

# **Fibre Procurement Policy for Protecting Forests**

## **森林保護之纖維採購政策**

**[Effective: INSERT DATE]**

**【生效日期：27 May 2019】**

FORMOSA CHEMICALS & FIBRE CORPORATION is committed to playing a leadership role in the dissolving pulp & cellulosic fibre industry and will work with our wood fibre suppliers and Canopy in order to promote sustainable forest management and the protection of ancient and endangered forests.

台灣化學纖維股份有限公司承諾在溶解漿和纖維素纖維產業發揮領導作用，與我們的木纖維供應商和Canopy 合作，共同促進可持續性森林管理，保護原始瀕危森林。

FORMOSA CHEMICALS & FIBRE CORPORATION supports the production of cellulosic fibres & fabrics from wood fibre that is not sourced in ancient and endangered forests, such as Indonesia's tropical forest and Canada's Boreal Forest, unless meaningful conservation plans and FSC certification are in place.

台灣化學纖維股份有限公司支持使用非原始瀕危森林（如印尼的熱帶森林和加拿大北方林）採購的木纖維來生產纖維素纖維和面料，除非採購地區已經實施切實森林保護方案並持有 FSC 認證。

The following principles apply to all man-made cellulosic fibres, fabrics and textiles, including but not limited to rayon, viscose, lyocell, modal and trademarked product lines produced by our company. This commitment addresses our own operations as well as our procurement practices. This policy supports principles that result in long-term environmental, social and economic benefits.

以下原則適用於本公司生產的所有人造纖維素纖維、面料和紡織品，包括但不限於人造絲、粘膠、萊賽爾、莫代爾和其他註冊商標產品。該承諾針對本公司的運營以及採購行為。本政策支持能為環境、社

會和經濟帶來長期正面影響的原則。

## **Scope of Commitment**

### **承諾範圍**

All of our operations, including companies we control, manage and/or have an investment in – will be in compliance with this policy.

本公司所有運營，包括我們控股、管理和/或投資的企業，皆滿足本政策承諾。

We will source our raw material only through suppliers that are transparent, traceable and comply with this policy.

我們將只從透明、可追溯以及合規本政策的供應商採購原材料。

If suppliers contravene these criteria, we will first engage them to change practices and then re-evaluate our relationship with them if we find that fibre is coming from sources that do not meet this policy.

如果供應商不符合這些要求，我們將先敦促其改變不合規行為，如果發現所採購纖維來自於違背本政策的來源，我們會重新評估合作關係。

## **Conservation of Ancient & Endangered Forests<sup>i</sup> and Intact Forest Landscapes<sup>ii</sup>:**

保護原始瀕危森林<sup>i</sup> 和完整森林景觀<sup>ii</sup>

FORMOSA CHEMICALS & FIBRE CORPORATION supports a future that does not use ancient and endangered forest for dissolving pulp to make cellulosic fibres. We will, therefore:

台灣化學纖維股份有限公司支持不使用來自于原始瀕危森林的溶解漿生產纖維素纖維。因

此，我們將：

- Assess our existing use of wood pulp and fibre and ensure that we are not sourcing fibres made from ancient and endangered forests areas such as the Canadian and Russian Boreal Forests; Coastal Temperate Rainforests; tropical forests and peatlands of Indonesia, the Amazon and West Africa,

or endangered species habitat.

- 評估本公司現有的木漿和纖維採購，確保現有採購沒有來自于原始瀕危森林的原材料，比如加拿大和俄羅斯北方林、沿海溫帶雨林、印尼、亞馬遜和西非的熱帶雨林和泥炭地、或瀕危物種棲息地。
- Work with our fibre suppliers to phase out and find suitable alternatives to any fibre sourced from these regions.
- 與纖維供應商合作，消除來自於這些地區的原料採購，尋找合適的替代產品。
- Eliminate sourcing fibre from other controversial sources including companies that are logging forests illegally<sup>iii</sup> and from tree plantations established after 1994 through the conversion or simplification of natural forests.
- 消除來自於其他爭議性來源的纖維採購，包括非法伐木<sup>iii</sup>公司以及1994年以後通過天然林轉化或簡化而來的種植林。

## **Recognizing, respecting and upholding human rights and the rights of communities**

### **認可、尊重和支持人權及社區權利**

We will request that our suppliers respect the Universal Declaration of Human Rights and acknowledge indigenous and rural communities legal, customary or user rights to their territories, land, and resources.<sup>iv</sup> To do so, we require that our suppliers acknowledge the right of Indigenous People and rural communities to give or withhold their Free, Prior and Informed Consent (FPIC) before new logging rights are allocated or tree plantations are developed, resolve complaints and conflicts, and remediate prior human rights violations through a transparent and accountable grievance mechanism and mutually agreeable dispute resolution process.

本公司將要求供應商尊重《世界人權宣言》，認同原住民和當地社區對區域、土地和資源的合法、傳統或使用的權利。<sup>iv</sup> 為此，本公司要求供應商在獲得新的伐木許可或開發種植林之前認可原住民和當地社區給予或拒絕給予“事先知情同意”的權利，解決糾紛和衝突，通過透明的、可信的投訴機制和雙方都接受的糾紛解決程式來糾正過

去發生的侵犯人權的問題。

## **Innovative and Alternative Fibre Development**

### **開發創新性和替代性纖維**

We will collaborate with Canopy, innovative companies and suppliers to explore and encourage the development of fibre sources that reduce environmental and social impacts. Where appropriate, we will play an active role in the research and development and eventual adoption of commercial scale production of pulp and cellulosic fibre made from alternative fibre sources such as agricultural residues<sup>v</sup> and recycled fibres.

本公司將與 Canopy、創新技術公司和供應商合作，共同開發和激勵能減小環境和社會影響的纖維材料研發。如遇合適機會，我們將積極研發並最終實現用替代性纖維（比如農業剩餘物<sup>v</sup>和回收纖維）生產的漿粕和纖維素纖維的商業量產。

## **Advocacy for Conservation Solutions**

### **支持森林保護方案**

Working with Canopy we will support collaborative and visionary system solutions that protect remaining ancient and endangered forests such as the Coastal Temperate Rainforests of Vancouver Island and Great Bear Rainforest<sup>vi</sup>, Canada's Boreal Forests<sup>vii</sup>, and Indonesia's Rainforests.<sup>viii</sup>

我們將與 Canopy 一道共同支持多方參與的長期森林保護方案，保護全球尚存的原始瀕危

森林，比如溫哥華島沿海溫帶雨林、大熊雨林<sup>vi</sup>、加拿大北方林<sup>vii</sup>和印尼的雨林<sup>viii</sup>。

## **Forest Certification**

### **森林認證**

We will preference fibre sourced from forests that are responsibly managed forests, certified to the Forest Stewardship Council (FSC) certification system. FSC certified plantations<sup>ix</sup> are part of the solution.

本公司將優先選擇獲得森林管理委員會認證的負責任管理的森林材料，其中包括優先選擇獲得 FSC 認證的種植林<sup>ix</sup>。

## **Transparency, Traceability and Verification**

### **透明性、可追溯性和審核**

We will ensure the transparency & traceability of our own operations and supply chains by 2019, and will identify the origin of our raw material sourcing, including pulp and plantations/wood fibre, through mapping our entire supply chain (chain of custody) back to the mills, plantations, and forest areas. We will work with stakeholders to develop third party verification systems of our operations and supply chain and be verified low risk of sourcing from ancient & endangered forest by 2020.

本公司將在 2019 年前實現自身運營和供應鏈的透明性和可追溯性，形成可追溯到工廠、種植林和森林地區的供應鏈（監管鏈），以便追蹤原材料（包括漿粕、種植林/木纖維）的採購來源地。我們將與利益相關方協作，開展針對公司運營和供應鏈的第三方審核，確保 2020 年之前實現原始瀕危森林零採購的低風險。

## **Reduction of Greenhouse Gas Footprint**

### **減小溫室氣體足跡**

Recognizing the importance of forests and peatlands as carbon storehouses, we will support initiatives that advance forest conservation to reduce the loss of high carbon value forests, by encouraging vendors and suppliers to avoid harvest in these areas, and by giving preference to those that use effective strategies to actively reduce their greenhouse gas footprint.

本公司知曉森林和泥炭地作為碳彙儲存地的重要性，將鼓勵供應商避免從原始瀕危森林採伐，優先選擇採取措施、積極減小溫室氣體足跡的供應商，支持推進森林保護並減少高碳匯價值森林的損失。

## **Pollution Prevention**

### **減少污染**

Pulp and viscose manufacturing is a resource-intensive process that can lead to air and water emissions that impact overall environmental quality. This policy does not address these other critical environmental issues,

however, we will invest in and use the cleanest dissolving pulp and viscose manufacturing technology.

漿粕和粘膠的生產是資源密集型的過程，極有可能因廢氣廢水的排放而影響環境質量。本政策雖不針對這些同樣關鍵的環境問題，但我們將大力投資並使用清潔的溶解漿和粘膠生產技術。

## Communication

### 宣傳

We recognize the benefit of creating environmental awareness among our customers, employees and peers. As such, we will highlight our environmental efforts on our website and in public communications.

我們知曉在客戶、員工和同行之間提高環保意識的重要性。因此，本公司將在官網和公眾場合宣傳我們在環保方面作出的努力。

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27 May 2019

M. S. Lu.

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Assistant Vice President

<sup>i</sup> Ancient and Endangered Forest Ancient and endangered forests are defined as intact forest landscape mosaics, naturally rare forest types, forest types that have been made rare due to human activity, and/or other forests that are ecologically critical for the protection of biological diversity. Ecological components of endangered forests are: Intact forest landscapes; Remnant forests and restoration cores; Landscape connectivity; Rare forest types; Forests of high species richness; Forests containing high concentrations of rare and endangered species; Forests of high endemism; Core habitat for focal species; Forests exhibiting rare ecological and evolutionary phenomena. As a starting point to geographically locate ancient and endangered forests, maps of High Conservation Value Forests (HCVF), as defined by the Forest Stewardship Council (FSC), and of intact forest landscapes (IFL), can be used and paired with maps of other key ecological values like the habitat range of key endangered species and forests containing high concentrations of terrestrial carbon and High Carbon Stocks (HCS). (The Wye River Coalition's Endangered Forests: High Conservation Value Forests Protection – Guidance for Corporate Commitments. This has been reviewed by conservation groups, corporations, and scientists such as Dr. Jim Stritholt, President and Executive Director of the Conservation Biology Institute, and has been adopted by corporations for their forest sourcing policies). Key endangered forests globally are the Canadian and Russian Boreal Forests; Coastal Temperate Rainforests of British Columbia, Alaska and Chile; Tropical forests and peat lands of Indonesia, the Amazon and West Africa. For more information on ancient and endangered forests, please go to: <https://canopyplanet.org/tools/forestmapper/>

原始瀕危森林指完整森林景觀、天然稀有林、由於人類活動導致其稀有的森林類型和/或其他對維持生物多樣性及生態完整性具有關鍵生態價值的森林。瀕危森林包括：完整森林景觀、殘餘森林和核心恢復區、景觀連接度、稀有森林、物種豐富的森林、稀有瀕危物種聚集的森林、特有森林、重點物種的核心棲息地、表現出稀有生態和演化現象的森林。為了定位原始瀕危森林，可使用 FSC 森林管理委員會定義的 HCV 高保護價值森林地圖，以及高保護價值資源網路和 IFL 完整森林景觀，同時還可參考其他關鍵生態價值和碳匯價值的地圖，比如重要瀕危物種棲息地、高陸地碳匯的森林、泥炭地和高碳匯林 HCS。

(The Wye River Coalition 懷伊河聯盟的瀕危森林，高保護價值森林的保護-企業承諾指南。該指南已經獲得環保組織、企業和諸如生物保護研究所的主席兼執行總裁 Jim Stritholt 博士等科學家的審閱，並在眾多企業的森林採購政策中採用。) 關鍵瀕危森林包括加拿大和俄羅斯北方林，英屬哥倫比亞、阿拉斯加和智利的沿海溫帶雨林，印尼、亞馬遜和西非的熱帶雨林和泥炭地。更多原始瀕危森林的定義，請參考 <http://canopyplanet.org/index.php?page=science-behind-the-brand>

<sup>ii</sup> Intact Forest Landscape (IFL) is an unbroken expanse of natural ecosystems within the zone of current forest extent, showing no signs of significant human activity, and large enough that all native biodiversity, including viable populations of wide-ranging species, could be maintained. (<http://www.intactforests.org/world.map.html>)

完整森林景觀 IFL 是指沒有遭到破壞的自然生態系統，沒有大量人類活動，面積大因此可以維持所有自然生物多樣性，包括廣泛分佈著不同物種。( <http://www.intactforests.org/world.map.html> )

<sup>iii</sup> Legal forest management is management that complies with all applicable international, national, and local laws, including environmental, forestry, and civil rights laws and treaties.

合法森林管理指符合所有國際、國家和當地的適用法律法規的森林管理，包括環境、林業、民權等法律和條約。

<sup>v</sup> Agricultural residues are residues/by-products left over from food production or other processes and using them maximizes the lifecycle of the fibre. Depending on how they are harvested, fibres may include flax, bagasse, and hemp.

農業剩餘指的是食品生產或其他加工過程中產生的廢料/副產品。迴圈使用能最大化纖維的生命週期。這些纖維可包括亞麻、甘蔗和大麻，採伐方式不一。

<sup>vi</sup> Coastal temperate rainforests originally covered 0.2% of the planet, and now less than 25% of these forests remain in their original state. We will consider sourcing from areas within the coastal temperate rainforests where credible conservation solutions are finalized. A legal conservation plan is now finalized for the Great Bear Rainforest a region of 6.4 million hectares within the Coastal Temperate Rainforest zone of British Columbia Canada. On February 1st, 2016 the Government of British Columbia, First Nations, environmental organizations and the forest industry announced an Ecosystem-based Management framework that sets 85% of this region off limits to logging and stringent logging rules in the other 15%. Provided these agreements are fully implemented – sourcing from this ancient and endangered forest region can be considered to be within sustainable levels. We encourage ongoing verification of this through renewal of Forest Stewardship Council certification by the logging tenure holders in the region.

[Note this footnote is key, otherwise the policy would suggest you would not source from this region, despite the conservation agreements in place, which would be a disincentive for forest companies to make these type of conservation agreements in other ancient and endangered forests].

沿海溫帶雨林曾經占地球面積的 0.2%，如今只有不到 25%的面積原地保存下來。目前只有落實了權威森林保護解決方案的沿海溫帶雨林才有採伐許可。加拿大英屬哥倫比亞沿海溫帶雨林區域內占地 640 萬公頃的大熊雨林已經完成保護方案的立

法化。2016 年 2 月 1 日英屬哥倫比亞政府、第一民族、環保組織和森林產業共同發佈一項生態系統管理框架，約定該區域85%為禁伐區，另 15%的區域具有嚴格的伐木規定。只有這些協議正完全落實實施，從該原始瀕危森林地區採購才可視為合規。我們鼓勵在該區域獲得伐木許可的公司定期更新 FSC 認證，以保持合規性。

【此項註腳非常重要，需特別關注，不然即使制定了森林保護協議，本政策也會判定該片區的採購不合規，這將不利於伐木公司在其他原始瀕危森林地區制定類似森林保護方案。】

<sup>vii</sup> Canada's Boreal Forest contain the largest source of unfrozen freshwater world wide and are part of the world's largest terrestrial carbon sink – equivalent to 26 years worth of global fossil fuel use. Canopy is committed to working collaboratively on the establishment of new protected areas, the protection of endangered species and the implementation of sustainable harvesting in Canada's Boreal Forest.

This region is slated for the largest increase in mills for dissolving pulp that goes into cellulose-based fabrics.

加拿大北方林含有全球最大的非凍淡水資源，也是全球最大的陸地碳彙地之一—相當於全球連續 26 年的化石能源消耗量。

Canopy 致力於與各方合作，在加拿大北方林建立新的保護區，保護瀕危物種，執行可持續性伐木的政策。目前該地區有越來越多的生產

纖維素面料所需的溶解漿廠，屬於全球最熱點的建廠地區。

<sup>viii</sup> Indonesia experiences the second highest rate of deforestation among tropical countries, with the island of Sumatra standing out due to the intensive forest clearing that has resulted in the conversion of 70% of the island's forested area (FAO Forest Assessment 2010; Margono, B.A. et al. 2012). Indonesia is home to 10% of the world's mammals, 16% of bird species, 11% of plant species and 70 tons of carbon. Canopy and our NGO partners are focused on forwarding lasting protection of the Leuser Ecosystem – the last place on earth where orangutans, tigers, elephants, rhinoceros and sun bears still co-exist.

印尼是全球森林砍伐率排名第二的熱帶國家。蘇門答臘島首當其衝，由於大量的森林砍伐，蘇門答臘島 70%的森林面積被轉化(FAO 森林評估 2010; Margono, B.A. et al. 2012)。印尼擁有全球 10%的哺乳動物、16%的鳥類物種、11%的植物物種以及 70 噸碳彙儲量。Canopy 和其他 NGO 合作夥伴正努力推進勒塞爾生態系統的長期保護方案，勒塞爾是猩猩、老虎、大象、犀牛和太陽熊仍然共存的最後一片生態地。

<sup>ix</sup> Plantations area areas that have been “established by planting or sowing using either alien or native species, often with few species, regular spacing and even ages, and which lack most of the principal characteristics and key elements of natural forests” . Plantations prior to 1994 are often FSC certified. Source FSC:

種植林：“通過種植或播種外來物種或本地物種，通常使用一種或極少種類的物種，種植間隔相同、樹木年齡相同，但缺少天然林的大部分主要特徵和關鍵成分。” 資訊來源 FSC 網站：<https://ic.fsc.org/en/document-center/id/335>