



FORESTS
FOR WATER AND
WETLANDS

樹林—— 緊繫我們的 水源與濕地



2 February **WORLD
WETLANDS DAY**
2月2日 世界濕地日

拉姆薩爾公約

拉姆薩爾公約(又稱濕地公約)於1971年於伊朗的拉姆薩爾簽訂,是旨在促進各國及國際間濕地保育和善用的國際條約。直至2011年2月,全球已有160個締約成員,並有超過1,900片,總面積逾一億八千萬公頃的濕地被列入國際重要濕地名錄內。

Ramsar Convention

Ramsar Convention (also called Convention on Wetlands of International Importance), adopted in the Iranian city of Ramsar in 1971, is an intergovernmental treaty that provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. As at February 2011, there are 160 contracting parties all over the world. Over 1,900 sites with a total area of more than 180 million hectares are designated as wetlands of international importance.



什麼是濕地?

濕地是陸地和水交接的地方,包含很多不同的生態環境。「濕地公約」提到:濕地泛指沼澤、泥沼與泥炭沼地帶,當中的水體可以是天然的或是人造的;可以是永久存在的或是暫時性的。當中的水分可能是靜止的也可以是流動的;可以是淡的或鹹的,也可以是半鹹半淡的;也包括退潮時水深不超過六米的海域。濕地的例子有湖泊、河流、池塘、沼澤、泥炭沼、紅樹林、鹽沼、沙灘及珊瑚礁等。

What are Wetlands?

Wetlands are places where land and water meet. There are plenty of examples illustrated in Ramsar Convention: "areas of marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, including areas of marine water the depth of which at low tide does not exceed six metres". Examples of wetlands are lakes, rivers, ponds, marshes, swamps, peatlands, mangrove forests, salt pans, sandy beaches, coral reef...and more.

世界濕地日2011—— 濕地與樹林

每年的2月2日均被定為世界濕地日,以紀念拉姆薩爾公約(公約)簽訂的日子。全球各地政府機構、非政府組織,以及不同團體都藉世界濕地日提高公眾對濕地保育,特別是對公約的認識。

2011年是濕地公約誕生的40周年,適逢聯合國將2011年定為「國際森林年」,濕地公約秘書處亦將2011年世界濕地日的主題定為「濕地與樹林」,並以「樹林——緊繫我們的水源與濕地」作為口號,藉此喚起大家關注保護森林和濕地的重要性。

World Wetlands Day 2011—— Wetlands and Forests

The World Wetlands Day on 2 February each year marks the date of the adoption of the Convention. Government agencies, non-governmental organizations, and groups of citizens at all levels of the community take the opportunity to raise public awareness of wetland values and benefits in general and the Ramsar Convention in particular.

Year 2011 is the 40th anniversary of the Ramsar Convention. In response to the International Year of Forests declared by the United Nations General Assembly, the theme for the World Wetlands Day 2011 is "Wetlands and Forests". The slogan "Forests for water and wetlands" is also highlighted to raise public concern about the importance of conserving forests and wetlands.



什麼是林澤濕地?

一般森林多是在陸地上的,但有一些森林的所在地卻一直或經常潮濕的,有些更是淹浸在水中。根據《濕地公約》,這些林澤濕地可被分為三大類:

- 潮間帶林澤濕地:包括紅樹林沼澤、受潮汐影響的淡水沼澤
- 淡水林澤濕地:包括淡水沼澤、季節性氾濫森林及沼澤林
- 泥炭林:在泥炭地的沼澤森林

What are Forested Wetlands?

Forests are usually terrestrial but there are some which are always or often very wet. Some forests are even submerged in water. The Ramsar Convention classified these forested wetlands into three broad types:

- Intertidal forested wetlands: including mangrove swamps, tidal freshwater swamp forests
- Freshwater, tree-dominated wetlands: including freshwater swamp forests, seasonally flooded forests, and wooded swamps
- Forested peatlands: including peat swamp forests

林澤濕地的重要性

在內陸的林澤濕地能夠淨化水質,保護集水區;而靠近海邊的則可以抵擋風暴及保護海岸,有些更可減低水位上升。林澤濕地為各式各樣的生物提供多元化的生境,在維持地球的生物多樣性扮演舉足輕重的角色。林澤濕地亦為全球人類提供水產和糧食,而居住其中的社群亦得以維持生計。

林澤濕地是地球上重要的碳儲存庫,樹木透過光合作用,將大氣中的二氧化碳吸收。而當樹木的枯枝及落葉掉落到被水淹蓋的泥土後,因環境的含氧量低,植物不易被分解,大量的二氧化碳得以被儲存起來。林地對緩和及調節氣候變化發揮著重要的作用。

部份林澤濕地的土質鬆軟,吸水力強,它們好像巨形的海綿一樣將雨水吸收,以防止在雨季時河岸、湖濱及下游因水位升高而引發的水災。

The Importance of Forested Wetlands

Inland swamp forests protect catchments and improve water quality while coastal swamp forests protect coasts against storms and rising sea levels in some cases. Forested wetlands also provide diverse habitats for an impressive range of animal and plant species, thus contributing significantly to biodiversity. Besides, they provide water and food for humans, and more importantly, livelihoods for local communities.

Forested wetlands are particularly important stores of carbon. Forests absorb carbon dioxide from the atmosphere through photosynthesis. Besides, the low oxygen level of waterlogged forested wetlands also slows the decomposition process of fallen branches and leaves, and hence limits the release of carbon dioxide. Forests have a vitally important role to play in mitigating and adapting to climate change.

The loose and soft soil of some forested wetlands acts as a huge sponge to absorb large amount of rain water, thus prevent flooding around riverbanks, lakesides and downstream areas during rainy seasons.



香港的林澤濕地

香港的面積雖然很小，只有1,104平方公里，但卻擁有許多不同類型的生境，其中包括各式各樣的濕地，有河溪、人工魚塘、濕耕地、紅樹林、水塘、池塘和珊瑚群落等，當中紅樹林就是林澤濕地的最佳例子。



Forested Wetlands of Hong Kong

Hong Kong has a small land area of 1,104km² but it consists of diverse habitats, including various wetlands such as streams, artificial fish ponds, paddy fields, mangroves, reservoirs, ponds and coral communities. Among these, mangroves are the best examples of forested wetlands.



紅樹林

紅樹林主要分佈於熱帶和亞熱帶地區，其生長環境為潮間帶鹹淡水交界的地方。香港的紅樹林主要分佈在西貢、新界東北、吐露港、后海灣、大嶼山和香港島一帶海岸，而全港最大片的紅樹林則位於米埔內后海灣拉姆薩爾濕地。

紅樹林為大自然和人類發揮了不可或缺的功用：

- 為眾多動植物提供食物和棲息地
- 能抵禦風浪衝擊，保護沿岸地方，是一道重要的天然屏障
- 過濾水中污染物及沉積物
- 為人類提供食物，例如魚類及基圍蝦
- 有些紅樹可供藥用或製成染料
- 作為人類生態遊的好去處

Mangroves

Mangrove forests are distributed in tropical and subtropical regions and commonly found in inter-tidal brackish waters. In Hong Kong, mangrove habitats are located at the coastal areas of Sai Kung, northeast New Territories, Tolo Harbour, Deep Bay, Lantau Island and Hong Kong Island. The mangrove habitat in the Mai Po Inner Deep Bay Ramsar Site is the largest stand in Hong Kong.

Mangroves are of vital importance to both human and the environment:

- Provide food and habitats for a wide range of fauna and flora
- A natural barrier to protect coastlines from the attack of strong water waves
- Filtering pollutants and sediments in water
- Provide food for human, such as fishes and *gei wai* shrimps
- Some mangrove plants can be used as medicines or dyes
- A perfect site for eco-tourism



林地、濕地、水資源—緊密連繫

位於集水區的林地在水循環系統中扮演著不可或缺的角色，關係到水分的流向及儲存。林地與水分的蒸發和蒸騰作用息息相關，進而影響大氣層的水分含量，以致降雨量。

林地的蒸發和蒸騰速度較快，因此相對其他較矮小的植被（如草地）需要較多水分。然而，林地的土壤卻有效地吸收及保持水分；樹木的根部更能抓住泥土，減少水土流失。因此，林地可以為下游濕地提供優質的水源。林地的價值越來越受到世界各地的關注，因為妥善護理林地有助我們管理食用、工業及農業所需的水資源，亦能涵養我們的濕地。

Forests, Wetlands and Water — A Powerful Relationship

Catchment forests play a vital role in the water cycle and as a strong influence on how water is routed through the catchment and stored. Forests have a significant impact on the levels of evaporation and transpiration of water into the atmosphere, which in turn affects rainfall.

Compared with other shorter vegetations (like grasslands), forests need more water because they have a higher evaporation and transpiration rate. Meanwhile, forest soils absorb and retain water easily and tree roots hold soils and reduce soil erosion, thus maintain the quality of the water stored for downstream wetlands. The values of forests are gaining worldwide attention because managing our forests helps us manage water for people, industry, agriculture, as well as for wetlands.

威脅

與其他生境一樣，林地及林澤濕地正遭受著人類活動的威脅。林地被改作農業用地、非持續性的木材砍伐、缺乏妥善土地管理，以及城市發展均是林地正面臨的主要挑戰。

林地消失的速度已是刻不容緩的問題。在2000至2010年間，全球每年有約130,000平方公里的林地消失，涉及的土地面積相等於一個希臘。

Threats

Similar to other habitats, forests and forested wetlands are threatened by human activities. Conversion to agriculture fields, unsustainable harvesting of timber, unsound land management practices and creation of human settlements are the major threats to forests.

The rate of loss of forests is serious. Between 2000 and 2010, we are continuously losing 130,000 km² of forest each year globally. That is an area equal to the size of Greece.



齊來為環境 獻出你的力量

林地、濕地和水資源三者均相互影響，並有著環環相扣的關係，缺一不可。為我們下一代著想，請立即行動：

- 保育濕地與林地
- 保護水資源
- 活得簡單，節約用水和珍惜自然資源

Let's contribute to our environment

Forests, wetlands and water resources are interrelated; they all need our precious protection and we cannot lose any one of them.

For our next generations, let's take action now:

- Conserve our wetlands and forests
- Protect our water resources
- Live simply, save water and natural resources

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