出國報告(出國類別:國際會議)

## 國際影響評估協會 (IAIA, International Association for Impact Assessment) 西元 2023 年研討會出 國報告

服務機關:行政院環境保護署

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# 國際影響評估協會(IAIA, International Association for Impact Assessment)西元 2023 年研討會 出國報告摘要

國際影響評估協會(International Association for Impact Assessment, IAIA)為國際性民間組織,主要致力於國際間各類影響評估方法及制度之研析探討,自西元 1980 年成立以來,係國際性民間組織,關注於環境、社會、經濟、文化、健康風險及政策環境影響評估等相關議題,會員來自全球 100 個以上國家,歐盟各國、美國、加拿大、澳洲及亞洲各國均積極參與該年會及相關活動。本署自西元 2000 年起每年均指派 1~2 位參與該協會召開之研討會,惟近年因嚴重特殊傳染性肺炎(COVID-19)疫情,西元 2020 年至 2022 年均未能出席國際影響評估協會所舉辦之國際研討會,西元 2023 年全球各國進入後疫情新階段,爰派員出席本次研討會,俾瞭解國際間環境影響評估發展趨勢,作為我國環境影響評估制度檢討及改進之重要參考。

本屆會議聚焦於「通過影響評估及領導力實現加速轉型及保持彈性應對逆境之復原力」,近年來全球氣候變遷、人道主義危機、糧食危機、能源轉型、傳染疾病(COVID-19)等各種逆境頻繁,這些逆境具有多變、不確定性、複雜性等特性。故「彈性」為21世紀全球最重要新興關鍵詞之一,自生態系統領域發展,且普及運用於環境影響評估、社會和健康影響評估、國際發展、氣候變遷、天然災害及人為災難應變等各個領域。政府、企業及社會必須在各種變革中不斷的調適,本次會議主旨係討論於影響評估和領導力過程中,如何於逆境中提出立即、有影響力且具有彈性之解決方案,加速轉型並有效的應對逆境。

鑑於我國目前積極推動能源轉型,刻正辦理離岸風力發電3階段

推動作業,本署首先於 105 年 12 月 28 日作成「離岸風電區塊開發政策評估說明書」徵詢意見,切實盤點出離岸風電開發共通性環境議題及因應對策,納入後續開發行為規劃及環評審查之上位參考基準,故本次特以「落實環境影響評估達成環境保護與經濟發展兼籌並顧,以臺灣的離岸風力發電計畫環境影響評估為例」為題目投稿海報發表,進而與國際間分享、交流實務經驗及蒐集建議,作為本署後續制度推動之參考,同時提升我國國際間能見度。

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# 國際影響評估協會(IAIA, International Association for Impact Assessment)西元 2023 年研討會出國報告

#### 壹、前言及目的

國際影響評估協會(International Association for Impact Assessment, IAIA)成立於西元 1980 年,為一國際性民間組織,其涉及領域涵括環境、社會、經濟、文化、生態及健康風險等各項領域,在國際間之影響評估範疇中,為最具規模之組織機構。

該協會本(112)年 5 月 8 日至 5 月 12 日於馬來西亞古晉召開「第 42 屆國際影響評估協會研討會」,本次會議聚焦於面對現今社會氣候 變遷、全球人道主義危機、糧食危機、能源轉型、傳染疾病(COVID-19)等各種逆境頻繁,這些逆境具有多變、不確定性、複雜性等特性。 政府、企業及社會必須在各種變革中不斷的調適,本次會議主旨係討論於影響評估和領導力過程中,如何於逆境中提出立即、有影響力且具有彈性之解決方案,加速轉型並有效的應對逆境,故擬定「通過影響評估及領導力實現加速轉型及保持彈性應對逆境」為會議主軸,並透過主題論壇、工作坊、圓桌會議、世界咖啡廳方式、論文發表會議案例分享等形式,分不同會場討論,與會人員可以選擇當日有興趣之議題參與,藉此瞭解其他國家在影響評估領域之意見及案例。因與本署辦理環評審查所涉及議題相關,並可得知目前國際間環境影響評估主要發展趨勢,有助於推動相關業務。

鑑於我國目前積極推動能源轉型,刻正辦理離岸風力發電3階段推動作業,本署首先於105年12月28日作成「離岸風電區塊開發政策評估說明書」徵詢意見,切實盤點出離岸風電開發共通性環境議題及因應對策,納入後續開發行為規劃及環評審查之上位參考基準,本

次故特以「落實環境影響評估達成環境保護與經濟發展兼籌並顧,以 臺灣的離岸風力發電計畫環境影響評估為例」為題目投稿海報發表, 進而與國際間分享、交流實務經驗及蒐集建議,作為本署後續制度推 動之參考,同時提升我國國際間能見度。

#### 貳、行程規劃及參與人員

#### 一、行程規劃

第 42 屆國際影響評估協會之會議時間訂於本年 5 月 8 日至 5 月 11 日,會議地點規劃於馬來西亞古晉「Borneo Convention Centre Kuching, BCCK」,辦理為期 4 日的研討會議。

因本次研討會於馬來西亞古晉召開,為馬來西亞砂拉越的首府, 為砂拉越境內第一大城市,城市位於在婆羅洲全島(東馬來西亞),囿 於臺灣目前尚無直飛馬來西亞古晉之班機,必須由馬來西亞吉隆坡機 場轉機前赴會議地點,爰本次環保署參與人員規劃行程表及摘要如表 1。

表 1 第 42 屆國際影響評估協會(IAIA)研討會行程表

日期	地點	行程摘錄
112年5月6日	臺灣臺北至 馬來西亞古 晉	啟程,桃園國際機場前往馬來西亞 吉隆坡國際機場轉機,搭機前往馬 來西亞古晉國際機場
112年5月7日	馬來西亞古	前往會場進行海報刊登準備作業
112年5月8日	馬來西亞古晉	<ol> <li>開幕全體會議,主題演講「通過影響評估和領導力增強韌性」。</li> <li>参加研討會,並以海報展示及說</li> </ol>
		明方式分享「落實環境影響評估 達成環境保護與經濟發展兼籌並

日期	地點	行程摘錄
		顧,以臺灣的離岸風力發電計畫環境影響評估為例」之經驗,與 其他國家經驗交流並分享我國環境影響評估制度,期能借鏡國際 經驗,並宣傳我國環境影響評估 制度之績效。
112年5月9日	馬來西亞古晉	1. 主題論壇:環境和社會政策的進步:多邊開發銀行的觀點。
		2. 主題論壇:環評領導實踐工作坊。
		3. 東南亞國家協會日(東盟日)主 題會議:以圓桌會議方式討論在 影響評估中呈現彈性、可持續性 和包容性作法,並針對如何整合 氣候變化、人權和生物多樣性問 題納入影響評估作業內進行交 流。
		4. 論文發表會議:選擇主題「亞洲 政策環境影響評估:戰略性、空 間性和可持續性」。
112年5月10日	馬來西亞古 晉	1. 主題論壇:選擇主題「繁榮、人類和地球的全球評估」。
		2. 小組討論:選擇主題「可持續金融和 ESG - 雙重重要性評估」。
		3. 小組討論:選擇主題「失敗案例: 國際金融機構的前 5 大投訴以及 如何避免它們」。
		4. 論文會議:選擇主題「生態復原 力和影響評估:應用和挑戰」。
112年5月11日	馬來西亞古	1. 主題論壇,擇選主題「影響評估

日期	地點	行程摘錄
	晉	是否足夠靈活以平衡複雜綠色項 目審查的緊迫性」。
		<ol> <li>主題論壇,擇選主題「通過定性 研究設計的進步建立影響評估之 彈性作法」。</li> </ol>
		3. 專題會議,擇選主題「戰略環境 和社會評估:印度尼西亞的能源 轉型」。
		4. 專題會議,擇選主題「海洋環境 影響評估:未來的挑戰和路線 圖」。
		5. 閉幕式。
112年5月12日	馬來西亞古 晉至臺灣臺 北	於馬來西亞古晉搭乘馬來西亞航空 (中華航空飛)班機返回桃園國際 機場

#### 二、參與人員

本案係依「行政院環境保護署因公出國人員選派作業要點」規定, 指派與本屆研討會主題相關,且負責辦理環境影響評估審查業務之李 宗璋薦任科員及陳冠宇薦任技士與會,該員相關業務經驗及近2年績 效如表2。

表 2 第 42 屆國際影響評估協會(IAIA)研討會與會成員介紹

環保署與會同仁	執行相關業務績效
李宗璋薦任科員	1. 辦理近 2 年開發行為個案環境影響評估審
	查業務,包括:國道7號高雄路段計畫、
	高雄都會區大眾捷運系統都會線(黃線)
	建設計畫、桃園都會區大眾捷運系統棕線
	(桃園-龜山-迴龍段)、麥寮汽電公司燃
	氣複循環發電機組、液化天然氣接收站新

建工程及麥寮工業專用港變更計畫、基隆 南港間通勤軌道建設計畫、北竿機場跑道 改善計畫、麥寮風力發電機組及西北土堤 新建工程計畫、臺灣桃園國際機場第三跑道 2 次、離島式工業區、六輕四期擴建計畫、中山高速公路部分路段、國道 6 號、萬大-中和-樹林地區捷運系統環境影響說明書等環境影響差異分析報告之環評審查。

2. 辦理「能源、軍事、醫療、文教、旅館、遊樂區、案件」等判認應否實施環評作業及環評相關法規釋示、自主研究計畫及其他執行環影響評估作業事宜。

#### 陳冠宇薦任技士

- 1. 辦理近 2 年開發行為個案環境影響評估審查業務,包括:協和發電廠更新改建、核二廠除役評估報告書、大甲溪光明抽蓄水力發電、彰濱工業區線西西三區環保用地、屏東科技產業園區(擴區)及加能、苗栗二、海安、渢汎、達天離岸風力發電計畫等環說書、大彰化西南、海峽離岸風力發電、大潭燃氣火力發電、寶山高爾夫球場範圍變更等環差、高雄和發產業園區、福隆濱海旅館區、梨山風景特定區等變更內容對照表之環評書件審查;擬定彰化水五金田園生產聚落特定區政策環評之意見徵詢。
- 2. 辦理「111年度環評書件查詢系統管理維護專案工作計畫」履約管理事宜。

#### 參、關於馬來西亞古晉

馬來西亞(Malaysia)為是一個位於東南亞的多元種族國家,其中國土被南海分為東西兩大部分:西半部的馬來半島分為十一個州及二個聯邦直轄區吉隆坡和布城,常稱為「西馬」,北接泰國,南部隔著柔佛海峽,以新柔長堤和第二通道與新加坡連接;而東半部位於世界第三

大島婆羅洲的北部,分屬沙巴和砂拉越兩個邦及納閩聯邦直轄區,常被稱為「東馬」。南鄰印度尼西亞的蓋瑞曼丹,而汶萊則與東馬三面接壤。首都位於吉隆坡,是馬來西亞人口中最密集和最繁榮的地區,聯邦政府所在地則位於布城。馬來西亞的地理位置接近赤道,其氣候於亞洲熱帶型雨林氣候(馬來西亞國土範圍如圖 1)。



圖 1 馬來西亞國土分布圖(資料來源:馬來西亞觀光局在台辦事處)

古晉為砂拉越的首府,位於婆羅洲島上砂拉越的西南邊的砂拉越河上(圖 2),距離海岸大約有 32 公里。古晉擁有良好規劃的公園、一些宏偉的殖民地建築、多姿多彩的市場以及一處熙熙攘攘、人山人海的海濱。另古晉以貓知名,更有「貓城」之綽號,因「Kuching」的馬來語諧音「Kucing」即是貓之意,於城市鬧區設立各種貓咪造型的雕塑,以吸引遊客,如在古晉唐人街口的大白貓雕像便是古晉著名的地標之一(圖 3、4)。



圖 2 古晉砂拉越河風景圖



圖 3 古晉議會大廈



圖 4 古晉貓城雕像

#### 肆、第42 屆國際影響評估協會研討會概要

#### 一、會議主題

氣候變遷議題是 21 世紀全球性生態系統和人類生存繁榮面臨可 否持續的重大挑戰。氣候變化衍生的負面影響,加劇了與生態系統退 化相關環境、社會和經濟等層面之問題和挑戰,例如生物多樣性的損 失和變化、土地荒漠化、空氣、水和土地污染等。氣候變遷相較於傳 統影響項目,主要差別性在於影響尺度達到全球性範圍,影響項目從 水資源、食物來源、能源安全到對人權和弱勢群體的影響,全球氣候 變遷引發了居住正義及糧食等重要問題。過往影響評估的專業科學評估方法,以及後續實際進行過程追蹤之執行方式,受到氣候變遷的強烈挑戰,然藉由適當合理之影響評估程序,所獲致之決策資訊將有助於確保未來的發展成果不受當前決定的負面影響,並納入彈性適應措施及方案選擇,以減少和管理氣候變遷的不利影響。

本次會議主題定為「通過影響評估及領導力實現加速轉型及保持彈性應對逆境,實現復原力」,主要探討近年來氣候變遷、全球人道主義危機、糧食危機、能源轉型、傳染疾病(COVID-19)等各種逆境頻繁,這些逆境具有多變、不確定性、複雜性等特性。「彈性」為 21 世紀全球最重要新興關鍵詞之一,自生態系統領域發展,且普及運用於環境影響評估、社會和健康影響評估、國際發展、氣候變遷、天然災害及人為災難應變等各個領域。政府、企業及社會必須在各種變革中不斷的調適,本次會議主旨係討論於影響評估和領導力過程中,如何於逆境中提出立即、有影響力且具有彈性之解決方案,加速轉型並有效的應對逆境。藉由本次研討會呼籲做出實證和務實的貢獻,展示影響力評估和領導力如何在需要立即、有影響力的解決方案的世界中加速轉型並維持復原力。

針對此一全球性變遷影響議題,如何應用納入政府政策影響評估 (SEA)之決策過程,顯得更加重要,有必要彙整過往經驗累積之預 測分析、規劃設計和減輕措施,並將不確定性納入考量。本次研討會 討論四大議題並針對政策制定者提出下列建議事項:

- (一) 加大力度倡導策略性環境評估的應用,特別是提高政府對如何正確使用策略性環評及其帶來的好處的認識。
- (二) 創新和探索政策影響評估應用新方法。
- (三) 應用進一步的研究來闡明策略性環境評估中哪些措施效果 良好以及原因
- (四) 頒布法律,包括政策層面的法律,以更有力地激勵開展策略

性環評。

本次會議除上述主題議題外,亦包括「農林漁牧開發」、「氣候變遷」、「生物多樣性與生態」、「企業治理及風險管理」、「再生能源」、「文化資產」、「災難與衝突」、「健康」、「原住民族群」、「再生能源」、「人權」、「法規層面」、「綠色經濟」及「循環經濟」等議題,本署為汲取各國環境影響評估經驗及作法,投稿「Implement Environmental Impact Assessments (EIAs) to Achieve the Win-Win Situation in "Environmental Protection" and "Economic Development"-with EIAs of Offshore Wind Power in Taiwan as Case Study(落實環境影響評估達成環境保護與經濟發展兼籌並顧,以臺灣的離岸風力發電計畫環境影響評估為例)」題目,期藉參與此次研討會與各國經驗交流,瞭解國際間環境影響評估新知,並提升我國國際能見度。

第 42 屆國際影響評估協會配合本次會議主題,主辦單位繪製了結合國際影響評估協會、全球化影響及西元 2023 年之會議標誌如圖 5。



圖 5 第 42 屆國際影響評估協會設計標誌

#### 二、會議進行方式

本次會議於本年 5 月 8 日至 5 月 11 日,在馬來西亞「Borneo Convention Centre Kuching, BCCK」會議室,辦理為期 4 日的研討會議。本次會議進行方式,因會議議題眾多,主辦單位依各議題之相關

性,透過主題論壇、工作坊、圓桌會議、世界咖啡廳方式、論文發表會議案例分享等形式,分不同會場討論,與會人員可以選擇當日有興趣之議題參與。本次主辦單位因應於馬來西亞舉辦此次研討會,除邀請許多亞洲國家專家學者發表環境影響評估相關研究外,特別安排 5 月 9 日召開「東盟日」座談會、小組討論及圓桌會議等不同形式之活動,該分項座談會係安排讓東南亞國家協會(新加坡、印度尼西亞、馬來西亞、菲律賓、泰國、越南、汶萊、東埔寨、緬甸、寮國)等專家學者齊聚一堂,針對影響評估中呈現彈性、可持續性和包容性作法,並針對如何整合氣候變化、人權和生物多樣性問題納入影響評估運作情形、建設容量及國家體制等議題進行討論,並作經驗分享,人類活動和經濟部門的顯著增加將需要更多的空間和整合以及保護和傳統海洋活動。(詳附件大會手冊資料)。

#### 三、開幕式(Opening plenary)

在 112 年 5 月 8 日開幕式全體會議中,陸續進行開幕表演、貴賓 致詞、馬來西亞原住民民俗表演、主題演講,現場照片如圖 6 至圖 8:

- (一) IAIA23 會議主持人 Professor Lim Weng Marc 開幕致詞。
- (二) 榮譽主席 Professor Sachihiko Harashina 致詞。
- (三) 國際影響評估協會主席: Gabriela Factor 致詞。
- (四)國際影響評估協會執行長: Mr. Gary Baker 致詞。
- (五) Professor Tan Sri Dr. Jemilah Mahmood 主講「Resilience through Impact Assessment and Leadership」

#### (六)綜合座談



圖 6 第 42 屆國際影響評估協會研討會開幕情形



圖 7 第 42 屆國際影響評估協會當地原住民民俗表演



圖 8 第 42 屆國際影響評估協會研討會專題演講

#### 四、主題論壇(Theme Forums)及分組主題報告(Concurrent Sessions)

#### (一)主題論壇:

本屆第 42 屆國際影響評估協會研討會以主題「通過影響評估及領導力實現加速轉型及保持彈性應對逆境」,訂定 9 項關鍵議題,以不同會場邀集各方以論壇方式(含圓桌討論)進行交流、探討,據以分享不同國家之意見及經驗,並交流探討(如圖 9~圖 10):

- 1. 環境和社會政策的進步:多邊開發銀行的觀點(Advancements in environmental and social policies: MDB perspectives)
- 2. 環評領導力實踐研討會(Workshop on EIA leadership practice)
- 3. 東盟針對基於權利的影響評估方法(Rights-based approach to IA in ASEAN)
- 4. 在失敗中前進-國際金融機構項目的 5 大投訴以及如何避免這些投訴(Failing forward: Top 5 complaints for IFI projects and how to avoid them)
- 5. 可持續金融和企業社會責任:雙重重要性評估(Sustainable finance and ESG: Double materiality assessment)
- 6. 對繁榮、人類和地球的全球評估(A global assessment for prosperity, people, and the planet)
- 7. 「簡化」環境評估的努力:是機遇還是威脅?(Efforts to "simplify" environmental assessment: Opportunity or threat?)
- 8. 影響評估是否足夠靈活以平衡複雜綠色項目審查的緊迫性? (Is IA agile enough to balance urgency of reviews of complex green projects?)

9. 通過定性研究設計的進步建立影響評估的彈性(Building IA resilience through advances in qualitative study design)



圖 9 第 42 屆國際影響評估協會研討會主題論壇



圖 10 第 42 屆國際影響評估協會研討會圓桌討論方式

#### (二)分組報告:

本屆研討會共計投稿文章達 205 篇以上,除本次會議討論彈性復原力等關鍵議題外,本次研討會仍延續歷屆一般影響評估項目進行討論(現場參與會議如圖 11),項目包含:

- 1. 東盟議題日(Asian Day):本議題共召開 4 輪會議,分別討論重點如下:
  - (1)第一輪會議將討論彙整出一份東盟環境權利宣言。這由東盟 政府間組織牽頭的討論人權委員會(AICHR)審查環境權的 作用,包括使用和加強影響評估作業及如何執行權利。
  - (2)第二輪會議藉由世界自然基金會湄公河未來基金會合作引導出討論議題,將研究影響評估作業在促進復原力、包容性方面的作用和東盟的可持續發展,並將討論重點著重於基礎設施發展推動作業。
  - (3)第三輪會議探討了領導力的機會將氣候變化、人權和生物多 樣性問題納入東盟的影響評估作業。
  - (4)第四輪會議彙整前述三輪會議討論內容,提供未來東盟政策 決策高層總結一系列可執行舉措概述,並以圓桌方式綜整討 論開發環境新方法線性基礎設施的社會影響評估,納入氣候 變化進入影響評估作業,並製定東盟框架環境權,其中包括 程序性和實質性要素。圓桌會議還提供至少 30 分鐘的觀眾 陳述意見及問題討論時段。
- 2. 加速和敏捷策略對影響的評估(Accelerators and Agile Strategies for Impact Assessment)議題:本議題討論探索潛在的協同效應影響評估和領域經濟。環境影響評估和政策影響評估可用於分析領域經濟相關戰略和活動的影響及執行策略(例如放慢速度、縮小範圍或關閉資源流),可減少項目對環境的影響。
- 3. 變革型領導力影響評估和管理(Transformative Leadership and Management in Impact Assessment): 本議題主要係國際間針對

開發行為所造成之環境衝擊如何治理,並針對開發計畫之數據 收集、影響、風險評估、緩解措施進行分享,討論如何執行可 保持平衡各國的利益、可持續發展、原住民權利、保護生物多 樣性之保全及更有效地改善企業社會責任結果。

- 4. 動態能力和質量創新對影響的評估 (Dynamic Capabilities And Quality Innovation In Impact Assessment):本議題主要以互動式論壇討論方式,討論最新的人權影響評估的進展及其對新監管的重要性發展,並以漁業和基礎設施的兩個案例進行分享,最後目的是制定最終指導國際最佳實踐影響評估作業行動的原則。
- 5. **衡量和評估影響衝擊程度(Measuring And Evaluating The Impact of Impact Assessment)**:本議題係討論社會影響評估、環境影響評估之挑戰和未來方向。
- 6. 影響評估的短暫和可持續模型(Transient And Sustainable Models For Impact Assessment):本議題討論有哪些可持續性關鍵要素,可以使石油和天然氣開發的影響評估能夠更持續發展,並針對影響評估可以帶來綠色和韌性發展、環境轉型變革可持續性、低碳和氣候適應能力發展等可能性進行討論。
- 7. 農業、林業、和漁業(Agriculture, Forestry, And Fisheries):本 議題以農業、林業和漁業方面,用社會、經濟和生態影響以及經驗 教訓來自社會科學和生物物理科學方式,探討環境影響評估、政策 影響評估以及土地利用測繪和發展藍色經濟之議題。
- 8. 文化遺產(Cultural Heritage):本議題以案例研究與探討國際和國家層面的之文化和遺產影響評價作業。
- 9. **原住民(Indigenous Peoples)**:本議題係以原住民角度,討論、整

- 合、參與等方式落實聯合國宣言原住民的權利和影響評估的監督,透過環境影響評估的過程可以增強復原力和需要領導來避免原住民領域之破壞。
- 10.公眾參與(Public Participation):本議題係以公民科學、包容性研究、參與性規劃和智能技術可以更好集成到影響評估作業,以改進數據、涉及和賦予非專業社區權力,並為基於證據的環境決策和管理做出貢獻。
- 11.政策環境評估(Strategic Environmental Assessment):國際間針對氣候變化挑戰,各國必須減少溫室氣體排放以支持能源過渡機制,採取開創性的戰略環境去進行國家減排承諾溫室氣體排放和向可再生能源轉型作法,其中政策影響評估(SESA)方法對再生能源轉型是迫切需要工具,本議題將製定及提交一份進度報告並概述廣泛的指導內容。
- 12.社會影響評估(social Impact Assessment):本議題由主講人分享融入社會的經驗和挑戰對土地利用規劃過程,闡述透過社會影響評估社會因素評估是一項至關重要且意義重大的規劃城市規劃中的工具。
- 13.影響評估能力建置(Capacity Building In Impact Assessment):本議題係針對不同地區海洋開發案例研究(海上風電等)結果,發現人類顯著增加活動和經濟部門的要求將會需要更多的空間整合以及保護傳統的海洋活動,討論出適用的決策可支持持續發展的空間方法。
- 14.生物多樣性和生態(Biodiversity And Ecology):本議題藉由分享經驗、擔憂、疑問,提出生物多樣性及生態系統服務測量和應用生態影響評估中的復原力之方式。

- 15. **氣候變遷(Climate changes)**:本議題探討於發達及發展中國家該如何實現彈性碳中和,並於會中請參與者提供倡議並以方法論並考慮到區域和環境影響評估 (ESIA) 的影響方面進行討論,後續將納入政策影響評估內。
- 16.企業管理和風險管理(Corporate Stewardship And Risk Management):本議題藉由部分組織已成功將環境災難、社會動亂等意外造成之危機轉型成變革機會之成功經驗,提供參與者參考。
- 17. 治理和實施系統(Governance And Implementation Systems):
  本議題將討論基於「以自然為本的解決方案(Nature-based Solutions)」
  之背景,描述設計、實施和擴展「以自然為本的解決方案」的框架
  行動、審查使用「以自然為本的解決方案」的案例,並討論如何將
  「以自然為本的解決方案」明確納入政策和影響評估。
- 18. 新興技術(Emerging Technologies):本議題介紹評估方法被 30 多個相關研究和政策中心使用與全球技術評估合作使用之技術,並以使用氫技術的一個案例討論這些早期技術研究。
- 針對上述 18 項議題, 並分成 62 場次以上分組主題報告。











圖 11 第 42 屆國際影響評估協會研討會分組會議

#### 五、海報展示(Posters Sessions)

本屆研討會共計投稿海報展示達 27 篇,依展示題目如下(現場如圖 12-14):

- 1. 海上風電景觀影響評價研究
- 2. 以定量分析環評和環評修訂時工業區的環境影響變化
- 3. 城市公園利用效率分析、使用深度學習模型分析釜山街道綠化率
- 4. 南亞環境影響評估系統的挑戰和進展
- 5. 構建空間信息大數據藉以優化碳中和
- 6. 低影響開發城市之空間信息建設
- 7. 環評模型應用平台設計
- 8. 利用系統動力學開發減少都市細懸浮微粒政策優化模型
- 9. 政策影響評估對日本衝突性地熱開發中的有效性
- 10.世界銀行歐洲和中亞(ECA)地區的環境影響評估和復原力
- 11.評估環境變量對韓國生物多樣性的影響
- 12.印尼當地影響環評實施之因素
- 13.太平洋海岸工程環境影響評估良好實踐指南
- 14.使用衛星圖像按土地利用分區進行綠地評估
- 15. 政策影響評估賦權社區的指導方針
- 16.藉由實際檢驗影響評估在增強氣候衝擊抵禦能力方面的作用
- 17. 實施環境影響評估以實現環境保護——以台灣為例
- 18. 東南亞環境影響評估法律框架

- 19. 拉丁美洲環境影響評價法律框架
- 20. 西非環境影響評價法律框架
- 21. 利用無人機及水下探測載具對海洋瀕危物種的調查方法
- 22. 馬來西亞的 SIA 和 EIA: 法律框架的比較分析
- 23. 社會影響評估納入人文教育-以 Grand Valley State University 為例
- 24. 有害有毒物質 (HNS) 環境影響評估的空間分析
- 25. 生態減緩措施空間優化模型
- 26. 釜山中央區體系的評估與劃定
- 27. 歐盟分類法:擬議的證明可持續性的共享方法



圖 12 海報展覽區



圖 12 本署現場海報展覽圖



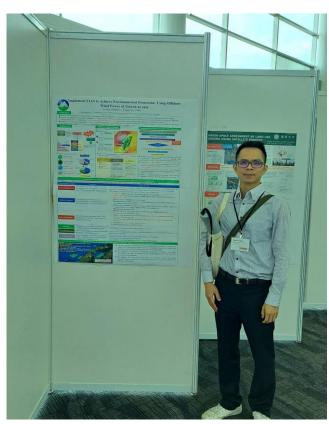


圖 14 本署海報現場展示圖





圖 15 與會者觀看本署海報

#### 伍、會議參與情形摘述

鑑於我國目前積極推動能源轉型,刻正辦理離岸風力發電3階段推動作業,本署首先於105年12月28日作成「離岸風電區塊開發政策評估說明書」徵詢意見,切實盤點出離岸風電開發共通性環境議題及因應對策,納入後續開發行為規劃及環評審查之上位參考基準,故本次特以「落實環境影響評估達成環境保護與經濟發展兼籌並顧,以臺灣的離岸風力發電計畫環境影響評估為例」為題目投稿海報發表,藉由參與本次研討會,與國際間分享、交流實務經驗及蒐集建議,作為本署後續制度推動之參考,同時提升我國國際間能見度。

除本署本次發表海報成果以外,本署代表亦參與本次研討會海報展示及論文會議簡報議程中,會中亦有針對離岸風力發電及海岸工程開發等議題進行發表「韓國海上風電景觀影響評估研究」、「太平洋海岸工程環境影響評估良好實踐指南」及「海洋可再生能源法能否在日本發揮政策環評的作用」,報告藉由海上風力發電及離岸海岸工程之開發計畫執行狀況對周遭景觀影響及統整政府推動離岸風力發電計畫上所遭受利害關係人之環境議題(噪音、漁業資源、文化資產、地景、鳥類、地形等)的案例進行分享、不同再生能源之設施進行研究,概述如下:

- 一、水力發電設施:日本名古屋大學針對大陸陝西省丹江上下游地區設置小水力發電設施潛勢地點,利用生命週期評估、生態足跡及物質流分析方式,自訂一指標「資源時間足跡 Resources Time Footprint」,藉以評估最佳可再生能源選址地點及結構,並選出優先設置地點及裝置容量(報告題目: Site selection for small hydropower plant based on resources time footprint)。
- 二、 太陽能光電設施: 澳大利亞透過澳大利亞太平洋基礎設施融資基金於帛琉最大島嶼巴伯爾圖阿普島, 建設第一個公用事業規模的

太陽能和電池儲能設施,該項目將包括一個 15.28 兆瓦峰值容量的太陽能光伏設施,以及 12.9 兆瓦電池儲能係統,可滿足帛琉20%以上的能源需求,但在建設及採購流程中,選擇太陽能組件製造商及供應商有使用強迫勞動方式,因違反澳大利亞的現代奴隸制法(Australia's Modern Slavery Act),而訂定了相關規範,並針對生命週期評估分析、太陽光電板報廢回收計畫等風險評估及供應鏈審查作業,可加強太平洋地區的太陽能項目發展(報告題目:Smarter Solar Procurement in the Pacific: Addressing lowest-cost risk)。

三、荷蘭政府經濟氣候政策部針對荷蘭目前可再生能源項目,進行緊迫性和作用影響評估,經盤點未來 10 年將有「海上風電場及至陸地的海上電纜線路」、「陸上能源基礎設施傳輸網絡」、「氫氣生產及傳輸網絡」及「二氧化碳捕獲和儲存」等四大項可強化投資,主要係因能源消耗不斷增加天然氣儲備即將耗盡,改用替代能源進行運輸和供暖來源,其目標是零碳排放量至 2050 年,預期達到可持續能源生產和節能減碳之功效。其中針對複雜之海上項目將利用兩階段之影響評估(環境影響評估及政策環境影響評估),針對空間規劃、環境法規要求及公眾參與的程序,進行規劃及執行(報告題目: Renewable energy projects in the Netherlands: urgency and the role of Impact Assessment)。

由本次研討會中,各國針對再生能源發展之推動經驗進行分享,除針對各別關鍵議題(如當地侷限性、環境的脆弱性與氣候變遷因子) 應進行影響評估外,另外著重於少數民族、原住民傳統領域或保留地 之土地使用爭議,或公眾參與等意見均納入重點考量項目,經檢視我 國現行的環境影響評估法規也已建立完善資訊公開制度,如建置環境 影響評估開發案論壇及環境影響評估書件查詢系統,提供民眾於開發 案件環境影響評估進行前及進行階段,預先了解開發行為內容,並充 分表達意見及建議,使開發單位可即時評估民眾意見,或作為商業規 劃參考,落實公眾參與及資訊公開。

#### 陸、心得與建議

#### 一、心得感想

#### (一)分享臺灣海上風電環境影響評估審查經驗,強化國際交流合作,提 升我國環保形象:

在環境影響評估領域中,國際影響評估協會(IAIA)年會為國際間最具規模之組織,該協會每年皆辦理大型國際研討會,廣邀各國人士進行專題演講、發表論文與經驗分享,每年皆有近百國、500人以上參與,為環境影響評估國際交流與學術研討之重要平台。因本次研討會於東南亞召開,今年之年會參與之人員以亞洲鄰近國家(例如日本、韓國、日本、東南亞國家協會成員國等)及歐美人士人數較為平均,各國積極透過各分項座談會分享成功之環境影響評估經驗,藉此宣揚環境保護績效。

針對環境影響評估審查作業,本署為確保開發者能以一致且客觀 的評估方法評估該開發行為對特定議題的影響,我國訂有技術規範作 為指引(包含空氣品質模式、河川水質模式、健康風險評估、動、植 物生態評估、海洋生態評估等),而所得到的衝擊評估結果,將作為 環評審查委員會判斷該開發行為是否對環境造成不良影響的基礎資訊。

臺灣是一個高度依賴能源進口的國家,由於缺乏自然礦產,有高達 98%的能源必須取自國外,其中以石油、煤炭、天然氣為主要進口項目。若遭遇國際情勢變化,能源成本便會受到波動而有劇烈改變。臺灣在高度依賴火力發電的情況下,也有高風險會面臨能源短缺的窘境。依據國際研究,臺灣有 16 個風場名列世界最佳風場,位置分布在台灣西部沿岸,若能夠確實沿線建立完整的離岸風電設施,便能夠帶來驚人的發電量,故我國極力推動離岸風力發電發展。

並在經濟部(能源局)轉送第三階段離岸風電環評案件至本署審查前,本署建立「第三階段離岸風電環評審查參考基準」,藉由建立具一致性之審查參考基準,如鯨豚保育之打樁防護措施、水下噪音限值、風機與葉片間距、電纜路線規劃及空氣污染防制規劃等,再視個案環境特性調整相關環境保護措施,以提升審查效率。除此之外,因第三階段離岸風力發電開發案件之電纜上岸位置、自設升壓站與變電所位置皆不盡相同,藉由橫跨苗栗、臺中及彰化等縣市沿岸之現場勘查作業,有助於環評委員於審查前瞭解當地環境背景,確認開發是否位於「國家級重要濕地」、「白海豚、石虎棲息地」等環境議題,繼於審查過程中釐清,亦有效提升審查效率。目前環評審查通過之離岸風電案件,已大幅超越經濟部規劃 115 年所需 1.5GW 之容量,符合國家能源轉型政策,展現高度審查效率與品質。

上述我國針對環境影響評估審查上成果,如能透過專題演講、發表論文或海報展示等方式,多元展現於國際影響評估協會(IAIA)年會上,相信將可吸引更多國際人士進一步認識我國環境影響評估制度及環境保護上之努力,對於我國政績之宣揚極有助益。會議過程中,鄰近日本及韓國學者亦曾對臺灣推動離岸風力發電政策執行方式提出討論,針對分三階段推動之原因、環境影響評估審查作業之程序及針對漁民代表權益、後續離岸風力發電計畫之監督方式等議題進行詢問,除前述離岸風力發電階段性推動原因及監督方式結果等議題外,本署代表均以審查現況方式答覆目前我國推動進度。惟有關政策決策及監督結果等議題,建議未來可考量並邀集政策推動目的主管機關(經濟部)或實際監督單位一同參與該年度之年會,適度擴大參與程度,並強化國際交流合作,及分享我國在環評制度之努力成果。

#### (二)與世界接軌注重科技發展在環境影響評估之課題:

本次研討會中多位與會主講人、分享者、學者及政府機關等代表 均表達氣候變遷對全國環境影響甚鉅,海平面上升到極端氣候的侵襲, 氣候變遷的影響隨著人類活動而有所加劇,然而,這些氣候變遷所造 成後果並不是分配給所有人來承擔,其中較脆弱的族群通常受衝擊的程度遠高於其他族群,而衍生出「氣候正義」(climate justice)的概念。而現在國際間針對影響評估實踐,也趨於支持針對氣候變化和生物多樣性喪失的雙重危機採取更堅決的行動,例如節能減碳、推進綠色和循環經濟,保護社會正義和平等,積極採取恢復性措施來制止或扭轉自然資源退化,並增進人類和環境福祉,從過往以過渡方式來減緩氣候變遷的影響,逐漸改為轉型作業(如能源轉型、可持續發展目標、綠色經濟),並強化氣候變遷對脆弱族群進行原住民和弱勢社區公正轉型。

其他國家面對氣候變遷議題,多從能源供給及需求分配之角度進 行探討,其評估啟動程序多循政策環境影響評估程序,採各種能源供 應組合可能方案,參考溫室氣體相關評估模擬模式評估可能影響,其 評估方法論多與我國現行氣候變遷因應法及相關子法內容類似,其評 估歷程及重點,得納為我國後續推動能源開發政策環境影響評估之參 考,例如按地區特性進行區域環境影響評估(Regional EIA, REIA)、 氣候融資和風險管理、碳權交易、異地補償及碳捕捉封存技術等方式, 將氣候變遷的課題納入評估作業中。從今年的研討會中,現場聆聽多 場有關氣候變遷座談會後發現,在一些將氣候變遷課題納入環境影響 評估的討論中,亦有學者認為在進行影響評估時,亦應考量各種減緩 措施以及適應計畫等內容,並且研擬包括災難管理計畫等環境管理計 書,查本署近年環境影響評估審查之過程中,審查重點已針對該不同 類型之開發行為認為應事先就氣候變遷之課題,併予要求開發單位提 出因應措施,藉以促使開發單位先行針對極端氣象條件下,開發行為 可能受到之衝擊及其預為因應之對策等事項,顯見本署環境影響評估 審查關切之議題,與世界趨勢相符。

#### 二、建議事項

國際影響評估年會(IAIA)預定於西元 2024 年 4 月 24 日至 27 日於愛爾蘭都柏林(Dublin)舉辦第 43 屆國際影響評估協會研討會,其主題設定為「公正轉型的影響評估」,原因係目前全球迫切需要使能源市場減碳,推進綠色和循環經濟,保護社會正義和平等,激勵採取恢復性措施來制止或扭轉自然資源退化,並改善人類和環境福祉,與我國推動節能減碳政策作為相關,建議得適時將本署相關研究過程或初步產出之規範草案成果,於該次研討會投稿發表,藉以與國外交流吸取經驗,納為後續制度推動之參考,同時提升我國國際間能見度。

# 附錄—





42nd Annual Conference of the

**International Association for Impact Assessment** 

8-11 May 2023 **Borneo Convention Centre Kuching** Kuching, Malaysia

Resilience through impact assessment and leadership













### **Conference overview**

#### REGISTRATION DESK HOURS

15:00-17:00

Friday 5 May Saturday 6 May 07:30-10:00, 13:00-17:00 Sunday 7 May Monday 8 May 07:30-10:00, 13:00-17:00

08:00-17:00 Tuesday 9 May 08:30-16:30 Wednesday 10 May 08:30-16:30 Thursday 11 May 08:30-14:00

Confe	erence Over	rview											
-	Pre-conference Friday 5 May	Pre-Conference Saturday 6 May				Pre-Conference Sunday 7 May				Conference Day 1 Monday 8 May			
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18:00													
18:30													
19:00													
19:30 onward													

Twitter! #iaia23 2 IAIA23 final program

### **Conference overview**

Free shuttle service is available for delegates staying at the conference hotels. The schedule is posted at the hotels and the BCCK and is available in the app.

Conference Day 2 Tuesday 9 May			Tuesday Wednesday					Conference Day 4 Thursday 11 May			
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							Banquet			19:	
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### **Daily schedule**

#### FRIDAY 5 MAY

15:00-17:00 Registration (Main Foyer)

#### SATURDAY 6 MAY

07:30-10:00 Registration (Main Foyer)

08:00-12:00 Technical visit A\*: Semenggoh Wildlife Centre

09:00-17:00

#### **Training courses**

- 1. Leadership in EIA (Room 4)
- 3. More effective impact assessment: Tools for stronger argument and clearer writing (Room 10)
- Theory and practice of biodiversity-friendly infrastructure (Room 8)
- 6. Cumulative effects assessment (Room 3)
- How to seamlessly connect EIA and EMS through improving communication, interaction, and partnership (Room 1)
- 8. Resettlement planning and impact assessment: Achieving the intended outcomes (Room 2)
- 9. Health in environmental impact assessment (Room 9)
- 11. Sustainable finance and IA systems: Synergies and interlinkages (Room 6)

13:00-17:00 Registration (Main Foyer)

13:30-18:30 Technical visit B\*: Sarawak Biodiversity Centre

#### SUNDAY 7 MAY

07:30-10:00	Registration	(Main Foyer)

08:00-12:00 Technical visit C\*: Borneo Cultures Museum

09:00-17:00

#### **Training courses**

- 1. Leadership in EIA (Room 4)
- More effective impact assessment: Tools for stronger argument and clearer writing (Room 10)
- Theory and practice of biodiversity-friendly infrastructure (Room 8)
- 6. Cumulative effects assessment (Room 3)
- 7. How to seamlessly connect EIA and EMS through improving communication, interaction, and partnership (Room 1)
- 8. Resettlement planning and impact assessment: Achieving the intended outcomes (Room 2)
- 9. Health in environmental impact assessment (Room 9)
- 11. Sustainable finance and IA systems: Synergies and interlinkages (Room 6)

13:00-17:00 Registration (Main Foyer)

13:30-18:30 Technical visit D\*: Tanoti House & Textile Museum Sarawak

\*Technical visit participants: Please meet at the BCCK Level 1 Drop Off Zone a minimum of 15 minutes prior to departure. You can access Level 1 from the escalator or elevator in the main foyer of the conference venue.

#### MONDAY 8 MAY

Registration (Main Foyer)			
Exhibit and poster setup (Main Foyer)			
Workshop: World Bank (Room 14)			
Workshop: EIB (Room 13)			
Conference Buddy meet and greet (Hall B)			
Opening plenary (Hall A) Supported by MyCEB			
<ul> <li>Opening address: Professor Lim Weng Marc, Conference Chair</li> </ul>			
Welcome address: Professor Sachihiko Harashina, Honorary Chair			
Welcome from IAIA President: Gabriela Factor			
Welcome from IAIA CEO: Gary Baker			
Welcome from the Premier of Sarawak: His Right Honourable Datuk Patinggi Tan Sri (Dr) Abang Haji Abdul Rahman Zohari bin Tun Datuk Abang Haji Openg			
Keynote address: Professor Tan Sri Dr. Jemilah Mahmood			
<ul> <li>Closing remarks: Professor Lim Weng Marc, Conference Chair</li> </ul>			
Break (Main Foyer)			
Concurrent sessions			
Poster session and welcome reception (Main Foyer)			

#### **TUESDAY 9 MAY**

08:30-16:30	Registration (Main Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (Main Foyer)
11:00-12:30	Concurrent sessions
12:30-13:50	Lunch (Hall C+D)
12:30-13:50	Meet the CEO (Hall B) (lunch provided in room)
14:00-15:30	Concurrent sessions
14:00-15:30	Meet the CEO (Room 10+11)
15:30-16:00	Break (Main Foyer)
15:30-16:00	Want to serve on the IAIA Board of Directors? Informational meeting (Room 7)
16:00-17:30	Concurrent sessions
17:40-18:40	Speed networking (Room 10+11)

### Coffee breaks and lunches

Based on the data collected via registration forms, IAIA arranged for a percentage of vegetarian meals. This does not guarantee accommodation of individual preference.

Note: Lunch is NOT provided on 8 May.

### **Daily schedule**

#### WEDNESDAY 10 MAY

08:30-16:30	Registration (Main Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (Main Foyer)
11:00-12:30	Concurrent sessions
12:30-13:50	Lunch (Hall C+D)
12:30-13:50	Committee meetings (lunch provided in room) Training & Professional Development (Room 14) Board Nominations (Room 14) Journal Management (Room 14)
14:00-15:30	Concurrent sessions
15:30-16:00	Break (Main Fayer)
13.30-10.00	Break (Main Foyer)
16:00-17:30	Concurrent sessions

#### THURSDAY 11 MAY

08:30-14:00	Registration (Main Foyer)			
09:00-10:30	Theme forums			
10:30-11:00	Break (Main Foyer)			
11:00-12:30	Concurrent sessions			
12:30-13:50	Lunch (Hall C+D)			
12:30-13:50	Committee meetings (lunch provided in room) IAPA Editorial Board (Room 14) Awards (Room 14) Sections Coordinating (Room 14)			
14:00-15:30	Concurrent sessions			
15:30-16:00	Break (Main Foyer)			
16:00-17:15	Closing plenary (Hall A)			
	<ul> <li>Welcome: Professor Lim Weng Marc, Conference Chair</li> <li>IAIA23 in review: Highlights, insights, and lessons learned: George KwangSing Ngui and Wallace ShungHui Wong</li> <li>Presentation of Awards: Peter Moore, Awards Committee Chair, and Gary Baker, CEO</li> <li>Presidential address: Edith Birungi Kahubire, IAIA President-Elect</li> <li>Invitation to IAIA24: Eddie Smyth, Planning Committee Chair</li> <li>Thank you: Professor Lim Weng Marc, Conference Chair</li> </ul>			

16:00-17:30 Exhibit and poster dismantle

**19:00-22:00 Banquet** (Grand Margherita Hotel)

Address: Jalan Tunku Abdul Rahman, 93100 Kuching

#### FRIDAY 12 MAY

08:00-12:00 Technical visit E\*: Darul Hana Urban Redevelopment Project
13:30-18:30 Technical visit F\*: Revitalizing Kuching's urban public
transportation

#### **TECHNICAL PROGRAM: TOPICAL STREAMS**

#### What are you interested in? Find your topic!

The technical program is structured into two primary streams: thematic sessions focusing on "Resilience through impact assessment and leadership," and general impact assessment sessions, including topics that address issues of interest to IAIA's special-interest Sections.

ASEAN DAY ...... 10

#### THEMATIC STREAMS

Accelerators and agile strategies for impact assessment	10
Transformative leadership and management in impact assessment	10
Dynamic capabilities and quality innovation in impact assessment	<b>1</b> 1
Measuring and evaluating the impact of impact assessment	11
Transient and custoinable models for impact accessment	17

#### IAIA SECTIONS AND GENERAL TOPICS STREAMS

Agriculture, forestry, and fisheries	13
Cultural heritage	13
Indigenous Peoples	13
Public participation	14
Strategic environmental assessment	14
Social impact assessment	
Capacity building in impact assessment	15
Biodiversity and ecology	
Climate change	
Corporate stewardship and risk management	17
Governance and implementation systems	
Emerging technologies	

As a courtesy to all speakers and to help reduce disruptions, we kindly ask that you remain in the session you're attending for all presentations.

Thank you for your consideration.

## **Technical program overview**



	Hall A	Room 12	Room 13	Room 14	Room 1	Room 2+3
Monday 8 N	May					
13:00-14:30	Opening plenary					
15:00-16:30					Compliance & enforcement of EsIA requirements, commitments, and related permits (p11)	Advancing understanding of nature-based solutions in impact assessment (p17)
Tuesday 9 l	May					
09:00-10:30		Advancements in environmental and social policies: MDB perspectives (p8)	Workshop of EIA Leadership Practice (p8)	ASEAN DAY  Rights-based approach to IA in ASEAN (I) (p 8, 10)		
11:00-12:30				Resilience, sustainability, and inclusion in IA (II) (p10)	Synergies of impact assessment and circular economy (p10)	Asian S3EA: Strategic, spatial, and sustainable EA (I) (p14)
14:00-15:30				Climate change and IA in ASEAN (III) (p10)	Transforming environmental governance at local and international scales to improve ESG outcomes (p11)	Asian S3EA: Strategic, spatial, and sustainable EA (II) (p14)
16:00-17:30				Future of IA in ASEAN (IV) (p10)	Information management and impact assessment (p12)	Asian S3EA: Strategic, spatial, and sustainable EA (III) (p15)
Wednesday	/ 10 May					
09:00-10:30		Failing forward: Top 5 complaints for IFI projects and how to avoid them (p9)	Sustainable finance and ESG: Double materiality assessment (p9)	A global assessment for prosperity, people, and the planet (I) (p9)		
11:00-12:30					Ensuring environmental and social performance of infrastructure projects (I) (p18)	Ecological resilience and impact assessment: Applications and challenges (I) (p16)
14:00-15:30					Ensuring environmental and social performance of infrastructure projects (II) (p18)	Ecological resilience and impact assessment: Applications and challenges (II) (p16)
16:00-17:30					Ensuring environmental and social performance of infrastructure projects (III) (p18)	Ecological resilience and impact assessment: Applications and challenges (III) (p16)
Thursday 1	1 May					
09:00-10:30		Efforts to "simplify" environmental assessment: Opportunity or threat? (p9)	IA agile enough to balance urgency of reviews of complex green projects? (p9)	Building IA resilience through advances in qualitative study design (p9)		
11:00-12:30					Overhauling impact assessment in response to the sustainability imperatives (I) (p12)	Toward more sustainable oil and gas projects: Strategies for oil and gas (p12)
14:00-15:30					Overhauling impact assessment in response to the sustainability imperatives (II) (p13)	SESA and the energy transition in Indonesia (p15)
16:00-17:15	Closing plenary					

## **Technical program overview**

Building resilience through (g.13)  Building resilience through (g	Room 4	Room 5	Room 6	Room 8+9	Room 10+11	
Baliding resilience through indigenous participation in BLA and sea (p.13)  How is indigenous leadership improving IA-10 (p.13)  How is in					Mon	day 8 May
Indigenous (p.13)  How is Indigenous (p.13)  How environmental impact assessment works: Case studies (p.13)  How is Indigenous (p.13)  Eleadership improving (p.13)  Case the following under the contribution of citizen following under the participatory impact assessment (p.12)  How is Indigenous (p.13)  Eleadership improving (p.13)  Climate change impact assessment for (p.12)  Indigenous knowledge as the foundation of impact assessment and integrated assessment for projects (p.11)  Indigenous knowledge as the foundation of impact assessment and integrated assessment and integrated assessment for projects (p.11)  Indigenous knowledge as the foundation of impact assessment and integrated assessment for projects (p.11)  Impact assessment fo						13:00-14:30
How is indigenous leadership improving IA? (I) [13] How environmental impact assessment works: Case studies [12] [13] [14] [15] [15] [15] [15] [15] [15] [15] [15	Indigenous participation in EIA	and consumption: Land and sea	international best practice IA follow-up guidance	through leadership and systems transformation		15:00-16:30
How is Indigenous   leadership improving IA? (i)					Tues	day 9 May
Impact assessment works   Case studies   Impact assessment works   Case studies   Impact assessment   Im						09:00-10:30
Indigenous knowledge as the foundation of indigenous-led impact assessment and integrated application tools (II)   Claimate change impact assessment season integrated application tools (III)   Perspectives on social impact assessment and integrated application tools (III)   Perspectives on social impact assessment (p15)	leadership improving IA? (I)	impact assessment works: Case studies	science to participatory impact assessment	role for IA in due diligence?	Study: A 25 year benchmark for review of progress	
as the foundation of indigenous-led impact assessments (p14)  The role of EIA in deep-sea (p11)  The role of EIA in deep-sea (p12)  The role of EIA in deep-sea (p11)  The role of EIA in deep-sea (p12)  The role of EIA in deep-sea (p13)  Thursday 11 May  Thursda	leadership improving IA? (II)	assessment and integrated application tools (I)	resilient carbon neutrality (I)	measuring the impact of cultural transformation		14:00-15:30
The role of EIA in deep-sea mining (p11)  Implementation of social impact assessment for major physical development (p12)  Implementation of social impact assessment for major physical development (p15)  Implementation of social impact assessment in the planet (iii) (p18)  Implementation of social impact assessment for physical development (p15)  All ASEA guidance for prosperity, people, and the planet (iii) (p18)  Strategic environmental assessments in Mekong country (p11)  Capacity building on SIA through certification and accreditation (p15)  Mapping of mapping: The role of spatial tools for impact assessment in renewable energy supply chains (ii) (p13)  New developments in human rights assessment (p16)  New developments in human rights assessment technology assessment and IA: Example of hydrogen (p18)  Resilient organizations (p15)  Resilient organizations (p15)  Marine ESIA: Challenges and roadmap ahead (p15)  Universities should lead climate action (p18)  Making impact assessment more effective: Approaches and changes (p17)  Making impact assessment more effective: Approaches and changes (p12)	as the foundation of indigenous-led impact assessments	assessment and integrated application tools (II)	resilient carbon neutrality (II)	impact assessment		16:00-17:30
The role of EIA in deep-sea mining (p11)					Wedneso	lay 10 May
mining (p11) Fostering partnerships for green resilient development (p12) impact assessment for major projects (p15) (p18) impact assessment for physical development (p15)    Capacity building on SIA through certification and accreditation (p15)    New developments in human rights assessment (p11)    New developments in human rights assessment (p11)    Resilient organizations facing environmental and social crises (p17)    Resilient organizations facing environmental and social crises (p17)    Moving beyond the risk: (p15)    Integrating risk and impact assessments in Mekong country (p15)    Integrating risk and impact assessments in Mekong country (p11)    Integrating risk and impact assessment in renewable energy supply chains (II) (p13)    Integrating risk and impact assessment in renewable energy supply chains (II) (p13)    Integrating risk and impact assessment in renewable energy supply chains (II) (p13)    Integrating risk and impact assessment in renewable energy supply chains (II) (p13)    Integrating risk and impact assessment in renewable energy supply chains (II) (p13)    Integrating risk and impact assessment in renewable energy supply chains (II) (p13)    Integrating risk and impact assessment in renewable energy (p17)    Integrating risk and impact assessment (p17)    Integrating risk and impact assessment in renewable energy (p15)    Integrating risk and impact assessment (p17)    Integrating risk and impact assessment (p17)    Integrating risk and impact assessment in renewable energy (p15)    Integrating risk and impact assessment (p17)    Integrating risk and impact assessment (p18)    Integrating risk and impact assessments in Mekong country (p15)    Integrating risk and impact assessments in Mekong country (p15)    Integrating risk and impact assessments in renewable energy (p17)    Integrating risk and impact assessments in Mekong country (p15)    Integrating risk and impact assessments in renewable energy (p15)    Integrating risk and impact assessments in Mekong country (p17)    Integrat						09:00-10:30
impact assessment for physical development (p15)  Capacity building on SIA through certification and accreditation (p15)  New developments in human rights assessment (p11)  New developments in human rights assessment (p11)  Resilient organizations facing environmental and social crises (p17)  Resilient organizations facing environmental and social crises (p17)  Striving for data to deliver energy supply chains (I) (p13)  assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II) (p13)  Integrating risk and impact assessment in renewable energy supply chains (II)  Integrating risk and impact assessment in renewable energy supply chains (II)  Integrating risk and impact assessment in renewable energy supply chains (II)  Integrating risk and impact assessment in renewable energy supply chains (II)  Integrating risk and impact assessment in renewable energy supply chains (II)  Integrating risk and impact assessment in renewable energy supply chains (II)  Integrating risk and impact assessments in Mekong countries and integr	mining	Fostering partnerships for green resilient development	impact assessment for major projects	prosperity, people, and the planet (II)		11:00-12:30
through certification and accreditation (p15)  role of spatial tools for impact assessment (p16)  Resilient organizations facing environmental and social crises (p17)  Resilient organizations (p18)	impact assessment for physical development	Striving for data to deliver nature positive outcomes	assessment in renewable energy supply chains (I)	assessments in Mekong country	renewable energy	14:00-15:30
New developments in human rights assessment (p11)  Resilient organizations facing environmental and social crises (p17)  New developments in Linkages between technology assessment and IA: Example of hydrogen (p18)  Cultural heritage impact assessment assessment: How universities impacts on society are evaluated (p11)  New developments in technology assessment and IA: Example of hydrogen (p18)  Cultural heritage impact assessment and climate change (p17)  Making impact assessment more effective: Approaches and climate action (p18)  11:00-12:30  14:00-15:30	through certification and accreditation	role of spatial tools for impact assessment	assessment in renewable energy supply chains (II)	impact and its input for climate change		16:00-17:30
New developments in human rights assessment (p11)  Resilient organizations facing environmental and social crises (p17)  New developments in Linkages between technology assessment and IA: Example of hydrogen (p18)  Social impact assessment: How universities' impacts on society are evaluated (p11)  Cultural heritage impact assessment and climate change (p17)  Making impact assessment more effective: Approaches and changes (p12)  11:00-12:30  Making impact assessment more effective: Approaches and changes (p12)					Thurso	day 11 May
human rights assessment (p11) technology assessment and IA: Example of hydrogen (p18) How universities' impacts on society are evaluated (p11) assessment and climate change (p17)  Resilient organizations facing environmental and social crises (p15) Universities should lead climate action (p18) Making impact assessment more effective: Approaches and changes (p17) assessment at critical sites (p13) assessment at critical sites (p13) (p17)						09:00-10:30
facing environmental and social crises (p15) (p18) more effective: Approaches and changes (p17)	human rights assessment	technology assessment and IA: Example of hydrogen	How universities' impacts on society are evaluated	assessment and climate change	assessment at critical sites	11:00-12:30
16:00-17:15	facing environmental and social crises	roadmap ahead	climate action	more effective: Approaches and changes		14:00-15:30
						16:00-17:15

### Theme forums

Smaller than plenaries and larger than concurrent sessions, theme forums include "cut-above" presentations and discussions which address the conference theme, bring together on a particular topic the various aspects of impact assessment, and examine how those aspects apply to different sectors and issues.

Content Corner (Main Foyer): Stop by to commemorate and share your conference event, and video your key takeaways!

#### TUESDAY 9 MAY | 09:00-10:30

#### Advancements in environmental and social policies: MDB perspectives

#### Room 12

Theme Form - Panel discussion Chair(s): Hakan Lucius

The session discusses the latest developments regarding Multilateral Development Banks' (MDBs) approaches to environmental and social sustainability and focuses on how the new policies trigger a comprehensive approach integrating environmental and social aspects throughout the whole project cycle.

Bruce Dunn, Director, Safeguards Division, Asian Development Bank (ADB)

Angela Filipas, Lead Environmental Specialist, European Investment Bank (EIB)

Mikko Venermo, Senior Manager, Environmental & Social Policy, Standards & Knowledge Management, International Finance Corporation (IFC)

Zhixi Zhu, Senior Environmental Specialist, Operational Services Department, Asian Infrastructure Investment Bank (AIIB)

#### **Workshop on EIA leadership practice**

#### Room 13

Theme forum - Workshop

Chair(s): Ross Marshall, Maria Partidario

Join us to examine EIA leadership style, communication, and conflict resolution. Discuss the tools and insights you have gained, the scenarios you have experienced and hear the views of other experienced EIA practitioners.

Leadership and change management in higher education: A conceptual review Gan, Evelyn; Voon, Mung Ling

#### Teaching leadership in EA

Faith-Ell, Charlotta; Kågström, Mari

Toward better argument for clearer communication and more effective IA

Brown, Glenn; Wilkinson, Lachlan

Preparing guidance for sustainability decision making

Urago, Akiko; Shibata, Yuki

St. Lawrence cultures and nations: An approach built on trust and reciprocity

Guillemette, Catherine; Lavoie, Roxane

#### Rights-based approach to IA in ASEAN (I)

#### Room 14

Theme forum - Panel discussion Chair(s): Georgina Lloyd Rivera

This panel will examine the development of an ASEAN Declaration on Environmental Rights. This discussion, led by the ASEAN Intergovernmental Commission on Human Rights (AICHR) examines the role of environmental rights, including the use and enhancement of IA, to achieve those rights.

#### **Environmental rights framework in ASEAN**

Guzman, Roger Joseph

Rights-based approaches in impact assessment in ASEAN

Lloyd, Georgina

Elements of the proposed ASEAN Framework on Environmental Rights

Pongsapich, Amara

**Moderated questions** 

#### WEDNESDAY 10 MAY | 09:00-10:30

#### Failing forward: Top 5 complaints for IFI projects and how to avoid them

#### Room 12

Theme Forum - Panel discussion
Chair(s): David Simpson, Mark Goldsmith

This session will reveal the "Top 5" most frequent social and environmental complaints received by IFIs. Our panelists (representatives from IFIs as well as independent accountability mechanisms) will share case studies where adverse social and environmental impacts have arisen in the past and offer their insights and lessons learned.

#### David Simpson, Arantxa Villanueva

How failing to apply the mitigation hierarchy leads to discontent Márquez-Mees, Victoria

The main issues in complaints raised, their impacts, and what should be done Gozun, Elisea

Key E&S insights from World Bank Inspection Panel cases Kuba, Birgit

Failing forward: Top 5 complaints for IFI projects and how to avoid them Villanueva. Arantxa

#### Sustainable finance and ESG: Double materiality assessment

#### Room 13

Theme Forum - Panel discussion Chair(s): Adina Relicovschi

Panel discussion on the challenges and opportunities on adopting a double materiality approach for annual reporting: gathering evidence, assessing, and explaining why issues are material from the "impact" (stakeholders) perspective (ECS related impacts) and/or from the "financial" perspective. The session will provide information on the newly introduced concept of "double materiality assessment" - impact on financial sector focusing on "green finance" in order to avoid greenwashing.

#### Defining "green investments" and the role of impact assessment

Relicovschi, Adina; Lucius, Hakan

Linkages between the EU Taxonomy and current impact assessment tools

Double materiality in ESG data and reporting: How to clean up the ESG mess Zeilina, Linda

#### A case for the S in ESG

Cisneros Menchaca, Alex

SATOAYAMA Bank: The first case of biodiversity bank establishment in Japan Kawamura, Takafumi; Tanaka, Akira

#### A global assessment for prosperity, people, and the planet (I)

#### Room 14

Theme forum- Paper session Chair(s): Peter Nelson

Section: Governance and Implementation Systems

Climate Change and Biodiversity top the Global Agenda- but we face capacity constraints to deal with these and other crises. How can SEA be used to achieve institutional reforms and better global governance? This session presents context of what we need to change, and the critical roles of SEA.

### Using SEA techniques to support UN Sustainable Development Goals Nelson. Peter

#### Global mapping of mining projects under energy transition scenarios Sonter, Laura; Northey, Stephen; Negret, Pablo

#### Safeguarding biodiversity and meeting international obligations through EIA Johnston, Anna

#### THURSDAY 11 MAY | 09:00-10:30

#### Efforts to "simplify" environmental assessment: Opportunity or threat?

#### Room 12

Theme forum - Paper session Chair(s): Thomas Fischer

Efforts are underway worldwide that aim at "simplifying" environmental assessment (EA). Do these represent an opportunity or a threat or both to EA? Papers presented in this session are being published in a special issue of IAIA's journal, *Impact Assessment and Project Appraisal*.

#### Simplification of environmental and other impact assessments: Results from an international online survey

Fischer, Thomas; Retief, Francois; Alberts, Reece; Fonseca, Alberto; Geißler, Gesa; Jha-Thakur; Jiricka-Pürrer, Alexandra, Urmila

### Unfolding simplification beyond drawbacks: Reasoning and types for simplifying environmental assessment (Denmark)

Kørnøv, Lone; Lyhne, Ivar

### Three decades of EIA streamlining: A developing country perspective (South Africa)

Retief, Francois; Alberts, Reece

### Simplification of environmental assessment: The case of Sweden Faith-Ell, Charlotte

Don't shoot the messenger: Reflections on streamlining and simplification of environmental assessment in the Netherlands

Arts, Jos; de Vries, Hans

Simplification and potential replacement of EA in the UK: Is it fit for purpose? Fischer, Thomas

### Is IA agile enough to balance urgency of reviews of complex green projects?

#### Room 13

Theme forum-Paper session Chair(s): Janet Blackadar

In the race to address global climate change through novel, and often large, complex projects and technologies, this paper session will explore whether our IA processes are agile enough to balance the urgency of timely reviews with the care and understanding that is necessary for complex decision making.

Managing complex science and stakeholder concerns: A Greenlandic case study Wall, Liz; Frere, Garry

#### Flexibility of EIA process to cater urgent projects in Pakistan

Khan, Mehreen; Chaudhry, Muhammad Nawaz

Renewable energy projects in the Netherlands: Urgency and the role of IA Martins Dias, Luis

#### Building IA resilience through advances in qualitative study design

#### Room 14

Theme forum - World Café Chair(s): John Sinclair, Heidi Walker

This World Café session will engage IAIA members in interactive dialogue on strategies for enhancing the application of qualitative research in IA and on best practice considerations for specific qualitative methods available for IA.

#### **ASEAN DAY**

#### Rights-based approach to IA in ASEAN (I)

#### Tuesday 9 May | 09:00-10:30 | Room 14

Theme forum - Panel discussion Chair(s): Georgina Lloyd Rivera

This panel will examine the development of an ASEAN Declaration on Environmental Rights. This discussion, led by the ASEAN Intergovernmental Commission on Human Rights (AICHR) examines the role of environmental rights, including the use and enhancement of IA, to achieve those rights.

#### **Environmental rights framework in ASEAN**

Guzman, Roger Joseph

Rights-based approaches in impact assessment in ASEAN

Lloyd, Georgina

Elements of the proposed ASEAN Framework on Environmental Rights

Pongsapich, Amara

**Moderated questions** 

#### Resilience, sustainability and inclusion in IA (II)

#### Tuesday 9 May | 11:00-12:30 | Room 14

Panel discussion
Chair(s): Stefano Zenobi

This session, led by WWF Mekong for the Future, will examine the role of IA in promoting resilience, inclusion and sustainability in ASEAN. The focus will be on infrastructure development.

### A holistic model for inclusive and resilient linear infrastructure in ASEAN

Cosier, Martin; Baird, Matthew

### Gender equality and social inclusion in infrastructure

Yulianti, Marisna

Ensuring climate-resilient development in Indonesia through SEA and EIA

Shafira, Difa

Application of CHIA for environmental sustainability in Pak Chaem, Thailand

Tulata, Songpon; Thaweesook, Suwicha

**Moderated questions** 

#### Climate change and IA in ASEAN (III)

#### Tuesday 9 May | 14:00-15:30 | Room 14

Panel discussion
Chair(s): Matthew Baird

This session examines the opportunities for leadership in integrating climate change, human rights and biodiversity issues into IA in ASEAN.

### Inclusion of climate resilience in the EAP Region's EIA legislation

Staelens, Nathalie

### Financial institutions' role in integrating climate change into IA in ASEAN

Slowik, Mateusz; Mayer, Benoit

### Challenges for climate change resilience and adaptation in EIA of Myanmar

Aung, Htet Wai Yan; Mon, Ei Ei

**Moderated questions** 

#### Future of IA in ASEAN (IV)

#### Tuesday 9 May | 16:00-17:30 | Room 14

Panel discussion Chair(s): Rocky Guzman

This session will provide a high-level summary and overview of some of the initiatives happening in ASEAN, with a moderated roundtable discussion on the development of new approaches in the environmental and social impact assessment on linear-infrastructure projects in ASEAN, the incorporation of climate change into IA, and the development of an ASEAN Framework on Environmental Rights, which includes both procedural and substantive elements. The roundtable will also provide at least 30 minutes for engagement from the audience through questions and statements.

### Outline the future of IA in ASEAN and consultation Raird, Matthew

Panel discussion and audience feedback

Amara Pongsapich, AICHR

Georgina Lloyd, UNEP

Marty Cosier, ARIEL and ADB

Marisna Yulianti, USAID and Australian Mekong Safeguards Program

#### ACCELERATORS AND AGILE STRATEGIES FOR IMPACT ASSESSMENT

### Synergies of impact assessment and circular economy

#### Tuesday 9 May | 11:00-12:30 | Room 1

Paper session

Chair(s): Ralf Aschemann

This session deals with exploring potential synergies of the fields of impact assessment (IA) and circular economy (CE). EIAs and SEAs can be used to analyze the impact of CE related strategies and activities, whereas CE strategies - such as slowing, narrowing or closing resource flows - can be an idea generator for decreasing the environmental effects of projects or plans and programs.

### Circular economies for sustainable health and well-being

Green, Liz; Drane, Mark

Sourcing regionally: Local building materials and their re-use

Lvons, Anno

Recycling building materials in Hong Kong: Where IA meets CE

Lui, Crystal, Mei Yan

#### TRANSFORMATIVE LEADERSHIP AND MANAGEMENT IN IMPACT ASSESSMENT

### Fueling effective ESIA through leadership and systems transformation

#### Monday 8 May | 15:00-16:30 | Room 8+9

Paper session Chair(s): Jessica Kyle

Transforming impact assessment into meaningful results requires supportive systems and engaged leadership-formal and informal, at all levels. This session will discuss approaches for benchmarking environmental and social safeguard systems of development agencies and provide real-world examples of better aligning systems and leadership to translate ESIA from paper to results.

### Benchmarking environmental and social safeguard procedures

Annandale, David; Annandale, Darko

Leaders as transformers: Lessons for more effective ESIA at USAID

Bernhard, Teresa; Gibson, Will



Share your thoughts on a session or the day's events by tagging **#iaia23** on Twitter, Facebook, and Instagram!

### Modeling, leading and measuring the impact of cultural transformation

#### Tuesday 9 May | 14:00-15:30 | Room 8+9

Paper session

Chair(s): Christine Crispin

This session will provide a forum for participants to hear about recent case studies in culture change and transformation, the guiding frameworks that organizations have used to support their significant efforts, and the measures that they have engaged to assess and monitor the impact of transformational activities

### Cultural maturity and transformation in EIA-EMS leadership

Raissiyan, Behzad

Influence of capital stocks on cultural change Liew, Samantha

# Transforming environmental governance at local and international scales to improve ESG outcomes

#### Tuesday 9 May | 14:00-15:30 | Room 1

Paper session

Chair(s): Mellissa Winfield

This session explores themes of transformative leadership and management in local and international assessment. Case studies explore challenges and successes using international standards to address local assessment gaps. The session ends with a forward-looking view on how international environmental governance can be more effective at improving ESG outcomes.

### Scoping multi-jurisdiction International ESIAs to leverage local EA processes

Gill, Eleanor

### Conflicting EIA review comments: World Bank versus Ghana EA regulations

Amoyaw-Osei, Yaw

### Overview of environmental assessment policies and resilience across LMIC

Hamed, Maged Mahmoud; Sanchez-Triana, Ernesto

Beyond avoidance: AIFFP's journey to strengthen E&S

Buldeski, Jo; Martin, Philip

#### **Enhancement of ESIA: A corporate commitment**

Chung, Darylynn; Bujang, Nur Khairin

### Transforming environmental governance to improve ESG Outcomes

Winfield, Mellissa

#### The role of EIA in deep-sea mining

#### Wednesday 10 May | 11:00-12:30 | Room 4

Paper session

Chair(s): Michael Clarke

The themes that will be covered in this session will address how traditional EIA as applied to terrestrial mining should be modified to address the specific challenges of the deep-sea context. Topics to be discussed include data collection, impacts, risk assessment, mitigation measures, mine closure, and regulatory challenges.

### A framework for the implementation of EIA for a deep sea mining project

Clarke, Michael

### The application of adaptive management to deep sea mining projects

Crossouard, Neil; Matthewson, Tom

### Assessment and management of polymetallic nodule mining in CCZ ecosystems

Dambacher, Jeffrey; Dunstan, Piers

### Predicted effects of polymetallic nodule mining on marine ecosystems

Hyman, Jayden

### First-ever SIA for a deep-sea mining project in the Clarion Clipperton Zone

Nazari, Mehrdad; Proebstel, Donald

## Compliance and enforcement of EsIA requirements, commitments, and related permits

#### Monday 8 May | 15:00-16:30 | Room 1

Caravan

Chair(s): Erica Van Den Honert, Cristian Perez Section: Governance and Implementation Systems

Compliance and enforcement of EsIA requirements, commitments and related permits is a significant challenge. Following a brief introduction to Principles and Best Practices for EsIA Compliance and Enforcement, participants rotate in facilitated Caravanstyle "stops" to discuss the 5 major principles, elaborate lessons and best practices, and conclude with a report.

### Strategic environmental assessments in Mekong country

#### Wednesday 10 May | 14:00-15:30 | Room 8+9

Panel discussion Chair(s): Try Thy

Open Development Cambodia hosts a panel discussion to explore regional considerations in policy, plan and programme making and strategic environmental assessments. The panel will focus on balancing nations' interests, sustainable development, Indigenous rights, and preserving biodiversity.

### SEA: How it addresses the failure of EIAs in Cambodia

Koem, Chhuonvuoch; Chea, Leng

#### Influence of SEA on foreign investment in Cambodia

Kuoch, Layheng

# DYNAMIC CAPABILITIES AND QUALITY INNOVATION IN IMPACT ASSESSMENT

### Workshopping new international best practice IA follow-up guidance

#### Monday 8 May | 15:00-16:30 | Room 6

Workshop

Chair(s): Jos Arts, Angus Morrison-Saunders

A guidance document for IA follow-up will be presented and discussed with workshop participants (international experts and other stakeholders) in an interactive forum. Audience discussion is welcomed. The aim is to produce a final guidance document for publication by IAIA alongside the revised international best practice principles for IA follow-up.

### New developments in human rights impact assessment

#### Thursday 11 May | 11:00-12:30 | Room 4

Panel discussion

Chair(s): Gabriela Factor, Tulika Bansal

This session will include a discussion on the latest developments on human rights impact assessment and its importance on the light of new regulatory developments, two cases of fisheries and infrastructure sector, the launch of the fast tips on Human Rights in Impact Assessment and a lively Q&A session.

### A sectoral approach to assess human rights impacts in the renewables sector

Bansal, Tulika

### Walk the talk: Mitigating human rights impacts of infrastructure projects

Kim, Isabelle

Launch of FasTips on Human Rights in Impact Assessment

### MEASURING AND EVALUATING THE IMPACT OF IMPACT ASSESSMENT

### Social impact assessment: How universities' impacts on society are evaluated

#### Thursday 11 May | 11:00-12:30 | Room 6

Paper session

Chair(s): Takako Hashimoto

Toward a sustainable society, social impact assessment (SIA), which evaluates positive values from an organization's diverse efforts to solve social issues, is spreading. In this session, we will focus on universities' SIA and discuss indicators, assessment of universities' social impact, challenges, and future direction of SIA.

### Development of social indicators to evaluate USR activities

Saito, Noriko; Hashimoto, Takako; Okudera, Aoi

### The social impact of the UI GreenMetric participants to society

Fitri Sari, Riri; Setiani, Hastin; Windiatmaja, Jauzak Hussaini

#### THE Impact Rankings: Evaluating universities' progress under an SDG paradigm

Lim, Mei Mei; Dilena, Simone; Wilkens McMahon, Julie

#### Information management and impact assessment

#### Tuesday 9 May | 16:00-17:30 | Room 1

Paper session

Chair(s): Aaron Goldschmidt

Advancing data application and management techniques can inform and streamline project design, enable free and consistent data access, simulate mitigation implementation, and model and track mitigation. This session presents case studies illustrating how these tools align at different stages of impact assessment – from planning through mitigation monitoring and reporting.

#### Generative urban design for smart, sustainable, resilient cities

Alshuwaikhat, Habib; Abussaud, Laian

#### **Environmental observatory of mining** projects: Access to EIA info

Bergamini, Kay; Ángel, Piroska

#### Data and Information of ambiental of interest of libre access: The new deal

Arava, Gino: Honorato, Iván

#### Visualized environmental measures for pipeline project in Thailand

Sattapun, Rachit; Sanrach, Sirivimon

#### How environmental impact assessment works: Case studies

#### Tuesday 9 May | 11:00-12:30 | Room 5

Paper session

Chair(s): Reece Alberts

The session will present case studies of how environmental impact assessment works as a process to explore the difference between concept and practice.

#### Analysis of relationship between urban development patterns and particulate

Kim, Jin-Oh

#### Cost-efficient development of naturebased impact assessments

Chevalier, Diogo; Barbosa, Victor

#### Presentation of Djibouti's EIA system

Abdi, Abdek; Murayama, Takehiko

#### The inclusion of climate change aspects in SEA: Potentials for Thai context

Chanchitpricha, Chaunjit; Bond, Alan

#### EIA decision making and administrative justice

Alberts, Reece; Retief, Francois

#### Roles of ESG and EIA in preserving biodiversity: A case study in Hong Kong

Mok, Yoyo, Wing Yiu

#### Making impact assessment more effective: Approaches and changes

#### Thursday 11 May | 14:00-15:30 | Room 8+9

Paper session

Chair(s): Pantea Niksirat

The session brings together diverse presentations which consider the broad question of how to make impact assessment a better process with better results.

#### Considering a project's contributions to sustainability in IA

Service, Andrea

#### Regulatory impact assessments for standards: **Environment and social aspects**

Niksirat, Pantea

#### Don't let nature positive distract from the mitigation hierarchy

Maron, Martine; von Hase, Amrei; Quétier, Fabien

#### Drought, water stress, and food security: A global perspective

Chinweze, Chizoba; Echetabu, Chinny

#### Returning the social pillar to sustainable infrastructure

Munday, Jane

### TRANSIENT AND SUSTAINABLE MODELS FOR IMPACT ASSESSMENT

#### Toward more sustainable oil and gas projects: Strategies for oil and gas

#### Thursday 11 May | 11:00-12:30 | Room 2+3

Panel discussion

Chair(s): Fernando Rodriguez

As hydrocarbons will remain a core part of the global energy mix for the foreseeable future, what are the key elements of sustainability we need to consider in impact assessment of oil and gas developments to make them more sustainable?

#### The evolution of impact assessments in Mexico

Garcia Chiang, Armando

#### Assess and review of socio-environmental mitigation in the oil and gas industry

Tometich, Patricia; Walter, Tatiana

#### Speeddate debate

#### Monday 8 May | 15:00-16:30 | Room 10+11

Debate

Chair(s): Jan Nuesink, Petra Boonman

Moderated debate session among participants on selected imminent environmental issues and challenges in our global society. Does impact assessment still play a relevant role in decision making or do we have to take a more activist stand as practitioners and IAIA? Additional gain of this speeddate format is that you get to know your fellow participants a little better!

#### Impact assessment: Fostering partnerships for green resilient development

#### Wednesday 10 May | 11:00-12:30 | Room 5

Pecha Kucha

Chair(s): Mokshana Wijeyeratne, Neha Vyas

Section: Biodiversity and Ecology

What kind of possibilities open-up when IA is used for promoting green and resilient development? What role do partnerships have in this? The session will bring together global experience that highlights success stories, lessons learnt and will make recommendations for promoting stronger partnerships that make IAs more effective.

#### IA unfolding a green and resilient roads program

Mishra, Neha Vyas

#### Occupational, health, and safety (OHS) in environmental impact assessment

Rajbhandari, Annu

#### Why urban ecosystem conservation matters for sustainable urban policy

Yuwono, Thalyta Ernandya

#### ICZM: A rendezvous for coastal sectors, negotiating for healthy coasts

Shukla, Anuja; Merchant, Siddharth

#### The Vandhoo Turtles: When biodiversity conservation meets environmental management

Wijeyeratne, Mokshana; Zuhair, Ahmed Hassaan

#### Overhauling impact assessment in response to the sustainability imperatives (I)

#### Thursday 11 May | 11:00-12:30 | Room 1

Paper session

Chair(s): Juan Palerm

Can impact assessment become a tool that promotes transformational change towards environmental sustainability, low carbon and climate resilient development, beyond safeguarding the "do no harm" principle? This session will explore approaches to bring impact assessment up to speed and ensuring it is fit-forpurpose to the global challenges we are facing.

#### Aligning EA and the Sustainable Development **Goals: Practitioner perspective**

Ravn Boess, Emilia; Gonzalez Del Campo, Ainhoa

#### Assessment methods to achieve sustainability Jenkins, Bryan

#### **Embedding sustainability through ESIA:** Case study from AlUla, Saudi Arabia

Cone, Catherine

#### Environmental/cultural flows for impact assessment

Bergbusch, Nathanael; Courtenay, Simon; Lo, Melanie

#### It is also the rain: Natural hazards, climate change and assessing impacts

Kelly, Charles

Twitter! #iaia23 12 IAIA23 final program

### Overhauling impact assessment in response to the sustainability imperatives (II)

#### Thursday 11 May | 14:00-15:30 | Room 1

Paper session Chair(s): Juan Palerm

Can impact assessment become a tool that promotes transformational change towards environmental sustainability, low carbon and climate resilient development, beyond safeguarding the "do no harm" principle? This session will explore approaches to bring impact assessment up to speed and ensuring it is fitfor-purpose to the global challenges we are facing.

#### Above and beyond IA: Benefits for the territory development

Amaya, Andres; Ruiz, Yaddy

### Integrating poverty-environment objectives into plans

Robinson, Johan

#### Sustainable finance: EIB operating model

Filipas, Angela

### Overhauling environment and climate risk screening for EU cooperation

Palerm, Juan; Crabbé, Bernard

### Learning-oriented impact assessment for promoting transformational change

Diduck, Alan

### Integrating risk and impact assessment in renewable energy supply chains (I)

#### Wednesday 10 May | 14:00-15:30 | Room 6

Paper session

Chair(s): Andy Symington

Rapid procurement shifts as companies pivot to renewable technologies are creating new and increased human rights impacts. This panel examines how to better integrate risk assessment and impact assessment in renewable energy supply chains, and how bottom-up, community-led impact assessment processes can help us gain crucial supply chain visibility.

### Assessing health impacts of energy transition technologies

Mortara, Simone; Uberti, Filippo

### Guidance document for authorities reviewing renewable energy applications

Adams, Abulele; Lochner, Paul

### What did we learn? Lessons from the Bipole III Transmission Lines project

Fitzpatrick, Patricia

### Integrating risk and impact assessment in renewable energy supply chains (II)

#### Wednesday 10 May | 16:00-17:30 | Room 6

Paper session

Chair(s): Andy Symington

Rapid procurement shifts as companies pivot to renewable technologies are creating new and increased human rights impacts. This panel examines how to better integrate risk assessment and impact assessment in renewable energy supply chains, and how bottom-up, community-led impact assessment processes can help us gain crucial supply chain visibility.

### Hydropower and Indigenous peoples in Nepal: Impactless assessments

Shakya, Prabindra

### Smarter solar procurement in the Pacific: Addressing lowest-cost risk

Martin, Philip; Bunt, Sam

### Assessing health impacts of agrobusiness for energy: Eni's case

Takherist, Foudil; Mortara, Simone

#### CULTURAL HERITAGE

### Cultural heritage impact assessment at critical sites

#### Thursday 11 May | 11:00-12:30 | Room 10+11

Paper session

Chair(s): Christopher Polglase Section: Cultural Heritage

The practice of impact assessment for cultural heritage has evolved significantly during the past two decades. During this session, we will hear about case studies related to impact assessments and Heritage Impact Assessments for sites of international and national levels of significance.

### Heritage management as a force for economic and social resilience

Roberts, Kirk

#### Spectrum public participation IAP2 in Subak, Bali

Andika, Pundarika Vidya; Alizar, Aldi Muhammad

#### AGRICULTURE, FORESTRY, AND FISHERIES

### SDGs in food production and consumption: Land and sea

#### Monday 8 May | 15:00-16:30 | Room 5

Panel discussion

Chair(s): Anne Dansey

The session will explore impact assessment models SIA, EIA and also strategic land use mapping and the growing blue economy to take into account social, economic and ecological impacts as well as learnings from the social and biophysical sciences. This includes challenges for maintaining environments to support restorative agriculture and renewable energy and providing space for small-scale fishing in a blue economy. Exploring current impacts on fish stocks and just livelihoods.

### First-ever EIA for deep-water mariculture in Hong Kong

Cheng, Wellem

#### Agrivoltaics creating energy justice

Taylor, Madeline

### Renewable energy zones and agriculture in the energy transition

Dansey, Anne

#### INDIGENOUS PEOPLES

#### How is Indigenous leadership improving IA? (I)

#### Tuesday 9 May | 11:00-12:30 | Room 4

Paper session

Chair(s): Matt Hammond, Chris Apps Section: Indigenous Peoples

Indigenous leadership in IA can lead to better IA practice and more resilient decisions. What are the specific catalysts that are empowering Indigenous groups to become more deeply involved in the practice and oversight of IA? This session will explore examples from around the world.

### Developing models of indigenous-led environmental health risk assessment

Lewis, Diana; Castleden, Heather

### An Indigenous-led history of change to evaluate cumulative effects

Allen, Corrie

### Indigenous-led cumulative effects in impact assessment and decisionmaking

Herbert, James; Doucette, Paula

### Indigenous leadership in IA: Implementing DRIPA in British Columbia, Canada

Hoogeveen, Dawn; Atleo, Clifford G.

#### Leadership in IA by Kitselas First Nation in Canada

Apps, Chris; Hammond, Matt



Meeting and work space is available 9-11 May from 09:00 - 17:30 in Room 7.

### How is Indigenous leadership improving IA? (II)

#### Tuesday 9 May | 14:00-15:30 | Room 4

Paper session

Chair(s): Matt Hammond, Chris Apps Section: Indigenous Peoples

Indigenous leadership in IA can lead to better IA practice and more resilient decisions. What are the specific catalysts that are empowering Indigenous groups to become more deeply involved in the practice and oversight of IA? This session will explore examples from around the world.

### Embedding diverse values of nature in decision making for sustainability

Mayhew, Melissa; Perritt, Jessica

Indigenous FPIC protocols to promote a fair and inclusive impact assessment

Hanna, Philippe

Operationalizing consensus-based approach through environmental assessment

Boisvert, Jason; Michano, JoAnne

Indigenous IA as a game-changer? Lessons from Aotearoa, New Zealand

Jolly, Dyanna

Woollahra Aboriginal heritage: Best practice heritage impact assessment

Scardamaglia, Flavia

Integrated assessment on flood risks and building rural community resilience

Kanapathi Pillai, Kamala Vainy

### Building resilience through Indigenous participation in EIA

#### Monday 8 May | 15:00-16:30 | Room 4

Paper session

Chair(s): Jettie Word

The last remnants of nature are mainly governed by Indigenous people. These areas, however, are under increasing pressure from development projects. Involving Indigenous people in decision making process through EIA could build resilience and leadership that is needed to protect these sites from further degradation.

### Barriers and breakthroughs: The roles of Indigenous women in Canadian IAs

Zacharuk, Britney; Bridges, Alexandra

Assessing cumulative impacts for Fort McKay Métis Nation in Alberta

Bockstael, Erika; Adiele, Adi; Dyck, Thomas

Baram heritage survey: Decolonial assessments in Indigenous territories

Word, Jettie; McAlpine, Fiona

Ensuring FPIC in large- and small-scale energy projects in Sarawak

Lim, Celine

### The FPIC process: A way of empowering Indigenous communities?

Rossi, Francesca; Bobbio, Emanuele

YUKPA: A semi-nomad Colombian community coexisting in a mining and energy territory

Ruiz, Yaddy; Amaya, Andrés

### Indigenous knowledge as the foundation of Indigenous-led impact Assessments

#### Tuesday 9 May | 16:00-17:30 | Room 4

Panel discussion
Chair(s): Bruce Muir

Indigenous knowledges are the foundation of Indigenous-led IAs. Respecting, integrating, and when culturally appropriate relying on their worldviews, institutions, environmental management, and local ecological information is essential, particularly to implement the United Nations Declaration on the Rights of Indigenous Peoples. The confluence of Indigenous knowledges and IA will be explored.

### Ensure fairness in unregistered and customary land acquisition

Ishihara, Satoshi; McDermott, Mike

### Indigenous ways of life led HIA to establish community health status

Olsgard, Mandy; Wells, Carmen

Working with Indigenous Peoples in EIAs Ramesh, Geetha; Lepine, Melody

### Assessing mitigations for mine exploration with Indigenous storytelling

Muir, Bruce

#### PUBLIC PARTICIPATION

### The contribution of citizen science to participatory impact assessment

#### Tuesday 9 May | 11:00-12:30 | Room 6

Paper session

Chair(s): Alan Chenoweth Section: Public Participation

Citizen science, inclusive research, participatory planning and smart technology can be better integrated into IA, to improve data, involve and empower lay communities, and contribute to evidence-based environmental decisions and management. In discussions following paper presentations, participants can help develop an overview of issues, questions and future directions.

### Conceptualizing guidelines to monitor environmental data involving locals

Saini, Randeep Singh

Use local knowledge for a better IA process using digital participation

Eijssen, Paul

### Citizen science yields reliable biodiversity baselines for assessments

Chenoweth, Alan

### STRATEGIC ENVIRONMENTAL ASSESSMENT

### Asian S3EA: Strategic, spatial and sustainable EA (I)

#### Tuesday 9 May | 11:00-12:30 | Room 2+3

Paper session

Chair(s): Jong-Gwan Jung

The advancement of remote sensing technology and information technology, spatial analysis with a variety of environmental, social and economic items received a big attention. This session will focus on IA examples which support the strategic decision including SEA and utilized the well-organized spatial scale analysis for achieving SD in Asian regions.

### Development of web-based wind power potential site selection model in Japan

Hayashi, Kiichiro; Balbi, Stefano; Nagashima, Takumi

#### ESG performance on Chinese energy companies

Lin, Mengyuan; Murayama, Takehiko

#### Nuclear science popularization: China case

Fan, Ziyu; Murayama, Takehiko

### Site selection for small hydropower plant based on resources time footprint

Huang, Xiaoxun; Hayashi, Kiichiro

### Asian S3EA: Strategic, spatial and sustainable EA (II)

#### Tuesday 9 May | 14:00-15:30 | Room 2+3

Paper session

Chair(s): Kiichiro Hayashi

The advancement of remote sensing technology and information technology, spatial analysis with a variety of environmental, social and economic items received a big attention. This session will focus on IA examples which support the strategic decision including SEA and utilized the well-organized spatial scale analysis for achieving SD in Asian regions.

#### KSEIA for the sustainable future

Kim, Myungjin; Jeon, Sookjin

### Strengthening SEA in the Pacific region: Challenges and opportunities

Davetanivalu, Jope; Diarra, Ivan

### How to deal with risk aspects in impact assessment procedures: Japan case

Murayama, Takehiko; Hashimoto, Teru

#### Recent lawsuit case analysis related to EIA of Korea

Lee, Youngsoo; Kang, Eugene; Ji, Mingu; Choi, Hyunjin

### 1996 SEA Effectiveness Study: A 25 year benchmark for review of progress

#### Tuesday 9 May | 11:00-12:30 | Room 10+11

Workshop

Chair(s): Rob Verheem

25 years on, the 1996 SEA Effectiveness Study provides a convenient milestone against which to benchmark progress on the field. We will explore in an interactive way how SEA effectiveness has improved since then, where it still falls short, and what the key steps are to now move forward ahead.

#### Asian S3EA: Strategic, spatial and sustainable EA (III)

#### Tuesday 9 May | 16:00-17:30 | Room 2+3

Paper session

Chair(s): Takehiko Murayama, Myungjin Kim

The advancement of remote sensing technology and information technology, spatial analysis with a variety of environmental, social and economic items received a big attention. This session will focus on IA examples which support the strategic decision including SEA and utilized the well-organized spatial scale analysis for achieving SD in Asian regions.

#### **Analysis for further improvement** of Social license to operate

Suwanteep, Kultip

#### Digitizing stakeholder and spatial analysis for a flood protection strategy

Aguino, Christian James; Nell, Jan-Willem

#### Spatial analysis of ecosystem service importance in Greater Mekong river

Meynell, Peter-John

#### Do we need to reform the EIA system toward sustainability assessment?

Shibata, Yuki; Nukaya, Megumi

#### SESA and the energy transition in Indonesia

#### Thursday 11 May | 14:00-15:30 | Room 2+3

Panel discussion

Chair(s): Miles Scott-Brown, Barry Dalal-Clayton

In response to the climate change challenge, countries must reduce GHG emissions in support of the Energy Transition Mechanism (ETM). A pioneering strategic environmental and social assessment (SESA) approach is being applied to ETM in Indonesia. Without question, it is the most appropriate tool for this purpose.

#### Genevieve O'Farrell, Senior **Environment Specialist (ADB)**

Rangina Nazrieva, Senior Social Development Specialist (Safeguards) (ADB)

Ferike Arika, Analyst for Climate Finance Policy (Ministry of Finance, Government of Indonesia)

#### IAIA SEA guidance for renewable energy

#### Wednesday 10 May | 14:00-15:30 | Room 10+11

Chair(s): Barry Dalal-Clayton, Miles Scott-Brown

In response to the challenge of climate change and in support of country commitments to reduce emissions of greenhouse gases and transition to renewable energy (RE), SEA guidance for the RE transition is critically needed. IAIA is developing such guidance and will present a progress report and outline the broad content of the guidance. Draft chapters will be available on the IAIA website for review from mid April.

This IAIA project is supported by ADB, IAAC, IFC, NCEA, and NORAD.

#### SOCIAL IMPACT ASSESSMENT

#### Putting the "S" in ESG: Social impact assessment for major projects

#### Wednesday 10 May | 11:00-12:30 | Room 6

Panel discussion Chair(s): Sara Bice

Assessing the social impacts of major projects is crucial for local communities, climate action, and sound investment. It is also vital for long-term community resilience and wellbeing. This session aims to highlight the 'S' in ESG (Environmental, Social and Governance) policy and practice by bringing together international SIA experts working on major infrastructure projects. Join the conversation as we discuss and debate the best ways to raise the profile of the 'S' in ESG.

#### Highlighting the S in the ESG

Cord, Louise

#### Social impact assessment and reducing risk in Indonesian oil palm

Gillespie, Piers

#### Highlighting the social in risk management

Sanchez, Emerson; Henderson, Hayley

#### Implementation of social impact assessment for physical development of projects

#### Wednesday 10 May | 14:00-15:30 | Room 4

Paper session

Chair(s): Alias Remeli, Carlos T. Pérez-Brito

Assessing social considerations through social impact assessment has been a crucial and significant planning tool in urban planning. The presenters will share their experiences and challenges in incorporating social impact in the land use planning process that could contribute to the successful implementation of SIA.

#### Capacity building for social impact assessment professionals in Malaysia

Ab Aziz, TPr Herlina

#### SIA in urban renewal project implementation in Sarawak

Amra Ramly, Saiful Bahari

#### Reflections on social impact assessment in Malaysia perspective

Rameli, Alias

#### Perspectives on social impact assessment

#### Tuesday 9 May | 16:00-17:30 | Room 8+9

Paper session

Chair(s): Munya Chitakira

The session brings together a range of perspectives on social impact assessment ranging from guidance to

#### USAID optional social impact assessment framework

Aryeetey, Henry

#### Overhauling social impact assessment by promoting community investment

Gulakov, Ilya

#### **Evaluating significance of community** visioning in social impact assessment

Chitakira, Munya

#### Global perspectives on the application of Western worldview in SIA

Vukovics, Kathleen

### CAPACITY BUILDING IN IMPACT ASSESSMENT

#### Capacity building on SIA through certification and accreditation

#### Wednesday 10 May | 16:00-17:30 | Room 4

Panel discussion

Chair(s): Bryan Alamani, Mayumi Pimentel

This panel discussion will gather SIA practitioners from different regions to share their experiences and perspectives about the available streams of certification/accreditation; identify challenges, best practices, and new trends in developing quality training programs and certifications, to further promote SIA principles through collaborative learning and capacity building programs.

#### SIA certification in Australia and Aotearoa, New Zealand

Esteves, Ana Maria; Coakes, Sheridan

#### Capacity building on social impact assessment through certification and accreditation

Kojima, Takeharu; Kato, Megumi

#### SIA credentials and accreditation in Australia? Rifkin, Will

Jeffrey B. Jacquet

#### The role of capacity-building in the Pacific Islands Marburg, Rachelle

#### Marine EsIA: Challenges and roadmap ahead

#### Thursday 11 May | 14:00-15:30 | Room 5

Panel discussion

Chair(s): Charles Kelly

This session will benchmark challenges and experiences in impact assessment within the marine environments, using case studies from different geographies and economic sectors. A significant increase of human activities and economic sectors will be demanding more space and integration together with conservation and traditional marine activities. Using offshore wind farms recent experience and challenges in biological impacts will be a major focus. Are we technically prepared for the challenge?

#### Can the Marine Renewable Energy Act function as SEA in Japan?

Takeuchi, Ayano; Ando, Shoko

Implementing EIAs to achieve environmental protection: Taiwan as case study

Li, Tsung Chang

### Establishment of advance mariculture zone in open sea environment

Li, Alan

### Mapping of mapping: The role of spatial tools for impact assessment

#### Wednesday 10 May | 16:00-17:30 | Room 5

Paper session Chair(s): Kate Lazarus

An overview of the different ocean-based spatial planning approaches that feed into impact assessment processes, highlighting how they support implementation of national and international objectives and standards. This will help guide appropriate decision-making through the uptake of applicable spatial approaches to support sustainable development.

### Using remote sensing and machine learning to identify biodiversity offsets

Perez Chaves, Pablo

### The validity of spatial data-based EIA screening decisions

Cilliers, Dirk; Retief, Francois

### Use of MCDA to minimize environmental and social risks at site screening

Kadioglu, Bulent; Basit Khan, Abdurrahim; Saud Al Mutair, Raed Albasseet

#### The need for streamlining IA in The Netherlands

Scheffers, Maarten; de Vries, Hans

### Would the new capital of Indonesia be secure against multi-hazard?

Heo, Sujung

### WBG's E&S framework for offshore wind spatial planning for emerging markets

Lazarus, Kate; Conzo, Lori Anna

#### **BIODIVERSITY AND ECOLOGY**

#### Ecological resilience and impact assessment: Applications and challenges (I)

#### Wednesday 10 May | 11:00-12:30 | Room 2+3

Paper session

Chair(s): Patricia Rodrigues Section: Biodiversity and Ecology

Biodiversity is key to achieve a resilient ecosystem. We welcome the share of experiences, concerns, doubts, and hopes on measuring and applying the ecological resilience concept in impact assessment, with focus on biodiversity and ecosystem services.

### One health in impact assessment for ecological resilience

Viliani, Francesca; Machalaba, Catherine

Races in the desert: Baselines, measuring resilience, and fast-paced IAs

Korpijaakko, Carla

Using SEEA Ecosystem Accounting to conserve biodiversity as a common good

Villaluz, Maya Gabriela

### Waste management measures in EIAs for developments in protected areas

Roos, Claudine; Cilliers, Dirk; Claassens, Caroline; Retief, Francois; Alberts, Reece

### Ecological resilience and impact assessment: Applications and challenges (II)

#### Wednesday 10 May | 14:00-15:30 | Room 2+3

Paper session

Chair(s): Patricia Rodrigues Section: Biodiversity and Ecology

Biodiversity is key to achieve a resilient ecosystem. We welcome the share of experiences, concerns, doubts, and hopes on measuring and applying the ecological resilience concept in impact assessment, with focus on biodiversity and ecosystem services.

### A new approach to critical habitat assessment aligned with World Bank ESS6

Tuyor, Josefo; Cauldwell, Andrew

### Building ecological resilience in a rapidly changing landscape

Simmonds, Corin; Treweek, Jo

### The power of nature-based solutions to increase resiliency

King, Virginia; Stewart, Benjamin

### Toward eco-centric EIA best practice principles for protected areas

Retief, Francois; Alberts, Reece; Cilliers, Dirk; Roos, Claudine; Bond, Alan

### Ecological resilience and impact assessment: Applications and challenges (III)

#### Wednesday 10 May | 16:00-17:30 | Room 2+3

Paper session

Chair(s): Patricia Rodrigues Section: Biodiversity and Ecology

Biodiversity is key to achieve a resilient ecosystem. We welcome the share of experiences, concerns, doubts, and hopes on measuring and applying the ecological resilience concept in impact assessment, with focus on biodiversity and ecosystem services.

### Ensuring that environmental flows from dams will sustain biodiversity

Ledec, George

### Sustaining biodiversity through a wetland conservation park system

Ng, Pei Kee; Chow, Gary

### The ecological impacts of hydro-peaking in tropical and subtropical regions

Khandkar, Zaglul; Thompson, Ross; Ezaz, Tariq

### Developing an onshore windfarm in a high biodiversity area

O'Donnell, Nikki; Russo, Anthony

#### CLIMATE CHANGE

### Impact assessment for resilient carbon neutrality (I)

#### Tuesday 9 May | 14:00-15:30 | Room 6

Paper session

Chair(s): Kin Che Lam, Timothy Peirson-Smith

Carbon neutrality should be a resilient journey against expected and unexpected drawbacks, and environmental, energy and economic systems under carbon neutrality should be resilient. This session explores how impact assessment has been, and will be, ushering resilient carbon neutrality in developed and developing countries and metropolitans.

### Comparative perspectives on EIA as a tool for climate change mitigation

Mayer, Benoit; Slowik, Mateusz

### Canada's strategic assessment of climate change: Effectiveness and learning

Margraf, Kelsey

### Strategic environmental plan to strive for carbon neutrality in Hong Kong

Yim, Noel; Lee, Karen

### Spatial planning and its role in a resilient green economy

Asante Owusu, Rachel

### Strengthening parliamentary capacity building in climate finance

Nasri, Muhamad Azami

### Impact assessment for resilient carbon neutrality (II)

#### Tuesday 9 May | 16:00-17:30 | Room 6

Paper session

Chair(s): Kin Che Lam, Timothy Peirson-Smith

Carbon neutrality should be a resilient journey against expected and unexpected drawbacks, and environmental, energy and economic systems under carbon neutrality should be resilient. This session explores how impact assessment has been, and will be, ushering resilient carbon neutrality in developed and developing countries and metropolitans.

### Climate change considerations for federally regulated pipelines in Canada

Mulukutla, Usha

### Municipal solid waste management for carbon-neutral destination in Nan Province

Niyommaneerat, Wilailuk; Faiyue, Bualuang

### Nuclear power: A renewable energy that contributes to carbon neutrality

Martinez, Ma. Luisa

### The first EIA for CO2 injection and mineralization in Iceland

Adalsteinsdottir, Heida

### The strategic importance of key metals in China's carbon-neutral future

Du, Yufan

### Roundtable on impact assessment and climate change

#### Thursday 11 May | 11:00-12:30 | Room 8+9

Workshop

Chair(s): Arend Kolhoff, Wes Fisher Section: Climate Change

The Climate Change Section has prepared an action plan with on-going and new activities. The plan will be presented. The participants will be asked to identify and advocate for new activities aiming to further incorporate climate change in impact assessment.

### Analysis of cumulative impact and its input for climate change management through ESIA

#### Wednesday 10 May | 16:00-17:30 | Room 8+9

Paper session

Chair(s): Rita Bustamante, Javier Macera

We propose to present successful cases and opportunities for improving the analysis of cumulative impacts in the ESIA, considering regional and global effects. Based on a review of related policies and laws, main tasks are to identify sources of available information and to review guidelines and methodologies for CEA.

### Cumulative impact analysis from a project perspective

Paez Zamora, Juan Carlos

### Systems analysis of cumulative effects in EIA, a generic tool for all tiers

Gordon, Johanna; Faith-Ell, Charlotta

#### An overview of socioeconomic impacts of landslides

Sim, KwanBen; Lee, MinLee; Wong, SoonYee

### Climate change impact and adaptation in the complex lagoon of Bizerte

Ben Jdira, Wissal; Saidane, Imene

### Climate change impact assessment and integrated application tools (I)

#### Tuesday 9 May | 14:00-15:30 | Room 5

Workshop

Chair(s): Young-Il Song, Changwan Seo

Climate-induced crisis have imposed tremendous impacts on human and nature. South Korean government developed MOTIVE system to assess the impact and vulnerability to climate change in diverse sectors. It could be adopted as a tool for considering climate change in EIA process and details of the system will be discussed.

### Development of integrated model for climate change impacts

Park, Songmi; Song, Young-II; Park, Jinhn; Hong, Jaewoo

### Design of regional water management risk assessment to climate change

Ahn, Jong Ho; Lee, Mun-hwan; Ryu, Gyeong-sik; Seo, Seuna-beom; Park, Hae-kyung

### Mortality due to extreme temperatures in South Korea by SSP-RCP scenarios

Kim, Ho; Choi, Haejin; Jang, Hyemin; Song, Insung; Park, Jinah; Moon, Jungmin

### Climate change impact assessment using the MOTIVE Ecosystem

Seo, Changwan; Lee, Do-Hun; Choi, Da-Jeong; Joo, Woo-Young; Cheon, Gwang-Il; Lee, En-Seo

### Climate change impact assessment and integrated application tools (II)

#### Tuesday 9 May | 16:00-17:30 | Room 5

Workshop

Chair(s): Young-Il Song, Changwan Seo

Climate-induced crisis have imposed tremendous impacts on human and nature. South Korean government developed MOTIVE system to assess the impact and vulnerability to climate change in diverse sectors. It could be adopted as a tool for considering climate change in EIA process and details of the system will be discussed.

### Transient dynamics of forest growth and stand density after thinning

Kim, Hyung-Sub; Kim, Gwang-Jung; Lee, Jeong-Min; Kwon, Min-Young; Kim, Ge-Eun; Ahn, Ji-Eun; Choi, Yoo-Jin; Kwon, Sang-Geun; Kim, Jin-Seo; Park, Ji-Eun; Jo, Hee-Jae: Son. Yo-Whan

### Development of the second-phase MOTIVE agriculture model

Hong, Jinsol; Cho, Kijong; Song, Jaejun; Hwang, Wonjae; Lee, Eunjeong; Kim, Yongeun

### Estimating effects of climate change on food consumption pattern in Korea

Suh, Yena; Yoon, Heeyeun

### Improvement of climate suitability model for fruit trees

Hyun, Shinwoo; Kim, Kwang Soo

#### CORPORATE STEWARDSHIP AND RISK MANAGEMENT

### Resilient organizations facing environmental and social crises

#### Thursday 11 May | 14:00-15:30 | Room 4

Paper session

Chair(s): Pablo Baranao, Juan D. Quintero

Many organizations have faced critical situations such as environmental disasters, social upheavals, and unexpected or engineering failures. These turning points have had huge impacts on these organizations often with dire consequences on their survival. However, some organizations have been able to turn these crises into a transformational change opportunity, resulting in more sustainable entities and becoming leaders in their field. This session will illustrate these experiences.

#### ESIA, resilience, and social crisis: Recife (Pernambuco) case study

Rojas Lara, Julio Andres; Catacoli Jimenez, Ruth Alejandra

### Follow the money: Is there a role for IA in due diligence?

#### Tuesday 9 May | 11:00-12:30 | Room 8+9

Workshop

Chair(s): Heikki Kalle, Charlotta Faith-Ell

This session aims to explore if there is a role for IA in Due Diligence (an instrument for investment decisions and financing). DD is lacking information from IA, while IA faces the challenge of effective implementation. We invite IAIA'23 participants (experts and other stakeholders) to discuss this topic.

### Introduction to the potential role of IA in due diligence

Kalle, Heikki

### GOVERNANCE AND IMPLEMENTATION SYSTEMS

#### Advancing understanding of naturebased solutions in impact assessment

#### Monday 8 May | 15:00-16:30 | Room 2+3

Panel discussion

Chair(s): Stephen Edwards

This Session will discuss Nature-based Solutions in the context of impact assessment, describe progress of a framework to design, implement and scale up NbS actions (the IUCN Global Standard for NbS), review cases where NbS is being used, and discuss how to integrate NbS clearly into policy and impact assessment.

### Global advances in the application of nature-based solutions

Edwards, Steve

#### Nature-based solutions: An MDB approach

Moore, Peter

### Resilient scenario development under deep uncertainty for watershed security

Lee, Jiheon; Ha, SungRyong

### A global assessment for prosperity, people, and the planet (II)

#### Wednesday 10 May | 11:00-12:30 | Room 8+9

Debate

Chair(s): Paul Mitchell-Banks

Climate change and biodiversity loss are top of the global agenda- but our capacity to deal with these and other crises is limited. What steps can be taken to achieve institutional reforms and better global governance through use of SEA? This session will explore and debate a proposed action plan.

#### **Elizabeth Freele**

**Paul Mitchell-Banks** 

#### Universities should lead climate action

#### Thursday 11 May | 14:00-15:30 | Room 6

Panel discussion

Chair(s): Satoro Ono, Sachihiko Harashina

What processes and mechanisms are important in organizing universities and research institutes to lead climate actions? This session discusses this question from the perspective of the social responsibility of them, and will focus on their roles in education, research and multi-actor collaboration from IA and experimental process of policy-making perspectives.

#### Global trend of energy transition: Challenges and opportunities in Japan

Hirata, Kimiko

How universities could lead climate action: RE100 University League

Harashina, Sachihiko

### Ensuring environmental and social performance of infrastructure projects (I)

#### Wednesday 10 May | 11:00-12:30 | Room 1

Paper session

Chair(s): Patrick Francis, Olga Skotareva

This session explores strategies to more effectively translate impact assessment findings and recommendations into practical management and mitigation measures for more environmentally and socially sustainable infrastructure projects. Presentations will cover a range of measures that can be applied during infrastructure project planning, construction and operation phases.

### Collaborative approach to protect aquifer eskers in power line projects

Prince, Annie; Guillemette, Diane

### Community conflict mitigation measures in road development project in Laos

Jung, Jong Gwan; Lee, Chun Won

### Integrated impact assessment of large hydropower projects in Sikkim, India

Ghimiray, Matrika; Rao, Anand

### Ensuring environmental and social performance of infrastructure projects (II)

#### Wednesday 10 May | 14:00-15:30 | Room 1

Paper session

Chair(s): Patrick Francis, Olga Skotareva

This session explores strategies to more effectively translate impact assessment findings and recommendations into practical management and mitigation measures for more environmentally and socially sustainable infrastructure projects. Presentations will cover a range of measures that can be applied during infrastructure project planning, construction and operation phases.

### How far does the contractor and supplier management go?

Skotareva, Olga

### El analysis on the offshore wind farm and database system development

Maeng, Junho; Lee, Haemi

### Romaine hydroelectric complex monitoring program: Lessons learned so far?

Richard St-Vincent, Maude; Grimard, Marie-Josée

### International donor agencies' role in impact assessment and implementation

Gyawali, Raju

#### Improving E&S performance with procurement

Ojo, Adeolu; Bakia, Mbianyor

### Ensuring environmental and social performance of infrastructure projects (III)

#### Wednesday 10 May | 16:00-17:30 | Room 1

Paper session

Chair(s): Patrick Francis, Olga Skotareva

This session explores strategies to more effectively translate impact assessment findings and recommendations into practical management and mitigation measures for more environmentally and socially sustainable infrastructure projects. Presentations will cover a range of measures that can be applied during infrastructure project planning, construction and operation phases.

#### Space for renewable energy?

Boonman, Petra

### Assessing infrastructure procurement decisions for positive social outcomes

O'Connor, Ruth; Jones, Kirsty

### Combining health, law, and impact assessment for better infrastructure

Cave, Ben

### Optimizing environmental and social performance in infrastructure projects

Francis, Patrick

### Moving beyond risk: Striving for data to deliver nature positive outcomes

#### Wednesday 10 May | 14:00-15:30 | Room 5

Workshop

Chair(s): Julie Dimitrijevic

EIA data is the basis for realizing nature-related risk and opportunity. Biodiversity baselines should include indicators to assess net positive impact commitments and embrace upcoming disclosure requirements. The workshop will showcase enablers for biodiversity data integration into corporate decision making. Come join us!

### Tracking corporate net positive impact in the mining sector

Raithel, Sophia

### In pursuit of the environment impact assessment: A challenge in open data

Katebaka, Raymond; Kintu, Juliet

### Impact assessment for creating more good: Data-centric led approach.

Ibeh, Christopher

### EIA data to address biodiversity impacts and meet net gain commitments

Cauldwell, Andrew Edward

#### **EMERGING TECHNOLOGIES**

### Linkages between technology assessment and IA: Example of hydrogen

#### Thursday 11 May | 11:00-12:30 | Room 5

Workshop

Chair(s): Alan Bond

Section: Emerging Technologies

This workshop will present assessment approaches used by 30+ research and policy centers associated with the Global Technology Assessment Network. It will then use an example of hydrogen technologies to discuss potential linkages between these early-stage technology studies and strategic- and project-level impact assessments that may concern the IAIA membership.

### Miltos Ladikas, Karlsruhe Institute of Technology, Germany

Peta Ashworth, Curtin University, Australia

Mitchell Scovell, CSIRO, Australia

### **Index of presenters**

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### **Posters | Exhibitors**

MEET THE AUTHORS AT THE WELCOME /POSTER RECEPTION! Monday 8 May | 17:00-18:30 | Main Foyer

#### EIA and resilience in Europe and Central Asia (ECA) region of the World Bank

Abate, Asferachew; Enar Hajiyeva, Gulana

### The assessment and delimitation of the central area system in Busan

Choi, Ji-yoon; Park, Minyeong; Kang, Jungeun

### Good practice guidelines in EIA for coastal engineering in the Pacific

Diarra, Ivan; Davetanivalu, Jope

### Legal framework for environmental impact assessment in South East Asia

Fodor, Martin; Wynn, Khine; Phetnavongxay, Viengkeo; Van Nguyen, Son; Ea, Sophy; Udchachone, Wasittee

### Challenges and advances in EIA systems in South Asia

Gomes Lima, Ana Luisa; Raj Ghimire, Drona; Wijeyeratne, Mokshana; Rajapakse, Nadeera; Ahmed, Sana; Shobair, Sayed

### Seagrass (marine endangered species) investigation method by ROV and drone

Hyoung Sum, Han; Seung Hyun, Lee; Jong Chun, Kim; Byung Chul, Ko; Ji Young, Kim; Huyn Kuk, Kim

### Evaluating effects of environmental variables on biodiversity in South Korea

Jeon, Yoonho; Kim, Eunsub; Lee, Dongkun

### Legal framework of environmental impact assessment in Latin America

Kamau Ndirangu, Brian; Vizeu Pinheiro, Maria

### Spatial optimal model of ecological mitigation measures

Kim, Eunsub; Lee, Dongkun; Mo, Youngwon; Jeon, Yunho

### Spatial analysis for EIA of hazardous and noxious substances (HNS)

Kim, Taeyun; Yeo, Bohyun; Maeng, Junho; Kim, Tae-Sung; Lee, Moonjin

#### An analysis of utilization efficiency of urban parks

Lee, Ji Yoon; Kang, Jung Eun; Hwang, Hee Soo

### Development of fine dust policy optimization model using system dynamics

Lee, Seho; Dong, Ah Hyeon; Kang, Jung Eun

### Implementing EIAs to achieve environmental protection: Taiwan as case study

Li, Tsung-Chang; Chen, Guan-Yu; Chour, Wen-Shiuan; Hu, Wei-Chuan

#### Social impact assessment and liberal arts education Mangala, Jack

Green space assessment by land use zoning using satellite imagery

Miyazaki, Itsuka; Shibata, Yuki

### Legal framework of environmental impact assessment in West Africa

Mobongol, Edichi Brigitte; Bessan, Modestine; Komlan, Kpotor; Keita, Mamady; Hussein Seye, Souleymane; Emadak, Alphonse; Bennouna, Taoufiq; Nkombela Mukungu, Joelle; Nemer, Randa; Prost, Fabienne; Lagnaoui, Abdelaziz

### Analysis of street green rate in Busan using deep learning model

Park, Minyeong; Choi, Ji Yoon; Kang, Jung Eun

#### **Guidelines for SIA to empower communities**

Taylor, Nick; Mackay, Mike

### Design of real-time application platform for EIA model of HNS

Yeo, Bohyun; Kim, Taeyun; Maeng, Jun-Ho; Kim, Tae-Sung; Lee, Moonjin

### Effectiveness of SIA in a conflictive geothermal development in Japan

Yanai, Aiko; Shibata, Yuki

### Construction of urban spatial information for low impact development

Yoon, Seonghwan; Kim, KeumJi; Yoon, Hongmin

#### **EXHIBITORS**





### **SAVE Rivers - Sarawak Indigenous Corner**



PHILCESS - University of the Philippines



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Only official exhibitor posters and/or technical posters approved by the Program Committee during the review process may be displayed.

#### Lifetime Achievement Award



Peter Tarr receives this award for his exemplary leadership and capacity building in IA for the southern African region and his work with the Southern African Institute of Environmental Assessment (SAIEA) and the developing world since 2000. He and SAIEA have become a model of capacity building, training, IA reviews and guidance and networking that is unparalleled in the developing world.

The IAIA Lifetime Achievement Award, previously known as the Rose Hulman Award, is awarded to long-term supporters and members of IAIA for major contributions to the field of impact assessment.

#### **Youth Award**



Muturi (Teddy) Kamau is recognized for the tireless work that he has done to help organize, facilitate, and steer engagement meetings on IA reforms in Kenya and for continuing to build capacity at the grassroots level.

Acknowledges a distinguished young IAIA member under the age of 35 with outstanding achievements in the impact assessment field.



work and subsequent approval of its Environmental and Social Sustainability Framework. The framework updates the EIB's ten existing standards and adds an eleventh standard, encouraging financial institutions' intermediaries to also assess the environmental and social effects of the projects they finance.

The IAIA Institutional Award is presented to a national or international government or nongovernmental organization for outstanding contribution to impact assessment practice or other environment-related activity deserving of recognition.

### **Outstanding Service to IAIA**



Behzad Raissiyan is a long-time member and participant at every annual conference since 2010, often overcoming incredible obstacles just to attend. Behzad has also served as chair and member of the TPDC, as member of the Board Nominations Committee, as a friend to IAIA HQ, and occasionally as conference helper to HQ.

The IAIA Board of Directors selects the recipient of the Outstanding Service to IAIA Award, which recognizes one or a small number of key individuals within IAIA who have provided exceptional service to IAIA as an organization over a number of years.

### **Regional Award**



Jong-Gwan Jung was selected for the Regional Award in recognition of his time with the IAIA Board, his role in leading the IAIA Korean Affiliate (Korean Society of Environmental Impact Assessment) and in broadening the regional network of impact assessment across all of Asia.

The IAIA Regional Award is awarded to an individual or organization that has made a substantial contribution to the field of impact assessment and/or has taken a leadership role in promoting best practice in impact assessment within the general world region of the location of the conference for that year.

#### **IAPA Best Paper of 2022**



The 2023 IAPA Best Paper Award is presented to Jiří **Dusík** and **Alan Bond** for their paper, "Environmental assessments and sustainable finance frameworks: will the EU Taxonomy change the mindset over the contribution of EIA to sustainable development?" published in IAPA 40(1-2)

#### **Individual Award**



Carlos Perez Brito is being presented the Individual Award for his work in leading numerous cutting-edge best practices and high-profile events to mainstream Social Impact Assessment in East Asia and the Pacific and previously in the Latin American Region.

The IAIA Individual Award acknowledges personal contribution to the discipline of impact assessment. It recognizes major achievement and advancement in theory and/or practice over a period of time at an international level.

#### Rita R. Hamm IA Excellence Scholarship



**Evelyn Gan** (Malaysia) was selected as the recipient of this year's Rita R. Hamm IA Excellence Scholarship. Evelyn is the Manager of the Policy, Planning and Quality Unit at Swinburne University of Technology Sarawak Campus. She is also a PhD candidate at Swinburne. Her study focuses on the impact of training toward improved service quality.

The Rita R. Hamm IA Excellence Scholarship, in honor of the legacy that IAIA's former CEO left on the organization and the field of impact assessment, is offered in conjunction with each annual IAIA conference, allowing a young practitioner in the region of the host country to attend.

Nominations for 2024 Awards will open soon. Please watch https://www.iaia.org/awards.php for more information.

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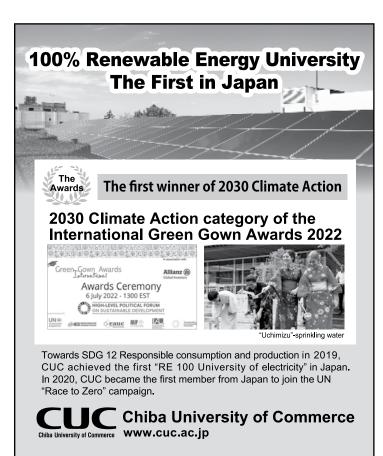
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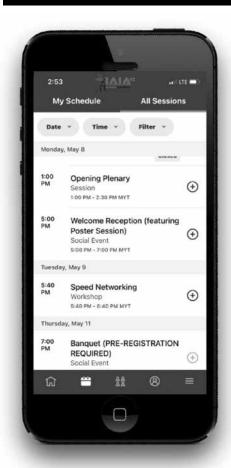
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We appreciate the work of these volunteers who made this conference possible.

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# 附錄二

# Implement EIAS to Achieve Environmental Protection: Using Offshore Wind Power of Taiwan as case

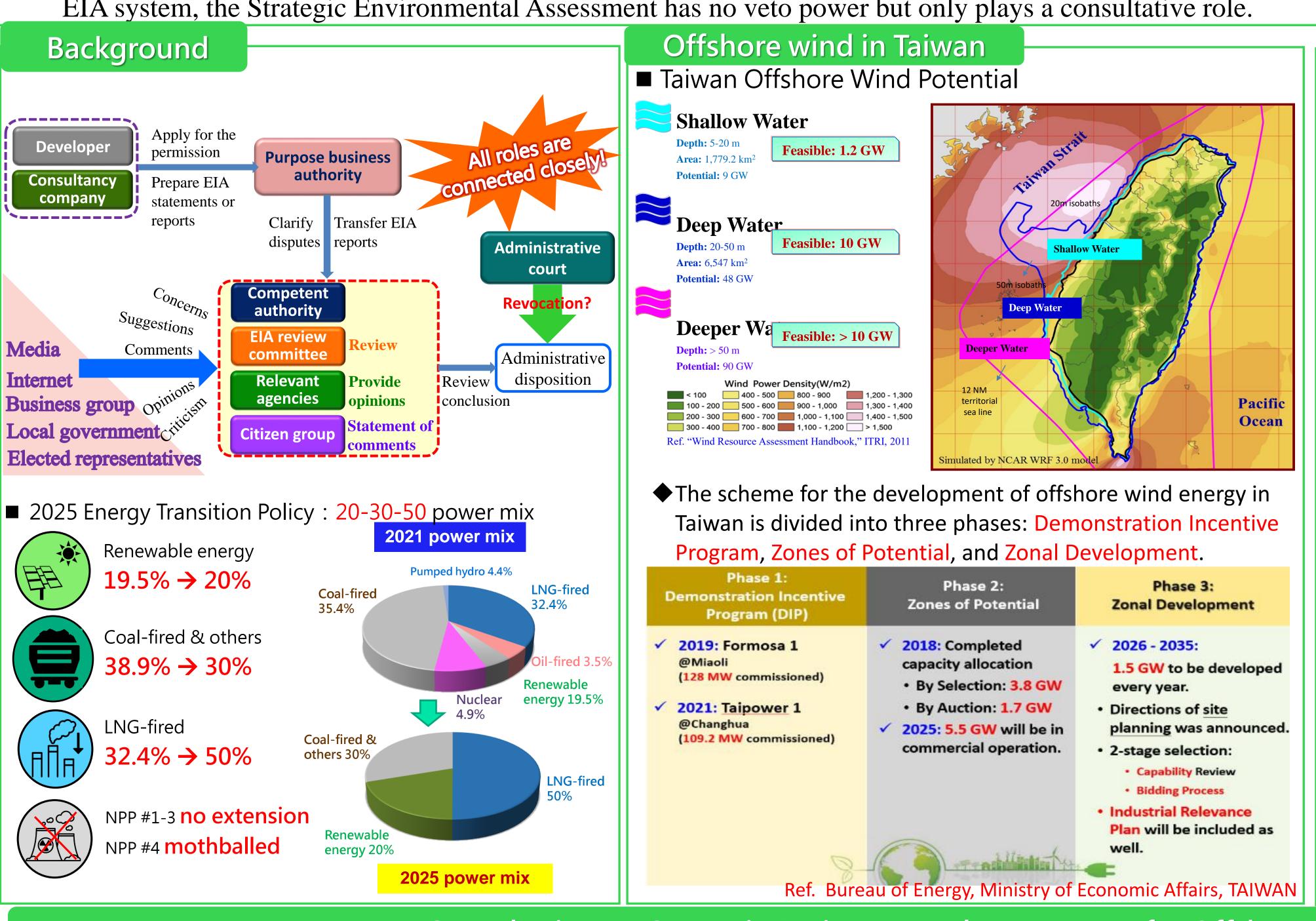
Tusng-Chang Li, Guan-Yu Chen

Introduction

Department of Comprehensive Planning, Environmental Protection Administration, Taiwan

- Strategic Environmental Assessment (SEA): A systematic and comprehensive environmental impact assessment (EIA) of government policies, plans and programs.
- Purpose of Strategic Environmental Assessment: To urge the policy development authorities to incorporate environmental factors into the policy development or decisionmaking process, so as to facilitate the "early assessment" and "integrated assessment" and emphasize the overall, aggregate e or cumulative impact.

■ Strategic Environmental Assessment in Taiwan: It has been promoted for more than 20 years mainly by referring to European experience. However, unlike the case-based EIA system, the Strategic Environmental Assessment has no veto power but only plays a consultative role.



Framework of the Regulations of SEA –Roles and Relations Policy development authorities hold a scope definition meeting or public hearing, and refer to and adopt additions and amendments from all parties Policy development authorities submit EIA statements to EPA EPA forms a task force EPA convenes a task force consultation meeting Policy development authorities submit the adopted advice and opinions to EPA To be discussed by EPA's EIA committee Formal opinions

- Strategic Environmental Assessment (SEA) is the systematic and tool for deciding the decision-aiding comprehensive government's strategic actions and corresponding alternatives.
- According to the common environmental issues and corresponding countermeasures, development planning and EIA reference standards are established to achieve the effect of policy guidance.
- The response to the common issues identified in the strategic environmental assessment will accelerate the efficiency of casebased EIA reviews.
- Based on strategic environmental assessment, it shows the high efficiency of EIA and reaches the milestone of green energy.

# Consultation on Strategic Environmental Assessment for Offshore Zonal Development

Opinions on "Offshore Wind Farm Block Development Strategic Environmental Assessment Statements" prepared on Dec 28, 2016.

Consultation project **Case Review Contents** 

|Zonal development |

White Dolphin

List 24 protection areas excluded from the development zone and expand the buffer zone above 1000 meters for white dolphin habitat.

Pre-construction monitoring and noise

reduction measures including marine mammal

observer, soft start, vessel speed controlled etc.

Sea cables laying work should avoid Transit

Bird period (Nov. to Mar.) \ up to 500 meters

between wind turbines

Far-to-near principle: Consultation suggested that priority be given to the development of the outer block of the channel, before considering the development of the inner block after accumulating development experience and collecting survey data of inner channel EIA

- **Distance:** 1,000m away from the habitat of Chinese white dolphins.
- Water depth: some areas at a depth of within 15m are where Chinese white dolphins live.
- > Other protections:
  - survey prior to *installation* of wind turbines,
  - **Construction** and *piling* methods: no wind turbine piling operation shall be initiated from 1 or 2 hours before sunset to sunrise.
  - ◆ Noise control methods: At least according to German (StUK4, 2013) standards: Underwater sound exposure level (SEL)≤ 160dB at 750m in the warning area.
  - **◆**Monitor the boundary value
  - ◆Speed control of construction vessels, sound devices for driving away animals

> Rotating height of wind turbine blades

- > Onshore cable construction activities scheduled to avoid the bird migration period from November to March next year.
- ➤ Wind turbine spacing should be greater than 500m, and reserve space for birds to cross corridors
- ➤ Installation of over-the-horizon remote monitors
- > Setting up regional bird monitoring system

Fishing

**Birds Protection** 

Construction period should avoid fishing period, Establishment of background survey data of fishery resources Foundation enhances algal adhesion design

Decommissioning

Environmental impact assessment incorporated into the decommissioning process

Come up with countermeasures according to the Environmental Impact Assessment Act at least 1 year before decommissioning.

Other Issue

will be included in the follow-up development as the reference standard for EIA.

The environmental issues and countermeasures a)Geological safety, disaster risk assessment and emergency management b)Setting up an environmental monitoring team c)Air pollution control and reduction methods for marine diesel engines

Cases of Strategic Environmental Assessment in Taiwan - Offshore Wind Power Generation

# 20 cases were reviewed and approved, with installed capacity of 10.80GW. Exceed the target set for wind power 3GW selection and 2.5GW bidding by 2025. Case-based EIA review for offshore wind farms is based on the Strategic Environmental Assessment framework and benchmark.

- The main purpose of promoting strategic environmental assessment in Taiwan is to enable policy development authorities to take environmental factors into consideration in advance in the process of policy formulation or decision-making.
- The publicity of strategic environmental assessment information and public participation can help in solving the key environmental issues that follow-up development may encounter.
- The integrity and commonality of the policy are examined to guide the rational planning of case development, facilitate the follow-up EIA reviews and improve the efficiency of reviewing.