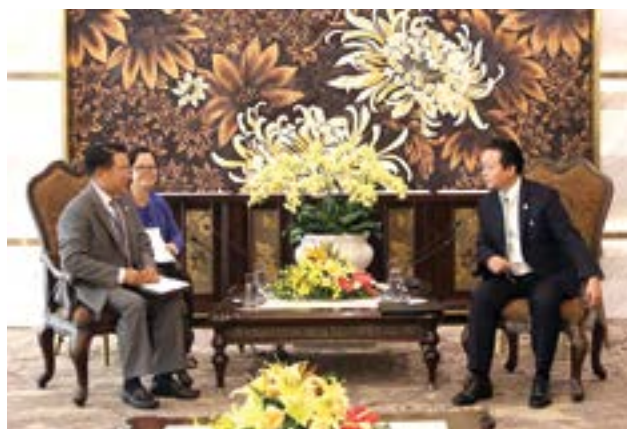
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# Act together for a Resilient, Sustainable and Life-affirming Planet

Speech by h.E prime minister Nguyễn Xuân Phúc at the opening session of the 6<sup>th</sup> GEF ASSEMBLY (Đà Nẵng, 27 June 2018)



▲ Prime minister Nguyễn Xuân Phúc

*Madam Naoki Ishii, CEO and Chairperson for the Global Environment Facility (GEF)*

*Distinguished Heads of delegations  
Ladies and Gentlemen*

On behalf of the Government of Việt Nam, I would like to extend my warmest welcome to all distinguished delegates attending the 6th Global Environment Facility Assembly held in the beautiful City of Đà Nẵng. I sincerely thank the Global Environment Facility (GEF) for selecting Việt Nam as the host of this significant international event on environment.

*Ladies and Gentlemen,*

Our Earth, the common home of mankind, is suffering from severe impacts of environmental degradation and pollution, climate change and the rise of sea level. As a result, all nations and peoples, with no exception, will have to face immeasurable consequences if we fail to come up with integrated solutions.

Nevertheless, this enormous challenge also presents an opportunity for mankind to review and rethink the path and models of development, thereby fostering changes in the people's mindset and behaviors so that our global natural habitats would stay permanent, and the cultural and

historical values of previous generations would be well preserved and passed on to future generations. And most importantly, it is also an opportunity for us all to unite and realize the dream and aspiration of many generations, regardless of skin color and ethnicity, of a **“Resilient, Sustainable and Life-affirming Planet”**.

Throughout nearly three decades since its establishment, the Global Environment Facility (GEF) has been playing a significant role in addressing the great global environment and climate change challenges. In particular, GEF have extended much-awaited support for many developing countries, including Việt Nam in this regard.

*Ladies and Gentlemen,*

Việt Nam, being a developing country, is facing various problems of environmental degradation and pollution, climate change and sealevel rise. Notwithstanding numerous difficulties and limited resources, the Vietnamese Government keeps on incorporating environment protection and climate change response into its national socio-economic development plans. The Government has also actively engaged the business community and the people so as to bring into full play the synergy of their creativity, solidarity and resource-

es. The Vietnamese Government does not and will never sacrifice the well-being of the environment for economic growth because what we are pursuing is sustainable development.

Việt Nam is working hard to realize the United Nations' Sustainable Development Goals (SDGs 2030) and its commitments at the COP-21 on climate change. In my speech at the G7 Outreach session in Canada on 9 June 2018, I spoke highly of GEF's important role and its effective cooperation with Việt Nam, and highlighted that Việt Nam would work closely with GEF in implementing the Regional project for an ocean free of plastic waste.

Việt Nam sincerely thanks the GEF, its member countries and development partners for the effective collaboration and assistance. We look forward to your further much-awaited advices, cooperation and assistance in this regard. Việt Nam is a suitable location for the GEF to implement new projects on environmental protection, and we are ready to participate in global, inter-regional, interdisciplinary projects so as to share our experience and learn from others the good practices on addressing global environmental issues such as marine plastic waste, biodiversity conservation...





*Ladies and Gentlemen,*

I would like to share with you several points as inputs for your discussion today:

*First*, we need to identify the key environmental challenges that humankind faces today, thereby formulating effective and integrated solutions.

*Second*, we need to evaluate the effectiveness and efficiency of the existing support and cooperation mechanisms, thereby undertaking momentous reforms, particularly in terms of mobilizing and allocating resources in order to best assist member countries, especially those facing enormous challenges from environmental degradation and pollution and global climate change.

*Third*, we need to come up with integrated projects that are global, interregional and interdisciplinary in order to address the underlying causes of environmental degradation and pollution, biodiversity loss, climate change, etc.; We also need to come up with target projects to address the current pressing issues such as plastic waste in general and marine plastic waste in particular.

*Ladies and Gentlemen,*

Will our planet be able to withstand the risks of natural disasters? Will the future of humankind be sustainable? Will our continents still be full of vitality? The answers lie in each and everyone of us, depending on our own actions right from this moment on, for a **“Resilient, Sustainable and Life-affirming Planet”**.

Việt Nam is ready to work closely with you for sustainable development for the current and future generations.

*Thank you./.*

## 4.1 billion USD committed to global environment



▲ GEF CEO and Chairwoman Naoko Ishii speak at closing ceremony press conference

The 6<sup>th</sup> Assembly of the Global Environment Facility (GEF) concluded on June 28 in the central city of Da Nang with 29 countries pledging to provide 4.1 billion USD for the next four years for numerous global environment-related programmes.

“A clear majority of donors have stepped up their support for the GEF, signaling the urgency of the global environmental agenda, and trust in the GEF to help tackle the problem and achieve even greater results,” said Naoko Ishii, GEF CEO and Chairwoman. “We need to forge the partnerships that will help transform the food, urban and energy systems in an integrated way. The GEF-7 is designed to do just that. The GEF-6 was an opportunity for us to think about what we will do in the next four years, and how we can care for nature. GEF-6 ended, but the next cycle has begun. We need changes on how to produce food, traffic, energy, power production, urban areas and economic systems.

Ishii also highly appreciated the commitment of the Vietnam government in pursuing green growth and dealing with plastic waste in the ocean as well as building regional partnerships in plastic waste management. She noted how the GEF’s new investment cycle (GEF-

7) puts an emphasis on addressing the underlying drivers of environmental degradation and will result in more climate benefits. In GEF-7, the GEF will double the target for greenhouse gas emissions mitigated from GEF projects compared to the last funding cycle. The GEF-6 also recognised that the new strategy doubles the target for greenhouse gas emissions mitigated from GEF projects compared to the last funding cycle, and increases by almost 50% the targets for the protection of biodiversity and valuable ecosystems.

The international community again gave GEF a strong vote of confidence through the endorsement of a 4.1 billion USD financial support package for the next 4 years. With this renewed mandate, GEF will be able to continue its important role as an impact investor in environmental programmes around the globe,” said Axel van Trotsenburg, World Bank Vice President, Development Finance, and co-chair of the replenishment meeting.

GEF-7 comes at a critical time for the world, and will help ensure that the hopes and aspirations of millions of people are met without stretching Earth to a breaking point■

**Son Tùng**  
(VNA source)

# The 6<sup>th</sup> GEF Assembly - Orientations for global environmental protection in the next four years

Dr. Đỗ Nam Thắng

***Taking place for a week with a series of meetings and related events, the 6<sup>th</sup> Global Environment Facility (GEF) Assembly ended successfully on 29<sup>th</sup> June 2018. This is the most important global environment event hosted by Việt Nam with about 1,500 high level participants from nearly 180 GEF member countries and major international organizations. In this Assembly and related meetings, various global environmental issues as well as their solutions were discussed via the approved strategy and program for GEF 7, implementation policies and several main inter-sectoral topics.***



▲ Overview of the opening ceremony of the 6<sup>th</sup> GEF Assembly

## STRATEGY AND PROGRAM FOR GEF 7

The GEF 7 replenishment negotiating process lasts for more than one year via four replenishment meetings. This is the most complex replenishment since the GEF establishment in 1992 for several reasons. Firstly, GEF donor countries have revealed more stringent requirements on effectiveness of GEF resources. Apart from requirements for higher quality projects, the donor countries have asked for a higher co-financing ratio as well as increased participation of public sector. Secondly, the US, one of the major GEF donors in the previous cycles has recently reduced its budget for environmental activities in general and for GEF in particular. This has a significant influence on GEF replenishments as well as on other do-

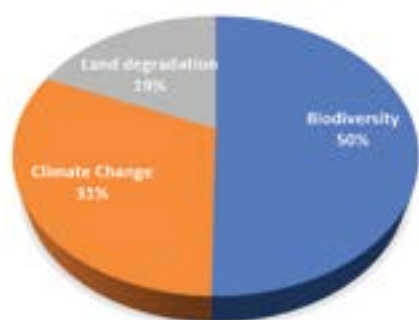
nors' commitments. Thirdly, the number of GEF agencies increased from 12 in 2013 to 18 in 2018. Differences in policies and focuses of these agencies created diversion in view points in the GEF 7 replenishment meetings. In addition, recipient countries have become more vocal in requesting for countries' ownerships and participation in resource allocation.

The stakeholders' differences have created considerable pressure in reaching agreements. However, after three meeting days from 24-26/6/2018, the GEF Council

approved the strategy and program for GEF 7. The most important contents then were endorsed in the 6<sup>th</sup> GEF Assembly on 27-28/6/2018. According to these documents, in the next four years, the overall budget for GEF is 4.1 billion USD, which will be allocated for projects and administrative management. Budgets for the three main focal areas of biodiversity, climate change and land degradation are 1292, 802 and 475 million USD, respectively (Figure). Of these, the countries will directly receive via the System of Transparent



**Budget for three focal areas**



Allocation of Resources (STAR) 1031 million USD for biodiversity, 511 million for climate change and 354 million for land degradation. The remaining will be allocated via set aside global and regional projects. Among the three focal areas, climate change is subject to budget reduction the most, about 40% compared with Cycle 6, due to the establishment and operation of the Green Climate Fund (GCF), a separate financial mechanism for climate change.

Việt Nam will receive 18.1 million USD in Cycle 7 via STAR, about 30% reduction compared with Cycle 6. The main reason for this reduction is that the overall budget for GEF 7 is 4.1 billion USD while that of GEF 6 is 4.43 billion USD. In addition, an important weighting scale of GDP of Việt Nam increased from 1,870 USD per capita in 2013 to 2,343 USD in 2017. Of the STAR allocation, 13 million USD is for biodiversity, 3.62 million for climate change and 1.39 million for land degradation.

The countries have a certain flexibility in using STAR budgets. Sixty-one countries with their STAR budgets of lower than 7 million USD have a full flexibility in changing the allocation among the three focal areas of biodiversity, climate change and land degradation. For those with STAR budgets of over 7 million USD, the countries can have a flexibility of 2 million USD or 13% of their STAR, whichever is higher. Việt Nam is among these countries, with a flexibility limit of 2.34 million USD.

STAR allocation will focus on: mainstreaming biodiversity across sectors as well as landscapes and seascapes, addressing direct drivers to protect habitats and species, furthering development of policy and institutional frameworks, promoting innovation and technology transfer for sustainable energy breakthroughs, demonstrating mitiga-

tion options with systematic impacts, fostering enabling conditions for mainstreaming mitigation into sustainable development strategies, supporting ground implementation of sustainable land management and fostering enabling conditions for sustainable land management.

Apart from STAR, GEF 7 continues to support other focal areas of chemical and wastes, international waters and sustainable forest management via non-STAR allocation. The non-STAR allocation will follow a principle of “first come, first served”. The non-STAR will support the projects of strengthening blue economy opportunities, improving the management of areas beyond national jurisdictions, enhancing water security in freshwater ecosystems, industrial chemical programs, agriculture chemical programs, least developing countries and small island countries and enabling programs. Besides, GEF 7 also has three impact programs of food, land use and restoration, sustainable cities and sustainable forest management. The participation in

these impact programs will be based on the countries’ interests and potential contributions to addressing the global environmental issues.

## GEF IMPLEMENTATION POLICIES

The GEF Assembly also approved some implementation for GEF 7, including a co-financing rate, strengthened partnership in GEF project implementation and fostered gender issues.

The GEF Assembly approved increasing the co-financing rate from 5:1 to 7:1 in Cycle 7, meaning that 1 USD of GEF will leverage 7 USD from other sources, including governments, implementing agencies, the private sector and the community. However, this is a target of all projects, not for any individual project. In addition, co-financing is broadly defined, including all resources for implementing GEF projects.

Regarding the strengthened partnership in implementing GEF projects, the Assembly approved the removal of requirements for a ceiling of 20% of GEF projects out of the total budgets of



▲ Side Event of Marine plastic debris management: “Partnership for Plastic Free Ocean ”





## SOME MAJOR INTERDISCIPLINARY TOPICS OF THE ASSEMBLY

During the two days of the Assembly, 12 round tables have been organized with the following topics:

\* *Food, land use and restoration:* Discussions focused on interlinkages among food security, land use, biodiversity conservation, and partnerships in sustainable land management and land degradation prevention. Examples and issues were mainly about Latin America and Africa.

\* *Sustainable cities:* Discussions were about solutions for sustainable urban planning, land use planning, emission and waste treatment, climate change adaptation and sustainable cities financing mechanisms. The GEF Global Platform for Sustainable Cities starting in GEF 6 will continue in GEF 7.

\* *Partnerships in implementing Agenda 2030:* This is a broad topic involving the areas of policies, regulations, financial mechanisms, partnerships and technologies. Discussions agreed that more resources were needed for achieving Agenda 2030 objectives.

\* *Science based targets for the Earth:* This roundtable raised the need for developing science based targets for sustainability of the earth. Suggestions for the establishment of an intergovernmental panel for each environmental areas and relevant targets, similar

to IPCC and the targets of 2°C increase for climate change.

\* *Circular economy:* This is an interesting topic for the private sector. A circular economy will not only address waste issues, achieve sustainable development goals and Paris Agreement but also create profit opportunities from reusing and recycling wastes. International corporation representatives expressed interests in working with the GEF and governments to promote this concept.

\* *Marine plastic wastes:* This is one of the most live discussions of the Assembly. Government representatives from Norway, Việt Nam, Indonesia and the CEO of Unilever, WB Vice President and UNEP Executive Director presented initiatives on mobilizing resources for marine plastic waste control, raising awareness and promoting participation of producers and consumers, and technology innovation in design and materials. In particular, Việt Nam's initiative on a regional marine plastic control project was highly regarded.

\* *Transforming chemical industry:* Participants highlighted the importance of maintaining and promoting chemical pollution control, from production to consumption, and the need for having separate projects in this topic.

\* *Wildlife:* Discussions focused on solutions for combating against illegal wildlife trade, transboundary impact of bans on illegal wild-

life and linkages of local people's livelihood and conservation, in particular local people's benefits in eco-tourism.

\* *Genders and environment:* Women's roles in addressing environmental issues were reaffirmed. Specific recommendations on increasing women's participation in all stages of the GEF projects were also made.

\* *Clean energy innovation:* To address an issue that 1.2 billion people lack access to energy and 2.8 billion people suffer from indoor air pollution requires various solutions related to technology innovation and sustainable financial mechanisms, including green bonds.

\* *Conservation financing:* The biggest challenge of conservation in a lack of investors' incentives due to low profits and long pay-back periods. Therefore, it is necessary to create incentive mechanisms for private sector participation, conservation markets to support governments in investing in conservation, including seascapes.

\* *Sustainable dry lands:* Experiences mainly from Africa were exchanged, with a focus on indigenous people's roles as a key success factor.

Among these topics, sustainable cities, circular economy and marine plastic wastes are emerging issues which attracted considerable interests. GEF 7 will have some projects addressing these issues.

the GEF project agencies. According to this policy, there are no differences in the traditional GEF agencies such as multilateral development banks and UN agencies, and the new eight GEF project agencies such as IUCN and WWF. Thanks to this, the new GEF project agencies can have more access to GEF projects.

The Assembly also approved some policies related to strengthening gender issues in GEF projects, more consultation with civil

society organizations and increased participation of private sector. However, these are in principles only. More documents will need to follow to specify these policies.

It can be concluded that the 6<sup>th</sup> GEF Assembly has opened important orientations for global environmental protection activities in the

next four years. Although there is a little change in focal areas, ways of developing and processing proposals need to be improved to increase access to and better use of resources of this largest environmental financing mechanism ■





# Enhancing marine plastic waste in Việt Nam

Tạ Đình Thi - Director General

Vietnam Administration of Seas and Islands

**Marine plastic waste has become a global threat. Việt Nam coastal zones is facing increasing marine plastic waste issue. This leads to enormous socioeconomic consequences and requires solutions for enhancing marine plastic waste control.**

## CONSEQUENCES OF MARINE PLASTIC WASTES

As marine plastic wastes are light, once reaching to the sea and oceans, they will quickly disperse regionally and globally due to wave movements. According to scientists, plastic wastes degrade slowly in marine environment, hence have negative impact on marine creatures. Annually, up to millions of marine creatures are killed by marine plastic wastes. The wastes also turn more than 700 marine species into extinction. Micro marine plastic wastes can enter marine food chains and damage marine creatures and ecosystems. Big size marine plastic wastes such as nets and gears will ruin the marine creatures when they are trapped by these floating devices.

In addition, marine plastic wastes have negative impact on human lives. The consumption of microplastic waste containing seafood (including sea salt) can cause human health problems. Besides, marine plastic wastes can affect economic activities and livelihood of coastal communities. The wastes increase marine accidents, reduce fishing productivity and undermine marine tourism.

## MARINE PLASTIC WASTE IN VIETNAM COASTAL ZONES

Vietnam coastal zones (including onshore and land adjacent to the sea) are boundary areas between the continent and the sea. Land based pollution accounts for 60-70% of marine pollution in these zones. One of the pollution issues is plastic wastes.

Coastal zones of Việt Nam cover 28 of 63 provinces and central cities and are home for up to 50% of the total population, with about 400 cities and towns at different scales. Due to science and technology development, at a cheap price, plastics are being commonly used in home appliances, products and goods. Even in rural coastal areas, plastics are replacing traditional materials such as wood, bamboo and rattan. In addition, consumption of disposable plastic products

is increasing. As a result, coastal zones produce enormous domestic wastes, including plastic waste.

Vietnam sea territories are home for numerous various natural and human resources which facilitate socioeconomic development, in particular for marine tourism. Vietnam coastal zones and islands cover world biosphere reserves and heritage, national parks, 44 bays and 125 beaches with potential for tourism. Recently, the coastal zones have received tens of millions of tourists annually. Tourism activities also create a large amount of domestic wastes, including plastic wastes.

Vietnam's coastal zones also have more than 300 industrial sites including marine economic zones, industrial zones, industrial clusters, processing and exporting zones and numerous other industrial factories and craft villages along the coast. Coastal provinces also have large scale agricultural production. Industrial activities, small industrial activities, cultivation, livestock and aquaculture have produced a large amount of waste, including plastic waste, animal feed, fertilizers and pesticides.

Việt Nam has 2,345 rivers with a length of over 10 km. Each year around 880 km<sup>3</sup> of water and hundreds of millions of materials are discharged to the sea from these rivers. Due to a geographically narrow width (no continental part of Việt Nam is more than 500km from the sea), discharged materials can reach to the sea quickly,

including plastic wastes from urban areas, industrial sites and agricultural areas. Besides, Vietnam coastal zones also suffer from other waste sources, of which plastic wastes come from land-based transport, infrastructure development, sea port and medical wastes.

These land based socioeconomic activities and limited capacity in waste treatment and control have created a huge amount of wastes to the sea, including plastic wastes. Jambeck et al. estimated that Việt Nam is the 4th largest marine plastic producer in the world, with 0.28-0.73 millions of tons per year or about 6% of the total global marine plastic wastes.

Vietnam coastal zones face the issue of plastic wastes not only from land-based activities but also from marine activities. Given that Việt Nam is adjacent to the international marine transport route which is one of the busiest routes in the world, with a potential marine economy development, a large number of boats operate in the Vietnam sea. In addition, there are about 126,000 fishing boats and nearly one million fishermen, of which daily there are 10,000 boats in the sea with about 80,000 labours. Sea transport and fishing boats in the Vietnam sea as well as other activities such as oil and gas exploitation, seabed pipe construction, sea tourism and related activities produce a large amount wastes, including plastic wastes.

The Vietnam sea lies in a typical tropical season wind area of the Southeast Asia.



▲ *Vietnam coastal zones and islands cover world biosphere reserves and heritage, national parks, 44 bays and 125 beaches with potential for tourism*

Climate is regulated by the two main seasonal winds of Southwest wind and Northeast. In this climate, with a light weight, plastic wastes from unknown sources, even outside of the East Sea tend to enter and remain in the Vietnam sea. This pose a significant threat of unknown source marine plastic wastes.

#### **SOLUTIONS FOR STRENGTHENED MARINE PLASTIC WASTE CONTROL IN VIETNAM COASTAL ZONES**

Over the past few years, environmental protection works in general and sea and islands environmental protection works have been paid special attention by the Vietnam Party and State in the process of the country's establishment and development. Environmental legal documents have been regularly reviewed, revised and updated to recent situations. Legal frameworks for regional, sector and local environmental protection have been attached importance. State environmental management agencies have been established at both national and local levels. Corporates, financial groups and Industrial Zone Management Boards established environmental divisions or assigned environmental officers. A State budget for environmental operation has been no lower than 1% of the total State budget since 2006. Other resources for environmental protection has been step by step mobilized from the community and international organizations.

Although environmental protection in Việt Nam has been paid attention, marine environment quality in our country has declined. In particular, marine plastic wastes are an issue of not only Việt Nam but also many other countries. To prevent and mitigate negative impact by marine plastic wastes, the international community and

Việt Nam are working on legal and specific project preparation.

Therefore, in the coming period, it is necessary to strengthen marine plastic waste control in Vietnam coastal zone through the following comprehensive measures:

*First*, continuing to complete legal and institutional frameworks for environmental protection and marine environmental protection; based on these, improving regulations and measures for preventing and controlling marine pollution from land based activities, including marine plastic wastes; completing policies and mechanisms for integrated coastal management; completing national standards on marine environment; regulating reduction of marine plastic products via imposing taxes on plastic products; regulating reduction of disposable plastic and regulating plastic recycling; encouraging the use of environmentally friendly materials that can replace plastics; and completing regulations on collection, disposal and treatment of solid wastes, including plastic wastes, from industrial manufacturing, ag-

ricultural production, urban and domestic wastes. Completing environmental protection policies and regulations need provides incentives for the community, organizations and individuals to increase their participation in marine plastic waste control.

*Second*, enforcing environmental institutions effectively. Environmental protection is a state management function of the Ministry of Natural Resources and Environment (MONRE). However, effective marine plastic waste control needs coordination among different levels of governments, sectors and localities. Therefore, it is necessary to establish cooperation mechanisms among these agencies for marine plastic waste control. MONRE shall take a leading role in working with other line ministries, sectors and localities to develop and implement programs and plans for national marine plastic waste control, inspect and supervise the implementation as well as coordinating international cooperation in marine plastic waste control. Other ministries/sectors and localities work with MONRE to develop the programs and plans within





their responsibilities. In particular, related agencies need to regularly conduct inventories and inspect land based plastic waste sources.

It is necessary to enhance advising capacity in planning and implementing marine plastic waste control programs and plans, increasing research capacity into marine plastic wastes to develop suitable solutions.

*Third*, properly investing in land-based pollution control. Marine plastic waste control requires a significant investment. Therefore, the State needs proper investment for organizing the implementation of marine plastic waste control. It is necessary to invest in infrastructure and equipment for plastic waste collection, disposal and recycling, and the monitoring systems and database.

Apart from investments using state budgets, it is necessary to mobilize resources from other stakeholders (resource socialization).

*Fourth*, regularly conducting propaganda and awareness raising for different management levels, organizations, individuals, communities and businesses on marine plastic waste consequences; changing people's behaviour in marine littering; promoting cooperation in different level of government agencies in improving regulations and institutions on marine environmental protection, including marine plastic waste control; assisting government authorities, people and businesses in actively implementing long term measures to reduce marine plastic waste such as promoting extended responsibility production, mitigating disposal plastic products and returning plastic products to recycling depots.

*Fifth*, strengthening international cooperation in marine plastic waste control. Given a mobility nature of marine plastic waste, its control requires international cooperation. Therefore, we need to actively cooperate with other countries and international organizations in marine plastic waste control through initiatives and projects, calling for technical and financial assistance in this field.

Việt Nam needs to participate and makes regional and global proposals on marine plastic waste control.

At a regional level, four out of the five top marine plastic waste producers are in the East Asia Sea (China, Indonesia, the Philippines and Việt Nam). Therefore, it is an urgent regional issue. Việt Nam needs to actively cooperate with other East Asian Sea countries to work with Partnerships of Environmental Management for the Seas of East Asia (PEMSEA) to develop a regional institution on marine plastic waste control and implement regional programs and projects.

At a national level, it is necessary to conduct studies on marine plastic waste to identify potential solutions.

In summary, the marine plastic waste is an emerging issue nationally and globally. Marine plastic wastes are increasing in the Vietnam coastal zones due to increasing socioeconomic activities in coastal and marine areas and transboundary movement of the wastes. To mitigate the damage and better plastic waste control in the Vietnam coastal zones requires efforts of governments, people and businesses and international cooperation ■

## Strong actions needed to not turn Việt Nam into world's scrap destination

Prime Minister Nguyễn Xuân Phúc has made the instruction at a Cabinet meeting recently to review solutions for thousands of imported scrap containers held up at major seaports around the country. As he stated, violations of environmental protection regulations and illegal imports of scrap into Việt Nam must be investigated and strictly punished to avoid being repeated.

A report from the Ministry of Environment and Natural Resources (MoNRE) said there were nearly 6,000 scrap containers held up at major seaports, which not only posed environmental concerns but also hindered port activities.

At the meeting, Cabinet members agreed that scrap imports had become a serious and complex issue. They said the demand for scrap materials such as scrap paper and plastic to make materials was real. However, this was economically advantageous for producers but not beneficial to the environment.

PM Phúc called for an urgent and thorough review and checks of origin of those containers. He asked the MoNRE and other ministries to come up with recommendations and suggestions from the meeting to better handle the "serious" situation, especially the solutions for the imported scrap. He also asked for enhanced co-operation to stop scrap imported into Việt Nam, not letting the country become a waste dump and affect the environment and people's life.

The PM assigned the MoNRE to clarify the impact of each waste product, saying it was necessary to have a list of eligible and qualified scrap materials to be imported into Việt Nam. "The MoNRE must inspect the granting of permits in the past time and strictly handle violating officials and enterprises," Phúc said. He assigned the Ministry of Transport to co-ordinate with the Ministry of Finance, localities and concerned ministries in destroying and removing waste containers.

The PM emphasised the need to revise all quota-free permits and not to issue new licenses for scrap imports. The Ministry of Industry and Trade also has to re-examine the issue of temporary import for re-export of scrap materials. After the meeting, the Prime Minister agreed to issue a directive on this issue to clarify responsibilities of related agencies ■

**An Bình**  
(VNS source)

# Natural resources and environment in green development policies in Việt Nam

Assoc. Prof. Nguyễn Danh Sơn

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***Green development is a current necessary trend. Green development considers natural resources and environment (NR&E) protection as a centre and a foundation for economy activities and living quality improvement. In a transition from brown to green development, many issues exist, of which three main issues related to natural resources and environmental protection policies are greening development policies, greening development indicators and environmental protection planning implementation as a basis for other development planning.***

## GREEN DEVELOPMENT - A NECESSARY DEVELOPMENT TREND

Year 1972 is considered as a milestone of changing awareness on NR&E with the Stockholm Declaration on the Human Environment at the United Nations Conference in Stockholm, Sweden. This gives a warning about negative environmental impact by human activities in development processes and notes that humans need to be more cautious and prudent with the negative environmental impact. By ignoring or being indifferent, we can cause enormous and irreversible damages to the earth on which our lives and prosperity depend. On the other hand, if we have more knowledge and act more wisely, we can save a better life for ourselves and our future generations in the environment that can better meet human demand and hope. Based on this warning, new mindsets, awareness and approaches have been developed, together with new methods in development management. Sustainable development is a new concept that first appeared in 1987 in the World Commission on Environment and Development's report *Our Common Future*. It then gained wide acceptance worldwide. The concept denotes the current generation's responsibility for the future generations in maintaining a foundation for development, which is NR&E. This is a new development mindset, different from a previous mindset which considers the environment as a natural gift that can be inherited and used without or with little attention for its protection and restoration. Sustainable development establishes an environmental pillar in addition to more traditional two pillars of economic and social development with a principle of harmoniz-

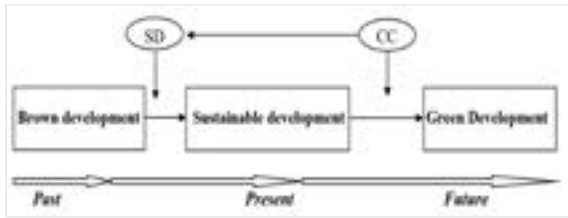
ing these pillars to provide a foundation for solid and sustained development. Nowadays sustainable development has become a necessary trend which is agreed and committed by all countries.

Climate change is an unavoidable consequence of mindsets and actions lasting for several decades that take natural foundation of the development lightly. It has become an enormous challenge to sustainable development. Obvious and strong impact of climate change at the global scale requires the update and deep understanding of sustainable development. Greening development is an approach meeting this requirement. Green is an adjective indicating a colour of the nature. Greening indicates development activities towards preserving the nature and the environment. Green development is opposite to brown development which involves overexploitation of natural resources and pollution. Green development basically is sustainable development that pays more attention to natural resources and environmental protection and consider it as a foundation for sustainable development. International

and domestic studies point out that sustainable development and green economy has close linkages. Green economy does not replace sustainable development. Instead, it is an approach for achieving sustainable development. Sustainability is a long term important objective and greening economy is the means that helps us achieve this. The National Strategy on Green Growth also mentions that green growth is important for sustainable development. A recent study by Vietnam Association of Conservation of the Nature and Environment comments that by nature green economy is sustainable development, or more clearly, is a means for sustainable development (SD) in a climate change context. Green growth and green economy cannot replace sustainable development. Instead, they represent sustainable development in the climate change (CC) context and emphasize more on natural resources and environment aspects.

Therefore, development of all countries in the world is clearly moving from brown to sustainable development and green development is essential (Fig 1).



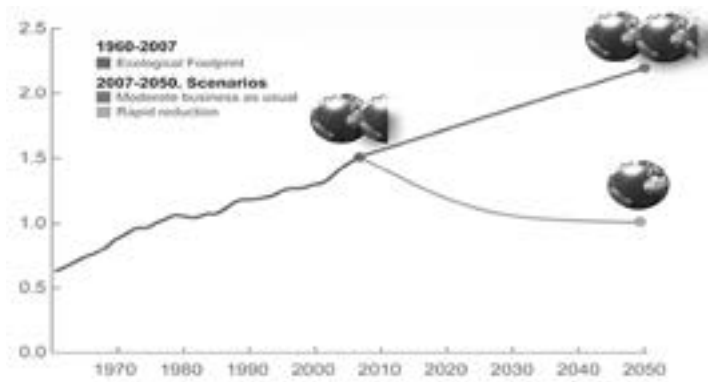


▲ Fig 1. Trend of transforming from brown to green development

## NATURAL RESOURCES AND ENVIRONMENT - FOUNDATION OF GREEN DEVELOPMENT

NR&E plays an crucial role in creature lives and development, including those of humans. The human advancement over many centuries of development, in particular economic growth, is mainly based on exploitation and use of the nature as a necessary foundation. Human achievements in science and technology on the one hand improve efficiency of the use of the nature functions both economically and ecologically, on the other hand, intensify and even push beyond the limit of the nature usage. Sadly and regrettably, the consequences of overuse of the nature have exceeded its improved efficiency, leading to overexploitation and degradation despite repeated warnings by scientists and managers. As a result, global climate change has occurred, threatening continuous development and even the existence of human society. Many studies have shown that development has “eaten” to much of the nature that is alarming. A study by the Global Footprint Network (GFN) and the World Wide Fund for Nature (WWF) shows that in 2017, from August 2 to the end of the year, humans exceeded the nature limit to meet our living demands while in 2016, it was from August 3 and in 1997, it was from 30th September and in 1985 it was from 5th November.

The day people have to start exceeding the nature limit is called Overshoot Day. The study by GFN shows that on average, since 1970, Overshoot Day of the earth has become 3 days earlier per year. That means we need more than one earth to meet our own demand and our development activities have been overusing the natural capital (Fig 2).



▲ Fig 2. The world ecological footprint

Economists is drawing attentions about the incorrectness in the current economic development theory that science and technology advancement, more specifically physical capital (knowledge, machines and technologies) or financial capital (investment) can replace natural capital (NR&E). This wrong theory should be replaced by a sustainable economic development theory toward green direction, in which NR&E is considered as an important capital foundation and irreplaceable by any other capitals.

In 2007, United Nations Environment Program (UNEP) issued an over 500 page report titled “Global Environment Outlook 4” (GEO-4) on environmental conditions of our earth with an warning that our earth has experienced five major extinction periods over the last 450 million years, the most recent one 65 years ago. The 6th extinction is taking place. This time is a result of our human behaviour. The report emphasizes that the only solution is to change the role of the environment from sub-priority to the centre in policymaking.

Green development is also sustainable development with NR&E as the centre of development decisions. Sustainable development attaches

high importance to the harmony between economic, social and environmental pillars while green development considers NE&E as the centre and a foundation for economic activities and social living condition improvement (Fig 3).

In greening development, NR&E is a foundation and the centre which needs to be protected and strengthened for future generations. This sets a principle that needs to be more stringently applied in all development decision. The principle is that the increase in natural resource efficiency needs to be higher than the increase in GDP, and the renewable resources exploitation rate ( $h$ ) should always be lower than or equal to the renewing capacity the resources ( $y$ ):  $h < y$  and waste ( $W$ ) should always be lower than or equal to the waste assimilating ca-



▲ Fig 3. Natural Resources and Environment is a foundation

capacity of the environment (A):  $W < A$ . This principle also follows the principle of sustainable development mentioning that the current generation should be responsible for the future generations in ensuring the foundation of NR&E for economic growth and living condition improvement for future generations.

In greening development, the meaning of NR&E's foundation for development also covers the idea that the use of NR&E needs to be within the supply limit of NR&E for two reasons. First, human development in the future, at least in the next thousand years, continues to rely on NR&E of the earth. A search for NR&E outside of the earth has not shed any new light. Second, even when this NR&E is discovered, the effectiveness of using this NR&E might be questionable given a huge distance for access (with a measurement of years of light). Therefore sustainable development and green development theories set a princile approach that all development decisions and activities related to economy, society and ecology need to be within the supply limit of the nature (the round on the right, Fig 4), as opposed to the current approach which ignore this limit (the triangular on the left, Fig 4).

#### NR&E PROTECTION IN GREENING DEVELOPMENT POLICY IN VIỆT NAM

As mentioned above, green development is a foundation for NR&E and needs to be managed and controlled within the supply limit of the nature. Therefore, greening development policies should cover the protection of NR&E for multiple generations. The current generation needs to hand over to the next generation the natural foundation for development. That is a commandment for us for sustainable development.

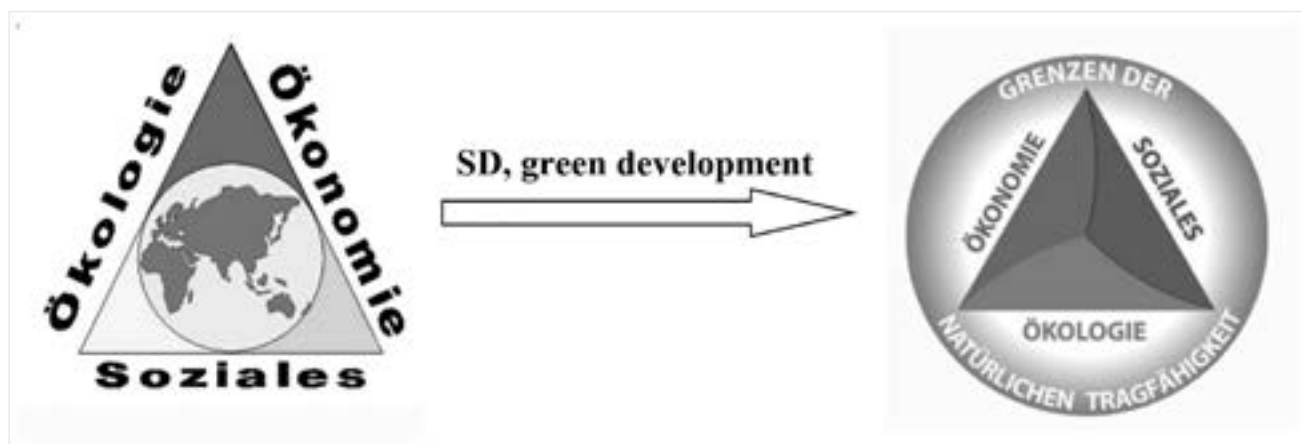
In our country, this natural foundation has been serious undermined, jeopardizing not only the current generation's development but also the future generation, posing an enourmous threat to sustainable development of the country. The National Assembly session on 2/11/2016 on the plan for restructuring the economy for the period 2016-2020 mentioned that "the environment has reached its limit" and proposed that "a new status should be established for the environment". In this new status, in the context of modernization, industrilization, urbanization and international integration, the enviornment of course is not placed behind, or a "cleaning up later" mindset. Rather, it should go hand in hand with all development activities. In some areas, environmental resoration is needed before continuing other socioeconomic development activities.

To this end, a lot of works need to be done, including changing awareness, policies and behaviour toward more environemntally friendly trends. Of these, the following three items are directly related to settting up the new status for the environment in green development policies and managemement as well as recomenda-

tions for the ongoing process of revising the Law on Environmental Protection:

First, greening development policies. Greening development policies can be simply understood as policies gearing toward or directing the development activities to be more environmentally friendly and hence strengthening natural foundations for sustainable development. The state of the environment has reached its limit as reported by Minister of Natural Resources and Environment at the National Assembly. This reflects an environmentally unfriendly development policies. Development policies in our country is being renewed toward a more environmentally friendly pattenr. However, in my oppinion, this renewal has not been comprehensive as compared with the greening policy definition. This is because most of the renewal points have focused more on protection than on greening, and hence, requirements for the natural foundation for sustainable development in the policy renewal have not been central.

To address this, it is necessary to include a greening concept into revising Law on Environmental Protection. More specifically, it is necessary to establish a legal foundation by a



▲ Fig 4. SD and green development within the supply limit of the nature





statement in environmental protection article (Article 5 of the current Law) that NR&E is a foundation of sustainable development.

Secondly, greening development indicators. Greening development indicators should be implemented concurrently by (1) increasing green indicators in national and provincial sustainable development indicators. Green indicators are those directly involving NR&E such as forest coverage, tree density in urban areas, percentage of untreated waste discharged into the environment, degraded soil percentage, biodiversity...as well as indirectly related to NR&E such as green GDP, green investment, green consumption and green products; (2) Strengthening valuation indicators on NR&E. Valuation indicators involve valuing NR&E, according the World Bank definition in the report Development Viet Nam 2010: Natural Resources Management. At present, we are managing NR&E in terms of physical units (quantity and volume), not in terms of their values. In the national and local accounts, NR&E values have not been included. Green capital (or NR&E) needs to be valued and monitored so that corrective actions can be taken accordingly.

Third, implementing environmental protection planning to provide a basis for other planning. Environmental protection planning has been mentioned in Law on Environmental Protection (point 1, Chapter II).

However, so far no guiding document has been issued. Once it is confirmed that NR&E is a foundation for socioeconomic development, NR&E planning needs to be used as a guidance for other development planning. Planning Law 2017 defines the national planning system, of which environmental protection planning is a sector planning (Article 3). Regarding the contents of environmental protection planning (Article 9, Law on Environmental Protection), environment zoning is an essential part. Theoretically, environment zoning is important for environmental protection planning because it involves the spatial planning on the basis of consistency of the zone appearance, structure and nature for protection and conservation, exploitation and use compatible with natural differences, environmental conditions and socioeconomic conditions. Environment zoning and the capacity to meet with environmental functions depicted by indicators of the capacity to provide NR&E goods

and services, carrying capacity, waste assimilation capacity are basic contents of environmental protection planning. For its part, environmental protection planning provides a basis for other development planning.

## CONCLUSION

Viet Nam is in a process of enhancing a comprehensive renewal of the country. NR&E protection for sustainable development in the context of climate change is receiving more attention. As the state of the environment has reached its limit, it requires a radical change from management, development policy to concrete actions by individuals and communities. Greening development policies and indicators and implementation of environmental protection planning to provide a base for other other development planning need urgent actions to respond to the implementation of the Party Central Committee Resolution 24-NQ/TW on proactively responding to climate change and strengthening NR&E management■

## National strategy on solid waste management revised

Deputy Prime Minister Trinh Dinh Dung has signed a decision approving revisions to the national strategy on solid waste management to 2025 with a vision to 2050.

The revised strategy sets the goal to collect, transport and treat 100% of harmful solid waste generated from production, business, service activities, medical establishments and trade villages, and 85% of harmful solid waste discharged by households by 2025. Control over harmful solid waste will be tightened from the discharge to collection and treatment under the strategy.

Producers of electronic goods will be required to set up points to collect unused products and consumers are responsible for taking their discarded goods to such collection points. Priority will be given to

developing large-scale treatment facilities using modern technology along with specialised processing facilities for harmful solid waste. The treatment of harmful solid waste in the form of burial or incineration will be reduced while recycling is encouraged.

The strategy also aims to replace nylon bags used by supermarkets and trade centres with environmentally-friendly bags. Another goal set by the strategy is to collect and treat 80% of solid waste generated in rural areas. To this goal, all economic sectors will be encouraged to invest in waste collection and processing with priority given to the

use of advanced and environmentally-friendly technologies.

Plans will be built and implemented for waste sorting at source of discharge, while dumping sites will be upgraded to ensure they do not pollute surrounding environment.

Viet Nam generates nearly 29 million tonnes of waste annually, most of which is disposed in landfills in an unhygienic manner. Last year, the rate of waste collected and treated in urban areas came to 85%, up 0.5% from 2016■

**Hoàng Đan**  
(VNA source)

# Natural Resources and Environment Sector strives for implementing an action plan for National Green Growth Strategy

Assoc.Prof. Nguyễn Thế Chinh

Dr. Nguyễn Sỹ Linh

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The National Green Growth Strategy was issued by the Government on 25/9/2012 by the decision 1393/QĐ-TTg. It focuses on three groups of main tasks in the period of 2001-2020 with a vision for 2050: reducing greenhouse gas emission intensity and promoting clean and renewable energy; greening production, and greening consumption. To achieve these, the strategy specifies measures for promoting restructuring and completing economic institution towards more efficient use of natural resources, increases in economy competitiveness through technology innovation, contributing to climate change responses, poverty reduction and

ensuring sustainable economic growth.

## **SOME RESULTS OF THE IMPLEMENTATION OF NATURAL RESOURCES AND ENVIRONMENT SECTOR'S ACTION PLAN FOR GREEN GROWTH**

Two years after the National Green Growth Strategy, on 20/3/2014, the Government issued Decision 403/QĐ-TTg approving the National Action Plan on Green Growth for the pe-

riod 2014-2020. The action plan has 12 task groups and 66 activities with 4 thematic topics: developing national institutions and local plans for green growth (8 activities); reducing greenhouse gas intensity and promoting clean and renewable energy (20 activities); greening production (25 activities); and greening lifestyles and sustainable consumption (13 activities).

To specify actions for the Natural Resources and En-



▲ NR&E sector focus on mobilizing resources for implementing a program on urban pollution control and management by 2020



vironment (NR&E) sector, on 23/4/2015, Minister for NR&E issued Decision 965/QĐ-BTNMT on its action plan for implementing the National Green Growth Strategy period 2015-2020 with orientation for 2030. The plan has 5 objectives: Preventing, controlling and mitigating pollution sources, remedying pollution; increasing capacity in responding to climate change, greenhouse mitigation; promoting and supporting rapid development of ecological product manufacturing and environmental service sector; efficiently and sustainably exploiting and using natural resources; and conserving biodiversity and developing natural capitals. These five objectives are in line with state management tasks assigned to the NR&E sector by the Government. Four groups of measures are proposed, including awareness raising, propaganda, and encouraging green growth implementation; increasing and diversifying green growth investment; legal improvement and strengthening capacity for green growth implementation; and strengthening international cooperation. To achieve these five objectives and implement the four measure groups, in the period of 2015-2020, the sector sets out seven priority tasks, including: developing a policy framework on green growth of the sector in the period of 2016-2020; developing national and provincial environmental protection master plans; developing a program for mobilizing resources and environmental protection; a program for urban pollution control by 2020; studying and issuing a regulation on green procurement of the NR&E sector; piloting permits for regional surface and groundwater exploitation; and conducting inventories and developing a database for natural capitals.

After three years of implementing the action plan, the NR&E sector have achieved several initial results: propaganda and awareness raising through green economy forums among journalists, managers, policymakers and businesses to exchange valuable experiences in integrating economic growth and environmental protection; and cooperating with the Vietnam Association of Conserving the Nature and Environment on organizing a workshop on green growth from the NR&E viewpoint. To increase effectiveness of state manage-

ment on NR&E as well as monitoring NR&E state and proactively respond to climate change to contribute to the national development, MONRE has developed and issued its sector statistic indicators. These are among the actions for implementing the priority task 1: developing a policy framework on green growth for the NR&E sector in the period 2016-2020. In addition, MONRE has assigned a task for the Vietnam Environment Administration (VEA) to develop a detailed guideline for implementing national and provincial environmental protection master plans. ISPONRE implemented a ministerial research project "Studying scientific and practical bases for developing procedures and guiding for environmental protection master plans" from 1/2015 to 8/2017. The research project provides important input for the recommendations for the detailed guideline for developing provincial environmental protection master plans.

Regarding the priority task 2 on developing a program on mobilizing resources for environmental protection, the VEA has been developing this program to diversify resources for environmental protection, in particular mobilizing resources from the society and businesses (socialization of environmental protection). In addition, according to statistics by Ministry of Finance, state budget for environmental protection in the period of 2012-2016 is 131,857 billion VND, of which the budget for regular expenditure for environ-

mental protection is 89,131 billion VND, the budget for NR&E sector to implement its tasks is 24,246 billion VND and the contingent budget for prevention and restoration of natural disasters is 18,480 billion VND. Therefore, the state budget for environmental protection has reached about 2% of the total budget. In the meantime, the revision of the Law on Environmental Protection Tax will contribute to increasing the surplus for state budget, indicating that expenditures for environmental protection will be more secured.

Regarding the priority task 3, MONRE is implementing the study and pilot for issuing permits for surface and groundwater exploitation for some regions. More specifically, MONRE issued Circular 47/2017/TT-BTNMT dated 7/11/2017 on monitoring water resource exploitation and usage. To implement the priority task 4 on developing a program on urban pollution control and management by 2020, MONRE has developed and submitted to Prime Minister the draft master plan for national NR&E monitoring stations for the period of 2016-2025 with a vision for 2030. The objective of this master plan is to establish a sound, modern monitoring system which can meet requirements of the state management of NR&E and socio-economic development.

Regarding international cooperation in the NR&E, extensive activities have been carried out with bilateral partners such as Denmark, Japan, Switzerland, Korea, the US and China as well as multilateral partners



such as United Nations Development Program (UNDP), UN Environment (UNEP), Global Environment Facility (GEF), World Bank (WB).

The cooperation has been intensified in many areas such as environmental assessment, pollution control, stockpile chemical pollution, biodiversity conservation and climate change.

Regarding green procurement for the NR&E sector, ISPONRE has conducted a ministerial research project “Research for scientific and practical bases and proposing green economy indicators in the NR&E sector”. Although this is not a direct task for green procurement, the project provides a foundation for applying green economy indicators for the sector’s activities. Green procurement for the NR&E sector as well as for Việt Nam has only at the stage of reviewing international experiences and recommending some green public procurement.

To implement the task of inventories and database for natural capitals, INSPONRE has cooperated with other agencies to carry out the project of surveying and completing mechanisms and economic and financial institutions for promoting restoration and development of natural capitals for the period of 2015-2019. The main output of the project is a draft economic and financial framework for developing and restoring natural capitals to 2020, with a vision to 2030. This is an initial stage, providing a foundation for developing a database for natural capitals. In addition, some other studies on natural capitals in green economy have been conducted. For example, in 2015, Professor Dang Huy Huynh conducted a study on sound natural capital conservation and use for green economy in Việt Nam. The study recommends strengthening scientific and technological research for developing and restoring natural capitals, degraded ecosystems, species with high economic values, in particular medicinal plants, non-timber forest products and indigenous species. It also proposes that conservation of natural capitals, forests and biodiversity needs to be included in economic development plans, programs and projects and be considered as one of the indicators of assessing a green economy progress. Therefore, it can be said that the

development of natural capital database has produced some results.

#### **DIFFICULTIES AND CHALLENGES IN IMPLEMENTING THE ACTION PLAN**

Despite some initial results, the implementation of the NR&E sector’s action plan for green growth has faced difficulties. As the priority task is developing policy mechanisms related to multiple sectors, it is important to reach agreements. Green growth has to deal with other production economy sector and it is not always easy to get agreements from other ministries. In addition, it is difficult to identify feasible indicators to follow the national green growth strategy. Green growth requires restructuring economy that is time and resource consuming. However, due to limited resources, the implementation of the sector’s action plan following the national green growth strategy has not received priority in resource allocation.

#### **SOLUTIONS FOR IMPROVING IMPLEMENTATION OF THE ACTION PLAN**

To continue implementing effectively the NR&E sector’s action plan for green growth, the sector needs to focus on increasing propaganda, awareness raising on the role of the sector, in particular the role of natural capital in green economy or green growth in Việt Nam; changing mindset in NR&E management (including climate change responses) to the philosophy that NR&E is input of the economy and

the environment receives output of the economy. As a result, the value and contribution of natural resources needs to be fully and correctly estimated in the economy. As the environment is the output of the economy, it is necessary to calculate the environment’s carrying capacity and to invest to maintain the carrying capacity when economy continues to grow. Another measure is to continue mobilizing international resources through bilateral and multilateral cooperation as well as strengthening cooperation between agencies under MONRE and other development partners to implement priority tasks. Of these activities, priorities should be given to capacity building and experience exchanging in developing policies on green procurement, urban pollution control and national account on natural capitals. Next, it is necessary to conduct further research on circular economy, completing natural resource and environmental management institutions towards market economy in the Vietnamese context which applies economic instruments suitable for different development stages of the country, contributing to green economy. Priorities should be given to the tasks by 2020, including the task 2 of developing national and provincial environmental protection master plan, the task 3 of developing a program of mobilizing resources for environmental protection and the task of developing a program of urban pollution control and management by 2020■



# Prospects for Việt Nam - GCF cooperation

Nguyễn Thị Diệu Trinh

Department of Science, Education, Natural Resources and Environment  
Ministry of Planning and Investment

**By the end of June 2018, Việt Nam was one of the ten Asian countries (Out of 33 countries in the region) to successfully access funding of the Green Climate Fund (GCF). Accordingly, Việt Nam has two projects out of a total of 18 projects in Asia already received funding from GCF with a total amount of USD 116.1 million (accounting for 15% of GCF's funding for the region) and a Readiness support project to access the GCF out of 19 GCF funded projects in 19 countries in Asia.**

## ABOUT THE GCF

The GCF was set up in 2010 by the parties to the United Nations Framework Convention on Climate Change (COP16) in Cancun, Mexico to mobilize funding sources for investment in low-emission development and climate change response in developing countries. GCF's strategic areas include: Energy, transportation, construction, urban, industry and equipment; Land use, land-use change and forestry (LULUCF); Strengthening the resilience and welfare of vulnerable communities and areas; Improving the quality of health care, welfare, water and food security; Enhancing the resilience of infrastructure and the environment; Enhancing the resilience of ecosystems and ecosystem services. The GCF Board consists of 24 representatives from developing countries and developed countries.

As of April 2018, GCF has gathered pledges worth USD10.3 billion and raised USD10.2 billion, is aiming to raise USD100 billion by 2020 to implement the global agreement on climate change. This is a new financial mechanism established and operated in 2013. However, it is expected that in the coming time, GCF will be the important and unique financial mechanism on the basis of merging existing financial mechanisms to implement United Nations Framework Convention on Climate Change (UNFCCC).

Countries can access GCF through public-private partnerships (Direct access); multilateral, bilateral, national or regional organizations accredited by GCF, such as United Nations organizations or financial institutions (Indirect access). The purpose

of these approaches is to create concrete catalysts for public-private partnerships in climate change, in addition to providing traditional support such as official development assistance (ODA), non-refundable financial assistance, and loans. Therefore, some areas and communities can access GCF in both adaptation and mitigation (50/50).

Organizations (For both direct and indirect access) must demonstrate appropriate capacity in financial management and meet GCF's credit requirements relative to the size of the programs or projects as well as the ability to manage and assess environmental impacts and social security in the implementation of climate change activities.

## VIỆT NAM - A BRIGHT SPOT IN COOPERATION WITH GCF

To coordinate GCF activities, the Prime Minister assigned the Ministry of Planning and Investment (MPI) as the National Designated Authority (NDA) for the GCF and related issues. MPI has actively participated in dialogue activities and cooperated with GCF on policy structure and opportunities to support Việt Nam in responding to climate

change and investing in low-emission development.

In June 2016, Việt Nam became one of the first countries in Asia to receive USD 29.5 million as funding from the GCF through the United Nations Development Programme (UNDP) for the Project "Improving the resilience of vulnerable coastal communities to climate change related impacts in Việt Nam" jointly implemented by the Ministry of Agriculture and Rural Development and the Ministry of Construction.

On 16 June 2017, GCF officially approved a funding of USD 300,000 to Việt Nam through the Việt Nam Readiness Support Program to strengthen the capacity of NDA in Việt Nam in the process of developing a national strategic framework and coordinating more effective cooperation with GCF. MPI has finalized the procedure to receive the funding and this has officially come into operation since January 2018.

On 16 March 2018, the GCF Board approved a funding of USD 86.3 million, of which USD 11.3 million is non-refundable aid for the Scaling Up Energy Efficiency for Industrial Enterprises in Việt Nam Project jointly developed by the Ministry of

Industry and Trade and the World Bank. In addition, MPI is actively working to support some local organizations to become GCF-accredited Việt Name organizations.

With these achievements, by the end of June 2018, Việt Nam is one of 10 Asian countries (Out of 33 countries in the region) to successfully access GCF funding, Việt Nam, specifically Việt Nam has 2 projects out of the total of 18 projects in Asia already received funding from GCF as of USD116.1 million (Accounting for 15% of GCF's funding for the region) and 1 GCF Readiness support project of 19 GCF funded projects in 19 countries in Asia.

Currently, the MPI is continuing to work with line ministries, GCF-accredited organizations operating in Việt Nam (17 organizations) to develop a priority project portfolio with total value of about USD2.2 billion of which GCF funding is estimated at USD 780 million for activities on climate change response, risk mitigation and low-emission development in Việt Nam to attract funding support from GCF. MPI is currently providing 4 No Objection Letters to the four proposals for GCF funding, including two global and regional proposals initiated by IFC and IUCN and two proposals for Việt Nam developed by UNDP and FAO.

## POTENTIAL FOR EFFECTIVE COOPERATION WITH GCF

In recent years, Việt Nam has actively cooperated with GCF to unlock the climate finance for the implementation of the Việt Nam Green Growth Strategy (VGGS), climate change and Nationally Determined Contribution (NDC). Milestones and collaborative activities are expressed in many aspects: High-level and technical visits and exchanges between Việt Nam and GCF have been made and brought about many benefits for both sides.

In April 2018, the GCF selected Việt Nam as the co-host of the GCF Structure Dialogue with Asia with the participation of 7 Ministers from other countries and more than 200 representatives of NDAs, GCF-accredited entities (AEs) and other stakeholders in Asia.

Results of the Việt Nam - GCF cooperation dialogue and the GCF Executive Director's visit to Việt Nam in June 2017 with the Signing ceremony of the readiness funding between the MPI Minister and the GCF Executive Director in Songdo (South Korea) in August 2017 confirmed the close cooperation and opened many new directions for developing cooperation between Việt Nam - GCF. This is also an opportunity to show to donors and partners about the ability and potential of Việt Nam in development cooperation■

## Some key contents in the session "Partnerships Agenda 2030" of the 6<sup>th</sup> GEF



▲ Leaders of the Ministry of Planning and Investment attending in the session "Partnerships Agenda 2030" on 27 June, 2018

Attending the 6<sup>th</sup> GEF Assembly with the role assigned by the Government of Vietnam as the focal point for green growth and sustainable development, access to international resources such as the GEF, the Green Climate Fund (GCF)... on behalf of the leaders of the Ministry of Planning and Investment, Dr. Pham Hoang Mai, Director General of the Department of Science, Education, Natural Resources and Environment, delivered a presentation on "Green growth - The way for partnership to implement SDG 2030" with some key contents as follows in the session "Partnerships Agenda 2030" on 27 Jun 2018: Mainstreaming SDGs into national development policies; Private sector participation: The role of private sector, challenges to the implementation of SDG 2030 through investment of private sector in green projects; Vietnam National Green Growth Strategy and Action Plan; Green growth to support VSDGs: Direct and indirect impacts; Updates of development of green growth action plans: 7 ministries, 39 cities/provinces have developed and promulgated their green growth action plans with proposed scenarios of emission reduction, policy interventions and prioritized projects; Options for reducing greenhouse gas emissions in agricultural sector, transport sector including civil aviation, industrial sector including cement production and some provinces implementing green growth action plans such as Ninh Thuan province... contributing to the NDC of Vietnam; Energy efficiency projects supported by the GCF■

Anh Tuấn





# Need for transforming business as usual economy to circular economy

***This is a message delivered by Chair and CEO of Global Environment Facility (GEF) at the 6th Assembly and related events from 23-29/6/2018 in Da Nang. The Vietnam Environment Administration Magazine (VEM) has interviewed her for a more insightful information about circular economy and recommendations for Việt Nam in addressing environmental challenges in the coming period.***



***Ms. Naoko Ishii has been GEF Chair and CEO since August 2012. Recognizing her efforts and determinations in addressing global environmental issues, in October 2015, GEF Council has endorsed the extension of her term to August 2020.***

***Before serving as the GEF Chair and CEO, Naoko Ishii was Vice Minister of Finance of Japan. She has held several important positions in international organizations such as World Bank, International Monetary Fund and Harvard International Development Institute. With her achievements, she has won several prestigious awards such as Suntory (1990) and Okita Memorial (2004) for development studies and En-joji Jiro Memorial (2006).***

**★VEM:** *What do you think about the GEF Assembly recently organized in Việt Nam? What are the main results in your opinion?*

**Ms. Naoko Ishii:** First of all, I would like to express my sincere thanks to the Gov-

ernment of Viet Nam, Prime Minister Nguyen Xuan Phuc, Minister of Natural Resources and Environment Tran Hong Ha, City of Da Nang and relevant agencies for the warm hospitality and effective cooperation with the GEF Secretariat in organizing the Assembly successfully. Through an opening speech, Prime Minister Nguyen Xuan Phuc has inspired us in establishing a joint effort in addressing global environmental and climate change issues. His clear message was “determined not scarifying the environment for economic growth, jeopardizing sustainable development”.

In particular, Prime Minister has committed that Việt Nam would be a pioneer in solving marine plastic waste, an emerging global issue.

The Assembly occurred at a critical defining moment for the future of humans and the earth. This is an opportunity to identify innovative solutions for priority environmental issues such as marine plastic wastes and to develop circular economy. The Assembly reviewed results of GEF 6 and opened an agenda for GEF 7 in the next four years. In the meetings and round table discussions, many interesting ideas and lessons



▲ *Circular Economy is one of the important topics discussed at the 6<sup>th</sup> GEF Assembly*



learned have been shared among governments, organizations, enterprises and participants. These will help guide the GEF 7 activities. For the GEF 7, we need to strengthen partnerships among governments, political and social organizations, private enterprises and academia to build a strong coalition for achieving global environmental objectives. We need to remember that “if we want to go fast, go by ourselves. But if we want to go far, we need to go together”.

**★VEM: What is a key message of the 6<sup>th</sup> Assembly?**

**Ms. Naoko Ishii:** An important message that we would like to get crossed at the 6th Assembly is that it is necessary to transform from a business as usual economy (based on natural resources and fossil fuels with rapid but unsustainable growth) to a circular economy. This message is based on science studies, one of which was presented at this Assembly. According to these studies, increases in demand for food, energy, urban development and thermal power development are creating huge pressure on the earth. We need to change our patterns of development and consumption to reduce the pressure on the environment and create a more sustainable environment for future generations. These have been discussed and agreed upon by GEF and representative of 183 member countries.

**★VEM: To address global environmental issues, we need a circular. What do you recommend for Việt Nam to achieve Sustainable Development Goals?**

**Ms. Naoko Ishii:** In a circular economy, wastes from one sector could be inputs for another sector. Transforming to the circular economy will bring about global environmental benefits, contributing to protect natural resources and the environment and reduce negative impact on the environment and develop green industries. That is why GEF has formed impact programs of food, land use and restoration and sustainable cities to support the countries. The GEF also helps in addressing other issues related to biodiversity and oceans.

To achieve sustainable development goals, Việt Nam needs to change development patterns, promoting participation of various stakeholders and enable their advantages. Similar to other developing countries, Việt Nam is facing such challenges as deforestation, water pollution and marine plastic wastes. Việt Nam needs to be a pioneer in solving these issues. This Assembly is a forum for Việt Nam to share experiences and seek for suitable solutions. In the coming period, GEF will continue to support Việt Nam in green growth and sustainable development.

**★VEM: Thank you!**

**Hương Trần**  
(Implemented)

## Integration to solve complex environmental problems

Science indicates that several planetary boundaries have already been breached, including genetic biodiversity, biochemical (nitrogen and phosphorus) flow, land-system change and climate change. Large scale, transformational change is needed to deal with these problems, and without a stable and healthy Earth system the Sustainable Development Goals will not be achieved.

In the World Economic Forum's Global Risks Report 2018, 6 of the 10 greatest risks, in terms of likelihood and impact, are environment-related. Food and water crises are both intertwined with the environment, and also in the top 10 risks. A deteriorating global environment poses significant threats to environmentally sustainable development.

Environmental challenges are complex and interlinked, not only in themselves but also with social and economic issues. Better human well-being, for example, poverty reduction, improved human health, energy access and economic growth, are linked to ecological factors. Solutions for one problem can lead to unintended negative consequences, or create new environmental or socio-economic problems. For example, increasing food production in ways that deplete soils, waste water, kill pollinators and increase desertification and deforestation, would eventually prove self-limiting.

Addressing these interconnected and interacting environmental and social challenges requires systems thinking; this is fundamental to better integration. Systems thinking examines the relationships between the different parts of a system, for example, the food supply system, or a commodity supply chain, especially cause and effect relationships, and positive or negative feedback mechanisms, between



the biophysical and socio-economic features of the system. Systems thinking also considers the interactions between components of a system across different locations and organizational levels, as well as over time. Many of these relationships are non-linear. Understanding the connections between variables helps to identify points for effective intervention.

Since its inception in 1992, the GEF has recognized that environmental benefits and socio-economic development objectives can be achieved simultaneously. Integration was built into the design of the GEF: It is specifically tasked with integrating global environmental concerns with national objectives in the framework of national sustainable development strategies.

The GEF has made considerable progress in successfully designing and implementing integrated projects: In biodiversity, international waters, land degradation, and in multi-focal area projects. In 2014, the GEF further cemented its efforts on integration with the 3 Integrated Approach Pilot programs on food security, commodity supply chains, and sustainable cities, conceived in response to the GEF's 2020 Vision.

The Independent Evaluation Office's OPS6 report, "The GEF in the Changing Environmental Finance Landscape", recommended a continued focus on integration: "The GEF should continue pursuing an integrative principle in its programming based on scientific and technical merits. A strong, cogent rationale for designing integrated programs and multi-focal area projects - based on demonstrated additionality, GEF experience, GEF comparative advantage, innovative contributions, environmental need, and national relevance - must be the basis for such interventions."

Balancing complexity and efficiency as the GEF seeks transformational change and lasting outcomes remains a challenge. Nevertheless, STAP en-

courages the GEF to continue pursuing integrative projects based on systems thinking. These actions will lead to more efficient and effective approaches to planning, monitoring and implementing projects addressing complex human-environment interactions.

To improve integration further in the design of future GEF projects, STAP recommends: (1) Apply systems thinking: address inter-connected environmental, social, economic, and governance challenges across sectors with an eye towards resilience and transformational change; (2) Develop a clear rationale and theory of change to tackle the drivers of environmental degradation through assessing assumptions and outlining causal pathways - and have a 'Plan B', should desired outcomes not materialize; (3) Assess the potential risks and vulnerabilities of the key components of the system, to measure its resilience to expected and unexpected shocks and changes, and the need for incremental adaptation or more fundamental transformational change; (4) Devise a logical sequence of interventions, which is responsive to changing circumstances and new learning (adaptive implementation pathways). Develop clear indicators that will be monitored to determine progress and success in achieving lasting outcomes; (5) Develop explicit plans and funding for good quality knowl-

edge management including: sustainable databases; simple, useful and usable common indicators; face-to-face consultations; and building stakeholder capacity. This is essential for 'lessons learned', and scaling up; (6) Apply exemplary stakeholder engagement, including with local communities, not just government officials, from inception and design, through to project completion. This is crucial for identifying diverse needs and managing trade-offs (7) Allow flexibility in project preparation to accommodate the additional transactions costs and time required to tackle complex issues through multi-agency teams.

Transformational change necessarily entails risk. Risk and transformational change are intertwined, and lie at the core of building the GEF's capacity to respond to change and making it resilient. The GEF can strengthen its organizational capacity to deal with change, and to deal with uncertainty through experimentation and innovation. The GEF could also encourage a greater diversity in the risk profile of projects. The GEF is uniquely placed to lead the way in applying and strengthening evidence on the science of integration and systems thinking to deliver global economic, social and environmental benefits■

**Vũ Hồng**  
(GEF Source)





# Circular Economy

***The global economy today is largely based on a linear, take-make-waste model in which over 60 billion tons of natural resources are extracted per year, and over 13 billion tons of waste are disposed into landfills, incinerators, and waterways. This process of mass extraction, industrial production, consumption, and waste is accelerating and resulting in natural resource depletion, ecosystem degradation, release of hazardous chemicals into the soil, air, and waters, GHG emissions, and marine debris. Greenhouse gas emissions are at an all-time high with 40 - 50% of emissions from sources tied to materials flow in developing countries (i.e. industry, buildings, agriculture and forestry, transport). Approximately 280 million tons of plastic are in the ocean today and 8 - 13 million tonnes of plastic enter the ocean every year. This linear system is one of the major social and economic drivers undermining the stability and resiliency of Earth's systems and, consequently, adversely affecting human health and the environment. These environmental impacts adversely affect livelihoods, the economy, and society at large.***

Tackling this challenge requires a circular economy model that emphasizes public-private sector partnerships to catalyze a closed loop approach to production and consumption through improved material use, product design, industrial process change, waste management, and material recovery and recycling. The circular economy model provides tremendous opportunities for reducing natural resource extraction and emissions of hazardous chemical emissions and greenhouse gases, along with fast tracking the achievement of commitments by countries with the major international conventions. Nations are able to minimize greenhouse gas emissions through reduced fossil fuel

extraction; reduce hazardous chemical emissions through both improved end-of-life practices to capture and properly dispose of these substances and through redesigned materials and products. A circular economy also helps countries safeguard terrestrial, freshwater, and marine biodiversity through reduced unsustainable resource extraction and reduced marine debris.

## SOLUTION

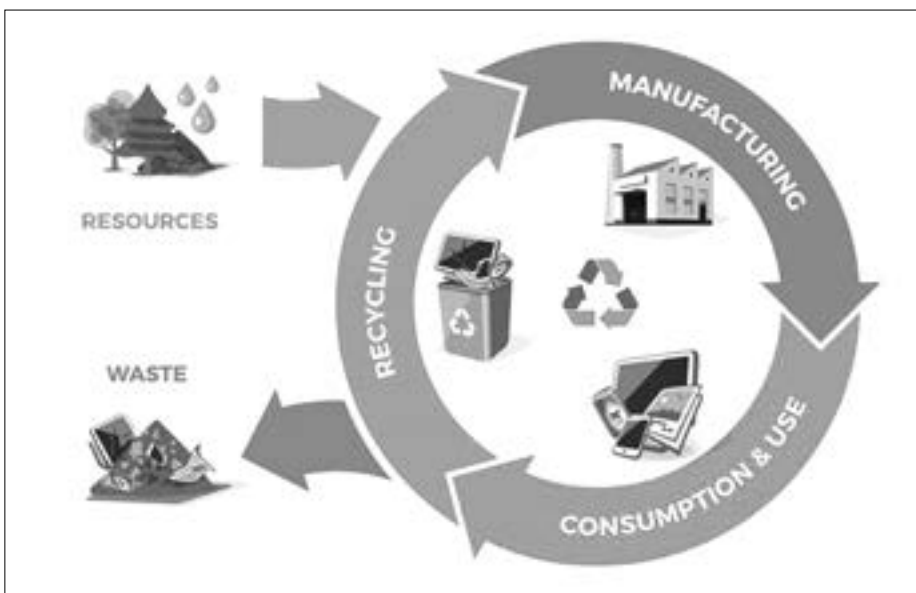
The circular economy requires fundamental changes

in the way society produces and consumes. This means adopting a systemic approach that addresses the entire lifecycle of products:

- Material engineering - promoting the use of recycled content and alternative sources of feedstock for plastics and redesigning products to foster reuse, recycling, shared use, and extended life;

- Consumer use - changing individual and business behaviors to catalyze demand for sustainable products and processes; and,

- Recovery and recycling - improving efficient waste collection, tracking, management and trade markets to prevent improper incineration and discharge into waterways and to promote recycling of material back to the first intervention point. For manufacturers, a systemic approach includes sourcing secondary or renewable materials; optimizing resource use and minimizing externalities during production; keeping products, components, and materials at their highest value at all times





through sharing, repairing, re-using, remanufacturing, and recycling; and establishing effective secondary materials systems to connect recycled materials directly to manufacturers. Both producers and consumers need heightened responsibility and awareness of the need for renewable technologies and materials. Governments need to adopt suitable, clear, and stable policies and tools that incentivize circular economy principles and support effective and environmentally sound after-use material management and recycling systems. The challenge is profound, but a few global market leaders are driving the process and starting to create demand signals. Philips, for example, offers “light as a service,” which enables it to offer a product that customers want, while retaining ownership of its materials so as to be able to eventually reintegrate them into its supply chain. Nike has committed to closing their product loops. Lego has committed to moving away from oil-based products by 2030. Renault Nissan Alliance has run an automotive remanufacturing plant since 1949. And the engineering and design firm Arup is leading thinking on how to transform the built environment: they have achieved reductions of 75% in weight and 40% in materials, compared with traditional construction methods, through using 3D-printed steel components. Individual governments and multilateral government organizations also recognize the need to remove barriers and establish enabling conditions for private sector innovation. The problem is that these solutions and policies remain nascent and small-scale, and their broader uptake is frustratingly

slow. Only through disruptive, systems level change a complete overhaul of key economic systems and development pathways can we hope to get on the right path. We are still far from achieving that goal.

### LOOKING AHEAD

Circular economy is recognized as a unique opportunity for the GEF to pursue a suite of environmental benefits through public-private partnerships. The GEF’s comparative advantage is its convening power and its ability to bring together all the actors in these complicated and interlinked global supply chains including governments, industry, and the finance sector to scale-up existing experiences with the circular economy. Furthermore, the GEF can assist developing country governments in creating the enabling environments for private-public partnerships and effective regulations and public services. Recognizing the need for a global platform to catalyze private-public collaboration toward a circular economy, the GEF co-chairs the Platform for Accelerating the Circular Economy, together with Royal Philips and UN Environment and hosted by the World Economic Forum. Circular Economy is highlighted in the GEF-7 strategy within the International Waters and the Chemicals and Waste focal areas as well as within the Sustainable Cities Impact Program. As indicated, the GEF-7 investments will focus on actions that can lead to global supply chains and regional and national economic development strategies moving from take-make-waste to redesign-reduce-reuse-repair-recycle approaches■

**Quang Ngọc**  
(GEF Assembly source)

## Government plan to reduce number of polluting enterprises



Prime Minister Nguyễn Xuân Phúc has recently approved a VNĐ 535 billion (US\$23 million) programme to wipe out utility enterprises seriously polluting the environment by 2020.

The goal of the programme, which will be run by the MoNRE, is to eliminate environment pollution at 30 garbage dumps and unhygienic landfills nationwide. In addition, discarded medicine, pesticides and packages at 70 other seriously polluted places will be collected and destroyed.

Three wastewater treatment facilities will also be built to treat wastewater that is being directly discharged into the Nhuệ - Đáy rivers, the Cầu River and the Đồng Nai River■

**Minh Viễn**  
(VNS source)



# Big business should pay to clean up plastic waste

***Plastic is destroying our oceans, yet big corporations are still being given money to produce cheap plastic. It's time for polluters to pay for the damage they cause***

Millions of tonnes of plastics enter the oceans each year causing a series of problems, trapped turtles, dying birds and suffocating whales. The United Nations says that if current pollution rates continue, there will be more plastic in the sea than fish by 2050. Even though plastic is destroying our oceans, big corporations are being given money to produce cheap plastic. Taxpayers pay more than 90% of the cost of recycling, while huge subsidies are placed on fossil fuels, the major building block for plastic. This is unfair: we need to take bold action now.

Corporations should pay for the damage they cause. Only then will they be forced to create environmentally friendly alternatives. Fossil fuel companies received subsidies of \$5.3tn (£3.7tn) worldwide in 2015, China alone provided subsidies of \$2.3tn. As plastic is made out of fossil fuels, these are effectively colossal plastic subsidies.

Rather than being paid to pollute our waters, the polluters should pay for their plastic waste to be recycled. Currently that cost is covered by the taxpayer, but instead the cost of recycling should be part of the cost of the plastic itself - with the additional money being transferred to local governments to pay for recycling. The government should reward retailers who develop new sustainable ideas, and raise charges on packaging that is difficult to recycle. This would reduce the demand for deadly plastics among producers and retailers.

The government proposals fail to make manufacturers and retailers pay for the environmental and social costs of plastic. The government should change this to stop big corporations ruining our oceans.

Unrecyclable plastic has left the oceans in a critical condition. We need radical action. France is aiming to use 100% recyclable plastic by 2025, and we should aim to match them. A ban on fish-killing unrecyclable plastics should be a priority. The retailer Iceland has just promised to scrap plastic packaging on all of its own-branded products within five years; other supermarkets should be required to do the same.

We have an unconditional duty to protect the oceans for the sake of our children's futures. If we want to save our turtles, birds and whales, we must take radical steps to tackle the plastic problem. This means incentivising business to reduce the use of plastic in favour of sustainable alternatives and banning unrecyclable plastic.

## PLASTICS AND OUR THROWAWAY SOCIETY

### Why is plastic being demonised?

Since the 1950s, 8.3bn tonnes of plastic has been produced. Plastic is seen as a versatile, indispensable product, but the environmental impact is becoming more stark. Plastic is now so pervasive that recycling systems cannot keep up and the leakage into the environment is such that by 2050 plastic in the ocean will outweigh fish. Last year scientists found plastic fibres in tap water, and plastic has been found in the stomachs of sea creatures in the deepest part of the ocean. Most plastic waste ends up in landfill sites or leaks into the natural environment, where it is causing huge damage to eco-systems on land and sea, creating near permanent contamination. According to academics in the United States, by 2015, of all the plastic waste generated since the 1950s, only 9% has been recycled, with 12% incinerated and 79% accumulated in landfill sites or the environment.

### Why are the supermarkets under fire?

Producers of plastic include retailers, drinks companies and supermarkets. The Guardian revealed that supermarkets create more than half of the plastic waste in the household stream in the UK. But they refuse to reveal how much they put on to the streets and how much they pay towards recycling it. Supermarkets are under pressure to reduce their plastic packaging and campaigners argue they have the power to turn off the tap. Much of the packaging they sell to consumers is not recyclable: plastic film, black plastic trays, sleeves on drinks bottles and some coloured plastic. The Recycling Association and other experts believe supermarkets could do much more to make packaging 100% recyclable and reduce the use of plastic.

### Who pays to clean up the waste?

The taxpayer, overwhelmingly. Producers and retailers pay the lowest towards recycling and dealing with their waste in Europe. In other countries, the "polluter" is forced to pay much more. In France, a sliding system of charges means those who put more non-recyclable material on the market pay more.

### What can shoppers do to help?

Supermarkets are under pressure, not least from the prime minister, to create plastic-free aisles. A growing number of zero-waste shops are springing up and consumers are being encouraged to ask for products to be sold without plastic.

An Vi

(The Guardian source)





# China's trash ban lifts lid on global recycling woes but also offers opportunity

China's decision to ban imports of foreign waste, including some plastics, has reverberated around the world, with recycling operations in other countries struggling to deal with the new reality. Some experts argue that developed nations will, at last, have to face up to the true cost of their plastic addiction instead of shipping the problem to China, which has taken nearly half the world's waste since 1992.

This could spur much-needed investment in domestic recycling facilities as well as innovation in plastic manufacturing to make products more suited to repurposing. It could also invigorate the vociferous public campaign to change our throwaway culture.

Last year, China decided to ban imports of 24 categories of solid waste, including certain types of plastics, paper and textiles, citing environmental and health concerns. Essentially, it is seeking to upgrade its economy and deal more effectively with its own growing mounds of trash. The material it was importing added 10-13% to its overall waste levels.

Another problem was the poor quality of waste imports, which made them more difficult to recycle and consequently hit profits for the Chinese companies involved.

The ban came into force in January and the effects are now being tallied.

In a new study, published in June in *Science Advances*, scientists from the University of Georgia (UGA) found that 111 million metric tons of plastic waste will be displaced by China's new policy by 2030. All that rubbish will have to go somewhere else. With plastic production and use continuing to rise, and companies and countries both committing to circular economies and increasing plastic recycling rates, the quantity of plastic waste needing a 'home' will continue to increase for the foreseeable future. Without bold new ideas and management strategies, current recycling rates will no longer be met, and ambitious goals and timelines for future recycling growth will be insurmountable.

The ban is already beginning to bite. The *Washington Post* says states such as Massachusetts and Oregon are lifting restrictions on pouring recyclable material into landfills. AFP has reported that significant stockpiles of recyclables are piling up in the US, with some municipalities saying they will no longer collect certain materials or send them to

landfills, while some recycling facilities are storing the extra waste outside or in parking lots.

The ban has also exposed systemic weaknesses in recycling processes in the United States. The National Recycling Coalition (NRC) said in May that the ban exposed the problems caused by dirty recyclables. The introduction of single-stream recycling in the United States, which mixes paper, metal, glass and plastics-means recyclables are less pure and less valuable.

Such changes will, of course, take time. As will new investment in recycling facilities to fill the gap left by China, which imported around 7 million tonnes of waste in 2016. This is even more concerning when one realises that, to date, only 9 per cent of waste has been recycled globally, with most of it ending up in landfills or in the environment, including in our seas.

Bottles sorted for recycling in Vietnam, one of the countries that is importing much of the waste now banned from China. Some developed countries reacted to the ban by sending their waste to other Southeast Asian countries, such as Thailand and Malaysia, and some Chinese recyclers have opened factories in nearby countries to cash in on this new business.

However, experts point out that some of these countries do not have the capacity to deal with the waste influx and are already considering imposing restrictions of their own. Another concern is that Asia is already home to 5 of the world's top marine plastic polluters and sending more trash to countries that are ill-equipped to deal with it will simply exacerbate that problem.

Since the Chinese ban, Britain's waste exports to Malaysia have tripled, the *Financial Times* has reported, with the domestic recycling industry seen to be languishing and underfunded.

Governments also have a role to play by investing in recycling and waste management, he added. The British government is due to publish a Waste and Resources strategy later this year.

China's ban has also shone a spotlight on the parlous state of international regulation about plastic waste. The UGA study argues that the International Basel Convention, which governs the export of hazardous and other waste, could be applied to plastic waste if the latter was characterized as "waste requiring special consideration". It could then be regulated while knowledge could be shared and standards harmonised.

One potentially positive side-effect of China's ban has been to focus attention on the need for a more sustainable circular economy, where resources like plastics will be kept in use for as long as possible. However, with oil prices relatively low, virgin plastic is cheaper than recycled plastic - a financial obstacle that must be surmounted.

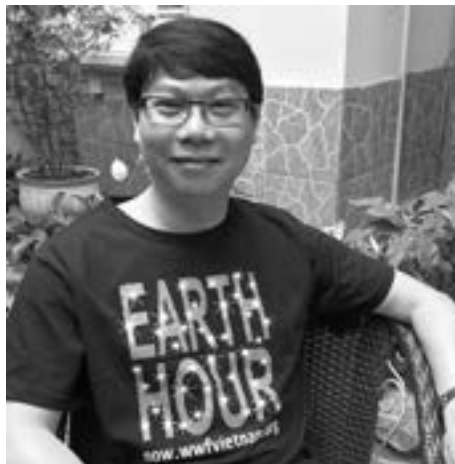
European authorities appear to have recognised the value inherent in plastics. The European Commission's Plastics Strategy, which was unveiled in January, says its drive to make all plastic packaging recyclable or reusable by 2030 could create 200,000 jobs but only if recycling capacity is multiplied fourfold. ■

**Quang Ngoc**  
(UNEP source)



## Sowing the forest seeds

***"Sowing the forest seeds" is a reminder to people to consider the origin of wood, paper and other products made from the everyday trees. Today, human's consumption of wood products is destroying the homes of wildlife in particular and the Earth in general. To learn more about this issue, the Vietnam Environment Administration Magazine (VEM) had a talk with Dr. Lê Thiện Đức - Forest Program Coordinator of WWF Vietnam.***



▲ Dr. Lê Thiện Đức - Forest Program Coordinator of WWF Vietnam

★VEM: It is known that WWF recently held a "Sowing the forest seeds" event. Could you please tell us the meaning of this event and the message WWF wants to convey to the community?

**Dr. Lê Thiện Đức:** From November 23 to 26, 2017, the people of Ho Chi Minh City have had the opportunity to experience the Augmented Reality (AR) technology when visiting the WWF booth at the Vietnam Furniture & Home Furnishing Fair (VIFA HOME). Through its innovative and highly interactive technology, WWF wants to send a message to the public: "When using wood products responsibly, you have already contributed to the preservation and sustainable development of the forests of Vietnam, creating a healthy environment and better life for the people living near the forests."

Since the early days, wood has been a material bringing much benefits to human life, from basic needs such as heating, cooking and everyday things such as furniture, beds, cabinets, etc. So far, although there are plenty of alternatives, wood is still one of the favorites. With the global population in booming, the demand for wood has increased, and many of the world and Vietnam's natural forests have been cleared, with many commercial forests planted to meet this demand. However, not all forests are protected and

extracted responsibly. Illegal natural forest destruction and unsustainable plantation practices have led to the degradation of the environment, which has led to the disappearance of animal species due to the loss of habitats.

With a hope to make the public understand how to use wood more responsibly, at the VIFA HOME furniture exhibition, WWF invited the public to participate in the "Sowing the forest seeds" event. With the help of technology, people who came to the WWF booth had the opportunity to become "magicians" to turn decaying forests into magnificent homes for animals and interact with them. This is one of a series of activities to raise awareness of wood products with certificate of sustainable forest management and transparent origin to promote market development for this kind of products in Vietnam. Through this activity, people got to

make themselves familiar with the concept of sustainable forest management, begin to build awareness about the protection and preservation of the values brought about by the forests for human life, thus gradually changing the habits of consuming wood products, towards an enlightened society with people living in harmony with nature.

★VEM: Could you please tell us about the international and local initiatives on sustainable forest management?

**Dr. Lê Thiện Đức:** At present, there are many initiatives in the world on sustainable forest management, each with different approaches. Two main initiatives are the Guidelines of the International Tropical Timber Organization (ITTO) and the Principles and Criteria of the Forest Stewardship Council (FSC). Forest certification standards in the world include the World Forest Steward-



ship Council (FSC) and the Program for the Endorsement of Forest Certification (PEFC). There are also some national standards such as SFI of the USA, CSA of Canada, LEI of Indonesia and MTCC of Malaysia.

FSC is an independent non-profit, non-governmental organization. FSC sets the standard for both environmental and social sustainable forest management. The mission of FSC is to maintain the forests of the world, serving future generations - ensuring that people have forests, and forests provide sustainable products for the long term. FSC's forest management standards are now considered one of the most prestigious international standards. Currently, FSC has certified 199 million hectares of forest.

PEFC is a global organization that evaluates and recognizes national forest certification programs developed in a multi-stakeholder process. Currently, PEFC is the largest forest certification organization, certifying 313 million hectares of forest.

In Việt Nam, WWF is one of the pioneers in promoting sustainable forest management and forest certification in Việt Nam. In 1999, WWF co-ordinated with MARD to organize the first workshop on sustainable forest management and FSC forest certification (Forest Certification issued according to the standards of World Forest Stewardship Council) in Ho Chi Minh City, then supported the establishment of national working group on sustainable forest management and forest certification. WWF also supported the development of a draft FSC forest management standard set for Vietnam based on the FSC Principles and Criteria for sustainable forest management.

In 2015, the FSC promulgated a new set of standards with amended principles, criteria and general indicators for the international application (FSC-STD-60-004 V1-0 EN). On that basis, countries are developing a national standard set under this new standard set, and Việt Nam is no exception. Việt Nam has set up the standard develop-



▲ *Acacia forest is planted by the households under the sustainable forest management model in Hue (Photo: Loc Vu Trung/WWF)*

ment group, and has amended the indicators to suit the context of Việt Nam and held stakeholder consultations. The new standard set of Việt Nam was submitted to the FSC for review in July, 2017. However, there has been no official approval of FSC for the standard set of Việt Nam.

In addition, Việt Nam is developing a National Forest Certification System to issue Sustainable Forest Management Certificates in accordance with Vietnam's laws and harmonized with international regulations and standards under Decision No.83/QĐ-BNN-TCLN approving the Scheme on Sustainable Forest Management and Forest Certification for the period 2016-2020. The Vietnamese Academy of Forest Sciences is assigned by the MARD to cooperate with Vietnam Administration of Forestry (VNFOREST) and the Drafting team for development of the Standard Set on Sustainable Forest Management for Vietnam Forest Certification System. So far, the Vietnamese Academy of

Forest Sciences has conducted a gap assessment between the set of principles on sustainable forest management under Circular No. 38/2014/TT-BNNPTNT and the current standard set of PEFC and identified the principles and criteria that are missing, or inappropriate that need to be adjusted. Next, Việt Nam will develop a circular detailing the order and procedures for forest certification, the rights and duties of forest certification assessment organizations; develop documents and register for participation in the international forest certification system, firstly participating in the European Program for the Endorsement of Forest Certification (PEFC).

**★VEM: What regulations does Việt Nam have in place to encourage communities and businesses to participate in sustainable forest management?**

**Dr. Lê Thiện Đức:** Over the past 10 years, the Government of Việt Nam has made many efforts to promote sustainable forest management. First of all, the





Forestry Development Strategy 2006-2020 aims to: Establish, manage, protect, develop and sustainably use 16.24 million hectares of land for forestry; raise the ratio of forested land to 42-43% by 2010 and 47% by 2020; ensure the wide participation of all economic sectors and social organizations in forestry activities; protect the ecological environment, conserve biodiversity, provide environmental services, reduce poverty; improve living standards for rural people in mountainous areas; contribute to maintaining national security.

Then, in 2006, MARD issued Decision No. 83/QĐ-BNN-TCLN approving the Scheme of implementing sustainable forest management and forest certification in the period 2016-2020. The overall objective of the scheme is sustainable management and use of forest resources, conservation of biodiversity and value of forest environmental services, and the promotion of forest certification in Việt Nam to meet the requirements of domestic and international markets, contributing to enhancing the added value of the Forestry sector. According to this Scheme, at least 500,000 ha of production forest will be issued with sustainable forest management certificates by 2020, of which 350,000 ha are planted forests and 150,000 ha are natural forests. So far, the total area of Vietnam's forest certification is 231,704 ha, achieving 46% of the target.

In 2016, the Prime Minister issued Decision No. 38/2016/QĐ-TTg on some policies on forest protection and development and investment in supporting infrastructure and public tasks assigned to agriculture and forestry enterprises. This Decision mentions policies to support production forest, scattered plantations and forestry extension using the state budget, such as planting large timber species (harvested after 10 years of age) on barren hills, multi-purpose trees and indigenous trees with the support level of VND 8 million/ha; small timber species (harvested before 10 years of age) and scattered trees (exchange rate of 1,000 trees/ha) with the

support level of VND 5 million/ha; Planting production forests on barren hills and bare land in border communes; Son La, Lai Chau, Dien Bien, and Central Highlands provinces receive additional support of VND 2 million/ha in addition to the above mentioned support levels; Organizations, households, individuals and communities planting trial forests (new varieties, on new land) according to the planning approved by competent authorities, shall be supported with capital equal to 60% of the approved plantation cost. Each trial forest planting model shall be supported for not more than 2 ha; cost support for forestry extension: VND 500,000/ha/4 years (1 year of planting and 3 years of tendering); One-time cost support for surveying, designing and signing of afforestation contracts: 300,000 VND/ha; and especially one-time support for sustainable forest certification for enterprises, communities, household groups and households: 70% of the cost, not exceeding 300,000 VND/ha with a minimum size of 100 ha or more (for natural forests and planted forests). However, this financial support policy has not been successfully approached by any forest owners.

In order to promote the sustainable forest management and attract the community and businesses to participate in this activity, the following measures should be implemented in the coming time: to continue to attract projects promot-

ing sustainable forest management and forest certification for forestry companies, especially forest plantation household groups; to link producers, processing entities and traders together, creating market linkages for forest owners towards sustainable forest management and commercial processing entities towards responsible trade and forestry production; to promote the domestic market for certified wood products through producers, retail channels and media to raise awareness of domestic consumers for FSC certified wood products, the consumption of this product has initially led to the demand for certified products in the domestic market with the pioneering partner companies (at the moment, the market for responsible products is only the international market). The Government of Vietnam should introduce a public procurement policy, ensuring that government agencies are pioneers in the use of certified wood products; to promote communication, enhancing forest owners' understanding of Forest Law Enforcement, Governance and Trade (FLEGT) and related regulations for the introduction of information/regulations on legal wood trade to forest owners and small businesses; Construction works also need to apply the use standard of wood products (interior, exterior) as the standard of the US Green Building Council - LEED standard ■



# Together, let us protect the right to life of the wildlife

Đỗ Tiến Đạt

*Center of Hands-on Actions and Networking for Growth and Environment (CHANGE)*

***On March 19, 2018, Sudan - the world's last male white Northern rhinoceros - died at the age of 45 (equivalent to 90 in humans), at the Ol Pejeta Conservancy (Kenya). Sudan's last departure has led another species to become extinct and the last bell toll to awaken the community awareness to jointly protect the right to life of the wildlife.***

## SUDAN' DEATH - A WAKE UP CALL FOR THE COMMUNITY AWARENESS

In the past few months, Sudan had been seriously ill, the muscles and bones were degraded, and the skin in the hind legs was inflamed, with severe sores, making it unable to stand up and suffer a lot of pain. Although he was treated by the doctors, but because of health problems due to old age and infection, his condition became more serious. Finally, the veterinarian team decided to liberate him by a "gentle death" on March 19.

The death of the rhinoceros causes the world to be left with only two other white rhinoceros, Sudan's daughter - Najin and Najin's daughter - Fatu that are living in the Ol Pejeta Conservancy. The only hope for the conservation of this species now depends on the development of in vitro fertilization (IVF) technology, using the eggs of the remaining two females and the sperm samples stored from a male white Northern rhinoceros, and using female South African white rhinoceroses to have surrogated pregnancy.

Prior to his death, Sudan was the global ambassador for rhinos, appearing in documentaries and community education campaigns by WildAid aimed at reducing rhinoceros horn consumption, besides the influential figures in China and Vietnam, including Yao Ming, Jiang Yijian and MC Phan Anh. Sudan's sacrifice will become a symbolic moment for conservation work around the world, in order to awaken public awareness of the threat of extinction, not only of rhinos but of many other species.

Since 2013, South Africa has lost more than 1,000 rhinoceros individuals each year due to poaching. Their horns are transported to China and Vietnam for use as a tonic



▲ A forest ranger kneeling down next to the body of Sudan

for health and carving. The Northern white rhinoceros are facing extinction; among the five rhino species, there are only about 30,000 wild individuals. Specifically, about 20,000 South African white rhinoceros are living in South Africa, about 5000 black rhinoceroses are living in South and East Africa, about 3,500 Indian one-horned rhinoceros are living in Nepal and India, and less than 100 Sumatran rhinoceros and about 60 Java rhinoceros.

## WHAT CAUSES THE EXTINCTION OF THE RHINOCEROS?

The poaching crisis of the 1970s and 1980s, resulted from the rhino horn demand in traditional Chinese medicine in Asia, and for dagger

making in Yemen, wiped out the Northern white rhinoceros' population in Uganda, Central African Republic, Sudan and Chad. The final wild rhinoceros' population comprising 20-30 rhinoceros in Garamba National Park in the Democratic Republic of Congo faced the battles in the area in the 1990s and early 2000s. By 2008, Northern white rhinoceros was considered to be extinct in nature by most experts.

In 2009, four final Northern white rhinoceros - two males, two females - were transferred to Ol Pejeta from the Dvůr Králové Zoo - Czech Republic, with the support from Fauna & Flora International. It was hoped that the climate and savannah of the nature reserve, which is



similar to the habitat of this species, would create favorable breeding conditions for them. Upon arrival at Ol Pejeta, all four individuals were under 24-hour armed guard and with nutrient-enriched diets. However, although they had mated, there was still no successful pregnancy.

In early 2014, a plan to bring a South African white rhinoceros to mate with two white rhinoceroses was made in the hope that if successful, the crossbred between the two would have at least preserved some of the genes of the Northern white rhinoceros. Again, this plan failed. Tests later concluded that both females were incapable of reproducing naturally and only one was capable of performing artificial insemination. The death of one of the two male white rhinoceros - Suni, for natural causes in October 2014, has emphasized the need to quickly introduce alternative methods.

With the limited options, scientists are trying to develop the "artificial insemination method" including IVF to save the species. The Ol Pejeta Conservancy and the Dvůr Králové Zoo collaborated with IZW Berlin, Avantea Cremona and the Kenyan Wildlife Service to test and take the first steps to gather oocytes from the remaining female, conducting the fertilization of eggs with previously collected sperm from the Northern white rhinoceros and embryo transfer into the South African white rhinoceros which was selected as the surrogate mothers. This method has never been tested on rhinoceros and not without risks.

Estimated cost for IVF from the development of methods to the trials, transplants and creation of a white Northern rhinoceros' population capable of reproducing - can be up to \$9 million. However, this is the hope for sustaining an entire species. Ol Pejeta and Dvůr Králové Zoo are asking for supporters of the campaign to commemorate Sudan and help raise the necessary funds before it's too late■

## ● Mobile app introduced instructing solid waste classification at home

A mobile application was launched by the Department of Environment and Natural Resources of Ho Chi Minh City on June 21 to teach people how to classify solid waste at home.

The app can be downloaded to smartphones from the Play Store for Android users and the App Store for iOS users. It instructs people to dump all biodegradable organic waste like leftover tea, coffee, leftover and expired foods and more into a labelled blue bag before it is collected. This waste will be processed into compost.

Waste like old magazines, books, paper, plastic or rubber products, metalware and glassware should be classified to be reused or recycled. Others should be put into a grey bag to be sent to waste treatment areas where they can be buried or burnt.

The app also provides videos as visual guidelines for solid waste classification and allows users to send feedback to the city's Department of Environment and Natural Resources.

Speaking at the app's launching event, the department's director Nguyen Toan Thang said the app is part of the city's efforts to provide people with convenient access to instructions on solid waste classification. He noted that the department wants to get feedback from users to improve the app. It will develop other software and applications for people to monitor the collection, transport and treatment of household waste and to better raise public awareness of environmental protection■

**Nguyệt Minh**  
(VNA source)

## ● 5 trillion VND solar power plant to be built in Ninh Thuận

Nearly 5 trillion VND (216.5 million USD) will be invested in building a solar power plant in the south-central coastal province of Ninh Thuận.

According to the investor - Trung Nam Solar Power JSC, a member of Trung Nam Group, the 204 MW plant will cover more than 264 hectares of the Trung Nam wind farm in Bac Phong and Loi Hai communes, Thuan Bac district. Work on the plant will start on July 7 and is scheduled to be completed in June 2019.

It is expected to produce between 401 and 450 million kWh of electricity per year, supplying more electricity for Ninh Thuan province in particular and the country in general.

On July 3, the Electric Power Trading Company (EPTC) of the Electricity of Vietnam (EVN) signed a power purchase agreement with the Trung Nam Solar Power JSC. Under the agreement, EPTC will purchase electricity from Trung Nam at a price of 2,086 VND (9.35 cents) per kWh. In August 2016, Trung Nam Group started work on a 100 MW wind power plant in the province.

Earlier, the group had developed a few energy projects including the 70MW Dong Nai 2 hydropower plant and the Krong No.2 and Krong No.3 hydropower plants, with a combined output of 48MW, in the Central Highlands province of Lâm Đồng. As of November 2017, all of its hydropower plants had generated more than 1 billion KWh■

**An Vi**  
(VNA source)





## SUSTAINABLE OCEANS:

# Protecting Vietnam's coastal environment and improving livelihoods

In Việt Nam, coastal fisheries are a primary source of livelihood and an important source of protein for many coastal communities.

Coastal fisheries are a primary source of livelihood and an important source of protein for many coastal communities in Việt Nam. However, in a number of provinces in the early 2000s, competition over resources, compounded by environmental degradation, led to near-depletion of some higher-value fish species. As a result, many small-scale fishers were forced to abandon their operations seeking other sources of livelihood.

In 2013, a Global Environment Facility (GEF) and World Bank project was set-up to help tackle these challenges in 8 provinces: Ca Mau and Soc Trang, Khanh Hoa, Phu Yen, and Binh Dinh, and Ha Tinh, Nghe An, and Thanh Hoa. Its aim was to help address competition by introducing co-management schemes, near-shore zoning and management (including for biodiversity conservation), wastewater treatment systems, and strengthening a fisheries database system to improve the management and governance of the sector.

The project supported improvements to infrastructure at selected fishing ports to increase their operational efficiency, halt the decline in value of the catch, and thus provide a higher return to local fishers. At the same time, the national fisheries database system (VnFishbase) was upgraded to provide reliable information for the management of the fisheries sector at national and sub-national levels, including fishing boat registration and recording capture quantity.

Over the course of the project, some 97 fisheries co-management groups were established, involving 13,751 fishing households along 826 km of coastline. Fishing violations were reduced by over 30%.

Improved aquaculture - or fish farming - practices were established, involving 8,971 participating shrimp farming households over a farming area of 11,622 ha. In addition,



▲ The GEF Project helped to upgrade the national fisheries database system that included fishing boat registration and recording capture quantity

tion, 32 aquaculture diversification zones were established involving 2,483 households over a farming area of 4,147 ha. These practices have increased fish quality, helped adopt appropriate wastewater treatment, and reduced the risk of disease by over 75%, helping improve the lives of all those dependent on fish farming.

Important lessons learned from the project helped drive policy changes to strengthen the fisheries sector, and a new fisheries law was passed by the National Assembly on November 21, 2017.

On April 25th, 2018, close to 30 countries jointly pledged US\$4.1 billion to the GEF for its next 4-year operational phase, known as GEF 7, during which the GEF will further increase its efforts to address pressing issues facing our oceans.

The GEF 7 International Waters strategy has the objective of strengthening the blue economy approach through

national action and regional cooperation. This will require sustaining healthy coastal and marine ecosystems, catalyzing sustainable fisheries management, and addressing pollution reduction in marine environments.

The health of our oceans and fisheries will be a central topic during the Sixth GEF Assembly taking place in Đà Nẵng, Việt Nam, June 27-28, 2018. High-level roundtable discussions on the blue economy, the circular economy and a systematic approach to address marine plastics will help identify options and approaches for integrating efforts across the entire supply chain to mitigate threats posed by plastics in the ocean, including the need for partnership between government, the private sector and financial institutions at local to global scales ■

**Thu Hà**  
(GEF source)



## ● Can Tho, Netherlands to partner in automatic garbage collection

Netherlands' Ocean Cleanup organisation had a working session with leaders of Can Tho city on July 24 to discuss the implementation of automatic garbage collection in the Mekong Delta city of Việt Nam.

The project aims to help reduce the amount of trash discharged into the sea causing severe environmental pollution in the immediate and long run, as well as reducing labour costs in this field.

Tim Van Emmerick, a Dutch representative, said the plans for a trash-collecting system along the rivers consists of boats of about 6m by 18m, the size of a small ferry, that automatically removes floating garbage and stores them in bags for safe disposal later.

The system is controlled by a simple electronic board along with cameras connected to the Internet, allowing the operator to conduct the trash collection on a smart phone.

Trash collection boats are operated by solar energy and automatic sensor systems. Each boat is worth around 300,000 - 400,000 EUR (350,850 - 467,800 USD). If successful, the project will be expanded to other provinces in the Mekong Delta which have a dense system of rivers.

The project is due to be piloted near the walking bridge in Ninh Kieu district and the Cai Rang floating market in Cai Rang district. Both river locations have become eyesores of floating rubbish bags■

**Huy Hoàng**  
(VNA source)

## ● ADB helps Việt Nam develop green, resilient cities

The Asian Development Bank (ADB) and the provincial People's Committees of Ha Giang, Vinh Phuc and Thua Thien-Hue on July 6 signed project agreements totaling 223.87 million USD for the Secondary Green Cities Development Project.

The project will support environmentally sustainable and inclusive development in the provincial capital cities of Ha Giang, Vinh Yen and Hue to enhance their economic competitiveness, according to a news release issued by the ADB on the same day. ADB Country Director for Việt Nam, Eric Sidgwick said, the ADB will help the cities of Ha Giang, Vinh Yen and Hue integrate green features into their urban infrastructure, such as energy efficient street lighting and nature-based embankment. Building on ADB's support in preparing Green City Action Plans for the three cities, this project

will demonstrate how the right mix of integrated urban planning and blended financing can improve livability, resilience and economic opportunities in cities. Because of rapid urbanisation, almost all 31 million people living in cities in Vietnam are facing emerging socio-economic and environmental challenges. Unlike the five centrally administered cities, the development of secondary cities is lagging. Many communities in these cities are becoming increasingly vulnerable to climate change and disaster risks.

Secondary cities' slow development not only prevents them from contributing to the country's socio-economic growth but also reduces job opportunities and results in worsening livable environments for locals and migrant workers. Responding to such a city's complex socioeconomic and financial constraints requires strategic support in upstream city planning and the identification of effective investments.

The Vietnamese Government and the ADB jointly selected Ha Giang, Vinh Yen and Hue as demonstration cities because they represent different socio-economic characteristics, developments constraints, and geographic locations.

The total project investment includes 3 million USD in grant financing from the Global Environment Facility (GEF) and 3 million USD from the Urban Climate Change Resilience Trust Fund (UCCRTF), which is supported by the Rockefeller Foundation and the Governments of Switzerland and the United Kingdom. In addition, the technical assistance accompanying the project is 12.8 million USD, of which 10.8 million USD will be financed by the GEF and 2 million USD by the UCCRTF.

While demonstrating green city development, the project, supported by grant financed technical assistance, which will also help formulate a regulatory framework for sustainable and resilient cities that will be scaled up for nationwide secondary green city development in Vietnam and pilot test disaster risk financing for Hue, Sidgwick added.

Expected to be completed in December 2023, the project will help the 3 cities improve green and resilient urban infrastructure services and scale up climate adaptation that will benefit about 116,000 households, including about 6,100 poor and near-poor households. For all subprojects, the provincial People's Committees will strengthen institutional capacity for urban development management.

The Manila-based ADB is dedicated to reducing poverty in Asia and the Pacific through inclusive economic growth, environmentally sustainable growth, and regional integration. Established in 1966, it is owned by 67 members, of which 48 from the region. In 2017, the ADB operations totaled 32.2 billion USD, including 11.9 billion USD in co-financing■

**Phạm Tuyên**  
(VNA source)



## ● Forum spotlights partnership in biodiversity protection

A biodiversity conservation partnership forum was held in Hanoi on May 22 by the United Nations Development Programme (UNDP), the Vietnam Association for Conservation of Nature and Environment and CropLife Vietnam.

According to the Vietnam Environment Administration, since Việt Nam ratified the Convention on Biological Diversity in October 17, 1994, the country has made strides in protecting the nature and biodiversity, building a system of management agencies as well as legal and policy frameworks on biodiversity.

A system of wildlife reserves has been set up, while many endangered species of animals and plants have been protected by the law and through action plans. Việt Nam has also sped up the settlement of new issues related to biodiversity conservation such as biological safety, genetic resource access and interest sharing from using genetic resources.

The public awareness of the significance and role of biodiversity to the life and national sustainable development has been improved. Participants at the event agreed that with diverse terrains, land types, landscapes and climate, Việt Nam is one of the countries that have high biodiversity, along with high risks of biodiversity degradation and imbalance, which has directly affected the living environment of people and threatened the country's sustainable growth.

The protection of biodiversity requires cooperation of many parties and strong engagement of the whole society, with the aim of fulfilling the targets of the Convention on Biological Diversity as well as the national strategy on biodiversity.

Hoang Thi Thanh Nhan, Vice Director of the Department of Nature and Biodiversity Conservation under the Vietnam Environment Administration, said that four major areas in the partnership programme in the 2015-2020 include the building of policies and laws; the protection of endangered species and wildlife trafficking prevention; biodiversity and climate change; and economic tools and community-based conservation■

**Phạm Đình**  
(VNA source)

## ● Project pilots integrated river basin management

The Vietnam Environment Administration (VEA) held consultation workshop in Hanoi on May 23 to complete a regional project (Vietnam component) on Reducing Pollution and Preserving Environmen-

tal Flows in the East Asian Seas through the Implementation of Integrated River Basin Management in ASEAN Countries.

The project is implemented in seven ASEAN nations: Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Laos and Việt Nam. The nation-level pilot project will be carried out in Vu Gia-Thu Bon river basin in central Quang Nam province and in-shore areas of Quang Nam and Da Nang city.

Juergen Lorenz, an expert from the Partnerships in Environmental Management for the Seas of East Asia, said that the project looks to improve integrated water resources management, reduce pollution loads from nutrients and other land-based activities, sustain freshwater environmental flows and reduce climate vulnerability through demonstrations and replications, planning and strengthening of integrated river basin management in selected countries in the East Asian Seas. With aid worth 1 million USD and a counterpart fund of 3 million USD, the Vietnam component project should seek additional assistance and more partners.

Several activities involved in the project in Việt Nam include solid waste treatment, maintenance of seawater quality monitoring systems in Quang Nam and Da Nang, according to Lorenz■

**Nam Hưng**  
(VNA source)

## ● World Bank funded project helps renewable energy development in Việt Nam

The Renewable Energy Development Project (REDP) has helped dozens of projects and training establishments improve investment and construction capacity and train human resources in the field of renewable energy.

The assessment was made at a conference to review the implementation of the project during 2009-2018 held by the Ministry of Industry and Trade (MoIT) in Hanoi on June 21.

REDP is sponsored by the WB and the Swiss State Secretariat for Economic Affairs with official development assistance (ODA) worth 204 million USD. It aims to develop renewal energies to connect with the national grid in order to serve sustainable development.

Deputy Head of the MoIT's Electricity and Renewable Energy Agency, Nguyen Van Thanh stated that the project is significant for the community and has provided all-round assistance for the Vietnamese Government in making renewable energy develop-



ment policies and attracting investment in the field.

REDP has helped businesses to successfully invest in 19 small hydropower projects with total capacity of 320MW and combined electricity output of nearly 1.3 billion kWh annually, thus contributing to ensuring power supply during peak hours and for far-flung areas, he added.

Marcel Raymond from the Swiss Embassy in Vietnam said that Vietnam holds great potential in renewable energy. With technical assistance and low costs from the REDP, the country can compete well in renewable energy development.

A report summarising the implementation of the project showed that the project has helped several State agencies complete policies and institutions on renewable energy development and on how to use foreign aid in conformity with Vietnam's situation.

It has also contributed to building a database on wind measuring and wind power development. With its current economic scale and annual economic growth of around 7%, Vietnam has huge demand for energy and electricity. Therefore, developing renewable energy in Vietnam is essential to diversify primary energy supplies and protect the environment■

**Nam Hưng**  
(VNA source)

## ● USAID-funded project helps minimise plastic waste in Thua Thien-Hue

The US Agency for International Development (USAID) has provided a non-refundable assistance package worth 53,858 USD for the central province of Thua Thien-Hue to implement a project to recycle urban waste.

The 2-year project aims to improve the ecological environment and minimise pollution caused by plastic waste in Hue city, rivers and coastal areas of the province. It is also hoped to contribute to raising public awareness of negative effects of plastic waste on the environment, as well as the importance of promoting efforts to protect the environment.

The project features a workshop on measures to reduce waste on Huong River and waterways, campaigns to collect waste on local beaches, a waste classification programme, and contests to gather initiatives for protecting the environment.

Previously, Truong Son Xanh (Green Anna-mites) Project, also funded by USAID with total investment of nearly 10 million USD, was launched in Thua Thien-Hue on April.

The project supports the locality in protecting the region's globally significant biodiversity and help local and ethnic minority communities to diversify and improve their livelihoods.

It targets improving the livelihoods of 20,000 forest dependent people and the biodiversity of over 400,000 hectares of natural forest, mobilising at least 20 million USD in public and private resources for sustainable livelihoods and forest conservation, and avoiding and/or removing the equivalent of at least 7 million metric tons of carbon dioxide from the atmosphere■

**Phạm Văn Ngọc**  
(VNA source)

## ● USAID project helps Vietnam's wildlife protection



▲ US Ambassador to Vietnam Daniel Kritenbrink speaks at the event (Photo: USAID)

The United States Agency for International Development (USAID) and the Ministry of Agriculture and Rural Development (MARD) launched the USAID Saving Species project in Hanoi on May 11.

The launched was attended by diplomats from embassies of the US, the United Kingdom, South Africa and more to Vietnam alongside international organisations and governmental stakeholders. US Ambassador to Vietnam Daniel Kritenbrink said, USAID Saving Species is not just a commitment between the US and Vietnamese governments, it will also link to the efforts of other organisations, within Vietnam and beyond, who are committed to combating wildlife trafficking.

Elephant and rhino populations across the globe fell sharply and the situation of rhinos in Asia is even worse. The last rhino in Việt Nam has died, he noted. "Only by working together can we solve this global issue."



Deputy Minister of Agriculture and Rural Development Ha Cong Tuan said, efforts to intensify the protection of endangered species like rhinos, elephants, tigers and pangolins do not only aim to aid the direct conservation of these animals but also have a symbolic meaning, motivating the protection of all other wildlife species. These efforts are significant to the prevention of natural disasters and the socio-economic development of a country and the world, he added.

To raise public awareness of the issue, the minister stressed the need for coordination between media agencies, the Ministry of Education and Training and foreign partners. With a budget of approximately 10 million USD, USAID Saving Species supports the Government of Vietnam to combat wildlife trafficking through three integrated and mutually reinforcing objectives: Harmonizing and improving the legal framework for wildlife crime; strengthening and improving law enforcement and prosecution of wildlife crime; and reducing consumer demand for illegal wildlife products.

The project's focal species are rhinos, elephants, and pangolins. It also focuses geographically on major urban centers like Hanoi, Ho Chi Minh City, and Da Nang, where target species are consumed, as well as areas where target species are trafficked, including airports, seaports, and specific land borders.

The USAID Saving Species is implemented by Tetra Tech in partnership with Vietnam CITES Management Authority of the MARD. The Wildlife Trade Monitoring Network in Việt Nam (TRAFFIC Vietnam) and the Wildlife Conservation Society (WCS) are also project partners■

**Thanh Huyền**  
(VNA source)

## ● JICA helps Việt Nam enhance water environment management in river basin

Việt Nam has made progress in water environment management in river basins thanks to a project funded by the Japan International Cooperation Agency (JICA).

A coordination mechanism in water environment protection in the basin of Dong Nai River, along with a new river basin commission have been established, heard a meeting of the steering board of the "Strengthening capacity of water environ-



ment management in river basin" project on May 10.

Ichiro Adachi, chief advisor of the JICA expert team, stressed the significance of the project in terms of sustainable management, saying a coordination mechanism is one of the most important factors in water environment management for river basins.

At the working session, JICA experts suggested extending the duration of the project, which was previously scheduled for 2016-2018, to May 2019 to effectively transfer its outcomes.

Besides, the building of legal documents and establishment of river basin organisations are overdue. Moreover, the Vietnam Environment Administration is restructuring its organisation, leading to a change of agency in charge of managing river basins, they said.

The project aims to improve central and local government's capacity in water environment protection in the provinces of Bac Ninh, Bac Giang and Thai Nguyen in the Cau river basin and Ho Chi Minh City, Binh Duong, Dong Nai and Ba Ria-Vung Tau provinces in the Dong Nai river basin.

The project is expected to calculate pollution load capacity in the area which will be used as a base for localities to coordinate water environment management and development activities.

According to Vo Tuan Nhan, Deputy Minister of the Vietnamese Ministry of Natural Resources and Environment, Vietnam's rivers, especially those flowing through cities, industrial parks and trade villages, are seriously contaminated.

To address the problem, Việt Nam has promulgated many policies, mechanisms and legal documents in the field, and sought international assistance, of which the JICA project is an example, Nhan said■

**Giáng Hương**  
(VNA source)

# UNIDO partners with Việt Nam in sustainable industry development



▲ Mr. Li Yong - UNIDO General Director

**★VEM:** *As one of the organizations that launch sideline events at the GEF6, how do you evaluate the results of the forum?*

**Mr. Li Yong:** I think GEF6 is a successful meeting and Việt Nam has made big progress by signing up to hold such an important event on environmental issues. I personally congratulate the Vietnamese Government, the Ministry of Natural Resources and Environment and other agencies for putting forward their best efforts with GEF to organise the meeting. The meeting has expanded co-operation on a global scale to resolve environmental issues. This is also a good opportunity for participating countries to carry out their commitments under the Paris Convention on climate change in the future, and help the world handle global environmental problems.

**VEM:** What projects has UNIDO implemented in the past 40 years to help Việt Nam develop sustainable industry?

**Mr. Li Yong:** UNIDO is a professional unit of the UN that focuses on helping developing economies establish comprehensive, sustainable industries while it also provides as-

**The year 2018 marks the 40<sup>th</sup> anniversary of co-operation between Việt Nam and the United Nations Industrial Development Organization (UNIDO). Việt Nam has received the positive and active assistance of UNIDO in many sectors such as industry, agriculture, environment and education and training. To get a clearer view of the co-operative activities between UNIDO and Việt Nam, the Vietnam Environment Administration Magazine (VEM) talked to UNIDO General Director Li Yong during his attendance at the 6<sup>th</sup> Global Environment Forum (GEF6) in Da Nang.**

sistance for transforming economies. UNIDO started operating in Việt Nam in 1978, assisting the country in handling technical transfers and acting as an advisor on Việt Nam's general policies and strategies on industrial projects.

For 40 years, UNIDO has established relations with ministries such as the Ministry of Industry and Trade, the Ministry of Industry

and Planning, the Ministry of Science and Technology and the Ministry of Natural Resources and Environment, business associations and local universities, and implemented a number of projects in different sectors to develop industries, transfer technologies, improve the economy's trade competency, human resource management, environmental protection and sustainable energy,



▲ GEF6 international visitors examine Secoin Joint Stock Company at the Hoa Khanh Ecological Industrial Zone, Da Nang





***On June 27, 2018, the Minister of Natural Resources and Environment Tran Hong Ha (right) met UNIDO General Director Li Yong on the sidelines of GEF6 in Da Nang. Minister Tran Hong Ha praised UNIDO's efforts to support and co-operate with Việt Nam and the ministry with its technical assistance and consultancy for environmental policy development and project implementation, especially the projects on minimising industrial pollution.***

***Speaking of its future cooperation plans with the ministry, General Director Li Yong said UNIDO would continue working with the Ministry of Natural Resources and Environment to deploy projects on controlling the quality of industrial environment, green industry development and responses to climate change in Việt Nam.***

with total investment worth US\$100 million. The projects have been carried out efficiently to help Việt Nam enact a sustainable, egalitarian socio-economic development scheme.

In the environment sector, UNIDO prioritises projects on cleaner production, energy saving and climate change adaptation. UNIDO has helped Việt Nam with policy advisory, information provision, clean energy programmes, and environment and energy audit. The UN organisation also assisted Việt Nam to assess and approve the Minamata Convention on controlling the amount of mercury used in production to avoid harmful effects on human health and environment. Other projects were on demonstration of best available techniques (BAT) and best environmental practices (BEP) for outdoor burning, to meet the standards of the Stockholm Convention on restricting and eliminating the production and use of persistent organic pollutants (POP). One project that has recorded positive results recently is the Ecological Economic Zone Initiative towards a Sustainable Industrial

Zone Model in Việt Nam. The first stage of the project has been completed and the second stage is ongoing.

***★VEM: What does Việt Nam need to do to achieve sustainable industry development in your opinion? What will UNIDO do to help Việt Nam develop its comprehensive, sustainable industries?***

**Mr. Li Yong:** At the GEF6, I had the honour of meeting Prime Minister Nguyen Xuan Phuc. He stressed the importance of a greenhouse gas-free and circular economy. This is considered an appropriate option for Việt Nam, but there are many problems for the country on its way to sustainable development. I think Việt Nam, in order to achieve a sustainably developing economy, needs to

care about industrial development and environmental protection. These two issues are tightly connected and must go with each other. An ecological industrial zone is the supportive tool for a sustainable industry.

UNIDO in the future will continue supporting Việt Nam to develop its comprehensive sustainable industries, which focus on modernised technologies, improve productivity for key sectors such as automation and electronic engineering, and push for the further development of renewable energy. UNIDO will also help Việt Nam with the study and application of science-technology initiatives and human resource training to meet the requirements of the fourth industrial revolution (Industry 4.0). Along with GEF, UNIDO will promote the transformation of a circular economy based on the efficient use of natural resources, cleaner production, application of ecological economic zone, and sustainable management of chemicals and wastes. I believe that Việt Nam's economy by 2035 will become a comprehensive economy and participate further in the global chain with efficient use of energy and fair competition on global markets.

***★VEM: Thank you!***

**Phường Linh**  
(Implemented)

# Water resource security - An urgent problem

***Todays, under the impacts of climate change, Việt Nam has been facing the depletion of surface and underground water sources. Meanwhile, the sea level has kept rising and caused more and more flood tides and salinisation; industrialisation, urbanisation, increasing population and higher demand for clean water consumption have been threatening the security of water resources and water resources management. The World Bank's senior expert on water management Abedalrazq Khalil talks to the Vietnam Environment Administration Magazine (VEM) to get a deeper understanding of this issue.***



▲ Mr. Abedalrazq Khalil - World Bank Vietnam's high-ranking expert on water resource management

**★VEM: What challenges is Việt Nam encountering with regard to its water source security? What are the causes of those challenges?**

**Mr. Abedalrazq Khalil:** The country's rapid industrialisation and urbanisation have been downgrading the water while the use and management of water sources as well as waste water treatment have not been well taken care of. In addition, the climate change with unpredictable shifts has caused disputes between countries regarding their water use... Those are the main challenges that Việt Nam is facing in water security.

What really causes those challenges is the difficulties in water source management. For example, the planning of water source management has remained stagnant; the distribution of water supply between sectors, industries and localities is sometimes not well-calculated and totally agreed on. In addition, water pollution has become more serious in rivers, cities, urban areas and key economic zones. The Government has underperformed in supervising the implementation of water source management regulations while local authorities are not qualified to address the demanding issue. On the other hand, local people have misunderstood the importance of water and the potential harms in the case of insufficient water supply...

In Việt Nam, the total water consumption is around 80.6 billion cubic metres per

year. Eighty% of this (65 billion cubic metres per year) is used for agricultural activities. Underground water is explored and used for people's daily living and industrial operations, 40% of which is supplied for living activities in urban areas and 80% is provided for rural and countryside areas. According to the International Water Resources Association, a country with water consumption per capita per year of below 4,000 cubic metres is considered to face a water shortage. Therefore, Việt Nam is now among the countries with a water shortage if we count only the amount of surface water, and it will encounter lots of challenges in the future.

**★VEM: How do you assess the recent implementation of water resource protection policies in Việt Nam?**

**Mr. Abedalrazq Khalil:** To assure its successful water resource security, Việt Nam is striving to improve its legal policies, regulations and strategies on water resource management in an attempt to raise the efficiency and effec-

tiveness of its management, protection, exploration and use of water resources; adapt and respond to new impacts of climate change and rising sea levels; and enhance the planning, monitoring and inspection of water resource management, especially for the water sources that connect a number of nations. In addition, Việt Nam needs to improve its international ties, especially with countries in the upstream areas, to protect, share and explore water natural resources in a fair and efficient way.

At the same time, some methods and approaches have been studied and developed for water resources management such as general water resources management, river basin-based water management, water-energy-food based approach, and green growth. The Ministry of Natural Resources and Environment has approved a water resource security assessment study as a key component used to develop its water resources management plan. Based on such studies and



evaluations of the status of water resource security at the basin of main rivers in Việt Nam such as the Red River, Thai Binh River, Bac Giang-Ky Cung River, Ma River, Ca River, Dong Nai River and Cuu Long (Mekong) River, the ministry will develop a set of standards to assess Việt Nam's water use efficiency. Then, it will propose solutions to guarantee water resource security and efficient management and use of water resources in the context of climate change and rising sea levels.

However, waste water treatment has only been carried out in urban areas, cities and industrial zones, not in the countryside and rural areas. On the other hand, cross-ministry issues such as planning, the development and restoration of upstream forests, protection of aquatic areas, the protection of water resources during the implementation of socio-economic projects such as hydro-power plants, irrigation systems and seafood breeding have not received support and close cooperation from the government agencies, ministries and local authorities. Some localities have not developed long-term general plans to protect water resources in their own areas.

**★VEM: What actions does Việt Nam need to take to assure its water resource security in the context of climate change?**

**Mr. Abedalrazq Khalil:** Water resource security, especially the rivers that connect Việt Nam to other countries, is a key matter that requires the Government and its agencies to implement comprehensive policies. The Government should talk to other countries to minimise potential risks and develop solutions to cope with issues as they arise. It needs to develop an appropriate co-operation scheme so that the construction and operation of upstream hydro-power plants can regulate water flows for the basin areas in both flood and dry seasons. In addition, the Government needs to strengthen its inspection, planning, reporting and warning of water resources management issues along with developing a mechanism to regulate and distribute the water among local areas, while improve the efficiency of water use and exploration, especially in operating large hydropower plants. On the other



▲ With support of the WB, millions of rural residents have gained access to clean water supply

hand, regional countries need to work together for efficient, fair exploration and protection of water resources, and improve their performance in those activities. Besides, local governments need to raise the awareness of people and agencies about water resource security.

**★VEM: What will the World Bank do to support Việt Nam in resolving problems in its water resource management?**

**Mr. Abedalrazq Khalil:** In 2013, The Governor of the State Bank of Việt Nam and the World Bank Director in Việt Nam signed an assistance agreement and related legal documents of the programme for rural water supply and sanitation in eight Red River Delta provinces. Under the agreement, the programme had total investment of US\$ 230 million, of which WB funding accounted for \$200 million, the encounter fund of the Vietnamese Government provided \$10 million, and \$20 million was raised from the community. The programme was launched to help the Red River Delta and 1.7 million local people in 240 communes of eight delta provinces gain sustainable access to and effi-

cient use of clean water supply and rural sanitation.

The WB in 2016 approved a \$310 million fund for Việt Nam to improve its adaptation to climate change and assure sustainable earnings for 1.2 million people in nine Cuu Long Delta provinces, which have suffered from coastal erosion, floods and salitisation.

The WB is now supporting Vietnamese government agencies to focus on financial investment so that Việt Nam is able to develop a general plan for Cuu Long Delta provinces to cope with climate change. In the future, the WB will assist Ha Noi to develop its sewage network, which will be constructed from now to 2030 with a vision to 2050. The WB will provide technical assistance to Ha Noi so that the capital city can improve the quality of water in rivers, lakes and channels, develop an anti-flood plan, and improve the quality of waste water treatment for the Red River basin areas such as Long Bien and Gia Lam districts.

**★ VEM: Thank you!**

**Hương Mai**  
(Implemented)



# International partners join Việt Nam to combat plastic pollution

**D**ozens of embassies and international organisations marked the World Environment Day (June 5) by signing a Code of Conduct on Combating Plastic Pollution.

The signatories include Austria, Belgium, Canada, Denmark, the European Union, Finland, France, Germany, Ireland, Italy, the Netherlands, New Zealand, Norway, Slovakia, Sri Lanka, Sweden, Switzerland, the United Kingdom and the United States of America as well as 16 UN agencies, funds, programmes, offices and World Bank.

By signing the Code of Conduct, the international partners have committed to assessing their current office practices related to single-use plastic and instituting operational changes to minimise their plastic waste footprint. All the signatories agreed to engage their staff in reducing plastic waste and encourage their partners to adopt low- or no-plastic waste-emitting options.

Through this joint action, international partners in Việt Nam seek to act as change agents in reducing plastic pollution and raising awareness about its negative effects on humans, animals and the environment.

The campaign, spearheaded by the Embassy of Canada in Việt Nam, seeks to raise awareness on the negative impacts of plastic pollution while advocating changes at the behavioural, institutional and policy levels to reduce the amount of plastic waste generated in Việt Nam. Ping Kitnikone, ambassador of Canada to Việt Nam, said as international partners, they had the privilege to work in Việt Nam and had a collective responsibility to reduce their plastic footprint in the beautiful country and preserve its environment for future generations.

Deputy minister of Natural Resources and Environment Lê Công Thành said Việt Nam appreciated the actions of the international partners to join the country in combating plastic pollution. Việt Nam has been making efforts in this regard; for example, bettering its capacity in sorting, collecting



and treating plastic waste and improving public awareness on plastic use, Thành said.

The signing ceremony was the highlight of the Plastic Pollution Advocacy Campaign, which is a joint campaign involving embassies and international partners working in support of Việt Nam's sustainable development.

For the past few months, 26 embassies and international partners have been actively engaged in this multi pronged campaign. Another key element of the campaign has been constructive dialogue with Vietnamese leaders to discuss policy options that will have long-term positive effects on plastic pollution in Việt Nam.

In addition to this, an online campaign, #Countdown-Plastic, has been running on the social media platforms of the Code of Conduct signatories to call for public action on reducing single-use plastic in people's daily lives and at workplaces. Some 300 million tonnes of plastic are

reportedly produced around the world every year, half of which are used to produce single-use items, such as shopping bags, bottles, cups and straws. One million plastic bags are used around the world every minute.

Việt Nam is among the top five source countries for the eight million tonnes of plastic dumped into the world's oceans every year. Plastic waste slowly degrades over time and breaks into smaller pieces called microplastic, which usually end up in the oceans and from there, potentially enter the food chain.

According to a report launched at the World Economic Forum 2016, in a business-as-usual scenario, the world's oceans could contain one tonne of plastic for every three tonnes of fish by 2025, and by 2050, it is estimated that there will be more plastic than fish (by weight)■

**Phương Hạnh**  
(VNS source)



# Co-management model of marine protected areas in Việt Nam

**Hà Thanh Biên**

*Vietnam Administration of Sea and Islands*

**M**arine protected area (MPA) is a type of nature reserve defined of boundaries on the sea, islands and coastal areas to protect the marine biodiversity. Protecting marine biodiversity is one of the most important functions of MPAs, because they create a favorable environment and habitat for fish and other species to grow and thrive. In addition, the establishment and development of MPAs will also help increase fish catch quantity in the surrounding fishing grounds, create stable livelihoods for local people, and contribute to prevention of the negative impacts of climate change and natural disasters.

## ORIENTATION TO EXPAND THE MPAS

In 2010, the Prime Minister issued Decision No. 742/QĐ-TTg approving the Planning of the Vietnam MPA system until 2020 with the objective of establishing and putting 16 MPAs into operation in the 2010-2015 period and by 2015, there is at least 0.24% of Vietnam's marine area within MPAs and about 30% of the area of each MPA is strictly protected.

According to a Report by MARD, up to November 2017, a network of 10/16 MPAs in Vietnam was established, including: Cat Ba, Bach Long Vy, Con Co, Cu Lao Cham, Ly Son, Nha Trang Bay, Nui Chua, Hon Cau, Con Dao, Phu Quoc and 4 MPAs that have already completed the detailed planning and are completing dossiers for planning approval: Hon Me, Hai Van - Son Cha, Phu Quy, Nam Yet. In addition, two MPAs which are developing their detailed planning are Co To and Tran Island. In general, these protected areas have played an important role in protecting marine ecology and the environment, promoting marine economic development, improving the livelihoods of local fishermen communities at the coastal localities and providing the legal basis for the struggle to protect national sovereignty within the exclusive economic zone of our country, while addressing cross-

border environmental issues in the East Sea that countries in the region are very concerned of.

In order to promote the new establishment and expansion of the MPA system, according to Decision No. 742/QĐ-TTg, the Govern-

ment assigns MARD to chair and coordinate with other Ministries and localities to develop a database of MPA system; to conduct detailed planning, to establish and operate 16 MPAs in phase I (2010-2015); to study and develop mechanisms and policies for

## List of Vietnam MPAs until 2015

No.	Name of MPA/ province	Total area (ha)	Marine area (ha)
1	Tran Island/ Quang Ninh	4,200	3,900
2	Co To/Quang Ninh	7,850	4,000
3	Bach Long Vi/ Hai Phong	20,700	10,900
4	Cat Ba/Hai Phong	20,700	10,900
5	Hon Me/Thanh Hoa	6,700	6,200
6	Con Co/Quang Tri	2,490	2,140
7	Hai Van - Son Cha/Thua Thien Hue - Da Nang	17,039	7,626
8	Cu Lao Cham/ Quang Nam	8,265	6,716
9	Ly Son/Quang Ngai	7,925	7,113
10	Nam Yen/ Khanh Hoa	35,000	20,000
11	Nha Trang Bay/ Khanh Hoa	15,000	12,000
12	Nui Chua/Ninh Thuan	29,865	7,352
13	Phu Quy/Binh Thuan	18,980	16,680
14	Hon Cau/Binh Thuan	12,500	12,390
15	Con Dao/Ba Ria - Vung Tau	29,400	23,000
16	Phu Quoc/Kien Giang	33,657	18,700



▲ *Bach Long Vi marine protected area in Hai Phong province*

management of MPA system; to monitor changes in fisheries resources, biodiversity and marine ecosystems in each established MPA. Besides, other activities are promoted such as: to improve the capacity of marine protection staff from the central to local levels; to provide training for officials and local communities with relevant knowledge in protected areas; to develop a community management model for communities to operate and use MPAs effectively, to create livelihoods for local communities, and to contribute to eco-environmental protection.

In pursuit of the above mentioned objectives and tasks, MARD has developed and issued many legal documents to serve the establishment of MPAs such as: Decree No. 57/2008/ND-CP promulgating the Regulation on the management of Vietnam MPAs of national and international importance; Circular No. 29/2013/TT-BNNPTNT promulgating the establishment and management of provincial MPAs; Circular No. 44/2013/TT-BNNPTNT on the abolition of Article 6 and amendment of Article 15 of Circular No. 29/2013/TT-BNNPTNT; Circular No. 14/VBHN-BNNPTNT promulgating the establishment and management of provincial MPAs. These legal documents aim to develop a legal framework for MPAs in the establishment, management, implementation, financial regulations and accountability of Ministries/sectors and localities...

The objective of establishing 16 MPAs until 2015 has not been realized. This is

due to the conflict of interest of the stakeholders in the establishment process (in terms of supporting people to change their livelihoods, sources of investment capital, financial resources to support activities in the MPAs...). To address these constraints, there should be stakeholder involvement in the management of MPAs.

#### **CO-MANAGEMENT OF NATURAL RESOURCES AND THE ENVIRONMENT IN THE MPAS**

In order to achieve the objectives, set out in Decision No. 742/QĐ-TTg to put 16 MPAs into operation and to expand existing MPAs, the development of legal documents is imperative. It is, therefore, necessary to develop legal documents on fees and charges for stakeholders benefiting from the MPAs, regulations to assist people in the MPAs to change their livelihoods and coordination mechanisms between MARD and other Ministries/departments in the construction and operation of MPAs...

On the other hand, a co-management option should

be developed to encourage the participation of local people in the conservation and development of MPAs. The Fisheries Law of 2017 identifies "co-management" as a management method in which the State shares its powers and responsibilities with community organizations involved in the management of fisheries resources and supports for co-management activities. In practice, the establishment of MPAs will result in the loss of some fishermen's traditional fishing grounds, but the benefits to the people are still fully assured. In addition, MPAs also contribute to the increase in the number of marine species that will generate additional income for fishermen when fishing in authorized areas. In addition, the buffer zones of the MPAs are allowed to conduct tourism activities, scientific research... thus creating new livelihoods for the people.

In many cases, it is the local people who are the most active in the conservation, monitoring and management of activities in the sea. There-





fore, the co-management model has been successfully applied in many MPAs such as: Cu Lao Cham, Phu Quoc, Con Co... The solution that the co-management model aims at is to unify the activities of the three entities (the State with the macro management task, the stakeholders involved in scientific experimentation and the local communities) in accordance with the motto "people know, people discuss, people do, people check"; at the same time, the community is called upon to share the management responsibility and the interests with the State according to the principle that the State and the people work together and benefit from it. The model not only enhances the rights and responsibilities of the community in marine conservation and protection of fisheries resources, but also helps the community to increase their income from the protection of resources.

At the same time, communication and awareness raising on marine protection should be promoted. The nature of MPAs is that they do not create direct material values (except for some tourism activities, scientific research), but the value of ecosystems, productivity of marine species, genetic resources... is enormous. The state managers and the people, therefore, need to understand the value of and change their perceptions on MPAs.

On the other hand, international cooperation in the field of marine conservation should be emphasized. Recognizing the importance of MPAs, international organizations such as the World Wide Fund for Nature (WWF), the International Union for the Conservation of Nature (IUCN), the International Maritime Organization (IMO) have had many activities around the world to promote the establishment and management of important marine areas. In Vietnam, the activities of IUCN, Centre for Marine-life Conservation and Community Development (MCD)... have coordinated from central to local levels to help with marine conservation. Therefore, in the coming time, it is necessary to make use of international support in the fields of capacity building and awareness raising, guiding people to change their livelihoods... In addition, it is necessary to consider how to set up cross-border marine conservation to create marine environmental, biodiversity protection areas and international cooperation for peace and friendship■

## ● Quảng Ninh works to promote green growth in Ha Long Bay



**G**reen growth in Ha Long Bay of northeastern Quang Ninh province was the topic of a workshop jointly held by the provincial People's Committee and the Japan International Cooperation Agency (JICA) on April 18.

Scientists and researchers affirmed that green growth is the top concern of most countries in the world, especially in the context that the world is entering the 4th Industrial Revolution, and witnessing the green consumption trend.

The promotion of green growth in Quang Ninh and Ha Long Bay in particular is not exception, the stressed. Norihiko Inoue, chief advisor of JICA, said the event offered a chance for JICA to introduce its green growth project in Quang Ninh and cooperation between Quang Ninh and Shiga prefecture of Japan, as well as giving information about the locality's green growth strategy.

Previously, with assistance of the international community, especially the Japanese Government, Quang Ninh and JICA signed the minutes of discussion in 2015 on the project to promote green growth in Ha Long Bay. The project is being carried out from November 2015 and December 2019, aiming to reduce pollution and foster sustainable economic and tourism growth.

The "transition to a green economy" project piloted in Ha Long will be a key pillar of the green growth process in the whole province in the future. According to Junko Masaki from JICA, the project's second phase has been implementing from November 2016 to December 2019, in Ha Long city and adjacent districts including Cam Pha and Uong Bi cities, Van Don and Hoanh Bo districts, Quang Yen town. As an important centre of the northern key economic region with its unique and rich geographical, environmental and resource features, Quang Ninh boasts natural strengths for sustainable socio-economic development.

In 2015, with the support from the Ministry of Planning and Investment, the local authorities adjusted its green growth action plan, setting concrete objectives, which are expected to be realised by 2020■

**Trần Hương**  
(VNA source)



## REDUCING THE USE OF PLASTIC BAGS IN HOI AN

# A success story rooted from the consensus of the people

***Cham Islands are a bright spot in the country for the effective implementation of the Program on "Reducing the use of plastic bags". Cham Islands' success story has been replicated in wards and communes in Hoi An, which is honored as World Cultural Heritage.***

## THE HIGHLIGHT OF CHAM ISLAND

Cham Islands consist of 8 large and small islands in the bow shape extending over 15 km<sup>2</sup>, about 19 km from Hoi An ancient town. In 2009, Cham Islands were recognized by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as the world's Biosphere Reserve (BR) with diverse and abundant natural and marine ecological values.

In the past, plastic bags, together with domestic waste, waste from tourism and fishing activities in Cham Islands, were all discharged into the sea, polluting the environment. Under this situation, in May 2009, Hoi An City, in cooperation with the People's Committee of Tan Hiep Commune (the core zone of the Biosphere Reserve), launched the campaign "Cham Islands say no to plastic bags", mobilizing the active participation of people, especially women, with the aim to protect the environment and the biodiversity in Cham Islands.

With the determination of the leaders of the city, the efforts of the Tan Hiep Commune and the people's willingness, the campaign was successfully implemented with many practical activities to minimize plastic bags on the islands. In order to gradually change the habit of using plastic bags of the people, the commune has set up a 10-member working group to regularly communicate and persuade people not to use plastic bags; at the same time, the policy of reducing the use of plastic bags was included in the Resolution of the People's Council and as a criterion for selection of "Cultural Family". In addition, the commune also developed broadcasting programs for the public on the harms of plastic bags; putting up signs, panels, posters on the road, and the wharf, etc., with the slogan "For Cham Islands, for the blue sea and green islands"; "Shopping with baskets - the style of housewives"; "Save on the packaging is environmental protection", etc. Households, businesses and service es-



▲ The Youth Union in the commune presents paper bags to small traders in the market

tablishments in Cham Islands must sign a commitment not to use plastic bags at home, and not to distribute plastic bags to buyers. In early 2010, the People's Committee of Tan Hiep Commune established an inter-branch inspection team to supervise and handle administrative violations in the use of plastic bags. Businesses violating will be fined between 1-2 million VND; small traders will be fined from 300,000 to 500,000 VND; households shall be reminded and criticized before the entire neighborhood, while being removed of the title "Cultural Family".

Besides issuing legal regulations, the People's Committee of Tan Hiep Commune also provides thousands of plastic baskets and ecologically-degradable bags for households and businesses

on the islands. People also actively use net bags, banana leaves, taro leaves, cages, baskets from bamboo, etc., to keep food and goods. Furthermore, women, union members, and youth members in the commune also have the "idea" to use old books and newspapers to make paper bags for packaging. Tourists to Cham Islands are also reminded not to use plastic bags and provided with ecological bags and paper bags for using.

At the tourist attractions and resorts, after serving tourists, staff shall collect and classify waste carefully. All plastic bags and non-degradable waste are transported by specialized boats from Cham Islands to the mainland for treatment. The boat looks like a tourist boat, with a basement of about 8 - 9



m<sup>3</sup> of waste, made of stainless steel and has a filter that does not allow the leachate to leak into the sea. In addition, Cham Islands are equipped with 5 waste trucks and basket boats to collect waste on the sea. For the convenience of collecting, people also bunch up hundreds of bamboo together, shielding the edges of the water to prevent waste and plastic bags on the sea from getting in between the rocks.

Thanks to these positive and meaningful activities, the Campaign "Cham Islands say no to plastic bags" has succeeded, contributing to making a great lesson on the consensus between the authorities and the people in environmental protection. The green, clean and beautiful environment in Cham Islands is something that any tourist coming to Cham Islands can feel. The saying no to plastic bags in Cham Islands not only creates a unique tourism product, but also contributes to environmental protection and biodiversity conservation in the Biosphere Reserve area.

#### SPREADING TO THE WHOLE CITY OF HOI AN

From the experience of the "saying no to plastic bags" in Cham Islands, the authority of Hoi An City has made efforts to replicate the model. On September 9, 2009, for the first time, Hoi An City launched the movement "No Plastic Bags Day" and every year, on this day, the city organizes many practical activities to minimize the use of plastic bags in the city. In 2010, the city implemented the pilot program "Reducing the use of plastic bags" in the area of Minh An Ward and Hoi An Market. By 2014, Hoi An launched the program across the city for not only one day



▲ People use paper bags to replace plastic bags

but every day, the city residents will gradually eliminate the habit of using plastic bags. With that determination, the city has promoted and diversified forms of information, education and communication (IEC), in order to raise awareness for people in reducing the use of plastic bags such as putting up banners, panels, posters, handing out leaflets; holding public meetings, seminars, training; dissemination through the radio system of the city, communes, wards; developing and implementing self-management models and programs on environmental protection, in which the content of mini-

mizing the use of plastic bags is included. Mass organizations such as Veterans Association and Women's Union at all levels also organize many programs such as folding paper bags for women in small businesses, mobilizing members to register in, handing out shopping baskets, replacing plastic bags, etc. Not only the mass organizations, the program of "Reducing the use of plastic bags" in Hoi An has also attracted businesses, hotels and restaurants in the city to enthusiastically respond, contributing to replace plastic bags with environmentally-friendly types of bags.

Through the IEC and implementation of activities in the past 10 years in Hoi An, the program has created positive effects in environmental protection, gradually removing the habit of using plastic bags of the people, businesses and service establishments, building the green - clean - beautiful image of Hoi An. The lesson from reducing the use of plastic bags in Hoi An is a good example for localities to study and contribute to the implementation of Vietnam's commitment to work with the international community in managing plastic waste, reducing and eliminating disposable plastic products■

**Đỗ Thị Huyền Trang**



▲ People in Hoi An City receive degradable plastic bags





# CHANGE - Joining the community in environmental protection

***In the framework of the event honoring "50 Most Effective Business Companies in Vietnam" and the talk show "CEO Dialogue - Leadership Style" taking place on the evening of June 7, 2018 in Ho Chi Minh City, the Center of Hands-on Actions and Networking for Growth and Environment (CHANGE) has been honored to be voted as "Vietnam's Best Environment Organization in 2017". On this occasion, the Vietnam Environment Administration Magazine (VEM) had an opportunity to talk with Ms. Hoàng Thị Minh Hồng - Director of the Center on the meaningful activities of the organization.***



▲ **Ms. Hoàng Thị Minh Hồng**  
Director of the Center of Hands-on Actions and Networking for Growth and Environment (CHANGE)

**★VEM: Congratulations CHANGE on being voted as the best environmental organization in Việt Nam in 2017. Could you please share your thoughts on the award?**

**Ms. Hoàng Thị Minh Hồng:** On behalf of CHANGE to receive this award, I am deeply touched and proud. We have been honored many times by environmental networks, non-governmental organizations, but this is the first time we have been voted by representatives of the Vietnamese business community. This proves that domestic businesses are increasingly interested in environmental issues and sustainable development. This is also one of the goals of CHANGE's communication activities. In addition, the award is also the community recognition of CHANGE's efforts in environmental protection, response to climate change, wildlife protection and sustainable development. Speaking in front of more than 300 guests who are business leaders, senior economic officials at home and abroad, I feel their love for the environment, as well as the belief in the work we are doing.

**VEM:** Could you please share something about CHANGE as well as the projects and activities that CHANGE has implemented in the past time?

**Ms. Hoàng Thị Minh Hồng:** CHANGE is a non-governmental organization, established in 2013, with the mission to build, mobilize resources to raise awareness, develop community capacity in addressing

environmental issues, wildlife protection, sustainable development and response to climate change. CHANGE is also the official partner of WildAid - the world renowned organization for the protection of wildlife and of 350.org - Global Movement on Climate Change which is active in 188 countries.

CHANGE can be understood as change. In our opinion, Vietnam's environmental issues can be resolved if each individual changes: from awareness, behavior, habits, to understanding that environmental protection is to protect our health as well as our lives. And only when individuals dare to change, they will have enough inspiration and capacity to make greater, more lasting changes, even to influence the Government's policy-making process.

In Việt Nam, the issue of biodiversity protection has become an urgent need because wildlife species are being seriously threatened by hunting, illegal trade and loss of habitat. Recognizing this,

over the years, CHANGE has launched several campaigns such as "Protect the Rhinoceros", "End the use of Rhinoceros horns", "Rescue the Pangolin", "Say No to Ivory"... Of these, "Protect the Rhinoceros" is a testament to the effectiveness of CHANGE's communication activities, with 53.2 million turns of information receivers; the participation of more than 100 celebrities such as Miss Universe Vietnam 2015 Pham Huong, the runner-up of Miss Universe Vietnam 2015 Le Hang, MC Phan Anh... The survey results showed that the number of people who believed that rhinoceros horns could cure diseases reduced from 69% in 2014 to 23% in 2016; the number of people who claimed that rhinoceros horns could cure cancer reduced from 34.5% in 2014 to 9.4% in 2016... It can be said that the CHANGE's campaigns are a practical action, demonstrating its leading role in the nature conservation, environmental protection, raising awareness of the



community about the species that are facing the risk of extinction and being illegally consumed in Việt Nam.

In addition, CHANGE is endorsing the global movement on climate change, 350.org, with the participation of more than 10,000 young people. We have organized many campaigns such as "Protect the coral reef", "I cannot", "Warnings from coal-fired thermal power", mural art contest "City 2030"... The biggest thing that we have been able to do through these campaigns is to attract the participation of the community, from the youth to celebrities, who have a great influence on the community. In addition, we have also linked socially responsible businesses to communities that need help so that the movement of environmental protection and response to climate change will be more realistic and sustainable.

In the field of sustainable development, CHANGE has launched many meaningful campaigns such as "Living simple", meaning close to nature, integrating into nature, contributing to environmental protection. Or the program "Stop wasting food", with the aim of raising public awareness about the harmful effects of food waste...

**\*VEM: Could you please tell about the plastic waste reduction campaign iCHANGE Plastics and Put solar on it?**

**Ms. Hoàng Thị Minh Hồng:** iCHANGE Plastics campaign has been newly launched but has got many results that make us so proud. We have built on the Facebook platform a 600-member iCHANGE Community. They are committed to change and



▲ Ms. Hoàng Thị Minh Hồng called for businesses honored in the Top 50 to jointly participate in a new meaningful project "Put Solar On It"

take action for a green, clean and beautiful Vietnam. Along with that, many businesses, schools, restaurants, cafés, supermarkets... want to participate in the campaign, and under the guidance of CHANGE, have built their own activities. At the same time, many celebrities are excited about the campaign and together with us spread the message to millions of their fans. In addition, we are launching a social media activity called "3210 Challenge", a 21-day challenge that challenges young people to restrain themselves from

the use of plastic disposable items. The challenge has currently received the active participation of more than 400 young people and is spreading around every day.

Việt Nam has a lot of potential for renewable energy, typically solar and wind energy, and there are a lot of businesses and investors willing to invest in it. Put Solar on It aims to promote renewable energy, firstly in HCMC, then nationwide, through the mobilization of households and businesses to install solar panels on their roofs. This is the most ambitious project in the coming time of CHANGE. In order to effectively implement the Project, we will promote communication activities, clip production, and strong propaganda in the media and social networks. We will also work with businesses which are specialized in solar energy and mobilize banks to prioritize investments in solar energy, and to have subsidy policies to help people easily get access to this sustainable energy source.

**\*VEM: Thank you!**

**Do Huong**  
(Implemented)



▲ Many young people positively respond to the iCHANGE Plastics campaign



# Solutions to hasten the development of the Vietnamese green bond market

Trần Thế Anh

*Orient Commercial Bank (OCB)*

Green bonds have become widely used in the world at the moment and are considered a financial instrument to raise funds for environmentally friendly projects. The capital raised from green bond issuance is committed to programmes that aim at enhancing adaptation to climate change and minimizing its impacts, such as clean energy, public transportation and clean water. Most green bonds on the market are issued by the world's big financial institutions such as the European Investment Bank, International Finance Corporation (IFC) and the World Bank (WB). In Việt Nam, this new trend of investment is in its initial development stage and the country is seeking to promote the use of green bonds to raise funds for environmentally friendly projects.

## THE STATUS OF GREEN BOND MARKET DEVELOPMENT POLICIES IN VIỆT NAM

Pursuant to the Resolution 24-NQ/TW dated 3/6/2013 by the 11th Central Executive Committee on proactive responses to climate changes, improved administration of natural resources and environmental protection, the Minister of Finance on October 20, 2015 issued Decision 2183/QĐ-BTC approving the financial sector's action plan to implement the National Green Growth Strategy by 2020. The decision regulates the development of the financial framework to develop a green capital market and green financial products. Policies on the development of the green capital market include (i) the development of a green financial framework for capital market activities such as regulations and requirements of green stock list-



▲ Capital raised from the issuance of green bonds is used to invest in environmental protection projects

ing, sustainable reports and financial green standard-based monitoring; (ii) fundraising via capital markets for enterprises' green growth, green projects and products, and listing as well as issuing green bonds for green projects, programmes and sectors...

To achieve an open bond market that meets international standards, the Prime Minister on August 14, 2017 issued Decision 1191/QĐ-TTg approving the Bond market development plan in 2017-2020 with vision to 2030. The decision regulates that (i) the bond market must be developed in both horizontal and vertical dimensions to assure of the market security, make the market meet international standards and practices, modernise the market infrastructure, and turn the market into an important mid- and long-term low-cost fund-raising channel for the economy; (ii) the government bond market

must be kept improving to support the development of the overall bond market; (iii) the corporate bond market must be further developed to help local companies raise mid- and long-term capital, thus improving the quality of corporate governance and information disclosure. The Government aims to increase the total value of the overall bond market to account for 45% of the country's GDP in 2020 and 65% in 2030, and expand the value of the corporate bond market to account for 7% of the country's GDP in 2020 and 20% in 2030.

Based on the Government policies, the finance ministry in October 2016 approved a plan on pilot green bond issuance. Green bond issuance was carried out according to the rules of the overall bond market. The capital raised from green bond issuance was used for the implementation of environmental protection





projects. The first two selected localities were Ho Chi Minh City and the Ba Ria-Vung Tau Province that had to issue local three- and five-year government bonds between 2016 and 2017. Up to now, Ho Chi Minh City has raised VND 3 trillion from issuing local government green bonds to invest in 34 projects, including 11 projects listed in the “Green projects” of the State Bank of Việt Nam; while Ba Ria-Vung Tau Province has raised VND 500 billion from issuing 5 year green bonds and used the capital for eight projects.

Under a co-operative programme starting in 2018, the German Organisation for International Co-operation and Development (GIZ) will work with the Ministry of Finance, the State Bank of Việt Nam, the State Securities Commission, the two Ho Chi Minh and Ha Noi stock exchanges and IFC to develop two development plans for green corporate and financial institution bonds and test the issuance of green corporate bonds.

## **SOLUTIONS TO DEVELOP THE GREEN BOND MARKET**

To hasten the development of the green bond market, the Government has carried out many activities to support the market, such as instructing local enterprises to disclose their information and make their green financial activities more transparent to investors, and encouraging listed companies to develop financial and annual reports that address green growth and sustainable development issues. The Ha Noi and Ho Chi Minh stock exchanges (HNX and HoSE) have been proactively developing solutions to draw more capital to the green bond market while the Vietnamese Government has been working with several international organisations on the pilot issuance of green bonds.

However, the issuance of green bonds in Việt Nam has not officially taken effect as the legal framework and instructions for sustainable development reports have remained insufficient, while the use of international standards has remained limited and there has been a lack of independent organisations ca-

pable of evaluating local companies’ sustainable development indicators. Besides, the initial capital for green projects is quite high while those projects have remained highly financially risky. In the near future, there are some solutions that should be implemented to accelerate the foundation of the green bond market:

- The State needs to establish a green finance framework, such as regulations and requirements for green share listing, and green finance-based reporting and monitoring. It needs to develop a plan to create green financial products, including the Green Indicators (sustainability index, carbon index...) to monitor, assess and conduct trade on the capital market, and green investment certificates granted by investment funds to green projects.

- The Government needs to enhance green bond issuance for projects and programmes under local governments’ budget. This will make the bonds more transparent than common bonds, connect local authorities to the market to resolve climate change issues, and help them become more proactive to raise funds for their own green projects and programmes. Besides, government agencies need to issue a Code of Accountable Investment that requires listed companies to publish their reports about business activities and their risks and impacts on society and the environment, thus allowing inves-

tors to identify appropriate sectors that may receive funding from the green bond market. The code is expected to encourage investors and companies to make their investments more responsible for society and the environment.

- The State needs to enhance the implementation of its policies, especially tax and fee policies to encourage local enterprises to raise funds for green growth investment projects by issuing and listing green bonds and stocks. At the same time, the State should have a mechanism that cuts administrative procedures for companies and investment funds when they want to issue bonds and fund certificates for green projects, programmes and sectors; establish a sustainable development assistance fund based on the practices of other countries and review the current policy system to make sure the policies are focused.

- In addition, to increase the liquidity of the green bond market, the State Bank of Việt Nam should accept green bonds on the open market at a higher discount rate than other same-level bonds; and allow financial institutions to use green Government-backed bonds as required reserves. Along with those measures, the central bank should find a way to offer green bonds to international markets to raise huge amounts of foreign currency capital for the country’s green growth efforts■



# Green growth requires investment from the private sector



▲ Nguyễn Quang Vinh - VCCI General Secretary cum Vice President of VBCSD

***The development of industry 4.0 and climate change have heavily affected the world's economy. In that context, green growth has become a top-priority concern for all countries in the world and businesses have been given greater responsibility to drive an economy towards green growth. In order to understand the matter, the Vietnam Environment Administration Magazine (VEM) talks to Nguyễn Quang Vinh - General Secretary of the Vietnam Chamber of Commerce and Industry (VCCI) cum Vice President of the Vietnam Business Council for Sustainable Development (VBCSD).***

**★VEM: What is the role of businesses and what benefits do they receive from implementing green growth regulations?**

**Mr. Nguyễn Quang Vinh:** First of all, we need to understand that green growth is not a trend or an option for developed economies and big enterprises only. Since the Paris Agreement on Climate Change and Agenda 2030 for Sustainable Development were approved in 2015, green growth has become obligatory for all parties to the agreements, including Việt Nam.

There are impacts on socio-economic and environmental conditions as a result of every business activity. Therefore, if the Government operates as a leading, pro-business organisation, then the business community is the engine to boost and drive the Vietnamese economy towards green growth.

When speaking of benefits for businesses when they do sustainability development and green growth, we speak of a minimum US\$12 trillion market opportunity that creates 380 million jobs for the world by 2030, 90% of which are located in Asia. More specifically, when a company pursues the model of circular economy to minimise waste disposal and make the most of all resources, it may access a \$4.5 trillion market opportunity. In addition to economic benefits, a company may cut costs and improve production efficiency, brand and competitiveness to join and stay strong in the global supply chain. This is what the Vietnamese business community, especially small- and

medium-sized enterprises, must understand and change their business strategies to catch up with the world's sustainable development trend.

**★VEM: How have Vietnamese companies changed after 6 years of implementing the National Strategy on Green Growth?**

**Mr. Nguyễn Quang Vinh:** In the last few years, the Vietnamese business community has changed dramatically with regard to their awareness of the need to improve sustainable development. Besides multinational corporations, big companies like Vinamilk, Traphaco, Bao Viet, Viettel, TBS Group and Vietcombank have recognized and developed their strategies to target green growth and sustainability and they have conducted business activities well. For example, Traphaco wants to best-perform its core values and does well in green value chain management, innovation and application of new technologies and knowledge. Traphaco leads in the development of clean medicines

through its Green Plan Project by signing contracts with 645 households and creating more than 1,400 regular jobs. Through this project, Traphaco has not only provided a sustainable income opportunity for the local community but also assured that green growth and sustainable development are reachable. Vinamilk is another case as the dairy producer has developed its Sustainable Development Strategy combining different components that relate to sustainable production and ecological improvement. Vinamilk has made a strong commitment to using more energy-saving, cleaner production technologies with the targets of cutting its energy usage by 3% after five years of implementation, reducing greenhouse gas emissions through efficient use of energy and water resources, and good control and settlement of waste disposal.

Those enterprises are also proactive members of the Vietnam Business Council for Sustainable Development



▲ *Announcement Ceremony on Sustainable Businesses in Việt Nam 2017*

(VBCSD) under the Vietnam Chamber of Commerce and Industry (VCCI). I am glad that more and more Vietnamese companies have become VBCSD members as that proves they have paid more attention to green growth and sustainable development. However, we need to recognise that the number of SMEs accounts for 98% of all Vietnamese businesses, which may raise concern about the rarity of awareness of sustainable development and green growth as most of them have neglected the issue.

**★ VEM: What are the problems and challenges for businesses when implementing green growth strategies?**

**Mr. Nguyễn Quang Vinh:** The first obstacle is a business' internal issues. As mentioned above, SMEs have not acknowledged correctly sustainable development and green growth as they see the two matters as costs and burdens rather than opportunities to raise competitiveness, productivity and performance. As they misunderstand the two concepts and their resources remain inconsistent, they will clearly not follow a green growth business model. Besides, there are other challenges caused by subjective factors. For example, because policies are mostly implemented by only one single central-level agency that could be a ministry or sector, the policies fail to meet expectations and cannot catch up with the progress or advancement of science and technology. A lot of policies are not persuasive enough to encourage enterprises to make investment in green growth activities, and financial instruments have not met the demand of local enterprises.

According to a survey conducted by the Vbiz Data Centre, 51.3% of total enterprises do not care about climate change;

62% are unwilling to develop green products; 89.3% have not received assistance and incentives from the Government in producing green products; 69.5% say development of green products costs a lot; and 50% lack technologies and human resources to follow a green growth business model. These numbers show we need to take fast and drastic measures to resolve existing problems for local enterprises in order to motivate them to follow a green growth business model.

**★ VEM: What solutions do you think are needed to encourage both domestic and foreign firms to make investment in green growth projects?**

**Mr. Nguyễn Quang Vinh:** From the data and analysis above, the first solution is an increase in the awareness of businesses, especially SMEs, about green growth and sustainable development. Instead of taking the two concepts as burdens and costs, businesses should see them as ways to improve their competitiveness, productivity and participation in the global supply chain. Two-thirds of the 17 Sustainable Development Goals (SDGs) under the 2030 Agenda are related to green growth and sustainable development. Therefore, implementing the

17 SDGs also means reaching for green growth. It's obvious that no business is capable of fulfilling all 17 SDGs at the same time as doing so requires gigantic resources in terms of human resources, finances and equipment. Businesses should aim to resolve issues that are practical and suitable with their resources such as labour quality, gender equality, and efficient use of resources and energy, and combine those issues in their business strategies.

Clearly, we should stress that a lot of SMEs have not paid attention to sustainable development, so it often takes Vietnamese enterprises a long time to adapt to the strict standards of the global supply chain. Thus, we need to encourage local businesses to change their minds, study and apply useful tools such as the corporate sustainability index (CSI) to help them address loopholes in their corporate governance systems and potential opportunities.

We should not only focus on businesses. It is important to raise the awareness of the whole community and consumers about consuming green products. When demand for green products increases, businesses will turn to focus on green growth production. In addition, as the Industry 4.0 is making changes in every sector, it requires the Government to improve its legal framework and administration to improve the quality of technologies to encourage domestic and foreign companies to make investments in green growth and sustainable development activities.

At the moment, the Vietnamese Government has been asking its agencies to provide supportive methods for enterprises. For example, VCCI with the Vietnam Labour Union and ministries evaluates and ranks sustainable development en-





terprises based on the CSI with 134 criteria. Based on the assessment, enterprises can figure out where they rank compared to each other and make necessary adjustments to their strategies to deepen participation in the global economy. VCCI is receiving applications from companies who want to take part in this year's evaluation. The deadline for them to submit application forms is August 31, 2018.

Besides, VCCI has supported local businesses with their sustainable development models such as launching a programme to help businesses implement circular economy. The programme aims to give recommendations to improve the legal framework and help develop the secondary material market; introduce good practices of international enterprises to local businesses and assist them to realise their ideas in private-public partnership projects. All stakeholders must work together to draw more participation of enterprises in the attempt to develop a non-emission economy, create more jobs for the market, improve the private sector's competitiveness, seize the trillion-dollar business opportunity offered by the circular economy, and soon realise the National Strategy on Green Growth.

The more Vietnamese enterprises head to achieve sustainable development and green growth, the more competitive they become and rise in the global supply chain.

★ *VEM: Thank you!*

**Vu Nhung**  
(Implemented)

## ● Đà Nẵng named green city of the year in Việt Nam



Đà Nẵng city has been given the title of National Green City 2017-2018 by the World Wide Fund for Nature (WWF)'s One Planet City Challenge programme, making it onto a list of 21 cities from around the world.

Vice Chairman of the municipal people's committee Nguyen Ngoc Tuan, said the award was a tribute to the city's endeavours over past decades to commit to sustainable development.

Đà Nẵng, along with other cities in Vietnam including Hue, Hoi An and Dong Ha, entered the One Planet City Challenge programme in 2017 to show how cities can become hubs for creativity, ambition and innovation in dealing with climate change.

The 4 cities qualified out of 132 metropolises from 23 countries, but Đà Nẵng was finally selected for the award. The central city had submitted a target of reducing greenhouse gas emissions by 25% from 2016, along with plans for solar power development, biofuel use, Bus Rapid Transit (BRT) routes and wastewater treatment.

According to a WWF statement, cities generate 70% of the world's carbon emissions, and the WWF's One Planet City Challenge was a biennial competition that recognised and rewarded cities for developing infrastructure, housing, transport and mobility solutions to power the global transition to a low-carbon, climate-resilient future. It said 50% of the global population lived in urban areas, and cities would be home to about 6 billion people by 2050.

Đà Nẵng city is giving top priority to high-tech and clean technology investment projects to become a green city by 2025. In 2012, Đà Nẵng city was selected for an Asia-Pacific Economic Cooperation project along with 20 low-carbon model cities with energy-efficient technologies, smart grids and renewable power generation.

The city had cut 12,000 tonnes of carbon emissions through a pilot project of low-carbon models including battery-powered bicycles, renewable energy, a metro system and BRT.

Đà Nẵng city plans to build its first solar farm covering 6.7ha on the now-closed Khanh Son Landfill at a cost of 5 million USD, supplying 7.7 million kWh per year to the city's power grid, and reducing nearly 5,000 tonnes of carbon emissions each year.

The city has great renewable energy potential, with a 90km coastline, 2,000 hours of sunlight per year and an average wind speed of 3m/s. According to the city's Industry and Trade Department, around 30% of the city's population were using solar power for water heaters, while around 20 five-star hotels and resorts were using solar power water heating systems.

The European Commission (EC) has also agreed to fund the city 415,000 USD to install solar equipment at health centres and schools, as well as research into solar technology capacity and management. Đà Nẵng city has also been operating 20 battery-powered cars to serve tourists on the Son Tra Peninsula since 2012.

Japanese Mitsubishi plans to cooperate with Đà Nẵng City in the production of battery-powered cars in the near future. In 2016, the WWF recognised Hue city as Vietnam's National Earth Hour Capital 2016 as part of the highly selective global Earth Hour City Challenge.

The One Planet City Challenge was designed by the WWF to mobilise action and support from cities in global climate efforts, including the goals now set forth by the Paris Agreement. About 400 cities in the world have joined the programme since 2011 ■

**Phường Linh**  
(VNS/VNA source)



## WORLD NATURAL HERITAGE PHONG NHA - KE BANG NATIONAL PARK: 15 years of conservation and promotion of heritage values

**Hoàng Hải Vân** - Vice Director

*Phong Nha - Ke Bang National Park Management Board*

**P**hong Nha - Ke Bang National Park is a natural heritage that Quang Binh has been endowed with. It is home of many spectacular landscapes, a diversity of fauna and flora, as well as evidence of the tectonic formation of lithosphere over hundreds of millions of years. Over the 15 years since its recognition in 2003, the management, protection and promotion of heritage values have always been paid attention to, the restriction of encroaching on forests and forest resources has been improved, scientific research and conservation has been gradually improved in quality, the outstanding values and integri-

ty of Phong Nha - Ke Bang are preserved and honored. Phong Nha - Ke Bang has become one of the famous tourist attractions on the maps of Viet Nam and the world.

### **PROMOTING THE EFFECTIVENESS OF FOREST MANAGEMENT AND PROTECTION**

Recognizing the importance of forest protection for the survival of landscapes and ecosystems, the National Park Management Board has actively directed the development of IEC plans in many forms. The National Park has established 43 forest fire prevention and fighting teams, 18 forefront teams in the villages, 21 village conservation groups in 9 communes in the buffer zone; has signed contracts for forest protection with 28 village forest protection teams, 1 border post forest protection team and 51 specialized individuals. There are 11 stations and 2 mobile forest ranger teams at the critical points in the National Park. Over the past years, 10,693 patrols for forest protection have been conducted, 221 illegal camps demolished, 32,875 trapping ropes unloaded,

2,056 people entering the forest illegally evicted; at the same time, documentation and decision making for handling 2,358 violation cases have been made. The total amount of fines for administrative violations and the handling of confiscated assets into the State fund is nearly VND 6.57 billion. Phong Nha - Ke Bang National Park has conducted 489 village campaigns with more than 17,155 participants; organized 25 environmental interpreting sessions for students, youth unions in communes in the buffer zone; published 45,130 IEC leaflets and publications, 6,000 pupil's notebooks, 150 panels in 10 communes in the buffer zone; has encouraged the handing over of 81 military guns and self-made guns...

Thanks to the good management and protection of forests and the IEC to the people in the buffer zone, the forest resources have been well-protected, biodiversity has been improved, and the pressure on the forest has been reduced considerably.

### **SCIENTIFIC RESEARCH AND PRESERVATION OF HERITAGE VALUES**



▲ Phong Nha - Ke Bang cave system has the world leading value, because its geological and geomorphological values have been kept intact



▲ *Phong Nha - Ke Bang National Park is the habitat of many precious and rare animals and plants*

Since being recognized as a World Natural Heritage, Phong Nha - Ke Bang National Park has received increasing attention from the international community. Many research programs and investment projects of national and international organizations have been implemented such as: In collaboration with the University of Science, Quang Binh University, Institute of Ecology and Biological Resources, Institute of Medicinal Materials, Vietnam National Museum of Nature. Through this, nearly 20 international programs/projects in many fields have been successfully implemented, including heritage, nature preservation, environmental education, community development and ecotourism. On the other hand, the National Park also participates in 14 annual meetings of the World Heritage Committee, 10 international forums, with many conferences, seminars, training courses, abroad study tours on heritage preservation. In addition, the National Park actively cooperates in transboundary conservation with Hinamno National Biodiversity Conservation Area - Laos on the basis of the

agreement signed between Quang Binh and Kham Muon provinces; cooperates with the Augusta Margaret River Tourism Association, Western Australia; and FFI, Cologne Zoo, British Royal Cave Association, UNESCO...

In the past 15 years, Phong Nha - Ke Bang National Park has been chairing and participating in the implementation of 1 ministerial-level scientific topic, 8 provincial-level scientific topics/tasks, 3 grassroots-level studies; winning 2 scientific and technological innovation awards; and publishing 2 books; nearly 50 articles are published in national and international scientific journals. There are many studies have been widely applied such as: proposing measures to moni-

tor and deal with impacts on tourism caves, monitoring forest developments through GIS (Geographic Information System) and RS (Remote Sensing); managing databases on specialized softwares, applying invasive species control measures; using the METT tool to assess the improvement of management effectiveness.

According to the results of the study on biodiversity, the National Park has conducted relatively comprehensive surveys on fauna, fish, birds, reptiles, frogs, insects and invertebrates in the cave. There are 1,394 species of animals belonging to 835 species, 289 families, 66 orders, 12 classes, 4 branches (in which, 83 species listed in the Red Data Book of Vietnam, 110





species listed in IUCN Red List, 68 species listed in the Decree No. 32-2006/ND-CP, and 55 species listed in CITES appendices). The flora of Phong Nha - Ke Bang National Park is also very diverse with 2,951 species belonging to 1,006 genera, 198 families, 62 orders, 11 classes, 6 branches (in which, 112 species listed in Red Data Book of Vietnam, 121 species listed in IUCN Red List, 39 species listed in Decree 32-2006/ND-CP, 1 listed in the CITES appendices). In addition, populations of the *Calocedrus rupestris* - ancient and endemic plant species of Vietnam and the Truong Son Mouse - represents their only living Diatomyidae that are considered extinct 11 million years ago are discovered in the National Park. Especially, from its inception until now, Phong Nha - Ke Bang National Park has recorded and published worldwide 42 new species for science (38 species of animals and 4 species of plants). In order to continue the conservation of precious and rare genetic resources, Phong Nha - Ke Bang National Park has effectively implemented many IEC programs for plant species of high conservation and economic value; implemented rescue of 1,197 wild animals, transfer and release of 802 individuals to the natural environment (success rate of rescue reached over 92%).

In terms of geological geomorphology, Phong Nha - Ke Bang National Park presents the imprint of the long history of geological development from more than 400 million years ago, with the world's leading value of Phong Nha - Ke Bang cave system, of which the geological - geomorphological value remains intact. In particular, the discovery of Son Doong - the world's largest cave has significant implications for exploration of caves in the area, adding global significant value on the history of Earth shell formation and important geological features of Phong Nha - Ke Bang, contributing to promoting the image of Việt Nam in general, Quang Binh and Phong Nha - Ke Bang in particular, to the world.

In addition, Phong Nha - Ke Bang National Park has actively researched and introduced the applications in management and monitoring of resources based on GIS and RS. Currently, the National Park Man-

agement Board has completed the digital mapping classes such as fauna and flora, hydrology, socio-cultural, endangered species, invasive species, heat and rainfall, geology and topology. At the same time, species search and resource monitoring tools continue to be developed.

The above findings have contributed greatly to the honouring of the value of the World Natural Heritage of Phong Nha - Ke Bang National Park, especially the values of biodiversity, an important criterion for UNESCO to recognize Phong Nha- Ke Bang to be the World Natural Heritage for the second time in 2015. Thus, it gradually affirms its role and position in promoting the value of the heritage, contributing positively to local and regional socio-economic development.

#### **TOURISM DEVELOPMENT ASSOCIATED WITH PRESERVING AND PROMOTING THE VALUE OF THE LANDSCAPES**

The recognition as the World Natural Heritage has opened up a trend for service development in Quang Binh and Phong Nha - Ke Bang is a bridge to connect Vietnam to the world.

Accordingly, the National Park Management Board has gradually diversified tourism products, from only one tourist site of Phong Nha - Tien Son Cave; up to now, Phong Nha - Ke Bang has 15 tourist sites put into operation such as: Nuoc Mooc Stream Ecotourism, Chay

River - Toi Cave, Va Cave - Nuoc Nut Cave, Thien Duong Cave, Rao Thuong - En Cave... Especially, the tourist route "Conquering Son Doong - the world's largest cave" is considered one of the world-class tours. Estimatedly, total visitors to the Heritage in 15 years reached over 6,636,954 turns of visitors (of which, there were 578,911 international turns of visitors); revenue from fees and charges of tourism operation units have reached over VND 730 billion.

Tourism in the National Park not only contributes to regional economic development but also as a viable solution to preserve the heritage, reducing pressure on resources through job creation for the people. More than 3,000 people in the buffer zone have participated in service activities such as food, leisure, entertainment, souvenir production, tour guides, porters, boat crews for tourists (currently 401 boats), and photographers (currently 275 people).

The results achieved in the last 15 years are the foundation and motivation for all members of the Phong Nha - Ke Bang National Park Management Board to continue to improve its comprehensive capacity to conserve geological, geomorphological, ecological and biodiversity values, creating livelihoods to people, reducing pressure on natural resources, and maintain ecosystem functions to ensure the sustainable development of Phong Nha - Ke Bang ■



## ● New camellia species found in Hà Tĩnh national park



▲ *Camellia vuquangensis*, a newly-found species in Hà Tĩnh's Vũ Quang National Park

Scientists have announced the discovery of two new species of tea plant in the Vũ Quang National Park in the central province of Hà Tĩnh.

Park authorities earlier this week announced the discovery of *Camellia vuquangensis* and *Camellia hatinhensis*, which were found during biodiversity study trips conducted by the park scientists and their counterparts from Đà Lạt University.

*Camellia vuquangensis* is a 3-4m tall shrub tree species, with young branches and leaves coloured violet. Each branch has a single flower. The species was found in an area 50-100m above sea level and its habitat is thought to be near streams. While, *Camellia hatinhensis* is a small tree species, with average heights of about 4-6m. Its young branches have fur. Single flowers grow on each branch. The species was found at a topography of 100-700m above sea level. It grows in the same habitat as *Hopia mollissima*, *Lithocarpus sp*, *Beilschmiedia balansae*. Both species have yellow flowers.

Park authorities have set up plans to protect the newly-found species. There are four camellia species found in the park, including the new ones. There are 200 camellia species in existence around the world, of which 24 grow in Việt Nam. Scientists are concerned that the habitats of these species are under threat from illegal logging as well as development projects■

Quỳnh Như  
(VNS source)

## ● Centuries-old tree preserved in Hà Tĩnh national park

A tree that is believed to be 1,000 years old was recently discovered in Vũ Quang National Park in central Hà Tĩnh Province.

Fokienia or Fujian Cypress tree, scientifically known as *fokienia hodginsii*, is listed as a vulnerable species in the International Union for Conservation of Nature's red list due to increasing logging for its timber. Local authorities are yet to recognise the tree as a heritage tree.

According to the park's director, Nguyễn Danh Kỳ, its research team discovered the giant tree in a newly found *fokienia* population in the 550sq.km park. The tree is 30m tall and its body near the root section has a diameter of 2.2m. The park authorities worked with tree-ageing experts to determine the tree's age, and initial results show it to be some 1,000 years old. The tree is one among many old trees in a *fokienia* population found at a height of 1,445m above the sea level in a primary forest area near Lao border.

Another 1,000-year-old *fokienia* tree in Xuân Liên National Park in neighbouring Thanh Hóa was recognized as a heritage tree in 2013. To be recognized as a heritage tree in Việt Nam, a tree must be more than 200 years old■

Nguyễn Hằng  
(VNS source)



▲ The near-root section of the newly discovered 1,000-year-old *fokienia* tree (Photo: baohatinh.vn)

# Cao Bằng establishes Phia Oac - Phia Den National Park

The northern mountainous province of Cao Bằng announced the Prime Minister's decision on the establishment of Phia Oac - Phia Den National Park on May 14.

Covering 10,593 hectares, the park spans Thanh Cong, Quang Thanh, Phan Thanh and Hung Dao communes, and Tinh Tuc town in Nguyen Binh district. About 77%, or more than 8,146 hectares, of the area is natural forest.

Surveys showed that the park is home to 1,287 types of plants, of which more than 90 are in danger of extinction, and to 496 vertebrate species, including 58 rare types.

The area hosts Phia Oac Mount - one of the three main tourism routes of Non Nuoc Cao Bằng Geopark. Non Nuoc Cao Bằng was the second UNESCO-recognised Global Geopark in Vietnam after Dong Van Karst Plateau.

The park is designated to ensure environmental security and mitigate land erosion and floods, thus helping to stabilise production and improve livelihoods of local people in downstream regions.

To protect the national park, the local authorities have set up forest ranger units and forest monitoring groups in villages. Scientific research and activities will be held to preserve and develop endangered genetic sources, rescue wildlife animals and raise public awareness of the protection of environment and biodiversity.



Furthermore, actions will be taken to develop eco-tourism, thereby contributing to local socio-economic development. Speaking at a ceremony to announce the decision, Vo Dinh Tuyen, deputy head of the agriculture department at the Government Office, urged Cao Bằng to sustainably develop the park in line with the nation's forestry development strategy■

**Vũ Hồng**  
(VNA source)

# Development plan for Langbiang Biosphere Reserve approved

The Central Highlands province of Lam Dong has recently approved the development and management plan of the Langbiang Biosphere Reserve in five years from 2018.

Under the plan, the management board of the reserve will carry out various programmes to protect natural resources and cultural values as well as support economic and tourism development.

Total capital for the projects will be 49 billion VND (2.15 million USD), of which 16 billion VND (704,000 USD) comes from the official development assistance.

The Langbiang Biosphere was added to the World Net-

work of Biosphere Reserves of the International Co-ordinating Council of UNESCO's Man and the Biosphere Programme (MAB) in June, 2015.

The reserve covers an area of 275,439 hectares to the north of Lam Dong, with its core area of 56,000ha encompassing Bi Dup-Nui Ba National Park. An 86,000ha buffer zone, in which human settlements are permitted, surrounds the reserve. The area is home to more than 2,000 flora species and nearly 400 fauna species, of which 153 species are named in Viet Nam's Red Book, and 154 are included in the Red List of the International Union for Conservation of Nature.

The reserve is located in the famed Da Lat city at the highest altitude, compared to the country's other biosphere reserves, with Bidoup peak measuring 2,287m high in Da Nhim village. The highest Bidoup peak is known as the Roof of the Central Highlands.

Moreover, it has been highly praised by tourists and experts due to its biodiversity, special natural landscapes with high mountains and beautiful waterfalls, and its rich culture displayed by local inhabitants from different ethnic groups.

Alongside Lang Biang, other Vietnam's UNESCO-recognised biosphere reserves are Can Gio Mangrove, Cat Ba, Cat Tien, Cu Lao Cham-Hoi An, Kien Giang, Cape Ca Mau, the Song Hong (Red River) Delta and Western Nghe An■

**Bình Minh**  
(VNA source)





# Non Nuoc Cao Bang Geopark named as UNESCO global geopark



Non Nuoc Cao Bang Geopark in the northern border province of Cao Bang was recognised as a global geopark by the UNESCO Global Geoparks Council in Paris on April 12.

*This is the second UNESCO-recognised global geopark in Vietnam after Dong Van Karst Plateau, which was recognised in 2010.*



Non Nuoc Cao Bang is about 300km to the north of Hanoi capital city

**2015** Established

Total area: over 3,000 sq.km

Covering six districts of Ha Quang, Tra Linh, Quang Uyen, Trung Khanh, Ha Lang and Phuc Hoa and part of Hoa An, Nguyen Binh and Thach An districts

Home to nine ethnic minority groups like Tay, Nung, H'Mong, Kinh, Dao and San Chay



Karst landscapes billed as vivid illustration for the earth's evolution and changes

Bio-diversity with an array of eco-systems, various kinds of endemic fauna and floral

Many renowned cultural and tourism heritages



**Special national relic site of Pac Bo**  
where President Ho Chi Minh stayed after returning from abroad in 1941 to lead the domestic revolution.



**Special national relic site of Tran Hung Dao Forest**  
where General Vo Nguyen Giap in 1944 established the Vietnam Propaganda and Liberation Army, the predecessor of the Vietnam People's Army today



**Ban Gioc waterfall tourism site**



**November, 2016**

Cao Bang submitted a dossier to UNESCO to seek the global geopark recognition



**July, 2017**

A survey team of UNESCO came to the province to make assessment of the park's values and conservation work.

