出國報告(出國類別:國際會議)

國際影響評估協會(International Association for Impact Assessment, IAIA)西元 2024 年研討會(第 43 屆國際影響評估協會研討會)出國報告

服務機關:環境部

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國際影響評估協會(International Association for Impact Assessment, IAIA)西元 2024 年研討會(第 43 屆國際影響評估協會研討會)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。本部改制前行政院環境保護署自西元 2000 年起每年均指派 1~2 位同仁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 年起全球各國進入後疫情新階段,爰循例派員出席西元 2024 年研討會,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。

本次研討會主旨係討論影響評估對於公正轉型及正義轉型之影響,如何透過影響評估提出立即、有影響力且具公開透明之解決方案,加速正義轉型並有效的應對環境變遷。本屆研討會聚焦於「透過實踐影響評估以解決氣候變遷及生物多樣性的喪失」,因應近年來氣候變遷加劇及生物多樣性的逐漸消失,必須重新檢視及調整政府相關影響評估政策,以實踐各角色在影響評估中之功能,正義轉型為關鍵項目。本次研討會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,藉此瞭解其他國家

在影響評估領域之意見及案例。因與本部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。

鑑於我國積極推動科學園區發展,為兼顧環保、生態及資源永續 利用,並對環境可能之衝擊研擬相關預防及減輕措施,以實踐轉型正 義,目的事業主管機關於 102 年提出「新設(含擴建)科學園區政策 評估說明書」,本部改制前行政院環境保護署於 107 年 7 月 20 日作成 徵詢意見,優先方案建議「考量產業需求、區域及地方平衡發展、兼 顧生態保育以及永續環境,以不超過既有園區核定環評排放總量為前 提,若擬新設(擴建)園區所在之區域位於三級防制區,且該地區尚 未依環境保護法規實施總量管制時,應採行最佳可行控制技術,由科 技部主導並會同該區域地方主管機關或有關機關或進駐事業單位具體 擬訂抵減方案,於一定期間內取得足供抵換空氣污染物增量達 1.2 倍 以上之排放量,該抵減來源應屬環保主管機關認可減量額度之抵換與 減量措施,且排除地方政府為改善地區性環境品質目的之執行事項後, 始得適度新設(擴建)園區。」,故本次特以「在環境影響評估審查過 程中實現正義轉型-以臺灣科學園區開發為例。為題目投稿海報發表, 推而與國際間分享、交流實務經驗及蒐集建議,作為本部後續制度推 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(International Association for Impact Assessment, IAIA)西元 2024 年研討會(第 43 屆國際影響評估協會研討會)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。

本(113)年 4 月 24 日至 4 月 27 日國際影響評估協會於愛爾蘭都柏 林召開「西元 2024 年研討會」(下稱第 43 屆國際影響評估協會研討 會),本次研討會主旨係討論影響評估對於公正轉型及正義轉型之影 響,如何透過影響評估提出立即、有影響力且具透明性之解決方案, 加速正義轉型並有效的應對環境變遷。本次研討會聚焦「通過影響評估實踐以解決氣候變遷及生物多樣性的喪失」,因應近年來氣候變遷 加劇及生物多樣性的逐漸消失,必須重新調整政府相關影響評估政策, 以實踐各角色在影響評估中之功能,正義轉型為關鍵項目。本次研討 會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,藉此瞭解其他國家在影響 評估領域之意見及案例。因與本部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。

鑑於我國積極推動科學園區發展,為兼顧環保、生態及資源永續利用,並對環境可能之衝擊研擬相關預防及減輕措施,以實踐轉型正義,目的事業主管機關於 102 年提出「新設(含擴建)科學園區政策評估說明書」,本部改制前行政院環境保護署於 107 年 7 月 20 日作成徵詢

意見,優先方案建議「考量產業需求、區域及地方平衡發展、兼顧生態保育以及永續環境,以不超過既有園區核定環評排放總量為前提,若擬新設(擴建)園區所在之區域位於三級防制區,且該地區尚未依環境保護法規實施總量管制時,應採行最佳可行控制技術,由科技部主導並會同該區域地方主管機關或有關機關或進駐事業單位具體擬訂抵減方案,於一定期間內取得足供抵換空氣污染物增量達 1.2 倍以上之排放量,該抵減來源應屬環保主管機關認可減量額度之抵換與減量措施,且排除地方政府為改善地區性環境品質目的之執行事項後,始得適度新設(擴建)園區。」,故本次特以「在環境影響評估審查過程中實現正義轉型一以臺灣科學園區開發為例」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,作為本部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 43 屆國際影響評估協會訂於本(113)年 4 月 24 日至 4 月 27 日 辦理為期 4 日的研討會議,會議地點位於愛爾蘭都柏林會議中心(The Convention Centre Dublin)。

因本次研討會於愛爾蘭共和國首都都柏林召開,囿於臺灣目前尚無直飛愛爾蘭都柏林之班機,必須由歐洲機場轉機前赴會議地點(去程由英國倫敦希斯洛機場轉機),爰本次環境部參與人員規劃行程表及摘要如表 1。

表 1 第 43 屆國際影響評估協會(IAIA)研討會行程表

日期	地點	行程摘錄
113年4月22日		啟程,桃園國際機場前往倫敦希斯 洛機場轉機,搭機前往愛爾蘭都柏 林國際機場

日期	地點	行程摘錄				
113年4月23日	愛爾蘭都柏 林	前往會場進行海報刊登準備作業				
113年4月24日	愛爾蘭都柏林	1. 開幕全體會議: 開幕式表演、貴 賓致詞及專題演講(主講人: Pippa Hacket, 愛爾蘭土地利用 與生物多樣性國務部長)。				
		2. 參加研討會,並以海報展示及說明方式分享「在環境影響評估審查過程中實現正義轉型-以臺灣科學園區開發為例」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。				
113年4月25日	愛爾蘭都柏 林	 主題論壇:重新思考氣候變遷: 於正義轉型中以人工智慧輔助。 				
		2. 主題論壇:選擇主題「公正轉型 到正義轉型」。				
		3. 小組討論:選擇主題「正義轉型中政府單位扮演之角色」				
		4. 小組討論:選擇主題「能源轉型 一公平性、正義性」				
		5. 論文發表會議:選擇主題「人工 智慧對下一個世代再生能源大型 專案做好那些準備」。				
		6. 論文發表會議:選擇主題「ESG (環境保護、社會責任、公司治 理)和影響評估對於關鍵礦物之 轉型正義」				

日期	地點	行程摘錄				
113年4月26日	愛爾蘭都柏 林	1. 主題論壇: 2050 年的 IAIA: 探索 未來相關戰略計畫之適應計畫。				
		2. 主題論壇:選擇主題「在正義轉型中影響評估之角色」。				
		3. 論文發表會議:選擇主題「人工 智慧對下一個世代再生能源大型 專案做好那些準備」。				
113年4月27日	愛爾蘭都柏林	1. 主題論壇:選擇主題「人工智慧 未來之職業:公正轉型或正義轉 型」。				
		2. 主題論壇:選擇主題「能源部門 之去碳規劃」。				
		3. 專題會議:選擇主題「社會參與和共享利益對公正轉型之貢獻」。				
		4. 論文發表會議:選擇主題「影響評估:啟用或限制永續能源轉型?」。				
		5. 閉幕式。				
113年4月28日	愛爾蘭都柏 林至臺灣臺 北	於愛爾蘭都柏林國際機場前往德國 法蘭克福國際機場轉機(中華航空 飛) 班機返回桃園國際機場				

二、參與人員

本案係依「環境部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林品岑薦任技 士及胡維娟特約助理環境技術師與會,該 2 員相關業務經驗及近 2 年 績效如表 2。

表 2 第 43 屆國際影響評估協會(IAIA)研討會與會成員介紹

環境部與會同仁	執行相關業務績效
林品岑薦任技士	1. 辦理近 2 年開發行為個案環境影響評估審
	查業務,包括:褒忠產業園區設置計畫環
	境影響說明書、南部科學園區屏東園區開
	發計畫環境影響說明書、苗栗渢成離岸風
	力發電計畫環境影響說明書、臺灣省新風
	景區觀光資源管理利用計畫-北海岸風景
	特定區及觀音山風景特定區、海龍三號離
	岸風力發電計畫;海鼎離岸式風力發電計
	畫 2 號風場及彰濱工業區環保設施用地興
	建資源回收處理中心環差審查案;第十四
	海巡隊廳舍新建案環境現況差異分析及對
	策檢討報告之環評審查;擬定擴大及擬定
	原高雄市主要計畫(配合高雄港第四貨櫃
	中心後線場地擴建工程計畫)政策環評之
	意見徵詢。
	2. 辦理「113年環境影響評估審查會議支援暨評
	鑑考評專案工作計畫」履約管理事宜。
	3. 辦理 111 年至 112 年環境影響評估技術顧
	問機構評鑑計畫及 113 年至 114 年環境影
	響評估技術顧問機構評鑑計畫。
	4. 辦理環境部環境影響評估審查委員會組織
	規程修正條文。
胡維娟特約助理	1. 辦理近 2 年開發行為個案環境影響評估審
環境技術師	查業務,包括:民間參與澎湖青灣仙人掌
	公園整建興建營運移轉案、北能離岸風力
	發電計畫、彰化渢佑離岸風力發電計畫、
	美森離岸風力發電場興建計畫、萊中離岸
	風力發電計畫、萊風離岸風力發電計畫、
	韋龍離岸風力發電計畫、鍾梅離岸風力發
	電場興建計畫、竹南風場風力發電機組更
	新改建計畫及嘉惠電力先進燃氣複循環機

組發電計畫等環境影響說明書之環評審查;臺南市柳營科技工業區開發計畫、南部發電廠複循環第一至第三號機發電計畫、新竹縣寶山第二水庫、雲林科技工業區開發計畫、龍港工業園區開發計畫、大電開發計畫、北北離岸風力發電計畫、永安廠北堤新建工程(含站區設施擴建)、桃園都會區大眾捷運系統航空城捷運線等環境影響差異分析報告之環評審查;海能離岸風力發電計畫環境影響調查報告書;金門國內商港區域新設馬山港區政策評估說明書之意見徵詢。

2. 辦理環境影響評估審查案件統計。

參、關於愛爾蘭都柏林

愛爾蘭(Ireland)位於西歐邊緣之愛爾蘭島南部,面積約7萬282平方公里,東隔愛爾蘭海與英國遙望,西臨大西洋,東部海岸平坦,西部海岸則多海灣,境內地形主要為丘陵及平坦原野。森林及湖泊遍佈,最高峰僅1,004公尺。另夏隆河(Shannon river)全長370公里,為全島最長河流。冬季大雨容易氾濫,影響農牧。愛爾蘭國土範圍如圖1所示,首都及最大城市為都柏林,位於愛爾蘭島的東側,該國的500萬人口中約有40%居住在都柏林地區。



圖1愛爾蘭國土分布圖(資料來源:中華民國外交部官網)

都柏林自中世紀以來一直是愛爾蘭首都城市,也是愛爾蘭島上最大的城市,由於有眾多高科技企業聚集於此,亦有歐洲的矽谷之稱。以利菲河為界分為利菲河北岸(River Liffey North)與利菲河南岸(River Liffey South),南岸有許多著名的建築,如愛爾蘭銀行大樓、三一學院、聖派屈克大教堂、都柏林城堡、聖史蒂芬綠地及都柏林的酒吧區。北岸的艾比劇院,是復興愛爾蘭現代文學重要的根據地。(圖 2、3、4)。

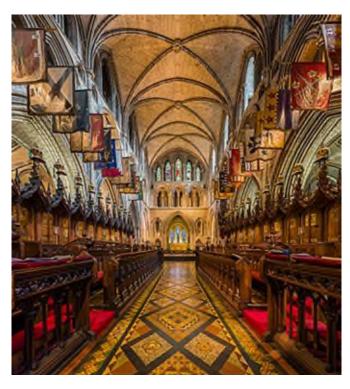


圖 2 聖派屈克大教堂



圖 3 三一學院



圖 4 聖史蒂芬綠地

肆、國際影響評估協會(International Association for Impact Assessment, IAIA)西元 2024 年研討會概要

一、會議主題

因應近年來氣候變遷加劇及生物多樣性的逐漸消失,必須重新檢 視及調整政府相關影響評估政策,以實踐各角色在影響評估中之功能, 正義轉型為關鍵項目。

影響評估對於公正轉型到正義轉型的過程中發揮關鍵作用。我們 迫切需要推動綠色能源和循環經濟,以維持社會正義,採取恢復性措施 來制止或扭轉自然資源退化,並增進人類及環境福祉。

全球性環境議題牽涉層面廣泛、區域及地方性環境議題面臨之挑戰亦倍增。影響評估者如何實踐公正轉型的政策及措施,並達成公正轉型的目標?影響評估過程涉及廣泛且專業的知識及技能、行動的即時性,其在突破界限、創新以及將環境與社會置於所有決策中心扮演關鍵角色,確保決策過程公開透明。影響評估協助決策者依據客觀基礎之證據,制定完善且包容的決策。

本次會議議題包括「影響評估在轉型正義之角色」、「影響評估對氣候正義的貢獻」、「公正轉型到轉型正義」、「原住民及弱勢族群之公正轉型」、「福祉經濟作為轉型正義之典範」、「保護生物多樣性:強化管制標準及監測機制並提出以自然為本的解決方案」、「永續發展目標及轉型正義」、「能源於減碳中的角色」、「轉型正義中的創新方法及決策工具」及「保護及促進安全、潔淨與健康環境之權利」等議題,本部為汲取各國環境影響評估經驗及策略,投稿「To achieve just transformation by EIAs review process-Taiwan's scientific park development as case study(在環境影響評估審查過程中實現正義轉型一以臺灣科學園區開發為例)」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。

配合本次會議主題,第 43 屆國際影響評估協會研討會主辦單位結合愛爾蘭特色及全球化生態環境影響,繪製西元 2024 年之會議標誌如圖 5。



圖 5 第 43 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(113)年 4 月 24 日至 4 月 27 日在愛爾蘭都柏林會議中心「The Convention Centre Dublin」辦理為期 4 日的研討會議。因會議議題廣泛,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,藉此瞭解其他國家在影響評估領域之意見及案例(詳附錄一研討會議資料)。

三、開幕式(Opening plenary)

在 113 年 4 月 24 日開幕式全體會議中,陸續進行開幕表演、貴賓 致詞、愛爾蘭傳統舞蹈-踢踏舞表演、主題演講,現場照片如圖 6 至 圖 8 所示:

- (一) IAIA24 會議主持人 Eddie Smyth 及 Ainhoa González Del Campo 共同主持開幕致詞。
- (二) 國際影響評估協會主席 Edith Birungi Kahubire 致詞。

- (三)國際影響評估協會執行長 Gary Baker 致詞。
- (四)專題演講:愛爾蘭土地利用與生物多樣性國務部長 Pippa Hackett 主講。

(五) 綜合座談



圖 6 第 43 屆國際影響評估協會研討會開幕情形



圖 7 第 43 屆國際影響評估協會當地傳統舞蹈表演



圖 8 第 43 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:

本屆研討會以「通過影響評估實踐以解決氣候變遷及生物多樣性的喪失」為主題,訂定 10 項關鍵議題,於不同會場邀集與會者以論壇方式(含圓桌討論)進行議題交流及探討,據以分享不同國家之意見及經驗(照片如圖 9 至圖 10):

- 1. 影響評估在轉型正義之角色(The role of impact assessment in a Just Transformation)
- 2. 影響評估對氣候正義的貢獻(The contribution of impact assessment to climate justice)
- 3. 公正轉型到轉型正義(From Just Transition to Just Transformation)
- 4. 原住民及弱勢族群之公正轉型(A Just Transformation for

Indigenous peoples and vulnerable communities)

- 5. 福祉經濟作為轉型正義之典範(The well-being economy as a model for a Just Transformation)
- 6. 保護生物多樣性:強化管制標準及監測機制並提出以自然為本的解決方案 (Protecting biodiversity: enhancing baseline and monitoring mechanisms for nature-based solutions)
- 7. 永續發展目標及轉型正義(Sustainable development goals and the Just Transformation)
- 8. 能源於減碳中的角色(Decarbonizing the energy sector)
- 9. 轉型正義中的創新方法及決策工具(Innovative methods and decision-support tools for a Just Transformation)
- 10.保護及促進安全、潔淨與健康環境之權利(Protecting and promoting the right to a safe, clean, and healthy environment)



圖 9 第 43 屆國際影響評估協會研討會圓桌討論方式



圖 10 第 43 屆國際影響評估協會研討會主題論壇

(二) 分組主題報告:

本屆研討會共計投稿文章達 488 篇以上,除本次會議討論轉型正義等關鍵議題外,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),包含項目如下:

- 1. 影響評估在轉型正義之角色(The Role of Impact Assessment in a Just Transformation)議題:本議題討論公平與能源轉型中的環境、社會和治理(ESG)評估、人權影響評估(HRIA)備受重視,建議利用社會影響評估和戰略環境評估來促進公平轉型。
- 2. 影響評估對氣候正義的貢獻(The Contribution of Impact Assessment to Climate Justice):本議題討論重點係確保正義轉型過程中對於達成氣候變遷調適之重要性。金融部門在確保公平過渡中扮演著重要的推動角色。本次會議介紹影響評估方法和工具如何幫助金融機構達成不讓任何人掉隊的公平過渡。

- 3. 公正轉型到轉型正義 (From Just Transition to Just Transformation):本議題係探討發展再生能源對於各領域之影響,包含對原住民之影響,深入探討影響評估在推動減少全球氣候變化影響方面的角色,以及如何在評估未知項目時辨識和減少潛在的社會成本。
- 4. 原住民及弱勢族群之公正轉型(A Just Transformation for Indigenous Peoples and Vulnerable Communities):本議題以案例研究為例,探討原住民和弱勢族群以權益持有者之角色建立 夥伴關係以實現公正轉型。
- 5. 保護生物多樣性:強化管制標準及監測機制並提出以自然為本的解決方案(Protecting Biodiversity: enhancing Baseline and Monitoring Mechanisms for Nature-based Solutions):本議題討論以人工智慧收集生物多樣性數據並加以分析,並應用於影響評估。
- 6. 永續發展目標及轉型正義(Sustainable Development Goals and The Just Transformation):本議題探討如何透過影響評估促進建立更健康、公平及永續的城市環境。探討如何通過政策以維持全球生物多樣性及經濟無損失為目標,並確保符合公正轉型原則。
- 7. **能源於減碳中的角色(Decarbonizing the Energy Sector)**:本議題 探討能源於減碳過程中可能對環境和社會影響。
- 8. 轉型正義中的創新方法及決策工具(Innovative Methods and Decision-support Tools for A Just Transformation):本議題係討論新興作法、方法論和決策工具應運於轉型正義中,並以業者展示創新數據共享及評估工具,探討數據應用於實現公正轉型之重要性。
- 9. 保護及促進安全、潔淨與健康環境之權利(Protecting and

Promoting the Right to A Safe, Clean, and Healthy Environment): 本議題係以加強跨部門合作,將健康風險等議題納入影響評估以實現可持續發展目標(SDGs)和健康環境的影響。

- 10.學術界(Academia):本次研討會議透過評估參與高等教育領域影響評估(IA)教學和研究的人數,以出版《影響評估與項目評估》的特刊。
- 11. **農林漁業(Agriculture, Forestry, and Fisheries)**: 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、人類社會、環境以及文化之議題。
- 12.生物多樣性與生態(Biodiversity and Ecology):本議題係涵蓋海 洋空間規劃在管轄範圍內外的擴展及其在保護海洋生物多樣性中應 用,並探討大型項目風險評估、生物多樣性淨增益計劃壓力測試與 監測技術。
- 13.**氣候變遷(Climate changes)**:本議題探討處理氣候變遷於影響評估中的方法,包含確定溫室氣體排放重要性、抵換額度和碳儲存量等議題。
- 14.文化遺產(Cultural Heritage):本議係探討於發展中國家,將文化遺產納入影響評估實踐之可行性。
- 15.**災難和衝突(Disasters and Conflict)**:本議題探討災難和危機期間影響評估之經驗。
- 16. 新興技術(Emerging Technologies):本議題已於 IAIA23 進行初步 討論,本次會議提供 IAIA 在影響評估中使用人工智慧(AI)的原則 初稿供大會討論。
- 17.治理和實施系統(Governance and Implementation Systems):本

議題係提供歐盟之特定經濟活動,於碳排放和滿足對低社會保障措施下之關鍵議題。

- 18.**原住民(Indigenous Peoples)**:本場次將探討「聯合國原住民權利宣言」(UNDRIP)的角色,如何確保影響評估公正和轉型正義。
- 19.社會影響評估(Social Impact Assessment):本場次探討社會影響評估(SIA)認證資格及標準化,已滿足就業市場。
- 20.一般影響評估(General Impact Assessment): 本場次探討運用情報分析(Intelligence Architecture, IA)加強環境管理策略。

針對上述 20 項議題分成 130 場次以上分組主題報告。



圖 11 第 43 屆國際影響評估協會研討會分組會議

五、海報展示(Posters Sessions)

本屆研討會投稿海報展示共計達 26 篇,展示題目詳列如下(現場照片如圖 12 至圖 14 所示):

1. 河岸植被增長對洪水水位的影響。

- 2. 底泥清淤對河道之影響,以巴西 Piaçaguera Channe 為例。
- 3. 南非姆普馬蘭加之再生能源:是否準備充足?
- 4. 新興市場中離岸風電之累積影響評估。
- 5. 偏遠社區中回收項目現代化,以克里族原住民社區為例。
- 6. 韓國健康風險評估現況。
- 7. 健康影響評估於規劃過程中帶來的價值。
- 8. 海洋環境環境影響評估審查支持系統之開發。
- 9. 環境影響評估預審系統建置。
- 10.韓國人工光害對生態環境影響評估。
- 11.環境影響評估,以南韓為例。
- 12. 運用原住民知識復育馴鹿物種。
- 13.空氣品質管理計畫:決策工具在南非之案例分享。
- 14.再生能源監測方法:以南韓太陽能系統為例。
- 15.土壤污染管制系統,以韓國為例。
- 16. 運用機器學習於城市噪音製圖與環境影響評估中。
- 17.性別重要性:影響評估與責任制。
- 18.加拿大離岸石油開發行為對糧食安全之環境影響評估。
- 19.加拿大西奇瓦納克帕木斯大會(Citxw Nlaka'pamux Assembly):納卡帕木斯影響評估框架(Nlaka'pamux impact assessment framework)。
- 20.運用海域資源發展再生能源之研究。
- 21.地圖繪製:空間決策支持工具之角色分析。

- 22.廢棄物處理設施之環境影響評估項目分析。
- 23.在日本當地環境影響評估中之正面影響評估分析。
- 24.在環境影響評估審查過程中實現正義轉型-以臺灣科學園區開發為例。
- 25.下一個世代定量環境影響評估。
- 26.強化應用合作管理社會影響評估:以巴布亞紐幾內亞科莫機場為例。



圖 12 海報展覽區

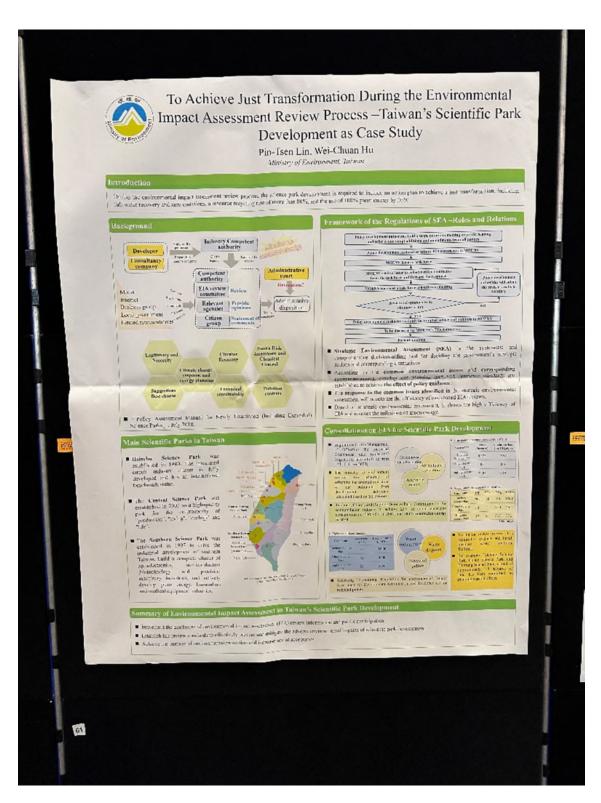
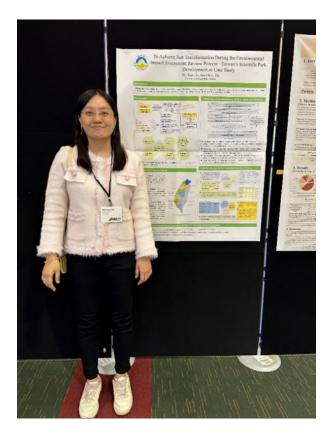


圖 13 本部現場海報展覽圖



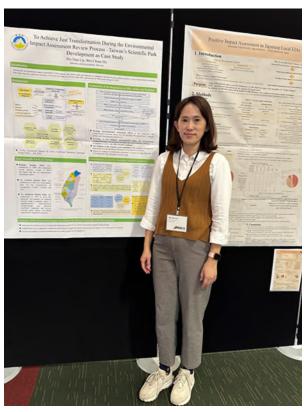
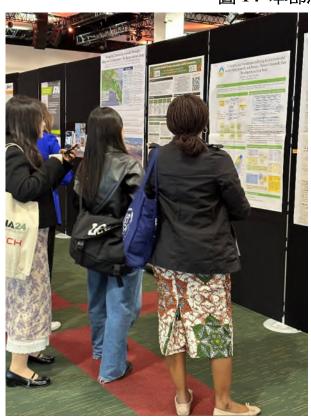


圖 14 本部海報現場展示圖



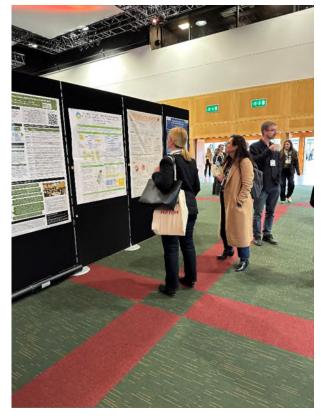


圖 15 與會者觀看本部海報

伍、會議參與情形摘述

鑑於我國積極推動科學園區發展,為兼顧環保、生態及資源永續利 用, 並對環境可能之衝擊研擬相關預防及減輕措施, 以實踐轉型正義, 目的事業主管機關於 102 年提「新設(含擴建)科學園區政策評估說明 書,本部改制前行政院環境保護署於107年7月20日作成徵詢意見, 優先方案建議「考量產業需求、區域及地方平衡發展、兼顧生態保育以 及永續環境,以不超過既有園區核定環評排放總量為前提,若擬新設 (擴建)園區所在之區域位於三級防制區,且該地區尚未依環境保護法 規實施總量管制時,應採行最佳可行控制技術,由科技部主導並會同該 區域地方主管機關或有關機關或進駐事業單位具體擬訂抵減方案,於 一定期間內取得足供抵換空氣污染物增量達 1.2 倍以上之排放量,該抵 減來源應屬環保主管機關認可減量額度之抵換與減量措施,且排除地 方政府為改善地區性環境品質目的之執行事項後,始得適度新設(擴 建) 園區。」, 故本次特以「在環境影響評估審查過程中實現正義轉型 - 以臺灣科學園區開發為例」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,作為本部後續制度推動之參考,同時提 升我國國際間能見度。

除發表海報成果以外,本部代表亦參與本次研討會海報展示及論文會議簡報議程,會中各國代表針對政府在執行各類開發行為(包含能源、園區)時如何納入正義轉型進行影響評估發表「再生能源轉型」、「能源轉型一公平性、正義性」、「能源部門之去碳規劃」及「韓國蔚山生態工業園區環境影響評估」等報告,藉由分析政府機關不同部門在正義轉型中扮演之角色,如能源開發部門如何兼顧能源發展同時達成減碳目標,及園區開發部門如何透過環境影響評估減緩對周遭環境之不良影響(如土壤及地下水等)以達環境永續,案例概述如下:

一、再生能源轉型:智利自西元 2010 年開始積極推動再生能源轉型, 主要受市場因素及成本降低的推動。西元 2019 年提出減碳計畫 為重要里程碑,強調太陽能和風能在能源結構中的關鍵角色。然而,這一轉型面臨著多重挑戰,包括技術升級、輸電系統建設、許可程序和社區參與。此外,智利不僅追求減少溫室氣體排放以因應氣候變遷,同時也致力於實現能源自主,這對國家的能源安全性及可持續發展至關重要。(報告題目: Energy Just Transition: Chile as a Case Study)。

- 二、陸上及海上風電設施:澳大利亞之澳洲能源市場調度中心 (Australian Energy Market Operator)已確定 35 處陸上及 6 處海上 風電再生能源場域計畫區 (REZs),再生能源潛力點對於澳大利亞達成西元 2050 年減碳目標具有重大效益,惟環境價值、經濟及土地利用對於鄉村地區產生潛在影響。能源轉型之轉型正義包括四個面向,分別為分配正義、程序正義、認知正義及恢復性正義。在澳大利亞風電再生能源場域計畫區 (REZs)實現公平轉型正義取決於政府決策,政府透過長期區域性之整合規劃,將受影響之範圍納入評估並繪製敏感區域圖資,以評估開發過程中時間及成本效益,並創造更具效益的風電場域選址作業。(報告題目:Achieving a just transformation in Australia's renewable energy zones)。
- 三、清潔能源轉型:在西元 2015 年聯合國氣候變化大會(COP 21)由 196 個締約國簽署巴黎協定,是首次具有約束力之國際條約,使各國開始聯合應對氣候變遷並提出各項減緩措施。再生能源包含風能、太陽能及水力能,有助於降低溫室氣體排放,在低碳轉型中發揮重要作用,因此,再生能源投資項目劇增。例如從西元2004年的620億美元增至西元2016年的2,870億美元。雖然再生能源占全球能源消耗占比相對較小,但隨著強調利用能源轉型來實現減碳目標,使得再生能源占比日益增加,因此,各國為穩定推動清潔能源轉型,於再生能源開發過程中,在獲得融資承諾

之前,再生能源之開發商已被要求進行供應鏈審查,並依照聯合國企業與人權指導原則進行人權審查,在金融協議談判階段,投資商擁有最大的影響力,以確保符合相關法規規範並促進再生能源開發之改革。本研究發現越來越多投資商將人權盡職審查作為撥款條件以實現人權權益,並在貸款協議中強調於施工及營運階段需檢核人權之實現,以符合轉型正義。(報告題目: Is the clean energy transition a just transition?)。

四、 挪威水資源研究所以菲律賓馬加特水庫建置浮動式太陽能板為 例:菲律賓馬加特水庫是一座多功能水壩,於西元 1975 年至西元 1982年間建造,主要用途包括灌溉、防洪和發電,擁有388千瓩 的水力發電能力,水庫的水資源優先用於下游的灌溉需求。西元 2019年,挪威政府於馬加特水庫上安裝1座280瓩浮動式太陽能 光板進行試驗計畫。西元 2023 年,安裝 1 座 24 千瓩化學電池, 裝置容量可達 32 千瓩。該電池系統係利用浮動式太陽能板及電 池技術,提升能源系統穩定性與效率。本研究分別就環境影響、 能源效率及社會影響進行評估,在環境影響方面,浮動式太陽能 板覆蓋水體表面恐影響水中日照和溫度分布,進而影響水中生態 系統之生物多樣性;在能源效率方面,浮動式太陽能板利用水面 空間,提高光電轉換效率及能源產出並增加能源生產之穩定性; 在社會影響方面,浮動式太陽能板技術之引進可為當地帶來就業 機會與經濟效益,同時也可能引起當地居民對環境及景觀變化之 關注與反應。本研究結果顯示水力發電-浮動式太陽能板混合系 統可使能源生產方式更多元,以降低對天氣之依賴並可減少土地 使用之衝突;浮動式太陽能板會降低蒸發率及水庫涵養率,但可 透過優化浮動式太陽能板位置,並在下方建置通風系統進而改善 缺氧之情形,達到雙贏之目標。(報告題目:Impacts of floating solar panels: The Magat reservoir as reference case) •

本次研討會中各國代表就公正轉型及正義轉型之推動經驗進行分享,除針對各別環境關鍵議題(如當地侷限性、環境與氣候變遷因子)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,或將公眾參與等意見納入重點考量項目。經檢視我國現行環境影響評估法規已建立完善資訊公開制度,並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,預先瞭解開發行為規劃內容,並充分表達意見及建議,使開發單位可即時參酌民眾意見,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)分享臺灣園區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,每年皆有近百國約1,000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。本次研討會於愛爾蘭都柏林召開,今年年會參與之人員以歐洲鄰近國家居多,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,本部為確保開發單位能以一致且客 觀的評估方法評估該開發行為對特定議題的影響,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 態評估及海洋生態評估等),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。

鑑於我國積極推動科學園區發展,為兼顧環保、生態及資源永續利用,並對環境可能之衝擊研擬相關預防及減輕措施,以實踐轉型正義,

目的事業主管機關於 102 年提出「新設(含擴建)科學園區政策評估說明書」,本部改制前行政院環境保護署於 107 年 7 月 20 日作成徵詢意見,優先方案建議「考量產業需求、區域及地方平衡發展、兼顧生態保育以及永續環境,以不超過既有園區核定環評排放總量為前提,若擬新設(擴建)園區所在之區域位於三級防制區,且該地區尚未依環境保護法規實施總量管制時,應採行最佳可行控制技術,由科技部主導並會同該區域地方主管機關、有關機關或進駐事業單位具體擬訂抵減方案,於一定期間內取得足供抵換空氣污染物增量達 1.2 倍以上之排放量,該抵減來源應屬環保主管機關認可減量額度之抵換與減量措施,且排除地方政府為改善地區性環境品質目的之執行事項後,始得適度新設(擴建)園區。」

本部環境影響評估審查委員會依據上述意見徵詢結果,後續於科學園區提出個案環評審查時要求開發單位用水全回收零排放以減少對當地水資源的消耗及污染、生產過程中產生的廢棄物及資源進行有效回收及利用,使資源循環利用率達到 80%以上,降低對自然資源的消耗與環境負擔、要求半導體廠在能源使用上逐步轉向使用 100%綠色能源,以減少對化石燃料的依賴,降低碳排放並推動再生能源的發展、生產過程中盡可能減少溫室氣體排放,並透過溫室氣體抵換等方式達到淨零排放,以因應氣候變遷,達成環境保護與經濟發展兼籌並顧。近年本部環評審查通過之園區開發案件,包括「中科臺中園區擴建二期」、「南科嘉義園區」及「南科屏東園區」等共計 13 件。

上述我國針對環境影響評估審查上成果,如能持續透過專題演講、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)研討會上,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。

(二) 與世界接軌,注重轉型正義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球環境影響甚鉅,海平面上升、全球氣溫上升到極端氣候的侵襲,氣候變遷的影響隨著人類活動顯著加劇,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「轉型正義」(Transitional 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遷和生物多樣性喪失的雙重危機採取更堅決的行動,例如採行節能減碳措施、推動綠色循環經濟,保護社會正義及維護社會平等,積極採取恢復性措施來制止或扭轉自然資源退化,並增進人類與環境福祉,從過往以過渡因應方式來減緩氣候變遷的影響,逐漸改為推行轉型作業,如推動綠色經濟與能源轉型,設立可持續發展具體目標,以實踐氣候變遷對脆弱族群如原住民及弱勢社區之公正轉型。

從今年的研討會中現場聆聽多場影響評估對於公正轉型到正義轉型的過程後發現,於再生能源課題納入環境影響評估的討論中,有學者認為進行影響評估時,應考量開發行為影響範圍及受影響族群,研提減緩措施及適應計畫,並研擬緊急應變計畫及環境管理計畫。查本部近年環境影響評估審查之過程中,審查重點已針對不同類型之開發行為認為應事先就氣候變遷、人權或生物多樣性等課題,要求開發單位提出因應措施,藉以促使開發單位先行就極端氣象條件下開發行為可能受到之衝擊採取因應措施及保護對策,顯見本部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 2025 年 5 月 1 日至 4 日於義大利波隆那(Bologna)舉辦第 44 屆國際影響評估協會研討會,其主題設定為「人工智慧時代的環境影響評估」,人工智慧已影響我們的生活、職業及環境等各個面向,因人工智慧為顛覆性科技技術,如何應用人工智慧支援環境影響評估工作,以減輕開發行為造成之環境影響及衝擊,

並改善人類與環境福祉,建議得適時將本部相關研究內容或初步規劃 之草案規範,於該次研討會投稿發表,藉以與國外交流吸取經驗,納入 後續制度推動之參考,同時提升我國國際間能見度。

附錄一



IMPACT ASSESSMENT FOR A JUST TRANSFORMATION

43rd Annual Conference of the International Association for Impact Assessment

24-27 April 2024 The Convention Centre Dublin Dublin, Ireland

Céad míle fáilte. A hundred thousand welcomes.

Together, we can shape a Just Transformation.



Conference overview

REGISTRATION DESK HOURS

Sunday 21 April 15:00-17:00

Monday 22 April 07:30-10:00, 13:00-17:00 Tuesday 23 April 08:00-10:00, 13:00-17:00

Wednesday 24 April 08:00-17:00 Thursday 25 April 08:30-16:30 Friday 26 April 08:30-16:30 Saturday 27 April 08:30-14:00

Conference Overview Pre-conference **Pre-Conference Pre-Conference Conference Day 1** Sunday Monday Wednesday **Tuesday** 21 April 22 April 23 April 24 April 07:00 07:30 Registration for training 08:00 Registration World Bank Exhibits & posters setup Registration **Technical visits** courses and Day technical visits 08:30 **Technical visits** EIB workshop 09:00 Training courses Training courses UNDP 09:30 workshop 10:00 Newcomer Network 10:30 meet and greet 11:00 11:30 12:00 12:30 Registration 13:00 Exhibits & posters setup Opening plenary Exhibits & posters Registration for training 13:30 courses and technical visits 14:00 14:30 Break 15:00 Registration Concurrent sessions for training 15:30 courses and technical visits 16:00 16:30 17:00 Poster session and welcome reception 17:30 18:00 18:30 19:00 19:30 onward

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Conference overview

	Conference Day 2 Thursday 25 April			Conference Day 3 Friday 26 April			Conference Day 4 Saturday 27 April			Post-Conference Sunday 28 April	
										07:00	
										07:30	
										isits	08:00
ı	ion			ion			ion			Technical visits	08:30
	Registration	Theme forums	ters	Registration	Theme forums	ters	Registration	Theme forums	ters	Tech	09:00
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ı			Exhibits & posters			Exhibits & posters			Exhibits & posters		10:00
	ľ	Break	五		Break	EX		Break	Ä		10:30
		Concurrent sessions			Concurrent sessions			Concurrent sessions			11:00
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	ľ	Lunch			Lunch			Lunch			12:30
		and Committee meetings			and Committee meetings			and Committee meetings			13:00
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		Concurrent sessions			Concurrent sessions			Closing plenary	and le		16:00
									Exhibit and poster dismantle		16:30
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}	Speed networking Section meetings								17:30		
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							\sim	~~~~~	~~		18:30
								Banquet	8		19:00
								~~~~~			19:30 onward

#iaia24 IAIA24 final program 3

## Daily schedule

#### SUNDAY 21 APRIL

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

#### MONDAY 22 APRIL

07:30-10:00	Registration (Main Foyer)
08:00-17:00	<b>Technical visit A*: Mount Lucas Wind Farm and Clonmacnoise</b> <b>Monastic Site.</b> Guides: Catherine Swaine, Mark McCorry, Ainhoa González Del Campo

**08:30-17:30 Technical visit B*: Abbeyleix Bog Project & Lullymore Heritage Park.** Guides: Shane Regan, Eddie Smyth, Fernando Fernandez

09:00-17:00 Training courses (Day 1)

- 1. Resettlement & livelihood restoration in IA (Liffey MR 2)
- 2. Cumulative effects assessment (Wicklow Hall 1)
- 3. More effective IA: Tools for argument & writing (Liffey MR 1)
- 5. Strategic thinking for sustainability (Wicklow Hall 2B)
- 6. Theory & practice of infrastructure (Liffey MR 3)
- 7. Leadership in ESIA (Wicklow MR 1)
- 8. Social risk management for major projects (Wicklow Hall 2A)
- 9. More effective EIA follow-up (Wicklow MR 3)
- 10. Transforming ESIA into action (Wicklow MR 2)
- 11. Public participation for IA professionals (Wicklow MR 4)
- 12. Human rights & due diligence (EcoCem)
- 13. Linking sustainable finance & ESIA systems (Wicklow MR 5)

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

#### TUESDAY 23 APRIL

08:00-10:00	Registration (Main Foyer)
08:30-14:30	Technical visit C*: Bull Island: Biodiversity, Heritage, & Conservation. Guide: Lorraine Bull, Paul Scott
09:00-16:00	Technical visit D*: From a Landfill to a Community Park and Kildare Heritage. Guides: Kevin Motherway, Eddie Smyth
09:00-17:00	Training courses (Day 2)
10:00-14:00	<b>Technical Visit H*: National Botanic Gardens: Climate Change Transforming Ireland's Flora.</b> Guides: Darach Lupton, Tadhg O'Mahony
13:00-17:00	Registration (Main Fover)

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 24 April.

#### WEDNESDAY 24 APRIL

08:00-17:00	Registration (Main Foyer)
08:00-13:00	Exhibit and poster setup (The Forum)
08:30-12:00	Workshop: UNDP (Liffey Meeting Room 2)
09:00-12:30	Workshop: World Bank (Liffey Hall 1)
09:00-12:30	Workshop: EIB (Liffey Meeting Room 1)
10:00-11:30	Newcomer Network (Liffey Hall 2)
13:00-14:30	Opening plenary (Auditorium)
	<ul> <li>Opening address: Eddie Smyth and Ainhoa González Del Campo, Conference Co-Chairs</li> <li>Welcome from IAIA President: Edith Birungi Kahubire</li> <li>Welcome from IAIA CEO: Gary Baker</li> <li>Keynote address: Pippa Hackett, Irish Minister of State for Land Use and Biodiversity</li> <li>Closing remarks: Eddie Smyth and Ainhoa González Del Campo, Conference Co-Chairs</li> </ul>
14:30-15:00	Break (The Forum)
15:00-16:30	Concurrent sessions
17:00-18:30	Poster session and welcome reception (The Forum)

#### THURSDAY 25 APRIL

08:30-16:30	Registration (Main Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (The Forum)
	This coffee break is provided in collaboration with the Netherlands Commission for Environmental Assessment in celebration of its 30th anniversary.
11:00-12:30	Concurrent sessions
12:30-13:50	Lunch (The Forum)
12:30-13:30 14:00-15:30	Committee meetings (lunch provided at room) IAPA Editorial Board (Wicklow Hall 2A) Awards (Wicklow Hall 2A) Sections Coordinating (Wicklow Hall 2A) Concurrent sessions
15:30-16:00	Break (The Forum)
16:00-17:30	Concurrent sessions
17:45-18:45	Speed networking (Liffey Hall 2)

#### FRIDAY 26 APRIL

08:30-16:30	Registration (Main Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (The Forum)
11:00-12:30	Concurrent sessions
12:30-13:50	Lunch (The Forum)
12:30-13:30	Committee meetings (lunch provided at room) Training & Professional Development (Wicklow Hall 2A) Board Nominations (Wicklow Hall 2A) Journal Management (Wicklow Hall 2A)

## **Daily schedule**

14:00-15:30	Concurrent sessions
15:30-16:00	Break (The Forum)
16:00-17:30	Concurrent sessions
17:45-18:45	Section meetings Academia (Wicklow Hall 2A)

Agriculture, Forestry and Fisheries (Wicklow Hall 2A) Biodiversity & Ecology (Wicklow Hall 2A)

Climate Change (Wicklow Hall 2A)

Corporate Stewardship & Risk Management (Wicklow Hall 2A)

Cultural Heritage (Wicklow Hall 2A) Disasters and Conflicts (Wicklow Hall 2A) Emerging Technologies (Wicklow Hall 2A)

Governance and Implementation Systems (Liffey Meeting Room 2)

Health (Liffey Meeting Room 2)

Indigenous Peoples (Liffey Meeting Room 2) Public Participation (Liffey Meeting Room 2) Social Impact Assessment (Liffey Meeting Room 2)

Students and Young Professionals (Liffey Meeting Room 2)

#### SATURDAY 27 APRIL

08:30-14:00	Registration (Main Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (The Forum)
11:00-12:30	Concurrent sessions
12:30-13:50	Lunch (The Forum)
14:00-15:30	Concurrent sessions
15:30-16:00	Break (The Forum)
16:00-17:15	Closing plenary (Auditorium)
	Welcome: Eddie Smyth and Ainhoa González Del Campo, Conference Co-Chairs
	Keynote address: Micheál Lehane, Director, Irish Environmental Protection Agency
	<ul> <li>Presentation of Awards: Luis Sánchez, Awards Committee Representative; Gary Baker, CEO; Edith Birungi Kahubire, President</li> </ul>
	Presidential address: Alan Ehrlich, IAIA President-Elect
	<ul> <li>Invitation to Guatemala Symposium: Mireya Archila, Planning Committee and IAIA Board member</li> </ul>
	<ul> <li>Invitation to IAIA25: Giuseppe Magro and Roberta Vicentini Magro, Planning Committee</li> </ul>
	Thank you: Eddie Smyth and Ainhoa González Del Campo
16:00-16:45	Exhibit and poster dismantle
19:00-22:00	Banquet (Liffey Hall A&B)

#### SUNDAY 28 APRIL

08:00-13:30	Technical visit E*: Boyne Valley Heritage and Tourism Impact Management. Guides: Leontia Lenehan, Eddie
	Smyth
10:30-15:30	Technical visit F*: Dublin Bay by Boat: Infrastructure and
	Conservation. Guides: Richard Nairn, Paul Scott
13:00-18:00	Technical Visit G*: Ringsend to Poolbeg: Regeneration,
	Development, and Community Conflicts. Guides: Conor

Skehan, Ainhoa González Del Campo

#### **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 "Impact assessment for a Just Transformation" and general impact assessment sessions, including topics that address issues of interest to IAIA's special-interest Sections.

#### THEMATIC STREAMS

The role of impact assessment in a Just Transformation12
The contribution of impact assessment to climate justice
From just transition to Just Transformation16
A Just Transformation for Indigenous peoples and vulnerable communities16
Protecting biodiversity: Enhancing baseline and monitoring mechanisms for nature-based solutions18
Sustainable development goals and the Just Transformation19
Decarbonizing the energy sector20
Innovative methods and decision-support tools for a Just Transformation 21
Protecting and promoting the right to a safe, clean, and healthy environment 24
IAIA SECTIONS AND GENERAL TOPICS STREAMS
Academia24
Agriculture, forestry, and fisheries25
Biodiversity and ecology25
Climate change26
Cultural heritage26
Disasters and conflict26
Emerging technologies27
Governance and implementation systems27
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Social impact assessment27
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SPECIAL TO IAIA
Meet the editor29

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 visit participants A, B, C, D, and H: Please meet in the main foyer of the CCD a minimum of 15 minutes prior to departure.
- *Technical visit participants E, F, and G please meet at the front (outside) of the CCD.

# **Technical program overview**



				urrent session	
	Auditorium	Wicklow Hall 1	Wicklow Hall 2A	Wicklow Hall 2B	Liffey Hall 2
Wednesday	y 24 April				
13:00-14:30	Opening plenary				
15:00-16:30		Opportunities for international development cooperation to go beyond "do no significant harm" (p23)	IAIA principles for artificial intelligence in impact assessment (p27)	Connecting people and planet: Respecting the environment and human rights (p24)	Relevance of Indigenous knowledge and perspectives for Just Transformation (p18)
Thursday 2	5 April				
09:00-10:30	Declaration on the rights of people affected by Development-Forced Displacement and Resettlement (DFDR) (p9)	From the top down: Are regional assessments the key to sustainability? (p9)	Rethinking climate change: IA for a resilient and Just Transformation (p9)	Strategic environmental assessment in mining for a Just Transformation (p9)	
11:00-12:30		Meaningful public participation in impact assessment (p16)	Principles for social inclusion through impact assessment: Rapid draft (p14)	Strategic environmental assessment for a Just Transformation (I) (p14)	Innovative data sharing and governance for a Just Transformation (I) (p22)
14:00-15:30		Impact assessment and adaptive management for climate change (I) (p15)	Remember the intangibles and spiritual values for a just transition (p18)	Strategic environmental assessment for a Just Transformation (II) (p14)	Innovative data sharing and governance for a Just Transformation (II) (p22)
16:00-17:30		Impact assessment and adaptive management for climate change (II) (p15)	How can nature-based approaches be promoted before impact assessment? (p19)	Strategic environmental assessment for a Just Transformation (III) (p14)	The role of governments in a Just Transformation (p16)
Friday 26 A	pril				
09:00-10:30	What role does IA play in a responsible exit from the fossil fuel sector? (p10)	Indigenous perspectives on a Just Transformation (I) (p10)	IAIA in 2050: Exploring Fit for Future (3F) Initiative concepts (p10)	The SEA Directive in EU, 20 Years on: Implementation and effectiveness (p10) Sponsored by EPA, Ireland	
11:00-12:30		Indigenous perspectives on a Just Transformation (II) (p17)	The role of EIA practitioners in a Just Transformation (p15)	Practical cases on cumulative impact assessment in the Global South (p29)	Human rights impact assessment for a just transition (I) (p12)
14:00-15:30		Indigenous perspectives on a Just Transformation (III) (p17)	Psycho-social impact assessment to help make transformation more just (14)	The role of impact assessment in protecting and enhancing heritage (p26)	Human rights impact assessment for a just transition (II) (p12)
16:00-17:30		Indigenous perspectives on a Just Transformation (IV) (p17)	What have you done for me lately? Effectiveness in health impact assessment (p24)	Streamlining environmental assessments to enable transformation (p14)	
Saturday 2	7 April				
09:00-10:30	Post-ESIA contractor management and value creation: What drives success? (p11)	The future of the IA profession: Transition or transformation? (I) (p11)	Toward a Just Transformation: Insights and lessons for impact assessment (p11)	Developing an IAIA agenda for SEA action toward a Just Transformation (p11)	
11:00-12:30		The future of the IA profession: Transition or transformation? (II) (p14)	Environmental management strategies and ethical professional practice for a Just Transformation (p29)		Anishinaabe Law: Harmonization and the role of UNDRIP (p27)
14:00-15:30		IA and due diligence for sustainable transformation of large projects (p13)	Meet the editor (p29)		Reflecting Indigenous knowledge for a Just Transformation in impact assessment (p18)
16:00-17:15	Closing plenary				

## **Technical program overview**

Liffey Hall 1	Liffey MR 1	Liffey MR 2	Liffey MR 3	EcoCem	
				Wednesc	lay 24 April
					13:00-14:30
	The power of communication! (p29)	What is the role of social and environmental practitioners to provide guidance to boards? (p27)	Impact assessment: Enabling or constraining sustainable energy transitions? (p20)	Supporting the transition toward a holistic assessment of cultural rights (p18)	15:00-16:30
				Thursd	ay 25 April
					09:00-10:30
Meaningful impact assessments through Indigenous leadership (p22)	ESG and impact assessment for critical minerals in a Just Transformation (p12)	Sustainable finance and impact assessment in the EU (p27)	Economic impact assessment (p28)	Just transition and transformation of the coast and maritime (p13)	11:00-12:30
Emerging practices in Indigenous-led environmental assessment (p16)	Impacts and risks of lithium and rare earth elements supply chain (p21)	Sustainable finance and impact assessment linkages at a global scale (p27)	Compliance/Enforcement for transformative ESIA project impact management (p12)	No longer on margins: Toward social and climate justice in SWM sector (p16)	14:00-15:30
Multi-dimensional cumulative effects assessment with Indigenous peoples (p23)	Exploring the limitations of SIA in achieving sustainable development (p21)	Accountability, impact assessment and their capacity to transform projects (p12)	Community engagement and benefit-sharing contributions to a just transition (p20)	It's a beautiful day for social and human rights IA: EU too play a role (p28)	16:00-17:30
				Frid	ay 26 April
					09:00-10:30
Gender in impact assessment: Work from Canada and Africa (p28)	Environmentally, socially and economically just carbon neutrality (I) (p20)	Brainstorming best practice IA principles for extraterrestrial developments (p12)	Disasters, conflict and impact assessment: Experiences and lessons (I) (p26)	How prepared is IA for next-generation renewable energy megaprojects? (I) (p16)	11:00-12:30
lust transition informing impact assessment processes for energy transition (I) (p17) iponsored by Acorn International	economically just carbon neutrality (II)		Disasters, conflict and impact assessment: Experiences and lessons (II) (p27)	How prepared is IA for next- generation renewable energy megaprojects? (II) (p16)	14:00-15:30
ust transition informing impact assessment processes for energy transition (II) (p17) ponsored by Acorn International	Using social impact assessments as a policy tool to guide just transition (p15)		Disasters, conflict and impact assessment: Experiences and lessons (III) (p27)	Decolonizing SIA through the attitudes and beliefs of practitioners (p28)	16:00-17:30
				Saturd	ay 27 April
					09:00-10:30
Asian S3EA: Strategic, spatial and sustainable EA (I) (p28)	Impact assessment research and teaching in higher education (I) (p24)	IA for better policy making: Current trends and new methods (I) (p22)	Consideration of climate change in impact assessment of different countries (I) (p26)	Regional cumulative effects assessment to support a Just Transformation (I) (p23)	11:00-12:30
Asian S3EA: Strategic, spatial and sustainable EA (II) (p29)	Impact assessment research and teaching in higher education (II) (p25)	IA for better policy making: Current trends and new methods (II) (p22)	Consideration of climate change in impact assessment of different countries (II) (p26)	Regional cumulative effects assessment to support a Just Transformation (II) (p23)	14:00-15:30

# Technical program overview Plenary Theme forum Concurrent see



	Wicklow MR 1	Wicklow MR 2	Wicklow MR 3	Wicklow MR 4	Wicklow MR 5
Wednesda	y 24 April				
13:00-14:30					
15:00-16:30	Ensuring Just Transformation of infrastructure projects (I) (p21)	Synergies of impact assessment and circular economy (p23)	Benefit-sharing for a fair and Just Transformation (p16)	Nature-positive outcomes through a Just Transformation (p19)	Effective use of IA tools and partnerships to protect climate and biodiversity through just transition (p18)
Thursday 2	25 April				
09:00-10:30					
11:00-12:30	Ensuring Just Transformation of infrastructure projects (II) (p21)	Certification and accreditation in SIA: Opportunities and challenges (p27)	Community benefit sharing funds: Changemakers or appeasement? (p28)	Fair compensation for Just Transformation (p28)	Pathways to biodiversity gain (I) (p25)
14:00-15:30	Ensuring Just Transformation of infrastructure projects (III) (p21)		Equity, justice, and the energy transformation (p12)	Large infrastructures, just transition, and community health and safety (I) (p24)	Pathways to biodiversity gain (II) (p25)
16:00-17:30	Ensuring Just Transformation of infrastructure projects (IV) (p21)	Financing a just transition (p15)	Impact assessments and just energy transformation in Atlantic Canada (p13)	Large infrastructures, just transition, and community health and safety (II) (p24)	Pathways to biodiversity gain (III) (p25)
Friday 26 A	April				
09:00-10:30					
11:00-12:30	Methods for handling complexity in Just Transformation (I) (p22)	Addressing mining impacts driven by an energy transition for climate action (p20)	Blue economy, SEA and marine spatial planning (p25)	Making follow-up happen to transform IA practice (I) (p13)	Transitioning to net gain: Effectively achieving and measuring biodiversity (I) (p25)
14:00-15:30	Methods for handling complexity in Just Transformation (II) (p23)	Consideration of wider health determinants in impact assessments (p24)	Marine impact assessments for ecosystem-based maritime spatial planning (p13)	Making follow-up happen to transform IA practice (II) (p13)	Transitioning to net gain: Effectively achieving and measuring biodiversity (II) (p26)
16:00-17:30	Transforming the future of NEPA: Recent U.S. Congressional action (p15)	Climate, energy and agriculture/forestry linkages (p25)	Underwater cultural heritage: Developing approaches and improving data (p26)	Making follow-up happen to transform IA practice (III) (p13)	Al-supported transformation of collecting & processing biodiversity data (p18)
Saturday 2	7 April				
09:00-10:30					
11:00-12:30	Partnerships in impact assessment for a Just Transformation (p17)	Linking urban health and SDGs through impact assessment (p19)	A regional environmental assessment approach to assist decarbonization (p20)	How to conserve biodiversity in climate change mitigation projects (I) (p19)	(p19)
14:00-15:30				How to conserve biodiversity in climate change mitigation projects (II) (p19)	Toward a just transition for biodiversity offsets (II) (p19)
16:00-17:15					

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

#### THURSDAY 25 APRIL | 09:00-10:30

Declaration on the rights of people affected by Development-Forced Displacement and Resettlement (DFDR)

#### **Auditorium**

Theme forum: Panel discussion Chair(s): Eddie Smyth, Susanna Price

The panelists will discuss the launch of a Declaration on the Rights of People Affected by Development-Forced Displacement and Resettlement (DFDR) which has been developed by a multi-stakeholder group to strengthen the rights of over 10 million+people who are displaced by projects each year.

#### **Panelists**

**Eddie Smyth, Intersocial Limited (Ireland)** 

**Dolores Koenig, American University (United States)** 

Kei Otsuki, Utrecht University (Netherlands)

Susan Tamondong, Finnish Consulting Group (Philippines)

Susanna Price, Australian National University (Australia)

#### From the top down: Are regional assessments the key to sustainability?

#### Wicklow Hall 1

Theme forum: Panel discussion Chair(s): Cindy Parker

The session will discuss how regional assessments and associated policies contribute to improved efficiencies in project-specific impact assessments and how regional assessments can be used to inform future decisions on development proposals and long-term sustainability objectives at the regional and national level.

Sustainability and regional assessment in next generation impact assessment Gibson, Robert

#### Alberta and regional impact assessments

Fitch, Gavin

Australia: A "late-bloomer" in regional assessments

Cameron, Carolyn

What a groundbreaking legal victory means for regional assessment in Canada Olszynski. Martin

Reforming Canada's regional assessments for sustainability and federalism Northey, Rod

#### Rethinking climate change: IA for a resilient and Just Transformation

#### Wicklow Hall 2A

Nlatas

Theme forum: World Café

Chair(s): Palash Sanyal, Stacey Fineran

Section: Climate Change

This world café will use the IAIA Climate Change Action Plan and latest Status Report to evaluate past accomplishments, propose next steps, and explore the role of IA processes in the context of the nine planetary boundaries. It aims to foster dialogue on future partnerships, reporting standards, and resilient transformations.

#### Strategic environmental assessment in mining for a Just Transformation

#### Wicklow Hall 2B

Theme forum: Panel discussion Chair(s): Greg Radford, Joyce Kortlandt

This session discusses the relevance of strategic environmental assessment in the mining sector. The goal of the session is to generate ideas on enhancing the use of SEA in mining for a Just Transformation. A panel will discuss impacts, obstacles and ways to overcome them in SEA for mining.

#### Role of SEA in mining for the energy transition

Radford, Greg

#### SEA in mining: addressing obstacles and harvesting benefits

Kortlandt, Joyce; Ortega, Carlos; Borelli, Laurie

#### SESA of the mining sector in Mongolia

Annandale, David

#### Strategic environmental and social assessment of the mining sector in Ghana Amoyaw-Osei, Yaw

The strategic environmental assessment for central Namib uranium rush *Hasheela, Israel M.* 

Notes

## Theme forums

#### FRIDAY 26 APRIL | 09:00-10:30

#### What role does IA play in a responsible exit from the fossil fuel sector?

#### Auditorium

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

As we move to decarbonize the energy sector to address global climate change we must ensure that proponents are able to achieve a responsible exit from the sector, while at the same time balancing the long term requirements for closure and monitoring of facilities and the concomitant social impacts of their exit.

#### A just transition: For whom?

Bester, Vidette: Edwards, Jessica

IA is crucial for gauging community expectations in the energy transition Brittain, Kate

Energy just transition: Chile as a case study Baranao, Pablo; Llamazales, Soledad

Green hydrogen: Pre-ESIA scoping of GW-scale project

Wagner, Jay; Jones, Murray

#### Indigenous perspectives on a Just Transformation (I)

#### Wicklow Hall 1

Theme forum: Paper session

Parts II, III, and IV of this session take place at 11:00, 14:00, and 16:00 in Wicklow Hall 1

Chair(s): Diana Lewis, Dyanna Jolly Section: Indigenous Peoples

Presenters share experiences on how to engage with Indigenous Peoples as rights holders and not stakeholders, and not always as vulnerable communities. They will explore transformative engagement through case studies that are motivated by the desire to form relationships with communities and ensure IA makes a difference in those communities.

Is our drinking water safe? How two First Nations answered this question Davies-Flett, Callie; Olsgard, Mandy

Conducting health impact assessment guided by Indigenous ways of life Olsgard, Mandy; Wells, Carmen

Developing models of Indigenous-led environmental health risk assessment

Castleden, Heather; Lewis, Diana; Luginaah, Isaac; Masuda, Jeff; Richmond, Chantelle;

Banjoko, KG; Wells, Carmen; Lepine, Melody; Doxtator, Gina

Restoring relationships with the land and water: Indigenous-led remediation

Lamothe, Tara; Morash, Marilyn; Redford, James; Camsell-Blondin, Violet; Kuntz, Janelle;

Lapointe, Ugo

#### IAIA in 2050: Exploring Fit for Future (3F) Initiative concepts

#### Wicklow Hall 2A

Motor

Theme forum: Solution room Chair(s): Weston Fisher

Concept and option papers on proposed Fit for Future initiative actions will be discussed by the Solutions Forum Chair and critiqued by attendees. Results will be used to inform the IAIA Board and help advance implementation of IAIA's Strategic Plan objectives.

notes

#### The SEA Directive in EU, 20 Years on: Implementation and effectiveness

#### Wicklow Hall 2B

Theme forum: Paper session Sponsored by EPA, Ireland

Chair(s): Andy Fanning, Tadhg O'Mahony

We will explore 20 years of implementation of the SEA Directive in the EU with the aim of sharing experiences on SEA implementation and SEA effectiveness. The session outcomes will be compiled in a set of recommendations to continue advancing SEA effectiveness.

SEA implementation in Ireland: 20 Years of practice, the story so far O'Mahony, Tadhg; Wylde, Suzanne; O'Mahony, Cian

SEA at a crossroad: Trends in Austria's transport infrastructure planning

Sternath. Felix

**Evaluation of the practice of SEA in Germany** 

Hanusch, Marie

Navigating the currents of power of SEA effectiveness

Pereira, Margarida; Polido, Alexandra; Teles, Filipe; Moreno Pires, Sara; Silva, Patrícia; Jalali, Carlos; Rodriques, Carlos

A dual perspective on the SEA Directive: Legal mandates and sustainability Kjellerup, Ulf; Kørnøv, Lone

Shared experience of SEA implementation from Malta and Ireland Harris, Maryann; Hili, Pierre

#### SATURDAY 27 APRIL | 09:00-10:30

## Post-ESIA contractor management and value creation: What drives success?

#### **Auditorium**

Theme forum: Paper session Chair(s): Eleanor Gill

Environmental and social mitigation and management measures identified during impact assessments are usually tied to projects, and handed over to contractors to implement. This session discusses innovative methods that drive success in post-ESIA implementation, including contractor management, inclusion planning, and value creation.

From plans to practice: Improving post-ESIA implementation in AlUla, KSA Lyons, Anna

Contractor management post updating the KDRP ESIA

Sata, Mwelwa; Ziduche, Phillip

Successful ESIA compliance: Detailing E&S measures from bid to completion Green, David

Social value through localization: Canada and South Africa case studies Gill, Eleanor; Levesque-Thomas, Courtney; De Wet, Suzette

#### The future of the IA profession: Transition or transformation? (I)

#### Wicklow Hall 1

Breakouts: Wicklow Meeting Room 1, Wicklow Meeting Room 2, Wicklow Meeting Room 3

Theme forum: Workshop

Part II of this session takes place at 11:00 in Wicklow Hall 1

Chair(s): Rufus Howard

Technological advances and rapid social change are resulting in transition and transformation for the IA profession. In this workshop experts and academics will reflect on the state of the IA community of practice and invite participants to take part in debates on the future of the IA profession.

Advancing E&S IA for operations at the World Bank with AI technology Song, Hak Joo; Diallo, Elhadji Amadou Oury

Initiatives to respond to evolving environmental and social learning needs Khalil Gomez, Aida

EIA governance in Northern Ireland: Enhancing professionals for the future Fotherqill, Josh

Our role: From environmental assessors to environmental influencers Randall, Jeremy

Future of the IA profession in the public sector

Parker, Nicola

## Toward a Just Transformation: Insights and lessons for impact assessment

#### Wicklow Hall 2A

Theme forum: Panel discussion Chair(s): Jack Krohn

In a Hypothetical format, a fictional state called "Just" will explore the practical challenges of transformation. What can impact assessment and its practitioners offer to enhance the process of transformation for Just? Join its citizens in this interactive session, and take its lessons into the rest of your IAIA24 experience.

#### **Panelists**

Doris Kiwelu, Tanzania Women in Energy (Tanzania)

Miguel Repas Goncalves, STRIX (Portugal)

Natasha Reifschneider, ESA2 Pty Ltd (Australia)

Sandra Mols, Sweco AB (Sweden)

Peter Nelson, PGF Limited (United Kingdom) and Jack Keogh

#### Developing an IAIA agenda for SEA action toward a Just Transformation

#### Wicklow Hall 2B

Nlatas

Theme forum: Workshop Chair(s): Rob Verheem

In 2021 Barry Sadler and Rob Verheem started an initiative to take stock of 25 years of SEA experience. Tapping the wisdom of selected SEA experts and the wider IAIA community, this has resulted in a first draft IAIA SEA agenda for action. This draft will be discussed at IAIA24.

Notes	

#### THE ROLE OF IMPACT ASSESSMENT IN A JUST TRANSFORMATION

## Accountability, impact assessment and their capacity to transform projects

#### Thursday 25 April | 16:00-17:30 | Liffey Meeting Room 2

World Café

Chair(s): Victoria Marquez Mees

Development finance relies on impact assessment to prevent harm. However, community complaints show that current practices are not addressing the impacts' longer time horizon, limiting communities' capacity to make informed decisions on their future. Accountability mechanisms and experts will discuss the future of ESIA through the lens of accountability.

## Brainstorming best practice IA principles for extraterrestrial developments

#### Friday 26 April | 11:00-12:30 | Liffey Meeting Room 2

Workshop

Chair(s): Steve Mustow Section: Emerging Technologies

IAIA is developing Best Practice Principles on IA of Extraterrestrial Activities. These will set the benchmark for practice and support a Just Transformation as humanity becomes a multi-planetary species. The workshop will include presentations by a multi-national working group and a discussion to enhance the Principles.

## Compliance/Enforcement for transformative ESIA project impact management

#### Thursday 25 April | 14:00-15:30 | Liffey Meeting Room 3

Panel discussion

Chair(s): Bryony Walmsley

Section: Governance and Implementation Systems

The session includes paper presentations and panel discussion for participant engagement structured to elaborate the 5 principles in IAIA's recently-published Best Practices Principles on EsIA Compliance and Enforcement and FasTips #25 (Compliance and Enforcement) with additional example lessons and best practices

#### The role of environmental auditing in compliance monitoring in South Africa

Meyer, Theunis

## Striking a balance between conservation and development: Does ESIA matter?

Namara, Justine

## Risks of mining scope creep in Canada through a modern mineral rush

Collison, Ben; Westwood, Alana; Mines, Sasha

## Reformatting institutional roles for committed EA compliance/enforcement

Amoyaw-Osei, Kojo Ofori; Amoyaw-Osei, Yaw

## Expert systems on environmental decentralized licensing in Brazil

Glasmeyer, Sergio; Diogenes, Alysson

#### Equity, justice, and the energy transformation

#### Thursday 25 April | 14:00-15:30 | Wicklow Meeting Room 3

Panel discussion

Chair(s): Richard Parsons, Madeline Taylor

This session invites contributions to discuss the concept and practice of equity in social impact assessment. SIA is commonly framed as a vehicle for addressing inequities and social vulnerabilities. How can we achieve equity and justice in the context of rapid industrial development such as the renewable energy transition?

## Embedding justice in the Australian energy transition

Taylor, Madeline

SIA: A tool to project future societal changes and guide closure planning

Dinalev, Karen

Social inclusivity for climate adaptive approaches for climate justice

Parikh, Madhuri

Analysis of the influencing factors for enhancing social license to operate

Suwanteep, Kultip

Why fairness requires a process and an outcome

Teh, Katherine

## ESG and impact assessment for critical minerals in a Just Transformation

#### Thursday 25 April | 11:00-12:30 | Liffey Meeting Room 1

Paper session

Chair(s): Allie Ommer

ESG and Impact Assessment contain critical tools for those funding, legislating and developing critical minerals projects. In this session we will use case studies to highlight challenges and lessons learned in linking ESG targets with impact assessment studies in global mining projects.

## The role of IA in delivering South Australia's critical minerals strategy

Zeman, Nathan

## Digging deep: Raw materials and storage for the German energy transition

Biehl, Juliane; Köppel, Johann; Geißler, Gesa; Neugebauer, Julia

## Integrating nature and social sustainability into ESG for a just transition

Gurkan, Asli; Hart, Tracy



Share your thoughts on a session or the day's events by tagging **#iaia24** on Twitter, Facebook, and Instagram!

#### Public sector participation and resettlement in impact assessment

Sharma, Bhupendra

## Using IA and HRDD to redefine "safe management of tailings facilities"

Joyce, Susan

#### Recharging community consent: Operationalizing FPIC in impact assessment

Stefani, Roberto

## Human rights impact assessment (HRIA) for a just transition (I)

#### Friday 26 April | 11:00-12:30 | Liffey Hall 2

Caravan

Chair(s): Gabriela Factor, Tulika Bansal

Human rights impact assessment can help strengthen the JUST of the transition. In this caravan session, we will discuss different approaches to human rights assessments over the whole value chain of renewable energy and reflect on the human rights impacts, opportunities and challenges of the transition.

#### Developing an HRIA for a bauxite mine in Guinea

Tomlinson, Kathryn

## Supply chain due diligence: Lessons from DFIs in renewable energies

Ruiz Alvarado, Mariana

#### SWIA of wind energy in La Guajira, Colombia: Scoping phase analysis

Arango, Viviana; Rincon, Valentina

#### Eletrobras and the first ever HRIA of a hydro power plant in Brazil

Villela Capanema Garcia, Pedro

## Human rights impact assessment (HRIA) for a just transition (II)

#### Friday 26 April | 14:00-15:30 | Liffey Hall 2

Caravan

Chair(s): Gabriela Factor, Tulika Bansal

Human rights impact assessment can help strengthen the JUST of the transition. In this caravan session, we will discuss different approaches to human rights assessments over the whole value chain of renewable energy and reflect on the human rights impacts, opportunities and challenges of the transition.

## Lessons from biofuels and regenerative agriculture HRIAs

Gibbons, Steve

#### HRIA of artificial intelligence technology development and application: Emerging practice and coming regulation

Veiberg, Cathrine Bloch

## Just transition and the need for assessment of positive human rights impacts

Symington, Andy

#### How dialogue enables us to make favorable decisions for a just transition

Oyanader, Karol; Arellano, Javiera

## IA and due diligence for sustainable transformation of large projects

#### Saturday 27 April | 14:00-15:30 | Wicklow Hall 1

Paper session Chair(s): Heikki Kalle

This session aims to explore the role of IA in due diligence (an instrument for investment decisions and financing) and vice versa. We will discuss good practice examples and experiences on the topic DD and IA for sustainable transformation of large projects.

## Exploring IA and due diligence for sustainably transforming large projects

Kalle, Heikki; Faith-Ell, Charlotta; Arts, Jos

#### Let the facts guide us: Tips and tricks for true independence

Scott-Brown, Miles; Quintero, Juan David

## Transforming practice in ESDD for the Global Biodiversity Framework

Le Gouais, Phil

## Tough standards and soft audits to improve post-ESIA project performance

Hall, Patrick

## Impact assessments and just energy transformation in Atlantic Canada

#### Thursday 25 April | 16:00-17:30 | Wicklow Meeting Room 3

Paper session

Chair(s): Ian Stewart, Leah Fusco

Coastal and marine resources offer abundant opportunities for energy transitions as we diversify energy sources and technological pathways. What role can impact assessments play in just and equitable energy transitions and societal transformations? This session reports on diverse experiences and lessons learned from Atlantic Canada.

## GBA+ in offshore energy development planning in Atlantic Canada

Fusco, Leah; Knott, Christine; Howse, Tara

#### Considerations for equity impact assessment for energy development

Singh, Gerald; Fusco, Leah

## Fishing vs tidal energy: Lessons learned from IAs in Canada's Bay of Fundy

Milley, Christopher

#iaia24

#### Inshore fish harvesting versus offshore wind development: Pathways forward

Stewart, Ian; Porter, Lyle

## Just transition and transformation of the coast and maritime

#### Thursday 25 April | 11:00-12:30 | EcoCem

Paper session

Chair(s): Louise Davis

This session discusses the approach and learnings within different countries with regards to the rising challenges related to transition of marine and coastal economies and adaptation and mitigation to climate change.

## Evolution of the UK Transmission System: Challenges and opportunities in IA

Walker, Ed

#### Just transition and stakeholder engagement: Wind offshore experience in Italy

Schirinzi, Elena; Valery, Michele

## The impact of hard structures to mitigate coastal erosion in protected area

Kang, Jihyun; Seo, Changwan

## Making follow-up happen to transform IA practice (I)

#### Friday 26 April | 11:00-12:30 | Wicklow Meeting Room 4

Paper session

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

The aim of this paper session is to share and discuss good practices of IA follow-up worldwide. Participants are invited to discuss effective methods or approaches, and to reflect on making IA follow-up happen.

#### Making follow-up happen to transform IA practice

Arts, Jos; Morrison-Saunders, Angus

#### How often are follow-up programs implemented in Canada?

Mackay, Cathy; Johannesen, Daryl

## Effectiveness criteria for EIA follow-up governance at the macro level

Smith, Charlene

## Post-approval performance of 232 licensed projects: Toward low efficiency?

Fonseca, Alberto; Serrano, Alessandra

## Making follow-up happen to transform IA practice (II)

#### Friday 26 April | 14:00-15:30 | Wicklow Meeting Room 4 $\,$

Paper session

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

The aim of this paper session is to share and discuss good practices of IA follow-up worldwide. Participants are invited to discuss effective methods or approaches, and to reflect on making IA follow-up happen.

## Follow-up and the new Environmental and Planning Act in the Netherlands

van der Gun, Wout; Vernij, Susan; de Maat, Sophie; van Ravesteijn, Maartje

## Functions and status of follow-up in Finnish EIA legislation

Kärkkäinen, Anni

## Follow-up on environmental clearances granted in India: A case study

Saini, Randeep Singh

#### Enforceable commitments and more accountability in ESIA Follow-up

Ozay, Leyla; Opinde, Godwin

## Making follow-up happen to transform IA practice (III)

#### Friday 26 April | 16:00-17:30 | Wicklow Meeting Room 4

Paper session

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

The aim of this paper session is to share and discuss good practices of IA follow-up worldwide. Participants are invited to discuss effective methods or approaches, and to reflect on making IA follow-up happen.

#### Environmental license review in Chile: Causes, solutions, and challenges

Pérez, Cristian

## Impacts on biodiversity and expected inputs to management from monitoring

Takahashi Margarido, Natália; Ribeiro Souza, Larissa; Kakinami, Sueli Harumi; Sánchez, Luis Enrique

#### Assessment of Bui Hydroelectric Project impact mitigation measures in Ghana

Tankpa, Vitus; Ocansey, Joyce

#### Marine impact assessments for ecosystembased maritime spatial planning

#### Friday 26 April | 14:00-15:30 | Wicklow Meeting Room 3

Paper session

Chair(s): Don Maynard

To ensure the sustainable delivery of ecosystem goods and services and safeguard our future, it is essential to minimize, mitigate and manage the full range of impacts affecting marine ecosystems. This session will discuss, examine and demonstrate impact assessment methods of relevance for the sustainable management of our oceans.

## Activities in protected areas: From impacts to value components

Martel, Marie-Claude

#### Cumulative effects assessment for Ireland's marine spatial planning process

Morejón, Virginia; González Del Campo, Ainhoa

## Facilitating an integrated assessment of impacts in marine multi-use

Van Gerven, Annaïk

#### Adaptive coastal development management: Red Sea turtle nesting

McGrath, David; Smith, Yanni; Raees Khan, Shah; Sheikh, Kashif: Aldrees, Yara

## Integrating EB-MSP and EBSA criteria in Celtic Sea planning

Mzungu Runya, Robert; O'Sullivan, Denise; Nic Aonghusa, Caitriona; Reid, David

IAIA24 final program 13

## Principles for social inclusion through impact assessment: Rapid draft

#### Thursday 25 April | 11:00-12:30 | Wicklow Hall 2A

Workshop

Chair(s): Sara Bice, Emerson Sanchez

Section: Corporate Stewardship and Risk Management

Join your quick-thinking colleagues as we rapid draft Principles for Social Inclusion through Impact Assessment to support a fair and Just Transformation. This interactive workshop begins with two case studies to ground us in practice, then guides participants through a rapid solutions-focused drafting process to agree on principles to support thriving communities. Count me in!

## Role of key actors for an effective license instrument in Argentine agro

Santomauro, Melina Gisela; Cañada, Pablo; Cattaneo, Carlos; Bona, M. Victoria; Bencuya, Julieta; Iacovo, M. Laura

#### Mitigating the impacts of the energy transition on vulnerable communities

Abraham, Etisana

## Psycho-social impact assessment to help make transformation more just

#### Friday 26 April | 14:00-15:30 | Wicklow Hall 2A

Paper session

Chair(s): Will Rifkin, Sergio Moreira

Psycho-social impact assessment (PSIA) helps navigate the complex environmental, social, economic and health effects of transformations necessitated by climate change, biodiversity loss and energy transitions. This session explores how PSIA can promote not only community resilience and adaptive capacity but also social justice.

#### Considering psycho-social impacts as part of transformation: A case study

Fairbairn, Catherine

#### Meaningful mitigation in a more just world

Carthew, Ruaraidh; MacDonald, Alistair

#### Recognizing cultural dimensions in psycho-social impact assessment

Ross, Helen

#### Adverse impacts for native Hawaiians from renewable geothermal energy

Edelstein, Michael

## Identity-based approaches to psychosocial impact assessment

Klein, Eden; Sadiq, Somia

## Strategic environmental assessment for a Just Transformation (I)

#### Thursday 25 April | 11:00-12:30 | Wicklow Hall 2B

Paper session

Chair(s): Thomas Fischer, Ainhoa González Del Campo

Contributions are invited on the application of Strategic Environmental (and Social and Health) Assessment (SEA) of and in strategies, policies, plans and programmes that support a Just Transformation.

## Strategic environmental assessment scoping study on the use of gene drive

Aggrey, Kofi; Knoblauch, Astrid; Fischer, Thomas

## Health impact assessment in SEA in Italy: State of the art and perspectives

Cavanna, Valentina

## Heritage in SEA: Integrated decision making in the Harrat Uwayirid (KSA)

Ritchie, Sarah; Morabito, Laura; Korpijaakko, Carla

## Strategic environmental assessment for a Just Transformation (II)

#### Thursday 25 April | 14:00-15:30 | Wicklow Hall 2B

Paper session

Chair(s): Thomas Fischer, Ainhoa González Del Campo

Contributions are discussed on the application of strategic environmental (and social and health) assessment (SEA) of and in strategies, policies, plans and programmes that support a Just Transformation.

#### Tiering biodiversity from SEA to EIA

Bond, Alan; Gallardo, Amarilis Lucia Casteli Figueiredo

#### A critical evaluation of the effectiveness of SEA in Thailand

Viwatrujirapong, Pichayut

## Strategic environmental assessment for urban systems transformation

Polido, Alexandra

#### Learning from innovative approaches to enhance public participation in SEA

Vargas Castro, Gloriana

## Strategic environmental assessment for a Just Transformation (III)

#### Thursday 25 April | 16:00-17:30 | Wicklow Hall 2B

Paper session

Chair(s): Thomas Fischer, Ainhoa González Del Campo

Contributions are discussed on the application of strategic environmental (and social and health) assessment (SEA) of and in strategies, policies, plans and programmes that support a Just Transformation.

## SEA in energy sector: Two different approaches from Iberian Peninsula

Rocha, Cecilia; Batista, Luísa; Matos, Nuno; Fonseca, Margarida; Conceição, Paulo

## Conflict management suggestions for the extension of renewable energy

Jung, Jong-Gwan; Ryu, Jae Keun; Lee, Grace; Namgung, Hvuna

#### Using SEAs to include coal power stations earmarked for decommissioning

Adams, Abulele; Lochner, Paul

## Toward a just water transformation: The SEA imperative

Medonos, Simone

## Streamlining environmental assessments to enable transformation

#### Friday 26 April | 16:00-17:30 | Wicklow Hall 2B

Paper session
Chair(s): Steve Bonnell

Explores approaches and experiences in streamlining project Environmental Assessment, with a focus on enabling and expediting the energy transition.

## Canada's approach to increase regulatory efficiency for clean growth projects

Moore, Wesley

#### Evaluating just administrative action for improving water use authorization

Moolman, Jurie; Alberts, Reece Cronje

#### New EIA regulation in Portugal: A step backward

Lameiras, Margarida; Jesus, Júlio

#### Streamlining IA: Focusing on projectspecific issues and IA-derived outcomes

Bonnell, Steve

#### The future of the IA profession: Transition or transformation? (II)

#### Saturday 27 April | 11:00-12:30 | Wicklow Hall 1

Theme forum: Workshop Chair(s): Rufus Howard

Part I of this theme forum workshop takes place Saturday 27 April at 09:00-10:30 in Wicklow Hall 1

Technological advances and rapid social change are resulting in transition and transformation for the IA profession. In this workshop experts and academics will reflect on the state of the IA community of practice and invite participants to take part in debates on the future of the IA profession.

#### Digital impact assessment: The future of the industry?

Niehorster, Ella; Jenkins, Emma

#### View from academia

Durning, Bridget

#### IA transformation: EBRD experience

Cousins, Debbie

#### The importance of training the new IA champions João, Elsa

#### Opportunities and challenges: Perspectives from the multi-disciplinary world

Hunt, Matthew

## The role of EIA practitioners in a Just Transformation

#### Friday 26 April | 11:00-12:30 | Wicklow Hall 2A

Panel discussion Chair(s): Julio Jesus

This session aims to discuss the role of EIA practitioners and the conflicts between being a "neutral" assessor of the impacts of a project and having a collaborative attitude towards the project, improving its sustainability.

#### **Panelists**

Jan Nuesink, e-Lekstroom cooperative U.A. (Netherlands)

Iñigo Sobrini, ICMA SL (Spain)

Júlio Jesus, Júlio de Jesus Consultores, Lda. (Portugal)

## Transforming the future of NEPA: Recent U.S. Congressional action

#### Friday 26 April | 16:00-17:30 | Wicklow Meeting Room 1

Panel discussion Chair(s): Michael Smith

This session provides a summary of the first major amendments ever made in over 50 years to the United States National Environmental Policy Act (NEPA) with the signing of the Fiscal Responsibility Act (FRA) in 2023, and will discuss whether these changes will transform impact assessment practice in the U.S.

## History of efforts to reform the NEPA impact assessment process in the United States

Smith, Michael D.

The Fiscal Responsibility Act's substantive NEPA amendments

Boling, Edward

The U.S. regulatory proposals, transforming the future of impact assessment

Hudson, Pam

## Using social impact assessments as a policy tool to guide just transition

#### Friday 26 April | 16:00-17:30 | Liffey Meeting Room 1

Panel discussion

Chair(s): Kevin Tomlinson, Neelanjana Gupta

The just transition agenda in India is complex because of high informality and coal dependence. This session presents findings from an assessment of the potential impacts of coal transition in Jharkhand, India, while panelists discuss how such assessments can be used to create just transition plans for developing economies.

#### Panelists

Soumya Kapoor Mehta, The World Bank (India)

Wolfhart Pohl, The World Bank (Austria)

Sandeep Pai, Swaniti Global (United States)

## THE CONTRIBUTION OF IMPACT ASSESSMENT TO CLIMATE JUSTICE

#### Financing a just transition

#### Thursday 25 April | 16:00-17:30 | Wicklow Meeting Room 2

Panel discussion

Chair(s): Joana Pedro

Ensuring a just transition is crucial for ambitious climate change mitigation and adaptation. Financial sector plays a major enabling role in insuring a Just Transition. This session will highlight how Impact Assessment methodologies and tools can support FIs on the achievement of a Just Transition that leave no one behind

## Innovative approaches to quantify and rank environmental priorities

Mahmoud Hamed, Maged; Afzal, Javaid; Sanchez-Triana, Ernesto; Gomes, Ana Luisa; Ochoa, Martin; Tiffer-Sotomayor, Ruth

#### Financing green, financing it right

Skotareva, Olga

Financing NbS for a just transition: Bamboo afforestation in Hong Kong

Mok, Yoyo

Increasing Indigenous perspectives in baseline studies: Braiding knowledges

O'Donnell, Shyla; McGathey, Andrea

Key ideas and challenges to deploy the appropriate E&S team for hydropower

Tomasino, Michel

## Impact assessment and adaptive management for climate change (I)

#### Thursday 25 April | 14:00-15:30 | Wicklow Hall 1

Paper session

Chair(s): Guoqing Shi, Chen Chen

Technologies and policies aiming to address climate change become a significant focus, while less attention has been given to its social and institutional implications. Thus, impact assessment and adaptive management should be adopted by various stakeholders to address social, economic, environmental, and institutional issues.

## What's new and what's missing: China's new regulation of investment project

Wang, Gang; Chen, Chen; Cao, Yaqi

## The value of the new SIA Framework for Action in enhancing climate planning

Imperiale, Angelo Jonas

## SI of establishing national parks: Evaluation of typical local communities

Zhang, Yuqi

## ESIA of infrastructure development projects in the context of climate change

Tao, Siji; Shi, Guoqing

## Impact assessment and adaptive management for climate change (II)

#### Thursday 25 April | 16:00-17:30 | Wicklow Hall 1

Paper session

Chair(s): Guoqing Shi, Chen Chen

Technologies and policies aiming to address climate change become a significant focus, while less attention has been given to its social and institutional implications. Thus, impact assessment and adaptive management should be adopted by various stakeholders to address social, economic, environmental, and institutional issues.

#### Climate change risk assessment in ESIA: Methodological and practical issues

Mezzalama, Roberto; Villata, Cristian; Dragan, Massimo; Grassi, Jacopo

## Climate financing: Achieving impacts with sustainable financing policy

Xiao, Jianliang

## Proposal for adaptive management of offshore wind power projects in Japan

Takeuchi, Ayano

#### From order to reorder: Assessment of the living environment of hydropower resettlement

Shi, Guoqing; Zhao, Yuanke



Meeting and work space is available on a first-come, first-served basis 24-27 April 09:00 - 17:30 in Liffey Boardroom 2

## FROM JUST TRANSITION TO JUST TRANSFORMATION

## Benefit-sharing for a fair and Just Transformation

#### Wednesday 24 April | 15:00-16:30 | Wicklow Meeting Room 3

Panel discussion

Chair(s): Carlos Perez Brito

Join our session to learn about and discuss the latest developments and approaches to benefit-sharing for renewable energy and beyond, including new schemes involving Indigenous peoples. You'll leave this interactive session with a better understanding of how benefit-sharing can be achieved and the ways in which impact assessment can support these efforts.

## The role of community benefit agreements in achieving Just Transformations

Gunton, Thomas

## Extracting fair equitable benefits from natural resources for communities

Kamau, Teddy

## We lived this way before: Clean energy leadership in Tobique First Nation

Pirie-Wilson, Tanna; Walker, Chad; Lewis, Diana

## How prepared is IA for next-generation renewable energy megaprojects? (I)

#### Friday 26 April | 11:00-12:30 | EcoCem

Paper session

Chair(s): Aaron Goldschmidt

IA can clearly play a role in helping advance the reduction of effects of global climate change through expedited and comprehensive evaluations of the next generation of emerging green energy projects and programs. Is IA prepared to identify and mitigate potential collateral social costs in evaluating current unknowns?

## Achieving a Just Transformation in Australia's renewable energy zones

Harwood, Sharon; Blair, Dave

#### IA for megaprojects: It must start with effective stakeholder engagement

Murphy, Marissa

## Challenges for impact assessment in offshore wind energy development

Grigoletto Duarte, Carla; Ana Paula, Dibo; Juliana, Siqueira-Gay; Regina Denadai, Márcia; Turra, Alexander; Enrique Sánchez, Luis

## Regulatory efficiency for clean growth projects: Canada's approach

Orenstein, Marla

## How prepared is IA for next-generation renewable energy megaprojects? (II)

#### Friday 26 April | 14:00-15:30 | EcoCem

Paper session

Chair(s): Aaron Goldschmidt

IA can clearly play a role in helping advance the reduction of effects of global climate change through expedited and comprehensive evaluations of the next generation of emerging green energy projects and programs. Is IA prepared to identify and mitigate potential collateral social costs in evaluating current unknowns?

## Managing impacts related to electrolysers and green hydrogen supply chain

Paginu, Violeta; Hoencamp, Taco

## Learning from the frontline: 15 years of marine energy megaprojects

Pizzolla, Paolo

## Meaningful public participation in impact assessment

#### Thursday 25 April | 11:00-12:30 | Wicklow Hall 1

Paper session

Chair(s): Tanya Burdett, Timothy Peirson-Smith

Section: Public Participation

This session will provide insights into international best practice frameworks for meaningful public participation in IA. Presentations will focus on best practices for meaningful participation: skills, approaches, tools - and will provide an insight into global case studies as examples of meaningful participation.

#### The essential elements of meaningful public participation in IA

Sinclair, John; Burdett, Tanya

## Regulators collaborating and innovating to enhance impact assessment outcomes

Abood, Gregory; Thompson, Paul

#### **Public participation in megaprojects**

Peirson-Smith, Tim

#### Meaningful visual communication in EIA: Stakeholders' perspectives

Roque de Oliveira, Ana; Bento, Sofia; Partidário, Maria; Morrison-Saunders, Angus

#### Crossing boundaries and jurisdictions: Implications for participation

Fitzpatrick, Patricia; Bond, Alan; Sinclair, A. John

## Linking just transition dialogue and impact assessment participation

Majekolagbe, Adebayo

## No longer on margins: Toward social and climate justice in SWM sector

#### Thursday 25 April | 14:00-15:30 | EcoCem

Pecha Kucha

Chair(s): Harjot Kaur

Through collation of marginalized voices from the sanitation sector, emerging from existing social dialogue and impact assessment tools as well as bringing insights from select promising practices, the aim is to spark new dimensions for delivering climate justice and social inclusion in the solid waste management sector.

## Promoting identity and agency of informal waste pickers as green agents

Vemuru, Varalakshmi; Kaur, Harjot

## Policy and legal reforms for climate and social justice to waste pickers

Kaur, Harjot

## The role of governments in a Just Transformation

#### Thursday 25 April | 16:00-17:30 | Liffey Hall 2

Panel discussion Chair(s): Lindsay Luke

There are many thoughts on what the role of government should be in a Just Transformation. This session provides an opportunity to hear from practitioners with direct experience in First Nation, provincial, and federal governments about governments' role in a just transition and some of the challenges, risks, and opportunities.

#### **Panelists**

#### Marion Doull, Impact Assessment Agency of Canada (Canada)

Scott Bailey, Beacon Regulatory Solutions Inc. (Canada)

Tracey Ross, Haisla Nation Council (Canada)

# A JUST TRANSFORMATION FOR INDIGENOUS PEOPLES AND VULNERABLE COMMUNITIES

#### Emerging practices in Indigenousled environmental assessment

#### Thursday 25 April | 14:00-15:30 | Liffey Hall 1

Panel discussion

Chair(s): Rosanne Van Schie, Sara Mainville

Join this session that explores case studies emphasizing Indigenous perspectives on advancing UNDRIP, Indigenous-led impact assessment (IIA), and regulatory support for transformative Indigenous processes. IIA and territorial jurisdiction stem from community connections to their land and laws. IIA revitalizes Indigenous law and jurisdiction, reinvigorating the power of an IA process.

#### EIA in Nigeria 30 years after: Challenges and opportunities

Lawal, Adegboyega; Suleiman, Abbas; Vincent-Akpu, Ijeoma

#### Advancing Indigenous-led assessment In Canada

Van Schie, Rosanne; Mainville, Sara

#### Cree Nation of Wemindji: Social impact assessment of Newmont Éléonore Mine

Card, Katherine; Wirz-Endrys, Fiona

## Indigenous perspectives on a Just Transformation (II)

#### Friday 26 April | 11:00-12:30 | Wicklow Hall 1

Theme forum: Paper session

Part I of this session takes place Friday 26 April

09:00-10:30 | Wicklow Hall 1 Chair(s): Diana Lewis, Dyanna Jolly Section: Indigenous Peoples

Presenters share experiences on how to engage with Indigenous Peoples as rights holders and not stakeholders, and not always as vulnerable communities. They will explore transformative engagement through case studies that are motivated by the desire to form relationships with communities and ensure IA makes a difference in those communities.

## Free, prior and informed consent in practice: What are the key issues?

Hanna, Philippe; Ingles de Souza, Cassio

#### Maneuvering state bureaucracies to advance Indigenous rights

Kløcker Larsen, Rasmus; Funder, Mikkel; Golkar-Dakin (Sâkihitowin Awâsis), Cortney; Hunsberger, Carol; Marani, Martin; Schilling-Vacaflor, Almut

## Infusing Sámi rights claims in legal reviews of hydropower licenses

Inga, Katarina; Kløcker Larsen, Rasmus

#### Impact of mines for the Just Transformation: Cree EA process

McLean, Cameron; Krupa, Anna

## Role of IA in promoting Inuit rights and just transition in Arctic shipping

Galvao Ferreira, Patricia; Seck, Sara

## Indigenous impact assessment of large renewable energy projects

O'Faircheallaigh, Ciaran

## Indigenous perspectives on a Just Transformation (III)

#### Friday 26 April | 14:00-15:30 | Wicklow Hall 1

Theme forum: Paper session Chair(s): Diana Lewis, Dyanna Jolly Section: Indigenous Peoples

Presenters share experiences on how to engage with Indigenous Peoples as rights holders and not stakeholders, and not always as vulnerable communities. They will explore transformative engagement through case studies that are motivated by the desire to form relationships with communities and ensure IA makes a difference in those communities.

#### Doing relational work in Indigenousled impact assessment

Reitmeier, Veronica; Struminski-Bodden, Antonina; Lewis, Diana

#### Indigenous perspectives of health in Canadian impact assessments

Durksen, Lara; Lewis, Diana; Reitmeier, Veronica

#### Integrating Indigenous values into economic impact assessment in Canada

Nightingale, Elana; Lewis, Diana

#### SkΛna NΛ yotye I Ńhake` (Peace Will Be Happening) in Oneida Nation of the Thames

Thom, Olivia

## Indigenous perspectives on a Just Transformation (IV)

#### Friday 26 April | 16:00-17:30 | Wicklow Hall 1

Theme forum: Paper session Chair(s): Diana Lewis, Dyanna Jolly Section: Indigenous Peoples

Presenters share experiences on how to engage with Indigenous Peoples as rights holders and not stakeholders, and not always as vulnerable communities. They will explore transformative engagement through case studies that are motivated by the desire to form relationships with communities and ensure IA makes a difference in those communities.

#### A transformative framework for socioeconomic cumulative effect assessment

Antwi, Effah; Boakye-Danquah, John

## Ethnolinguistic minorities in Southern Angola: Opportunities for inclusion

Olmos, Santiago; Begbie-Clench, Benjamin; Bezeredi, Alexandra; Serrat Capdevila, Aleix; Varghese Paul, Boban

## Monitoring impacts of an all-season road: Indigenous adaptive management

Kuntz, Janelle; Gibson MacDonald, Ginger; Steinwand, Tammy; Steinwand, Tyanna

## Reclaiming Indigenous economic development through participatory action

Matthew, Matthew; Pérez Piñán, Astrid Vanessa

## Just transition informing impact assessment processes for energy transition (I)

#### Friday 26 April | 14:00-15:30 | Liffey Hall 1

Paper session

This session is sponsored by Acorn International Chair(s): Vigya Sharma, Rauno Sairinen

This session will bring together papers that discuss the practice of impact assessment (IA) in the critical (or battery) minerals and renewable energy (RE) sector. It focuses on how IAs can be an effective tool to promote the principles of equity, social justice and fairness in these two industries.

#### Australian mining of ETMs in South Africa: Curse or blessing?

Ellis Schiemer, L Janelle

#### Impact assessment for policy insight on battery minerals value chains

Arbelaez Ruiz, Diana Carolina; Lindsay, Jordan

## Impacts of EIA and permit streamlining in the context of mining sector

Pölönen, Ismo

## SIA in coal mining communities: Emerging methodology ramifications

Mahoney, Christopher; Ash, Jillian

#### An energy company's experience in ESHIA for energy transition developments

Pareja Fernandez, Paloma

## Just transition informing impact assessment processes for energy transition (II)

#### Friday 26 April | 16:00-17:30 | Liffey Hall 1

Paper session

This session is sponsored by Acorn International Chair(s): Vigya Sharma, Rauno Sairinen

This session will bring together papers that discuss the practice of impact assessment (IA) in the critical (or battery) minerals and renewable energy (RE) sector. It focuses on how IAs can be an effective tool to promote the principles of equity, social justice and fairness in these two industries.

## The role of the Lenders IESC for the world's largest green hydrogen plant

Wootton, Oscar

## Impacts of floating solar panels: The Magat reservoir as reference case

Nesheim, Ingrid; Clayer, Francois

#### Consideration of soundscape in Finnish EIA legislation and practice

Salonen, Heikki

#### Advancing ESIA for a just transition

Slocum, Dean

## Impact assessments for just transition outcomes in renewable energy sector

Sharma, Vigya

## Partnerships in impact assessment for a Just Transformation

#### Saturday 27 April | 11:00-12:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Danielle Smyth, Meaghan Hoyle

This session explores transformative advances and innovative approaches to establishing and implementing partnerships in impact assessment to support a Just Transformation, including partnerships with Indigenous nations in context of the United Nations Declaration on the Rights of Indigenous Peoples.

## Creating relational spaces: Developing the Indigenous Advisory Committee

Zeitz, Janice; Olsen, Rachel

## Collaborative development of a Northern Canadian regional assessment

Pawley, Kim; Wheler, Brett; Cliffe-Phillips, Mark

## Respecting Indigenous governance in impact assessment: A Canadian experience

Smyth, Danielle; Hoyle, Meaghan

#### Working toward consensus and consent in the Environmental Assessment Act

St James, Katherine; Bradley, Kourtney

## Vale's social ambition commitments to Indigenous peoples

Andrade, Luana

#### Explore with local government how to conduct sustainability assessment

Urago, Akiko; Shibata, Yuki; Uesugi, Tetsuro; Kasagi, Hiroo; Yamamoto, Yoshika

#### Reflecting Indigenous knowledge for a Just Transformation in impact assessment

#### Saturday 27 April | 14:00-15:30 | Liffey Hall 2

Paper session

Chair(s): Valerie Masterman

Reflecting Indigenous peoples' worldviews in impact assessment offers an opportunity to accelerate social justice and equality. This session presents examples of Indigenous-led impact assessments and approaches to reflect Indigenous worldviews to support a Just Transformation for Indigenous peoples and vulnerable communities.

## A fast and green transition: Are just and fast compatible?

Lemieux, Marie-Eve; Grimard, Marie-Josee

#### Indigenous values in analysis and significance determination for assessment

Hiltz, Jessica; Ward, Jonathan

## An Indigenous conceptual model for transformative environmental governance

Ignace, Lawrence

## Reflecting Indigenous perspectives in environmental assessments in BC

Masterman, Valerie; Dickson, Jaimie

#### Toquaht Nation's approach to impact assessment

Murphy, Matthew; Perez Pinan, Astrid

## Relevance of Indigenous knowledge and perspectives for Just Transformation

#### Wednesday 24 April | 15:00-16:30 | Liffey Hall 2

Paper session

Chair(s): Johanne Hanko Section: Indigenous Peoples

This session proposes to present cases and strategies for improving indigenous involvement to the preparation of EIA, including their contribution on baseline, impact identification and environmental management plans, with the aim to strengthen their participation in decision-making processes regarding their territories.

## Indigenous Sámi knowledge in climate impact assessments on reindeer herding

Österlin, Carl; Rosqvist, Ninis; Kjellström, Erik; Vannar, Jonas; Inga, Niila

## Indigenous-led program to manage cumulative effects in Northern Alberta

Berg, Kevan; Faichney, Felix

## Indigenous perspectives for a Just Transformation of the mining sector

Hanko, Johanne; Evans, Julie

## Remember the intangibles and spiritual values for a just transition

#### Thursday 25 April | 14:00-15:30 | Wicklow Hall 2A

Worksho

Chair(s): Ahmed Sanda Section: Indigenous Peoples

We invite IAIA members to discuss how to integrate intangible and spiritual values in impact assessment. We aim at developing a framework to integrate intangible and spiritual values to strengthening Impact Assessment as tool for achieving a just transition.

#### Lending distance to the consideration of alternatives

Snow, Andrew

#### What is the role of intangible and spiritual values in a just transition?

Sanda, Ahmed; Mendoza Sammet, Angeles

## A polyphonic concept of Just Transformation: Strengthening its agency

Lopez Espinoza, Luis Alberto

## Supporting the transition toward a holistic assessment of cultural rights

#### Wednesday 24 April | 15:00-16:30 | EcoCem

Panel discussion

Chair(s): Angel Ransom, Jesse McCormick

This facilitated panel discussion explores innovative tools and practices for assessing project-specific and cumulative effects on Indigenous cultural rights, and restitution mechanisms for residual impacts to culture. The session will introduce the FNMPC Cultural Rights and Interests Toolkit and highlight best practices.

## Spirit of the Land: A cultural impact and restitution toolkit

Keller, Kimberley

#### Spirit of the Land: A cultural impact and restitution toolkit

Thomas, Jasmine

## Supporting the transition toward a holistic assessment of cultural rights

Ransom, Angel

#### Spirit of the Land: A cultural impact and restitution toolkit

McCormick, Jesse

#### PROTECTING BIODIVERSITY: ENHANCING BASELINE AND MONITORING MECHANISMS FOR NATURE-BASED SOLUTIONS

## Al-supported transformation of collecting and processing biodiversity data

#### Friday 27 April | 16:00-17:30 | Wicklow Meeting Room 5

Workshop

Chair(s): Alexandra Jiricka-Purrer, Birthe Uhlhorn

Section: Biodiversity and Ecology

AI will change EA practice: but are we ready for it? A call for discussion based on developments in collecting and processing biodiversity data. In an interdisciplinary workshop we aim at discussing the implications of AI for EA, linking advances from the perspective of biological sciences to environmental assessment.

#### Geospatial technologies as a catalyst for large-scale biodiversity data

Sellers, Amy

#### Using AI for review of automated, remote wildlife camera data

Thideman, Dennis

# Effective use of IA tools and partnerships to protect climate and biodiversity through just transition

#### Wednesday 24 April | 15:00-16:30 | Wicklow Meeting Room 5

Pecha Kucha

Chair(s): Susan Scott

Section: Biodiversity and Ecology

What kind of possibilities open-up when IA is used for promoting just transition? What role do partnerships have in this? The session will bring together examples from across the globe that highlight success stories, lessons learnt and will make recommendations for promoting stronger partnerships that make IAs more effective.

## Developing a practical, evidence-based approach to biodiversity protection

Eng, Delaney

#### Principles for sound waste management in South African protected areas

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

#### GIS in the context of impact assessments and nature-based solutions

Searle, Eija

## Integrated biodiversity assessment tool: Biodiversity and social insights

Mistry, Parthav; McKee, Ellen

## Gap analysis of biodiversity management legal framework of Kyrgyz Republic

Ali, Lulwa; Cauldwell, Andrew

## How can nature-based approaches be promoted before impact assessment?

#### Thursday 25 April | 16:00-17:30 | Wicklow Hall 2A

World Café

Chair(s): Tamara Hochstrasser, Elsie O'Gorman

This world café style session will discuss how the multiple benefits of nature-based approaches to development could better be compared to engineering solutions and incorporated in the planning phases of development and impact assessment process.

## How to conserve biodiversity in climate change mitigation projects (I)

#### Saturday 27 April | 11:00-12:30 | Wicklow Meeting Room 4

Paper session

Chair(s): George Ledec

The world now faces both a climate change crisis and a biodiversity loss crisis. This session will examine how renewable energy, climate-smart agriculture, and other climate change mitigation projects can be located, designed, built, and operated in ways that conserve biodiversity, rather than harming it.

## Biodiversity sweetspots for greater protection in Mekong's 3S rivers

Meynell, Peter-John

## Winging it with wind farms: Bird flyways in Mpumalanga, South Africa

Luyt, Robyn; Lötter, Mervyn; Cowden, Gavin; Ntuli, Pamella

## Biodiversity mainstreaming in renewable energy projects in Uganda

Agaba, Mulumba

#### Can green hydrogen be produced without significant biodiversity risks?

Hughes, Jessica; McCleland, Warren; Heather-Clark, Stuart; Blood, Jeremy; Moodaley, Dylan

## How to conserve biodiversity in climate change mitigation projects (II)

#### Saturday 27 April | 14:00-15:30 | Wicklow Meeting Room 4

Paper session

Chair(s): George Ledec

The world now faces both a climate change crisis and a biodiversity loss crisis. This session will examine how renewable energy, climate-smart agriculture, and other climate change mitigation projects can be located, designed, built, and operated in ways that conserve biodiversity, rather than harming it.

#### Eco-shoreline in Lantau: Nature-based coastal defence and nurturing ground

Lui, Crystal

## We can combat climate change and the biodiversity crisis simultaneously

Lafferty, Heather

#### Protecting biodiversity: Enhancing baseline and monitoring mechanisms

Ziduche, Phillip; Munodawafa, Munyaradzi; Mhlanga, Sithembinkosi; Chisense, Christopher; Nkweendenda, Avitol; Sata, Mwelwa

#### SUSTAINABLE DEVELOPMENT GOALS AND THE JUST TRANSFORMATION

## Linking urban health and SDGs through impact assessment

#### Saturday 27 April | 11:00-12:30 | Wicklow Meeting Room 2

Paper session

Chair(s): Emanuel Valpacos

Section: Health

The session delves into the intersection of urban health and impact assessments, highlighting the essential role of IAs in enhancing urban health within the context of rapid urbanization. It will cover the universalization of sanitation, PM10 concentration across spatial and temporal scales, and the expansion of walking policies through impact assessment, illustrating how IAs contribute to creating healthier, equitable, and sustainable urban environments.

#### Universalization of sanitation versus environmental licensing and IA

Rodrigues Ribeiro dos Santos, Mariana; Diniz Lima, Gabriel

## PM10 concentration and land uses in different spatial and temporal scales

Kim, Jin-Oh; Park, Jeong-Il

#### Widening the scope of walking policies through impact assessment

Petit Jean, Maxime

## Nature-positive outcomes through a Just Transformation

#### Wednesday 24 April | 15:00-16:30 | Wicklow Meeting Room 4

Panel discussion

Chair(s): Amrei von Hase

Supporting a Just Transformation by aligning economic development, improved livelihoods, biodiversity conservation, and climate goals is today's defining challenge. We will share international experiences on how policy development and best practice founded on the mitigation hierarchy can contribute to a nature positive future.

## Foundations for nature positive: Good mitigation policy and practice

von Hase, Amrei

#### Advances in policy and practice on the mitigation hierarchy in Mozambique

Costa, Hugo; Duarte, Eleutério

#### Bringing local communities as players for biodiversity compensation

Cotillon, Suzanne

## Ørsted's approach to delivering biodiversity net positive renewable energy

Whitaker, Samir; Kristoffersen, Tommy

## Biodiversity credits: What are they and how can they be used?

Edwards, Steve

## Toward a just transition for biodiversity offsets (I)

#### Saturday 27 April | 11:00-12:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Greg Sharam

The Global Biodiversity Framework from COP15 and corporate no net loss objectives are leading to increased use of biodiversity offsets. A Just Transition of offsetting must consider affected people in the planning and implementation of offsets while the GBF requires reporting of effectiveness of offsets.

#### From concept to implementation: Indigenous education and ecosystem offsetting

Brunham, Wade; Boyle, Erin

#### Social considerations and offsets

Rainey, Hugo; Livingstone, Suzanne; Riddell, Michael; Starkey, Malcolm

#### Simultaneously supporting the just transition and biodiversity

King, Virginia; Steinbacher, Joseph

## Systems thinking and the transformative potential of nature-based solutions

Pierce, Magretha; Searle, Eija

## Toward a just transition for biodiversity offsets (II)

#### Saturday 27 April | 14:00-15:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Greg Sharam

The Global Biodiversity Framework from COP15 and corporate no net loss objectives are leading to increased use of biodiversity offsets. A Just Transition of offsetting must consider affected people in the planning and implementation of offsets while the GBF requires reporting of effectiveness of offsets.

## Designing scientifically-credible nature-based offsets

zu Ermgassen, Sophus

#### Modeling wildlife roadkill risk on São Paulo highways amid sugarcane area

Silva, Rodrigo

## Natural capital and the GBF: Opportunities for businesses and nature

Bailey, Ida

#### Habitat offsets for caribou in British Columbia: Lessons learned

Sharam, Greg

## DECARBONIZING THE ENERGY SECTOR

## A regional environmental assessment approach to assist decarbonization

#### Saturday 27 April | 11:00-12:30 | Wicklow Meeting Room 3

Paper session

Chair(s): Becky Hitchin

Industry-led, voluntary, regional assessments allow strategic understanding of projects from development of baselines to monitoring. This session discusses how a similar approach could be used for offshore energy to complement existing plan-level assessment through SEA, and allow more rigorous monitoring of impacts.

#### The role of SEA, CIA and EIA within the High Seas Treaty

Tejeda-González, Juan Carlos

## Mapping risk to herring and sandeel for offshore decarbonization projects

Kyle-Henney, Matt; Reach, Ian

## Countering consultation fatigue in regional approaches to just transition

Joiner, Rosemary

## Addressing mining impacts driven by an energy transition for climate action

#### Friday 26 April | 11:00-12:30 | Wicklow Meeting Room 2

Paper session

Chair(s): Laura Sonter, Luis Sanchez

Plans and policies for decarbonization must address the prospective environmental and social impacts of mining the 3 billion tonnes of energy transition minerals needed to build renewable energy infrastructure by 2050.

#### Global assessment of the impact of construction minerals on biodiversity

Torres, Aurora; zu Ermgassen, Sophus O.S.E.; Ferri-Yanez, Francisco; Navarro, Laetitia M.; Rosa, Isabel; Teixeira, Fernanda Z.

#### Global patterns of biodiversity threatened by mining

Lamb, Ieuan; Edwards, David

#### Frameworks and metrics

Stephen, Will; Prescott, Graham

#### Using a buffer-based approach to make global assessments on mining impacts

Dawson, Chloe

## Deforestation embodied in EU-27 metal and coal consumption

Luckeneder, Sebastian; Giljum, Stefan; Maus, Victor; Sonter, Laura; Malik, Arunima; Lenzen, Manfred

## The global supply chain drivers of environmental impacts of lithium mining

Giljum, Stefan; Sun, Xin; Maus, Victor; Schomberg, Anna

#### Community engagement and benefitsharing contributions to a just transition

#### Thursday 25 April | 16:00-17:30 | Liffey Meeting Room 3

Panel discussion

Chair(s): Orlando San Martin

The session will present selected experiences of meaningful stakeholder engagement and benefit-sharing mechanisms which going beyond regulations can be considered as a good industry practice for the renewable energy sector and hopefully inspire and encourage industry actors, regulators, and relevant stakeholders.

## People-positive renewable energy: Toward a competition for just outcomes

Tharani, Adele

#### Community benefit sharing mechanisms throughout Europe

Cronin, Yvonne

#### Throwing away the template for engagement

Hood, Alison

## Shared value towards SLO: Engagement and growth, approaching communities

Pinto-Correia, Margarida

#### Meaningful engagement delivering for wind energy

O'Sullivan, Pat

## Environmentally, socially and economically just carbon neutrality (I)

#### Friday 26 April | 11:00-12:30 | Liffey Meeting Room 1

Paper session

Chair(s): Yuan Xu, Shigeo Nishikizawa

Renewables are crucial in decarbonizing the energy sector and achieving carbon neutrality. This session examines IA frameworks and issues in the energy transition and the environmental, social, and economic impacts at local, regional, national, and global scales.

#### Local symbiotic renewable energies beyond NIMBYism

Nishikizawa, Shigeo

#### Construction, utilization, and development plan of Korea's Carbon Spatial Map

Jung, Seunghyun; Kim, Minseo

## Comparing emergency generator and battery for urban energy storage planning

Du, Yufan; Xu, Yuan

#### Delivery of just decarbonization

Hazell-Marshall, Chris

## Environmentally, socially and economically just carbon neutrality (II)

#### Friday 26 April | 14:00-15:30 | Liffey Meeting Room 1

Paper session

Chair(s): Yuan Xu, Shigeo Nishikizawa

Renewables are crucial in decarbonizing the energy sector and achieving carbon neutrality. This session examines IA frameworks and issues in the energy transition and the environmental, social, and economic impacts at local, regional, national, and global scales.

#### Economic geography under carbon neutrality in China's Guangdong Province

Xu, Yuan; Cooke, Sam

#### Public acceptance of wind energies located near the nuclear power plant

Liu, Kaiqi; Nishikizawa, Shigeo; Murayama, Takehiko; Suwanteep, Kultip

## ESG management foundation toward corporate climate action and resilience

Aman, Mohamad Irwan; Nadar, Feroze

## Independent monitoring of voluntary carbon market project community benefits

Evans, Robert

#### What if carbon markets were accessible to everyone?

Viana, Frederico

## Impact assessment: Enabling or constraining sustainable energy transitions?

#### Wednesday 24 April | 15:00-16:30 | Liffey Meeting Room 3

Paper session

Chair(s): Bram Noble

This session explores the nature and role of IA (project and/or strategic) in the global energy transition, offering debates and case studies on IA as an enabling or constraining instrument for energy transitions, and discussing opportunities for improved principles, processes, and practice.

#### A focus on effective IA screening and scoping Grobler, Jan

#### Sustainable energy transitions: Managing trade-offs with strategic IA

Geißer, Gesa; Biehl, Juliane; Köppel, Johann

#### Insights for offshore energy transition: The role of strategic IA instruments

Siqueira-Gay, Juliana; Sánchez, Luis; Duarte, Carla; Dibo, Ana; Turra, Alexander

## Mind the gap: Gaps between IA and construction in renewable energy

Wiesner, Barry

## Kicking the can down the road? IA, renewable energy, and future generations

Soliman-Hunter, Tina

## Impacts and risks of lithium and rare earth elements supply chain

#### Thursday 25 April | 14:00-15:30 | Liffey Meeting Room 1

Paper session

Chair(s): Simon Catchpole

This session will examine the risks in supply chains of lithium and rare earth elements. These are a critical part of the decarbonization and for energy storage. What does it mean environmentally and socially, to be dependent on lithium and rare earth elements rather than on hydrocarbons?

#### The social and environmental risks of the battery storage supply chain

Pittaluga, Andrea

#### CRM supply chain risks and environmental impacts in supercapacitors

Liu, Xingin; Xie, Xiaoping

#### Are the ESIA processes in the Lithium Triangle countries effective?

Garcia Zavala, Consuelo; Cote, Claire; Rochford, Luisa; Worden, Sandy

#### Lithium supply development in Argentina

Catchpole, Simon; Parizek, Bernardo

# INNOVATIVE METHODS AND DECISION-SUPPORT TOOLS FOR A JUST TRANSFORMATION

## Ensuring Just Transformation of infrastructure projects (I)

#### Wednesday 24 April | 15:00-16:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Camille Heaton

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

#### A scorecard to assess and improve infrastructure engagement

O'Connor, Ruth; Jones, Kirsty

## Brazil ES overview assessment: Strengthening borrower's capacity and systems

Faro, Guilherme; Shayer, Eric; Costa, Alberto; Ferreira, Sofia; Cordeiro, Ana Carolina; Diniz, Carlos

#### Employing environmental data to inform planning of infrastructure projects

Al Sultan, Rand; Khan, Abdurrahim Basit; McGrath, David

#### Establishment of environmental and social framework at the cooperate level

Byun, Chang-young; Lee, Ji-eun

## Ensuring Just Transformation of infrastructure projects (II)

#### Thursday 25 April | 11:00-12:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Camille Heaton

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

## Enhancing focus on sustainability in a CPH Metro project: EIA tender and SDGs

Ravn Boess, Emilia; Kørnøv, Lone

#### Environmental transformation: Case study of the trunk road T4 in Hong Kong

Tse, Tsz Lok, Jason

## Infrastructure corridor IAs: County-wide in AlUla Korpijaakko, Carla

Integrating the Kikot-Mbebe project into Cameroon's hydropower development

Bodel, Charles; Jacob, Frederick

## Ensuring Just Transformation of infrastructure projects (III)

#### Thursday 25 April | 14:00-15:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Camille Heaton

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

## Spatial modeling in the scoping of environmental impact assessment

Araujo, Felipe; Ajuz, Rafael; da Silva, Pedro

## Starting at the end: A proposal to improve ESIA effectiveness

McIlwaine, Steve; Murfitt, Sarah

## Innovative method: Tailings as growth medium eliminating topsoil dependency

Mellett, Robyn; Jansen van Rensburg, Elindi; Mahlalela, Wandile

#### Is the clean energy transition a just transition?

Seymour, Eleanor; Yasenko, Juliette

## Ensuring Just Transformation of infrastructure projects (IV)

#### Thursday 25 April | 16:00-17:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Camille Heaton

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

## Embedding international standard in driving change to achieve social justice

Chung, Darylynn; Bujang, Nur Khairin; Abdullah, Azyan; Aman, Mohamad Irwan

## Risk-based management framework for desalination in the Red Sea Project

Palmer, Edwin; Oldmeadow, Edward

## Frac-out prediction: Proactive management in natural gas pipeline project

Poosit, Warisa; Akarapunyawong, Vasunan; Sukchum, Poramate

## Innovative methods and tools for a Just Transformation

Heaton, Camille; Francis, Patrick

## Exploring the limitations of SIA in achieving sustainable development

#### Thursday 25 April | 16:00-17:30 | Liffey Meeting Room 1

Paper session

Chair(s): Yaacob Hassan, Herlina Abdul Aziz

This session aims to redefine challenges in the boundaries of social impact assessment (SIA) in development projects and reimagine its scope and coverage. Presenters will discuss emerging practices, methodologies, and tools, exploring the dynamic nature of social impacts.

#### Strengthening social impact assessment tools to facilitate Just Transformation

Ab Aziz, Herlina

## Enhancing social impact assessment with GIS strategies in engagement

Amra Ramly, Saiful Bahari

## IA for private university and SIA best practice for community development

Ojile, Meshach

#### Exposure to household air pollution and child undernutrition in the Sahel

Lufumpa, Nakawala; Hilger, Anne; De La Briere, Bénédicte; Ng, Odyssia

## IA for better policy making: Current trends and new methods (I)

#### Saturday 27 April | 11:00-12:30 | Liffey Meeting Room 2

Paper session Chair(s): Zishu Wang

IA provides fundamental support for sustainable development during the policy-making process. In the pursuit of better and more just policy-making, current IA methods should be further deepened and improved. This session focuses on IA for policy-making and aims to explore new methodological trends and practices amid emerging challenges.

## Developing methods for systems-informed health impact assessment: SystemHIA

O'Mullane, Monica; Tweed, Emily

## Health impact assessment and the changing stakeholder needs: Italy's case

Bonizzi, Michele; Ahmed, Fareed Yusuf

## Enabling digital environmental impact assessment (EIA) in Nigeria

Ndarake, Etia; Aboje, Andrews

#### Data-based digital environmental impact assessment

An, Junyeong; Park, Taeho; Jeon, Hyungjin; Kim, Kyoungmin

## Enhancing social impact assessment capacity in non-profit organizations

Akdeve, Erdal; Giderler, Memduh Eren; Akcapar, Sebnem; Onder, Cetin

## IA for better policy making: Current trends and new methods (II)

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#### Applying the RE-AIM framework to evaluate an environmental policy in China

Xie, Dan

## Agent-based assessment for China's new integrated environmental zoning

Wei, Zeyang; Wang, Zishu

#### Careful argument can improve IA processes

Brown, Glenn

#### Becoming a regulator: Policy making towards a devolved administration

Roberts, Kirk

## Innovative data sharing and governance for a Just Transformation (I)

#### Thursday 25 April | 11:00-12:30 | Liffey Hall 2

Paper session

Chair(s): Andy Chung, Clara U, Kin Che Lam

For practitioners to showcase innovative data sharing and assessment tools, discuss the importance of data governance in achieving Just Transformation, and examine how data governance frameworks and emerging technologies can enhance the quality and transparency of environmental data, thereby informing evidence-based decision-making.

## Data governance of public environmental information: A case of Hong Kong

Wong, Chi Chung, Chris; Mak, Kin Man, Danny; U, Kam Wa, Clara

#### Open Science and Data Platform: A tool to inform evidence-based decisions

Coulson, Jessica; Deblois, Kelsea

#### Smart application for EIA process: Harnessing the potential of the CED

Mak, Kin Man, Danny; Wong, Chi Chung; U, Kam Wa,

#### Noise mapping and Web-based noise impact assessment systems in Hong Kong

Tam, Man Ting; Chan, Ka Wai; Lin, Kit Mei; Lee, Yau Hang; Lee, Chee Kwan

## Helium, LoRaWAN with IoT for impact assessment and conservation in Kenya

Fiegenbaum, Hanna; Azegele, Bradley; Seider, Stephan

## Innovative data sharing and governance for a Just Transformation (II)

#### Thursday 25 April | 14:00-15:30 | Liffey Hall 2

Paper session

Chair(s): Andy Chung, Clara U, Kin Che Lam

For practitioners to showcase innovative data sharing and assessment tools, discuss the importance of data governance in achieving Just Transformation, and examine how data governance frameworks and emerging technologies can enhance the quality and transparency of environmental data, thereby informing evidence-based decision-making.

#### Environmental protection reviews of Canadian nuclear facilities

Rupert, Aimee; Warnock-Juteau, Kendra

## Comprehensive environmental information management in Chilean mining

Araya, Gino

## Enhancing transparency: The case of South Africa's EMF

Cilliers, Dirk; Retief, Francois; Alberts, Reece; Roos, Claudine; Moolman, Jurie

#### Data governance advancing green mining: Environmental Observatory 2.0

Bergamini, Kay; Mollenhauer, Katherine; Ãngel, Piroska; Rugiero, Vanessa; Medina, José Ignacio

## Data governance as the cornerstone of good governance in megaprojects

Chung, Andy; To, Wai Ming

## Meaningful impact assessments through Indigenous leadership

#### Thursday 25 April | 11:00-12:30 | Liffey Hall 1

Paper session

Chair(s): James Herbert

This session brings together stories of Indigenous leadership in assessment methods and the development of tools and processes that are meaningful for communities. Sharing these stories, this session creates the space for different ways of knowing and understanding to be incorporated into more holistic and relevant assessments.

#### Building a multi-nation Indigenous regional cumulative effects assessment

Bossé, Charmaine; Halvorson, Courtney

#### Chiefs of Ontario Environmental Assessment Toolkit Padulo, Kathleen

## Linking Indigenous-led cumulative effects management with impact assessment

Kwon, Katerina; Rutherford, Murray

#### Niiwin Wendaanimok Partnership Anishinaabe Guardians Program

Houle, Robyn; Webb, Heather

#### Indigenous-designed impact methods: An example from Gitxaala Nation

Herbert, James; Vanderjagt, Adena; Johnston, Heather

## Methods for handling complexity in Just Transformation (I)

#### Friday 26 April | 11:00-12:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Charlotta Faith-Ell, Johanna S. Gordon

The session aims to explore the application of various methods that cover the complex relationships between environmental, social, and economic challenges in IA of large projects. Good practice examples and experiences will be critically reflected upon and discussed.

## Strategic Thinking for Sustainability (ST4S) for a Just Transformation

Partidario, Maria; Barata Monteiro, Margarida

#### Trust: Using systems thinking for process mapping the role of trust in IA

Froese, Ken

#### Toward an evidence base to support Power-to-X (PtX) decision-making

Snyman-van der Walt, Luanita; Schreiner, Greg; Lochner,

## Analysis of the EIA of landfills for sustainability in Perú

Poggi, Johanna; Zegarra, July

## Typologies of expected and idealized futures of the EIA practice

Van Staden, Francini; Retief, Francois

## Methods for handling complexity in Just Transformation (II)

#### Friday 26 April | 14:00-15:30 | Wicklow Meeting Room 1

Paper session

Chair(s): Charlotta Faith-Ell, Johanna S. Gordon

The session aims to explore the application of various methods that cover the complex relationships between environmental, social, and economic challenges in IA of large projects. Good practice examples and experiences will be critically reflected upon and discussed.

## Infrastructure development and compliance with environmental policy

Porras Carrasco, Andrea; Valladares Huerta, Jose Alfredo

#### Towards a minority-sensitive cultural impact assessment in Germany

Hagemann, Jenny; Laschewski, Lutz; Jacobs, Fabian

## Partnering with communities in research for a just transition

Major, Laura; Roberts, Jen

#### Lithium plant in Canada: A voluntary EIA using the issue-based approach

Dontigny, Julie; Gagnon, Benoît; Young, Robert

## Better explain EIA for a better public participation: Review and outlook

Lachapelle, Lina; Hébert, Jean

## Multi-dimensional cumulative effects assessment with Indigenous peoples

#### Thursday 25 April | 16:00-17:30 | Liffey Hall 1

Panel discussion

Chair(s): Erika Bockstael

Cumulative effects assessments (CEA) can inform a Just Transformation through the application of multiple knowledge systems to evaluate impacts at meaningful scales. This session presents a multicommunity CEA with three First Nations in Canada, a web-based modelling platform, and Indigenous Science as a distinct knowledge system with a "cumulation of knowledge."

#### A tool to support Indigenous participation in impact assessment

Carlson, Matthew

## Treaty lasts forever: Protecting our rights, culture, and way of life

Okemow, Crystal; Blackstar, Arnold; Martin, Dana

#### Indigenous science and cumulative effects

Bockstael, Erika

# Opportunities for international development cooperation to go beyond "do no significant harm"

#### Wednesday 24 April | 15:00-16:30 | Wicklow Hall 1

Paper session

Chair(s): Juan Palerm, Gunilla Ölund Wingqvist

This session will address the opportunities for international development cooperation to contribute to a just and sustainable transformation.

#### What works? Effective measures from Swedish development cooperation

Åhrgren, Lisa; Wallin, Erik; Ölund Wingqvist, Gunilla

#### Toward nature-positive and climatepositive EU cooperation

Palerm, Juan; Crabbé, Bernard

#### Beyond "do no harm": Lessons from green transition works in Africa and Asia

César, Emelie; Ekbom, Anders

#### EIB perspectives on going beyond "do no harm"

Vaara, Elina

#### Global biodiversity expenditure taxonomy: Understanding government spending

Fischer, Ronja; Trinidad, Annabelle

## Regional cumulative effects assessment to support a Just Transformation (I)

#### Saturday 27 April | 11:00-12:30 | EcoCem

Paper session

Chair(s): Jenny Pope

Many aspects of Just Transformation are experienced, and therefore most appropriately managed, at a regional scale. Regional cumulative effects assessment can be a valuable tool to protect and enhance biodiversity, inform planning for a more sustainable future, and protect the rights of Indigenous and other vulnerable groups.

## A typology of approaches to regional cumulative effects assessment

Pope, Jenny; Young, Renee

#### Using a RSEA to build a more sustainable future in northern Canada

Cliffe-Phillips, Mark; Wheler, Brett; Pawley, Kim

## Canadian Indigenous-led assessments and regional cumulative effects

Hanna, Kevin

## Integrating diverse community values in CEA for a just transition

Buse, Chris

## Regional cumulative effects assessment to support a Just Transformation (II)

#### Saturday 27 April | 14:00-15:30 | EcoCem

Paper session

Chair(s): Jenny Pope

Many aspects of Just Transformation are experienced, and therefore most appropriately managed, at a regional scale. Regional cumulative effects assessment can be a valuable tool to protect and enhance biodiversity, inform planning for a more sustainable future, and protect the rights of Indigenous and other vulnerable groups.

#### Lessons for meaningfully assessing cumulative social effects

Arnold, Lauren

#### Advancing cumulative effects (CE) research in Canada in support of IA

Eddy, Brian; Clarke, Christina

#### The institutionalization of sustainability assessment

Talbot, David

## Synergies of impact assessment and circular economy

#### Wednesday 24 April | 15:00-16:30 | Wicklow Meeting Room 2

Paper session

Chair(s): Ralf Aschemann

This session will explore potential synergies between the fields of impact assessment and circular economy (CE). For instance, EIAs and SEAs can be used to analyze the impact of CE related strategies and vice versa, CE strategies - such as slowing, narrowing or closing resource flows - can be an idea generator for EIAs and SEAs.

#### Impact assessment practices to help enable circular economy progress

Ramos, Tomás B.; Rato, Mariana; Polido, Alexandra

## Smart waste management tool for environmental and economic benefit sharing

Oji, Akuma; Erekosima, Tamunotonye

#### Fe-coated biochar for P removal and recovery of slow release fertilizers

Kim, Minkyung; Falasca, Giuseppina; Casentini, Barbara; Fazi, Stefano

#### What circular economy can learn from impact assessment and vice versa

Aschemann, Ralf

#### PROTECTING AND PROMOTING THE RIGHT TO A SAFE, CLEAN, AND HEALTHY ENVIRONMENT

## Connecting people and planet: Respecting the environment and human rights

#### Wednesday 24 April | 15:00-16:30 | Wicklow Hall 2B

Panel discussion
Chair(s): Caroline Brodeur

The right to a safe, clean and healthy environment was recently recognized as a human right. How do we ensure respect of this right and establish the interconnection with human rights? This session will explore the reality of assessing environmental and human rights impacts in the high-risk seafood industry.

#### Building the rights environment for due diligence

O'Connell, Seán

Human rights and environmental due diligence Husseini, Salah

## Human rights-based approaches in fisheries management and ocean protection

Arifsyah, Mohammad

## Protecting human rights and the environment through impact assessments

Brodeur, Caroline

## Consideration of wider health determinants in impact assessments

#### Friday 26 April | 14:00-15:30 | Wicklow Meeting Room 2

Paper session

Chair(s): Shiu Fung Hung

Section: Health

There have been growing concerns about the wider determinants of human health and well-being. How could Impact Assessment practices accommodate emerging health topics? Paper contributions were invited on the innovation and application of proportionate consideration of health impacts in impact assessments, including HIA and SEA.

## How can health impact assessment support a wellbeing economy?

Douglas, Margaret; Scott, Fiona; McNicol, Kirstin; Shipton, Deborah; Renwick, Lorna

#### How to assess climate change impacts and sustain health on regional level

Horváth, Ilonka

## Why co-drafting guidelines to support HIA implementation in Georgia?

Roue Le Gall, Anne; Dardier, Guilhem; Van Gastel, Benoit; Legeas, Michèle; Pogorzelski, Antoine

## Creating a toolkit for a proportionate consideration of health in SEA

Hung, Shiu Fung

## Large infrastructures, just transition, and community health and safety (I)

#### Thursday 25 April | 14:00-15:30 | Wicklow Meeting Room 4

Paper session

Chair(s): Francesca Viliani, Mark Divall

Section: Health

The session presents innovative approaches to proactively assess and manage community health and safety impacts associated with major projects and large infrastructures. The inclusion of health, by enhancing intersectoral approaches, will be fundamental to achieve the SDGs and tackling increasing health inequalities.

## Health impact assessment in the energy transition: Increasing of knowledge

Mortara, Simone Fortunato; Gomez, Diaz Guillermo

#### Health impact assessment in the energy sector

Sommerville, Delya; Xiao, Yina

## Why don't we ask? Local knowledge and tradition in great apes survey

La Gala, Silvia

## Method to simplify health impact assessment for infrastructure projects

Divall, Mark; Olivier, Izak

## Health impact management and monitoring with community cadres

Moodie, James

## Large infrastructures, just transition, and community health and safety (II)

#### Thursday 25 April | 16:00-17:30 | Wicklow Meeting Room 4

Paper session

Chair(s): Francesca Viliani, Mark Divall

Section: Health

The session presents innovative approaches to proactively assess and manage community health and safety impacts associated with major projects and large infrastructures. The inclusion of health, by enhancing intersectoral approaches, will be fundamental to achieve the SDGs and tackling increasing health inequalities.

## Does local level data influence the HIA decision making process?

Olivier, Izak

## Community health monitoring of the Trident Copper Project

Knoblauch, Astrid; Nyirenda, Tato; Temple Mumba, Kahilu; Divall, Mark J.; van der Merwe, Kylie

#### Community safety: Technical and corporate integration for risk and impact

Silva, Cesar

## Community health as key aspect of social impact for a mining company

Viliani, Francesca

## What have you done for me lately? Effectiveness in health impact assessment

#### Friday 26 April | 16:00-17:30 | Wicklow Hall 2A

World Café Chair(s): Ben Cave Section: Health

How can HIA and health in EA be more effective? How can it effect change? What is its role in the Just Transformation? This World Café will meet the challenge, identified at the ASEAN workshop in IAIA23, to develop new tools and skills to deliver the right to a healthy, sustainable, and clean environment.

#### **ACADEMIA**

## Impact assessment research and teaching in higher education (I)

#### Saturday 27 April | 11:00-12:30 | Liffey Meeting Room 1

Paper session

Chair(s): Reece Alberts, Thomas B. Fischer

Section: Academia

The Academia Section of IAIA has started an initiative with the aim to establish how many individuals are involved in IA teaching and research in the higher education sector. We invite contributions that will provide relevant information on different countries. The initiative aims at resulting in a special issue of *Impact Assessment and Project Appraisal*.

#### Overcoming challenges in EIA: Environmental science students in Argentina

Giberti, Verónica; Picardi, Daniela

## Teaching SEA in a country without regulation: Challenging this scenario?

Gallardo, Amarilis

## IA teaching and research activities in higher education: Thailand

Chanchitpricha, Chaunjit

## Higher education institutions' based environmental assessment research in Europe

Rodrigues, Tiago; Fischer, Thomas

## Global perspectives on the effectiveness of environmental impact assessment

Alberts, Reece; Retief, Francois

## Teachers as gatekeepers or facilitators for transforming EA practice

Kågström, Mari; Faith-Ell, Charlotta; Geißler, Gesa; Biehl, Juliane

## Impact assessment research and teaching in higher education (II)

#### Saturday 27 April | 14:00-15:30 | Liffey Meeting Room 1

Paper session

Chair(s): Reece Alberts, Thomas B. Fischer

Section: Academia

The Academia Section of IAIA has started an initiative with the aim to establish how many individuals are involved in IA teaching and research in the higher education sector. We invite contributions that will provide relevant information on different countries. The initiative aims at resulting in a special issue of *Impact Assessment and Project Appraisal*.

#### Teaching impact assessment for wicked problems: A transdisciplinary case

Neugebauer, Julia; Köppel, Johann; Geißler, Gesa

## Impact assessment higher education and research in Mexico

Tejeda-González, Juan Carlos

## Enhancing EIA and SEA education in Denmark: Collaborative competence-building

Kørnøv, Lone; Lyhne, Ivar

#### The conceptual dispersion of impact significance

Montano, Marcelo; Naomy Vieira Shibayama, Lidia

## Three decades of teaching EIA at KTH Royal Institute of Technology, Sweden

Balfors, Berit

#### AGRICULTURE, FORESTRY, AND FISHERIES

#### Climate, energy and agriculture/ forestry linkages

#### Friday 26 April | 16:00-17:30 | Wicklow Meeting Room 2

Paper session

Chair(s): Ijeoma Vincent-Akpu

Section: Agriculture, Forestry and Fisheries

This session examines the existence of inter-sectoral linkages among key sectors like Climate, Energy and Agriculture/Forestry/Fisheries which could be stimulated and enhanced to achieve multiple beneficial social, environmental, economic and cultural goods and services for human kind.

#### Floating solar PV as panacea to climate change-driven water constraints

Musenyi, Steadmore

#### A discussion on the prospect of naturebased solution for climate change

Issa, Lookman

#### A case for harnessing nuisance in freshwater ecosystems in Niger Delta

Vincent-Akpu, Ijeoma; Vincent-Akpu, Chinogozim

## Environmental and social impact assessment of saltwater shrimp farm project

Swam Htet Kyaw, Yadanar; Thiha, Aye

#### **BIODIVERSITY AND ECOLOGY**

## Blue economy, SEA and marine spatial planning

#### Friday 26 April | 11:00-12:30 | Wicklow Meeting Room 3

Paper session

Chair(s): Arthur Neher, Arend Kolhoff

Section: Biodiversity

Marine spatial planning within jurisdictional boundaries, but increasingly outside, become subject to SEA safeguarding marine biodiversity. We invite people and organizations to share experiences that can be used in the development of SEA guidance for Marine and Coastal Spatial Planning asked for by the UN Treaty of the High Seas.

#### SEA of marine spatial plans in Ireland

Woolley, Tom

#### How the SEA shaped the Firth of Clyde Regional Marine Plan

Keller, Arthur

#### Implementation of EIA under the UN BBNJ Agreement: Next steps

Whitten, Patience

#### Pathways to biodiversity gain (I)

#### Thursday 25 April | 11:00-12:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Jo Treweek

Section: Biodiversity and Ecology

We explore approaches to risk assessment and management for large projects, stress-test approaches to planning for biodiversity net gain, and explore new techniques for monitoring and surveillance. These sessions will interest all key stakeholders with an interest in achieving good outcomes for biodiversity using evidence-based approaches.

#### Investigating the implementation of biodiversity mitigation in EIA in Chile

Cares, Rocío; Bond, Alan; Franco, Aldina

#### Committing to net gain in the Colombian high mountain ecosystems

Amaya, Andres; Sandoval, Milton; Romero, Victoria

## Targeting net gain in biodiversity conservation benefit in tourism projects

Smith, Damian; Fant, Mia; Salamah, Judy; Hammad, Lutfiah

#### Pathways to biodiversity gain (II)

#### Thursday 25 April | 14:00-15:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Jo Treweek

Section: Biodiversity and Ecology

We explore approaches to risk assessment and management for large projects, stress-test approaches to planning for biodiversity net gain, and explore new techniques for monitoring and surveillance. These sessions will interest all key stakeholders with an interest in achieving good outcomes for biodiversity using evidence-based approaches.

#### Catalyze transformation in spatial planning: EA for biodiversity valuation

Monteiro, Margarida; Soares, Ana; Partidário, Maria; Larsen, Sanne; Kornov, Lone

#### Stress-testing the metric for biodiversity net gain in England

Duffus, Natalie; Lewis, Owen; zu Ermgassen, Sophus; Grenyer, Richard

#### A new frontier for biodiversity monitoring and NPI: eDNA derived from insects

French, Chris; Tan, Harrison

#### Pathways to biodiversity gain (III)

#### Thursday 25 April | 16:00-17:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Jo Treweek

Section: Biodiversity and Ecology

We explore approaches to risk assessment and management for large projects, stress-test approaches to planning for biodiversity net gain, and explore new techniques for monitoring and surveillance. These sessions will interest all key stakeholders with an interest in achieving good outcomes for biodiversity using evidence-based approaches.

#### Biodiversity risk screening: Identifying risks and opportunities

Livingstone, Suzanne; Turner, Joe; Tatum-Hume, Emma; Hutchison, James; Serckx, Adeline; Starkey, Malcolm

## Biodiversity risk management for challenging international projects

Massey, Dave; Nightingale, Jo; Boulter, Simon; Richardson, James; Tilbury, Doug

## Image sensing / AI technology for wind farms to minimize impacts on birds

Taylor, Simon

## Transitioning to net gain: Effectively achieving and measuring biodiversity (I)

#### Friday 26 April | 11:00-12:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Corin Simmonds, Nicola Faulks

Section: Biodiversity and Ecology

As biodiversity enhancement both through net gain and nature positive mechanisms becomes the accepted approach, we consider how practitioners can achieve this ambitious target. Alignment is required between financers developing corporate disclosure and monitoring approaches and developers working to mitigate adverse impacts.

#### The nature-positive journey for business

White, Thomas; Bromwich, Talitha; Booth, Hollie; Bang, Ashley; Bennum, Leon; Bull, Joseph; Clark, Michael; Milner-Gulland, E.J.; Prescott, Graham; Starkey, Malcolm; zu Ermassen, Sophus

#### The role of BNG in a Just Transformation: Lessons learned from the UK

Guindon, Olivia

## How does net gain impact the social license to operate of a large project?

Stuart, Alice; Bond, Alan; Franco, Aldina

## An authentic approach for managing biodiversity at pipelines

Karaduman, Berna; Mezzalama, Roberto

Transitioning to net gain: Effectively achieving and measuring biodiversity (II)

#### Friday 26 April | 14:00-15:30 | Wicklow Meeting Room 5

Paper session

Chair(s): Corin Simmonds, Nicola Faulks Section: Biodiversity and Ecology

As biodiversity enhancement both through net gain and nature positive mechanisms becomes the accepted approach, we consider how practitioners can achieve this ambitious target. Alignment is required between financers developing corporate disclosure and monitoring approaches and developers working to mitigate adverse impacts.

## NatureTech to measure and deliver net gains for biodiversity: eDNA

Howard, Pippa; Middleton, Owen

## Biodiversity benefits? No net loss and net gain approaches in Peru and the UK

Valencia Franke, Claudia; Saloma, Milagros; Wansbury, Claire; Tito, Juan

## From avoidance to offsets: How to measure biodiversity to net gain ambition

Raithel, Sophia; Williams, Hafren

#### Delivering biodiversity net gain in AlUla: Benchmarking and next steps

Miller, Jonny; Lyons, Anna

#### CLIMATE CHANGE

## Consideration of climate change in impact assessment of different countries (I)

#### Friday 27 April | 11:00-12:30 | Liffey Meeting Room 3

Paper session

Chair(s): Ishara Autar, Bobbi Schijf Section: Climate Change

In Session 1 we take a closer look at the impact of CC and climate action on people's quality of life (health, indigenous practices and socioeconomic effects). Session 2 presents approaches to address CC in IA, including how to determine GHG emissions significance, offset credits, and carbon stock.

#### The need for climate impact assessments in Swedish Sápmi

Rosqvist, Gunhild Ninis; Allard, Christina; Kjellström, Erik

## Capturing the health and well-being impact of climate change: An HIA in Wales

Green, Liz

## Socioeconomic impact Assessment tool for effective just transition policies

Lata, Kusum; Agyemang-Bonsu, William Kojo

## Consideration of climate change in impact assessment of different countries (II)

#### Friday 27 April | 14:00-15:30 | Liffey Meeting Room 3

Paper session

Chair(s): Ishara Autar, Bobbi Schijf Section: Climate Change

In Session 1 we take a closer look at the impact of CC and climate action on people's quality of life (health, indigenous practices and socioeconomic effects). Session 2 presents approaches to address CC in IA, including how to determine GHG emissions significance, offset credits, and carbon stock.

## Climate change in Danish impact assessment practice: The ugly duck?

Lyhne, Ivar; Kørnøv, Lone

#### The use of offset credits under Canada's Impact Assessment Act

Singh, Karambir

## Estimation model of forest carbon stock by using forest canopy volume

Hayashi, Kiichiro; Hayakawa, Kota; Takajima, Kiyoshi; Machimura, Takashi; Sugita, Satoru

#### CULTURAL HERITAGE

## The role of impact assessment in protecting and enhancing heritage

#### Friday 26 April | 14:00-15:30 | Wicklow Hall 2B

Paper session

Chair(s): Urmila Jha-Thakur

The session looks at theory and/or practice of consideration of Heritage within Impact Assessment (IA) from the developed and the developing world. This can take the form of Heritage Impact Assessment or the extent to which Heritage as a topic is incorporated within an IA process.

#### Reflections on heritage impact assessment: Practice in the Netherlands

Patiwael, Patrick

## The role of HIA in protecting and enhancing heritage: A case study from Al

Alanazi. Rakan

## How to conserve urban heritage by EIA: A case of Jingu Gaien Park, Tokyo

Harashina, Sachihiko

#### "This Other Eden": Assessing a myth?

Mabbitt, John

#### Heritage impact assessment of historic urban parks

Jha-Thakur, Urmila; Le Devehat, Marie

## Underwater cultural heritage: Developing approaches and improving data

#### Friday 26 April | 16:00-17:30 | Wicklow Meeting Room 3

Paper session Chair(s): Amanda Evans Section: Cultural Heritage

During this session, experienced underwater heritage practitioners will present a series of papers detailing the improvements in technologies, the knowledge that has been gained, and the applications to projects. The session will be of value to impact assessment professionals that participate in offshore development and extractive industry.

#### Underwater cultural heritage assessments: Best practices for new challenges

Evans, Amanda; Ball, David

## Assessing underwater cultural heritage from geophysical data

Marples, Tim; Emery, Andy

## Taken at the flood: Submerged pasts and green futures

Fraser, Andrew; Walker, James; Gaffney, Vincent

## Submerged historic properties in Alaska: Database development and modeling

Sassorossi, William; Polglase, Chris

#### DISASTERS AND CONFLICT

## Disasters, conflict and impact assessment: Experiences and lessons (I)

#### Friday 26 April | 11:00-12:30 | Liffey Meeting Room 3

Paper session Chair(s): Charles Kelly Section: Disaster and Conflict

Disasters and conflicts continue to be major disruptors of development, and lives. This session will provide a venue to present experiences in assessing impacts during conflicts and crises and lessons which may have been learned.

#### Building a successful just transition from coal mining in western Ukraine

Hesketh, Paul

#### An analysis of the NEMA S30A Directives issued to eThekwini Municipality

Dlamini, Zinhle

#### Lessons from Peru's El Niño reconstruction and impact assessment process

Wieland, Patrick

## Lessons from the Brumadinho dam disaster to the environmental regulation

Naime, Andre

## Disasters, conflict and impact assessment: Experiences and lessons (II)

#### Friday 26 April | 14:00-15:30 | Liffey Meeting Room 3

Paper session Chair(s): Charles Kelly Section: Disaster and Conflict

Disasters and conflicts continue to be major disruptors of development, and lives. This session will provide a venue to present experiences in assessing impacts during conflicts and crises and lessons which may have been learned.

## Connecting social impacts and social capacities in flood risk management

Ortiz, Guadalupe; Aledo, Antonio

#### Integrating social vulnerability into social impact assessment for floods

Aznar-Crespo, Pablo; Ortiz, Guadalupe; Aledo, Antonio

## Health impact assessment of the Gaza Strip integrated essential services

Winkler, Mirko

Toward toxic risk assessment with conflict in Ukraine

Murayama, Takehiko

## Disasters, conflict and impact assessment: Experiences and lessons (III)

#### Friday 26 April | 16:00-17:30 | Liffey Meeting Room 3

Paper session Chair(s): Charles Kelly Section: Disaster and Conflict

Disasters and conflicts continue to be major disruptors of development, and lives. This session will provide a venue to present experiences in assessing impacts during conflicts and crises and lessons which may have been learned.

#### Environmental, health, and safety consequences of war

Asaolu, Funke; Rakovych, Oksana

Adventurers in dangerous places: Assessing environmental impacts in conflict-afflicted countries

Kelly, Charles

Formalizing guidance for how we deliver IA in active conflict contexts

Hart, Tracy; Edino, Marcus

#### **EMERGING TECHNOLOGIES**

## IAIA principles for artificial intelligence in impact assessment

#### Wednesday 24 April | 15:00-16:30 | Wicklow Hall 2A

World Café

Chair(s): Charlotte Bingham Section: Emerging Technology

Participate in a discussion of IAIA Principles for the use of Artificial Intelligence (AI) in Impact Assessment (IA). These principles emerged from discussions of the Emerging Technologies Section at IAIA23 in Kuching and have been revised in draft form for this Dublin meeting. Please use this exciting opportunity to contribute to a revised version of the Principles, which

the Emerging Technologies Section will present to the IAIA Board of Directors for their consideration, approval and publication.

## GOVERNANCE AND IMPLEMENTATION SYSTEMS

## Sustainable finance and impact assessment in the EU

#### Thursday 25 April | 11:00-12:30 | Liffey Meeting Room 2

Paper session

Chair(s): Adina Relicovschi

The session will discuss the key role the EIA plays in providing the information required to be further used in determining the environmental sustainability of a given economic activity under the EU Taxonomy, particularly in determining SC, DNSH and meeting minimum social safeguards.

## Sustainable finance taxonomies and IA tools: Overall linkages and opportunities

Dusik, Ji

## Social dimensions of DNSH: Minimum safeguards, EIA, and EU Taxonomy

Patel, Alka; Bezeredi, Alexandra

#### EU Taxonomy and financial approval process

Relicovschi, Adina

## Sustainable finance and impact assessment linkages at a global scale

#### Thursay 25 April | 14:00-15:30 | Liffey Meeting Room 2

World Café

Chair(s): Miguel Coutinho

This World Café session will discuss the potential linkages between the emerging taxonomies of sustainable economic activities at the global scale on the application of social and environmental standards used internationally by the key development partners. What are the most relevant standards that should be adopted for each sustainability criteria?

## What is the role of social and environmental practitioners to provide quidance to boards?

#### Wednesday 24 April | 15:00-16:30 | Liffey Meeting Room 2

Workshop

Chair(s): Liz Wall, Paul Hollesen

A world café workshop format to discuss the questions "Do S&E practitioners understand the role of a director to ensure our messaging is 'on target' with this audience?" "What is the role of practitioners to provide guidance to boards?" "How can practitioners make their voices heard in corporate governance structures?"

#### Liz Wall, Shared Resources (Australia)

Paul Hollesen, Consultant (South Africa)

#### INDIGENOUS PEOPLES

## Anishinaabe Law: Harmonization and the role of UNDRIP

#### Saturday 27 April | 11:00-12:30 | Liffey Hall 2

Panel discussion Chair(s): Sadiq Somia

Speaking to Indigenous-led assessments and operationalizing of Indigenous laws, this session will speak to the role of UNDRIP and ask the tough question: Is UNDRIP preventing revival of Indigenous laws and what are the opportunities and challenges in this context to ensure a just, true, and respectful transformation for IA?

#### Technical and political mechanisms of Anishinaabe Law implementation in IA

King, Lucas

How it may or may not support Indigenous sovereignty

Sadiq, Somia

#### SOCIAL IMPACT ASSESSMENT

## Certification and accreditation in SIA: Opportunities and challenges

#### Thursday 25 April | 11:00-12:30 | Wicklow Meeting Room 2

Panel discussion

Chair(s): Mayumi Corazon Pimentel, Helen Fabrero Sy

This session discusses the opportunities and challenges of certifying and accrediting SIA practitioners.

Addressing standardized competencies, affordable training, and diverse SIA contexts will be explored, along with collaboration among stakeholders. The role of micro-credentials in meeting job market demands will also be examined.

## The journey to Australia and New Zealand's first SIA certification

Blood, Alex; Corrigan, Paul

## PHILCESS: Opportunities and challenges in building a community of practice

Alamani, Bryan Gencianeo

## How to be a CEP, or, an alternative pathway to SIA accreditation

Solomon, Patrick

## Determinants for the uptake of certification scheme in Nigeria

Oso, Oluwatosin; Ilesanmi, Michael; Siakpere, Elijah

## Defining industry standards on skills and performance for IA practitioners

Valenzuela, Annabelle Vitti Corpuz

## Community benefit sharing funds: Changemakers or appeasement?

#### Thursday 25 April | 11:00-12:30 | Wicklow Meeting Room 3

Paper session

Chair(s): Rebecca Roebuck Section: Social Impact Assessment

This session will explore the use of Community Benefit Sharing Funds in energy and resource projects, with a focus on their effectiveness as mechanisms for facilitating social change. Learnings will be shared based on case studies from energy & resource projects in different geographic regions.

## Differences in the management of community benefits funds in Scotland

Gowens, Becca; Major, Laura

## Going beyond the "just enough" social approach in renewable energy projects

Galeano Galán, Alejandra; Pittaluga, Andrea

#### The role of social impact assessment in shaping community benefit schemes

Kanaris, Andrea

## Decolonizing SIA through the attitudes and beliefs of practitioners

#### Friday 26 April | 16:00-17:30 | EcoCem

Paper session

Chair(s): Alex Cisneros

Section: Social Impact Assessment

This session will discuss the role of attitudes and beliefs in SIA practitioners in a two-fold effort to: 1) decolonise relational practices in SIA, and 2) create more equitable and culturally competent regulatory structures, both essential for a socially just and inclusive transformation.

## Baffled systems or culturally incompetent impact assessment

Munday, Jane

#### Who tells the story in SIA?

Wellmann, Gwendolyn

## Analysis of the Implementation of the UNDRIP through regional assessments

Butler, Mathilde

## Attitudes, behaviors and practices that perpetuate coloniality in project-community relations

Cisneros, Alex

#### **Economic impact assessment**

#### Thursday 25 April | 11:00-12:30 | Liffey Meeting Room 3

Paper session Chair(s): Ben Cave

Economic impact assessment (EcIA) plays an important role in an overall impact assessment process. However, there are challenges as how to incorporate goals of economic development such as quality of life or sustainability in EcIA. A range of international case studies demonstrating how to address these challenges is provided.

## The economic and social struggle of PAPs in integrating into new settlement

Yeboah, Irene; Buanya, Beryl Adormaa; Gabby Hayes, Antoinette Salmata

## Navigating the decarbonization-decolonization nexus: Roles and limits of cost-benefit analysis

Wright, David

#### Embedding socio-economic benefits and ecosystem services on ENR management

Villaluz, Maya Gabriela

#### Generating wellbeing is a must, not an option

Ruiz, Yaddy; Amaya, Andres; Paz, Ariel

#### **Fair compensation for Just Transformation**

#### Thursday 25 April | 11:00-12:30 | Wicklow Meeting Room 4

Paper session

Chair(s): Satoshi Ishihara, Ben Elder

The session addresses the challenge of involuntary resettlement of Indigenous communities, a critical risk to achieve Net Zero and Just Transition which needs construction of many alternative, renewable power generation and transmission capacity that often require large-scale displacement of vulnerable local communities.

## Public sector and hydro-power in Nepal: Organization and management issues

Soeftestad, Lars; Holics, Michael

#### Valuation and compensation under World Bank projects in Georgia and Armenia

Jijelava, David; Msryan, Sonya

#### Hydroelectric dams in Iran: Involuntary displacement of local Indigenous people

Meysami, Parand

## What can issues in operationalizing FPIC tell us about fair compensation?

Sztucka, Julia

## Gender in impact assessment: Work from Canada and Africa

#### Friday 26 April | 11:00-12:30 | Liffey Hall 1

Paper session

Chair(s): Dawn Hoogeveen

Gender and intersectionality are significant sites of inquiry in Impact Assessment that attend to overlapping identity factors like race, religion, age, and ableism. This session is on intersectional and gender Impact Assessment research and practice. Case studies and theoretically informed papers on work in Canada and Africa will be presented.

#### Team Gooze: Indigenous response to gendered violence and industrial activity

Patrick, Betty; Gibson MacDonald, Ginger; Power, Verna

#### Unpacking GBA+: Experience from Canada

Johnston, Anna

#### Culturally relevant gender-based analysis in impact assessment

Stone, Kathryn; Castleden, Heather; Masuda, Jeff; Bates-Eamer, Nicole; Lewis, Diana

## The impact of mining on women's agency: The role of local content policies

Ba, Djeynaba

## Social impact assessment methods and participation of marginalized groups

Egunyu, Felicitas; Boakye-Danquah, John

## It's a beautiful day for social and human rights IA: EU too play a role

#### Thursday 25 April | 16:00-17:30 | EcoCem

Workshop

Chair(s): Ana Maria Esteves, Francesco Tricoli

Not famous Irish rock band karaoke. Don't miss out on this workshop and finding out what new EU legislation means for social and human rights practitioners globally. The Corporate Sustainability Reporting Directive is happening - with or without you.

#### GENERAL IMPACT ASSESSMENT

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

#### Saturday 27 April | 11:00-12:30 | Liffey Hall 1

Paper session

Chair(s): Myungjin Kim

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

#### A SimCity EIA approach to facilitate Just Transformation?

Wong, Raymond; Kwok, Grace

#### A sustainability assessment tool of GIS, LCA, and social costs for energy

Phuong, Ngo; Htoo, Tin

## Community response to wind power projects in Japan

Zhang, Wei; Nishikizawa, Shigeo; Murayama, Takehiko; Suwanteep, Kultip

## Ecological awareness in environmental assessment: The case of Thailand

Swangjang, Kanokporn

#### Just Transformation and KSEIA

Kim, Myungjin; Jeon, Sookjin; Jung, Jong-Gwan

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

#### Saturday 27 April | 14:00-15:30 | Liffey Hall 1

Paper session

Chair(s): Takehiko Murayama

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

## Integration of SEA into strategic decision making: Amaala case study

Farkh, Ruba; Alhmoud, Faisal

#### Limitations and improvements for Korea's SEIA and NLPE system

Lee, SeonGyeong; Kim, YeonJu; Lee, DalByul; Jung, JuChul

#### Synergies of blue economy and circular economy for IA in tourism sector

Niyommaneerat, Wilailuk

## The impact of integrated impact assessment on urban planning: Korean cases

Kim, Yeonju; Jung, Juchul; Lee, SeonGyeong; Shin, Hyunsuk; Ha, Gyoungjun

## Timor Leste: SEA in the context of a country with no national SEA regulation

Annandale, Darko; Annandale, David

# Environmental management strategies and ethical professional practice for a Just Transformation

#### Saturday 27 April | 11:00-12:30 | Wicklow Hall 2A

Workshop

Chair(s): Alan Chenoweth

Can IA strengthen environmental management strategies and ensure investments benefit Indigenous peoples and peasant communities for a Just Transformation? Ethical professional practice is also critical: community trust in developer-funded IA requires commitment to integrity, truth and professional ethics as well to sustainability. IA practitioners must balance their often competing obligations.

#### Land resource management and net-zero target

Chinweze, Chizoba

#### Ethical basis for a Just Transformation Jenkins, Bryan

#### Ethical challenges in environmental impact assessment

Chenoweth, Alan

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## Practical cases on cumulative impact assessment in the Global South

#### Friday 26 April | 11:00-12:30 | Wicklow Hall 2B

Panel discussion

Chair(s): Juan Carlos Paez

Discussing practical cases (with focus on the Global South), a panel will analyze the overall state of the art of Cumulative Impact Assessments and their corresponding mitigation plans. The panel will also evaluate the appropriateness of available tools to perform such assessments.

#### **Cumulative impact assessment: A living process**

Paez Zamora, Juan Carlos

#### Cumulative IA guide for renewable energy, Northern Cape, South Africa

Cloete, Peter; Asante-Owusu, Rachel

#### Cumulative impact assessment in Japanese EIAs Shibata, Yuki; Morita, Mai

#### CIA for renewable energy projects that support nature positive goals

Asante Owusu, Rachel; Dakmejian, Annie

## Cumulative impacts on riverine communities in the Amazon, Brazil

Mandai, Silvia; Bohlman, Stephanie; Moretto, Evandro

#### The power of communication!

#### Wednesday 24 April | 15:00-16:30 | Liffey Meeting Room 1

Solution room

Chair(s): Susana Rosa

Efficient communication can be a big challenge. In this session, we aim to attract presenters who are eager to share diverse communication strategies within the scope of Impact Assessment. Join us to inspire and be inspired!

#### Experiences of communication and consultation on Indigenous IA studies

Ingles de Sousa, Cássio

## Effects of traffic on heavy metal and hydrocarbon contents of food Items

Ojo, Adeolu; Bakia, Mbianyor

## Your EIA report online: Easy, attractive and in minutes!

Eijssen, Paul; Moekotte, Tom

#### SPECIAL TO IAIA

#### Meet the editor

#### Saturday 27 April | 14:00-15:30 | Wicklow Hall 2A

Workshop

Chair(s): Urmila Jha-Thakur

Are you considering writing an article or professional practice paper on impact assessment but aren't sure where to start? The editor of IAIA's journal, *Impact Assessment and Project Appraisal*, will present ways to write a good article and get it published. Bring your questions and ideas for articles or issues.

#### **Posters**

#### MEET THE AUTHORS AT THE WELCOME /POSTER RECEPTION!

Wednesday 24 April | 17:00-18:30 | The Forum

## Growth of riverine vegetation and its impact on flood levels

Baek, Donghae; Kim, Won

#### Contaminated sediments dredging activities in Piaçaguera Channel, Brazil

Bevilacqua, José Eduardo; Sobral, Fernanda

## Renewable energy in Mpumalanga (South Africa): On a wing or a prayer?

Cowden, Gavin; Luyt, Robyn

#### Moving cumulative impact assessment for offshore wind energy planning in emerging markets

Dibo, Ana Paula Alves; Sánchez, Luis Enrique; Duarte, Carla Grigoletto; Siqueira-Gay, Juliana; Turra, Alexander

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#### Lifetime Achievement Award

The Lifetime Achievement Award honors **Yaw Amoyaw-Osei** (Ghana) for his vast wealth of knowledge, teaching experience, and activity in organizations such as IAIA-Ghana that help inform and train others in impact assessment.

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.



#### **Outstanding Service to IAIA**

**Luis Montañez-Cartaxo** (Mexico) is recognized with the Outstanding Service to IAIA Award for his unwavering generosity and commitment to impact assessment. As a dedicated member for over 20 years, Luis has filled many roles, including Conference Chair, Board President, Board Secretary, Committee Chair, webinar presenter, and conference attendee.

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.



#### **Institutional Award**

The Institutional Award is presented to the **Certified Environmental Practitioner (CEnvP) Scheme of Australia and New Zealand** for its significant contribution to advancing the recognition and setting the standard of impact assessment practitioners since 2010.

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.



#### **Global Award**

**Hydropower Sustainability Alliance** receives the Global Award for developing sustainability assessment tools culminating with the recent Hydropower Sustainability Standard (HSS) for the hydropower sector.

The IAIA Global Award is presented to a leading individual or institution that has made a substantial contribution to impact assessment practice, management, or policy at a global scale.



#### **Regional Award**

The **Volunteers of IEMA** receive the Regional Award in recognition of their unwavering dedication to advancing the field of impact assessment, exceptional leadership, and commitment to best practices.

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.



#### **Corporate Initiative Award**

**The Harmonized Impact Assessment model** used on the Twinning of the TransCanada Highway 17 Project is recognized with the Corporate Initiative Award. This creative model was developed through a partnership between **Narratives** and **Niiwin Wendaanimok**.

The IAIA Corporate Initiative Award is presented to a private or public sector company for a specific activity or project that has made a notable contribution to responsible development practice through the application of impact assessment.



#### **Individual Award**

**Claudia Valls** (Argentina) receives the Individual Award for her long-standing career of teaching, publishing, and speaking out for environmental laws.

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.



#### **IAPA Best Paper of 2023**

The 2023 IAPA Best Paper Award is presented to **Francois Retief**, **Alan Bond**, **Angus Morrison-Saunders**, **Jenny Pope**, **Reece Alberts**, **Claudine Roos**, **and Dirk Cilliers** for their paper "Gaining a deeper understanding of the psychology underpinning significance judgements in environmental impact assessment (EIA)" IAPA 41:4, 250-262.



#### **Young Professional Award**

The Young Professional Award is presented to **Kamau Ndirangu** (Kenya) for his environmental and water engineering work around the world and for his willingness to share his knowledge with peers and clients alike.

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





#### Rita R. Hamm IA Excellence Scholarship

Mathilde Butler is enthusiastic and passionate about the fight against climate change through environmental justice. She loves to read and act upon diverse components related to impact assessment, such as food security, extractivism and the assertion of Indigenous rights.

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.



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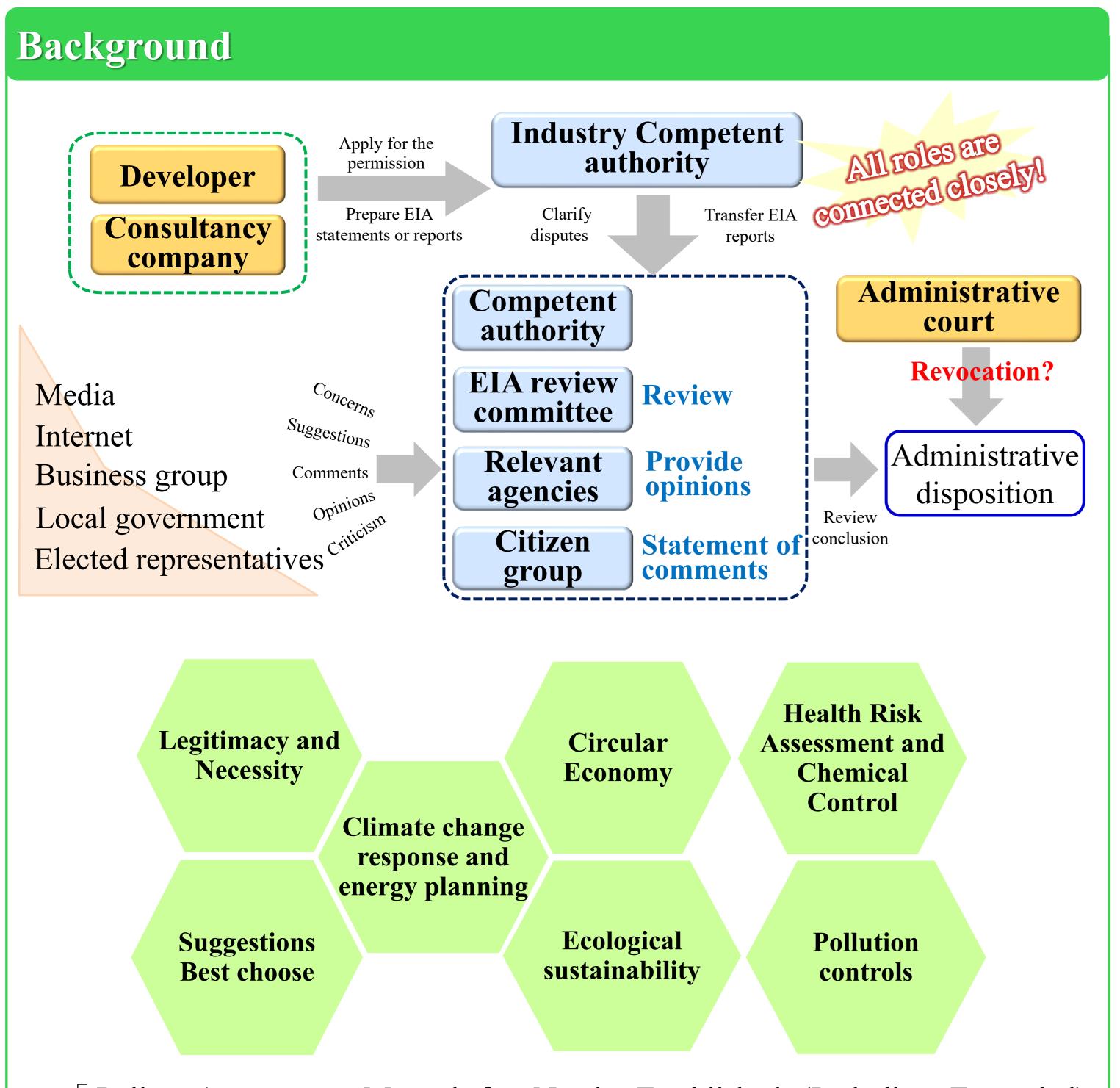
# To Achieve Just Transformation During the Environmental Impact Assessment Review Process – Taiwan's Scientific Park Development as Case Study

# Pin-Tsen Lin, Wei-Chuan Hu

Ministry of Environment, Taiwan

# Introduction

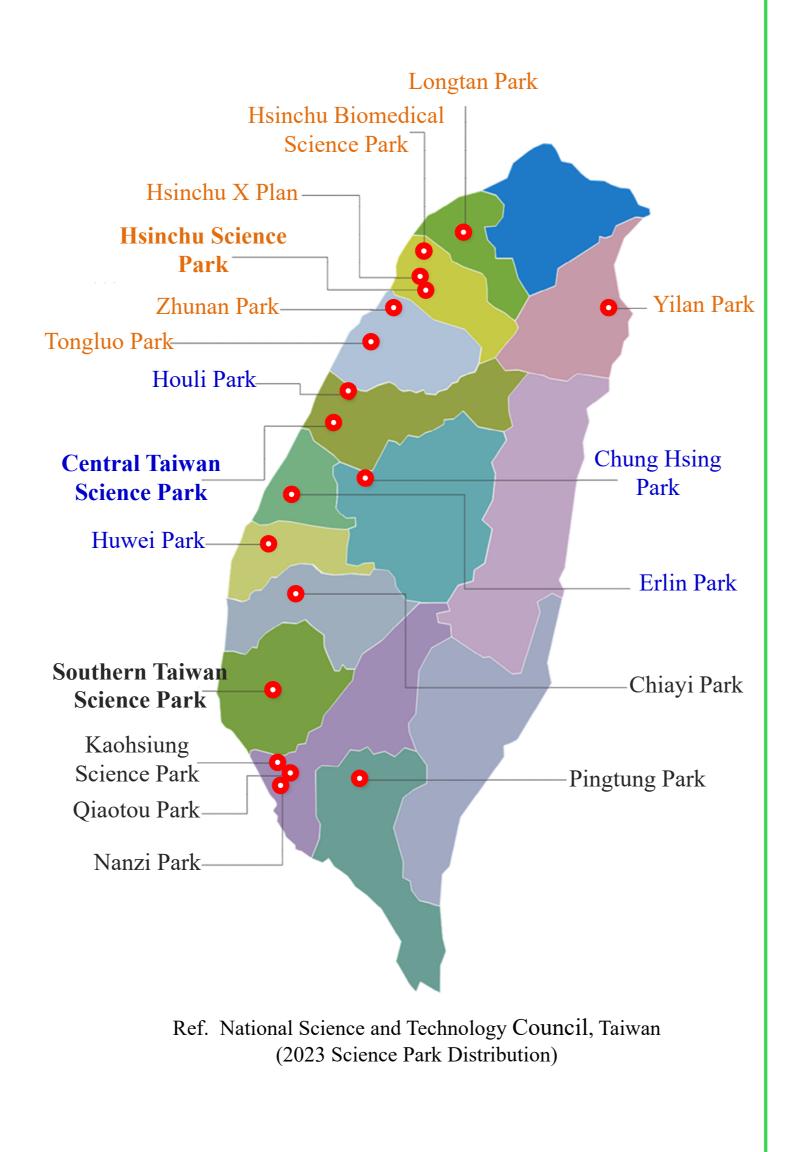
During the environmental impact assessment review process, the science park development is required to include an action plan to achieve a just transformation, including full water recovery and zero emissions, a resource recycling rate of more than 80%, and the use of 100% green energy by 2050.



Policy Assessment Manual for Newly Established (Including Expanded) Science Parks 1, July 2018.

# Main Scientific Parks in Taiwan

- Hsinchu Science Park established in 1980. The integrated circuit industry cluster is fully developed and has an international benchmark status.
- Central Science Park was established in 2003 as a high-quality park for the co-prosperity of "production", "living", "ecology" and "life".
- The Southern Science Park was established in 1997 to drive the industrial development of southern Taiwan, build a complete cluster of semiconductors optoelectronics, ,biotechnology precision and machinery industries, and actively develop green energy, low-carbon and medical equipment industries.



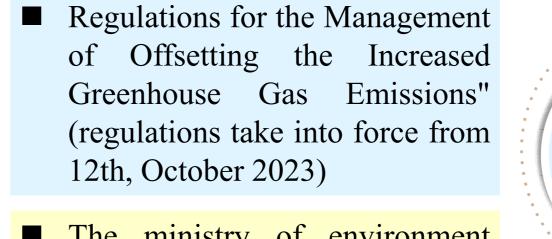
# Framework of the Regulations of SEA –Roles and Relations Policy development authorities hold a scope definition meeting or public hearing, and refer to and adopt additions and amendments from all parties Policy development authorities submit EIA statements to MOENV **MOENV** forms a task force **MOENV** sends a letter to collect written comments from the task force and forward the response **Policy development** authorities will submit **MOENV** convenes a task force consultation meeting the revised results to **MOENV** Advice and opinions to be obtained or not NO Policy development authorities submit the adopted advice and opinions to MOENV To be discussed by MOENV's EIA committee

■ Strategic Environmental Assessment (SEA) is the systematic and comprehensive decision-aiding tool for deciding the government's strategic actions and corresponding alternatives.

Formal opinions

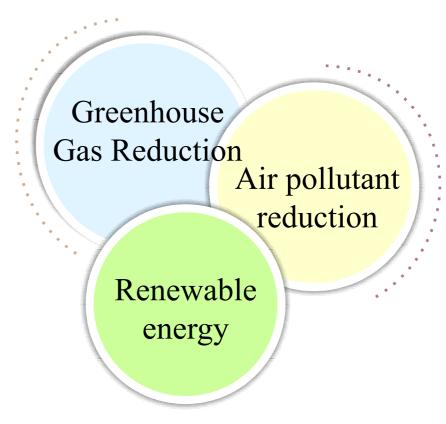
- According to the common environmental issues and corresponding countermeasures, development planning and EIA reference standards are established to achieve the effect of policy guidance.
- The response to the common issues identified in the strategic environmental assessment will accelerate the efficiency of case-based EIA reviews.
- Based on strategic environmental assessment, it shows the high efficiency of EIA and reaches the milestone of green energy.

# Consultations on EIA for Scientific Park Development



■ The ministry of environment reviews the principle of offsetting incremental emissions of air pollutants from activities, development calculated based on 1:1.2 times.

recycled pellets.



> Greenhouse gas emission reduction offsets Carbon offset Case name  $(mt CO_2e/yr)$ (hectare) Taichung 89.75 276.4 Science Park Chiayi Science 0.6 Park **Pingtung Science** 73.83 0.49

■ Taichung, Chiayi, and Pingtung Science Park: Commitment to the semiconductor industry to achieve 25% of actual electricity consumption in 2030, 45% in 2040, and 100% renewable energy in 2050.

 $SO_X$   $NO_X$  VOCsCase name Taichung 30 96 124.6 Science Park Chiayi Science 1.9 21.1 45.2 Park Pingtung 5.6 33.3 27.3 0.7 Science Park

Unit: mt/yr

> Air pollution emission reduction offsets

➤ Tightened effluer	nt standard		
Case name	Recovery rate %	Usage amount (CMD)	Water reclamation Waste
Taichung Science Park	84	93000	reclamation Waste disposal
Chiayi Science Park	82	4400	Recycled
Pingtung Science Park	82	3750	pellets

Assessment for Development Activities", asked developer use for

■ According "Operational Regulation for environmental Impact

required to evaluate and install business treatment waste facilities. For example, Taichung Science

■ During the review process, it is

Park, Chiayi Science Park, and Pingtung Science Park, a total of approximately 2.8 hectares of land has been committed to planning waste facilities.

# Summary of Environmental Impact Assessment in Taiwan's Scientific Park Development

- Implement the disclosure of environmental impact assessment (EIA) review information and public participation.
- Establish fair review standards to effectively prevent and mitigate the adverse environmental impacts of scientific park development.
- Achieve the purpose of environmental protection and increase social acceptance.