

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 2019 年研討會出國報告

服務機關：行政院環境保護署

姓名職稱：馮薦任技士鈞政、黃薦任技佐政猷

派赴國家：澳洲

出國期間：108 年 4 月 26 日至 108 年 5 月 6 日

報告日期：108 年 8 月 5 日

出國報告摘要

- 一、 出國計畫名稱：國際影響評估協會 (International Association for Impact Assessment, IAIA) 西元 2019 年研討會
- 二、 出國人：綜計處馮鈞政薦任技士及黃政猷薦任技佐
- 三、 出國日期：108 年 4 月 26 日至 108 年 5 月 6 日
- 四、 出國行程與內容概要

日期	地點	工作內容
4 月 26 日 (五)	臺北至	啟程
4 月 27 日 (六)	澳洲布里斯本	
4 月 28 日 (日)	澳洲布里斯本	準備會議海報資料，於會場擺放海報
4 月 29 日 (一)	澳洲布里斯本	參加研討會會議
4 月 30 日 (二)	澳洲布里斯本	參加研討會會議
5 月 1 日 (三)	澳洲布里斯本	參加研討會會議
5 月 2 日 (四)	澳洲布里斯本	參加研討會會議
5 月 3 日 (五)	澳洲布里斯本	會後技術參訪活動
5 月 4 日 (六)	澳洲布里斯本	整理會議資料
5 月 5 日 (日)	澳洲布里斯本至臺北	返程
5 月 6 日 (一)		

五、 行程成果評估及心得建議

- (一) 本次年會主題為「進化或革新：影響評估的下一階段？」鑑於世界各國

於制定政策及開發計畫過程均已廣泛納入影響評估以衡量對生活、自然、社會、經濟及健康環境乃至於多影響因子間的加成影響等；然而，執行影響評估的代價高昂、流於形式化、過政治化，乃至於對環境保護的實質效用與價值等諸多質疑亦普遍存在於各國支持者及反對者間，因此本次年會聚焦於「環境影響評估的『進化』是否足以應付未來的發展？」、「執行開發計畫或政策過程中，是否有更好的方式檢核確保已納入足夠的影響評估因子？」以及「假如影響評估必須『革新』，會是怎樣的模樣？」等子議題，由各國專家、學者、政府機構分享執行影響評估、政策環境影響評估過程中的經驗、成果以及新技術，以探索出未來影響評估的發展方向。

(二) 本次西元 2019 年影響評估研討會，本署代表以我國「離岸風電區塊開發政策評估說明書」為例，呈現我國推動離岸風電政策環境影響評估，將環境因素納入考量、盤點共通性環境議題與因應對策，順利於 106 年以半年時間完成 19 案初審程序，展現環境影響評估高效率之成果。展示過程中，中國學者對於我國現行環境影響評估法具否決權之特性、我國推動民眾參與及廣徵民意納入審查之機制有疑義，經本署代表說明，我國自西元 2016 年起推動「行政院環境保護署環境影響評估審查委員會專案小組意見陳述會議及現場勘察計畫」之目的係由環境影響評估委員於初審會議前，至開發地點舉辦意見陳述會議及現場勘察程序，充分蒐集當地民眾團體意見，並藉現場勘查掌握當地環境背景現況，納入該開發案後續環境影響評估審查參酌；此外為落實資訊公開、透明政府之目標，本署接續於西元 2017 年於網路直播環境影響評估審查委員會議，使在地民眾由本署官方系統獲得相關環境影響評估會議的召開情形，並由網路直播方式參與會議審查，免除在地民眾團體的舟車勞頓外，亦提升民眾之對於環境影響評估會議參與感與信任度。

(三) 各國環境影響評估制度之推動各有其發展脈絡，本次參與影響評估年會，除與世界各國之專家學者、政府機構及產業界分享我國推動「政府政策環境影響評估」於政策研擬階段，奠定個案開發環境影響評估審查基準，消弭爭議之執行方式與經驗交流外，亦可汲取國際間環境影響評估審查之策略方向與政策環境影響評估辦理情形經驗交流，第 40 屆國際影響評估年會預定於西元 2020 年 5 月 26 日至 29 日於西班牙塞維利亞 (Seville) 城市舉辦，主題設定為「SCIENCE, TECHNOLOGY, AND GOVERNANCE ADVANCEMENTS TOWARD EFFICIENCY AND EFFECTIVENESS」與本署推動「環保署建構明確、有效率之環評制度」之目標相關，建議本

署相關業務同仁有機會能持續參與此研討會，以增進瞭解各國執行環境影響評估之方針，並檢視他國執行環境影響評之優缺點，作為我國執行環境影響評估政策之參考。

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國際影響評估協會(International Association for Impact Assessment, IAIA)西元 2019 年研討會 出國報告

壹、前言及目的

一、前言

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，有超過 5,000 個來自 150 國的會員成員，該協會主要致力於影響評估之方法、技術及制度之研析及推動，涉足之領域涵括環境、社會、經濟、文化、生態、健康風險及策略影響評估等各領域，為國際間研究影響評估最據規模之組織。該協會自創立以來，每年均設定一特定環境相關主題，於各大洲輪番辦理年度研討會，提供世界各國研究人員、學者、非政府組織(Non-Governmental Organization, NGO)及政府組織等深入交流及探討。

本次西元 2019 年研討會主題為「進化或革新：影響評估的下一階段？(Evolution or Revolution: Where next for impact assessment?)」，影響評估(Impact Assessment, IA)制度具有可撓性與彈性的特性(flexibility and resilience)，因此操作過程足以適應不同的環境情境，並已被世界各國政府廣泛運用於政策規劃、經濟發展、社會發展、健康及累積性影響評估等面向對環境可能的影響，並設法提出避免、減緩或補償方案以邁向永續發展。然而影響評估執行過程所費不貲、代價高昂、流於形式化甚至過政治化，乃至於對環境保護的實質效用與價值等諸多質疑仍普遍存在於支持者與反對者之間。本次研討會邀請各國專家學者、NGO 團體等深入討論「影響評估技術的『進化』是否足以應付未來的發展？」「執行開發計畫或政策過程中，是否有更好的方式檢核確保已納入足夠的影響評估因子？」「假如影響評估必須『革新』，會是怎樣的模樣？」並反思假如影響評估是未來推動永續發展實踐環境管理的重要環節，那制度應如何進化？或革新？

二、目的

我國「環境影響評估法」於西元 1994 年 12 月 30 日公布施行，行政院環境保護署(下簡稱環保署)為該法之中央主管機關，負責國內權管各類型開發行為之環評審查、政府政策環評徵詢作業、環評相關法規與制度之推動、檢討等工作。依環評法第 26 條規定：「有影響環境之虞之政府政策其環境影響評估有關作業，由中央主管機關另定之」。環保署為加速推動政策環評作業，健全環評審查程序，針對已公告「應實施環境影響評估之政策細項」，於 98 年 1 月 19 日函請各政策研提機關應於 99 年 12 月 31 日前完成政策環評，並建立定期追蹤檢覈機制。近年已送環保署徵詢共 30 件，環保署陸續於 105 年完成「離岸風電區塊開發政策評估說明書」、

107 年完成「新設（含擴建）科學園區政策評估說明書」等徵詢意見共 18 案，其中研提機關補正中 8 案、撤回 3 案（石化、能源、事業廢棄物清理政策－填海造島）、其他辦理情形 1 案（全國區域計畫）。「應實施環境影響評估之政策細項」經環保署建立機制積極推動下，均已逐步落實執行，環保署後續將持續辦理政策環評制度及作業規範之檢討及修正，彙整分析現有政策環評案件辦理成果，以全面檢討現行政策環評制度及評估作業規範。

本次研討會核心議題，恰與環保署於西元 2016 年積極推動環評短、中、長程精進策略，使環評發揮實質篩選開發行為功能，運用政策環評機制建立開發行為上位規劃依據及環評審查基準，提升審查效率之推動執行高度相關，環保署並以「Promoting Strategic Environmental Assessment(SEA) in Achieving Sustainable Development of the Environment - With Taiwan as Case Study」為題投稿，提升我國國際能見度；並藉參與此次研討會蒐集國際執行策略影響評估之評估技術、討論範疇與公眾參與之寶貴經驗，有助我國後續業務推動與施政參考。

貳、行程規劃及參與人員

一、行程規劃

國際影響評估協會西元 2019 年研討會(IAIA19)於 108 年 4 月 28 日至 5 月 2 日假澳洲布里斯本市布里斯本會展中心(Brisbane Convention & Exhibition Centre, BCEC)舉辦為期 5 日之訓練暨研討會，並於 5 月 3 日至 4 日規劃為期 2 日之技術參訪行程；爰本次環保署參與人員規劃行程表及摘要如表 1。

表 1 環保署參與第 39 屆國際影響評估協會(IAIA)研討會行程表

日期	地點	行程摘要
108 年 4 月 26 日至 4 月 27 日	臺灣臺北至澳洲布里斯本	啟程，由臺灣桃園國際機場(Taiwan Taoyuan International Airport)機飛往澳洲布里斯本國際機場(Brisbane International Airport)。
108 年 4 月 28 日	澳洲布里斯本	準備會議海報資料，於澳洲布里斯本市布里斯本會展中心擺放海報。
108 年 4 月 29 日	澳洲布里斯本	1. 開幕全體會議：開幕式表演、貴賓致詞 2. 專題會議：選擇「政策環評在國家和區

		域範圍內之詳細範圍及程度：非國家經濟或社會產業方面」。
108年4月30日	澳洲布里斯本	1. 專題會議：擇選主題「亞洲 3 政策環評：策略性、空間性以及永續性環境評估(I)」。 2. 環保署海報展示：「推動政策環評達成環境永續發展，以臺灣為例」。
108年5月1日	澳洲布里斯本	1. 專題會議，擇選主題「中國的環評過程：改造，挑戰，機會(I)」。 2. 專題會議，擇選主題「中國的環評過程：改造，挑戰，機會(II)」。
108年5月2日	澳洲布里斯本	1. 專題會議，擇選主題「中國的環評過程：改造，挑戰，機會」。 2. 專題會議，擇選主題「海上再生能源之社會影響評估及環評」。 3. 閉幕式：閉幕表演及致詞。
108年5月3日	澳洲布里斯本	布里斯本碼頭之旅(Brisbane wharf tour)。
108年5月4日	澳洲布里斯本	整理會議資料。
108年5月5日至5月6日	澳洲布里斯本至臺灣臺北	返程，澳洲布里斯本國際機場飛往臺灣桃園國際機場。

二、參與人員

本案係依「行政院環境保護署因公出國人員選派作業要點」規定，指派與本屆研討會主題相關，由負責辦理環評審查業務之馮薦任技士鈞政及開發行為應否實施環評個案認定之黃薦任技佐政猷參與，並於研討會投稿發表文章，該員相關業務經驗及近年績效如表 2。

表 2 第 39 屆國際影響評估協會 (IAIA) 研討會環保署參與人員業務經歷績效簡介

環保署與會同仁	執行相關業務績效
馮薦任技士鈞政	主辦開發行為個案環評審查，如「協和發電廠更新改建計畫」、「復興區奎輝里 1 鄰枕頭山部落聯外道路工程」、「國道 1 號增設銜接台 74 線系統交流道」、「離岸風力彰工升壓站新設及彰濱變電所增設工程計畫」、「興海漁港擴建計畫」、「鳥嘴潭人工湖下游自來水供水工程—鳥嘴潭淨水場」、「臺中市和平區谷關段 117 及 117-17 地號旅館設置計畫」、「彰濱工業區環保設施用地興建資源回收處理中心」等環境影響說明書審查及「馬祖南竿機場新建工程」、「寶山高爾夫球場範圍變更案」等環境影響差異分析報告審查。
黃薦任技佐政猷	<ol style="list-style-type: none"> 1. 開發行為應否實施環評個案認定相關事宜及相關法規函釋，如屏東縣瑪家鄉涼山露營遊憩區、臺中市和平區谷關段旅館增建工程、振石門山勞工育樂中心變更登記旅館業、休閒農場於場內規劃設置露營設施等。 2. 環評案件審查，如集集共同引水計畫環境影響差異分析報告變更內容照表、布袋國內商港整體規劃環評報告書第三次變更內容對照表、臺灣地區西部走廊東西向快速公路建設計畫觀音—大溪線環境影響說明書變更內容對照表等。

參、第 39 屆國際影響評估協會研討會概要

一、會議主題

本次年會主題為「進化或革新：影響評估的下一階段？」影響評估具有可撓性與彈性的特性(flexibility and resilience)，因此操作過程足以適應不同的環境情境，世界各國於制定政策及開發計畫過程，已廣泛納入影響評估以衡量對生活、自然、社會、經濟及健康環境乃至於多影響因子間的加成影響等；然而，執行影響評估的代價高昂、流於形式化、過政治化，乃至於對環境保護的實質效用與價值等諸多質疑，亦普遍存在於各國支持者及反對者間，因此本次年會聚焦於「環評的『進化』是否足以應付未來的發展？」「執行開發計畫或政策過程中，是否有更好

的方式檢核確保已納入足夠的影響評估因子？」以及「假如影響評估必須『革新』，會是怎樣的模樣？」等子議題，由各國專家、學者、政府機構分享執行影響評估、政策環評過程中的經驗、成果以及新技術，以探索出未來影響評估的發展方向，並反思假如影響評估是未來推動永續發展實踐環境管理的重要環節，那制度應如何進化？或是革新？

第 39 屆國際影響評估協會研討會配合本次相關議題及舉辦地點，繪製以澳洲特有種有袋類動物無尾熊，手拿尤加利樹葉為本次會議 Logo（如圖 1）。

二、會議進行方式

第 39 屆國際影響評估協會研討會因討論議題眾多，分為「開幕式」「主題論壇」「分組主題報告」及「閉幕式」等方式進行，合計共進行 12 項主題論壇、113 場次分組主題報告，450 篇以上文章發表，40 篇海報展示（詳附錄 1 第 39 屆會議手冊資料），總計參加人數達 980 人以上，第 39 屆國際影響評估協會研討會議程（如圖 2）。



圖 1 第 39 屆國際影響評估協會研討會 Logo

會議 Conferences				技術參訪 Technical visit
29 April	30 April	1 May	2 May	3 May
報到Registration	主題論壇 Theme forum	主題論壇 Theme forum	主題論壇 Theme forum	Technical visit
	分組主題報告 Concurrent sessions	分組主題報告 Concurrent sessions	分組主題報告 Concurrent sessions	
開幕式Opening plenary	海報發表 Poster sessions	分組主題報告 Concurrent sessions	分組主題報告 Concurrent sessions	
	分組主題報告 Concurrent sessions			
分組主題報告 Concurrent sessions	分組主題報告 Concurrent sessions	分組主題報告 Concurrent sessions	閉幕式 Closing plenary	

圖 2 第 39 屆國際影響評估協會研討會議程

三、開幕式(Opening plenary)

在 108 年 4 月 29 日開幕式全體會議進行，陸續進行開幕表演、貴賓致詞及主題演講，現場照片（如圖 3）。

- (1) 第 39 屆國際影響評估協會研討會會議主席 Lachlan Wilkinson 開幕致詞。
- (1) 國際影響評估協會主席 Sara Bice 致詞。
- (2) 布里斯本市長 Adrian Schrinner 致詞。
- (3) 介紹 IAIA 全球榮耀獎。
- (4) 澳洲新南威爾斯省環境捍衛者行動辦公室執行長 David Morris 壓軸演講，主題為「Impact assessment through the lens of an environmental lawyer acting for the disempowered, dispossessed, and disenfranchised」



圖 3 開幕式貴賓致詞情形

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

本屆研討會以主題「進化或革新：影響評估的下一階段？」，訂定 12 項關鍵議題，包括：「走向數位：這是進化還是革命？(Going digital: Is this evolution or revolution?)」「Charles or Che? 為影響評估的未來選擇你的冠軍！(Charles or Che? Choose your champion for the future of impact assessment!)」「在生物及文化多樣性高的新興國家操作執行(Operating in emerging countries with high biological and cultural diversity)」「太平洋島嶼的保護政策和影響評估作法(Safeguards policies and IA practice in the Pacific islands)」「影響評估獨立機制：如何是真正獨立？(Mechanisms for independence in IA: How to be truly independent?)」「社會和環境評估的自動化科技(Social and environmental assessment of automation technologies)」「次世代影響評估：探索十二個關鍵項目(Next generation impact assessment: Exploring twelve key components)」「看到森林裡的樹木：這是抵消靈丹妙藥？(Seeing the forest for the trees: Are offsets the panacea?)」「影響評估只有在有效用時才有效(Impact assessment is only good when it is effective)」「石油和天然氣產業能否適應生存於再生能源革命(Is the oil and gas industry able to adapt to the renewable energy revolution)」「透過非正規影響評估保護社會經濟發展(Securing socio-economic development through unorthodox impact assessment)」及「影響評估和永續發展目標(Impact assessment and Sustainable Development Goals)」等，並分不同會場邀集各方以論壇方式進行交流、探討，據以分享不同國家之意見及經驗。

本屆研討會共計投稿文章達 450 篇以上，本研討會又依投稿文章題目類型分為 24 個子題分別是「影響評估的持續挑戰：進化或革新是唯一解？(ADDRESSING THE ONGOING CHALLENGES OF IMPACT ASSESSMENT: IS EVOLUTION OR REVOLUTION THE ANSWER?)」「氣象變遷影響評估：調適或緩解？(CLIMATE CHANGE IMPACT ASSESSMENT: BEYOND ADAPTATION OR MITIGATION?)」「影響評估的爭議主題：已免於影響評估議題(CONTROVERSIAL TOPICS IN IA: THE ISSUES IN IA THAT HAVE BEEN AVOIDED)」「累積性影響評估，累積性影響是否超過永續發展的閾值？(CUMULATIVE IMPACT ASSESSMENT: HAVE CUMULATIVE IMPACTS EXCEEDED SUSTAINABLE THRESHOLDS)」「提高品質與有效性，後續的執行是否重要？(IMPROVING QUALITY AND EFFECTIVENESS: DOES THE FOLLOW-UP MATTER?)」「評估、核准與實施之間的連結(LINKS BETWEEN ASSESSMENT, APPROVAL, AND IMPLEMENTATION)」「(PROponents-DRIVEN IA AND ITS ALTERNATIVES: GIVING THOSE WHO EXPERIENCE IMPACT A CENTRAL ROLE IN IA)」「社會經濟影響評估：進

化或革新？(SOCIO-ECONOMIC IMPACT ASSESSMENT: EVOLUTION OR REVOLUTION?)」
「策略和區域評估：區域與全球化時代的重要性(STRATEGIC AND REGIONAL
ASSESSMENT: IMPORTANCE OF REGIONS IN AN ERA OF GLOBALIZATION)」
「運用科技技術推動環境及社會影響評估(THE USE OF TECHNOLOGY TO ADVANCE ENVIRONMENTAL
AND SOCIAL IMPACT ASSESSMENT)」
「影響評估的理論與原則(THEORY AND PRINCIPLES OF IA)」
「挪威石油發展計畫(NORWEGIAN OIL FOR DEVELOPMENT PROGRAM)」
「太平洋日(PACIFIC DAY)」
「(SPECIAL TO IAIA)」
「影響評估的工具與方法(TOOLS AND METHODS OF IA)」
「災害與衝突(DISASTERS AND CONFLICT)」
「基礎設施與運輸(INFRASTRUCTURE AND TRANSPORTATION)」
「彈性與永續性(RESILIENCE AND SUSTAINABILITY)」
「公眾參與(PUBLIC PARTICIPATION)」
「能源，發電與輸送(ENERGY, POWER GENERATION, AND TRANSMISSION)」
「文化資產(CULTURAL HERITAGE)」
「健康影響評估(HEALTH IMPACT ASSESSMENT)」
「原住民族群(INDIGENOUS PEOPLES)」
「社會影響評估(SOCIAL IMPACT ASSESSMENT)」等，並分成 110 場次以上進行分組主題報告。

上述 24 個子題，本署派赴人員選擇「政策性和區域性評估：全球化時代之重要性」「影響評估之工具及方法」議題，其議題報告內容如下：

(一) 「政策性和區域性評估：全球化時代之重要性」議題

1. 「政策環境影響評估在國家和區域範圍內之詳細範圍及程度：非國家經濟或社會產業方面」：政策環境影響評估用以評估全國性或區域性政策對於環境的影響是一相當有用的政策工具，然而評估過程如何界定其影響範疇？講者利用當地個案說明，如何運用政策環境影響評估之方法減輕當地的不良環境影響衝擊，並展示政策環境影響評估帶來之效益。其中來自歐洲聯盟組織機構的學者 Juan Palerm 發表「確認政策環境影響評估之範疇：歐洲聯盟組織在發展合作上之特質」，說明在歐洲聯盟組織在發展合作中沒有所謂標準政策環境影響評估的方法。政策環境影響評估係因應在不同情況下使用，基於這個理由，在各種案例的基礎上每個政策環境影響評估的方法和範圍都需要仔細確定。
2. 「政策環境影響評估在國家和區域範圍內之詳細範圍及程度：國家經濟或社會產業方面」：其中，中國學者 Siyang, Zhou 發表「以整合生態空間治理方式納入中國政策環境影響評估」，向與會來賓分享中國的政策環境影響評估以「生態空間治理」概念，結合生態服務價值評估及空間模式模擬等方法進行政策環境影響評估。
3. 「亞洲 3 政策環境影響評估：策略性、空間性以及永續性環境評估(I)」：

仰賴於遙測技術(remote sensing)及資訊技術(information technology)的進步，空間分析(Spatial analysis)技術運用於環境、社會及經濟方面的分析及評定已受到關注。本議程以亞洲地區案例說明，運用空間分析技術協助執行影響評估及政策環境影響評估藉以促成永續發展目標。韓國學者 Seo, changwan 發表「氣候變遷下的生物多樣性之脆弱性」，說明藉由「生物多樣性脆弱評估」提供必要資訊，在氣候變遷的環境下以制定適當的生態保護區政策。

4. 「亞洲 3 政策環境影響評估：策略性、空間性以及永續性環境評估 (II)」：來自日本學者 Nishikizawa, Shigeo 發表「小規模風力發電之社區接受度」現今在小規模設施發展過程中尚未發現環境衝突，然而地方政府的關注和當地居民的抱怨投訴正不斷增加。

(二) 「影響評估之工具及方法」議題

1. 「中國的環境影響評估過程：改造，挑戰，機會」此次論壇探討改造環境影響評估架構，以解決地方和區域性大型基礎設施對環境的影響，藉以保護環境及整合社區需求，並制定永續發展策略計畫，本議題係來自中國和其他國家的研究案例。中國學者 Bao, Cunkuan 演講議題「中國環境影響評估的制度變遷」，分享中國環境影響評估發展歷史及進程，檢討現存的問題，並指出導致中國環境影響評估變化的政治和政策因素。
2. 香港學者 Ng, Cho Nam 演講「香港環境影響評估之公眾參與：20 年」該學者向與會來賓分享過去 20 年香港執行環境影響評估納入公眾參與的成果，並闡述影響評估過程中公眾參與於環境影響評估的重要成效、缺失、改善以及未來面臨的挑戰。

肆、環保署參與人員投稿海報及內容

本屆研討會共計投稿海報展示達 40 篇，依展示題目分類為「生物多樣性、生態及生態系統服務(Biodiversity and ecology and ecosystem services)」、「災害與衝突(Disasters and conflicts)」、「環評(EIA)」、「能源(Energy)」、「環境正義(Environmental Justice)」、「治理(Governance)」、「健康(Health)」、「政策環境評估(SEA)」、「工具與方法(Tools and methods)」、「旅遊(Tourism)」、「都市規劃(Urban planning)」等 11 類別，海報展示現場（如圖 4）。

我國「環境影響評估法」於西元 1994 年 12 月 30 日公布施行，環保署為該法之中央主管機關，負責國內權管各類型開發行為之環評審查、政府政策環評徵詢作業、環評相關法規與制度之推動、檢討等工作。依環評法第 26 條規定：「有影響環境之虞

之政府政策其環境影響評估有關作業，由中央主管機關另定之」。環保署為加速推動政策環評作業，健全環評審查程序，針對已公告「應實施環境影響評估之政策細項」，於 98 年 1 月 19 日函請各政策研提機關應於 99 年 12 月 31 日前完成政策環評，並建立定期追蹤檢覈機制。近年已送環保署徵詢共 30 件，環保署陸續於 105 年完成「離岸風電區塊開發政策評估說明書」、107 年完成「新設（含擴建）科學園區政策評估說明書等徵詢意見共 18 案，其中研提機關補正中 8 案、撤回 3 案（石化、能源、事業廢棄物清理政策-填海造島）、其他辦理情形 1 案（全國區域計畫）。「應實施環境影響評估之政策細項」經環保署建立機制積極推動下，均已逐步落實執行，環保署後續將持續辦理政策環評制度及作業規範之檢討及修正，彙整分析現有政策環評案件辦理成果，以全面檢討現行政策環評制度及評估作業規範。

我國自 105 年 6 月起宣示啟動環評短、中、長其之精進調整措施，其中有關環評相關子法、行政規則之檢討修正，推動環評審查發揮實質篩選開發行為功能，並運用「強化政策環評功能，藉以引導簡化個案開發環評」機制，建立開發行為上位規劃之依據及審查基準，以提升審查效率，期望達成「確保環境永續」及「降低政策推動阻力」之雙贏結果之目標，恰與本屆國際影響評估協會主題「進化或革新：影響評估的下一階段？」密切相關，環保署遂積極參與本屆國際影響評估協會研討會，並以「Promoting Strategic Environmental Assessment(SEA) in Achieving Sustainable Development of the Environment - With Taiwan as Case Study」為題投稿（與會人員詳讀我國海報情形，如圖 4、附錄 2），冀望藉此分享臺灣執行政策環評之經驗，並強化國際交流合作，提升我國環保形象。

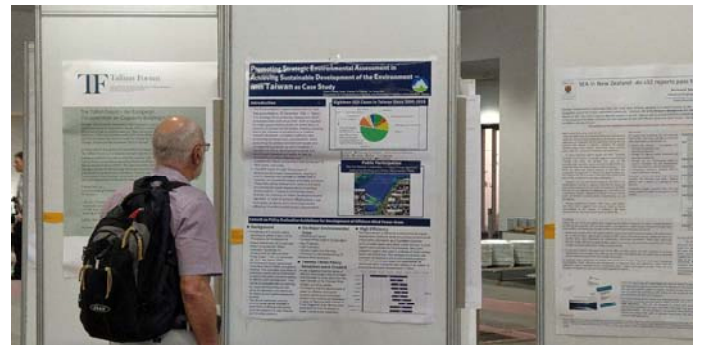
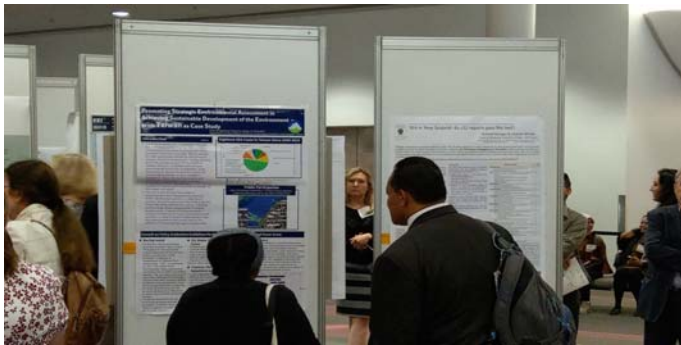


圖 4 海報展示會場

伍、技術參訪概要

本屆研討會規劃技術參訪有 10 項行程，分別為「北斯特德布魯克島 (Minjerribah)」、「卡拉瓦薩森林公園(Karawatha forest park)」、「摩頓灣海洋生態旅遊 (Moreton bay marine ecotour)」、「大衛菲里野生動物中心 (David Fleay wildlife centre)」、「黃金海岸(Gold coast)」、「布里斯班碼頭之旅(Brisbane wharf tour)」、「布里斯班港口和布里斯班機場環境管理(environmental management at port of Brisbane and Brisbane airport)」、「布里斯班河日落之旅(Brisbane river sunset tour)」、「達令山丘(Darling downs)」、「南部大堡礁(Southern great barrier reef)」。環保署派赴人員選擇「布里斯班碼頭之旅(Brisbane wharf tour)」之技術參訪簡介如下：

布里斯本河（如圖 5）為澳洲昆士蘭省流經府城布里斯本市中心，並於摩頓灣入海的一條重要河流。該河在上游被威文霍大壩所攔截，形成了威文霍湖，乃目前布里斯本市的主要水源。此河名源於西元 1823 年探險家約翰·奧克斯力(John Oxley)，以當年新南威爾斯省州長—布里斯本爵士(Sir Thomas Brisbane)之名命名。該河岸藉由具觀光特色的城市貓（渡輪）停靠於中央商業區沿河兩旁，並服務乘船旅客往來。現今有 13 座橋橫跨此河，其中有歷史著名的故事橋(Story bridge)是一座跨越布里斯班河的懸臂橋（如圖 6），連接昆士蘭州布里斯本北部和南部，允許車輛，自行車和行人通過，它是澳洲最長的懸臂橋。這座橋是布拉德菲爾德公路的一部分，連接富特迪谷和袋鼠角(Kangaroo Point)，以曾力主建橋的公僕約翰·道格拉斯·斯托瑞(John Douglas Story)命名。這座橋在西元 1992 年列為昆士蘭州遺產。並於參訪過程中說明布里斯本曾進行影響評估的事項，皇后碼頭對於洪水管理及減災處理，以及河岸旁喬治街沿路上特色/遺跡建築物保護問題。

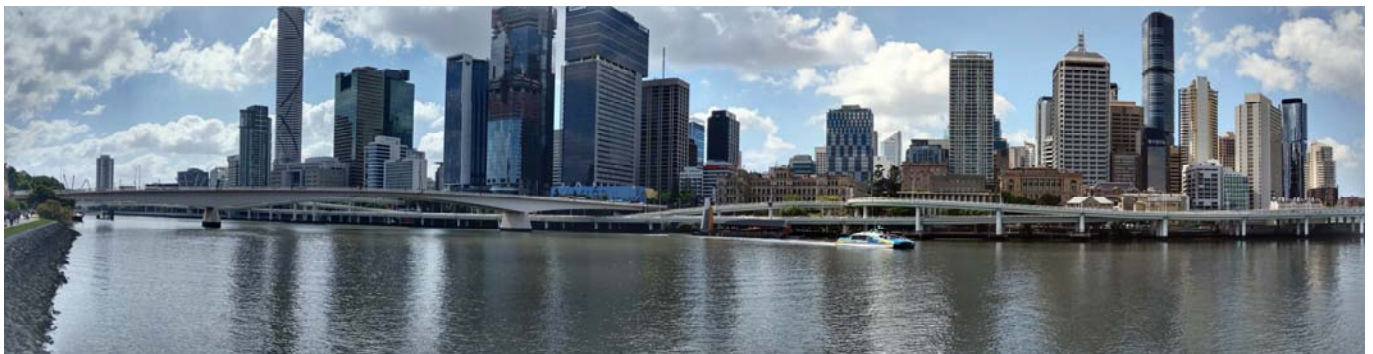


圖 5 布里斯本河



圖 6 故事橋(Story bridge)

陸、心得與建議

一、心得

- (一) 環境影響評估制度於西元 1960 年代萌芽，迄今已發展近 60 年，鑑於世界各國政府於制定政策或開發計畫過程均已廣泛進行環境影響評估，以衡量政策、開發行為對當地生活、自然、社會、經濟及健康環境乃至於多重影響因子間的加成影響；然而處於全球暖化、生物多樣性減少、氣候變遷、短延強降雨等環境問題日漸加劇的時代，如何兼具經濟發展與環境保護成為各國政府重要的課題。
- (二) 然而執行影響評估過程的代價高昂、流於形式化、泛政治化乃至於對自然環境的保護並非一蹴可幾，其實質效用與價值權衡等諸多質疑至今仍普遍存在於支持者及反對者之間；本次國際影響評估協會西元 2019 年會以「進化或革新：影響評估的下一階段？」為主題，聚焦於「環評的『進化』是否足以應付未來的發展？」、「執行開發計畫或政策過程中，是否有更好的方式檢核確保已納入足夠的影響評估因子？」以及「假如影響評估必須『革新』，會是怎樣的模樣？」等子議題，由各國專家、學者、政府機構分享執行影響評估、政策環評過程中的經驗、成果以及新技術，以探索出未來影響評估的發展方向。
- (三) 環保署自 105 年宣示推動「強化政策環評功能，藉以引導簡化個案開發環評」後，持續積極敦促中央目的事業主管機關於將環境因素納入政策研擬或決策之考量，藉以奠定後續個案開發行為規劃及環評審查之審查基準，消弭個案爭議及投資不確定性，近年已接續完成「離岸風電區塊開發政策評估說明書」「新設（含擴建）科學園區政策評估說明書」等徵詢意見。本次國際影響評估年會，我國以「離岸風電區塊開發政策評估說明書」為題，向與會各國分享我國盤點環境因素、共通性環境議題與因應對策，順利於 106 年以半年時間完成 19 案初審程序之高效率成果。展示過程中，中國上海學者對於我國現行環評法具否決權之特性、我國推動民眾參與及廣徵民意納入審查之機制有疑義，經環保署派赴人員說明，我國自 105 年、106 年接續推動「行政院環境保護署環境影響評估審查委員會專案小組意見陳述會議及現場勘察計畫」之目的，係由環評委員於初審會議前，至開發地點舉辦意見陳述會議及現場勘察程序，充分蒐集當地民眾團體意見，並藉現場勘查掌握當地環境背景現況，納入該開發案後續環評審查參酌；此外為落實資訊公開、透明政府之目標，環保署接續於 106 年於網路直播環評審查委員會議，使在地民眾由環保署官方系統獲得相關環評會議

的召開情形，並由網路直播方式參與會議審查，免除在地民眾團體的舟車勞頓外，亦提升民眾之對於環評會議參與感與信任度。

二、建議

- (一) Prof. Lam, Kin Che 於 China' s EIA process: Reshape, challenges, and opportunities (I)子論壇中以「China' s EIA at the crossroads: What next?」演講中提及「環境影響評估是科學分析，並非評價開發行為應否實施。」由於我國現行環境影響評估法因具否決權，經常面臨權益相關民眾團體關切，使得環境影響評估審查變成正、反雙方激烈爭辯之戰場，甚而發生威脅、辱罵環境影響評估委員之情事；然而正如 Prof.Lam 一言，環境影響評估審查係科學分析過程，不應成為決定開發與否之戰場。針對此現狀，未來或可思考藉由修正環境影響評估法、精進行政程序方式過程逐步參酌、調整以減輕擔任本署環境影響評估委員之壓力。
- (二) 第 40 屆國際影響評估協會研討會預定於西元 2020 年 5 月 26 日至 5 月 29 日假西班牙賽維利亞(Seville)舉辦，主題為「SCIENCE, TECHNOLOGY, AND GOVERNANCE ADVANCEMENTS TOWARD EFFICIENCY AND EFFECTIVENESS」(詳附錄三)與環保署推動「環保署建構明確、有效率之環評制度」之目標相關，建議環保署相關業務同仁有機會能持續參與此研討會，以增進瞭解各國執行環境影響評估之方針，並檢視他國執行環境影響評估之優缺點，作為我國執行環境影響評估政策之參考。



EVOLUTION

OR *Revolution:*

Where next for impact assessment?

39th Annual Conference of the



International Association for Impact Assessment

29 April - 2 May 2019

Brisbane Convention & Exhibition Centre | Brisbane, Australia

FINAL PROGRAM



IAIA19 Premier Sponsors



EVOLUTION OR Revolution:

Where next for impact assessment?

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Evolution sees the gradual development of organizations, practice, and systems from simple to more complex forms. **R**evolution represents a dramatic and wide-ranging shift to an entirely new paradigm.

- Will evolutionary development of IA be sufficient in the future?
- Is there a better way to ensure that impact-assessable matters are taken into account in project and policy decision making?
- If revolutionary change is needed, what might it look like?

IA has shown both flexibility and resilience, its processes being adapted and applied in a wide range of contexts and settings across the world. It has diversified its focus to strategic, economic, social, health, and cumulative assessment as well as sustainability assessment.

But the utility of IA is under question on many fronts. IA is not without its critics. It has been attacked by project and policy proponents for impeding development, and by environmental and community interests for failing to meaningfully influence decision making and to protect environmental and social values. Both groups criticize it for being costly, overly procedural, and political, and question the value it adds to development and environmental outcomes.

IA is generally mandated by statute law. But laws that fail to serve the interests of good governance of communities can become moribund and fail to be administered. IA will change as governments, proponents, and communities rationalize competing views about values.

The question is whether this should be a dramatic, revolutionary change—or an incremental, evolutionary change.

The conference theme is deliberately provocative, inviting delegates to consider IA from different viewpoints. It calls for reflection on the imperatives for change if IA is to be part of another half-century of good practice environmental management.

Why is an evolution/revolution insert in my bag?

We want to encourage discussion between delegates on our conference theme of “Evolution or revolution: Where next for impact assessment?”

Tell other delegates which way you are currently thinking by putting the insert in your name tag with the appropriate side facing out. Talk to delegates with a different view to understand their reasoning. If you change your mind, turn your insert around. Maybe you can convince other delegates to turn theirs around.





Sara Bice
President, IAIA
The Australian National University, Canberra

Welcome to Brisbane!

The International Association for Impact Assessment is thrilled to return to Australia for the first time in 11 years. It's been a while and we are so glad to be back, and so pleased you could join us!

Australia is a very appropriate home for IAIA's 39th annual international conference. It is a country where impact assessment plays an active and important role in environmental, social, health, and economic decision-making. From the savanna woodlands of Western Australia's Kimberley to Queensland's Great Barrier Reef, from the mining pits of Port Hedland to the urban development of Sydney's Harbour, impact assessment helps to protect and shape Australia.

Impact assessment also plays vital roles in raising awareness of and supporting the rights of indigenous peoples and vulnerable groups. This year's conference takes place on the traditional lands of the Turrbal people. Their custodial lands and traditional hunting grounds extend for over 1,300 square kilometers around the Brisbane River, just near the Convention Centre. In what was once Mianjin, today Brisbane, we extend our acknowledgment and respect to the traditional owners of this land. We invite you to find out more about the rich indigenous history of Brisbane and surrounds.

The many examples of impact assessment's reach and importance visible in Australia are reflected in the experiences and interests of our conference delegates. As we explore and debate the theme of "Evolution or revolution? Where next for impact assessment?" together this week, I encourage you to keep in mind all that impact assessment is and can be. You are among colleagues and friends who share your interests and beliefs in the centrality of impact assessment to supporting the very best decisions for the future of our planet and societies.

Here's to an exciting week!



Lachlan Wilkinson
Conference Chair
JBS&G Australia Pty Ltd



Bryan Jenkins
President, Environment Institute of
Australia and New Zealand



The Hon Kate Jones MP
Minister for Tourism Industry
Development

On behalf of the Environment Institute of Australia and New Zealand, your conference host and an IAIA Associated Organization, we welcome you to Brisbane and the beautiful South Bank parklands.

It was back in early 2016 that the Brisbane conference bid team came up with the theme of evolution or revolution. We thought it was an important question to ask back then, and now, three years later, we think it is even more important. Every day, we see decision-making by governments and others that fails to consider sustainability. We see practitioners continuing to produce large impact assessment documents but with little change to the economic growth juggernaut. Yet impact assessment legislation is in place in almost all countries in the world. Can the impact assessment framework developed fifty years ago be adapted to meet the sustainable development goals of the 21st century? Or is it time for a revolution?

It is pleasing to see so many presenters and session chairs take up the challenge we put out in the theme. We're sure there will be many fascinating and stimulating discussions during the course of the conference. The goal is to provide you with new insights and innovative thinking that will generate improved practices for delivering sustainability and the role of impact assessment in that delivery. We want you to go home with fresh ideas and a renewed determination to make the tool of impact assessment more effective.

It is my pleasure to welcome you to Brisbane for the 39th Annual Conference of the International Association for Impact Assessment (IAIA19). The Queensland Government is proud to support this event through Tourism and Events Queensland's Business Events Acquisition and Leveraging Fund.

Pursuing the theme "Evolution or Revolution: Where next for impact assessment," this conference will challenge researchers and practitioners to consider how impact assessment can evolve. Technical visits across Brisbane will showcase the innovation being undertaken in our state's capital.

As well as being a leader in the area of impact assessment, Brisbane offers a desirable range of tourism experiences that delegates can enjoy in between conference commitments. I encourage you to explore the diverse tourism experiences on offer throughout the region—from our relaxed outdoor lifestyle to our beautiful islands, ecotourism experiences, and golden beaches.

Experience IAIA conferences in a whole new way!



The mobile app is available from mid-April 2019.

All delegates registered by 5 April received an invitation email to download the app.

If you didn't receive the email:

1. Visit <https://crowd.cc/iaia19> (Desktop or Mobile Web) or <https://crowd.cc/s/2yOwk> (Apple or Android)
2. Download the CrowdCompass Attendee Hub.
3. Search for IAIA19 as an event.
4. Log in using "iaia19brisbane" as the password.

You must be a registered attendee to be able to view the restricted portions of the app such as attendee and speaker contact details.

Keep important parts of the conference at your fingertips.

Use the **Desktop Portal**, the **Mobile App**, or both to:

- » Help others find you—complete your profile and upload a photo.
- » Search for sessions, speakers, and attendees.
- » Select your favorite sessions and create your personal agenda.
- » Download speaker handouts.
- » Take notes and send them to yourself.
- » Use the interactive map function to find rooms.
- » Receive instant notifications of program changes on-site.

Take your changes with you—data syncs between your desktop and mobile versions.

DON'T HAVE A SMARTPHONE? No problem. Use the app on your laptop or iPad.

Access information not included in the final program, including:

- About conference sessions
- Contact us
- Speaker tips
- Session format descriptions
- General information about IAIA19
- Brisbane info
- Technical visits

Need to recharge your device? Courtesy of sponsors **Inland Rail** and **Cardno**, charging stations are available in the Plaza Foyer.

SHARE WITH PHOTOS

Individuals who are attending technical visits are encouraged to take photos and send them to Headquarters staff for posting on IAIA's Facebook page and other uses. Please identify the name of the technical visit, the individuals pictured, and the photographer, and send your photo(s) to info@iaia.org.

If you are posting IAIA19 photos on your Instagram, Facebook, or Twitter account, please tag #iaia19 so the photos can be collected and shared throughout IAIA as well. You can share your photos on the Activity Feed of the IAIA19 app, too!

LIVE TWITTER FEED #IAIA19

Are you keen to share your thoughts on a presentation or reflect on the day's events? Conference participants are encouraged to tweet throughout the event on the hashtag **#iaia19**.

INTERNET ACCESS

Free wifi is available in the meeting rooms and public spaces of the convention center.

2019 Award and scholarship *Winners*



Global Award

The **Arctic Council** was chosen to receive the Global Award for promoting cooperation and coordination on issues of sustainable development and environmental protection in the Arctic.

The Global Award is presented annually to a leading individual or institution that has made a substantial contribution to the practice of environmental assessment, management or policy at a global scale.



Individual Award

Lori Anna Conzo was selected for the Individual Award for her ongoing contributions to the field of biodiversity risk management, where her collaborative, inclusive efforts have brought together different sectors and spheres encouraging consistency and good practice.

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.



Lifetime Achievement Award

Asha Rajvanshi receives the Lifetime Achievement Award for her sustained and significant contributions to biodiversity-inclusive impact assessment as a dedicated trainer, governmental advisor, author, and practitioner.

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

The Outstanding Service to IAIA Award is presented to **Ana Maria Esteves** for her contributions and commitment to IAIA, displayed through her two terms on the Board, her leadership on the Resettlement Symposium in South Africa, and her championing of multiple IAIA initiatives.

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

Japan International Cooperation Agency (JICA) was chosen to receive the Institutional Award for its effective environmental and social consideration guidelines and safeguard policies.

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.



IAPA Best Paper of 2018

The 2018 IAPA Best Paper Award is presented to **Ilse Aucamp** and **Antoinette Lombard** for their paper, "Can social impact assessment contribute to social development outcomes in an emerging economy?," published in IAPA 36(2) 173-185.



Regional Award

The Western Australia Environmental Protection Authority (EPA) was selected as the recipient of the Regional Award for its sustained contributions to good practice in impact assessment in Australia, visible through its pro-active and pioneering work in developing policy and guidance material.

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.

If you would like to nominate an individual or organization for a 2020 award, please submit name and justification to shell@iaia.org.

Online nominations will open soon.



Rita R. Hamm IA Excellence Scholarship

Jillian Ash (Australia) was selected as the recipient of this year's Rita R. Hamm IA Excellence Scholarship. Jillian is a practitioner with GHD's Engagement, Communication and Communities Global Service Line and the Social Impact Assessment technical discipline.

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.

REGISTRATION DESK HOURS

Friday 26 April	15:00-17:00
Saturday 27 April	08:00-10:00, 15:00-17:00
Sunday 28 April	06:30-10:00, 15:00-17:00
Monday 29 April	07:30-17:00
Tuesday 30 April	08:30-16:30
Wednesday 1 May	08:30-16:30
Thursday 2 May	08:30-14:30

Program Overview

	Pre-conference Friday 26 April	Pre-Conference Saturday 27 April	Pre-Conference Sunday 28 April	Conference Day 1 Monday 29 April
06:30				
07:00		Technical visits		
07:30			Registration	
08:00		Registration for training courses and technical visits	Technical visits	Registration
08:30				Students & Young Professionals Workshop and IA primers
09:00		Training courses	Training courses	World Bank Group Day
09:30				
10:00				
10:30				
11:00				
11:30				
12:00				
12:30				
13:00				Opening plenary
13:30				
14:00				
14:30				Break
15:00	Registration for training courses and technical visits	Registration for training courses and technical visits	Registration	Concurrent sessions
15:30				
16:00				
16:30				Screening: "Divided We Dance"
17:00				Welcome reception
17:30				
18:00				
18:30				
19:00				
19:30 onward				

Conference overview

Conference Day 2 Tuesday 30 April		Conference Day 3 Wednesday 1 May		Conference Day 4 Thursday 2 May		Post-Conference Friday 3 May	
							06:30
							07:00
	Committee meetings		Committee meetings				07:30
Registration	Theme forums	Registration	Theme forums	Registration	Theme forums		08:00
	Exhibits & posters		Exhibits & posters		Exhibits & posters		08:30
	Break		Break		Break		09:00
	Concurrent sessions		Concurrent sessions		Concurrent sessions		09:30
	Poster session		Annual General Meeting		Council meeting		10:00
	Lunch		Lunch		Lunch		10:30
	Concurrent sessions		Concurrent sessions		Concurrent sessions		11:00
	Break		Break		Break		11:30
	Concurrent sessions		Concurrent sessions		Concurrent sessions		12:00
	Section meetings		Section meetings		Section meetings		12:30
	Dine Outs		Walking Dinner		Closing plenary		13:00
					Exhibits & posters dismantle		13:30
							14:00
							14:30
							15:00
							15:30
							16:00
							16:30
							17:00
							17:30
							18:00
							18:30
							19:00
							19:30 onward

Daily Schedule

FRIDAY 26 APRIL

15:00-17:00 **Registration** (M5)

SATURDAY 27 APRIL

06:30-18:45 **Technical visit A: Minjerribah (North Stradbroke Island)***

08:00-10:00 **Registration** (Plaza Foyer)

09:00-17:00 **Training courses**

2. More effective IA: Tools (M9)
3. Cumulative effects assessment (P2)
4. Effective implementation of ESMPs (M1)
5. Strategic thinking SEA (P5)
6. Theory & practice biodiversity-friendly infrastructure (A1)
8. Resettlement planning and IA (M7 & M8)
9. Leadership, influencing, & communication (P4)
10. Ecological solutions and planning (M2)
11. SIA: Fit for the future (P3)

15:00-17:00 **Registration** (Plaza Foyer)

SUNDAY 28 APRIL

06:30-10:00 **Registration** (Plaza Foyer)

07:00-17:00 **Technical visit C: Moreton Bay marine ecotour***

08:00-17:00 **Technical visit D: Biodiversity and offsets***

08:30-17:00 **Technical visit B: Biodiversity-friendly infrastructure***

09:00-17:00 **Training courses**

2. More effective IA: Tools (M9)
3. Cumulative effects assessment (P2)
4. Effective implementation of ESMPs (M1)
5. Strategic thinking SEA (P5)
6. Theory & practice biodiversity-friendly infrastructure (offsite)
8. Resettlement planning and IA (M7 & M8)
9. Leadership, influencing, & communication (P4)
10. Ecological solutions and planning (M2)
11. SIA: Fit for the future (P3)
12. Stakeholder engagement & public participation (P6)

15:00-17:00 **Registration** (Plaza Foyer)

MONDAY 29 APRIL

07:30-17:00 **Registration** (Plaza Foyer)

08:00-11:45 **Students and Young Professionals workshop** (P8)

08:30-10:00 **Impact assessment primers**

- Agriculture, Forestry, and Fisheries (P6)
- Corporate Stewardship and Risk Management (P7)
- Disasters and Conflict (P9)
- Indigenous Peoples (P10)

09:00-12:00 **World Bank Group Day** (P3 & P4)

10:30-12:00 **Impact assessment primers**

- Cultural Heritage (P6)
- Governance & Implementation Systems (P7)
- Social Impact Assessment (P9)

*** Technical visit participants: Please meet at the BCEC Glenelg Street entrance a minimum of 15 minutes prior to departure.**

Note:

No lunch is provided. Cafes and restaurants are available in the BCEC neighborhood.

13:00-14:30 Opening plenary (see page 14) (Plaza Terrace Room)

14:30-15:00 **Break** (Plaza Foyer)

15:00-16:30 **Concurrent sessions**

16:40-17:00 **Screening: "Divided We Dance"** (Plaza Terrace Room)

17:00-19:00 **Welcome reception** (Plaza Terrace Room)

TUESDAY 30 APRIL

07:00-08:30 **Affiliates, Branches, & Associated Organizations Forum** (P6)

07:30-08:30 **Committee meetings**

- IAPA Editorial Board (P5)
- Board Nominations Committee (P7)
- Professional Development Program Task Force (P11)

07:30-08:30 **Section meeting**

Students and Young Professionals (P8)

08:30-16:30 **Registration** (Plaza Foyer)

09:00-10:30 **Theme forums**

10:30-11:00 **Break** (Plaza Foyer & Terrace Room)

11:00-12:30 **Concurrent sessions**

12:40-13:30 **Poster session** (Plaza Ballroom Foyer)

13:30-14:20 **Lunch** (Plaza Foyer & Terrace Room)

14:30-16:00 **Concurrent sessions**

16:00-16:30 **Break** (Plaza Foyer & Terrace Room)

Break sponsored by Tourism and Events Queensland

16:30-18:00 **Concurrent sessions**

18:10-19:10 **Section Meetings**

- Agriculture, Forestry, and Fisheries (P5)
- Disasters & Conflicts (M1)
- Corporate Stewardship and Risk Management (P8)
- Governance & Implementation Systems (P3&P4)
- Indigenous Peoples (P11)

19:00 **Dine Outs** (see page 12)

WEDNESDAY 1 MAY

07:30-08:30 **Committee meetings**

- IAPA Journal Management Committee (P5)
- Training & Professional Development Committee (P6)
- Awards Committee (P8)
- Sections Coordinating Committee (P7)

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 29 April.

TECHNICAL PROGRAM: TOPICAL STREAMS

The technical program is structured into two primary streams (thematic sessions focusing on evolution or revolution; and general impact assessment sessions, including topics that address issues of interest to IAIA's special-interest Sections) and one special-interests stream. Each morning, all delegates are invited to participate in a select number of theme forums, sessions which focus on cross-cutting issues relevant to the many specialties of impact assessment with topics that engage the conference theme.

Conference theme

Addressing the ongoing challenges of impact assessment: Is evolution or revolution the answer?	19
Climate change impact assessment: Beyond adaptation or mitigation?	24
Controversial topics in IA: The issues in IA that have been avoided	24
Cumulative impact assessment: Have cumulative impacts exceeded sustainable thresholds?	25
Improving quality and effectiveness: Does the follow-up matter?	25
Links between assessment, approval, and implementation	26
Proponents-driven IA and its alternatives: Giving those who experience impact a central role in IA	27
Socio-economic impact assessment: Evolution or revolution?	28
Strategic and regional assessment: Importance of regions in an era of globalization	30
The use of technology to advance environmental and social impact assessment	32
Theory and principles of IA	34

IAIA Section and general topics

Tools and methods of IA	37
Disasters and conflict	38
Infrastructure and transportation	39
Resilience and sustainability	39
Public participation	40
Energy, power generation, and transmission	40
Cultural heritage	41
Health impact assessment	41
Indigenous Peoples	41
Social impact assessment	42

Special-interests stream

Norwegian Oil for Development Program	35
Pacific Day	36
Special to IAIA	36

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.

08:30-16:30	Registration (Plaza Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (Plaza Foyer & Terrace Room)
11:00-12:30	Concurrent sessions
12:40-13:30	Annual General Meeting and Lifetime Achievement Award Presentation (M1) All conference participants are encouraged to attend the annual business meeting of the Association. Meet the IAIA Board of Directors, hear the Treasurer's report, and be present for the prestigious Lifetime Achievement Award recipient's acceptance speech.
12:40-14:20	Lunch (Plaza Foyer & Terrace Room)
14:30-16:00	Concurrent sessions
16:00-16:30	Break (Plaza Foyer & Terrace Room) <i>Break sponsored by ExxonMobil PNG Limited</i>
16:30-18:00	Concurrent sessions
18:10-19:10	Section Meetings Biodiversity & Ecology (P5) Climate Change (P8) Cultural Heritage (P11) Health (B1) Public Participation (P6) Social Impact Assessment (P7)
19:30-22:00	Walking dinner (Brisbane City Hall: 64 Adelaide Street)

THURSDAY 2 MAY

08:30-14:30	Registration (Plaza Foyer)
09:00-10:30	Theme forums
10:30-11:00	Break (Plaza Foyer & Terrace Room)
11:00-12:30	Concurrent sessions
12:40-13:30	Council meeting (M1) The Council is an advisory resource for the Board. Committee chairs, Section coordinators, Affiliate and Branch representatives, and conference program chairs for current and future conferences comprise the Council. All members are encouraged to attend and meet the leadership of IAIA. Presentation of the Outstanding Service Award.
12:40-14:20	Lunch (Plaza Foyer & Terrace Room)
14:30-16:00	Concurrent sessions
16:00-16:30	Break (Plaza Foyer)
16:30-17:30	Closing plenary (see page 15) (Plaza Terrace Room) <i>Sponsored by OceanaGold</i>
16:00-19:00	Exhibit and poster dismantle

FRIDAY 3 MAY

08:00-18:00	Technical visit E: Gold Coast*
09:00-13:00	Technical visit F: Brisbane wharf tour*
09:30-16:30	Technical visit G: Environmental management at the Port of Brisbane and Brisbane Airport*
16:00-19:00	Technical visit H: Brisbane River sunset tour*
3-5 May	Technical visit J: Southern Great Barrier Reef (Townsville)

Technical program *Overview*

- Plenary
- Theme forum
- Concurrent session

	Plaza Terrace	P1&P2	P3&P4	P9	P10	P11	M1	M2
Monday 29 April								
13:00-14:30	Plenary							
15:00-16:30		Hits of the 1990s: From revolution to evolution? (p19)	Dot-to-dot isn't just for kids, silly wabbit (p37)	Meeting the marine biodiversity challenge (p19)	IA in New Zealand: Lessons & strategies (p19)	Addressing health & social equity through IA (p35)	IA and the social & cultural implications of mine closure (p27)	Scope & level of detail for SEA on national & regional scale (I) (p30)
Tuesday 30 April								
09:00-10:30		Charles or Che? (p16)	Going digital (16)	Operating in emerging countries with high biological & cultural diversity (16)	PACIFIC DAY Safeguards policies & IA practice in the Pacific Island Countries (p16)			
11:00-12:30		IA the Australian way(s) (p19)	Digital IA: The latest developments (I) (p32)	Integrating biodiversity & ecosystem services into mitigation hierarchy (I) (p20)	Developments in EIA practice in the Pacific islands (p36)	Integrating indigenous rights & knowledge into IA (I) (p27)	Disaster risk reduction (I) (p38)	Scope & level of detail for SEA on national & regional scale (II) (p30)
12:40-13:30	Poster Session (Plaza Ballroom Foyer)							
14:30-16:00			Digital IA: The latest developments (II) (p32)	Integrating biodiversity & ecosystem services into mitigation hierarchy (II) (p20)	SEA & sustainable development (p36)	Integrating indigenous rights & knowledge into IA (II) (p27)	Disaster risk reduction (II) (p38)	The cumulative dimensions of resource regions (I) (p25)
16:30-18:00			Filling the evolving IA governance gap (p31)	Integrating biodiversity & ecosystem services into mitigation hierarchy (III) (p25)	Advancing IA practice in the Pacific Island Countries (p36)	Integrating indigenous rights & knowledge into IA (III) (p27)	Disaster risk reduction (III) (p39)	The cumulative dimensions of resource regions (II) (p25)
Wednesday 1 May								
09:00-10:30		Next generation IA: Exploring 12 key components (p17)	Mechanisms for independence in IA: How to be truly independent? (p17)	Seeing the forest for the trees: Are offsets the panacea? (p17)	Social & environmental assessment of automation technologies (p17)			
11:00-12:30		Social closure & decommissioning lessons from experience & future trends (p21)	So much data, so little leveraging (I) (p25)	Practicing heritage conservation with IA (I) (p41)	Evolution or revolution? The strategic value of SIA in regional development (I) (p31)	Integrating indigenous rights & knowledge into IA (IV) (p28)	Collaboration between engineers and environmental practitioners (I) (p21)	Let's talk about this: Evolution or revolution for IA (I) (p21)
12:40-13:30	Annual General Meeting (M1)							
14:30-16:00		Real-world application of the mitigation hierarchy (p26)	So much data, so little leveraging (II) (p26)	Practicing heritage conservation with IA (II) (p41)	Evolution or revolution? The strategic value of SIA in regional development (II) (p31)	Integrating indigenous rights & knowledge into IA (V) (p28)	Collaboration between engineers and environmental practitioners (II) (p22)	Let's talk about this: Evolution or revolution for IA (II) (p22)
16:30-18:00			Digital technologies for SIA & resettlement planning (p33)	Practicing heritage conservation with IA (III) (p34)	Capacity building for HIA and for health in IA (p22)	Integrating indigenous rights & knowledge into IA (VI) (p28)	Collaboration between engineers and environmental practitioners (III) (p23)	Let's talk about this: Evolution or revolution for IA (III) (p23)
Thursday 2 May								
09:00-10:30		IA and the SDGs (p18)	Securing socio-economic development through unorthodox IA (p18)	Is the oil & gas industry able to adapt to the renewable energy revolution? (p18)	IA is only good when it is effective (I) (p18)			
11:00-12:30		Indigenous rights, land values, and cumulative effects (p23)	SIA: How early is too early? (p24)	SIA & EIA of marine renewable energy (p33)	IA is only good when it is effective (II) (p26)	The recent reform of federal EA law in Canada (p23)		Improving environmental & social performance on construction projects (I) (p33)
12:40-13:30	Council Meeting (M1)							
14:30-16:00			How do we develop quality SIA practitioners? (p29)	ESIA leadership: The role of an ESIA coordinator (p24)	IA is only good when it is effective (III) (p26)			Improving environmental & social performance on construction projects (II) (p33)
16:30-17:30	Plenary							

Technical program overview

B1	B2	B3	P6	P7	P8	P5
Can the ecosystem service concept improve the outcome for IA? (p19)	Public-private partnerships & the Asian infrastructure gap (p26)	Orokohanga 2019: Operationalizing the Aashukan Declaration (p27)	Early planning in IA in Canada and other countries (p19)	IA of project closure: Meeting the new expectations (p38)		Meet the editors (p36)
Transition from EIA to EMS (p26)	PACIFIC DAY EIA systems, practice, guidance, and support in the Pacific islands (p36)	Economic IA (p28)	Rethinking social license: Where to from here? (p28)	Access to remedy & IA (p37)	Evolving & emerging IA challenges (p20)	Why follow up? Managing social impacts of transport in urban cities (p39)
Poster Session (Plaza Ballroom Foyer)						
The rapidly-evolving dilemma of fossil fuels vs. renewable energy (p35)	Power through partnership: The Tina River hydro case study (p36)	Asian S3EA: Strategic, spatial, & sustainable EA (I) (p30)	Using case studies in teaching IA (I) (p34)	Conference of the birds: Evolving public participation to address community context and complexity (p40)	Environmental sustainability in large mining projects in developing regions (I) (p39)	Formalizing revised EIA follow-up best practice principles (p34)
Fossil energy vs. renewable energy: Role play of various IA scenarios (p35)	Institutionalizing SIA practice within government decision making (p29)	Asian S3EA: Strategic, spatial, & sustainable EA (II) (p31)	Using case studies in teaching IA (II) (p34)	China's EIA process: Reshape, challenges, & opportunities (I) (p37)	Environmental sustainability in large mining projects in developing regions (II) (p39)	Solutions for conflicts between wind energy technology & birds (40)
Teaching IA: Best practice principles & pedagogy (p34)	Harnessing offsets to achieve conservation goals (p20)	Health assessments: Types & needs (p41)	Community engagement from project policy, & IA perspectives (I) (p37)	IA is a blunt tool for biodiversity: Yes or no? (p21)	How to integrate climate change into IA: Tools & approaches (p24)	China's EIA process: Reshape, challenges, & opportunities (II) (p37)
Annual General Meeting (M1)						
Without health there is nothing: Health impact achievements in Asia (p21)	Country experiences with evolution in the energy sector & the IA requirements (I) (p35)	Policy, methodology, & procedure in SIA of the displacement of vulnerable people (I) (p41)	Community engagement from project policy, & IA perspectives (II) (p39)	Putting the "social" back into science: Quality SIA (I) (p29)	International progress in regional-scale IA (I) (p31)	SIA & baseline studies (I) (p42)
	Country experiences with evolution in the energy sector & the IA requirements (II) (p35)	Case studies in methodology in SIA of the displacement of vulnerable people (II) (p42)	Community engagement from project policy, & IA perspectives (III) (p38)	Putting the "social" back into science: Quality SIA (II) (p29)	International progress in regional-scale IA (II) (p32)	SIA & baseline studies (II) (p42)
Establishing guidance for heritage & IA (p34)	Evolution of ESIA practice in Asia-Pacific developing economies (I) (p23)	Social indicators on SDGs for industry & university (p29)	IAIA's climate change and IA next steps (p24)	Social license & IA of energy transitions (p40)	Lessons learned from SEAs in Australia (p32)	
Council Meeting (M1)						
Shaking up biodiversity offset concepts (p24)	Evolution of ESIA practice in Asia-Pacific developing economies (II) (p24)	RE100: Ethical initiative in university (p30)		Contribution of IA to sustainable hydropower development (p25)		

Special meetings and networking *Activities*

STUDENTS AND YOUNG PROFESSIONALS (SYP) WORKSHOP

The SYP Section invites early career IA researchers, practitioners, and post-graduate students to a half-day workshop to present their work, listen to seasoned IA practitioners and academics speak about their career path, and participate in a speed-mentoring activity. Stay connected by attending other SYP social activities during the week. See the agenda on page 46.

Monday 29 April | 08:00-11:45 | P8
Pre-registration by 5 April required.

IMPACT ASSESSMENT PRIMERS

Do you want to know a little bit about a specific topic of impact assessment before the conference begins? Is there an area of impact assessment that you've heard about but are not quite sure what it involves? Are you coming to the conference hoping to learn more about a specialty area, but aren't certain if it's where you should spend your time this week? Do you want to know more about IAIA's Sections and start your networking early by meeting delegates before the conference begins? If you answered "yes" to any of these questions, consider participating in the *Impact Assessment Primers*.

Join members of IAIA's Sections for 90-minute introduction sessions where seasoned IAIA members, experts in their field, will provide you with a brief introduction to the topic, an introduction to the Section and its activities, advice and information on which IAIA19 sessions are related to the topic, and how you can start to build your capacity in that area.

Monday 29 April | 08:30-12:00
See page 13 for locations.

UPDATE: WORLD BANK ENVIRONMENTAL AND SOCIAL FRAMEWORK

An update on the World Bank's new Environmental and Social Framework launched on 1 October 2018 with a focus on (i) the guidance notes backing up the ESF and (ii) the common approach in donor partnership.

Monday 29 April | 09:00-12:00 | P3 & P4
Pre-registration by 5 April required.

SPECIAL SCREENING: DIVIDED WE DANCE

Inspired by a technical visit during IAIA18 in Durban, "Divided We Dance" depicts the conflict between a community in the heart of Zululand, South Africa, and the coal mining industry. With the arrival of an open pit mine in 2017, the people of Somkhele have been denied the promise of clean water, roads, electricity, and jobs, receiving only a percentage of what was offered to them. However, they are at the losing end of dire impacts on their land and way of life. The community is divided between supporters and non-supporters of the mine. This short documentary navigates the complexities of resource extraction and its impact on largely poor rural communities. Their struggle is being taken to the courts by local activists and pro-bono lawyers. Will environmental justice prevail? (A film by David Quintero)

Monday 29 April | 16:40-17:00
Plaza Terrace Room

WORK SPACE AND "POP UP" MEETINGS

Pop up meetings: Do you have a meeting that just "popped up?" Do you need to meet with colleagues? Continue a discussion? Get together with a potential business partner or client? Merivales Boardroom 1 is available on a first-come, first-served basis for small meetings that "pop up" during the conference. Check the schedule on the room for available times and sign up.

Work space: Sometimes you have to check your email or finish the report that is overdue. If you need a place to work, Merivales Boardroom 1 is available any time the room is not reserved for a pop up meeting.

29 April - 2 May | 09:00-18:00 | Merivales Boardroom 1

WELCOME RECEPTION

Catch up with old friends and meet new ones at the welcome reception. This will be conveniently held at the conference venue. Sample some of Queensland's finest food and enjoy Australian beer and wines. This relaxed event will provide the perfect opportunity to continue the evolution versus revolution debate!

Following the welcome reception, join the "After Party" at the Charming Squire downstairs.

Monday 29 April | 17:00-19:00
Plaza Terrace Room
Pre-registration by 5 April required.

AFFILIATES FORUM

IAIA Affiliates, Branches, and Associated Organizations are broadening our reach for professional benefit. Meet with all of the representatives. It's about sharing ideas from across the globe toward building a community of professional practice. Share your needs. Tell us your aspirations. Summarize your challenges. Together let's build relationships and make plans for the future.

Tuesday 30 April | 07:00-08:30 | P6

DINE OUTS

Spend an evening sampling local food at a "pay your own way" dinner. A local host will help you experience the cosmopolitan Australian cuisine and delights at our local restaurants. To join, sign up on the forms that are available in the registration area. Dine Outs are a great opportunity to meet new people and explore Brisbane's South Bank precinct in a relaxed atmosphere.

Tuesday 30 April | 19:00
Meet at Grey Street entrance, BCEC

WALKING DINNER

Australia is proudly a multicultural country, and nowhere is this more apparent than in our food. Join us in Brisbane's iconic City Hall where we will transform the beautiful copper-domed Auditorium into an exciting and welcoming night market with food selections showcasing our culturally rich and diverse nation. Wander around or make use of the relaxed seating to meet new friends and reconnect with old. Sample traditional Aboriginal bush tucker and be delighted by a performance from a local Aboriginal dance group.

Located in the heart of Brisbane and a 20 minute walk from the conference centre, City Hall has served as a community meeting place since 1928. Built using locally-sourced sandstone, Queensland maple, and silky oak timber, and with a 92-meter-high clock tower, the building is heritage-listed and a fascinating place to visit. Reflecting Brisbane's past but looking toward the future, City Hall provides the ideal venue to continue the discussion on the conference theme of evolution or revolution or, indeed, on any topic. We hope you will join us to enjoy the best of food and friendship that Australia and Brisbane have to offer.

Wednesday 1 May | 19:30-22:00
Brisbane City Hall: 64 Adelaide Street
Pre-registration by 5 April required.

Monday 29 April

08:30-10:00

IAIA's special-interest Sections are comprised of exciting and hardworking members who work together in their related field to promote and improve their work on topics and areas including social impact assessment, climate change, biodiversity, and much more!

The purpose of these introductory sessions is to give you an inside look into how these experts contribute to the IAIA community on their related topic and are applying rigorous solution sets and best practices. This is also a chance to learn how you can become a member of a Section and become proactive in the IAIA community. Join us!

Agriculture, Forestry and Fisheries (P6)

The "invisible" impact drivers

Few governments regulate AFF activities—we promote impact assessment in our sectors internationally and nationally and seek to ally with local and regional groups interested in promoting this work.

Chairs: Ijeoma Vincent-Akpu, Ann Pacey

Corporate Stewardship & Risk Management (P7)

Being human in impact assessment

The CSR section chairs welcome you to IAIA19, starting with an introduction to the Section, with a focus on human rights in impact assessment and vulnerable groups. Through an interactive session, the chairs will share key challenges and lessons learnt from recent experiences working with companies, followed by a Q&A with attendees.

Chair: Nora Gotzmann

Disasters and Conflict (P9)

Disasters, conflict, and the environment: Why it is important

Focused on immediate threats to life and welfare, the Disaster & Conflict Section seeks to understand disaster-and-crisis environmental impacts to reduce lives lost and promote sustainable recovery.

Chair: Charles Kelly

Indigenous Peoples (P10)

Indigenous Peoples and impact assessment: Ensuring continuity in an increasingly self-centered world

Self-centered behavior manifests at many different levels and has the unintended impact of further marginalizing the already marginalized. Many movements begin as critical responses to injustice, but once established and if successful can create opportunities that motivate self-centered behavior. Is it time to reset the Indigenous Peoples Section's focus?

Chair: Kēpa Morgan

10:30-12:00

Cultural Heritage (P6)

Introduction to Cultural Heritage Section

This session will provide an introduction to the role of cultural heritage in IAIA, the integration of cultural heritage into impact assessment, and the development process. We also will introduce an ongoing collaboration with IUCN and ICCROM on Best Practice and World Heritage.

Chairs: Arlene Fleming & Chris Polglase

Governance and Implementation Systems (P7)

This Section on impact assessment governance and implementation systems addresses in a holistic way the entire ESIA process and its implementation by countries and institutions.

Chair: Cheryl Wasserman

Social Impact Assessment (P9)

Social impact assessment: Pushing boundaries

SIA addresses both the positive and negative social consequences of projects, programs and policies. Its primary purpose is to bring about more sustainable and equitable outcomes for communities. Approaches to SIA are diverse. Keep up to date with the latest in theory and practice through the SIA section.

Chair: Katherine Witt

Opening Plenary

Opening address



Lachlan Wilkinson
IAIA19 Conference Chair

Welcome comments



Sara Bice
IAIA President

Greetings from the host



Councillor Adrian Schrinner
Lord Mayor, Brisbane City Council

Presentation of the IAIA Global Award



Luis Sánchez
IAIA Awards Committee

Charlie Wolf Memorial Lecture "Queensland: Booming one day, catching up the next?"



Alan Chenoweth
Senior Consultant, Cardno



Lesley Chenoweth
Professor Emeritus, Griffith University



Charlie Wolf

The Charlie Wolf Memorial Lecture introduces the unique environmental, social, and cultural features of the conference location.

Keynote Address



David Morris
Chief Executive Officer
NSW Environmental Defenders
Office

"Impact assessment through the lens of an environmental lawyer acting for the disempowered, dispossessed, and disenfranchised"

Keynote Speaker

David Morris is the Chief Executive Officer of the New South Wales Environmental Defenders Office (EDO), a community legal center specializing in public interest environmental law. David joined the NSW office in October 2017 after four years as the Northern Territory EDO's Principal Lawyer and Executive Officer. His work with the EDO has involved representing community groups and First Nation groups (Traditional Owners) in a range of projects subject to impact assessment, including mining, gas, and water related projects, as well as advocating on cultural heritage issues.

Under David's leadership, EDO clients have achieved a number of successful litigation outcomes. A recent landmark decision in the NSW Land and Environment Court refused a coal mine based on significant social and climate change impacts. David has also played a leadership role in policy and law reform advocacy and taught environment and planning law subjects at Charles Darwin University.

Awarded the Young Environmental Lawyer of the Year in 2016 by the Law Council of Australia, David is considered one of the emerging leaders of the environment movement in Australia.

David brings a unique range of experiences related to impact assessment, in particular from community and cultural perspectives, and will provide a thought-provoking presentation that will challenge conference delegates to address the future of impact assessment: evolution or revolution?



Closing plenary sponsored by OceanaGold.

Debate

Evolution or revolution: What is the future for impact assessment? In this final debate, the next generation of impact assessment professionals will reflect on the past four days of discussion and resolve the question for us!

Awards

Luis Sánchez, Awards Committee • Sara Bice, IAIA President
Individual Award • Regional Award • Institutional Award • IAPA Best Paper of 2018

Presidential address

Luis Montañez-Cartaxo, IAIA President (incoming)

Invitation to IAIA20-Seville

Iñigo Sobrini and IAIA20 Committee

Close of conference

Lachlan Wilkinson, IAIA19 Conference Chair

3 ideas to take away

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

Going digital: Is this evolution or revolution?

Tuesday 30 April | 09:00-10:30 | P3&P4

Panel Discussion
Chair(s): Paul Eijssen

What does a shift to a digital way of working mean? We will explore what's possible today in working digitally and with experts and the public. We will explain from various perspectives what “going digital” means for our field of work, how it can add value in decision-making, and how it can be implemented successfully.

What an opportunity

Verheem, Rob (Netherlands)

What about legislation?

Sinclair, John (Canada)

Social media and EIA

Peirson-Smith, Timothy J. (Hong Kong)

Market or government?

Friday, Kathy (Australia)

Revolution or evolution?

Barten, Bart (Netherlands)

Charles or Che? Choose your champion for the future of impact assessment!

Tuesday 30 April | 09:00-10:30 | P1&P2

21st Century town hall debate
Chair(s): Jack Krohn, Tanya Burdett, Megan Jones

Which way forward for impact assessment? Listen to passionate champions for evolution and revolution, challenge them and make your own stand. Make your contribution to the pivotal debate for IAIA19! Choose your colors, fly your flag! Are you for Charles or for Che?

A procedural revolution

Gronow, Claire
For EIA to reduce the environmental impacts of development proposals, proponents need to be held accountable for their planning and design decisions. Current procedure fails to do this and a revolution is needed.

Operating in emerging countries with high biological and cultural diversity

Tuesday 30 April | 09:00-10:30 | P9

Panel Discussion
Chair(s): Jane Mogina
This theme forum is sponsored by ExxonMobil PNG

This forum will provide an overview of the challenges and opportunities of developing world-class projects in sensitive environments and emerging nations, where biodiversity and cultural diversity shape the IA processes. In addition, lessons learned from various project experiences will be shared to encourage an open forum discussion of evolving IA concepts.

Conservation for development projects in Ecuador

Aleman, Melanie; Aleman, Pablo
In balancing the need to develop and conserve, several long-term and ongoing biodiversity conservation strategies are being implemented for a large-scale project in Ecuador's southern Amazon region.

We need to talk about Albania:

Achieving net gains

O'Donnell, Tim
Experiences in establishing biodiversity offsets in post-communist Albania to compensate for residual impacts under IFC PS 6 and the EBRD Performance Requirement 6.

Guyana's EIA process in the context of the oil and gas sector

Simmons, Denise; Bynoe, Paulette
The extent to which the oil and gas sector in Guyana has presented challenges for the country's EIA system and how the challenges were/are being addressed.

Impact assessment in a diverse and protected area

Wessels, Jan-Albert; Douglas, Anneli
Vital learning about conducting meaningful impact assessments in a diverse and protected area can be made by administering unique EIA follow-up methods.

Safeguards policies and IA practice in the Pacific islands

Tuesday 30 April | 09:00-10:30 | P10

Panel Discussion
Chair(s): Ross Butler, Jean Williams

Panelists from an IFI, the government, civil society, and the private sector will address the current state of environmental and social safeguards policies and standards to meet the needs of people and environments in the Pacific Island states. It will cover country safeguards systems, donor policies, regional initiatives to strengthen ESIA practice, and emerging practices and challenges, including gender equality, customary rights, and social inclusion.

Mechanisms for independence in IA: How to be truly independent?

Wednesday 1 May | 09:00-10:30 | P3&P4

Panel Discussion
Chair(s): Rob Verheem

This theme forum addresses the issue of independence in IA, as the often lack of such is explicitly mentioned in IAIA19's theme. Examples of existing independency mechanisms are presented, and how these have contributed to IA quality. Followed by an audience discussion on how to promote effective IA independency mechanisms.

The role of the independent Hong Kong Advisory Council on the environment

Lam, Kin Che
ACE in Hong Kong, if skillfully leveraged, can be an important independent party in quality assurance and public consultation. Nonetheless, there are constraints and opportunities.

The role of independent EIA practitioners

Tarr, Peter
This short presentation is expected to stimulate discussion on what is best practice in terms of ensuring independence in EIA.

The role of the independent Netherlands Commission for Environmental Assessment (NCEA) in the Dutch EA system

Verheem, Rob
The NCEA was established in 1987 by the Dutch government, but deliberately made independent from it, to enable credible quality reviews of impact assessments. How successful is this approach?

Social and environmental assessment of automation technologies

Wednesday 1 May | 09:00-10:30 | P10

Workshop
Chair(s): Jiri Dusik

We will focus on the expected uptake of Industry 4.0 through digital connection of newly emerging general purpose technologies such as 3D printing, advanced robotics, autonomous transport, Internet of Things, and Artificial Intelligence. We will discuss potential environmental (and social) impacts of these cyber-physical systems and the growing calls for responsible innovation and enhanced use of technology assessments. The concluding panel discussion will explore opportunities for impact assessment professionals to contribute to debates on the planned technological transformation that will shape our economies and societies in the coming decade.

An initial framework for identification of environmental issues and concerns associated with the key disruptive technologies is summarized at bit.ly/sesaauto0. A full scoping working paper is available at bit.ly/sesaauto1. The forum participants will be welcome to either respond to the issues raised or bring forward their own perspectives.

The forum will include two opening presentations, followed by panel discussion.

Key environmental concerns surrounding automation

Dusik, Jiri and Saric, Ivana

How responsible innovation and technology assessment processes can help in assessing the impacts of automation technologies

Ashworth, Peta

Panel discussion

Fischer, Thomas
Vanclay, Frank
Ashworth, Peta
Saric, Ivana

Next generation impact assessment: Exploring twelve key components

Wednesday 1 May | 09:00-10:30 | P1&P2

Workshop
Chair(s): John Sinclair, Meinhard Doelle

This participatory session will offer a short overview of the key components of next generation IA law followed by comments from discussants and open dialogue on topics such as the applicability of the components in diverse jurisdictions, and enablers and barriers to implementation to encourage an open sharing of ideas.

Reflections from an Australian perspective

Pope, Jenny
The twelve key components of next generation impact assessment will be considered from the perspective of impact assessment law and practice in Australia.

Next generation impact assessment law

Bond, Alan
Alan Bond, School of Environmental Sciences, University of East Anglia

Clara U

U, Clara
Chair of Hong Kong Institute of Environmental Impact Assessment

Seeing the forest for the trees: Are offsets the panacea?

Wednesday 1 May | 09:00-10:30 | P9

Panel Discussion
Chair(s): Mervyn Mason

Panel discussion and debate on the effectiveness of biodiversity offsets.

The past, present, and future of environmental offsets

Ewing, Christopher
Do we, as experts in technical matters associated with offsets, hold a view that the present framework is an improvement on the past? Do we see any opportunities for further reform?

Biodiversity offsets in practice

Key, Alan
A discussion of biodiversity offsets in practice: identifying, securing, managing, measuring, and acquitting offsets on the ground.

The myths and opportunities of offsetting

Murphy, Chris
Offsetting is a plastic concept which can be shaped to meet any requirements. So the potential for offsetting is only constrained by the imagination for innovation.

Considering the future urban forest in EIA

Miller, Cameron
National and international trends in addressing urban forest expectations within impact assessments. What lessons can be learned from the past?

Biodiversity offsets using whole of landscape management

Flynn, Sarah; Boothroyd, Ian
Delivering offsets that achieve biodiversity conservation in the right places, through the whole of landscape management.

Poison or panacea? The role of infrastructure

Rees, Gareth
A review of the efficacy of offset policy within Queensland and Australia and the potential for a collaborative effort to pursue enhanced outcomes from the view of an infrastructure developer and operator.

Modeling to evaluate biodiversity offset policies

Gordon, Ascelin; Peterson, Isaac
We present a new approach to evaluate whether biodiversity offsets are achieving no net loss using a newly-developed modelling software. This is illustrated using simulated and real data.

Impact assessment is only good when it is effective (I)

Thursday 2 May | 09:00-10:30 | P10

Panel Discussion

Chair(s): Ben Cave, Alan Bond

The focus is on IA quality and how it can be improved with a view to delivering substantive effectiveness. We welcome papers which consider innovations in the development and application of quality evaluation methods, and papers which demonstrate system quality. Any submission should be clear on whether evolution or revolution is needed.

Capacity development for effective SEA

Bond, Alan; Beier, Mat; Fothergill, Josh; King, Mark; Mari Kågström, Daniel Slunge, Arend Kolhoff,

The continuing worldwide growth of SEA leads to significant capacity development challenges. The authors propose a research agenda to meet these challenges and seek input from the audience.

The role of tiering in delivering effective EAs

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

For effectiveness, careful linking of different planning levels (from strategic to operational tiers) is vital. This paper discusses the role of EA tiering in delivering substantive effectiveness.

The hidden influence of governance in SEA: Organizational environments

Monteiro, Margarida; Partidário, Maria

This paper explores the importance of understanding the internal function of organizations, as their commitments toward SEA may function as blockers or enablers of its use.

EIA under pressure: Deregulation efforts in Austria

Stoeglehner, Gernot

EIA in Austria is under pressure of deregulation. This article discusses strategies to increase EIA quality and raise its legitimacy from perspectives of planning theory and different stakeholders.

Strength and weakness of Japanese EIA law

Masuzawa, Yoko; Koyano, Haruka;

Toi, Akiko

Compared to international and foreign laws concerning EIA, features of Japanese EIA law which may enhance or diminish its effectiveness or potentials are discussed.

Is the oil and gas industry able to adapt to the renewable energy revolution?

Thursday 2 May | 09:00-10:30 | P9

Paper Session

Chair(s): Arne Dalfelt, Peter Tarr

This is a Norwegian Oil for Development Program session

The global oil and gas industry is directly and indirectly causing global climate change, ocean pollution, and environmental degradation. The industry needs to refocus production towards renewable energy with fossil fuel resources reserved for those sectors that cannot do without. The impact assessor is in a unique position to assist in this change.

A new type of impact assessor is needed to create a more sustainable world

Croal, Peter

To avoid predicted catastrophic global changes due to climate change, the impact assessment practitioner must develop new assessment methods that move the energy industry to a more sustainable path.

The endgame is on: Options for oil-producing countries

Grotli Skogen, Svein

Questions about an end game for oil and gas is no more about "if." Now it's all about "when" and "how." We look at governmental options for those still having ambitions as producers.

How green is green?

Walmsley, Bryony

There is an urgent need to conduct full, objective life cycle assessments of our energy projects to determine how green they really are throughout the whole supply chain.

The digital edge: Transforming responsible development

Wright, Nigel H.

The oil and gas industry is reinventing itself through digital data for delivering renewable energy, better performance, and safeguarding the environment.

Securing socio-economic development through unorthodox impact assessment

Thursday 2 May | 09:00-10:30 | P3&P4

Panel Discussion

Chair(s): Timothy Hart

This panel will explore non-orthodox ways to mobilize impact assessment with the purpose of securing socio-economic development outcomes. Discussion themes include:

- Should IA be a sub-discipline of development management?
- Is engagement too narrow?
- Including managers and development partners
- IA as a full project cycle management tool

International development and IA: Bridging the gap

Ellis, Jeanne

Examines the intersection between impact assessment and international development programs and how these programs are tailoring IA practices to achieve sustainable development goals.

Protocol for environmental assessments

Stroebel, Kelly

Using the knowledge gained from the SNSDP, a protocol will be developed for aiding disadvantaged communities with obtaining environmental authorization for their projects that can be used globally.

Impact assessment and Sustainable Development Goals

Thursday 2 May | 09:00-10:30 | P1&P2

Panel Discussion

Chair(s): Maria Partidário, Rob Verheem

Impact assessment, in its various forms, is relevant in enabling the 2030 agenda. What are possible forms of action to make the SDGs more clear in IA practice, without losing IA effectiveness? How can a focus on SDGs improve inclusiveness of stakeholders and inter-connectivity of environmental and social themes in IA?

Comparison of SDGs and IA

Jenkins, Bryan

Coverage and concepts of IA and Sustainable Development Goals (SDGs) are compared. IA coverage is increasing but SDGs are broader and involve proactive achievement of outcomes rather than reactive assessment of effects as in IA.

Addressing the SDGs—One farmer at a time

Walmsley, Bryony; Musonda, Antonia

You don't need huge amounts of money, institutional capacity, or complex legislation to contribute to the Sustainable Development Goals (SDGs.) See how one small organization is helping Zambian farmer achieve the SDGs.

ADDRESSING THE ONGOING CHALLENGES OF IMPACT ASSESSMENT: IS EVOLUTION OR REVOLUTION THE ANSWER?

Meeting the marine biodiversity challenge

Monday 29 April | 15:00-16:30 | P9

Panel Discussion

Chair(s): Neil Cousins

Addressing marine biodiversity impacts is often considered to be a challenge. Issues relate to complexity, but also accepted processes and their interpretation. Good outcomes are also often constrained by accepted paradigms. This session will identify issues, demonstrate where solutions can be found, and importantly, set an agenda for improvement.

Panelists

Dupont, Jennifer

Environment & Regulatory Supervisor at ExxonMobil

Carter, Robin

Lwandle Technologies (Pty) Ltd., South Africa

Marsh, David

Independent consultant (Australia)

Fletcher, Claire

The Biodiversity Consultancy

Victurine, Ray

WCS's Business and Conservation Program

Shumway, Nicki

The University of Queensland

Hits of the 1990s: From revolution to evolution?

Monday 29 April | 15:00-16:30 | P1&P2

Debate

Chair(s): Jos Arts, Francois Retief

In this session we discuss critical lessons from when IA was perhaps going from revolution to evolution(?). Share with us what you consider to be key wisdom from IA publications in the 1990s. What were the main debates, trends, concepts, cases, professionals and publications? What are lessons for today's IA?

IA in New Zealand: Lessons and strategies to enhance practice

Monday 29 April | 15:00-16:30 | P10

Workshop

Chair(s): Richard Morgan, Dyanna Jolly

With increasing pressure on the NZ environment, what can we learn from IA practice at project and strategic level to improve future practice and achieve sustainable management of natural and physical resources?

Overview of IA in NZ/Aotearoa

Morgan, Richard

Richard Morgan (Univ of Otago, NZ): The wider picture of IA practice in NZ, from project to policy levels, old habits, and new opportunities.

Changing frameworks, changing practice?

Rennie, Hamish

Assoc Prof Hamish Rennie (Lincoln University, NZ): A hearings commissioner and academic, with a particular interest in the regulatory frameworks

that shape EIA practice in New Zealand's planning processes.

Ecological impact assessment in New Zealand

Boothroyd, Ian

Dr Ian Boothroyd (Boffa Miskell Ltd., NZ): A hearings commissioner and consultant, with an interest in the evolving approach to ecological impact assessment and ecological mitigation in NZ.

Cultural impact assessment in NZ/Aotearoa

Jolly, Dyanna

Dyanna Jolly (PhD Candidate, University of Otago): A cultural impact assessment practitioner interested in how the Treaty of Waitangi shapes impact assessment in New Zealand.

Can the ecosystem service concept improve the outcome for impact assessment?

Monday 29 April | 15:00-16:30 | B1

Workshop

Chair(s): Martina Girvan, Ed Cooper

A session for impact assessment practitioners, stakeholder specialists, designers and those interested in integrating the concept of Ecosystem Service Assessment into their Impact Assessments. Case studies will be presented with a discussion around the challenges and benefits of incorporating and standardizing the approach.

Beyond impact assessment results: Soto Norte

Amaya, Andres; Ruiz, Mónica

Incorporating ecosystem service assessment results in a positive outcome IA at Soto Norte. In-depth understanding of relationships between social and environmental aspects results in robust management.

Can ESIA enforce payment for ecosystem services?

Buhanga, Edgar

Highlighting Uganda Wildlife Authority's experiences in implementing payment for ecosystem services and seeking experiences from elsewhere on whether the ESIA can be used to enforce payment for ecosystem services.

Increasing accuracy of species distribution model

Chung, Hye In

Suggesting a new methodology for increasing accuracy of species distribution model, focusing on both presence/absence accuracy.

Ecosystem IA of built infrastructure monetization and metrics

Girvan, Martina

Early planning in impact assessment in Canada and other countries

Monday 29 April | 15:00-16:30 | P6

Panel Discussion

Chair(s): Lisa Walls

The session will focus on the importance of early planning to impact assessment. Panelists will present perspectives from Canada and other countries and discuss components of early planning including meaningful public engagement, partnership with Indigenous Peoples, and cooperation with jurisdictions.

Indigenous knowledge meets Western science

Perritt, Jessica; Mayhew, Melissa

Early planning for the long-term management of Canada's used fuel benefits from interweaving Indigenous Knowledge with western science. We describe operationalizing NWMO's Indigenous Knowledge policy.

Stakeholder engagement in IA: Time for a revolution

Wilkinson, Lachlan

Engaging stakeholders during the regulatory IA process is too late—it needs to happen during early project planning and focus on the environmental/social outcomes that a project should achieve.

The role of the regulator in early engagement

Craven, Paul

Early planning phases as part of the formal EA process are increasingly being demanded by the public in Canada. The presentation will discuss their objective and the role the regulator should play.

Evolutionary and revolutionary approaches to early decision making

Gronow, Claire

EIA procedure neither prompts nor rewards proponents to incorporate environmental considerations into early decisions. Suggestions are made for evolutionary and revolutionary changes to address this.

Opportunities and challenges of the World Bank's new Environmental & Social Framework (ESF)

Leonard, Peter

The World Bank ESF became effective 1 October 2018. The presentation will discuss how the ESF should enhance project outcomes and the challenges in doing so.

Impact assessment the Australian way(s)

Tuesday 30 April | 11:00-12:30 | P1&P2

Workshop

Chair(s): Geoff Ralphs, Helen Murphy, Rob Piccinin

How is impact assessment working in practice in Australia? What is going well and what could be better? If you work in IA anywhere in Australia, come and help explore the priority evolutionary or revolutionary improvements for the system(s) that you work with and know best.

IA the Western Australian way

Jones, Megan

This presentation will provide a synopsis of the current practices of the Western Australian IA system.

Concurrent sessions

Summary of mining EIA in South Australia

Zeman, Nathan; Marshall, Andrew; Querzoli, Andrew

This paper and presentation will provide a brief overview and summary of mining EIA in South Australia.

Impact assessment in the Australia way(s)

Munday, Jane

The view from the top: regulatory reform and fracking challenges in the Northern Territory.

Review of EIA in NSW Australia

van den Honert, Erica

The New South Wales (NSW) Department of Planning and Environment is undertaking a project to review and improve EIA.

Impact assessment the Victorian way

Ralphs, Geoff

Victorian EIA is a paradox. Underpinned by seemingly out-of-date legislation with limited statutory parameters, the system implemented is modern and adaptable, but with room for improvement.

Evolving and emerging IA challenges

Tuesday 30 April | 11:00-12:30 | P8

Paper Session

Chair(s): Aaron Goldschmidt

As technology and social shifts propel emerging concepts, IA must evolve ahead of these actions. From cannabis permitting, cultivation, and transport to privatization of space transport, IA is evolving. Case studies requested to share evolving IA experience with emerging issues, including IA approaches unique to one or common to all.

To infinity and beyond where no IA has gone before

Scott-Brown, Miles; Quintero, Juan

Come join us where no IA has gone before! We examine four emerging areas of IA practice and how you can get ready for them before it is too late!

How law has (had) to change to effect evolution

Van Reenen, Amanda

This discussion focusses on how South African environmental laws needed to be (and still need to be) amended to ensure impact assessment keeps up with development needs and trends.

Using protocols to strengthen biodiversity

Bahindwa, Abigail

The South African National Biodiversity Institute is supporting the National Department of Environmental Affairs in developing biodiversity protocols, which aim to ensure a consistent method is applied in assessing impacts in biodiversity sensitive areas.

The project itself or the impact assessment process

Reifschneider, Natasha

As IA practitioners, do we have a responsibility to assess not only the impacts of the project on communities, but the impact of the impact assessment process?

Integrating biodiversity & ecosystem services into the mitigation hierarchy (I)

Tuesday 30 April | 11:00-12:30 | P9

Paper Session

Chair(s): Laura Sonter, Luis Sánchez

IAIA Section: Biodiversity & Ecology

The mitigation hierarchy is used to achieve no-net-loss of biodiversity; however, it is also now applied to ecosystem services – nature's contributions to people. Our session explores the consequences of integrating ecosystem services into the mitigation hierarchy, and asks what is needed to improve outcomes for biodiversity and human wellbeing.

Review of biodiversity mitigation measures

Kamijo, Tetsuya

The study explains the review results of biodiversity mitigation measures and proposes to activate alternatives by application of no net loss policy and a wise use of ecosystem services.

SEA for biodiversity: The Australian experience

Gutierrez, Marco

We examine how biodiversity and ecosystem services have been considered in SEAs in Australia and present a preliminary framework for evaluating SEA practice in relation to conservation.

Mitigation measures for wildlife in Chile: Example

Perez, Cristian

This research analyzes mitigation measures implemented for biodiversity in Chile that have been sanctioned by the enforcement agency as a way to understand their relationship with the EIA process.

Integration of conservation planning and the mitigation systems

Grantham, Hedley

The importance of biodiversity assessment and planning process for designing mitigation systems.

Integrating biodiversity & ecosystem services into the mitigation hierarchy (II)

Tuesday 30 April | 14:30-16:00 | P9

Paper Session

Chair(s): Laura Sonter, Luis Sánchez

IAIA Section: Biodiversity & Ecology

The mitigation hierarchy is used to achieve no-net-loss of biodiversity; however, it is also now applied to ecosystem services – nature's contributions to people. Our session explores the consequences of integrating ecosystem services into the mitigation hierarchy, and asks what is needed to improve outcomes for biodiversity and human wellbeing.

Choosing prevention or cure when mitigating biodiversity

Bull, Joseph; Milner-Gulland, E.J.

When mitigating the biodiversity impacts of economic development, a crucial yet overlooked issue is how much impacts can be avoided (instead of offset). We explore that here.

Integrated offsets approach

O'Donnell, Nikki; Lowe, Angela

Case study examining the necessity of incorporating ecosystem services into biodiversity offsets programs.

Pluralism and deliberation in offsetting: Lessons

Quétier, Fabien

Through Archipel, multiple interests and values are embedded into offset design and implementation through deliberative governance structures put in place to regulate rural land markets.

Including cultural values into biodiversity NNL

Griffiths, Victoria; Baker, Joseph; Milner-Gulland, E.J.

Biodiversity offsets should not make people worse off. However, there is a lack of empirical research on including cultural ecosystem services into the mitigation hierarchy and the offsetting process.

Las Bambas efforts to protect highland wetlands

Valencia, Claudia; Cano, Noema

Las Bambas has made numerous efforts to protect its local biodiversity, including a mitigation and compensation program for highland wetlands - fragile ecosystems that offer many ecosystem services.

Harnessing offsets to achieve conservation goals

Wednesday 1 May | 11:00-12:30 | B2

Paper Session

Chair(s): Jeremy Simmonds, Martine Maron

Compensatory actions, like biodiversity offsets, are required where projects have residual impacts. Yet, there is little clarity on how compensation contributes to broader conservation objectives. In this session, we aim to show how compensation can be harnessed to promote desirable outcomes for biodiversity and stakeholders.

From biodiversity offsets to target-based compensatory actions

Simmonds, Jeremy

Overview of a framework that links compensation for project-level impacts to biodiversity, with the achievement of broader conservation goals.

Compensation to meet biodiversity targets in South Africa

von Hase, Amrei

South Africa provides a useful example of a mitigation and compensation approach that is directly linked to the country's overarching biodiversity targets and desired conservation outcomes.

Offsets as a means to achieve No Net Loss of biodiversity

Costa, Hugo Miguel; Rainey, Amrei; Quétier, Fabien

The biodiversity offset mechanism being developed for Mozambique seeks to align the national Environmental Impact Assessment framework with international best practice and the country's targets.

How do different compensation approaches contribute to conservation goals?

Sonter, Laura

A typology of compensation approaches and, using a suite of case studies, an illustration of their varying impact on biodiversity, ecosystem services, and project costs.

Challenges of moving to target-based mitigation

Quétier, Fabien

Using examples from Africa, Europe, and elsewhere, we discuss the challenge of embedding the mitigation hierarchy into conservation: protected areas, species action plans, etc.

Impact assessment is a blunt tool for biodiversity: Yes or no?

Wednesday 1 May | 11:00-12:30 | P7

Debate

Chair(s): Robin Mitchell

IA is widely promoted as a tool to safeguard biodiversity in development but meanwhile much of the world's biodiversity continues to slide towards extinction. Maybe we should think again and find better methods. This session will debate whether IA is a good tool for safeguarding biodiversity or not and if not, how it needs to change.

No: Boothroyd, Ian

Yes: Quintero, Juan

Biodiversity in IA: Different shades of grey

Rajvanshi, Asha; Mathur, Vinod B.

This debate must acknowledge that there are shades of grey between the bold black and white when it comes to recognizing the imprint of IA on biodiversity.

Social closure and decommissioning lessons from experience and future trends

Wednesday 1 May | 11:00-12:30 | P1&P2

Panel Discussion

Chair(s): Katharine Gotto Walton, Roger Coupal

This panel session focuses on extractive and major facility social closure planning with the panelists and participants seeking to: 1. Identify emerging trends in social closure planning; 2. Consolidate practical lessons about social issues in a closure process; 3. Consider potential significant implications for future social closure planning.

Diversify or die

Esteves, Ana Maria; Johnston, Caroline

This case study of Neves Corvo (Lundin Mining) will reflect on efforts to reduce post-closure impacts through economic diversification initiatives and will highlight implications for closure planning.

Collaboration between engineers and environmental practitioners (I)

Wednesday 1 May | 11:00-12:30 | M1

Paper Session

Chair(s): Jacqui Hex, Adriaan Oosthuizen

Has the industry evolved and embraced the concept of engineers being part of the environmental team? How can having engineering expertise from the onset of the EIA enhance the benefits of the project? Can we move from the resource to waste mindset towards a waste to resource approach through collaborative cradle to grave thinking?

Engineers and environmentalists:

Closer than we think

Strickland, Luke; Storey, Fran

This paper challenges the perspective that engineers are an obstacle in environmental assessment and proposes that engineers and environmental practitioners have much in common.

Environmental design criteria for project design

Catchpole, Simon

The environmental criteria for project design are specifications based on an aspects analysis, followed by the application of defensible rules according to regulations, guidelines, and best practice.

Environmental assessment for long-term infrastructure

van Eck, Gosewien

Aging infrastructure is a challenge from an engineering perspective but also as a driver for sustainable redevelopment. How is environmental assessment included in this approach?

IUFMP experience in environmental management

Ojo, Adeolu; Adesina, Evelyn

This paper presents an overview of collaboration between engineers and environmental/social practitioners to achieve optimal results in flood alleviation projects in Ibadan, Oyo State, Nigeria.

Underground closure risk assessments

Oosthuizen, Adriaan; Hex, Jacqui

A quantitative closure risk assessment is carried out by engineers and environmental practitioners to determine the risks of not achieving closure as well as the associated mitigation measures and costs.

Let's talk about this: Evolution or revolution for IA (I)

Wednesday 1 May | 11:00-12:30 | M2

Paper Session

Chair(s): Garry Middle, Galina Williams, Lachlan Wilkinson

This conference asks, "Is the future of IA evolution or revolution?" Presenters will answer: are you an IA evolutionist or revolutionist? What two changes to IA would you make? The session discussions will seek your views. At the end, we will try to pull all the arguments together.

Impact assessment: A whale in a cup or Nemo in a spa

Sanda, Ahmed

How dynamic are IA's aspirations, expectations, and tools with reference to facts, fiction, and tales? What has it achieved and what can it achieve in light of hearsay and politics?

Reinvigorating IA through complexity theory

Murphy, Chris

The narrow legal framework of analysis of IA has resulted in calls for a revolution. However, administering IA as a complex non-linear system unlocks significant opportunities for IA to evolve.

Early lessons from the UN Environment's initiatives

Yi, Yunae

The presentation will demonstrate cases of linking impact assessment to the achievements of the SDGs. While in early stages, there are efforts to lay the ground toward the SDGs.

Interrelationships of environmental assessment and industrial ecology

Aschemann, Ralf

This paper identifies potential synergies between two key tools from different fields—Environmental Impact Assessment and Life Cycle Assessment—in order to explore the benefits of this approach.

Evolution or revolution for IA in Thai context?

Chanchitpricha, Chaunjit; Bond, Alan

The IA system in Thailand is evolving, and it requires attention to make it work. This paper discusses what kind of changes are still required.

Without health there is nothing: Health impact achievements in Asia

Wednesday 1 May | 14:30-16:00 | B1

Caravan

Chair(s): Emma Marsden, Filipe Silva

HIA initiatives in Asia: HIA within ADB's safeguards, countries' legislations, the HIA Network Asia-Pacific, the regional HIA framework for Special Economic Zones, and strengthening capacity on HIA for DFIs, countries and proponents working on or looking to strengthening HIA or Health in EIA elsewhere.

Asian Development Bank: The business case for health impact assessment (HIA)

Marsden, Emma; Roth, Bruce; Suga, Michiko

ADB strengthened health impact assessment (HIA) over the last 3 years, developing capacity in member countries, supporting policy and guideline development, and undertaking HIA demonstration projects

Advancing health impact assessment in Lao PDR

Fengthong, Tayphasavanh; Sinsamphanh, Filipe;

Shandro, Janis

Lao PDR has been an early and successful adopter of HIA. Recent HIA policy and practice achievements under ADB stewardship and priorities for further improvement will be presented.

HIA case studies and transboundary health issues

Silva, Filipe; Roth, Gene; Shandro, Janis

HIAs were undertaken on pilot projects from key infrastructure sectors to inform the institutional evidence base. Challenges, priorities, and key issues are presented.

Toward the establishment of the HIA Network Asia

Brown, Helen; Peralta, Susann

The HIA Network Asia Pacific aims to enhance health and equity outcomes from development in Asia and the Pacific and is an integral part of HIA capacity building.

HIA for economic zones in the Greater Mekong Subregion

Shandro, Janis; Peralta, Susann

There are over 500 industrial zones across the Greater Mekong Subregion. This HIA framework has been developed to identify, mitigate, and manage health risks and impacts.

Concurrent sessions

Hazardous material management in Thilawa special economic zone (SEZ)

Peralta, Gene; Wynn, Min; Pho, Pyi Pyi; Shandro, Janis; Roth, Susann

The Thilawa Special Economic Zone is the first operational SEZ in Myanmar and one of the largest industrial development. It has adopted aspects of health impact assessment as a risk management tool.

Thai experiences on health impact assessment (HIA) from policy to practice

Rodsawad, Jittima; Charoensuk, Panita

This paper describes Thailand's comprehensive HIA system that evolved in the last 10 years. Thailand has a unique situation on HIA since it is specified in their Constitution.

Collaboration between engineers and environmental practitioners (II)

Wednesday 1 May | 14:30-16:00 | M1

Paper Session

Chair(s): Jacqui Hex, Adriaan Oosthuizen

Has the industry evolved and embraced the concept of engineers being part of the environmental team? How can having engineering expertise from the onset of the EIA enhance the benefits of the project? Can we move from the resource to waste mindset towards a waste to resource approach through collaborative cradle to grave thinking?

Factors for siting a used nuclear fuel facility

Mayhew, Melissa; Evans, Matt

Benefits and challenges of identifying a site for a used nuclear fuel facility when engineering constraints, bio-physical factors, and social considerations are integrated early in project planning.

Reducing the environmental footprint for PNG LNG

McDowell, Julie

Learn how the PNG LNG Project ensured effective collaboration between engineers and environmental and socio-economic practitioners and systematically applied the ESHIA principles at all levels of work.

Enabling collaboration using BIM and GIS tools

Storey, Fran; Strickland, Adam; Skinner, Ben; Mair, Laura; Montgomery, James

This paper explores opportunities to use building information modeling (BIM) and geographic information systems (GIS) to ensure better information exchange between environmental and engineering teams, achieving better outcomes.

Let's talk about this: Evolution or revolution for IA (II)

Wednesday 1 May | 14:30-16:00 | M2

Paper Session

Chair(s): Garry Middle, Galina Williams, Lachlan Wilkinson

This conference asks, "Is the future of IA evolution or revolution?" Presenters will answer: are you an IA evolutionist or revolutionist? What two changes to IA would you make? The session discussions will seek your views. At the end, we will try to pull all the arguments together.

Being agile: Evolving IA in a changing world

Sutton, Anthony; Morrison-Saunders, Angus

Recent Western Australian innovations in evolving environmental impact assessment procedures and practice for increasing agility in a rapidly changing world are showcased in this paper.

IA evolution or revolution? It depends on whom you ask

Jones, Megan

This presentation considers how an understanding of stakeholder expectations has the potential to assist in determining whether evolution or revolution is the best way forward for future IA practice.

Environmental impact statements in Queensland

Rowland, Philip; Ahern, Kathleen

Challenges faced in EIS assessment of large resource projects in Queensland, Australia, to develop the innovative changes required to keep the EIS process relevant and effective for all stakeholders.

Are offsets in Australia fit enough to survive?

Francis, David; Hooper, Tracey

We address the evolution of Australian offset frameworks, their effectiveness in addressing environmental harm, and the future evolution of meaningful metrics for genuine ecological outcomes.

Integrating the net gain goal in the EIA process

Coroi, Mihai; Kirby, Alan

Why and how no net loss and net gain goals should be integrated early in the EIA process with an example of biodiversity net gain approach on a large infrastructure project in the UK.

Capacity building for HIA and for health in IA

Wednesday 1 May | 16:30-18:00 | P10

Paper Session

Chair(s): Ben Cave, Thomas Fischer

Capacity for assessing health is not evolving even though its importance is recognized. Is there tension between the imperatives of capacity-building for the health sector and for engagement across sectors? We invite presentations on capacity-building initiatives. The session will build towards a strategy for global capacity for health in IA.

Health capacity in EA: Reflections on a case study

Yehia, Jade; Shandro, Michael

My findings show that the social determinants of health were not factored into the EA as per HIA guidance. I provide suggestions for improving capacity in the health sector and beyond.

Audit of HIAs undertaken on health sector proposal

Harris-Roxas, Ben

Despite being promoted intersectorally, HIA's use in the health sector remains limited. This audit describes HIAs conducted and suggests ways to enhance reporting and capacity building.

More than a classroom: Training and capacity building

Green, Liz

This paper outlines the new Training and Capacity Building Strategy for HIA in Wales and the associated Knowledge and Skills Framework, which includes a breakdown of the roles played in HIA.

HIA capacity building initiative in Brazil

Winkler, Mirko

To support the promotion of HIA of large capital projects in Brazil, a 3-year HIA capacity building initiative was implemented, involving many institutions and sectors from all over the country.

Combining EIA and HIA: An Austrian case study

Aschemann, Ralf; Fuchs-Neuhold, Kathrin; Amort, Frank; Bauer, Lisa

This case study deals with the combination of an EIA and an HIA for the transport sector in Austria and shows, and how these tools can support and supplement each other.

Collaboration between engineers and environmental practitioners (III)

Wednesday 1 May | 16:30-18:00 | M1

Paper Session

Chair(s): Jacqui Hex, Adriaan Oosthuizen

Has the industry evolved and embraced the concept of engineers being part of the environmental team? How can having engineering expertise from the onset of the EIA enhance the benefits of the project? Can we move from the resource to waste mindset towards a waste to resource approach through collaborative cradle to grave thinking?

In the war room: Soto Norte mining project experience

Amaya, Andres; Palacio, Mónica; Ruiz, Yaddy

Project design or IA: which is first? The art of collaboration, balance, and feasible outcome in the Soto Norte Mining project. Applying single-team common-view model within a war room.

IA of a hydroelectric, waste rock and tailing storage facility

Haywood, Marissa; Hall, Michael; Moriarty, Daniel

The Frieda River Copper-Gold Project proposes an innovative engineering solution: an integrated storage facility for waste rock and tailings storage and generation of hydroelectric power.

Eco-shoreline design for ecological impact mitigation

Gallacher, David

This presentation describes the development of an innovative eco-shoreline design to mitigate marine ecological impacts associated with land reclamation, including a discussion of multi-disciplinary process to achieve cost-effective solutions.

Predictive opencast mine rehabilitation

Oosthuizen, Adriaan; Hex, Jacqui

A predictive opencast rehabilitation design is carried out by engineers and environmental practitioners to determine a mine's final end state for closure costing and planning purposes.

Let's talk about this: Evolution or revolution for IA (III)

Wednesday 1 May | 16:30-18:00 | M2

Paper Session

Chair(s): Garry Middle, Galina Williams, Lachlan Wilkinson

This conference asks, "Is the future of IA evolution or revolution?" Presenters will answer: are you an IA evolutionist or revolutionist? What two changes to IA would you make? The session discussions will seek your views. At the end, we will try to pull all the arguments together.

Outcome-based management for sustainability

Jenkins, Bryan

Outcome-based management is compared with effects-based management. Outcome-based management is needed to achieve sustainable development rather than the current reliance on effects-based approaches.

Professional ethics, impact assessment and blind science

Chenoweth, Alan; McAuliffe, Darryl

IA practitioners and community trust in IA would benefit from specific ethical guidelines, including bias reduction principles similar to expert witness or "blind" science trials.

Can SEA have a word in sustainability transitions?

Partidário, Maria; Monteiro, Margarida

This paper suggests that strategic thinking SEA can be instrumental in creating enabling conditions for transition initiatives to drive transformative change.

Indigenous rights, land values, and cumulative effects

Thursday 2 May | 11:00-12:30 | P1&P2

Paper Session

Chair(s): Gillian Gregory, Rachel Olson

Uncertainty remains in how to best account for and evaluate impacts to indigenous and rural rights in cumulative effects assessment. Given ongoing industrial development, and growing pressure to reduce inequalities and increase sustainability, alternative methods are needed. What challenges or opportunities can we identify from global case studies?

Indigenous participation in cumulative IA

Gregory, Gillian; Olson, Knut

Indigenous knowledges are critical in cumulative impacts assessment. Drawing on Canadian case studies, we demonstrate that greater participation by indigenous groups in CIA is key to improving impact assessment governance.

A revolutionary approach to social and intercultural integration opportunities

Thibault, Diane

Illustrating the opportunities and challenges of state-owned hydroelectric projects on indigenous Cree traditional land. An example of how social and intercultural integration can be a viable outcome.

Past, present and future social impacts at Ranger uranium mine

Crispin, Christine; Boele, Richard

A reflection on SIA over four decades at the Ranger uranium mine and the important early work of two (revolutionary?) Australian scholars, Richard Howitt and Helen Ross.

The recent reform of federal EA law in Canada: Evolution or revolution? (I)

Thursday 2 May | 11:00-12:30 | P11

Paper Session

Chair(s): John Sinclair, Meinhard Doelle

The session will include an overview of the new Canadian IA process and short panel presentations about key IA issues related to the law in order to encourage an open sharing of ideas regarding the reforms that have been put in place and any needed regulations, policy and guidance.

Proposed IA process: From revolution to reality

Walls, Lisa

This presentation will highlight key implementation measures that would be needed should the proposed Impact Assessment Act be passed into law.

Implementing sustainability in Canada's new IA Act

Johnston, Anna

Canada's new Impact Assessment Act introduces a sustainability model to federal assessment. How does the Act stack up to leading thinking, and what further regulatory and policy reforms are needed?

Significance in IA in Canada under Canada's proposed IA Act

Ross, Bill

The new Canadian Impact Assessment Act has virtually done away with the word "significance." This presentation will examine the change and suggest how to make the new act work in spite of the loss.

Integration of cumulative effects, regional and strategic assessment

Blakley, Jill

Observations are offered on the incorporation of cumulative effects, regional, and strategic assessment into the reformed Canadian federal IA process.

Bill C-69: Hang out a shingle for HIA (r)evolution

McGetrick, Jennifer Ann; Nykiforuk, Matthew

Bill C-69 is an evolution of polycentric governance for health impact assessments in theory, requiring revolution among academic, government, and private sector interests to achieve HIA in practice.

From discretion to sound decision making

Doelle, Meinhard

This paper will consider the role of discretion, decision-making criteria and the appropriate allocation of decision-making responsibilities in the implementation of the Impact Assessment Act's (IAA) assessment process.

Evolution of ESIA practice in Asia-Pacific developing economies (I)

Thursday 2 May | 11:00-12:30 | B2

Paper Session

Chair(s): Emma Waterhouse, Tara Halliday

When many ESIA regimes around the world are focused on increasingly sophisticated approaches, this session will look at the evolution of ESIA in developing economies of the Pacific and SE Asia, with participants gaining an understanding of the different responses to economic, social and environmental pressures and potential impacts.

Key influences shaping Asia-Pacific ESIA practice

Waterhouse, Emma

Regulatory frameworks and ESIA practice have evolved differently in Asia-Pacific developing countries, often linked to rapid expansion of extractive industries and international investment.

Gearing impact assessments to financing mechanisms

Haymon, Kirsty

Investors often require ESIA's with a broader scope than what is needed for regulatory approvals. Drawing on examples in Southeast Asia, recommendations for improvements to scoping will be provided.

Serving multiple regimes: Reflection on the gaps

Semmel, Andrew; Mitchell, Lucy

This presentation will discuss and share experiences in Indonesia on the gaps and synergies between impact assessments for national regulations and international lender requirements.

Determinants of the EIA report quality

Kamijo, Tetsuya

Alternatives and public involvement could be the determinants of the EIA report quality and their linkage could increase the report quality.

Incorporation of environmental justice in the Korean EIA system

Lee, Sangyun

Since environmental justice is one of the important components in EIA, this presentation diagnoses whether environmental justice can be incorporated in the Korean EIA system.

Concurrent sessions

ESIA leadership: The role of an ESIA coordinator

Thursday 2 May | 14:30-16:00 | P9

Paper Session

Chair(s): Ross Marshall, Claire Gronow

Viva la revolution! ESIA coordinators are the assigned leaders responsible for ensuring that IA is undertaken effectively and efficiently. Their role and influence are broader than just project management and EIS delivery. This session explores the role and how effective ESIA coordinators are at increasing the impact of IA.

Early experience as an EIA coordinator

Chisholm, Amanda

Experience as an EIA coordinator in the late 1990s was challenging but rewarding. Did it assist EIA effectiveness?

Effective impact assessment scoping

Sinclair, Belinda

A presentation on achieving efficient, proportionate, and meaningful impact assessment through effective scoping without losing the integrity of the process.

The ESIA that went wrong: Seven habits of highly effective ESIA coordinators

Scott-Brown, Miles; Baranao, Pablo

Come listen to the two inspirational EIA speakers present the Seven Habits of Highly Effective ESIA Coordinators and how you can avoid the ESIA that went wrong!

Evolution of ESIA practice in Asia-Pacific developing economies (II)

Thursday 2 May | 14:30-16:00 | B2

Paper Session

Chair(s): Emma Waterhouse, Tara Halliday

When many ESIA regimes around the world are focused on increasingly sophisticated approaches, this session will look at the evolution of ESIA in developing economies of the Pacific and SE Asia, with participants gaining an understanding of the different responses to economic, social and environmental pressures and potential impacts.

Progression of EIA guidelines in the Philippines

Frayna, Celeste

New EIA guidelines were recently imposed in the Philippines which aim to incorporate best practice principles and standardize procedures of public participation in all stages of the EIA process.

Reforming EIA system: What should Indonesia do?

Kurniawan, Ali Rahmat; Murayama, Shigeo

Evolution of Indonesia's EIA is first described, including a historical overview and the latest regulation. This analysis resulted in a set of actions for improving implementation effectiveness of EIA.

Improving PNG's regulatory requirements for LNG

Yasi, Nicole

PNG LNG project helping PNG's Conservation and Environmental Protection Authority (CEPA) make adjustments to permit requirements that are world and industry standard.

Global and local perspectives on ESIA practice

Ash, Jillian

This paper explores global and local perspectives on ESIA practice of proposed nickel projects in the Solomon Islands to broaden understanding on the disparity in ESIA policy and practice.

CLIMATE CHANGE IMPACT ASSESSMENT: BEYOND ADAPTATION OR MITIGATION?

How to integrate climate change into impact assessment: Tools and approaches

Wednesday 1 May | 11:00-12:30 | P8

Paper Session

Chair(s): Jill Baker

It is a daunting challenge to consider climate change in impact assessments given the complexity of climate science and abundance of climate information. This session will provide insights into the latest models, scenarios, adaptation, and mitigation approaches, with a view of improving how to effectively integrate climate change into assessments.

Development of integrated model ("MOTIVE")

Song, Young-Il; Jung, Hyeokgyun

Development of integrated impact assessment models (Model Of inTegrated Impact and Vulnerability Evaluation (MOTIVE)) for climate change risks, including agriculture, will be presented.

Global-scale analysis of climate change impact on global vegetation trends

Lamchin, Munkhnasan; Lee, Woo Kyun

Regarding temperature during the last 33 years, hot-spot areas and the largest temperature increases were found in the Amazon, Central America, southern Greenland, east Africa, and southeast Asia.

Using climate scenarios for impact assessments

Roy, Rene; Charron, Isabelle

We are addressing some of the challenges practitioners of IA and adaptation to climate change often face in using climate information, helping to guide their use into IA practices.

Integrating climate change mitigation into EIA

Wiesner, Barry

How to integrate climate change mitigation measures, as opposed to adaptation measures, into project-specific EIA, specifically, the use of carbon footprint assessment in the EIA process.

IAIA's climate change and impact assessment next steps

Thursday 2 May | 11:00-12:30 | P6

Roundtable

Chair(s): Weston Fisher, Kin Che Lam, Shirley Lee, Arend Kolhof, Ana Maria Quintero, Peter Croal

How are IAIA and IA practitioners responding to changes to climate policy and impact assessment political challenges related to the recommendations outlined in the Paris Agreement on climate change? We review actions taken by IAIA and identify other actions we might take as IA practitioners to reduce carbon emissions and mitigate climate impacts.

CONTROVERSIAL TOPICS IN IA: THE ISSUES IN IA THAT HAVE BEEN AVOIDED

SIA: How early is too early?

Thursday 2 May | 11:00-12:30 | P3&P4

Panel Discussion

Chair(s): Richard Boele, Deanna Kemp, Richard Parsons,

The way in which stakeholders experience a change depends on the design and implementation of the change. The session wrestles with the tension between waiting to conduct SIA until there is "enough" information, and conducting it early so the results can meaningfully influence the design and implementation process.

Opening a can of worms: SIA as a dialogic process

Parsons, Richard

Conceptualized as a process of dialogue, SIA cannot start too early, since it promotes context-specific co-design of projects, meaningful community participation, and community wellbeing.

Post-construction review: Lessons learned

Sunderland, Chris

Lessons learned from the coal seam gas to liquefied natural gas (LNG) industry highlight the value of earlier assessment and investment when examined against social impacts and missed opportunities in LNG developments globally.

What SIA can learn from Australian-rules football

Marsh, Daniel

The paper works with an analogy of Australian Rules Football and its indigenous origins to explore the opportunities presented in the two cases for being more precise about strategy and tactics in developing a game plan.

Back to the future: Avoiding social impacts

Darby, Sefton; Loxton, Richard

Australian mining case studies highlight SIA as a dynamic, iterative process, with early assessments embracing uncertainty, removing harmful options, and encouraging multidisciplinary conversations.

Shaking up biodiversity offset concepts

Thursday 2 May | 14:30-16:00 | B1

Fishbowl

Chair(s): Guy Williams, Lucie N'Guessan, Ginny King, Jane Mogina

Putting biodiversity offset theories to the test to develop more practical and sustainable solutions. Bring your ideas and experiences to the fishbowl. What works? What has not worked? What could be (re) considered?

Williams, Guy: Offset in industry

King, Ginny: Offsets the concept

N'Guessan, Lucie: Offsets the concept

Mogina, Jane: Offsets and national protected areas networks

CUMULATIVE IMPACT ASSESSMENT: HAVE CUMULATIVE IMPACTS EXCEEDED SUSTAINABLE THRESHOLDS?

The cumulative dimensions of resource regions (I)

Tuesday 30 April | 14:30-16:00 | M2

Paper Session

Chair(s): Daniel Franks, Rauno Sairinen, Susan Joyce

The cumulative impacts of development in resource regions worldwide have placed pressure on regional environments, economies and communities. This session will interrogate the effectiveness of new and traditional impact assessment, management and policy approaches, highlighting examples from Queensland, Australia and around the globe.

Exploring futures of Ayeyarwady basin, Myanmar

Foran, Tira; Grigg, Nicky

Critical reflection on the potential of interdisciplinary strategic assessment techniques to improve on developmental narratives for the Ayeyarwady river basin in Myanmar.

Laws addressing cumulative effects: A broader view

Nelson, Rebecca

Legal responses to cumulative environmental effects (CEEs) are often thought inadequate. Analyzing both EIA and natural resources laws builds a framework of broader legal approaches to addressing CEEs

Multiple pressures on reindeer husbandry in Sápmi

Rosqvist, Ninis Gunhild; Inga, Carl; Fohringer, Christian

We combine traditional knowledge and science data to show the effects of multiple pressures from climate and land use change on reindeer husbandry in northern Sweden.

Social aspects of small deposit mining in Bosnia

Sidorenko, Olga; Sairinen, Rauno

The paper explores how the cumulative impacts can be addressed in small deposit mining in the Balkans.

The cumulative dimensions of resource regions (II)

Tuesday 30 April | 16:30-18:00 | M2

Paper Session

Chair(s): Daniel Franks, Rauno Sairinen, Susan Joyce,

The cumulative impacts of development in resource regions worldwide have placed pressure on regional environments, economies and communities. This session will interrogate the effectiveness of new and traditional impact assessment, management and policy approaches, highlighting examples from Queensland, Australia and around the globe.

Greenhouse gas emissions from offshore oil and gas

Watson, Sarah

Current governance gaps regulating greenhouse gas emissions from offshore oil and gas activities could potentially be addressed by improving EIA processes within Regional Seas Programmes' frameworks.

Cumulative impacts of mega infrastructure projects

Narain, Divya

We examine the role of investor standards in mitigation of cumulative biodiversity impacts of China's Belt and Road Initiative (BRI), a trans-boundary multi-jurisdictional infrastructure mega-project.

Consultation and cumulative impacts in Queensland

Meissner, Katie

Don't mention the other mines: a study of participant experience and cumulative impacts in the consultation process for four proposed coal mining developments in Queensland's Galilee Basin.

Environmental conflicts in Chile and EIA absence

Araya, Gino; Johson, Juan Eduardo

Analysis of the distribution of the main socio-environmental conflicts that occurred in 2018 in Chile and their relation with the facilities of projects without environmental licenses.

Contribution of IA to sustainable hydropower development

Thursday 2 May | 14:30-16:00 | P7

Paper Session

Chair(s): Caroline Aguti, Tom Okurut

Sustainability of hydropower development is premised on use of appropriate impact assessment tools, protocols, best practices and implementation of appropriate mitigation measures in the design, construction and operation. The session will discuss aspects of environmental flows, social impact assessments and livelihood to achieve maximum social acceptance, governance and minimize environmental challenges and share a tool used for gap analysis.

Environmental, social, and governance gap analysis

Clarke, Michael; Khandkar, Zaglul

The Hydropower Sustainability Environmental, Social and Governance Gap Analysis Tool (ESG) enables project proponents to identify and address gaps against international good practice by assessing projects according to environmental, social, and governance criteria.

Impact avoidance in hydropower projects

Beche, Leah; Nathan, Fabien

We propose innovative methods for hydropower impact avoidance in early project stages and examples of their application in design choice and modification.

A practical hydropower project social impact assessment

Hamilton, John

A practical example is provided for undertaking a social impact assessment for the Naoro Brown Hydropower Project in Papua New Guinea in 2017-18 according to IFC and World Bank requirements.

Bureaucratic distortion of impact assessment of hydropower

Pilgrim, John

Impact assessment may be the mechanism for poor governance and misplaced development of livelihoods restoration.

Integrating biodiversity & ecosystem services into the mitigation hierarchy (III)

Tuesday 30 April | 16:30-18:00 | P9

Paper Session

Chair(s): Laura Sonter, Luis Sánchez

IAIA Section: Biodiversity & Ecology

The mitigation hierarchy is used to achieve no-net-loss of biodiversity; however, it is also now applied to ecosystem services – nature's contributions to people. Our session explores the consequences of integrating ecosystem services into the mitigation hierarchy, and asks what is needed to improve outcomes for biodiversity and human wellbeing.

A biodiversity net gain case study in Nevada

Edwards, Stephen; Asante-Owusu, Chris; Gunn, Briana; Anstee, Stuart

This presentation will share key learnings from an external review of the application of the mitigation hierarchy to biodiversity and ecosystem services management for Newmont Mining's operations.

Evaluating the impacts of an environmental offsets

Nkosi, Sabelo B.

How environmental offsets can be considered and managed within spatial planning processes and if that leads to the evolution or revolution of the impact assessment process.

Lessons for mitigating impacts on ecosystem services

Sánchez, Luis

Design of mutually compatible biodiversity- and social-impact mitigation can be enhanced by addressing ecosystem services shows the review of a large iron mining project in Brazil.

IMPROVING QUALITY AND EFFECTIVENESS: DOES THE FOLLOW-UP MATTER?

So much data, so little leveraging: How best to collect, visualize, and share (I)

Wednesday 1 May | 11:00-12:30 | P3&P4

Panel Discussion

Chair(s): Jennifer Dupont

Data, data, everywhere, and some of the folks aware. Data, data, everywhere, nor any info to share.

Biodiversity data sharing: The good, the bad, and the ugly

Williams, Guy

Review of the challenges, limitations, and possible solutions to making private sector biodiversity data openly available.

Setting the scene in EIA

Stypel, Ari

Scoping is an integral step in environmental impact assessment. A review of scope across various projects will be conducted to see if scoping has influenced the size of impact assessments.

Concurrent sessions

PNG terrestrial biodiversity data informs the EIA

Armstrong, Kyle; Richards, Iain; Kale, Enock; Aplin, Ken
In PNG, new electronics-based and genetic terrestrial biodiversity survey tools and semi-automated analysis are leading to more refined knowledge in environmental impact assessment and monitoring.

Drones used to achieve more accurate IA results

Valencia, Claudia; Iburguren, Lucia
Three case studies show how digital tools such as drones and cameras are used to obtain accurate information of sensitive ecosystems and species at different steps of the mitigation hierarchy.

Real-world application of the mitigation hierarchy

Wednesday 1 May | 14:30-16:00 | P1&P2

Workshop
Chair(s): Lucie N'Guessan

Following an introduction of industry good practice guidance and case studies on successes and challenges of the application of the mitigation hierarchy to resettlement and livelihood restoration as well as cultural heritage, the audience will explore opportunities to improve the application of the concept in emerging Pacific island nations.

Mainstreaming the mitigation hierarchy

Palandro, David
Use of the mitigation hierarchy is good practice for managing impacts to biodiversity and ecosystem services. Effectiveness of IAs can be improved by aligning mitigation actions with impacts.

Resettlement and livelihood restoration for PNG LNG

Ivahupa, Sharryl
Lessons learned during resettlement for the PNG LNG project and changes made to improve the process will be shared.

Multiple value systems applied to cultural heritage

Hagoria, Julia
Cultural heritage management can be a challenge in an area known for its cultural and linguistic diversity. Lessons learned from PNG LNG projects will be shared in this paper.

So much data, so little leveraging: How best to collect, visualize, and share (II)

Wednesday 1 May | 14:30-16:00 | P3&P4

Panel Discussion
Chair(s): Jennifer Dupont

Data, data, everywhere, and some of the folks aware. Data, data everywhere, nor any info to share.

An innovative approach to environmental data

Albraki, Omar; Alhammadi, Omar; Tulloch, Megan; Almazrouei, Omran; Hani Abdalla, Saif Dulaimi
The use of sophisticated systems for data collection and management not only enhances the quality of environmental assessment but also reduces the associated costs.

Towards an ESHIA digital expert platform

Jamieson, Andrew
Laying the building blocks for internal ESHIA process enhancements using innovative digital technology. How an international oil company is looking at new ways to collect, consume and leverage data.

Beyond species richness: Applying phylogenetic diversity

Lee, Who-Seung; Sagong, Yong-Joon
Using the method of phylogenetic diversity based on big genetic data, we showed species diversity assessed by phylogenetic diversity is better than species diversity based on arithmetic methods.

LINKS BETWEEN ASSESSMENT, APPROVAL, AND IMPLEMENTATION

Public-private partnerships and the Asian infrastructure gap

Monday 29 April | 15:00-16:30 | B2

Panel discussion
Chair(s): Mark Kunzer

The successful delivery of PPP projects requires effective management of environmental and social issues. This session will provide insight into what is needed to achieve this and what are the common pitfalls.

Environmental planning challenges in the private sector

Gomez, Beatrice
An examination of the constraints and opportunities in environmental planning, including undertaking robust IAs, for private sector-led projects funded by development finance institutions.

Disussions

Scott-Brown, Miles
Leonard, Peter

Transition from EIA to EMS

Tuesday 30 April | 11:00-12:30 | B1

Workshop
Chair(s): Simon Catchpole

A project Environmental Impact Assessment (EIA) can usefully be viewed in the context of the development of that project, and not only as a means to an environmental approval. The session is intended to explore the relationship between an EIA and an Environmental Management System (EMS) for a project operation.

Participants will investigate the process to generate from the environmental and social impact assessment (ESIA) an optimal environmental and social management system (ESMS) for the operating project.

Impact assessment is only good when it is effective (II)

Thursday 2 May | 11:00-12:30 | P10

Paper Session
Chair(s): Ben Cave, Alan Bond

The focus is on IA quality and how it can be improved with a view to delivering substantive effectiveness. We welcome papers which consider innovations in the development and application of quality evaluation methods, and papers which demonstrate system quality. Any submission should be clear on whether evolution or revolution is needed.

A method that can revolutionize impact assessment

Napier, Barton
Tools and guidelines on impact assessment methods are often improperly applied, resulting in inadequate assessment and undesirable outcomes. An alternative method overcomes this challenge.

Continuous improvement in IA at Parks Canada

Cumming, Katherine
Parks Canada's continuous improvement program uses 3 methods annually to evaluate progress and facilitate learning. The program is designed for a national organization using limited resources.

All I ask is a tall ship and a star to steer her by

Burnett, Peter
Good environmental decision making is essential to achieving environmental goals. To play its part, EIA must be guided by plans or decision-rules and supported by comprehensive information systems.

From assessments to execution:

A case of implementation
Seruma, Monicah Elizabeth
The Uganda Roads Authority invests millions of dollars in conducting impact assessments and preparing world-class resettlement action plans. The divide between plans and practice is still wide.

Impact assessment is only good when it is effective (III)

Thursday 2 May | 14:30-16:00 | P10

Paper Session
Chair(s): Ben Cave, Alan Bond

The focus is on IA quality and how it can be improved with a view to delivering substantive effectiveness. We welcome papers which consider innovations in the development and application of quality evaluation methods, and papers which demonstrate system quality. Any submission should be clear on whether evolution or revolution is needed.

The role of environmental assessment (EA) in Iranian water management

Khosravi, Fatemeh
We reflect on the effectiveness of environmental assessment (EA for, e.g., projects, policies, plans, and programs) in Iranian water management.

Assessing sustainable impacts amidst institutional constraint

Imbrogiano, Jean-Pierre; Stemm, Carol J.
We elucidate theoretically and empirically why and how societal institutions impede sustainable changes in business practices and discuss implications for impact assessments.

Effectiveness of EIA as a tool in addressing impacts

Namara, Justine

EIA is a useful tool in decision making for projects, especially in sensitive areas like wildlife protected areas. However, as shared in this paper, sometimes it may not yield results as expected.

PROPOSERS-DRIVEN IA AND ITS ALTERNATIVES: GIVING THOSE WHO EXPERIENCE IMPACT A CENTRAL ROLE IN IA

Impact assessment and the social and cultural effects of mine closure

Monday 29 April | 15:00-16:30 | M1

Paper Session

Chair(s): Ciaran O'Faircheallaigh, Rebecca Lawrence

Mine closure has to date been mainly treated as a technical, environmental or economic issue, with relatively little attention being paid to its social and cultural implications. We invite papers that explore these implications and the role that Impact Assessment can play in identifying, preparing for and managing them.

Social planning for mine closure:

Whose responsibility?

Mandke, Pallavi; Ash, Lauren

SIA as a tool to understand and unlock roles and responsibilities of various stakeholders in managing mine closure impacts and working towards a sustainable and positive legacy.

Mine closure and sustainability in Latin America

Gregory, Gillian

This paper systematically reviews mine closure frameworks in Latin America, demonstrating the need to better integrate the socioeconomic dimensions of mine closure into regional assessment and sustainability.

Mine closure and the Aboriginal estate

Lawrence, Rebecca; O'Faircheallaigh, Ciaran

Mine closure has enormous environmental, social, and cultural impacts for Indigenous Peoples, yet Australian laws and negotiated Aboriginal-industry agreements usually fail to address these issues.

Beyond the mine: Possibilities of a ten-year plan

Crispin, Christine; Boele, Edwina; Murphy-Oates, Shellee

A reflection on the collaborative development of the Granites-Kurra Ten Year Plan for the Newmont Tanami gold mine and how we can improve social outcomes from mine closure.

Orokohanga 2019: Operationalizing the Aashukan Declaration

Monday 29 April | 15:00-16:30 | B3

Workshop (Wānanga)

Chair(s): Kēpa Morgan, Tumanako Ngawhika Faāui

IAIA Section: Indigenous Peoples

The Indigenous Peoples Section organized Aashukan, designed to build bridges between communities and proponents through IA. Orokohanga seeks to build on Aashukan in this second pre-conference event. Panelists will share the collectively evaluated Māori case studies that exemplify the Aashukan Declaration principles.

Identification of worldview bias in the setting of speed limits

Morgan, Kēpa; Manuel, Robyn

Integrating indigenous rights and knowledges into impact assessment (I)

Tuesday 30 April | 11:00-12:30 | P11

Paper Session

Chair(s): Rebecca Lawrence, Jenny Wik

This session explores different ways of doing impact assessment, where impacted indigenous communities, and their rights and knowledges, take center stage. Presentations will explore alternatives to proponent-driven IAs, including community-based IAs, but also the role of media and corporate campaigns, the law, and political protest.

Community-based impact assessment: Sámi community

Fjällås, Anders Erling

This presentation will describe a community-based impact assessment (CBIA) process that was undertaken by the Semisjaur Njarg Sámi reindeer herding community together with researchers.

Reifying rights: Sámi approach to impact assessment

Raitio, Kaisa

Insights from an ongoing project led by an indigenous Sámi community to develop a methodology for cumulative impact assessment regarding Sámi culture, livelihoods, and rights.

Culture and rights-based collaborative methodology

Lepine, Melody

Methodology for assessing potential impacts on the exercise of aboriginal and treaty rights in the context of the proposed Frontier Oil Sands Mine Project.

Integrating indigenous rights and knowledges into impact assessment (II)

Tuesday 30 April | 14:30-16:00 | P11

Paper Session

Chair(s): Rebecca Lawrence, Christina Allard

This session explores different ways of doing impact assessment, where impacted indigenous communities, and their rights and knowledges, take center stage. Presentations will explore alternatives to proponent-driven IAs, including community-based IAs, but also the role of media and corporate campaigns, the law, and political protest.

Proactive indigenous community-based impact assessment

Hinchley, David; Hernandez, Pamela; Boucher, Martin

Shows how the impact of development on social, cultural, and natural values can be simultaneously considered in community-based impact assessment that supports decision-making by Indigenous Peoples.

Kallak: Mineral exploration on indigenous Sámi lands

Vannar, Jonas

How we, as an indigenous reindeer herding community, have used our own GIS-programs and traditional knowledge to describe our land use to stakeholders and governmental decision makers.

How far have we come? CIA in Aotearoa, New Zealand

Jolly, Dyanna; Anderson, Candace

To what extent does cultural impact assessment (CIA) deliver effective influence and appropriate priority to indigenous interests in Aotearoa, New Zealand?

Integrating indigenous rights and knowledges into impact assessment (III)

Tuesday 30 April | 16:30-18:00 | P11

Paper Session

Chair(s): Rebecca Lawrence, Jenny Wik

This session explores different ways of doing impact assessment, where impacted indigenous communities, and their rights and knowledges, take center stage. Presentations will explore alternatives to proponent-driven IAs, including community-based IAs, but also the role of media and corporate campaigns, the law, and political protest.

Where indigenous stewardship and assessment collide

Dertien-Loubert, Kim; Witzke, James

Examining the collision of indigenous stewardship, rights, and impact assessment in the Alberta Oilsands of Canada through conflicting traditional plant harvesting protocols and reclamation approaches.

Health impact assessment for Indigenous Peoples

Shandro, Janis

This presentation highlights a new guideline developed for conducting health impact assessment for Indigenous Peoples in Canada.

Concurrent sessions

Redefining health with a First Nation community

Lewis, Diana

Methodology matters and a new approach to environmental health risk assessment is warranted when assessing impacts of industrial development on the health and well-being of indigenous communities.

Integrating indigenous rights and knowledges into impact assessment (IV)

Wednesday 1 May | 11:00-12:30 | P11

Paper Session

Chair(s): Rebecca Lawrence, Anders-Erling Fjällås

This session explores different ways of doing impact assessment, where impacted indigenous communities, and their rights and knowledges, take center stage. Presentations will explore alternatives to proponent-driven IAs, including community-based IAs, but also the role of media and corporate campaigns, the law, and political protest.

Occluded waters: Cumulative effects of hydropower

Vannar, Jonas

Insights from two retrospective impact assessments of the cumulative effects of hydropower on Sámi reindeer herding communities that identified ways to improve landscape functionality.

Using Sámi knowledge to improve impact assessment

Inga, Niila; Stina Roos, Jan; Seurujärvi, Osmo; Aikio, Esko; Pyykkö, Jarmo

The cumulative effect of mining, infrastructure projects, and tourism together with changes in weather/climate now severely impedes sustainable reindeer herding in Swedish Sápmi. i

Is there room for another generation of reindeer herders in Sápmi?

Vannar, Sanna; Jannok, Janni

This presentation will address the concerns of Sámi youth: shrinking pasture lands for the traditional Sámi livelihood of reindeer herding, and stressful situations for the Sámi youth who want to pursue reindeer husbandry.

Sámi strategies: To collaborate or to protest?

Raitio, Kaisa; Lawrence, Rebecca

Analysis of the diverse ways indigenous Sámi communities have engaged in collaboration and/or protest to respond to increasing exploitation pressure on their traditional lands.

Integrating indigenous rights and knowledges into impact assessment (V)

Wednesday 1 May | 14:30-16:00 | P11

Paper Session

Chair(s): Rebecca Lawrence, Christina Allard

This session explores different ways of doing impact assessment, where impacted indigenous communities, and their rights and knowledges, take center stage. Presentations will explore alternatives to proponent-driven IAs, including community-based IAs, but also the role of media and corporate campaigns, the law, and political protest.

Reindeer husbandry land use as a case study of power relations

Fjällström, Anna-Maria

This presentation will examine what indigenous knowledges and Sámi land use reindeer herding strategies are used and considered legitimate in decisions about extractive industries in northern Sweden.

Evolution: Consultation, collaboration, and consent

Stockman, Fern

The building of a new EA process that implements UNDRIP and supports free, prior, and informed consent. How EAs in British Columbia (Canada) have evolved to embrace this opportunity.

Prequel to impact assessment:

Northern Québec mine

Talec, Pernilla; Kløcker Larsen, Kaisa; Lawrence, Rebecca;

Wik Karlsson, Jenny

In the particular case of the Cree First Nation in Northern Québec, the two parties decided to work collaboratively toward sustainable development.

Integrating indigenous perspectives: Evolution

O'Faircheallaigh, Ciaran; Rosqvist, Pia

Only a radically different approach based on indigenous-controlled assessment of indigenous impacts can ensure integration of indigenous knowledges and interests into IA.

Integrating indigenous rights and knowledges into impact assessment (VI)

Wednesday 1 May | 14:30-16:00 | P11

Paper Session

Chair(s): Rebecca Lawrence

This session explores different ways of doing impact assessment, where impacted indigenous communities, and their rights and knowledges, take center stage. Presentations will explore alternatives to proponent-driven IAs, including community-based IAs, but also the role of media and corporate campaigns, the law, and political protest.

Recognition of indigenous Sámi rights in Sweden

Wik, Jenny

This presentation by the National Swedish Sámi Association will address the urgent need to address Sámi rights to land and water.

The Nordic Sámi and the legal framework for impact assessments

Allard, Christina; Bailey, Scott

A comparative review of Swedish and Norwegian laws on impact assessments, focusing on the participation of affected Sámi groups and Sámi parliaments in natural resource exploitations.

Indigenous-led impact assessment:

Canada's New regime

Wright, David V.

This paper examines the new, significantly expanded authority for integrating indigenous rights and knowledge into impact assessments in Canada, including through assessments led by indigenous groups.

What's new? Rights and legislative change

Smith, Trefor

A critical examination of the promise of new environmental assessment legislative regimes in Canada and British Columbia to fully integrate indigenous rights assessment into major project EA.

SOCIO-ECONOMIC IMPACT ASSESSMENT: EVOLUTION OR REVOLUTION?

Economic impact assessment

Tuesday 30 April | 11:00-12:30 | B3

Paper Session

Chair(s): Galina Williams

Economic Impact Assessment (EIA) is usually done at a state or country level. There are challenges and opportunities for IA practitioners to develop a range of EIA tools that can be used at regional level. A range of international case studies that demonstrate the potential use of these tools is provided.

Does coal mining benefit local communities?

De Valck, Jeremy

Economic analysis, using a cost benefit framework, reveals the historical contribution of coal mining industry to regional Queensland (Australia) with the focus on the environmental disturbance.

An optimization model for ecosystem services

Kuik, Swee

Using a multi-objective optimization, the economic costs and benefits of coal mining in Queensland (Australia) are assessed for different development goals.

Beyond zero: Social cost of carbon in impact assessment

Wright, David V.

This paper/presentation explores potential roles of the social cost of carbon in impact assessment, offering insights into key constraints, considerations, and potential next steps.

Corporate sustainability in Belarus: Feasible?

Sushko, Alla

This paper explores current conditions existing in Belarus for businesses to exercise environmental and social responsibility. Authors present preliminary analysis of macroeconomic indicators for corporate sustainability initiative in the country.

Rethinking social license: Where to from here?

Tuesday 30 April | 11:00-12:30 | P6

Panel Discussion

Chair(s): Thomas Measham

This session is sponsored by Reflexivity Pty Ltd

This panel discussion considers whether the term "social license" remains valid or not. If not social license, then what? The relative merits of alternative terms, e.g., "social performance," will be discussed. Each panelist will provide an opening statement, then the discussion will be opened up to the audience for Q&A.

Applied research on social license

Measham, Tom

Relationships and dialogue as key elements of social license

Witt, Katherine

Speaker

Miceski, Elena

Institutionalizing SIA practice within government decision making

Tuesday 30 April | 16:30-18:00 | B2

Panel Discussion

Chair(s): Sheridan Coakes, Rachel Maas

This session addresses the history of SIA in government decision making both within Australia and overseas, through experiences of key government and consultant practitioners. Kurt Lewin's method of "Force-field Analysis" (FFA) is used to better understand the drivers of, and barriers to, the institutionalization of SIA in government and corporate decision-making contexts.

Implementing the SIA guideline in New South Wales

Parsons, Richard

Developing the SIA guideline in New South Wales highlighted tensions between SIA and planning frameworks. Implementing it, meanwhile, has illuminated the countervailing forces that influence uptake.

Consideration of social impacts in the NT approval

Vogel, Paul

The development and application and consideration of social and economic impact assessment in the Northern Territory (NT) government project development context.

Involving stakeholders in monitoring and inspection

Esteves, Ana Maria

Considering the absence of conducive legislation and institutional capacity, this presentation will highlight mechanisms for monitoring and inspection of SIMP implementation.

Improving IA through integration of Indigenous values

Keane, Julie

This paper explores the options of integrating the two processes to facilitate more effective engagement with indigenous parties engaged in the indigenous land use agreements (ILUA) process with the IA process.

Putting the "social" back into science: Quality social impact assessment (I)

Wednesday 1 May | 14:30-16:00 | P7

Paper Session

Chair(s): Jane Munday, Rachel Maas

What is needed to evolve the practice of social impact assessment so it meets the aspirations of our founder Charlie Wolf's 1982 state-of-the art paper, IAIA Principles (Vanclay 2003) and Guidelines (Vanclay et al. 2015). Is impact assessment still a 'technocracy'? Is evolution enough? Is it time for a new paradigm?

SIA and DRA commonalities: SA regulatory comparisons

Kruger, Leandri

Comparisons between South African environmental management and disaster risk management legislation suggest potential opportunities for the integration between SIA and disaster risk assessment, leading to improved SIA status and practice in South Africa.

Evaluation of three geothermal project SIA reports

Suliman Abdelrahman, Nadine

Framework for comparative evaluation of social impact assessments (SIA) applied to geothermal power plant project ESIA reports from three countries to investigate the effectiveness of the SIA process.

From an SIA to a resilience lens: Implications

Ross, Helen

Communities are proactive. SIA can learn from understanding of and practice in community resilience, but it is important not to assume community resilience can and should compensate for impacts.

Differentiating social risk and impact in mining

Worden, Sandy

Many project teams are challenged by the social dimensions of mining. To improve the way social risk is assessed by these teams, its relationship with SIA must be clearly understood.

Evolution, revolution, or reinventing the wheel?

Munday, Jane

Evolution, revolution, or reinventing the wheel? A 50-year audit of impact assessment in northern Australia tracks cycles of power, economies, and reform and what's been lost on the way.

Putting the "social" back into science: Quality social impact assessment (II)

Wednesday 1 May | 16:30-18:00 | P7

Paper Session

Chair(s): Jane Munday, Rachel Maas

What is needed to evolve the practice of social impact assessment so it meets the aspirations of our founder Charlie Wolf's 1982 state-of-the art paper, IAIA Principles (Vanclay 2003) and Guidelines (Vanclay et al. 2015). Is impact assessment still a 'technocracy'? Is evolution enough? Is it time for a new paradigm?

Evolving SIA to address construction fatigue

Cavanough, Bonnie

Construction fatigue may occur in communities during prolonged infrastructure growth. SIA, consultation, and management practices increasingly need to adapt to identify and adequately manage this issue.

Our future world: Ready or not?

Cavanagh, Naomi; Wilson, David

This paper addresses how social impact assessments should include future trends, to ensure we undertake the right projects and complete them in a way that benefits future generations.

Can the discipline of evaluation help SIA evolve?

Kung, Anthony; Gildea, Catriona

Evaluation and SIA are separate disciplines with distinct principles and tools. There is much overlap, too: both aim to untangle complex cause-and-effect in social systems. What lessons can they share?

Technocratic SIA: Proponents to win and community to lose

Lkhagva, Tselmegsaikhan; Chultemsuren, Tamir

The paper explores how technocratic-oriented SIA practice, which primarily fulfils the international financial institution's minimal standards, defines who is a clear winner and loser in mining projects.

The power in SIA and the power of SIA

Hiruy, Kiros

This paper argues the need for power analysis in SIA recognizing the hiatus between the intention and practice of SIA regarding the empowerment of vulnerable groups in the community.

Social indicators on SDGs for industry and university

Thursday 2 May | 11:00-12:30 | B3

Panel Discussion

Chair(s): Takako Hashimoto

This session will provide our basic information and experience on sustainable commerce and society for achieving SDGs in Asia and discuss how we can globally promote sustainable commerce and society with social indicators.

Social indicators in corporate activities considering SDGs

Presenter

Hashimoto, Takako (Chiba University of Commerce)

Commentators

Harashina, Sachihiko (Chiba University of Commerce)

Leonard, Peter (World Bank)

Social indicators on CSR activities for achieving SDGs

Presenter

Saito, Noriko (Chiba University of Commerce)

Commentator

Murase, Noriaki (JICA)

How do we develop quality SIA practitioners?

Thursday 2 May | 14:30-16:00 | P3&P4

Workshop

Chair(s): Jeffrey Jacquet, Will Rifkin

IAIA Section: Social Impact Assessment

This workshop session focuses on identifying challenges and opportunities to building a robust work force of SIA practitioners. Presenters will include the perspectives of an academic practitioner, trainer, and manager; presenters and the audience will together consider the future of SIA work force development.

What makes quality social impact assessment practitioners?

Sunderland, Chris

The perspective of an SIA practitioner explores the challenges, opportunities, insights, and solutions to better develop SIA practitioners.

Concurrent sessions

Institutional hurdles to reproducing ourselves

Rifkin, Will

Institutional and practical hurdles to growing the SIA workforce—and how to overcome them—will be discussed, with a focus on particular challenges of a multi-disciplinary field.

“Have we got a job for you?”

Coakes, Sheridan

This paper explores the trials, tribulations, and triumphs involved in developing, mentoring, and managing a diverse team of social scientists in undertaking best practice SIA.

Challenges of teaching SIA in a university setting

Jacquet, Jeffrey

This presentation outlines the mismatch between the university and teaching SIA skills, as well as recommendations to design effective SIA curriculum offerings at the university level.

Certification of SIA: The right next step?

Bice, Sara

Participants will be provided with recent evidence on professionalization and certification related to SIA practice, and be invited to enter the fray of this debate to consider key challenges and opportunities.

RE100: Ethical initiative in university

Thursday 2 May | 14:30-16:00 | B3

Panel Discussion

Chair(s): Takako Hashimoto

This session is sponsored by CUC

Holistic approach to university's ethical decisions

Presenters

Teshima, Susumu; Tanaka, Shinichiro

Tanaka, Shinichiro (Chiba University of Commerce)

Toward Ethical Commerce: The first penguin of RE100

Harashina, Sachihiko (Chiba University of Commerce)

Heart-Ware for RE100 University and Sustainable Actions

Sugimoto, Takuya (Chiba University of Commerce), and

Ebato, Junji (Chiba University of Commerce)

STRATEGIC AND REGIONAL ASSESSMENT: IMPORTANCE OF REGIONS IN AN ERA OF GLOBALIZATION

Scope and level of detail for SEA at national and regional scale: Non-sectoral (I)

Monday 29 April | 15:00-16:30 | M2

Paper Session

Chair(s): Gosewien van Eck

An SEA for a national or regional strategic vision is a useful instrument for highlighting the impact of different strategic policy choices. It also poses challenges. Especially in defining the scope and level of detail of the SEA and strategic vision. How can we develop an SEA with the right scope an appropriate level of detail?

Just how “strategic” are SEAs?

Ross, Mitchell; Banhalmi-Zakar, Zsuzsa

Development of a criteria to assess strategic thinking in SEAs. An assessment of Australian Strategic Assessments under the EPBC Act (1999).

Defining scope of SEAs: Particularities in EU cooperation

Palerm, Juan; Crabbe, Bernard

Examining the diverse factors and objectives that intervene in defining the scope of an SEA in the context of EU development cooperation.

Overcoming SEA challenges at Wood Buffalo National Park

Cumming, Katherine; White, Lisa

Scoping and level of detail challenges for the Wood Buffalo National Park WHS SEA in Canada included stakeholder input timing, multi-faceted OUV, and a large geographical region.

Scope and level of detail for SEA at national and regional scale: Sectoral (II)

Tuesday 30 April | 11:00-12:30 | M2

Paper Session

Chair(s): Gosewien van Eck

An SEA for a national or regional strategic vision is a useful instrument for highlighting the impact of different strategic policy choices. It also poses challenges. Especially in defining the scope and level of detail of the SEA and strategic vision. How can we develop an SEA with the right scope an appropriate level of detail?

Integration of climate change adaptation to framework plan

Lee, Youngsoo; Lee, Minho

Integration of climate change adaptation to Korea's framework plan for transportation will give direction and guidance to executive plans for infrastructure for transportation.

Integrating ecological spatial governance into SEA in China

Siyang, Zhou; Wei, Li

In order to integrate ecological spatial governance into SEA in China, the study probed a combination of ecosystem services value assessment and space simulation methods.

Phase 2 SEA for renewable energy developments in South Africa

Adams, Abulele

Strategic environmental assessment for the effective rollout of wind and solar photovoltaic renewable energy in South Africa.

Learnings from a regional water plan SEA in Mexico

Tejeda, Juan Carlos

Lessons from the performance of a strategic environmental assessment of a regional water plan in the Altiplano Potosino region in Mexico.

ESIA for Mozambique mining and gas sector

Sefane, Sergio

The strategic environmental and social assessment prepared for the mining and gas sectors in Mozambique.

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

Tuesday 30 April | 14:30-16:00 | B3

Pecha Kucha

Chair(s): Kiichiro Hayashi, Jong-Gwan Jung

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

A study on environmental impact assessment business

Namgung, Hyung

We explore the problems in the current Korean environmental impact assessment system and give suggestive for improvements regarding the substantiality of EIA.

SDGs and IA in Japan from talks in Kuching 2018

Harashina, Sachihiko

UN-SDGs are goals toward sustainable society and EIA should be the tool for this. The challenges of EIA systems toward creating a sustainable society in Japan will be discussed.

A nexus frame for solutions in the livestock issue

Jung, Jong-Gwan

Key factors are odor, infectious disease, manure, and carcass landfill. The nexus frame can highlight synergies between sector interventions for “win-win” solutions, helping stakeholders to develop insights into different options.

Biodiversity vulnerability under climate change

Seo, Changwan; Jeon, Manseok; Adhikari, Pradeep; Kim, Hyun Woo

Climate change vulnerability assessment on biodiversity provides essential information for conserving ecosystems, to make appropriate adaptation policies to protect existing and future areas as refugia under climate change.

Energy and environmental integrated spatial analysis

Hayashi, Kiichiro; Villa, Ferdinando

Spatial assessment of energy and environmental items were conducted by utilizing the K.Lab system which was developed by BC3, Spain. A case study was conducted in Japan.

How human activity supports species migration

Choi, Yuyoung; Lim, Jieun; Sung, Hyun Chan; Jeon, Seong Woo

This study assessed the adaptability of species in northeast Asia under climate change through spatially explicit prediction of bioclimatic change and quantify bioclimate connectivity.

Rainfall interception effect by different foliage

Yang, Byungsun; Heo, Dong Kun

By using terrestrial laser scanners and measured data, the effect of tree canopy character including leaf area density and other morphology on rainfall interception has been analyzed.

Filling the evolving IA governance gap

Tuesday 30 April | 16:30-18:00 | P3&P4

Paper Session

Chair(s): Aaron Goldschmidt

IA guidance may be developed and implemented consistently, or not. National leadership can strengthen or weaken compliance. Collaboration can bridge policy gaps; heated conflict arises between regional and national entities with competing interests.

Beyond bilateral agreements in Australian IA

Pears, Erin

Australia has an effective system for coordinated, multi-jurisdictional IA for most projects, but when this doesn't apply, the system is fraught with duplication and complexity. There is a better way.

Federal jurisdiction over next-gen EA in Canada

Johnston, Anna

Canada's proposed Impact Assessment Act introduces reforms with jurisdictional implications. What is federal jurisdiction to assess broader sustainability factors, and to do so on a regional basis?

The challenges and opportunities of a centralized system

Edema Taako, George; Karatu, Edward

Implementing a centralized IA system in a decentralized governance system without local governments capacity building poses a great challenge to the effectiveness of IA. Doing so provides dividend for IA.

The path of least resistance

Carberry, David; Lenel, Malinda

Environmental approvals processes vary significantly across Australia. Proponents are increasingly seeking advice on the approvals "path of least resistance." Australia needs an approvals framework.

Research capacity and knowledge in IA

Darling, Samantha; Ogden, Gordon

Using primary research data, we show that the interactions between research, community, and governance capacities are central to realizing societal objectives related to incorporating knowledges into IA.

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

Tuesday 30 April | 16:30-18:00 | B3

Pecha Kucha

Chair(s): Myungjin Kim, Takehiko Murayama

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

Gradual or sudden: System and science in IA

Kim, Myungjin

Lessons and experiences learned from gradual or sudden development in system and science of IA are being discussed.

Stakeholders' attitudes and consultation for CCS

Murayama, Takehiko; Nagaoka, Shigeo

Carbon capture and storage facilities are one effective device to mitigate the impacts of carbon dioxides. This presentation covers attitudes of stakeholders and local residents in Hokkaido (Japan).

Comparison between climate impact and preferred adaptation measures

Park, Chae Yeon; Lee, Jiyeon

For supporting local government climate change adaptation plan, we made priorities of adaptation measures and compared that with climate impact.

Community acceptance of small scale wind power

Nishikizawa, Shigeo; Umezawa, Takehiko

While environmental conflicts in the development process of small scale facilities have not yet been found so far, local governments' concerns and local residents' complaints have been increasing.

Effects of watershed environmental changes on water quality

Soonju, Yu; Eunjung, Lee

Water quality impact assessment following changes in the watershed environment help to understand implementation effect of water quality policies and respond to climate change in Paldang Reservoir (Korea).

A new approach to determining impacts to GDEs

Roberts, Ben

This interactive presentation reviews how remote sensing technology can be used to help identify groundwater dependent ecosystems (GDEs) and their ongoing condition monitoring.

Daily water quality forecasting system

Hwang, Sang Chul; Kim, Ji Won; Choi, Jung Kyu

We have developed integrated systems and centralized simulation machines which run all models, link all input and output together, and visualize results every day.

Algal bloom monitoring using unmanned aerial vehicles

Byun, Chang Young; Kim, Ji Won; Lee, Seung Jae

We tried to wide-range algal bloom monitoring technology using UAV. It is effective monitoring compared with manual sampling methods.

Evolution or revolution? The strategic value of SIA in regional development (I)

Wednesday 1 May | 11:00-12:30 | P10

Paper Session

Chair(s): Angelo Jonas Imperiale, Frank Vanclay

IAIA Section: Social Impact Assessment

Can SIA enhance regional development and support community development plans to better inform development planning about local needs and desired social outcomes? Is evolution or revolution the answer? This session reflects on lessons learned, and on constraints to, and demands on, SIA to enhance its strategic value in regional development.

Re-evolutionizing Soto Norte region

Ruiz, Yaddy; Romero, Andres

The evolution of SIA results in a proposal to re-evolutionize the Soto Norte region. The SIA process assists communities in envisioning the future and becomes a key tool in strategic regional planning.

Social impact assessment for 21st century economies

Harkins-Small, Laura

It is only when enterprises large and small can incorporate SIA as a part of their day-to-day strategy and operations will the practice be able to deliver transformational regional development.

Evolution or revolution? The strategic value of SIA in regional development (II)

Wednesday 1 May | 14:30-16:00 | P10

Paper Session

Chair(s): Angelo Jonas Imperiale, Frank Vanclay

IAIA Section: Social Impact Assessment

Can SIA enhance regional development and support community development plans to better inform development planning about local needs and desired social outcomes? Is evolution or revolution the answer? This session reflects on lessons learned, and on constraints to, and demands on, SIA to enhance its strategic value in regional development.

Is SIA cosmetic in Indian road development schemes?

Chandra, Tanya

Evaluating the role of SIA in road infrastructure development in India through policy and anthropological research.

A revolution in ESIA scoping

Strickland, Luke; Mair, Adam; Montgomery, James; Corai, Mihai; Skinner, Ben

This paper will consider how a focus on UN Sustainable Development Goals could provide a better framework to scope ESIA against than simply defining significance of effects, improving outcomes.

The strategic role of SIA in EU regional development

Imperiale, Angelo Jonas

Drawing from the intended social outcomes in EU regional development policy, we reflect on SIA's potential role in regional development planning for enhancing social outcomes in vulnerable regions.

International progress in regional-scale impact assessment (I)

Wednesday 1 May | 14:30-16:00 | P8

Paper Session

Chair(s): Jill Blakley

Regional-scale impact assessment is proliferating worldwide to address, often in a strategic manner, the cumulative impacts of rapid and intensive multi-sectoral development. This session showcases international initiatives, including their partnership models, strategic elements, approach to cumulative impact assessment, connections to policy, etc.

Assessing regional and cumulative impacts of mine retirements

Roemer, Kelli; Haggerty, Julia

This paper uses the cumulative impact assessment framework to illuminate the combined impacts of plant and mine retirements in the Powder River Basin (USA) region and opportunities for multi-scalar policy intervention.

Concurrent sessions

IA for a combined resource and regional development

Hall, Kristen; Moriarty, Michael

The proposed development of one of the largest known undeveloped copper resources in the world has provided the opportunity to support a regional development project: the Sepik Development Project.

Assessing GI differences in the UK and Mexico

Tejeda, Juan Carlos; Fischer, Samuel

Strategic environmental assessment of the green infrastructure planning framework in Mexico based on UK's expertise.

Scotland's marine planning framework

Chisholm, Amanda

Impact assessment has been a key tool in the preparation of national and regional-level marine plans in Scotland. This paper explores lessons learned, including assessment and plan effectiveness.

International progress in regional-scale impact assessment (II)

Wednesday 1 May | 16:30-18:00 | P8

Paper Session

Chair(s): Jill Blakley

Regional-scale impact assessment is proliferating worldwide to address, often in a strategic manner, the cumulative impacts of rapid and intensive multi-sectoral development. This session showcases international initiatives, including their partnership models, strategic elements, approach to cumulative impact assessment, connections to policy, etc.

Impacts of coal resource development on water

Schmidt, Becky; Henderson, David; Lewis, Steven

The Bioregional Assessment Programme provided transparent scientific information to better understand the potential impacts of coal resource developments on water and the environment.

Models for integrating approvals and procurement

Hyett, David

A key strategic decision for transport infrastructure proponents is how to coordinate their approvals and procurement processes. The pros and cons of two competing models are explored.

Addressing food security in regional impact assessment

Blakley, Jill

This paper explores ways to address food security within regional strategic environmental assessment.

Lessons learned from SEAs in Australia

Thursday 2 May | 11:00-12:30 | P8

Panel Discussion

Chair(s): Carolyn Cameron

This interactive panel session will present emergent "big-picture" lessons gleaned from a decade of SEA practice in Australia and illustrate these with short targeted case studies before opening to the floor to explore targeted questions.

SEA using landscape as a driving concept

Middle, Garry

This paper presents the outcomes of research into the notion of "landscape" and SEA. Landscape could offer a way to develop an Australian IA reflecting links between nature and culture.

What difference does SEA make anyway?

Burdett, Tanya

Has Australia missed the boat on SEA? What difference does SEA make anyway? The case for transparency, inclusion, early optioneering, and scrutiny at the strategic decision-making level in Australia.

Using structured decision making in SEA

Hemphill, Peter

A case study of the application of structured decision making to SEA in Western Sydney is presented. It covers the key steps, concepts, and high-level findings of the work.

THE USE OF TECHNOLOGY TO ADVANCE ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

Digital impact assessment: The latest developments (I) Tools and methodologies

Tuesday 30 April | 11:00-12:30 | P3&P4

Paper Session

Chair(s): Paul Eijssen, Martin Budd

This session highlights the latest achievements and innovations in digital impact assessment reporting, reviewing and communication. Our paper-based session shares and discusses state-of-the-art IA projects and interactive tools to support informed decision making.

Ecosystem service-based reduction strategy of fine particulate matter

Lim, Chul-Hee; Ryu, Jieun

Ecosystem service-based approach to reducing ambient fine particulate matter using spatial trend-correlation analysis with the valuation of ecosystem function and service.

Intelligent repository for ESHIA practitioners

Klein, Travis; Jamieson, Andrew

Improve ESHIA process and quality through the development of a digital ESHIA repository with natural language search functionality, free-flowing questions, and machine learning.

Improving alternatives using optimization algorithm

Lee, Jongook; Lee, Eun Joo

Alternatives choice is an important task during the impact assessment process to minimize possible impacts to environment. Use of an optimization algorithm can help to improve the propose of alternatives.

Maturity model for enterprise-scale stakeholder engagement

Lieutenant, Louis

This paper will help practitioners gain deep understanding of their current maturity level of data management for stakeholder engagement and outline a process to achieve enterprise-scale digital maturity that easily proves the rigor of their IA program. We will compare the issues, risks, and benefits linked to each maturity level.

A collaborative process for creating report cards

Kung, Anthony; McIntosh, Poh-Ling; Lant, Paul

Report cards are widely used to communicate environmental and social performance. This paper directs attention to the process of creating report cards. A collaborative process is presented and unpacked.

Digital impact assessment: The latest developments (II) Reporting and public involvement

Tuesday 30 April | 14:30-16:00 | P3&P4

Paper Session

Chair(s): Paul Eijssen, Martin Budd

This session highlights the latest achievements and innovations in digital impact assessment reporting, reviewing and communication. Our paper-based session shares and discusses state-of-the-art IA projects and interactive tools to support informed decision making.

Public participation and digital impact assessment

Barten, Bart

Advantages and dilemmas of e-participation and digital IA for road infrastructure projects in the Netherlands.

Tracking stewardship of resources using "Big Data"

Wright, Nigel H.

Cutting-edge applications of big data analytics to track corporate and government resource stewardship and new corporate social responsibility (CSR) dimensions.

Enabling proportionate EIA through digital process

Storey, Fran; Skinner, Adam; Strickland, Luke; Mair, Laura; Montgomery, James

This paper explores how a digital paradigm can enable more accessible, integrated, and proportionate outcomes in EIA, ending the era of epic and unreadable environmental statements.

Having a clear vision of spatial data frameworks and sharing for better digital IA

Chen, Jonathan

A consistent and collaborative approach to spatial data frameworks and sharing can lead to a more efficient and informative impact assessment.

Evolving the utility and potential of social media

Gurtner, Yetta

Exploring lessons from other disciplinary areas to appreciate how social media may be better utilized to facilitate open communication and public participation in the social impact assessment process.

Digital technologies for social impact assessment and resettlement planning

Wednesday 1 May | 16:30-18:00 | P3&P4

Paper Session

Chair(s): Tulsı Bisht

This session will include presentations and discussions on use of ICT in social impact analysis for involuntary resettlement planning to ascertain whether ICT use can improve the effectiveness of safeguard implementation and enhance efficiency.

Digital in-field social data capture and mapping innovation

Choudhury, Chapal; Young, Grant

An innovative approach and mobile GIS/GPS technology helped to rapidly and electronically collect a large volume of accurately mapped land use, asset, and socioeconomic data by locals in remote PNG.

Use of IT for land appraisal and valuation in involuntary resettlement planning

Subedi, Laxmi Prasad

Appraising land attributes and valuation in projects to a single plot is exhausting in paper-based systems. This presentation shares an IT system developed in Nepal to systematize land valuation and compensation.

Maturity model for enterprise-scale stakeholder engagement

Lieutenant, Louis

Gain a deep understanding of their current maturity level of data management for stakeholder engagement and IA programs.

Use of digital technologies during resettlement planning

Hayrapetyan, Zaruhi

Application of drones, Google Earth, Microsoft Access and MSOL databases and their advantages and limitations are demonstrated per project preparation and implementation stages, including grievance redress.

ICT for involuntary resettlement impact assessment

Bisht, Tulsı; Novikova, Irina

This paper presents the pilot study outcomes of using information and communications technology (ICT) in SIA for involuntary resettlement planning and argues that ICT use can improve the effectiveness of safeguards implementation and enhance efficiency.

SIA and EIA of marine renewable energy

Thursday 2 May | 11:00-12:30 | P9

Paper Session

Chair(s): Taeyun Kim

In the oceans, various human activities are being carried out, and many species are inhabited. This session focuses on the social and environment impacts of marine renewable energy. The session will present social and environmental impacts resulting from marine renewable energy development and discuss ways to resolve or reduce them.

Socio-economic impacts of offshore wind farms

Glasson, John; Durning, Bridget

Research findings, drawing on the monitoring of EU North Sea projects, on the potential of offshore wind projects to bring socio-economic benefits to often-deprived local and regional coastal communities.

Communication process of offshore wind development

Takeuchi, Ayano

This study focuses on the communication process between fisher and developer for offshore wind energy in Goto City, Nagasaki Prefecture.

Zoning approach to control wind farms: Japan case

Murayama, Takehiko

This paper cover the discussion process of a guideline on zoning system to control wind farm construction projects and some local governments' efforts and challenges to implement this system.

A case study on offshore wind farm in South Korea

Kim, Taeyun; Maeng, Jinsung

The study aims to identify the social and environmental impacts that may arise from offshore wind farms in close to the coast and suggest ways to minimize or mitigate the impacts.

Improving environmental and social performance on construction projects (I)

Thursday 2 May | 11:00-12:30 | M2

Paper Session

Chair(s): Patrick Francis

The true value of environmental and social management measures lies in their implementation. This session explores strategies to improve their performance in construction projects. Measures may include user-friendly plans, handheld and cloud-based tools to update and access field data in real time and contractual incentives for good performance.

Improved compliance through effective interface

Houldsworth, Nick

Ramboll's team has compiled a library of lessons learned and recommendations to improve the environmental management performance of projects during construction and operation.

Overcoming waste management challenges in PNG

Otmar, Colman

Overcoming waste management challenges in a mega project in a developing country. Sharing the PNG LNG experience.

Maturing to tangible IA on construction projects

Gordhan, Bharat

IA evolution can be achieved on a construction project as a tangible result, once the efficacy of the management of environmental harm is determined (e.g., adaptive management of on-site water).

Improving environmental and social performance on construction projects (II)

Thursday 2 May | 14:30-16:00 | M2

Paper Session

Chair(s): Patrick Francis

The true value of environmental and social management measures lies in their implementation. This session explores strategies to improve their performance in construction projects. Measures may include user-friendly plans, handheld and cloud-based tools to update and access field data in real time and contractual incentives for good performance.

Land access good practice on the onshore pipeline

Liliura, Jeremiah

Systematic approach to land access using pre-construction survey data and the mitigation hierarchy in project planning and schedule. A good practice on the PNG LNG Onshore Pipeline Project.

From impact assessment to beyond compliance

Brazier, Rachel; Powell, Marissa

How can we harness the impact assessment process to support a shift in focus from compliance to beyond compliance outcomes in transport construction projects in Australia?

Right-of-way management system in Cambodia

Chea, Samnang; Vaddhanak, Takayuki; Yamashita, Akira; Ochi, Masaki; Kumagai, Takahiro

Ministry of Public Works and Transport of Cambodia supported by JICA has developed a right-of-way management system by using UAV mapping and database to identify current situation and prevent new encroachment along the national roads.

Building environmental performance: Construction

Haylock, Bill

Environmental training needs cut-through. It needs to be impressed upon workers who are at risk of polluting the environment or damaging heritage. This presentation uncovers tools to get cut-through.

Better environmental performance during construction

Francis, Patrick

The true value of environmental and social management measures lies in their implementation. This presentation explores strategies to improve their performance in construction projects.

Concurrent sessions

THEORY AND PRINCIPLES OF IA

Formalizing revised EIA follow-up best practice principles

Tuesday 30 April | 14:30-16:00 | P5

Workshop

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

A revised set of IAIA best practice principles for EIA follow-up are currently in preparation by Angus Morrison-Saunders, Jos Arts, and Ross Marshall. This builds on the process that commenced at IAIA18. Come along to this workshop to contribute to their development and finalization. All contributions are welcome.

Using case studies in teaching impact assessment (I)

Tuesday 30 April | 14:30-16:00 | P6

Paper Session

Chair(s): Garry Middle

The use of case studies in teaching IA offers a practical way to demonstrate best and worst IA practice, and providing insights into theory. This session has 2 parts. There will be an interactive session of good case studies in "short and sharp" presentations. Second, a proposal to establish an IA case study teaching network will be discussed.

Environmental systemic vision on swine production

Giberti, Verónica; Jhanjanam, Manchala; Thummeda, Ravikiran; Conti, Carolina Martha

The primary sector of the pig in Argentina has undergone a marked transformation in the last 15 years. An environmental evaluation was made from a systemic view.

Project Sea Dragon: Case study of a large-scale project

McBean, Kate

This presentation explores the assessment approach adopted to overcome a number of challenges and gain both Territory and Commonwealth approval within less than two years of commencement.

The Life of Project (LoP) approach to environmental compliance

Aryeetey, Henry

The "Life of Project" training approach focuses on environmental compliance and environmentally sound design and management across the project life cycle. USAID West Africa increased staff and IPs knowledge from 2.9 to 4.10 on a 1-5 scale.

Synergies of confusion: When political risk and environmental risk collide

Middle, Garry

This case study explores how both political risk and environmental risk played out in an EIA of a proposed coal mine in a prime tourist area in Western Australia.

Using case studies in teaching impact assessment (II)

Tuesday 30 April | 16:30-18:00 | P6

Paper Session

Chair(s): Garry Middle

The use of case studies in teaching IA offers a practical way to demonstrate best and worst IA practice, and providing insights into theory. This session has 2 parts. There will be an interactive session of good case studies in 'short and sharp' presentations. Second, a proposal to establish an IA case study teaching network will be discussed.

Teaching SIA for future practitioners

Gallou, Eirini

Challenges in co-developing a methodology for Social impact assessment (SIA) between university and community organizations in London's urban planning scene.

IA training: Challenges of follow up and use

Brown, Glenn

Principles and tools that help students retain and use knowledge and skills after training, using examples from workshops about using organized reasoning in IA practice.

Teaching IA case studies: A revolutionary approach

Baxter, Tom

This paper presents a case study of Gunns Limited's pulp mill proposal and its use in university teaching to demonstrate IA law and practice. It exemplifies the best and worst of Australian IA.

How EIA has furthered the conservation of endemic freshwater crab

Stanton, David

Online publication of Hong Kong's EIA reports allows for the review of distribution and status of some lesser-studied taxa, freshwater crabs, in Hong Kong.

Teaching impact assessment: Best practice principles and pedagogy

Wednesday 1 May | 11:00-12:30 | B1

Workshop

Chair(s): Jenny Pope, Megan Jones

Teachers and trainers of impact assessment are invited to this workshop to share experiences of teaching techniques; to reflect on how these align with IAIA's draft Best Practice Principles for Teaching Impact Assessment; to learn from others; and to contribute developing collective understanding of best practice teaching of impact assessment.

Establishing guidance for heritage and impact assessments

Thursday 2 May | 11:00-12:30 | B1

Workshop

Chair(s): Eugene Jo, Chris Polglase

IAIA Section: Cultural Heritage

The workshop will serve as the basis of formulating the scope and content of a new holistic guidance to recognize natural and cultural heritage in impact assessments, by developing new guidance material and ultimately capacity building on World Heritage and impact assessment.

Developing a toolkit for IAs for heritage

Court, Sarah

ICCRUM and IUCN's World Heritage Leadership Programme includes a module on impact assessments. Discussion will focus on tools needed by practitioners to improve IAs related to heritage.

Challenges in cultural heritage impact assessment

Mackay, Richard

This paper will consider challenges and potential approaches for effective evaluation of cultural heritage impact of on the attributes which contribute to the Outstanding Universal Value of World Heritage Properties.

Stakeholder identification and consultation

Fleming, Arlene

The importance of stakeholder identification, consultation, collaboration, and training in creating and promoting guidance.

Cultural heritage IA and mining: Rio Tinto

Bradshaw, Elizabeth

This presentation overviews Rio Tinto's community-engaged cultural heritage management standards for its mining developments and presents a range of project case studies.

IUCN's perspectives on the new IA guidance

Shadie, Peter

Identifying the key elements of IUCN's World Heritage Advice Note and recognizing current gaps will contribute to the discussion on developing a single guidance for all World Heritage.

Protecting cultural heritage

Keller O'Loughlin, Shannon

American Indian and Alaska Native Tribes are highly active in protecting their cultural heritage, including cultural heritage sites.

Practicing heritage conservation with impact assessments (III)

Wednesday 1 May | 16:30-18:00 | P9

Paper Session

Chair(s): Eugene Jo, Arlene Fleming

The session will collect good cases of impact assessments that have addressed the need for heritage conservation and sustainable development, by focusing on heritage values assessment and community engagement in its methodology. It will serve as the basis for establishing better guidance materials for addressing heritage within IAs.

Considering indirect and cumulative impacts on World Heritage

Sánchez, Luis; Kunzer, Mark

Considering Outstanding Universal Value of World Heritage sites as valued components in cumulative effects assessment provides key guidance for selecting drivers and planning mitigation.

World Heritage examples: Good practice EIA/SEA

Shadie, Peter

Presenting good practice EIAs and SEAs for World Heritage in line with IUCN's World Heritage Advice Note on Environmental Assessment.

Spatial analysis in ESIA and World Heritage

Fleming, Arlene

Challenges involved in an integrated landscape approach to cultural analysis in impact assessment and world heritage.

Addressing health and social equity through impact assessment

Monday 29 April | 15:00-16:30 | P11

Paper Session

Chair(s): Ben Harris-Roxas

IAIA Section: Health

HIA, SIA and other forms of IA have been promoted as mechanisms to ensure potential differential health impacts and vulnerabilities associated with proposals are identified and acted upon. This session reports on the use, progress, and methodological of IA to address health equity.

Where are the residents? How to carry out resident engagement

Den Broeder, Lea

In a newly built area, we experiment with multi-method participation approaches, engaging proxy groups and temporary users reflecting the city's superdiversity.

Repeated surveys to measure health equality and equity

Knoblauch, Astrid

Repeated health surveys help to reveal inequalities and inequities between host and migrant communities and provide a platform to promote equality and equity.

Equity-focused HIA: Case of a place-based approach

Kim, Jinhee; Harris-Roxas, Melinda; Powell, Libby; Hua, Myna; D'Astoli, Mark; Dixon, Julie

A rapid equity-focused HIA of a multi-agency, place-based initiative in southeastern Sydney, Australia, and its benefits, challenges, and implications for future efforts.

Health, safety, and environmental impact assessment (HSEIA) to address health and social equity issues

Lee, Jongook; Lee, Dong Kun

Integrated HSEIA can be a methodology of impact assessment to address health and social equity issues. The benefits of HSEIA will be presented with a case study and template.

NORWEGIAN OIL FOR DEVELOPMENT PROGRAM

The rapidly-evolving dilemma of fossil fuels vs. renewable energy

Tuesday 30 April | 14:30-16:00 | B1

Workshop

Chair(s): Morgan Hauptfleisch

Fossil energy production leads to serious climate change impacts and rapid environmental degradation. The industry is facing an evolving public and political demand for change and a transition to renewable energy sources. This workshop session will allow Oil for Development participants and others to discuss how their own countries tackle the dilemma, and the IA practitioner's role.

Fossil energy vs. renewable energy: A role play of impact scenarios

Tuesday 30 April | 16:30-18:00 | B1

Role-playing workshop

Chair(s): Morgan Hauptfleisch

A fun and interactive role play of a public meeting where fossil energy producers meet the new times with advocates for renewable energy. The issue is a controversial (fictitious) gas development project being planned by the government, while the opposition party favors a renewable energy approach. The session simulates a public hearing about the development plan and improves participant's understanding of how impacts and options are perceived by different stakeholders. The session is concluded with an analysis of the participant's engagement and negotiating techniques employed.

Country experiences with evolution in the energy sector and IA requirements (I)

Wednesday 1 May | 14:30-16:00 | B2

Paper Session

Chair(s): Arne Dalfelt, Peter Croal

There is an accelerating evolution in global thinking focusing on the negative impacts of oil and gas production, particularly in developing countries where more energy is urgently needed at the same time as climate change and environmental degradation is most critical. What can an IA practitioner do in this situation?

Preliminary environmental cost accounting for Olkaria

Mwangi-Gachau, Elizabeth

Decision-making in the areas of energy and environment calls for an evolution, to better evaluation of the possible impacts of any envisaged policy and measure.

How impact assessors can and must be catalysts

Croal, Peter

This presentation will show how and why impact assessment and its practitioners can and must play more of a change agent role in the energy sector, especially in emerging economies.

Environmental IA for offshore oil and gas projects

Kitagawa, Mizuki; Nakajima, Masaru

The research revealed general features of EIA for offshore oil and gas projects around the world and suggested what EIA should be like in this industry.

Risk assessment in EIS: Better decision-making?

Massote Caldeira Pereira, Marilia; Naked Haddad, Alvaro

Is the environmental risk assessment important during the EIA of the oil and gas industry? We compared some countries' regulations looking for answers and a better framework to help decision-making.

Country experiences with evolution in the energy sector and IA requirements (II)

Wednesday 1 May | 16:30-18:00 | B2

Paper Session

Chair(s): Svein Grotli Skogen

There is an accelerating evolution in global thinking focusing on the negative impacts of oil and gas production, particularly in developing countries where more energy is urgently needed at the same time as climate change and environmental degradation is most critical. What can an IA practitioner do in this situation?

A study on long-term liability and EIA

Komatsu, Eiji; Yanagi, Akihiro

Carbon dioxide capture and storage (CSS) is expected to become large-scale greenhouse gas (GHG) reduction technology. This paper addresses appropriate long-term management and legal framework and role of EIA to realize the long-term liability for CCS.

Incorporating climate-related uncertainties into EIA

Kunz, Nadja; Guimaraes, Alice

The study evaluates how climate-related uncertainties have been currently incorporated into Brazilian EA process and how the Canadian strategic assessment on climate change could serve as a model for Brazilian EAs.

A co-design and outcomes-based impact assessment model

Dansey, Anne

There has been significant and rapid change within energy policy in Australia. The Agriculture Energy Investment Plan provided a strategic response for farmers.

Challenges facing best-practice EIA in the solar industry

Nixon, Bronte

EIA for solar farms is a relatively new concept for Australia. This paper considers the lack of consistency across EIAs and considers the poorly understood issue of the potential heat-island effect.

Concurrent sessions

PACIFIC DAY

Sponsored by World Bank Group, Asian Development Bank, Japan International Development Agency, and Australian Aid.

Developments in EIA practice in the Pacific Islands

Tuesday 30 April | 11:00-12:30 | P10

Paper Session

Chair(s): Easter Galuvao

Extractive industries such as liquefied natural gas (LNG) and various types of mining offer considerable potential for economic development in the larger islands of the Western Pacific, but there are also challenges to thoroughly assess environmental and social impacts and to meet international standards and best practice. This session considers case studies and the development of EIA practice in the Pacific Island Countries.

Rainforest regeneration: lessons from PNG LNG

Dem, Francesca

Spontaneous rainforest regeneration after small-scale disturbance in forested landscape progresses, albeit at a slower pace, along the succession trajectories broadly similar to the natural rainforest.

Seeing it through national content, good practice

Mosby, Anita

Sharing good practices based on experiences from the construction and operation of the PNG LNG in a country with a challenging terrain and more than 800 languages and cultures.

Strengthening impact assessment in Vanuatu

Tor, Naomay

This presentation will focus on processes of impact assessments in Vanuatu and the challenges that the country through the Department of Environmental Protection and Conservation is currently facing.

Strengthening the EIA system in Samoa

Savaiinaea, Della

Improving Samoa's EIA system by strengthening the capacity of private sector stakeholders to properly inform the preparation and development of EIA reports.

The steady evolution of ESIA for extractive projects

Moriarty, Daniel; Joku, Lemas

PNG has taken a pragmatic approach to ESIA that focuses on "real" environmental and social issues. It is important to maintain this focus and avoid distraction by "second order" issues.

EIA systems, guidance, and support in the Pacific Islands

Tuesday 30 April | 11:00-12:30 | B2

Paper Session

Chair(s): Nick Taylor, Jope Davetanivalu

In the Pacific Islands, impact assessment (IA) is used to plan, assess and implement a wide range of development projects and strategic planning activities with the goal of achieving more sustainable and resilient futures. This session reflects on processes to strengthen IA practice and build local capacity.

The role of SPREP in supporting EIA in the Pacific

Barbara, Gregory; Galuvao, Easter; Davetanivalu, Jope
Secretariat of the Pacific Regional Environment Programme (SPREP) continues to provide EIA support in the Pacific, so why are some of the same issues identified in the late 1980s still occurring? It's because things keep changing.

Strengthening EIA in the Pacific

Galuvao, Easter; Barbara, Greg; Davetanivalu, Jope
Secretariat of the Pacific Regional Environment Programme (SPREP) has recently revised the guidelines for environmental impact assessment in the Pacific. These guidelines reflect the needs of Pacific Islands as well as providing practical tools for better EIAs.

The role of multilateral development banks

Butler, Ross

The current and potential future roles of multilateral development banks including the World Bank and Asian Development Bank in strengthening impact assessment in the Pacific.

Safeguard Performance in the Pacific Islands

Leonard, Peter; Quintero, Juan; Mathur, Aradhna

The challenges for implementing safeguards in the Pacific island countries.

SEA and sustainable development

Tuesday 30 April | 14:30-16:00 | P10

Paper Session

Chair(s): Jope Davetanivalu, Vanessa Freed

This session considers the challenges in promoting and using SEA and achieving sustainable development in the small island states. Applications include rural development, agroforestry, ridge to reef management strategies, biodiversity, and oceans management. Discussions will consider the use of EIA as a sustainable development tool.

The challenges of promoting SEA in small island states

Dalal-Clayton, Barry; Freed, Vanessa

The first ever SEA undertaken in the Federated States of Micronesia aims to inform integrated land and sea planning and management. Its design addresses the challenges faced by remote Pacific islands.

Piloting SEA in Timor-Leste for rural development

Palerm, Juan; Toselli, Manuel; Pinto, Augusto; Medez, Manuel

The first SEA in Timor-Leste, prepared for the rural development sector under EU cooperation, informs the EU's future support strategy and provides policy-making elements to the government.

The importance of EIA and oceans management

Latu, Kosi; Davetanivalu, Jope; Galuvao, Easter
Pacific Islanders depend on the health of island and ocean ecosystems for their sustenance and livelihoods; therefore, sustainable development through EIA is essential in the Pacific.

EIA a sustainable development tool in the Pacific

Davetanivalu, Jope; Barbara, Gregory

This presentation will discuss the use of the EIA process in the Pacific, drawing upon case studies and best practice across the region.

Power through partnership: The Tina River hydro case study

Tuesday 30 April | 14:30-16:00 | B2

Panel Discussion

Chair(s): Paul Roughan, Nick Taylor

Tina River Hydro in Solomon Islands points towards a much deeper integration of measures for positive local benefit than classic impact assessment would countenance. It is a flagship energy project working to secure customary land and share benefits with indigenous land owners and related community members.

Advancing IA practice in the Pacific Island Countries

Tuesday 30 April | 16:30-18:00 | P10

Panel Discussion

Chair(s): Peter Leonard

This will be a facilitated question and answer session to advance impact assessment practice in the Pacific Island Countries. The session will address the complex needs of people and environments in the region, and ways of supporting environmental and social impact assessment practice in relation to infrastructure development. It will consider coordinated ways to build practice and strengthen institutional capacity and environmental and social governance of island states. It is intended that the session will build further the community of practice and provide momentum towards a Pacific Islands network affiliated with IAIA.

Speakers and panelists

Tor, Naomay (DEPC, Vanuatu)

Waqairamasi, Senivasa (Fiji)

Wele, Francis (UNDP, Fiji)

Ofea, Allen Kisi (Solomon Islands)

Thelander, Kate (DFAT)

Murase, Noriaki (JICA)

Williams, Jean (ADB)

Pohl, Wolfhart (World Bank)

Butler, Ross (World Bank)

Puna, Nga (Cook Islands)

SPECIAL TO IAIA

Meet the editors

Monday 29 April | 15:00-16:30 | P5

Workshop

Chair(s): Thomas Fischer

Are you considering writing an article or professional practice paper on impact assessment but aren't sure where to start? The editor and managers 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 guest issues.

TOOLS AND METHODS OF IA

Dot-to-dot isn't just for kids, silly wabbit

Monday 29 April | 15:00-16:30 | P3&P4

"Press conference"

Chair(s): Virginia (Ginny) King, Rick Gillan

The press conference is announcing the evolutionary approach in balancing energy provision, economic generation, and environmental protection through revolutionary integration of various components of the IA process.

Not-for-profit organization and land owner

Gillan, Rick

Natural capital strategist

King, Virginia (Ginny)

Biodiversity management and offset specialist

Rodrigues, Patricia

Wetland expert, permitting and IA strategist

Walker, Scott

Access to remedy and impact assessment

Tuesday 30 April | 11:00-12:30 | P7

Panel Discussion

Chair(s): Nora Götzmann

IAIA Section: Corporate Stewardship and Risk Management

This panel discussion connects the practice of impact assessment and right to access to remedy of affected stakeholders. The role of project-level grievance mechanisms will be discussed through practical case studies, as well as the role of the accountability mechanisms of international financial institutions and state-based mechanisms.

Social impacts of land acquisition in Punjab (India)

Sidhu, Sukhwant

The unintended social impacts of agricultural land acquisition in India. Compensatory justice should be holistic, should include all stakeholders, and should include SIA as an integral part.

The lessons from Dingleton

Wellmann, Gwendolyn

The Dingleton resettlement offers us lessons: how consultation processes fail and why internal grievance mechanisms fail to the extent that legal action is the last resort for both sides.

Enhancing capacity and participation for effective integration of human rights

Gotzmann, Nora

The contribution to the panel will focus on practical steps and practices for enhancing capacity and participation of companies and communities for effective integration of human rights into ERM.

China's EIA process: Reshape, challenges, and opportunities (I)

Tuesday 30 April | 16:30-18:00 | P7

Panel Discussion

Chair(s): Jiang Ling, Clara U Kam Wa

This forum explores the reshaping of environmental impact assessment framework to address the environmental impacts of local and regional mega infrastructure in order to safeguard the environment, integrate the need of community, and develop sustainable development strategy. Case studies from the Mainland and other places will also be demonstrated.

China's EIA at the crossroads: What next?

Lam, Kin Che

Confronted with environmental issues of new scale and nature, the Chinese EIA system has to undergo paradigmatic changes in approach and orientation making use of the market and public engagement.

The institutional change of EIA in China

Bao, Cunkuan; Xu, Jia

The paper will demonstrate the brief development history, identify the existing problems, and discover the political and policy factors that will cause the change of EIA in China.

Compliance and enforcement of EIA in Hong Kong

Choi, Yee On Dorothy; U, Mei Ho, Mable

Environmental permit (EP) contains conditions to capture commitments from the EIA process. Practice of EP enforcement and continuous evaluation of project environmental performance are reviewed and discussed.

A new reality for industrial facilities in China

Hu, Yinghua

This paper aims to share the insights of the changes in the permit procedure and implication on private sector in relation to sustainable investment in China.

Public participation in Hong Kong's EIA: 20 years

Ng, Cho Nam

This paper reports an overview of the public participation process in the EIA system in Hong Kong and discusses its effectiveness, deficiencies, and major challenges for improving it.

China's EIA process: Reshape, challenges, and opportunities (II)

Wednesday 1 May | 11:00-12:30 | P5

Panel Discussion

Chair(s): Jiang Ling, Clara U Kam Wa

This forum explores the reshaping of environmental impact assessment framework to address the environmental impacts of local and regional mega infrastructure in order to safeguard the environment, integrate the need of community, and develop sustainable development strategy. Case studies from the Mainland and other places will also be demonstrated.

Mainstreaming biodiversity impacts into China's SEA system

Li, Wei

A risk-based approach is raised on integrating biodiversity considerations into the SEA system in China.

Enhance the efficiency of EIA by guideline revision

Zhang, Qiannan

The revision of current guideline is an important channel to enhance the efficiency of EIA. Establishing scientific and efficient assessment methods and indicators is the most challenging part.

Post-EIA follow-up and EM&A for projects in Hong Kong

Isa, Mohamed Hasan; Yeung

Effectiveness of environmental monitoring and audit programme for mega-scale government infrastructure projects against private sector residential development.

Environmental acceptance of construction projects

Zhou, Peng

In 2017-2018, the Appraisal Center for Environmental & Engineering Ministry of Environmental Protection undertook the monitoring of construction projects and investigated the EIA reports. This paper aims discusses the challenges and propose the solutions for the monitoring.

PEIA methods study of industrial projects in China

Sun, Hui; Zhao, Weichao; Li, Shi; Ouyang, Zhenyu; Fang, Qiuyang

Taking the modern coal chemical project with Chinese characteristics as a case, studying the technical methods of post-environmental impact assessment of industrial pollution projects.

Community engagement from project, policy, and IA perspectives (I)

Wednesday 1 May | 11:00-12:30 | P6

Paper Session

Chair(s): Alexandra Blood

A diverse range of global case studies and practical learnings, from government, project, and community viewpoints, will share perspectives and outcomes of engagements with communities and IA ranging from reflection upon impacts to promoting awareness, project participation, and legal and policy implications.

Experience of doing IA by the local community

Raissyian, Behzad

A local community has been trained and coached to use IA for their tourism initiative to test how effectively IA can be used by the community itself where no resources are available to hire a consultant.

The potential of peace and conflict impact assessment

Searle, Catherine

Development projects in regions affected by conflict have an extra layer of risk. The emerging field of peace and conflict impact assessment offers new tools and opportunities for peacebuilding.

From attendance to participation to consultation

Ruiz, Yaddy; Romero, Andrés; Palacio, Alfonso

Soto Norte case study. Successful community engagement process results in an enriched IA process, from audience attendance to participation to consultation.

Concurrent sessions

Environmental impact assessment, community engagement

Bynoe, Paulette; Simmons, Denise

This study examines the role of local community engagement in the EIA process and its contributions to sustainability. The study also highlights the challenges, opportunities, and lessons learned.

Community engagement from project, policy, and IA perspectives (II)

Wednesday 1 May | 14:30-16:00 | P6

Paper Session

Chair(s): Alexandra Blood

A diverse range of global case studies and practical learnings, from government, project, and community viewpoints, will share perspectives and outcomes of engagements with communities and IA ranging from reflection upon impacts to promoting awareness, project participation, and legal and policy implications.

Community involvement in EIA process in Nigeria

Ojile, Meshach; Samuel, Andrew

This study reports on levels of participation/involvement of stakeholder communities in EIA process in oil/gas project planning in part of Niger Delta, Nigeria.

Move over Habermas: how deliberative can the law make IA?

Sinclair, John

Provisions for public participation under the new Impact Assessment Act in Canada are considered to establish the extent to which these provide an appropriate foundation for the evolution of meaningful participation.

Neighborhood perception of areas affected by fine particulate matter

Khoironi, Adian; Sri Oetari, Poerna

In viewing the existence of Tanjung Jati power plant, the neighborhoods of the study areas have diverse thoughts due to lack of knowledge about the impact of pm 2.5 for their health risk.

Solving conflicts from livestock farms

Hwang, Sang-il; Cha, Eunji

This presentation shows how a local consultant finds out a way to solve conflicts between livestock farmers and nearby residents in a small community.

Impact assessment of project closure: Meeting the new expectations

Monday 29 April | 15:00-16:30 | P7

Paper Session

Chair(s): David Snashall

This session is sponsored by ERM

Planning and managing project closure has become a major concern in the mining and oil and gas industries, with increasing scrutiny from governments and communities leading to higher corporate standards. Within this context impact assessment is emerging as key tool to assess closure options and identify and mitigate impacts.

Lessons from the closure of the Leigh Creek Coalfield

Zeman, Nathan; Querzoli, Andrew; Marshall, Greg; Williams, Brad

An overview of the sudden closure of the Leigh Creek coalfields in northern South Australia.

Engaging stakeholders in post-mining transition

Everingham, Jo-Anne; Rolfe, Susan; Akbar, Delwar; Lechner, Alexander; Morrish, Fleur

Mining contributes to many regional economies, yet has major impacts on land use. This paper outlines five models for incorporating stakeholder expectations in planning post-mining land uses.

Social license to exit: A flawed concept

Haggerty, Julia

Hazelwood: Leading the way in the Latrobe Valley

Burnett, Alicia; Fridell, Adam; Scrase, Antonia

Hazelwood Power Station and Coal Mine was the first of three large coal-fired power stations in Latrobe Valley to close. This paper highlights how we are facing IA challenges head on.

Reliable mine rehabilitation and closure

Unger, Corinne; Bond, Jo-Anne

This paper identifies processes for undertaking mine closure with minimal negative impacts. Using the theory of high reliability organizing, it analyzes documents about four mining-related cases.

Community engagement from project, policy, and IA perspectives (III)

Wednesday 1 May | 16:30-18:00 | P6

Paper Session

Chair(s): Alexandra Blood

A diverse range of global case studies and practical learnings, from government, project, and community viewpoints, will share perspectives and outcomes of engagements with communities and IA ranging from reflection upon impacts to promoting awareness, project participation, and legal and policy implications.

Mikisew Cree vs Canada, CEEA 2012 and Bill C-69

Stuckless, Daniel

In 2013, Mikisew Cree First Nation challenged Canada's dismantling of environmental laws as they pertain to Treaty Rights. This paper evaluates the outcome of the courts and the work on Bill C-69.

Siting process for a UK geological disposal facility

Gough, Mark

Consent-based siting for the geological disposal of higher level radioactive waste: how environmental and socio-economic assessments can facilitate community engagement and social acceptance.

"Fresh Fish with FPIC" scalable consultation

Blood, Alex

Case study comparison of consultation for complex port and infrastructure projects in two Pacific nations, including similarities, challenges, and technical free, prior, and informed consent (FPIC) foundations behind the approaches.

ESIA on solid waste management policies

Zhuo, Qiannan; Yan, Wanglin

Assessing waste management policies in Minamata City, Japan, from a social aspect: how the socio-economic factors affect household recycling activities.

Delivering Australia's inland rail

Connelly, Sarah

Assessing and managing the social, environmental, and economic aspects of a 1700km freight railway project in Australia: challenges and opportunities of delivering the Inland Rail Project.

DISASTERS AND CONFLICT

Disaster risk reduction and community resilience (I)

Tuesday 30 April | 11:00-12:30 | M1

Paper Session

Chair(s): Charles Kelly, Angelo Jonas Imperiale

IAIA Section: Disasters and Conflict

The session will cover the use of impact assessment to reduce harm from disasters and other crises and responses to these events. Lessons from the assessment of response recovery reconstruction and development-disaster linkages are welcome.

Exploring the endogeneity of risk perception and resilience

Yeom, Jaeweon; Park, Dongoh; Lee, Dalbyul; Jung, Juchul

The purpose of this study is to identify impacts on resilience strategies of risk perception considering endogeneity between two factors.

Integrated assessment: Evolving sustainability pillars

Timms, Stephen; Ward, Martin

This presentation will explain the lessons learned post-earthquake in Christchurch, and the role of integrated assessment in making better informed decisions for disaster risk reduction, community resilience, and urban planning.

An introduction of disaster impact assessment in Korea

Kwak, Changjae

This paper introduces Korea's disaster impact assessment and presents development plans.

Disaster risk reduction and community resilience (II)

Tuesday 30 April | 14:30-16:00 | M1

Paper Session

Chair(s): Charles Kelly, Angelo Jonas Imperiale

IAIA Section: Disasters and Conflict

The session will cover the use of impact assessment to reduce harm from disasters and other crises and responses to these events. Lessons from the assessment of response recovery reconstruction and development-disaster linkages are welcome.

Impact assessment on coastal area of South Korea

Ku, Hyeyun; Maeng, Kwangwoo

This impact assessment of sea-level rise is performed to obtain fundamental data and key insight on coastal disaster reduction against typhoon-induced surges.

Emergency response planning for flood control

Ojo, Adeolu; Adedigba, Moses

An overview of the emergency response plan and activities for flood events in Ibadan, Oyo State, Nigeria.

Catastrophe, risk, and oil-by-rail: Insights for IA

Junod, Anne; Jacquet, Jeffrey

Social, economic, and infrastructure conditions associated with oil train disaster risks are discussed in the context of four rail communities to better inform energy development and disaster IA.

Impacts from a 7.5 magnitude earthquake in PNG

Taule, Kalyna

A description of lessons learned from the safety, environmental, and community impacts of the 7.5 magnitude earthquake that hit PNG will be presented in the context the PNG LNG project.

Disaster risk reduction and community resilience (III)

Tuesday 30 April | 16:30-18:00 | M1

Paper Session

Chair(s): Charles Kelly, Angelo Jonas Imperiale

IAIA Section: Disasters and Conflict

The session will cover the use of impact assessment to reduce harm from disasters and other crises and responses to these events. Lessons from the assessment of response recovery reconstruction and development-disaster linkages are welcome.

The role of SIA in post-disaster reconstruction

Imperiale, Angelo Jonas

We present the role SIA can have in post-disaster reconstruction to enhance disaster risk reduction (DRR) and community resilience. The paper focusses on an ongoing reconstruction process in LAquila post-disaster context.

Impact assessment in a post-disaster context

Rennie, Hamish

IA practice and frameworks in post-disaster Kaikoura (NZ) and their implications for IA and its role in building future rural resilience in a developed country are evaluated.

What now? Looking to the future of EIA

Kelly, Charles

The presentation reviews current environment and humanitarian efforts and considers what should now happen to ensure further progress to ensure negative environmental impacts associated with humanitarian response.

INFRASTRUCTURE AND TRANSPORTATION

Why follow up? Managing the social impacts of transport in urban cities

Tuesday 30 April | 11:00-12:30 | P5

Panel Discussion

Chair(s): Lara Mottee

Public transport-infrastructure engenders social and spatial change in urban cities endured long after the ESIA report is published. Follow-up processes to manage impacts continually fail to meet expectations and generate accountability. This session invites papers and discussion about ESIA Follow-up of urban transport-infrastructure projects.

The missing link: Can we follow up without ESIA?

Mottee, Lara

Does applying good practice follow-up require an ESIA? This paper discusses lessons learned about the management of social impacts during the development of the North-South Metro Line in Amsterdam.

EA followup in Sweden: A contradicting practice

Faith-Ell, Charlotta

Monitoring and evaluation of the impacts of a project or plan are core elements of environmental assessment. The Swedish case shows a very contradictory practice when it comes to EA follow-up.

Considering impacts of major infrastructure projects

Sherry, Rob

How can project proponents and relevant regulators bring local communities along on the journey in a positive manner during the construction of linear infrastructure projects?

EIA licenses, enforcement, and sanction models

Bergamini, Kay

Analysis of the models of enforcement, sanction, and control of EIA licenses in six countries, as well as their organization at national, regional, and local levels and main characteristics.

RESILIENCE AND SUSTAINABILITY

Environmental sustainability in large mining projects in developing regions (I)

Tuesday 30 April | 14:30-16:00 | P8

Paper Session

Chair(s): Leandro Arruda, Lucio Bedê

This session looks at strategies for dealing with social and environmental impacts of large mining projects in developing regions. We describe how these strategies are taking regional development, biodiversity conservation and strengthening of socio-cultural diversity in view of multi-stakeholder partnership for environmental governance.

Securing strategic water source areas

Nzimande, Mthobisi

The South African National Biodiversity Institute is exploring the broad range of legislative tools available to secure strategic water source areas.

Impacts of education and training interventions

Maurice, Simon; Johnston, Nathan

This case study of Lundin Foundation's community education intervention and skills training program will reflect on the social, economic and political impacts for community and examine business value.

Environmental compliance in extractive industries

Waqairamasi, Senivasa; Banhalmi-Zakar, Zsuzsa

Fiji operates an old mine monitored against new environment legislation. This poses a challenge for environmental compliance in extractive industries. The study aims to present on environmental compliance.

Ecological theory meets impact assessment

Novotny, Vojtech

Academic ecological research and impact assessment practice have some shared goals, methods, and practices but could benefit from more open exchange of ideas, method protocols, and data.

Evolution of environmental impact assessment in India

Reddy, G.V.

The evolution of EIA in India from 1976 and the role of various stakeholders in shaping the current regulation is presented in this paper.

Impacts of the Fundão Dam failure

Edwards, Stephen; Sánchez, Luis

This presentation shares recommendations of the Rio Doce Panel outlining key steps to restoring health to this deeply-damaged watershed in Brazil, significantly impacted from a tailings dam collapse.

Environmental sustainability in large mining projects in developing regions (II)

Tuesday 30 April | 16:30-18:00 | P8

Paper Session

Chair(s): Leandro Arruda, Lúcio Bedê

This session looks at strategies for dealing with social and environmental impacts of large mining projects in developing regions. We describe how these strategies are taking regional development, biodiversity conservation and strengthening of socio-cultural diversity in view of multi-stakeholder partnership for environmental governance.

Are we adding value? Perceived benefits of EA

Roos, Claudine

This paper investigates the perceptions of South African government officials (directly and indirectly involved in the EIA process) regarding the benefits of impact assessment for society.

The National Environmental Screening Tool

Moodley, Sargonum Marlanie

Pre-screening is a process by which the anticipated environmental consequences of a proposed development are considered, prior to the proposal being authorized or rejected.

Potash Amazonas Project: ESIA contributions

Bedê, Lúcio

The implementation of Potash Project involves territorial and environmental governance challenges. A territorial development strategy was based on ecosystem services and social participatory approach.

Concurrent sessions

PUBLIC PARTICIPATION

Conference of the birds: Evolving public participation to address community context and complexity

Tuesday 30 April | 14:30-16:00 | P7

Paper Session

Chair(s): Amy Gildea

Communities. We are the birds in Attar's literary masterpiece. All of us have our own ideas and ideals, our own fears and anxieties, as we hold on to our version of the truth. Like the birds of this story, how we involve the public in impact assessment evolves through the process itself: we may take flight together, but the journey itself will be different for each of us. This session tells us of the individual and collective experiences of communities from Africa, Northern Europe, North America, Asia and Australia and how approaches to public participation in IA are evolving.

Extractives: A conversation with the Turkana

Mutiso, Alex

A lesson from the Turkana on the EIA process in the oil and gas extractives industry: we should be patient enough to be taught from those we seek to impact.

Skewed agenda, blank canvases, and red herrings

Peirson-Smith, Timothy J.; Kwong, Louis

A critique of a public participation exercise for land supply in Hong Kong. Was it a fair, biased, or corrupted process?

Social context and accidental changes in EIA

Hung, Shiu Fung; Fischer, Thomas

This paper uses Hong Kong as an example to argue that there are often unexpected changes in EIA practices that are driven by the dynamics of civil society.

Learnings on regulatory transparency

Lock, Erik; Querzoli, Andrew; Marshall, Greg; Zeman, Nathan

An overview of the evolution of regulatory transparency in SA's mining sector, and the challenges and opportunities presented by increased transparency.

A path, not a destination

Del Vecchio, Lucas; Hernandez, Aurora

In 2011, Goldcorp signed an agreement with the Grand Council of the Crees/Cree Nation Government and the Cree Nation of Wemindji which included entire chapters dedicated to environment and social responsibility.

ENERGY, POWER GENERATION, AND TRANSMISSION

Solutions for conflicts between wind energy technologies and birds

Tuesday 30 April | 16:30-18:00 | P5

Workshop

Chair(s): Ricardo Tomé, Jack Krohn

Wind energy is vital for climate change mitigation. But it needs to be good for the environment on all levels. We target a participated discussion on the state of the art about avoiding, minimizing, offsetting and further researching risks to birds from wind energy technologies. A participatory session.

SEA for wind power and biodiversity in Kenya

Putri, Tami; Bennun, David; Mitchell, Robin; Williams, Guy

A strategic environmental assessment for wind power in Kenya is identifying overlaps of sensitive species and wind potential to inform impact avoidance by site selection.

Ecological risk-based management for wind energy

Repas, Miguel; Copping, Elise; Gorton, Alicia

A risk-based management framework directed at the responsible development of the wind energy industry to support and facilitate regulatory processes while supporting the production of renewable energy.

Turbine shutdown on demand: A key mitigation measure

Tomé, Ricardo; Leitão, Nadine; Vieira, Nuno; Canário, Filipe

Radar Assisted Shutdown on Demand of turbines has been applied very successfully in wind farms in migratory flyways for soaring birds, rendering very low mortality and negligible production losses.

Social license and impact assessment of energy transitions

Thursday 2 May | 11:00-12:30 | P7

Panel Discussion

Chair(s): Lavinia Poruschi, Simone Carr-Cornish, David Fleming

In the context of increasing diffusion of renewable energy technologies and the increasing pressure on industries to decarbonize and demonstrate a social license, this session deliberates on methods for social and economic benefit, vulnerability, and (cumulative) impact assessment in energy resources extraction and generation projects and the regions that host them.

Economic and land use implications of utility scale renewable energy projects

Poruschi, Lavinia; Measham, Tom

Utility-scale renewable energy projects are rapidly becoming a reality, but what does this mean in terms of employment, land use, or other local impacts and benefits?

The decarbonization vulnerability index

Fleming, David A.

Decarbonization is necessary to mitigate climate change, but it will generate socioeconomic impacts on communities dependent on greenhouse gas (GHG)-intense industries. This paper presents a decarbonization vulnerability index to reflect this implication across regions.

Beyond a regulatory license to operate

Calderwood, Kym

This paper explores the challenges faced by public policy managers and proposes provisional solutions to managing the diversity of stakeholder perspectives associated with extractive resource project development.

Regional and cumulative impacts of mine and coal-fired generating facilities

Roemer, Kelli

This paper uses the cumulative impact assessment framework to illuminate the combined impacts of plant and mine retirements in the Powder River Basin (USA) region and opportunities for multi-scalar policy intervention.

Assessing social impacts of mine closure

Everingham, Jo-Anne; Mackenzie, Sarah

Uranium mining towns like Arlit (Niger) and Jabiru (Northern Territory, Australia), plus towns in Central Queensland's coal basin must each assess potential socio-economic and governance impacts of impending mine closure.

The public's response to a hydrogen energy system

Carr-Cornish, Simone; Lamb, Michelle

With Australia's emerging hydrogen energy technologies industry as a case, an approach is shared for understanding the public's response and identifying social impacts that are likely to have an influence.

Social licence across three different industry phases

McCrea, Rod; Walton, Andrea

The paper presents survey data on social licence from three different host communities each in a different phase of unconventional gas development: pre-approval, early operations, and 20-year history of gas.

CULTURAL HERITAGE

Practicing heritage conservation with impact assessments (I)

Wednesday 1 May | 11:00-12:30 | P9

Paper Session

Chair(s): Eugene Jo, Arlene Fleming

IAIA Section: Cultural Heritage

The session will collect good cases of impact assessments that have addressed the need for heritage conservation and sustainable development, by focusing on heritage values assessment and community engagement in its methodology. It will serve as the basis for establishing better guidance materials for addressing heritage within IAs.

Cultural heritage, IA, and project implementation

Polglase, Christopher

This paper will present case studies that highlight the range of cultural heritage results that can take place during the implementation phase of large, complex projects.

Good practices for landscape integration

García Sánchez-Colomer, Manuel Ramón

We have developed a handbook to support landscape assessment in impact evaluation and project design. We have grouped more than 600 recommendations for landscape integration in projects.

Applying SIA in assessing contribution of cultural heritage

Gallou, Eirini

Application of SIA methodology for assessing social impacts of heritage conservation projects: the potential to achieve truly people-centered approach to conservation.

Community-engaged heritage management: Rio Tinto

Bradshaw, Elizabeth

The paper overviews Rio Tinto's community-engaged approach to cultural heritage management and community agreements for its mining developments and presents a range of project case studies.

Practicing heritage conservation with impact assessments (II)

Wednesday 1 May | 14:30-16:00 | P9

Paper Session

Chair(s): Eugene Jo, Arlene Fleming

IAIA Section: Cultural Heritage

The session will collect good cases of impact assessments that have addressed the need for heritage conservation and sustainable development, by focusing on heritage values assessment and community engagement in its methodology. It will serve as the basis for establishing better guidance materials for addressing heritage within IAs.

Managing heritage impacts associated with urban development

Kong, Ping; Dornbusch, Ramona

To ensure an effective transmission of heritage values in urban development, heritage values and associated attributes shall be assessed at a strategic level and integrated with development objectives.

Dutch best practice of heritage impact assessment

Patiwael, Patrick

This paper discusses the aspects that made the Dutch Heritage impact assessments to be considered as best practice.

Protecting heritage in Africa through IA

Odiaua, Ishanlosen

An examination of the situation in some African countries with respect to the association between cultural/natural heritage protection, EA legislation, and development projects.

Guidance for heritage and IA: A collaboration

Odiaua, Ishanlosen; Alonge, Bolanle

This contribution will examine how effective collaboration between IA and heritage professionals can contribute to successfully responding to the needs in the field.

HEALTH IMPACT ASSESSMENT

Health assessments: Types and needs

Wednesday 1 May | 11:00-12:30 | B3

Paper Session

Chair(s): Geetha Ramesh

IAIA Section: Health

This session aims to bring the practitioners from around the globe to compare and contrast different health assessments they conduct in relation to projects and the specific regulatory requirements or needs that help identify prospective impact assessment of projects, programs and policies on human and community health.

The evolution of health impact assessment in Wales

Green, Liz

The paper outlines the new statutory requirements for HIA in Wales and what it entails, how this has come to fruition, and how Wales' learning could be transferred across sectors and the globe.

USAID/Ghana environmental compliance field evaluation

Aryeetey, Henry

Indoor residual spraying for malaria control is employed where malaria occurrence exceeds 40% parasitemia in children under 5. The outcome of environmental compliance conducted in 2015 is discussed.

So what is next? Health mitigation plan implementation

Xiao, Yina; Uberti, Erasmo; Mwatembo, Raphael

Eni conducted an internal review to appraise health impact assessments mitigation plan implementation in diverse countries and projects to identify possible factors affecting the mitigation implementation.

Health impacts of mercury use in artisanal mining

Aguti, Caroline

Mercury use in artisanal gold mining is a health risk, and health impact assessment and implementation is key to ensuring safe use and development of alternative technologies.

The Mexican National Action Plan (NAP) in business and human rights

García-Chiang, Armando; Parriman, Joseph;

Weisenberger, Frank; Heiner, Michael

In 2016 the Mexican Government was going to present a National Action Plan in Business and Human Rights. This paper presents the antecedents of the NAP, and analyzes the reasons for its being unpublished.

INDIGENOUS PEOPLES

Policy, methodology, and procedure in SIA of the displacement of vulnerable people (I)

Wednesday 1 May | 14:30-16:00 | B3

Paper Session

Chair(s): John Pilgrim, Susanna Price

The session addresses the policies, methodology, and procedure employed in social impact assessment of development projects giving rise to the displacement of vulnerable peoples, and their effectiveness in retaining their livelihoods and optimizing their contribution to and participation in development.

Resettlement of displaced persons: national policies

Sapkota, Nogendra

The paper draws on the study of the People's Republic of China's national policies regarding reservoir-related population displacement, including a resettlement case study from Yudongxia reservoir.

Social procurement: Ticking the box

Diffey, Esther; Buswell, Ellen

To advance good practice in social procurement, do we need to redefine what success looks like and how we measure social value outcomes?

Expropriation or negotiated settlements?

Price, Susanna

Expropriation or negotiated settlements? Choosing the least disruptive option means reframing the public interest, addressing livelihoods and all losses, and distributing benefits equitably among land owning groups.

EIA and indigenous rights in Guyana

Bynoe, Paulette

This study adopts a case study approach to examine critically the role of Free Prior Informed Consent, as a core principle for engaging indigenous people in the EIA decision making process in Guyana.

DFI's social safeguards and economic displacement

Olmos, Santiago

Development finance institutions (DFIs) have experienced challenges in addressing issues of displacement of populations in the context of development projects which they finance. Particularly challenging has been the issue of economic displacement of vulnerable populations involved in the informal economy.

Concurrent sessions

Case studies in methodology and procedure in SIA of the displacement of vulnerable people (II)

Wednesday 1 May | 16:30-18:00 | B3

Paper Session

Chair(s): John Pilgrim, Susanna Price

The session examines methodology and procedure employed in social impact assessment in the light of case studies of development projects giving rise to the displacement of vulnerable peoples, and their effectiveness in retaining their livelihoods and income.

To move or not to move: Perceptions about risks

Wang, Han

The stronger the degree of risk perception is, the weaker the willingness to resettle will be. The willingness of affected persons should be valued and respected.

Oil infrastructure and involuntary resettlement

Ogwang, Tom; Vanclay, Arjan

The paper examines how oil and gas infrastructure development will lead/have led to involuntary settlements in the Albertine Graben and its impacts on the livelihood of the affected people.

Social impacts associated with the transmission line

Kawadza, Annah

The study assessed the social impacts of the transmission line in the KwaZulu Natal Province of South Africa. Social impacts associated with the relocation of the affected households were assessed.

Influence of inter basin water transfer project

Xu, Junshuo

Based on a questionnaire survey and field interviews, this paper discusses the impact of land acquisition for large-scale water conservancy projects on the old-age care of affected people.

IA in a volatile environment: Kandadji dam case

Bella-Corbin, Aimee; Bella-Corbin, Mbianyor

How can we ensure a better way to use IA to guaranty an effective decision-making process in an explosive and high-security-risk region for a complex large scale project implementation?

Livelihoods assessment of involuntary resettlement

Zhang, Ruilian

Based on the actual case of the fishermen in the fishing area of the DJK reservoir (DJK section) of the South to North Water Diversion Project in China, this paper identifies and analyzes the high poverty vulnerability of the fishermen.

SOCIAL IMPACT ASSESSMENT

Social impact assessment and baseline studies adapted to local contexts (I)

Wednesday 1 May | 14:30-16:00 | P5

Paper Session

Chair(s): TBC

Effective social impact assessment should be built on quality, comprehensive and relevant baseline studies. Too often, existing data is used which have collected by government agencies and research institutions, and these data tend to describe regional trends rather than give an accurate description of social conditions at the local level. This session aims to explore this problems and examine how baseline studies can be adapted to local contexts.

International standards and local realities in ESIA

Rigby, Grace

This paper draws on fieldwork experiences for an ESIA in East Africa to analyze incongruencies between international standards and local realities, using examples of vulnerability and decision-making.

Energy reform in Mexico and the evolution of SIA

Garcia-Chiang, Armando

An overview is presented on the evolution of social baseline studies towards social impact assessments within the energy sector in Mexico.

Indigenous knowledge of ecosystem services builds

Toki, Beth

Participatory inclusion of Indigenous Knowledge provides robust assessment of climate change impacts to critical ecosystem services and fosters local custodianship of nature-based mitigation.

Social impact assessment and baseline studies adapted to local contexts (II)

Wednesday 1 May | 16:30-18:00 | P5

Paper Session

Chair(s): TBC

Effective social impact assessment should be built on quality, comprehensive and relevant baseline studies. Too often, existing data is used which have collected by government agencies and research institutions, and these data tend to describe regional trends rather than give an accurate description of social conditions at the local level. This session aims to explore this problems and examine how baseline studies can be adapted to local contexts.

Onshore pipeline land access process as good practice

Liliura, Jeremiah

A systematic joint approach to land access using pre-construction survey data and the mitigation hierarchy in project planning and schedule. A good practice on the PNG LNG Onshore Pipeline project.

Undertaking SIA at an island level

Russell, Katherine; Taylor, James; Balanovic, Jovana; Aley, Joanne; Harbrow, Michael

Designing engagement for small island communities requires a full social profile to ensure appropriate engagement and participation in SIA as seen in the Predator Free Rakiura strategic SIA.

Social impacts of a stop-start university campus

Chen, Chen

A university campus, like a factory, may influence the community deeply, positively and negatively, which should be taken into serious consideration.

Biodiversity and ecology and ecosystem services

40 years of impacts on lakes and reservoirs

Giberti, Verónica; Boveri, Maria

We have an opportunity and a need to evaluate the environmental impact of four decades of economic and social development in Argentina upon its lakes and reservoirs.

Nature surveys and biodiversity offsets in Finland

Kalliolevo, Hanna; Vuorisalo, Timo; Salo, Matti

Approach to assess nature values and finding potential compensation areas for biodiversity offsetting based on a large database of nature inventories conducted in Finland.

Analysis of change in urban ecological networks: Focus on Busan, Korea

Kang, Jung Eun; Choi, Hee-sun; Hwang, Hee-soo; Lee, Sang-hyeok

This study examined ecological network change affected by the 2020 invalidation of decisions on urban parks with a focus on Busan, Korea.

Assessing offshore biodiversity in EIAs: Experience from the Nordics

Mikkelsen, Ditte Marie

Ramboll Environment & Health has significant experience working with large-scale multidisciplinary offshore EIAs, especially in the Nordic countries.

Mitigation measures for wildlife in Chile: Examples from the real world

Perez, Cristian; Araya, Gino

This research analyzes mitigation measures implemented for biodiversity in Chile that have been sanctioned by the enforcement agency as a way to understand their relationship with the EIA process.

Disasters and conflicts

Earthquake risk assessment in Korean IA: Status and future

Kwon, Sun-Yong

In this study, the current status of earthquake risk assessment in Korean IA was examined and a direction for improvement was suggested.

Assessment of building damage risk by natural disasters in South Korea

Lee, Junhoo; Yoon, Seonghwan

The purpose of this study is to identify the relationship between weather variables and buildings damaged in natural disasters. We used four datasets on building damage history and 33 weather datasets.

EIA

KSEIA: Retrospect and prospect

Kim, Myungjin; Jung, Jong-Gwan; Jeon, Sookjin

In retrospect we have learned IA lessons from KSEIA and we will develop IA in prospect. The future of KSEIA is the future of IA.

Energy

Strategic impact assessment and public acceptability for renewable energy in Korea

Cho, Kongjang; Seo, Aram; Maeng, Junho

The results of a scenario workshop with residents near the wind project planned site showed that this can be a useful method for participatory renewable energy project planning.

Offshore wind farming in southwestern Korean coastal farms

Maeng, Junho; Kim, Taeyun; Seo, Jinsung

This study aims to provide environmental impact assessment and ocean safety standards for the construction of the offshore wind farms on the southwest coast of South Korea.

Nuclear power plant (NPP) decommissioning project and EA in Korea

Shin, Kyung-Hee

Comprehensive environmental impact assessment of NPP decommissioning projects in Korea is required to complete the site closure successfully without concern about radiological and non-radiological impact.

Study on assessment plan of underwater noise in offshore wind turbine

Sun, Hyosung; Lee, Byungkwon

This study is focused on the suggestion for the assessment plan of the underwater noise impact in the development of an offshore wind turbine.

SIA for geothermal development in Japan and New Zealand

Shibata, Yuki; Hori, Ayumi; Kawasaki, Daiki

This paper discusses lessons learned from advanced geothermal planning system in New Zealand for Japanese geothermal SIA.

Environmental justice

Analysis of lawsuit of national big projects related to EIA of Korea

Lee, Youngsoo

Through examination of four main reasons connected to an EIA-related lawsuit case, we can suggest solutions to improve EIA legislation in Korea.

Governance

SRF quality standards and management could influence EIA effectiveness

An, Junyeong; Kim, Yu-Mi

In this poster presentation, we review the laws and institutions of South Korea for production and use of solid refused fuel (SRF), and reveal that SRF quality standards and management might influence EIA effectiveness.

ESIA, licensing, and enforcement in Latin America

Baldwin (Jr.), Gunnar

This poster presents the findings of a comparative study of environmental licensing and enforcement systems in Latin America in the context of activities subject to the ESIA process.

Promoting SEA in achieving sustainable development: Taiwan case study

Feng, Chun-Cheng

Taiwan government has actively pushed SEA since the Environmental Impact Assessment Act was promulgated in 1994. We have compiled 19 cases of SEA.

SEA in New Zealand: Do s32 reports pass the test?

Morgan, Richard; Whitby, Chantal

Are s32 reports under the NZ RMA really the equivalent of SEA? Our project looked at 55 reports to find out.

Resource communities and Community Benefit Agreements: Long-term benefits from short-term projects

Rose, Jackson; Haggerty, Julia

Community Benefit Agreements may be important to secure long-term benefits from short-term extractive projects, and this work explores their reception and application in a rural U.S. community.

On monitoring and follow-up in northern Quebec

Hickey, Gordon; Che, Tian Que

Identifying issues and opportunities presented by EIA monitoring and follow-up practices in Northern Quebec to enhance the inter-connections between the governance, communities, and resources management.

Health

Neighborhood perception of areas affected by fine particulate matter (pm2.5) from Tanjung Jati (Indonesia) power plant

Sriotetari, Poerna; Khoironi, Adian

In viewing the existence of Tanjung Jati power plant of Tanjung Jati, Jepara, Indonesia, the neighborhoods of study areas have diverse thoughts due to lack of knowledge about the impact of fine particulate matter (pm2.5) on their health.

Unseen impacts of project location

Swangjang, Kanokporn

This study aims to analyze some hidden impacts of project location. Two groups of projects according to Thai legislation, including EIA level and EHIA level, were evaluated.

SEA

The Tallinn Forum: An international cooperation on capacity building in SEA

Faith-Ell, Charlotta; Marshall, Ross; Kalle, Heikki

The Tallinn Forum is a cooperative initiative that has been developed by some of Europe's leading practitioners in order to meet this need for reflection and capacity building in SEA.

Assessing the effectiveness of SEA in agricultural water resource planning: South Korea

Kim, Kyoung-Ho

SEA in water resource planning can be improved by focusing on sustainable water use that integrates water security and socio-ecological effects rather than environmental impacts of the proposed plan.

Limitation of malodor assessment for SEA of city project

Kim, Yumi; An, Junyeong

The current status and problems of malodor assessment for strategic environmental impact assessment of city development project in South Korea were investigated.

A performance evaluation of SEA in South Korea

Sagong, Hee; Joo, Yong-Joon; Lee, Who-Seung; Kang, Eugene

We have conducted a performance analysis to evaluate how the determination of appropriate alternatives and scoping were used in SEA in Korea.

SEA of a regional oil and gas project in Argentina

Sarandón, Ramiro

The SEA of a regional non-conventional oil and gas project in Argentina recommend prioritizing environmental issues to transform this opportunity into a sustainable regional development plan.

Tools and methods

How are you communicating your impacts?

Aldous, Kerrie

As impact assessments evolve towards performance-based outcomes, this poster presents a visual exploration of the way impacts may be communicated for a reference design versus a more detailed design.

Understanding the effects scale on EA screening and scoping

Cilliers, Dirk

Scale is a key characteristic associated with spatial information and should be carefully considered in any process where spatial information is used to inform decision making.

Public participation in the practice of China's EIA by analysis of an integrated framework

He, Jia; Yao, Xinyue; Bao, Cunkuan

The poster will set up an integrated framework to categorize different public participation patterns in EIA practices and analyze their features to find a more effective type of public involvement.

Theory of Planned Behavior within the context of China

Lan, Lan; Jia, He; Cunkuan, Bao

This poster uses the Theory of Planned Behavior and quantitative methods to analyze the behavior choice and influencing factors of public participation in EIA.

Conversion of EIA information to regional basis data

Lee, Mounq Jin; Cho, Namwook

This study suggests the implications for institutional development through a case of Korea's environmental impact assessment information.

A study on the cases and operation of drones in EIA

Lee, Suenghyun; Se-Hoon, Jung; Jong Chun, Kim; Seung Sup, Lee; Hyoung Sum, Han; Ki Tae, Baek

Using drones for post-management of environmental impact assessment will enable active management of environmental changes in development projects.

New environmental management mode: 4Ls

Liu, Xiaoli

It is a key task for Chinese environmental protection departments to actively implement the requirements of the reform of the ecological civilization system and deepen the reform of the EIA system.

Compendium: National EIA professional recognition

Marshall, Ross; Fothergill, Josh

The poster presents the updated findings of an IAIA 2017 research grant-funded study exploring national recognition schemes for individual EIA practitioners.

Tourism

Environment planning tool for sustainable tourism

Barbara, Gregory; Davetanivalu, Jope; Galuvao, Easter

These guidelines highlight the importance of EIA, impact management, and mitigation for promoting sustainable tourism development by avoiding or minimizing potential damage to the environment.

Changing gear: The impacts of tourist activity around a new cycle trail

Mackay, Michael; Taylor, Nick; Perkins, Harvey

A 300km cycle trail in New Zealand was designed to have positive effects on local communities and environments; however, issues arise around potential impacts and sustainable outcomes.

Urban planning

Heat wave impact variation due to urban canopy change

Park, Chae Yeon; Lee, Dong Kun

Development in urban areas can change the heat wave impact on outdoor people. We assessed the change of the heat wave impact by changing form and materials of the urban canopy.

JICA's Right of Way Management Project in Cambodia

Tsuchida, Takayuki; Tauch, Chankosal; Chhim, Phalla;

Pin, Vuthea; Pork, Novida; Yamashita, Akira

Outputs from JICA's Technical Cooperation Project in Cambodia, Right-of-Way Management System, consists of mapping, database, and preventive activities.

Urban green space spatial distribution impact on flash flood reduction

Yang, Byungsun; Lee, Dong Kun

By using a simplified hydrological model, we simulated urban green space runoff reduction effect according to spatial distribution and flash flood reduction.

ANNUAL GENERAL MEETING

Wednesday 1 May | 12:40-13:30 | M1

This is the annual business meeting of the Association and a time to recognize one of IAIA's outstanding members.

All conference participants are encouraged to attend, learn more about IAIA's operations, what we accomplished over the past year, and what lies ahead for the next. In addition, come celebrate one of IAIA's finest as we give out the Lifetime Achievement Award to Asha Rajvanshi.

Agenda

1. Welcome, introductions, confirmation of the 2018 AGM Minutes
2. Report from the President, Sara Bice
3. Report from the Executive Director, David Bancroft
4. IAIA's Financial Report from the Treasurer, Morgan Hauptfleisch
5. Presentation of the IAIA Lifetime Achievement Award and address by the recipient, Asha Rajvanshi
6. Q & A from members

Notes

EXHIBITORS



Boréalis • Cardno • CQUniversity

City of Brisbane • Green Ticket

Hydrobiology • IAIA20

NGH Environmental • Taylor and Francis

Tetra Tech

Titley Scientific

AFFILIATE, BRANCH, AND ASSOCIATED ORGANIZATION POSTERS

Check out the posters to learn about these groups and their latest activities!

- **Korea:** Korean Society of Environmental Impact Assessment (KSEIA)
- **Environmental Institute of Australia & New Zealand** (EIANZ)
- **New Zealand:** New Zealand Association of Impact Assessment (NZAIA)
- **Portugal:** Associação Portuguesa de Avaliação de Impactes (APAI)

Tables are provided in the Plaza Foyer for IAIA members to display information, distribute conference papers, or announce/distribute non-commercial items. Delegates must attend the conference to display materials. IAIA reserves the right to remove documents or materials without notice.

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

Ballot/SYP Agenda

Help identify outstanding presentations!

Based on delegates' feedback, select presenters will be invited to record their presentations for online viewing.

Please drop off your ballot at the registration desk by 14:30 on Thursday 2 May, or complete the session's "Presentation Survey" in the mobile app.

OUTSTANDING PRESENTATIONS

Submitted by

Presenter's name

Presentation title

Session Date	Session Time			
Monday 29 April				15:00
Tuesday 30 April	09:00	11:00	14:30	16:30
Wednesday 1 May	09:00	11:00	14:30	16:30
Thursday 2 May	09:00	11:00	14:30	

What makes this presentation outstanding?

Presenter's name

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What makes this presentation outstanding?

STUDENTS AND YOUNG PROFESSIONALS (SYP) WORKSHOP

Monday 29 April | 08:00-11:45 | P8

To foster the integration of students and young professionals in IAIA conferences, the Students and Young Professionals (SYP) Section, together with the Headquarters and the IAIA19 Program Committee, have organized a half-day "Student and Young Professionals Workshop" as a pre-event of IAIA19.

PROGRAM

07:30 - 08:00

Registration (Main IAIA19 registration desk - Plaza Foyer)

08:00 - 08:10

Workshop opening. Sara Bice (IAIA President) will do the honors of welcoming the SYP Section members to the workshop.

08:10 - 09:30

Keynote speakers presentations. Four invited speakers from different sectors present their experience and share their points of view about career issues related to IA career development.

Luis E. Montañez Cartaxo (Consultancy sector)

Ntsako Baloyi (Industry sector)

John Pilgrim (Academic sector)

Jon Womersley (Public sector)

09:30 - 09:45

Presentation of an EIA training course by John Boyle

09:45 - 10:00

Coffee break

10:00 - 10:30

Elevator-pitch presentations by SYP. Five SYP members (pre-chosen volunteers) will present what they are working on (4 minutes each) and all the participants of the workshop will be able to benefit from the experience of others.

10:30 - 11:30

Speed mentoring. Just like speed dating, the SYP will introduce himself/herself to an experienced member of the IAIA (the mentor) and have 3 minutes for an exchange. At the expiration of the 3 minutes, the SYP will move to meet the next mentor. The objective of this speed mentoring is to meet new people and develop your network.

11:30 - 11:45

Close of workshop. Lachlan Wilkinson, IAIA19 Conference Chair



Making a difference.
Sustaining
Communities

At Cardno, we work with communities to understand their social and ecological environment. We work to minimise project impacts and maximise benefits across the development project cycle.

With a keen focus on the intersection of sustainability and development, our ultimate goal is to protect and restore natural and social resources while facilitating productive and beneficial development. Whether performing ecological screenings or remediating historically degraded sites, for a partner who knows how to make a difference, contact Cardno.



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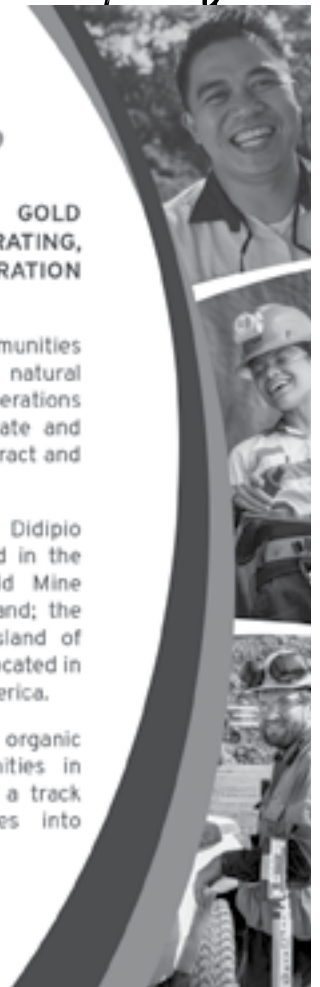
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April 30th, 2019

Join us for a special event to discuss and share experiences in the application of Environmental and Social Assessment to meet the challenges of sustainable growth and development in the Pacific Region. The Pacific Day will address issues such as:

- Key challenges and experiences in applying safeguards policies and standards for the Pacific Island Countries.
- How to strengthen Impact Assessment practice and build local capacity.
- Challenges for SEA, sustainable development, climate change and oceans management.
- Collaboration among different sectors including the private sector.
- Advancing impact assessment practice across the Pacific Island Countries.

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26-29 May 2020

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Inland Rail is a once-in-a-generation project that enhances Australia's national supply chain and completes the backbone of the national freight network between Melbourne and Brisbane via regional Victoria, New South Wales and Queensland. Comprising 13 individual projects, this new 1,700 km line is the largest freight rail infrastructure project in Australia and one of the most significant infrastructure projects in the world.

We aim to deliver and operate Inland Rail sustainably to ensure new economic benefits reach the people of Australia at a local, regional and national scale. We also strive to minimise our environmental footprint and engage respectfully and meaningfully with our Indigenous stakeholders to provide positive outcomes across the Inland Rail Programme. We will:

- ▶ Embed sustainability into our planning, design, construction and operation
- ▶ Track, score and publish our sustainability performance through the use of the Infrastructure Sustainability Council of Australia rating system
- ▶ Embrace innovation and challenge 'business as usual' design and construction methods and processes.

SUSTAINABILITY ON INLAND RAIL



For more information

1800 732 761 inlandrailenquiries@artc.com.au

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The Planting
Woodford, Sunshine Coast Hinterland
3 - 5 May 2019

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LEGACY PROJECT

With the koala as the logo for IAIA19, it is fitting that our legacy project will protect and enhance koala habitat in southeast Queensland through a contribution of US\$5 for each registration. This will also help to offset carbon emissions from the conference. The area is on a property named "Jingeri," one hour from Brisbane in the Scenic Rim Region, and adjoins the Lamington National Park. As well as providing koala habitat, vegetation on the property supports species of conservation significance such as the long-nosed potoroo, cascade treefrog and black-breasted button quail. Our offset area will also provide an additional buffer to protect the critically endangered regional ecosystem comprising semi-evergreen vine thicket with broad-leaved bottle tree.

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To help with your visitor information and tour bookings, Brisbane Marketing has an information booth at the conference in the Plaza Foyer.

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To foster sharing of information and open discussions, IAIA encourages presenters and panelists to speak freely and respectfully share their knowledge and experiences. During technical sessions, individuals are not permitted to record with personal audio or visual equipment or other recording devices such as cell phones, cameras, or recorders, without permission from the speaker.

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IAIA will refund registration fees upon written request received before 5 April 2019. A US\$125 processing fee will be retained. After 5 April, no refunds will be issued for cancellations or no-shows. Substitutions for paid registrants may be made in writing without financial penalty. Refunds will be issued after the conference.

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Attendees with a disability and/or special accessibility needs were asked to contact IAIA HQ by 5 April to make arrangements. If you have a disability and/or have special accessibility needs and require assistance, please advise IAIA staff at the registration desk. However, we cannot guarantee accommodation of requests made on-site.

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SUSTAINABLE CONFERENCES

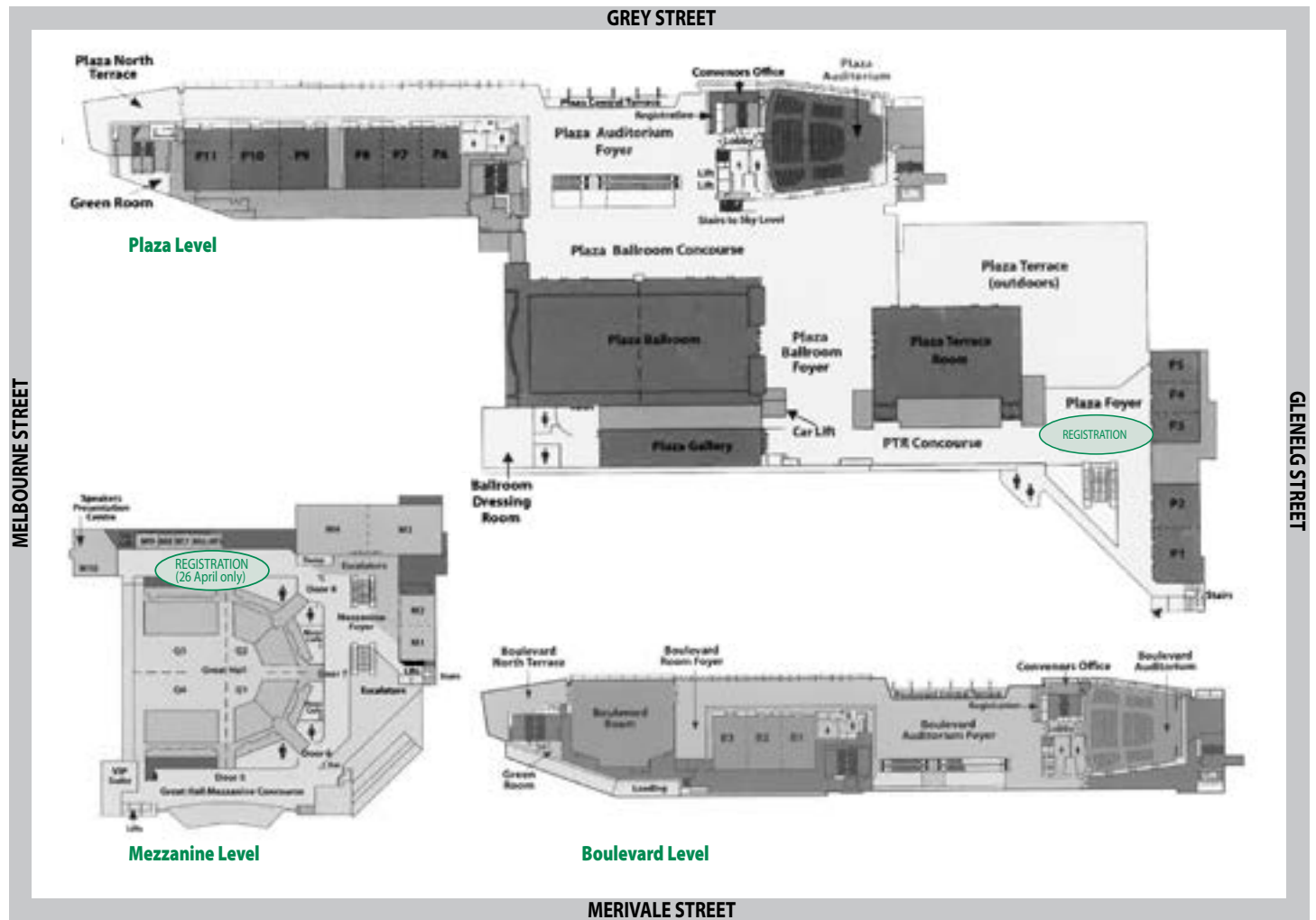
IAIA takes the following steps and many more to mitigate the impacts of our conferences:

- Limit printed materials; communicate via e-mail and Web to the extent practical and possible.
- Contract with venues that participate in green programs (e.g., hotels that provide a linen and towel reuse program).
- Use bulk servings and pitchers rather than individual bottles; use china and silverware rather than disposables.
- Participation in a carbon offset program.

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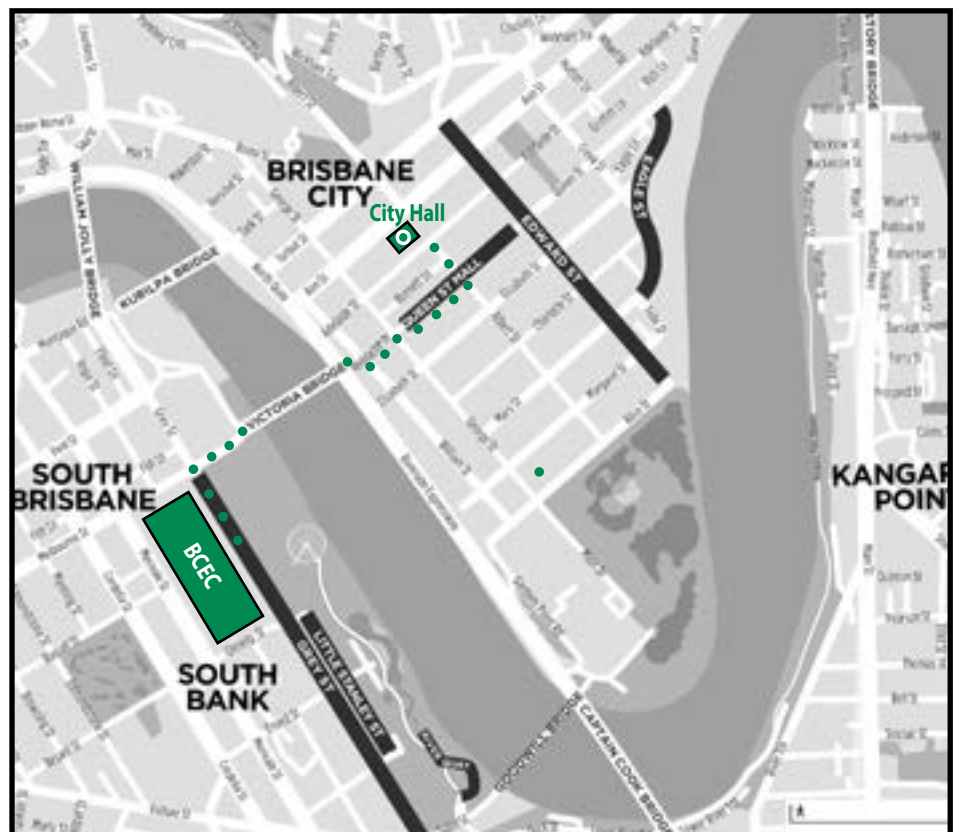
This year's conference bags are provided by **bundarra**, who says, "Community is a big thing for us, whether it be partnering with a festival, promoting local businesses and events, or sponsoring our youth through numerous programs and initiatives. Through the years, bundarra has organically grown to become a platform to promote Indigenous culture." The artwork on the bags is by Nathan Peterson, an Aboriginal artist, whose piece depicts the flowering gum tree as cold weather ends and spring begins.

For more information about bundarra and their indigenous artists, see <https://www.bundarra.org/>.



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64 Adelaide Street
Tall clock tower



We appreciate the work of these volunteers who made this conference possible. If you meet one of them, please take a moment to say thank you!

ABOUT IAIA

The **International Association for Impact Assessment** was organized in 1980 to bring together researchers, practitioners, and users of various types of impact assessment from all over the world. IAIA members number over 5,000 from over 125 countries, including those from its 17 national affiliates. IAIA activities are carried out locally and regionally through its extensive network of affiliates and branches.

IAIA's Vision: IAIA is the leading global network on best practice in the use of impact assessment for informed decision making regarding policies, programs, plans and projects.

IAIA's Mission: To provide the international forum for advancing innovation and communication of best practice in all forms of impact assessment so as to further the development of local, regional, and global capacity in impact assessment.

IAIA's Values: IAIA promotes the application of integrated and participatory approaches to impact assessment, conducted to the highest professional standards.

IAIA believes the assessment of the environmental, social, economic, cultural, and health implications for proposals to be a critical contribution to sound decision-making processes, and to equitable and sustainable development.

IAIA is committed to the promotion of sustainability, the freedom of access to information, and the right of citizens to have a voice in decisions that affect them. When we assess the impact of policies, plans, programs, or projects, we promote the free flow of complete, unbiased and accurate information to decision makers and affected parties. We believe that impact assessments should be inclusive and comprehensive, addressing the broader social and health impacts as well as any impacts on the biophysical environment. Respect for human rights and human dignity should

ABOUT THE HOST

Founded in 1987, the Environment Institute of Australia and New Zealand (EIANZ) is the peak self-governing professional association for environmental practitioners in Australia and New Zealand. It is a membership-based organization that:

- Advocates for good practice environmental management.
- Regulates the activities of its membership through a code of ethics and professional conduct.
- Certifies the proficiency of environmental practitioners, including impact assessment specialists.
- Accredits academic training for those seeking to enter the profession.
- Publishes a respected academic journal dealing with environmental management.

Its membership is drawn from all areas of environmental practice, and includes practitioners with industry, government, community, and academic careers. For more information, go to www.eianz.org.

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By sharing their resources, these companies and organizations demonstrate their commitment to the environment and contribute to the improvement of impact assessment around the globe.

When you meet a representative of these sponsors, at the conference or in the months ahead, please be sure to thank them for their contributions.

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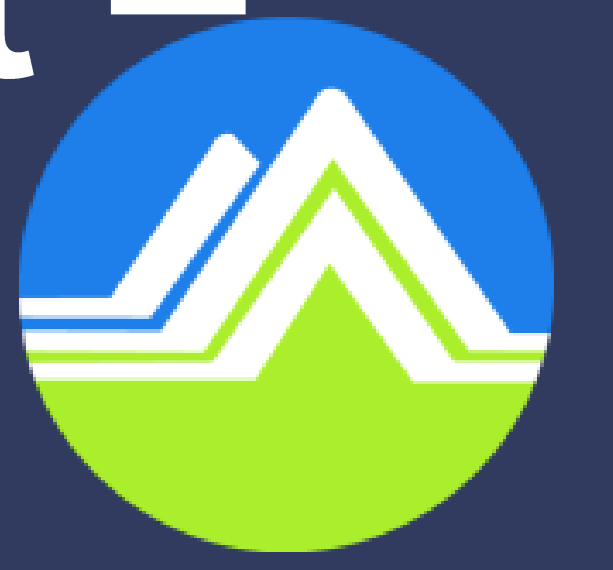


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Promoting Strategic Environmental Assessment in Achieving Sustainable Development of the Environment – with Taiwan as Case Study

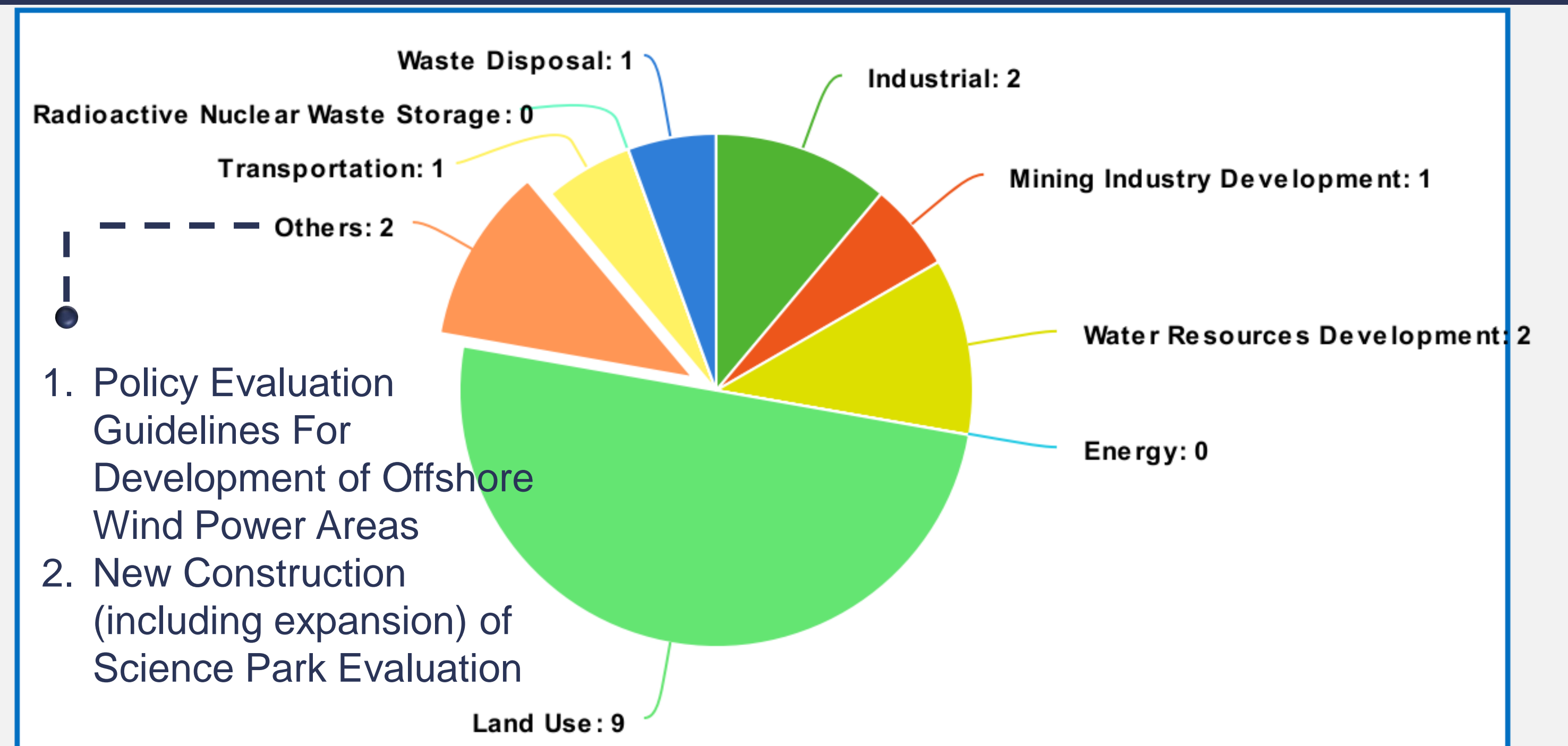


Chun-Cheng Feng, Cheng-Yu Huang, Yu-Yung Wen
Department of Comprehensive Planning, Environmental Protection Administration, Taiwan

Introduction

- The Environmental Impact Assessment Act was first announced on 30 December 1994 in Taiwan. The Strategic Environmental Assessment (SEA) processes were built since 2000. SEA is required for major government policies for which there is concern of environmental impact, thereby ensuring that in the process of establishing or making relevant decisions, competent authority take environmental factors into consideration, while accounting for general environment issues and corresponding policies, so as to establish a standard for future development projects and environment assessment audits as well as uncertainty in project disputes and investments. Taiwan government had conducted 18 SEA cases until today.
- The EPA hopes through the process of environmental impact assessments relating to priority development policies to collate lists of common environmental issues and policy solutions. These lists will be derived from various individual environmental impact assessments of existing developments. It hopes to incorporate these findings into planning for future developments and use them in order to achieve effectiveness in top-level policy guidance and overall improve the efficiency of environmental impact assessments.

Eighteen SEA Cases in Taiwan Since 2000-2018



Industrial Mining Industry Development Water Resources Development
Energy Land Use Others Transportation
Radioactive Nuclear Waste Storage Waste Disposal

Public Participation

(the EIA Review Committee's Project Group Opinion-Gathering Meeting and Onsite Observation Plan)



Consult on Policy Evaluation Guidelines for Development of Offshore Wind Power Areas

Background

- The Ministry of Economic Affairs according to article 4 item 2 of the "Procedures for Environmental Impact Assessment of Government Policy" produced the "Policy Evaluation Guidelines for Development of Offshore Wind Power Areas." Then, on December 28, 2017, the Taiwan EPA's environmental impact assessment committee held its 306th consultative meeting. The committee took stock of commonly-mentioned environmental concerns and policy solutions relating to offshore wind development. They will be incorporated into our planning for future developments and will serve as standards and references for future environmental assessment reviews.
- The above-mentioned common environmental issues involved in generation of offshore wind power could be classed in 6 major themes and 23 policy solutions.

Six Major Environmental Issue

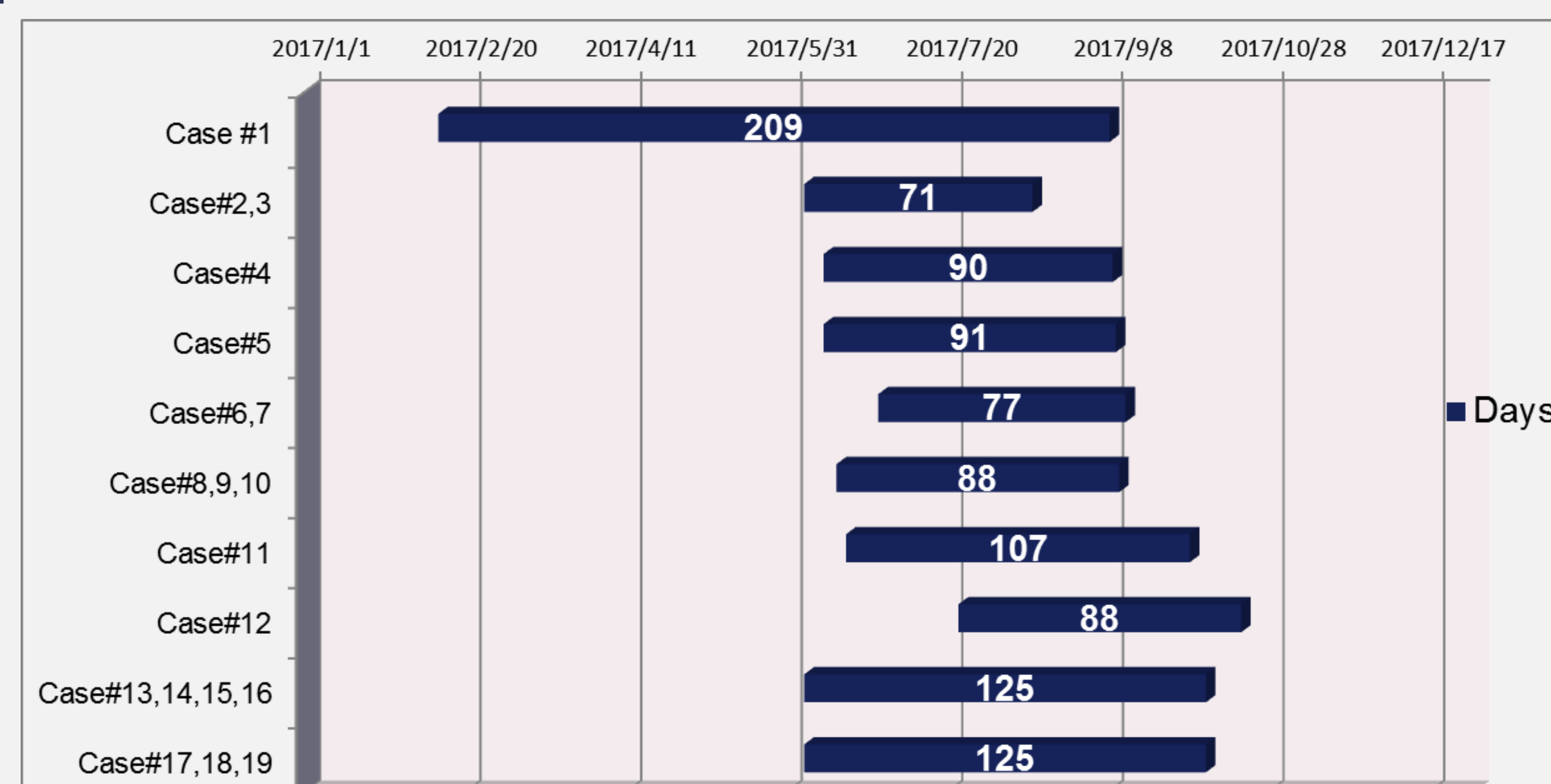
- Development Zones
- Chinese White Dolphin Conservation
- Bird Protection
- Fish Cultivation
- Electric Cable Line Planning
- Planning For Decommissioning Of Offshore Wind Generators

Twenty-Three Policy Solutions were Created

- It was suggested that the bases of offshore wind power units be at least one kilometer or more away from the main habitats of the Chinese White Dolphin and other wildlife.
- Considering that the development of areas for offshore wind power involves sensitive environmental factors in the north-south waterways in seas off Taichung and Changhua, it was suggested that offshore wind generators be first developed in areas outside these waterways.

High Efficiency

- The improvement in efficiency in environmental impact assessments related to using the previous environmental impact policy framework as a foundation. Common environmental needs were listed, public opinions in local regions were solicited and incorporated, and a joint inspection system was used to evaluate all these various factors and influences. We managed to prioritize both economic development and environmental protection. The EPA will use these cases and experiences as references when it amends laws relating to its system of environmental impact assessments in future.





IAIA 20

SEVILLE SPAIN

SMARTENING IMPACT ASSESSMENT

40th Annual Conference of the
International Association for Impact Assessment

26-29 May 2020

Seville Conference & Exhibition Centre (FIBES)
Seville, Spain

**FIRST ANNOUNCEMENT AND
CALL FOR SESSION PROPOSALS**



CONFERENCE TOPICS

The conference will be structured in 8 thematic streams.

- Decision impacts: How is impact assessment truly influencing decisions?
- Strengthening the effectiveness of impact assessment through collaboration
 - Efficient communication for streamlining processes
 - Big data analytics for tackling the biodiversity crisis
- Impact assessment and management through technological advancements
 - Information overload and impact assessment: Effectively communicating risks and uncertainties
- Tackling contemporary environmental issues: The contribution of smart technologies to monitoring
 - Investment and financing for environmental protection

Discussions will also address general IA topics and the world of IAIA special-interest Sections. See the IAIA20 web site for a full list.

SCIENCE, TECHNOLOGY, AND GOVERNANCE ADVANCEMENTS TOWARD EFFICIENCY AND EFFECTIVENESS

The recent data explosion, and the associated increase in the application of novel techniques and tools to manage and make sense of these data, are seamlessly increasing the information available to support assessments and decisions. These advancements are potentially strengthening and bolstering impact assessment, planning, and decision-making practice through the delivery of evidence-based, spatially robust, and transparent information. There are also indications that they can influence coordination of procedures and governance dynamics. But is the growing flow of spatio-temporal data and technological innovation truly leading to better assessments? Better decisions? Are we getting any wiser at taking better environmental action?

Against the backdrop of digital and technological progress, this conference aims to explore related scientific, technological, and governance developments to reflect on whether the impact assessment community is getting any smarter at bridging the *science* and *art* of impact assessment. Are we communicating scientific information appropriately across the various governance tiers and to all relevant players? Do we understand what the “right” information is for decision-makers and, indeed, how data and methodological innovation are influencing decisions? Is this leading to a new era of impact assessment and thinking? Or do we remain in the status quo?

These and some other contemporary questions will help address how we can make best use of scientific innovation to address current practical challenges.

**SESSION
PROPOSAL
DEADLINE
10 July 2019**

SUBMISSION INFORMATION

PROCEDURE

Conference submissions take place in three phases.

- 1. Session proposals.** Session proposals are invited from April through 10 July 2019. Accepted sessions are listed on the web site in August.
- 2. Paper and poster abstract submissions.** From 26 August-31 October, papers and posters are invited on the topics and sessions listed online. Accepted papers and posters with the primary author registered by 12 February 2019 (**no exceptions**) are listed in the final program.
- 3. Papers for online proceedings.** From 13 February-31 July 2020, paper and poster presenters are invited to prepare 5-page papers to be included in a paper review process for online proceedings. To be published online, the paper or poster abstract must have been accepted by the program committee, and the presenting author must be registered with fees paid by 12 February (no exceptions). Preliminary instructions for paper preparation and submission are provided to authors upon both submission and acceptance of a paper or poster abstract.

HOW TO SEND A SESSION PROPOSAL OR A PAPER/POSTER ABSTRACT

Follow the instructions at www.iaia.org > IAIA20 > Submissions.

Submissions as a session chair, session co-chair, or presenter are limited to one per person.

LANGUAGE

Submissions should be in English. English is the primary language used at IAIA conferences.

Spanish will also be used in the context of the 4th Iberoamerican and the 10th CONEIA conferences; a number of parallel sessions are anticipated in Spanish.

ACCEPTANCE AND REGISTRATION

Session chairs and paper or poster authors will receive an immediate confirmation of successful online submission. If you do not receive an immediate confirmation of submission, do not assume it has been submitted. Please try again or contact webmaster@iaia.org for assistance.

The Program Committee will notify session chairs of acceptance status for sessions by 16 August 2019.

Session chairs will notify authors of papers or posters of acceptance status by 5 December 2019.

All session chairs and presenting authors or speakers listed in the final program are required to submit a registration form, with full conference fees paid, by 12 February 2020 (no exceptions). Please submit a session proposal or abstract only if you will have funding to cover your travel and registration and can register and pay by this date. Individuals not able to comply with this registration requirement will not be included in the program and proceedings.

REMEMBER: Early registration will also save you money! IAIA does not have funds available to pay registration and travel expenses for program participants.

SPECIAL MEETINGS

Special meetings in conjunction with the conference must be listed in the preliminary program and on the registration form. Please contact IAIA HQ (kayla@iaia.org) for a proposal form. Forms must be received by 23 August 2019.

ABOUT SEVILLE



Spain is one of the world's leading tourist destinations, boasting an immense historical, cultural, and landscape heritage throughout its territory. Seville presents Spain's third urban tourist destination, a crossroads of all the civilizations that have settled on the banks of the River Guadalquivir. Visitors from around the world are attracted by its beauty, charm, and character, the hospitality of its people, its delicious gastronomy, and the good weather. Seville has undergone significant changes in recent years to embed sustainability within the urban fabric, providing modern quality services and technological innovation while protecting its cultural, historical, and environmental heritage.

IMPORTANT DATES: MARK YOUR CALENDAR

Session Proposals	<ul style="list-style-type: none">■ 10 July 2019 Deadline for session proposals■ 16 August 2019 Session chairs notified of acceptance status
Paper & Poster Abstracts	<ul style="list-style-type: none">■ 26 August 2019 Paper and poster abstract submission opens■ 1 October 2019 Preliminary program information will be posted as it becomes available. Information will be complete by 1 October.■ 31 October 2019 Deadline for submission of paper and poster abstracts■ 5 December 2019 Authors notified of paper or poster acceptance status
Registration Deadline	<ul style="list-style-type: none">■ 12 February 2020 Registration and payment deadline for presenters and all individuals to be listed in the final program and proceedings <i>No exceptions.</i>
Proceedings	<ul style="list-style-type: none">■ 25 May 2020 Deadline for draft papers■ 31 July 2020 Deadline for final papers■ 15 August 2020 Papers posted online



TECHNICAL VISITS, TRAINING COURSES, AND MORE

In addition to conference sessions, training courses, and special meetings, we are planning a range of technical visits that will involve learning, networking, and laughter as you are introduced to this beautiful part of Spain. Some examples:

- **Solucar C3** represents the only commercial solar farm in the world that brings together the three types of solar technology (tower, parabolic, and PV). It is located a few kilometers outside Seville.
- **Doñana National Park:** This protected area is one of the most important wetlands in Europe and a bird-watcher's paradise. It is located 50 kilometers outside the city.
- **Olive groves:** Andalusia is one of the largest producers of olive oil in Europe. This visit will cover ecological cultivation and its contribution to diminishing the environmental impact of this agricultural model.
- **Boat trip on the Guadalquivir:** This visit will meander through this iconic river, exposing contrasting and biodiversity-rich landscapes all the way to the marshes of the Doñana National Park, a biodiversity hotspot in Europe.
- **Mining Park of Rio Tinto:** Now closed, the extracted minerals colored and changed the properties of the Rio Tinto waters. The resulting environmental conditions were chosen by NASA scientists to test hypothetical visits to Mars.
- **El Camorro International Bird Migration Centre:** This visit will examine this international enclave, a reference for the study of the migration of birds through the Gibraltar Strait.

ABOUT THE HOST

Founded in 1992, the Spanish Association for Environmental Impact Assessment (AEIA) is a non-profit organization for environmental practitioners in Spain.

It is a membership-based organization that:

- Organizes the national EIA conference every two years.
- Advocates for good practice environmental management.
- Accredits academic training for those seeking to enter the profession.
- Publishes technical books and documents dealing with environmental assessment.

Its membership is drawn from all areas of environmental practice, and includes practitioners from industry, government and academia. For more information, visit www.eia.es.



www.iaia.org