編者言

綠色技能新浪潮來了！
臺灣技職援助如何成為「榮邦共榮」的永續引擎？

不知道你最近有沒有發現，街頭上的電動公車越來越多，便利商店的咖啡蓋悄悄換成了可分解材質，甚至連熟悉的加油站都開始蓋起充電樁？這些看似日常的轉變，其實都是在提醒我們，一場「綠色轉型」正悄然發生在生活周遭。

然而，當我們享受綠色轉型帶來的便利時，全世界，尤其是許多開發中國家，正面臨一項更為現實的挑戰：當公車換成了電動車、太陽能板陸續架設完成後，未來究竟由誰負責維修、保養與持續運作？

國際勞工組織（ILO）的數據顯示，全球綠色職缺的成長速度已超過整體勞動市場的兩倍，但具備「綠色技能」的人才供給卻遠遠不足。這樣的人才缺口在開發中國家尤為明顯。當地技職教育資源原本就相對有限，如果未能及時培養因應產業轉型所需的新技能，不僅可能面臨綠色設備建置後缺乏維運人才的困境，廣大的基層勞工也可能因產業快速轉型而失去原有就業優勢、面臨遭淘汰的危機。正如聯合國秘書長古特瑞斯（António Guterres）所提醒的：「邁向低碳經濟固然帶來龐大機會，但更重要的是我們得協助人們學會新技能，確保沒有人在轉型的過程中被落下。」

也因此，傳統的「技術與職業教育訓練」（TVET）不再只是傳授一技之長，而逐漸成為協助國家推動產業升級、培育人才及創造就業的重要政策工具。呼應此一趨勢，外交部積極推動「榮邦計畫」，並透過涵蓋新能源、智慧新農業、智慧交通等領域的「八大旗艦計畫」，將臺灣的產業實力與技職培訓經驗轉化為國際合作的具體能量。如何進一步將這些優勢建構為可延續、可深化的援助模式，正是臺灣在全球永續發展進程中擴大影響力的重要契機！

本期以〈從綠色就業到永續技能：技職教育援助的全球實踐與臺灣經驗〉為題，匯集國合會、智庫及學界的多元觀點，從政策、實務與國際經驗等不同層面，探討技職援助在綠色轉型浪潮下的新角色。

在實務營運與政策演進上，國合會展現了臺灣技職援助已從早期的「投入導向」，轉向結合制度建構、產業對接與在地培力的永續模式；從國際脈絡來看，美、歐、日等主要捐助國均積極將綠色援助與自身科技及產業優勢緊密結合，顯示臺灣未來可進一步善用綠色數位科技、循環經濟等領域的強項，為援外策略創造更高的附加價值。

第一線案例則以巴拉圭推動電動運具轉型為例，示範了臺灣如何透過國合會與產學合作，將合作範圍由車輛引進延伸至在地高壓電維修、電池管理系統 (BMS) 診斷等在地人才培育，使

硬體建置與技能養成相互銜接，具體展現「Taiwan Can Help」如何轉化為創造在地綠色就業的實際行動。此外，借鏡日本「職人精神產業鏈」與韓國「數位綠色雙轉型」經驗，也為臺灣如何結合 ICT 與智慧農業優勢，建立「臺式智慧監控與技能賦能」的混合援助模式，提供值得參考的方向。

而在《焦點企劃》部分分別專訪貝里斯駐臺大使梅凱瑟（Katherine Vanessa Meighan）及國家環境研究院院長張順欽。專訪中，梅凱瑟大使指出，貝里斯正全力推動綠色轉型與藍色經濟（如深海漁業及海洋保育），並打造整合政府、教育機構與企業的技職教育（TVET）「三片式輪圈」模型，確保青年掌握符合市場需求的技能。同時，大使也高度肯定臺貝合作，期盼借鏡臺灣將教育與產業緊密連結的成功經驗，在數位技能、永續觀光等領域深化合作，攜手培育有能力面對氣候變遷與產業轉型的新世代青年。張院長則深入剖析全球淨零轉型下「綠色技能」的跨域與專業需求，並分享國環院如何透過跨校聯盟與模組化課程，推動「淨零綠領人才」培育。針對臺灣技職教育與產業之間的落差，張院長亦提出具體解方，並期許未來能結合國合會等國際合作網絡，將臺灣豐富的人才培訓與證照數位化經驗推向國際，開創具臺灣特色的「綠色技職外交」新航道！

綜觀各方觀點可以發現，國際技術合作與援助的內涵正經歷深刻轉變，從過去較著重單向的「資源挹注」，逐步走向與夥伴國「共創能力建構與永續發展」的雙贏夥伴關係。技職援助的價值，也因此不再止於「教會一項技能」，而是進一步協助夥伴國培育能夠支撐產業轉型的人才、制度與在地能力。

展望未來，臺灣將持續以「制度化、在地化、產業協同、永續創新」為推動軸心，發揮自身產業韌性、技術優勢與彈性合作等特色，成為全球綠色轉型進程中不可或缺的「綠色人才培育夥伴」，同時深化外交部「榮邦計畫」與「八大旗艦計畫」的落地實踐，將臺灣的產業硬實力與永續軟實力，轉化為鞏固邦誼、鏈結全球綠色供應鏈的堅實能量。

期盼本期專題能為關注國際開發援助、技職教育與綠色轉型的讀者，提供前瞻的視角與啟發！

A New Wave of Green Skills: How Taiwan's TVET Assistance is Becoming a Sustainable Engine for Prosperity and Mutual Growth

Have you noticed lately that electric buses are becoming a common sight on the streets, convenience store coffee lids have quietly switched to biodegradable materials, and even neighborhood gas stations are installing EV charging piles? These seemingly small daily shifts are reminders that a green transition is unfolding all around us.

Yet, as we enjoy the conveniences brought by this green transition, the world—especially many developing nations—faces a much more pressing challenge. Once buses are replaced with electric vehicles and solar panels are fully installed, who will be responsible for their future maintenance, repair, and continuous operation?

According to data from the International Labour Organization, the growth rate of green jobs globally is more than double that of the overall labor market. However, the supply of talent equipped with green skills falls drastically short. This talent gap is particularly pronounced in developing countries. Where local technical and vocational education and training (TVET) resources are already limited, failing to cultivate new skills in a timely manner to keep pace with industrial transition could lead to severe consequences. Beyond facing a critical shortage of maintenance personnel after green infrastructure is built, the vast base of lower-level workers might lose their traditional employment advantages and face the threat of displacement due to rapid industrial shifts. As United Nations Secretary-General António Guterres cautioned: "Moving to a low-carbon economy offers immense opportunities, but most importantly, we must help people learn new skills to ensure no one is left behind in the transition."

Consequently, traditional TVET is no longer merely about imparting a practical skill; it has increasingly evolved into a vital policy instrument for assisting nations in promoting industrial upgrading, cultivating talent, and creating jobs. Echoing this trend, Taiwan's Ministry of Foreign Affairs (MOFA) has actively promoted the Diplomatic Allies Prosperity Project. Through the Eight Flagship Programs covering sectors such as new energy, smart agriculture, and smart transportation, Taiwan is converting its industrial strength and TVET experience into international cooperation. How to further construct these strengths into a sustainable and deep rooted assistance model presents a crucial opportunity for Taiwan to expand its influence in the global movement toward sustainable development.

Centering on the theme of green jobs, sustainable skills, and Taiwan's TVET experience, this issue brings together diverse perspectives from the TaiwanICDF, think tanks, and academia. It explores the evolving role of TVET assistance amidst the wave of green transition across policy, practice, and international experience.

In terms of operational practices and policy evolution, the TaiwanICDF has demonstrated that Taiwan's TVET assistance has evolved from an input-oriented focus toward a sustainable model that integrates institutional capacity building, industrial alignment, and local empowerment. From an international perspective, major donor nations—including the U.S., European countries, and Japan—are actively aligning green aid with their technological and industrial strengths. This indicates that Taiwan can further leverage its key strengths in green digital technologies and the circular economy to generate higher value-added foreign aid strategies.

Frontline case studies, such as Paraguay's transition toward electric mobility, demonstrate how Taiwan—through the TaiwanICDF and industry-academia collaboration—has extended the scope of cooperation from vehicle introduction to local talent cultivation, including high-voltage electrical maintenance and battery management system diagnostics. By bridging hardware installation with skill development, this concretely showcases how Taiwan can help is transformed into real action that creates local green jobs. Furthermore, drawing insights from Japan's artisan spirit value chain and South Korea's digital and green twin transition, Taiwan can combine its advantages in ICT and smart agriculture to establish a hybrid assistance model of Taiwanese-style smart monitoring and skill empowerment.

In our special report section, we have included special interviews with Her Excellency Katherine Vanessa Meighan, Ambassador of Belize to the ROC (Taiwan), and Dr. Shun-Chin Chang, President of the National Academy for Environmental Research (NAER).

In her interview, Ambassador Meighan highlights that Belize is fully driving its green transition and blue economy while establishing a TVET three-part wheel that integrates government, educational institutions, and enterprises to ensure youth acquire market-relevant skills. At the same time, the Ambassador highly commended Taiwan-Belize cooperation and expressed hopes to draw on Taiwan's successful experience in closely linking education with industry. She looks forward to deepening collaboration in digital skills and sustainable tourism to jointly empower a new generation of youth equipped to navigate climate change and industrial transformation.

Dr. Chang provided an in-depth analysis of the cross-disciplinary and specialized demands for green skills under the global net-zero transition. He shared how NAER is promoting the cultivation of net-zero green collar talent through cross-university alliances and modular courses. Addressing

the skill gaps between TVET education and industry in Taiwan, Dr. Chang proposed concrete solutions and expressed his aspiration to take Taiwan's rich experience in talent training and credential digitization to the international stage, pioneering a new path for green TVET diplomacy!

Looking across all perspectives, the essence of international technical cooperation and assistance is undergoing a profound shift—from a past emphasis on one-way resource injection to a win-win partnership of co-creating capacity building and sustainable development with partner countries. The value of TVET assistance no longer stops at teaching a skill, but extends to helping partner nations build the talent, systems, and local capabilities required to support industrial transformation.

Looking ahead, Taiwan will continue to center its efforts on institutionalization, localization, industrial synergy, and sustainable innovation. By giving full play to its industrial resilience, technological edge, and flexible cooperation models, Taiwan aims to serve as an indispensable green talent cultivation partner in the global green transition. Simultaneously, Taiwan will deepen the implementation of MOFA's Diplomatic Allies Prosperity Project and the Eight Flagship Programs, translating Taiwan's industrial hard power and sustainable soft power into solid strength that consolidates diplomatic ties and connects with global green supply chains.

We hope this issue offers forward-looking perspectives and inspiration to readers interested in international development cooperation, TVET, and the green transition!