

IMPACT ASSESSMENT IN THE DIGITAL ERA

20-23 April 2015 | Firenze Fiera Congress & Exhibition Center | Florence, Italy

Photo courtesy of Darren Po

Final program



LOCAL HOST AND ORGANIZER



IAIA-Italia

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IN ASSOCIATION WITH



Firenze Convention Bureau

Piazza Adua 1 | 50123 Florence | Italy
www.conventionbureau.it



Città di Firenze

Palazzo Vecchio, Piazza della Signoria | 50122 Florence Italy
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Qcumber

www.q-cumber.org



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Committees | Host

TABLE OF CONTENTS

Host & Committees.....	2
Welcome.....	3
Keynote speakers.....	3
Mobile app/Social media.....	4
Sustainability/Carbon offset.....	4
Award winners.....	5
Conference overview.....	6
Daily schedule.....	8
Technical sessions overview.....	10
Concurrent sessions.....	12-46
E-Governance forum.....	25
European forum.....	45
Posters.....	47
Exhibit hall.....	50
Annual General Meeting (AGM).....	50
Ballots.....	51
Networking activities & events.....	52
Index of presenting authors & panelists.....	53
Venue map.....	55
Sponsors.....	56

Emergency phone numbers

- » 112 - European emergency number
- » 113 - Police
- » 115 - Fire brigade
- » 118 - First aid

In addition to Italian, the calls are answered in English, French and German. In some areas, they may also be answered in Slovenian.

Reception staff of Firenze Fiera (telephone +39 055 497 2003) will also be available to help delegates with an emergency call.

Insurance and Liability: IAIA, the organizing committee, and the venue will not be responsible for medical expenses, accidents, losses or other unexpected damage to property belonging to conference participants, either during or as a result of the conference and during all tours and events. Participants are strongly advised to arrange their own insurance for health and accident, lost luggage and trip cancellation.

ABOUT THE HOST



IAIA-Italia Affiliate's mission is to promote the IAIA network, and its activities are focused on e-governance process optimization. In particular, IAIA-Italia supports institutions, professionals, and associations in developing integrated impact assessment strategies based on innovative decision support systems for sustainability promotion (Q-cumber.org) and promoting social participation into planning processes at different institutional levels.

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 3,100 from over 100 countries, including those from its 14 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: IAIA provides an international forum for advancing innovation and communication of best practice in all forms of impact assessment 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.

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IMPACT ASSESSMENT IN THE **DIGITAL ERA**

New technologies are influencing all aspects of our societies, and they play a pivotal role in promoting impact assessment and sustainability worldwide. The conference aims to advance a multidisciplinary discussion on the challenges and opportunities associated with the use of new digital technologies for promoting sustainability. Could smart cities and digital technologies be an opportunity for ecosystems and social resilience? How can big data strategies and online social participation improve sustainability? How do we face emerging social responsibility awareness of planning effects on health and sustainability of our future?

Welcome!



Miguel Coutinho
President, IAIA

It is my honor and privilege to welcome you to the IAIA15 Conference in Florence. For the 35th consecutive year, impact assessment experts from all over the world gather to learn from each other.

The theme of this year's conference is fascinating: digital. The Latin origin of this word is *digitus* (finger). And it's true: now we have the entire world in our fingers. We don't even need to press, just touch. How will this amazing soft technology change the world? How will it affect the way people communicate? How will it transform the way we collect and process information? The way decisions are made?

I am confident that the exceptional historical setting of Florence will provide opportunities to network among colleagues, learn from experts, rethink the way we do our jobs and share experiences that will energize us for the work ahead.

Enjoy the conference and your week in Florence, meeting new and old friends!



Giuseppe Magro
Chair, IAIA15

Digital technologies are deeply changing the perception of the world around us, and it is very difficult for those who have the responsibility of strategic choices not to consider this new mainframe. Introducing new rules and limits without increasing cultural awareness of the advantages of sustainability for everyone and everyday life will make it difficult to convince the more than 7 billion people on the planet to adopt more responsible choices. Availability of data and information deriving from global digital connections will play a crucial role in sharing best practices and will involve institutions, companies, and people in collaborative promotion of social responsibility.

The goal of "Impact Assessment in the Digital Era" is to explore emerging governance strategies in an international context for collaborative inter-institutional and social promotion of Sustainability in our countries, in our cities, in our neighborhoods.

I welcome everyone to IAIA15 in Florence, a historical event in a historical city, to plan our future inspired by the amazing revolutionary birthplace of the Renaissance.

Giuseppe Magro, MSc in nuclear engineering, is an impact/risk assessment consultant specialized in predictive modeling and decision support systems. He is president of IAIA-Italia and creator of Q-cumber, the worldwide data platform for sustainability and governance in smart cities.

Keynote speakers



Christopher Hurst

Director General of the Projects Directorate,
European Investment Bank, Luxembourg

Christopher Hurst is Director General of the Projects Directorate of the European Investment Bank. Composed of sector specialists, this directorate is responsible for project appraisal (including technical, economic, environmental and social issues) and the monitoring of project implementation, as well as for sector studies and policy.

Mr. Hurst joined the EIB in 1989 as an economist. After working on operations both inside and outside the EU, he was appointed Head of the Chief Economist's Office in 1996. From 2002 onward he has held a number of management positions within in the Project Directorate including responsibility for the Transport, Energy, and Water sectors.

Prior to the EIB, Mr Hurst held research and teaching positions at Oxford and London Universities, and worked in management consultancy in the US. He has a doctorate from Harvard University and a degree in engineering from Imperial College, London.



Ian Bailey

ERM Regional CEO for Europe, Middle East, and Africa

Ian Bailey is the Regional Chief Executive Officer for Europe, Middle East, and Africa at Environmental Resources Management (ERM), a leading global sustainability consultancy. He is a member of ERM's Global Executive Committee and Senior Leadership Team.

Ian graduated from the University of Newcastle upon Tyne in 1979 with a BSc (single hon.) in Plant Biology. He then went on to complete an MSc and DIC in Environmental Technology at Imperial College, London, in 1980.

Ian has thirty years' experience spanning the fields of contaminated land assessment, environmental risk assessment, environmental auditing and due diligence. He has worked across a number of key industry sectors including oil and gas, manufacturing, chemicals and pharmaceuticals, power, food and drink, and infrastructure and the built environment.

Mobile app

NEW: IAIA15 MOBILE APP AND DESKTOP PORTAL

Experience IAIA conferences in a whole new way!

Keep important parts of IAIA15 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 and speakers.
- » Select your favorite sessions and create your personal agenda.
- » Connect with other delegates based on shared interest or regions.
- » Take notes and send them to yourself.
- » Use the map function to find rooms.



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

Get access to your information anywhere. Log in, make changes, and they will sync to both the desktop AND the mobile version.

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

The IAIA15 mobile app is proudly sponsored by ARCADIS.

DESKTOP PORTAL <http://bit.ly/iaia15app>

MOBILE APP

Apple or Android: Search for "IAIA" or "IAIA Event"
Blackberry or Windows: <http://showcase.genie-connect.com/iaia/>

LOGIN DETAILS FOR REGISTERED DELEGATES

Username: [your email address]
Password: iaia

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 jen@iaia.org.

If you are posting IAIA15 photos on your Instagram, Facebook, or Twitter account, please tag #iaia15 so the photos can be collected and shared throughout IAIA as well.

LIVE TWITTER FEED

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 #iaia15. A summary of the tweets will contribute to the main conclusions and recommendations at the closing plenary.

VIDEO/AUDIO POLICY

Individuals officially identified by IAIA may photograph, videotape, and/or audiotape conference events. By attending the conference, you agree to allow your image to be used by IAIA.

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.

SUSTAINABLE CONFERENCES

IAIA takes the following steps to mitigate the impacts of our conferences:

- Limit printed materials, including a shorter final program made possible by the new mobile app and e-mail/Web communications
- Contract to the greatest extent possible with venues that participate in green programs (e.g., hotels that provide a linen and towel reuse program)
- Wherever possible, use bulk servings and pitchers rather than individual bottles; use china and silverware rather than disposables
- Provide recycling bins for discarded paper products
- Ask delegates to confirm their attendance at events and functions to reduce waste and leftovers
- Encourage delegates to return name badge holders

As per the IAIA Sustainable Event Policy, a post-conference report of the event will be prepared.

Delegates are welcome to make additional suggestions on the IAIA15 conference evaluation form (which will be distributed electronically to delegates following the conference) or by contacting IAIA HQ any time.

Reducing the Carbon Footprint

IAIA continues to strongly support the need to reduce the carbon footprint around our conferences.

To this end, US\$5 from every conference registration will be donated to **Treedom** to help offset the carbon footprint of this conference.

Treedom promotes agroforestry projects, in particular, the planting of new trees to create environmental and social benefits. See www.treedom.net for more information.

2015 Award winners



Global Environment Award

Mathis Wackernagel was chosen to receive the IAIA Global Environment Award for developing the Ecological Footprint, a science-based measurement tool that tracks the planet's ecological resources and human demand on those resources, thereby translating the complexity of humanity's impact on the environment into a compelling, understandable, and actionable form.

The Global Environment 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.



Lifetime Achievement Award

Maria Partidário receives the Lifetime Achievement Award for her sustained and significant contributions to IAIA and to strategic environmental assessment theory, education, and practice, which has had notable international influence in advancing SEA to be widely accepted as a critical part of the decision-making process.

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.

Corporate Initiative Award

The **European Bank for Reconstruction & Development (EBRD)** was selected for the Corporate Initiative Award for its new Environment and Social Impact Assessment policies, showing EBRD's commitment to deliver sustainable projects and its use of extensive stakeholder engagement in the development and implementation of such policies.

The IAIA Corporate Initiative Award is presented to a private or public sector company for a specific activity or project that has made a notable contribution to responsible development practice through the application of impact assessment.

Institutional Award

The **Millennium Challenge Corporation (MCC)** was chosen to receive the Institutional Award because of its ongoing commitment to environmental stewardship, as exemplified in its inclusion of natural resource management indicators in its country selection process, its early establishment of environmental guidelines and recent adoption of the IFC Performance Standards, and for specific efforts to address potential problem activities.

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 2014

The 2014 IAPA Best Paper Award is presented to Sara Bice and Kieren Moffat on behalf of all contributors to the December 2014 special issue on "Social licence to operate and impact assessment" (IAPA Vol.32, No.4).



Regional Award

The **European Investment Bank (EIB)** was selected as recipient of the Regional Award for its promotion of sustainable development—particularly the protection and enhancement of environment, the fight against climate change, and the respect of human rights—in its lending strategies and objectives.

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.

Individual Award

Peter Duinker was selected for the Individual Award for his dedication to improving and promoting impact assessment through his teaching, research, and practice, and for his approach to Valued Ecosystem Components (VECs), which changed the way many practitioners approach environmental and cumulative impact assessment.

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.

Outstanding Service to IAIA

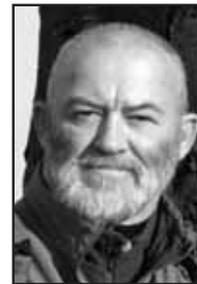
The Outstanding Service to IAIA Award is presented to **Angus Morrison-Saunders**, Australia, and **Francois Retief**, South Africa, for their dedicated work as co-editors of *Impact Assessment and Project Appraisal* from May 2009 to August 2014.

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.

Rita R. Hamm IA Excellence Scholarship

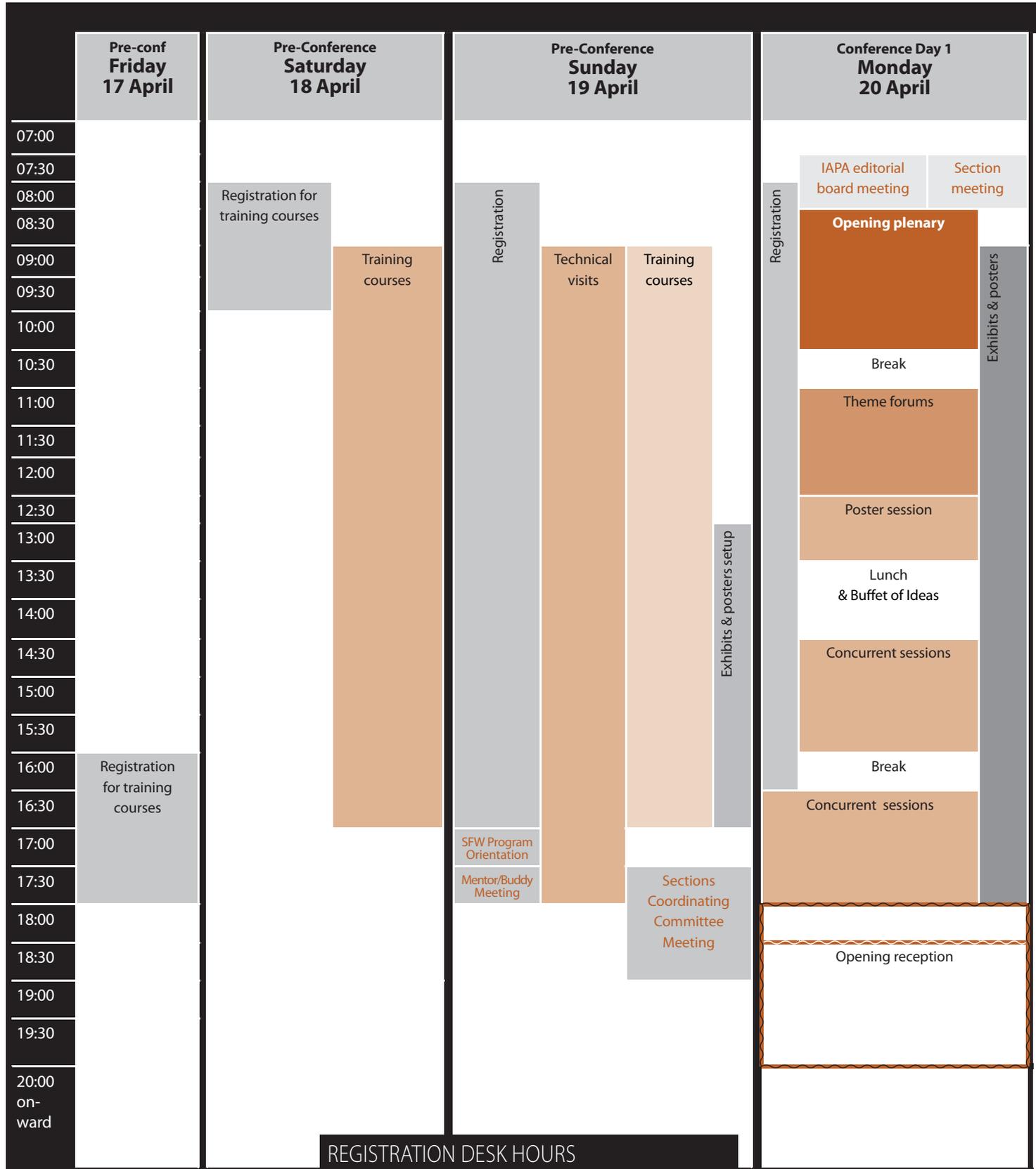
Angelo Jonas Imperiale, Italy, was selected as the recipient of the first Rita R. Hamm IA Excellence Scholarship. Angelo is a PhD researcher through the University of Groningen in The Netherlands, focusing on social impact assessment, community resilience, cultural geography, and rural development.

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.



If you would like to nominate an individual or organization for a 2016 award, please submit name and justification to the IAIA15 registration desk or e-mail info@iaia.org. Online nominations will open soon.

Conference overview



Tweet about your session at #IAIA15!

Conference overview

Conference Day 2 Tuesday 21 April		Conference Day 3 Wednesday 22 April		Conference Day 4 Thursday 23 April		Post-Conference Friday 24 April	
			Fun Run				07:00
							07:30
	Committee meetings		Committee meetings			Technical visit	08:00
Registration		Registration					08:30
	Theme forums		Theme forums		Concurrent sessions		09:00
	Exhibits & posters		Exhibits & posters		Exhibits & posters		09:30
	Break		Break		Break		10:00
	Concurrent sessions		Concurrent sessions				10:30
	Annual General Meeting		Council meeting		Closing plenary		11:00
	Lunch & Section rendezvous		Lunch & Section rendezvous				11:30
	Concurrent sessions		Concurrent sessions		World Bank Group Special Meeting	Technical visit	12:00
	Break		Break				12:30
	Concurrent sessions		Concurrent sessions				13:00
	Section meetings		Section meetings				13:30
	Indabas		Indabas				14:00
							14:30
							15:00
							15:30
							16:00
							16:30
							17:00
							17:30
							18:00
							18:30
							19:00
							19:30
							20:00 onward
	Dine Outs		Banquet				

All delegates are invited to the AGM ...

Vote for your favorite poster by 11:00 today!

Daily schedule

FRIDAY 17 APRIL

16:00-18:00 **Registration** (training course participants only)

SATURDAY 18 APRIL

08:00-10:00 **Registration** (training course participants only)

09:00-17:00 **Training courses** (room locations will be provided at check-in)

1. Quality Assurance in EIA: Guide and Review
2. Human Rights and Impact Assessment
3. Integrated Environmental Management: How to Make EA More Effective
5. Multicriteria Analysis for Impact Assessment: Theory and Practice
6. Social Impact Assessment and Management
7. Strategic Thinking SEA for Sustainability
8. Raising the Bar of Biodiversity in Impact Assessment for Promoting Inclusive Development
9. Resettlement and Livelihoods
11. Cumulative Effects Assessment
12. Towards More Sustainable Oil and Gas Sector Projects

SUNDAY 19 APRIL

08:00-17:00 **Registration**

09:00-12:00 **Technical visit A: Walking Tour of Florence**

09:00-17:00 **Training courses** (room locations will be provided at check-in)

- 1-12. *Continued from Saturday*
13. Organized Reasoning and Environmental Impact Assessment

10:00-16:00 **Technical visit B: Medici Villas**

10:00-16:00 **Technical visit C: Chianti Region & Antinori Winery**

13:30-17:00 **Exhibit and poster setup** (Villa Passi Perduti)

15:00-18:00 **Technical visit D: Walking Tour of Florence**

17:10-17:30 **Student Fee Waiver Program Orientation** (Affari Adua 1)

17:30-18:00 **Mentor/Buddy meeting** (Affari Adua 1)

17:30-19:00 **Committee Meeting**
Sections Coordinating Committee (Check in at registration desk)

MONDAY 20 APRIL

07:45-08:35 **IAPA Editorial Board Meeting** (Villa 5)

07:45-08:35 **Section meeting**
Students and Early Professionals (Villa 6)

08:00-16:30 **Registration**

09:00-10:30 **Opening plenary** (Villa Auditorium)
Sponsored by ERM

Chair: Giuseppe Magro, IAIA15 Program Committee Chair

Giuseppe Magro. Opening remarks.

Miguel Coutinho, IAIA President. Welcome and opening comments.

Gianluca Galletti, Italian Environment Minister.
Institutional speech and greetings.

Peter Croal, IAIA Awards Committee Chair.
Presentation of the IAIA Regional Award.

Christopher Hurst, Director General, European Investment Bank.
Acceptance of IAIA Regional Award
Keynote address: "IA in the Digital Era."

Peter Croal, IAIA Awards Committee Chair.
Presentation of the IAIA Global Environment Award.

Mathis Wackernagel.
Acceptance of IAIA Global Award.

Ian Bailey, ERM Regional CEO for Europe, Middle East, and Africa.
Keynote address: "Sustainability in the Digital Era."

10:30-11:00 **Break** (Villa Passi Perduti)

11:00-12:30 **Theme forums and concurrent sessions**

12:40-13:30 **Poster session** (Villa Passi Perduti)
Sponsored by Golder Associates

13:30-14:20 **Lunch** (Villa Passi Perduti)
Buffet of Ideas (see reserved tables, see page 52)

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

16:00-16:30 **Break** (Villa Passi Perduti)

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

18:15-20:15 **Welcome reception** (pre-registration required; see page 52)
(Congress Center Garden)

TUESDAY 21 APRIL

08:00-08:50 **Committee meeting**
Awards (Villa 102)

08:30-16:30 **Registration**

09:00-10:30 **Theme forums and concurrent sessions**

10:30-11:00 **Break** (Villa Passi Perduti)

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

12:40-13:30 **Annual General Meeting and Lifetime Achievement Award Presentation** (Affari Groundfloor)

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, be present for the prestigious Lifetime Achievement Award recipient's acceptance speech, and share in the commemoration of IAIA founding member Charlie Wolf.

13:30-14:20 **Lunch** (Villa Passi Perduti)
Sections Rendezvous: See reserved tables

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

THURSDAY 23 APRIL

16:00-16:30	Break (Villa Passi Perduti)
16:30-18:00	Concurrent sessions
18:10-19:10	Section Meetings Agriculture, Forestry, & Fisheries (Villa 4) Biodiversity and Ecology (Villa 101) Corporate Stewardship & Risk Management (Villa 202) Health (Villa 5) Indigenous Peoples (Villa 203) Public Participation (Affari Groundfloor) Power Generation and Transmission (Villa 6) Strategic Environmental Assessment (Villa 104)
18:10-19:10	Indabas (see page 52 and flip charts in Villa entrance for information)
20:00 onward	Dine-Outs (see page 52)

WEDNESDAY 22 APRIL

07:00-08:00	Fun Run (<i>pre-registration required</i> ; see page 52)
08:00-08:50	Committee meetings Training & Professional Development (Villa 103) Publications (Villa 102)
08:30-14:30	Registration
09:00-10:30	Theme forums and concurrent sessions
10:30-11:00	Break (Villa Passi Perduti) Sponsored in part by Taylor & Francis
11:00-12:30	Concurrent sessions
12:40-13:30	Council meeting (Onice) 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.
13:30-14:20	Lunch (Villa Passi Perduti) <i>Sections: Rendezvous: See reserved tables</i> (page 52)
14:30-16:00	Concurrent sessions
16:00-16:30	Break (Villa Passi Perduti)
16:30-18:00	Concurrent sessions
18:10-19:10	Indabas (see page 52 and flip charts in Villa entrance for information)
18:10-19:10	Section Meetings Agriculture, Forestry, & Fisheries (Villa 4) Biodiversity & Ecology (Villa 101) Climate Change (Villa Onice) Cultural Heritage (Villa 202) Disasters & Conflicts (Affari 4th Floor) Oil, Gas, & Renewable Fuels (Villa 105) Social Impact Assessment (Villa 5)
20:00-24:00	Banquet (<i>pre-registration required</i> ; see page 52) (Teatro dell'Opera)

09:00-10:30	Concurrent sessions
09:00-10:30	Affiliates and Branches Forum (Villa 203)

10:30-11:00	Break (Villa Passi Perduti)
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11:00-12:30	Closing Plenary (Villa Auditorium) Sponsored by Canadian Environmental Assessment Agency <i>Chair: Giuseppe Magro, IAIA15 Program Committee Chair</i> Giuseppe Magro. Conclusions. Peter Croal, IAIA Awards Committee Chair. Presentation of the IAIA Corporate Award, Institutional Awards, and Individual Award. Yaw Amoyaw-Osei, IAIA President-Elect. "The Year Ahead for IAIA." Sachihiko Harashina, IAIA16 Program Chair. Invitation to IAIA16. Giuseppe Magro. Closing remarks.
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13:00-17:30	Special meeting: World Bank Group Special Meeting (<i>pre-registration required</i>) (Affari 4th Floor)
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13:30-16:00	Exhibit and poster dismantle
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15:00-19:00	Technical visit E: Florence App Tour
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FRIDAY 24 APRIL

08:00-21:00	Technical visit F: Narni and TerniEnergia
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TECHNICAL PROGRAM: TOPICAL STREAMS

CONFERENCE STREAMS

Big data.....	12
Digital media in impact assessment	12
E-Governance forum.....	25
E-governance and impact assessment (CEA, SEA, EIA, SIA)	14
EMS and social responsibility	15
European forum.....	45
Exploring opportunities and risks of global networking society	16
Growing urbanization and smart cities solutions	18
How communication technology is changing the role of experts and non-experts... ..	18
How instant availability of information is influencing impact assessment	23
How stakeholder consultation is changing through new social participation	19
New tools for risk assessors and managers	20
New technology's role in visualizing societal changes associated with major projects..	19

IAIA and IAIA SPECIAL-INTEREST SECTION SESSIONS

Agriculture, Forestry, & Fisheries.....	26
Biodiversity & Ecology.....	26
Climate Change	29
Corporate Stewardship & Risk Management.....	31
Cultural Heritage	32
Disasters & Conflicts.....	32
Energy	33
Health.....	34
IAIA special sessions.....	36
Indigenous Peoples.....	36
Indigenous Peoples and Cultural Heritage (joint session).....	37
Oil for Development.....	37
Public Participation	38
SEA.....	39
SIA.....	43
Students and Early Professionals.....	44

Technical program overview

	Villa Auditorium	Affari 2nd Floor	Affari Groundfloor	Villa Verde	Affari 4th Floor	Villa Onice	Villa Room 4	Villa Room 5
Monday 20 April								
09:00-10:30	Opening plenary							
11:00-12:30	EUROPEAN FORUM The EU impact assessment systems: To which extent a global role model (p45) EF	New ways of communication with stakeholders in the oil and gas industry (p19)	Crowd sourcing wisdom on the future of impact assessment in the digital era (p17)	The digital interface with local community (p19)	International Guidance for SIA (p43)			
12:40-13:30	Poster session (Villa Passi Perduti)							
14:30-16:00		30 Years of EIA of projects: Challenges in transposing the revised EIA Directive (I) (p45) EF	Emerging uses of strategic environmental assessment (I) (p42)	Smart cities: Rapid assessment and mitigation with real-time information (p24)	Accessing and applying digital data: Successful and unsuccessful EIA case studies (p24)	Integrated regional planning: A prerequisite for impact assessment (p26)	Digital biodiversity data for fast-tracking impact assessment (p26)	Tools to integrate epidemiology and risk assessment in HIA (p20)
16:30-18:00		30 Years of EIA of projects: Challenges in transposing the revised EIA Directive (II) (p45) EF	Emerging uses of strategic environmental assessment (II) (p42)	Climate change: Assessment and decision making under uncertainty (p16)	Alternatives: The backbone of EIA (p22)	Information exchange and logistics in public participation (p38)	Environmental monitoring and compliance on energy (p33)	Strategies for improving health impact assessment (p34)
Tuesday 21 April								
09:00-10:30		Climate change, risk management, and impact assessment in the digital age (p16)	But is it any good? The search for quality in impact assessment (I) (p22)	Asian SEA, EIA, and ecosystem services assessment: Asia (p40)	IAIA SEA performance principles: A new set for the digital era (pnn)			
11:00-12:30		Ex ante assessment of economic governance (p45) EF	Business and human rights: Advancing human rights impact assessment (p31)	Asian SEA, EIA, and ecosystem services assessment: Ecosystem and ecosystem services (p40)	Social media and participation (p13)	Challenging resettlement: 2nd edition (I) (p18)	Biodiversity conservation and management challenges faced by IFIs (p26)	Health in environmental assessments: Institutional approaches (p35)
12:40-13:30	Annual General Meeting (AGM)							
14:30-16:00		Evaluating the implementation of the EU SEA Directive (I) (p45) EF	Art in impact assessment (p22)	Asian SEA, EIA, and ecosystem services assessment: Ecosystem management (p40)	Ecosystem services in SEA for regional spatial planning (I) (p27)	Challenging resettlement: 2nd edition (II) (p18)	Biodiversity impact assessment: Methodological & technological advances (p26)	Health in EAs: Moving a step ahead through practical applications (p35)
16:30-18:00		Evaluating the implementation of the EU SEA Directive (II) (p45) EF	Public participation in strategic environmental assessment (I) (p38)	Asian SEA, EIA, and ecosystem services assessment: Various systems (I) (p41)	Ecosystem services in SEA for regional spatial planning (II) (p27)	Local content policies, benefit-sharing, and sustainable regional development (p43)	An expanded repertoire for the Agriculture, Forestry, and Fisheries Section (p26)	Health in EAs: Moving a step ahead through communication & stakeholder involvement (p35)
Wednesday 22 April								
09:00-10:30		Collecting and visually communicating IA data to decision-makers (p20) EF	The WBG and social media engagement (p13)	E-GOVERNANCE FORUM E-Governance in future cities: Needs & opportunities (p25) EG	Ecosystem services in SEA and EIA (I) (p41)			
11:00-12:30		Capacity building and participation (I) (p46) EF	Use of satellite imagery as environmental impact assessment tool (p13)	E-Governance in future cities: Win-win strategies (p25) EG	Ecosystem services in SEA and EIA (II) (p41)	Climate change and impact assessment: Good practice cases (I) (p29)	E-learning in impact assessment: Meeting a demand? (p12)	Health evaluation in impact assessment (I) (p35)
12:40-13:30	Council meeting							
14:30-16:00		Capacity building and participation (II) (p46) EF	Asian SEA, EIA, and ecosystem services assessment: Various systems (II) (p41)	E-Governance in future cities: Best practices & funding opportunities (p25) EG	Ecosystem services in SEA and EIA (III) (p41)	Climate change and impact assessment: Good practice cases (II) (p29)	Impact assessment and resilience to environmental stress in urbanized deltas (p18)	Health evaluation in impact assessment (II) (p35)
16:30-18:00		Capacity building and participation (III) (p46) EF	Toward a systems approach to SEA capacity development: Lessons learned (p40)	The role of digital media in IA (p13)	Assessing climate change and natural disaster impact on urban area (p29)	Climate change and impact assessment: Good practice cases (III) (p29)	SEA and decision-making: Are we pressing the right buttons? (p14)	To-bottom promoted HIA: Best practices and attempts to formalize (p34)
Thursday 23 April								
09:00-10:30		Capacity building and participation (IV) (p46) EF	Information management for IA: Issues on access (p46) EF	Spatial models and data for land use planning (p19)	Practical approaches to impact significance assessment (II) (p23)	Country experiences with impact assessment in the digital era (II) (p38)	Collaborative processes and spatial data portals for enhanced IA (p24)	Global perspectives on EA in mine closure (p16)
11:00-12:30	Closing plenary							

Technical program overview

Villa Room 6	Villa Room 9	Villa Room 101	Villa Room 104	Villa Room 105	Villa Room 202	Villa Room 203	Affari Adua 2	
Monday 20 April								
								09:00-10:30
	Plenary Theme forum Concurrent session EF European forum IEG E-Governance forum							11:00-12:30
Poster session (Villa Passi Perduti)								
								12:40-13:30
Biodiversity in the energy sector: Latest developments wind power and oil & gas (I) (p34)	Contention, social movements, and the politics of impact assessment (I) (p39)	Impact assessment across disasters and conflict (I) (p32)	Social media, impact assessment, and community voices (p12)	Innovative decision support tools for impact assessment (I) (p12)	SIA and CSR in natural resources industries (p43)	Waste and natural resources efficiency in EIA (p31)		14:30-16:00
Biodiversity in the energy sector: Latest developments wind power and oil & gas (II) (p34)	Contention, social movements, and the politics of impact assessment (II) (p39)	Impact assessment across disasters and conflict (II) (p32)	Indigenous Peoples and cumulative effects (p37)	Innovative decision support tools for impact assessment (II) (p12)	Emerging trends in community-based and indigenous impact assessment (p36)	Country experiences with impact assessment in the digital era (I) (p37)	Biodiversity impact assessment guidance: 10-year review (p27)	16:30-18:00
Tuesday 21 April								
Why does EU not use SIA? (p17)	Effect of information and knowledge technologies in impact assessment (p18)	External environmental and social consulting: Changing roles (I) (p15)	Energy (p33)	SEA applications (I) (p42)	It's just a matter of faith? (p43)	But is it any good? The search for quality in impact assessment (II) (p22)	Early professionals and students: Sharing technical advances and innovation (p44)	11:00-12:30
Annual General Meeting (AGM)								
								12:40-13:30
Environmental assessment of fracking: Is it enough? (p16)	Marine and coastal planning and management: Using SEA and EIA (p39)	External environmental and social consulting: Changing roles (II) (p15)	Practical approaches to impact significance assessment (I) (p23)	Offset planning: Green infrastructure case studies (p28)	Green infrastructure: Using a holistic approach (p27)	But is it any good? The search for quality in impact assessment (III) (p22)	Sustainability assessment: Latest research and emerging trends (p44)	14:30-16:00
Social media in public participation: Virus or vaccine? (p13)	The future of the African EIA Professional Development Programme (p44)	A new prize for best impact assessment inspired design? (p21)	SEA applications (II) (p43)	Reviewing mitigation hierarchy implementation (p28)	Mitigation hierarchy best practices: Green infrastructure case studies (p27)	But is it any good? The search for quality in impact assessment (IV) (p22)	Sustainability assessment: latest research and emerging trends (I) (p21)	16:30-18:00
Wednesday 22 April								
								09:00-10:30
Indigenous cultural landscapes, indigenous protests, and IA (p37)	New metrics on E&S risks and impacts and business decision-making (p31)	Use of GIS to foster multidisciplinary ESIA (p20)	Alternatives analysis for GHG reduction: What is good practice? (p16)	Mitigation hierarchy best practices for roadways (p28)	Meet the editor of <i>Impact Assessment and Project Appraisal</i> (p38)	But is it any good? The search for quality in impact assessment (V) (p23)	Working with IA in the oil and gas sector in developing countries (p37)	11:00-12:30
Council meeting								
								12:40-13:30
Exploring the role of SEA as a facilitator for sustainable planning (I) (p42)	The role of digital and social media to facilitate public participation (I) (p38)	New ways of negotiating impacts and impact mitigation with oil and gas companies (p37)	SEA country experience (p14)		Cultural heritage in IA: Collaborative approaches (p32)	Climate change risk management: Achievements, lessons learned, & challenges (p29)	Public engagement in SEA: A new kind of democracy in digital era? (p40)	14:30-16:00
Exploring the role of SEA as a facilitator for sustainable planning (II) (p42)	The role of digital and social media to facilitate public participation (II) (p39)	Launching EIA in new sectors presently underserved in practice (p17)	Environmental assessment back and forth: Monitoring in the digital era (p14)	Oil industry and stakeholders (p19)	Cultural heritage in IA: The intangible social layers (p32)	Increased complexity in IA (p23)	Public participation in strategic environmental assessment (SEA) (II) (p38)	16:30-18:00
Thursday 23 April								
Impact assessment as a design tool (p19)	Roundtable on private equity funds: Management of social and environmental risks (p31)	The National Impact Assessment Programme (NIAP) in Pakistan (p21)	Digital technologies for spatial analysis of ecosystems and biodiversity (p21)	Visualization and data management (p20)	Beneath the waves: Underwater archaeology and impact assessment (p32)	IAIA Affiliates and Branches Forum (p36)		09:00-10:30
								11:00-12:30

Concurrent sessions

BIG DATA

Innovative decision support tools for impact assessments (I)

Monday 20 April | 14:30-16:00 | Villa 105

Paper Session

Chair(s): Davide Geneletti

Impact assessment practitioners and academics present studies that illustrate how modelling and decision support tools and techniques can be used during the assessment of policies, plans or projects, with particular reference given to the use of new digital technologies, "big data," and social networking.

Strategic planning and assessment methods

Gernot Stoeglehner

With strategic planning and assessment methods dialogues between planners, decision-makers and stakeholders can be supported by addressing the strategic nature of plans and assessments concerning visions, values, and measures.

Scenario Room Project to support EIA in São Paulo

Maria Silvia Romitelli, Rodrigo Ferreira da Silva, Vinicius Travalini

A Scenarios Room Project has been developed to support EIA in São Paulo State. It comprises a geoportal where projects are georeferenced and linked to an information database.

The end of impact assessment as we know it

Dan Mistler, Jeff Gibbons, James Margolis

The authors present a discussion of how IA data is being integrated into decision-making in organizations from multiple sectors, suggesting a fundamental shift in the evolution of impact assessment.

Policy assessment of forest bioenergy options

Ulla Mortberg, Xi Pang, Ola Sallnas

Bioenergy from forestry is promoted for climate change mitigation, which may increase biodiversity impacts. GIS-based models were applied to estimate bioenergy yields and biodiversity impacts of forest management policy scenarios.

Project lifecycle approach to decision making

Ben Witchalls

Project lifecycle approach to an effective Social, Environmental and Health Impact Management Process (eSHRIMP) within the oil and gas industry: update on progress.

Innovative decision support tools for impact assessments (II)

Monday 20 April | 16:30-18:00 | Villa 105

Paper Session

Chair(s): Davide Geneletti

Impact assessment practitioners and academics present studies that illustrate how modelling and decision support tools and techniques can be used during the assessment of policies, plans, or projects, with particular reference given to the use of new digital technologies, "big data," and social networking.

Practice of EIA consultation information platform

Chen Aizhong

Establishes the air forecasting model Aermod based on service-oriented architecture (SOA) EIA map help to determine the feasibility of the project for the user.

Guidelines and management tools: A case study

Marco Sumini, Giuseppe Magro, Stefania Pellegrini

In this presentation we discuss the application of a whole new integrated approach and innovative tools for the analysis of IA in a strategic district in the Italy's Pianura Padana.

Landscape matters: Case for LVIA's

Naushad Tahsildar

The issues surrounding landscape and visual impact assessments in developing countries where there is no legislative framework yet in place.

Siting: Leveraging people, data, and process

Aaron Licker, Massimo Dragan, Kevin Seel

This paper presents an approach to using "big data," automation, and multi-criteria optimization in support of industrial facilities siting and impact assessment based on a selection of case studies.

Better "Voice of Stakeholder" using technology

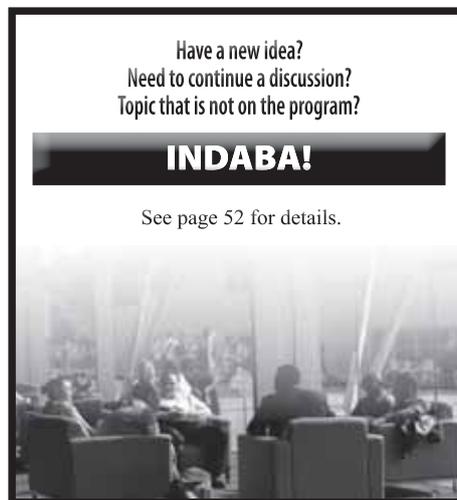
Beni Patel

Using open-ended text analytics can drive more accurate insight into stakeholder needs and expectations. Natural language processing and machine learning will transform this aspect of stakeholder engagement.

Have a new idea?
Need to continue a discussion?
Topic that is not on the program?

INDABA!

See page 52 for details.



DIGITAL MEDIA IN IMPACT ASSESSMENT

E-learning in impact assessment: Meeting a demand?

Wednesday 22 April | 11:00-12:30 | Villa 4

Paper Session

Chair(s): Ineke Steinhauer

Academic institutions around the world have included education in IA in their curriculum, and a range of training opportunities exists for IA professionals to develop their skills and knowledge. While developing countries are generally less well served, e-learning could make a difference. We inventory options for e-learning in impact assessment and share experiences and results.

Online capacity building for sustainable development

Jean-Roger Mercier

Exploring the potential of online courses to enhance capacity in the management of sustainable development based on real-life private initiatives.

SEA and EIA: Face-to-face versus distant learning

Iris van Duren, Joan Looijen, Henk Kloosterman

A distance course with emphasis on the use of spatial information in environmental assessment requires a different approach and specific e-learning tools than a similar face-to-face course.

SEA distance learning: Trial and error?

Ineke Steinhauer

SEA distance learning in Bolivia has been successfully applied in the last two years, but challenges remain.

The process of shaping e-learning

Leila Neimane

The research is a contribution to the modeling of an e-learning concept and using the e-learning method in the improvement of EIA effectiveness at the local level and abroad.

Social media, impact assessment, and community voices

Monday 20 April | 14:30-16:00 | Villa 104

Panel Discussion

Chair(s): Will Rifkin

Individuals and communities are today better able to voice concern about negative environmental or social impacts than ever before. Social media is at the center of this capability. But our understanding of how communities use social media to assert concern and control over impacts is limited. We explore ways individuals and communities are using social media in relation to project proposals and development.

Enhanced public participation via digital tools

Tom Streater, Felix Rottmann

The rapid expansion in access to affordable information and communications technology presents new risks and opportunities related to public participation in infrastructure projects.

Social media and environmental enthusiasts

Fardin Alikhah, Sammaneh Kohestani

This paper focuses on a web-based environment group that mobilizes environmental enthusiasts via social media. Relying on the web content of Environment Cleaner Group's site as well as interviews, data were collected.

A social license, coal seam gas, and Twitter: #OMG

Sara Bice, Fiona Haines, Helen Sullivan

This study offers a critical evaluation of the concept of the social license to operate as expressed in the coal seam gas sector in Australia through an ongoing Twitter campaign.

SLO by community development and new social media

Eelco de Groot, Carla Martinez

Managing community expectations around oil and mining projects, with the use of new social media and governance bodies, to assure the social license to operate (SLO) and community development.

The role of digital media in IA

Wednesday 22 April | 16:30-18:00 | Villa Verde

Pecha Kucha

Chair(s): Marla Orenstein, Linday McCallum

As digital media emerge, how can we best position ourselves to take advantage of new opportunities? And what pitfalls should we beware of? This entertaining and engaging session will present case examples on how digital media have been integrated into IAs for data gathering, information dissemination, community engagement and data analysis.

From information provision to creative learning

Maria Partidário

This presentation shares thoughts on how digital technologies can improve the future of IA in the face of a needed transformation of IA practice from normative to learning dynamics.

Digital era without power sockets: IA in Africa

Pedro Bettencourt, Sara de Sousa, Nuno Silva, Pedro Moreira, Claudia Fulgencio

The digital era came with new tools and new possibilities in IA, but not in the whole world. Nemus's experience in IA in Africa tells a whole different story.

Images with impact: Use of digital media in E/SIA

David Burack

A presentation of examples of effective use of graphics in E/SIA and the documentation of environmental conservation and sustainable development. Thoughts on the future use of media in E/SIA.

Promoting PE through digital media in Hong Kong

Chi Chung Chris Wong

This paper explores the relationship between information transparency and public aspirations in involvement in the EIA process.

Digital facilitation in EIA: The Hong Kong context

Tung-shing So, Chi-wing Law, Clara U

The paper gives an overview of the development in applying digital tools to facilitate the EIA process and public engagement in Hong Kong since the implementation of the EIA Ordinance.

Using digital media in stakeholder engagement

Lachlan Wilkinson, Steve Green

Digital media can be used in IA to assist stakeholder's understanding of technical issues and the project, allow more meaningful input, and improve engagement in consideration of project alternatives.

The WBG and social media engagement

Wednesday 22 April | 09:00-10:30 | Affari Groundfloor

Theme Forum

Chair(s): Mauricio Athie, Aaron Rosenberg

For a number of years, the World Bank Group has been using digital communication tools for the dissemination of project information, publications, and other Bank products. We introduce key elements of the WBG's approach to social media engagement and present examples of how the WBG use social media globally followed by a panel discussion.

Examples of social media engagement in the WBG

Mauricio Athie, Christine Montgomery, Jude Hanan

World Bank Group encourages staff to make use of social media in a safe and productive way. This paper presents examples of how of social media is used by the Bank.

Engagement through social media: IFC's experience

Aaron Rosenberg

This presentation will discuss the International Finance Corporation's (IFC) experience in using social media to improve engagement and accountability with stakeholders and the challenges social media can present as well.

Social media in Eurasia: A World Bank perspective

John Mackedon, Paul Clare

This discussion focuses on the use of three social media channels in Europe and Central Asia: Facebook, Twitter, and Vkontakte. The focus will be on lessons learned and best practices.

How can ICT improve the WBG EHS Guidelines?

Gael Gregoire

Information and communication technologies helped the World Bank Group improve the Environmental, Health and Safety (EHS) Guidelines, their content, their usability and, ultimately, their development impact.

Use of satellite imagery as environmental impact assessment tool

Wednesday 22 April | 11:00-12:30 | Affari Groundfloor

Paper Session

Chair(s): Ernesto Monter

Large infrastructure projects have the potential to produce unexpected and/or induced environmental impacts. The use of improved digital tools, such as satellite imagery, unmanned aerial vehicles, and mobile networks can improve the interpretation of data and overall enhance the environmental impact assessment process of infrastructure projects located in remote areas.

Satellite imagery: A value for baseline definition

Christopher Polglase, Emlen Myers, Doug Park

Satellite imagery supports efficient and accurate identification of baseline conditions for large and remote green field areas. Examples are provided from two recent mining EIAs in Ethiopia's Danakil Depression.

Satellite imagery and mobile net in airport EIA

Ran Li

Based on the case study of an airport EIA project, we introduce the applications of the satellite imagery technology and mobile network which can improve efficiency of EIA investigation.

UAV aerial survey applications in EAs

Carol Stefan, Michael Bender, Barbara Wernick

Unmanned aerial vehicle (UAV) surveys have a variety of uses related to environmental assessments. This presentation will provide some recent examples using UAVs for baseline studies, monitoring, and interpretation of change.

Social media in public participation: Virus or vaccine?

Tuesday 21 April | 16:30-18:00 | Villa 6

Workshop

Chair(s): Erika Du Plessis

We often hear that a YouTube entry has "gone viral." Usually this has negative connotations and disastrous consequences. How can we use e-media to reach the public but prevent possible pitfalls associated with access to a medium that provides an avenue to influence or control public opinion regarding controversial projects?

Social media and participation

Tuesday 22 April | 11:00-12:30 | Affari 4th Floor

Paper Session

Chair(s): Marco Sumini

Social media is increasingly used by communities and project proponents to make impact assessments more participatory. This session will present experiences from the perspectives of actors involved in the process on how social media can be used and measured more effectively.

Challenges of transparency and clarity of EIS

Elisa Vallius, Sakari Gronlund, Jorma Jantunen, Jyri Mustajoki, Jenni Neste, Sanna Vienonen

This paper presents some challenges in IA and suggests how to improve the quality of impact assessment and understandability of assessment reports by combining enhanced public participation and MCDA.

How social media supports stakeholder engagement

Tjark Huisman, Tjark Huisman, Frank Soore, Constantijn van Eys, Mark de Groot

Social media in project development: how big data can support stakeholder consultation. A case study where sentiment is being measured, influencers are determined, and stakeholder networks are mapped.

Social inclusion as follow-up strategy

Giulianna Faria, Silvana Ramos, Edna Silva

This paper shows how local environmental licensing committees' (CALIAM) being responsible for licensing procedures can increase social participation in these processes.

The influence of social media in Australian EIA

Anthony Sutton

Social media is revolutionizing public participation in environmental impact assessment in Australia. This paper uses a number of recent case studies to demonstrate how social media enhances the EIA.

E-GOVERNANCE AND IMPACT ASSESSMENT (CEA, SEA, EIA, SIA)

Environmental assessment back and forth: Monitoring in the digital era

Wednesday 22 April | 16:30-18:00 | Villa 104

Paper Session

Chair(s): *Alessandro Bonifazi, Mara Cossa*

How is the rise of the digital era going to reshape monitoring and follow-up in environmental assessment? In this session, we discuss:

- Integration between monitoring processes
- Territorial strategies and integrative concepts (resilience, vulnerability)
- Feasibility of monitoring systems
- Shift towards flows of knowledge and decisions
- Conflicts in re-orienting decision making

Romaine hydro complex: 32 years of monitoring

Louise Emond

The Romaine complex will include four hydroelectric developments generating a total average annual output of 8,0 TWh. The environmental monitoring program was planned for a 32-year monitoring program from 2009-2040.

SS-turbidity correlation for monitoring dredging

Worawut Hamarn, Kittiphong Songrukkiat, Terapol Pirunsup, Penrug Pengsombut, Yaowalak Chuchot
Turbidity measurement is often used as a real-time indicator of suspended solids monitoring if the correlation curve in that place has been completed prior to commencing dredging activity.

Advanced governance systems for impact assessment

Giovanni Caldana, Giuseppe Magro, Stefania Pellegrini, Gianvito Petruzzelli, Roberta Vicentini, Cinzia Vischioni
The presentation focuses on cases of governance tools application for participatory processes and cumulative impacts assessment by public administrations and consultants.

E-governance within Scotland

Vincent Onyango, Dumiso Moyo

The digital era is reshaping overall effectiveness of environmental assessment regimes. What lessons in terms of good practice, opportunities, and constraints can we learn from Scotland's experience?

Monitoring SLO through mobile phone use

David Jijelava, Frank Vanclay

The use of a mobile phone platform in monitoring makes it possible to track social license to operate and empower local communities.

SEA and decision making: Are we pressing the right buttons?

Wednesday 22 April | 16:30-18:00 | Villa 4

Paper Session

Chair(s): *Peter Tarr, Bryony Walmsley*

SEA is "flavor of the year" in many countries nowadays, and perceived by many to be a magic cure. Governments, donors, lenders, and NGOs are commissioning SEAs in the belief they will improve decision making. SEAs should achieve this goal, but do they? We take a critical look at the role of SEA in influencing decisions.

The paradox of SEA progress and performance

Barry Sadler

Global environmental change is unprecedented over recent millennia and sets a profoundly different context for taking a critical look at the role of SEA in decision-making.

SEA Effectiveness in China and The Netherlands

Rob Verheem

The Chinese and Dutch Environment Ministries have an ongoing exchange on SEA experiences. The Appraisal Center for Environment and Engineering (ACEE) and Netherlands Commission for Environmental Assessment (NCEA) have documented resulting insights.

Effectiveness, impacts, and benefits of SEA

Anders Ekbohm

Review of effectiveness, impacts and benefits of SEA applications in developing countries and emerging economies: findings and recommendations to improve SEA practice at case level and system level.

SEA influence in policy formulation in Latin America

Santiago Enriquez, Ernesto Sanchez-Triana, Ana Luisa Gomes Lima

This paper reviews six policy SEAs conducted in Argentina, Colombia, Mexico, and Peru between 1999 and 2005 targeting both sectoral reforms and national environmental planning processes.

SEA country experience

Wednesday 22 April | 14:30-16:00 | Villa 104

Paper Session

Chair(s): *Margarida Monteiro*

This session presents SEA experiences conducted at the national level (on different continents) and aims at identifying a series of lessons learned, with a special focus on governance challenges. The final goal is to encourage practitioners to reflect on the progress made at the national level in conducting SEA and identifying the remaining stumbling blocks.

Reflecting on SEA's usefulness in Italy

Paola Gazzola, Alessandro Rinaldi

By reflecting on the Italian context, this paper explores the extent to which political and technical limitations might be affecting SEA's usefulness and its ability to support decision-making for sustainability.

SEA of electricity plans in Korea

Ji Young Kim, Young Joon Lee

An SEA on national electric energy plans in Korea was hypothetically prepared. Four energy mix alternatives are reviewed with various environmental, economic and social factors. The SEA recommendations are listed.

SEA in Brazil: Legal-institutional challenges

Marina Montes Bastos

For SEA to be implemented in Brazil, it is necessary to develop more restrictive rules regarding administrative discretion in order to create an obligatory SEA procedure by the government.

Environmental assessment policy in China: Progress

Yuan Zhu, Huixian Zhao

The presentation summarizes the progress of China in policy environmental assessment and offers advice on its implementation under the new situations.

Transparency, Competence and Sustainability

A global provider with over 60 years of experience of highly qualified professional, technical and management Integrated Advisory Services to a broad range of key Players in the development of complex infrastructure projects, able to support from the early phases of conceptual design and definition of specifications up to implementation, optimization and validation.

Dedicated teams of environmental engineers, scientists and consultants, continuously supporting Financial Parties throughout the investment process in the oil&gas, energy and infrastructure sectors.

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EMS AND SOCIAL RESPONSIBILITY

External environmental and social consulting: Changing roles and lessons learned (I)

Tuesday 21 April | 11:00-12:20 | Villa 101

Paper Session

Chair(s): William Johnson, Gianluca Cassulo

Over the past decade, major changes have taken place in terms of the way EIAs and ESM systems are prepared for development projects subject to financing by lenders. Stringent new lender requirements and the application of new communications technologies have made the development process challenging. External E&S consultants are increasingly called upon to work with lenders either directly or as independent consultants to reduce E&S risks to stakeholders. This session reviews this experience.

Adaptive ESMS: Dealing with complexity and uncertainty

Carlos Arias

The International Finance Corporation's (IFC) environmental and social (E&S) risk management system is an adaptive system designed to effectively engage clients on E&S risk management, methodically identify risks, and define and communicate IFC's expectations.

The view of an export credit agency: SACE

Claudio Falciano, Antonella Gentili

Environmental and social assessment for export credit agencies (ECAs) is related to the exporter's role within a project. This presentation reviews the experience of SACE (the Italian ECA) when assessing environmental and social impacts of supported projects.

Infrastructure development partnership experience

Martin Lednor, David Blatchford

This presentation illustrates the experience of Infrastructure Development Partnership's (IDP) working as project interface advisor to support and represent the project to both lenders and their independent consultants.

External environmental and social consulting: Changing roles and lessons learned (II)

Tuesday 21 April | 14:30-16:00 | Villa 101

Paper Session

Chair(s): William Johnson, Gianluca Cassulo

Over the past decade, major changes have taken place in terms of the way EIAs and ESM systems are prepared for development projects subject to financing by lenders. Stringent new lender requirements and the application of new communications technologies have made the development process challenging. External E&S consultants are increasingly called upon to work with lenders either directly or as independent consultants to reduce E&S risks to stakeholders. This session reviews this experience.

The project, the banks, borrowers and consultants

Ximena Herbas, Pablo Taborga

This presentation illustrates lenders' requirements to finance complex development projects; borrowers' obligations with respect to the projects; and independent consultants' advice, assistance, and reporting on the projects' performances.

Raise the bar and lower the risk

Cleone Botelho, Randy Schulze

International financial institutions (IFIs) are focused on minimizing and controlling risks associated with international projects. This presentation presents critical success factors to be achieved in environmental, social and health, and safety.

An Equator Principles Bank's view: Intesa Sanpaolo

Antonella Bernasconi

This presentation reviews Intesa Sanpaolo's experience since the adoption of the Equator Principles (EP) in 2006 and their implementation through drawing up and applying the operating guidelines that drive each EP transaction.

D'Appolonia: Challenges and opportunities for IESC

Giovanni De Franchi, Alessandro

Casartelli, Gianluca Cassulo

This presentation reviews D'Appolonia's experience and describes how the approach to the independent environmental and social consultant's (IESC) role has evolved thanks to new tools and technologies and refinement of financial institutions' policies.



NATURE – OUR HEALTH, OUR WEALTH

Green Week, Brussels, 3-5 June 2015

<http://ec.europa.eu/environment/greenweek/>

Nature is vital for our health and our wealth. Natural resources make life possible and drive the economy. Maintaining Europe's competitiveness and protecting nature go hand-in-hand, as policies for nature and biodiversity play a key role in creating jobs and stimulating investment. Green Week 2015 will look at the countless benefits nature provides, and the framework we need to safeguard this essential asset.

Concurrent sessions

Environmental assessment of fracking: Is it enough?

Tuesday 21 April | 14:30-16:00 | Villa 6

Paper Session

Chair(s): *Inigo Sobrini*

Many countries are banning fracking or approving regulatory constrictions against it. Although these projects are generally EIA submitted, detractors argue that no assessment, no matter how deep or conscious it is, can guarantee no environmental damage. Being this evident, can EIA reduce impact probability so that projects achieve enough environmental security?

Exploring health impacts and EIA: "Another pebble?"

Sophie Grinnell

Health, including social determinants of health (socioeconomic factors), are not adequately considered within environmental impact assessments and associated planning considerations when undertaken for hydraulic fracturing.

The impacts and benefits of fracking

Fernando Rodriguez

While fracking enables more oil and gas to be extracted worldwide, the key is to reduce the environmental risks and impacts while capitalizing on the benefits of unconventional hydrocarbon development.

EIA for fracking projects: It is not enough

Nonita Yap

The paper uses risk analysis to conclude that EIA is not as yet a reliable tool that enables projects to be permitted with sufficient environmental security.

Alternatives analysis for GHG reduction: What is good practice?

Wednesday 22 April | 11:00-12:30 | Villa 104

Paper Session

Chair(s): *Richard Grassetti*

IFC Performance Standard 3 and the recently updated Equator Principles stipulate that projects emitting more than 100,000 tonnes of CO₂e per year should undertake an alternatives analysis. This involves evaluation of technically and financially feasible and cost-effective options to reduce project-related GHG emissions, which poses many fundamental questions for projects which are often not fully considered. This session discusses best practice for alternatives analysis of GHG reduction.

Pollution abatement improvements via BAT licensing

Gaetano Battistella, Giuseppe Di Marco

IPPC environmental permits for pollutant emissions abatement via adoption of best available techniques (BAT) conclusions, with monitoring and control and inspection also providing new opportunities for research matching the "new deal."

Don't pat ourselves on the back just yet!!!

Mark Liskowich

Has the reduction of air emissions in certain jurisdictions actually resulted in an improvement—or an overall negative environmental impact to the environment?

GHG assessments: What are the alternatives?

Ian McCubbin, Charles Allison, Lisa Constable

This presentation reviews possible approaches to alternatives analysis and proposes elements of good practice based upon practical EIA experience within major global projects.

EXPLORING OPPORTUNITIES AND RISKS OF A GLOBAL NETWORKING SOCIETY

Climate change, risk management, and impact assessment in the digital age

Tuesday 21 April | 09:00-10:30 | Affari 2nd Floor

Theme Forum

Chair(s): *Kin Che Lam*

Kin Che Lam will discuss "Reshaping Impact Assessment for Climate Change in the East Asia Pacific Region." Peter Croal will address "Using Social Media to Address Climate Change." Philip Byer will provide an overview of best practices from recent climate change and IA assessments in the mining industry, and Weston Fisher will summarize "IAIA and Climate Change: Progress & Challenges." Suggestions for new initiatives will be solicited from the audience.

Reshaping impact assessment for climate change

Kin Che Lam

The East Asia Pacific region will be significantly impacted by climate change, which calls for changes in the modality of impact assessment assisted by information technology.

Using social media to address climate change

Peter Croal

The presentation looks at the status of using social media to address climate change and how IAIA and its members can contribute to this global issue.

Best practices for addressing climate change risks

Philip Byer, Erik Sparling, Simon Eng, Caroline Rodgers, Al Douglas

Presentation of best practices for considering climate change and adaptation, findings from an analysis of recent assessments of mines against these best practices, and common challenges faced in these assessments.

Climate change and IA: Progress and challenges

Weston Fisher

This year's "Status Report on IAIA Climate Change Actions" outlines IAIA's accomplishments and helps define other needed actions. New ideas are welcome in this forum and the accompanying roundtable discussion.

Global perspectives on EA in mine closure

Thursday 23 April | 09:00-10:30 | Villa 5

Paper Session

Chair(s): *Theunis Meyer, Reece Alberts*

Globally, mines are closing, giving rise to concerns about potential environmental legacies. Environmental assessment (EA) is an important tool to identify and control such legacies. The session invites critical reflection on the use of EA in mine closure. Through sharing global perspectives, we seek to strengthen the use thereof.

Legacy of legacy mines in Canada and Philippines

Nonita Yap

This presentation looks at some legacy mines in Canada and the Philippines and suggests how EA can be a better tool for minimizing the negative legacy of abandoned mines.

From here to eternity: Assessing perpetuity

Alan Ehrlich

Assessing projects that require perpetual care involves different social and technical considerations. Perpetuity presents new challenges in terms of risk assessment, public concern, and communicating over very long time periods.

Sustainable closure: A new paradigm

Hermanus Prinsloo, Frank Pieterse

Anglo American Platinum is committed to retaining its social license to operate and as a result developed a new land stewardship paradigm that will support sustainable living beyond mining!

Climate change: Assessment and decision-making under uncertainty

Monday 20 April | 16:30-18:00 | Villa Verde

Paper Session

Chair(s): *Leonardo Marotta*

This session explores how risk and uncertainty have been dealt with or could be addressed within an impact assessment process.

IAIA and climate change: Progress and challenges

Weston Fisher

IAIA's support to climate change adaptation and mitigation: how can we do more?

Risky decision-making in an uncertain world

Nicholas King

In a climate-uncertain world, new "smart" approaches to planning are needed based on risk assessment, enabling flexible and adaptive planning, and development, through decentralized but networked "grids" of infrastructure.

Metrics for evaluation and offsets in impact assessment

Leonardo Marotta, Lorenzo Benini, Gianmario Deandrea

The measurement of impact must be accurate, scientifically credible, and easy to understand. Our goal is to define a general metric in order to evaluate impacts (including cumulative ones) and sustainability.

A methodology to determine climate change impacts

Ronni L. Wilcock, Venkat Kolluru, Shwet Prakash

As future climate patterns become more uncertain, using historical climate to predict future climate risk becomes tenuous. We outline a forward-thinking method for predicting future climate risks.

Launching EIA in new sectors presently underserved in practice

Wednesday 22 April | 16:30-18:00 | Villa 101

Paper Session

Chair(s): Dick van Straaten

This session reflects on the challenges of conducting EIA in new or underserved sectors, and what can we learn from other practices and experiences.

Assessing impacts on food security: EIA or SIA?

Jeannette Tramhel

Growing concerns over food security demand that EIA, in addition to SIA, be launched in this underserved sector, particularly regarding impacts on the first pillar—"availability" (re: production).

Adoption of guidelines on small-scale fisheries

Ijeoma Vincent-Akpu, Bolaji Babatunde, Nenibarini Zabby

The voluntary guidelines for securing sustainable small-scale fisheries (SSF) if properly implemented will form the basis for achieving food security, poverty eradication, and equitable and sustainable development.

"Assessment of Alternatives" in EIA reports of development

G.V. Reddy, M. Srinivasa Reddy, Jyothirmai Janjanam

"Assessment of Alternatives" in EIA reports of development projects in India during 2009 - 2014. The EIA reports are reviewed for description and assessment of alternatives.

Why does EU not use SIA?

Tuesday 21 April | 11:00-12:30 | Villa 6

Panel Discussion

Chair(s): Steef van Baalen

The objective is to learn if there is a need for better implementation of SIA in Europe and how we (the Europeans) might learn from experiences from outside the EU to translate into EU. Is Europe lagging behind or is there no need for SIA? We start with a presentation of South American experience, and then dive into the European perspective, guided by three speakers, followed by an interactive panel with the audience to find an answer to the session title.

Social impact assessment as a negotiation tool

Basilio Verduzco, Lucio Flores, Maria Basilia Valenzuela, Jacob Ramiro Reynoso, Joel Salvador Gallegos

This paper shows how stakeholders may use the information produced in SIA to establish priorities and negotiation strategies and to identify options that may result in mutual benefits.

Three cases of conflict

Anne Merrild Hansen, Sanne Vammen Larsen, Sara Bjorn Aaen, Eva Ritter, Ivar Lyhne, Helle Nielsen

Three energy projects in Denmark. Three environmental assessments lacking social impacts. Three cases of conflict.

Lessons learned from SIA in the EU state of Malta

Steven Vella, Mark Reed, Ana Attlee

Maltese case studies explore the role of local context and disciplinary background of SIA practitioners in SIA implementation, discussing tensions between local context versus sharing good practice between Member States.

Reflections on the development of SIA in Sweden

Jon Halling

The SIAs studied indicate a not-entirely-satisfying development of SIA in Sweden: one where developers seem to seek social arguments for their project or plan rather than social justice.

Crowd sourcing wisdom on the future of impact assessment in the digital era

Monday 20 April | 11:00-12:30 | Affari Groundfloor

Theme Forum

Chair(s): Angus Morrison-Saunders, Jenny Pope, Francois Retief, Alan Bond

New technologies are influencing all aspects of our societies, and they play a pivotal role in promoting sustainability worldwide. The aim of this conference is to advance a multidisciplinary discussion about the challenges and opportunities associated with the use and diffusion of new technologies in impact assessment. Could "smart" cities and solutions be an opportunity for institutions, businesses, practitioners, and society in a web-connected world? How do we face social differences and challenges for planning the sustainability of our future?



Netherlands Commission for Environmental Assessment

The NCEA was established by the Dutch government to provide independent advice on good quality environmental assessment to authorities home and abroad, in particular in Dutch partner countries. Our knowledge and experiences gained over 20 years of practice is available for all stakeholders in the assessment process.

Key products of the NCEA include independent advice on scope or quality of EIA and SEA, capacity development and online EIA/SEA resources and country profiles.

Come to our booth for more information about our work and what we can do for you. We look forward to it!



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Concurrent sessions

Challenging resettlement - 2nd edition (I)

Tuesday 21 April | 11:00-12:30 | Villa Onice

Panel Discussion

Chair(s): Luciano Campelo Bornholdt, Jorge Villegas

The first session presents the state of the practice in resettlement, land acquisition, and livelihood restoration, as well as innovative sectoral and national approaches. The second session focuses on cases from different countries and sectors illustrating how some of the complex challenges in the field have been addressed.

Land access and resettlement: The state of practice

Michael Steyn, Eddie Smyth, Ana Maria Esteves, Daniel Franks, Kemal Vaz

Resettlement is failing communities. Livelihood restoration is not being properly planned or implemented. Professional planning and proper community negotiations are key. Practice is improving but requires more resources.

Challenging centralized approaches to resettlement

Christopher Johnson

An examination of innovative approaches to livelihood restoration in resettlement.

India's new Land Acquisition and Resettlement Act

I.U.B. Reddy

Application of India's New Land Acquisition and Involuntary Resettlement Act in World Bank-assisted projects in India.

Innovative approach for resettlement in Uganda

Mirko Palmes, Magali Pollard, Asmahany Saad, Didas Muhumuza, Moses Oteng, Marion Muyobo

Introducing the approach undertaken by three oil and gas (O&G) Joint Venture partners to address key challenges linked to resettlement planning in the Albertine Graven, Uganda.

Challenging resettlement - 2nd edition (II)

Tuesday 21 April | 14:30-16:00 | Villa Onice

Panel Discussion

Chair(s): Luciano Campelo Bornholdt, Jorge Villegas

The first session presents the state of the practice in resettlement, land acquisition, and livelihood restoration, as well as innovative sectoral and national approaches. The second session focuses on cases from different countries and sectors illustrating how some of the complex challenges in the field have been addressed.

Economic displacement: Disaster or opportunity?

Sunrita Sarkar

This presentation discusses the opportunities for creating sustainable livelihoods for economically displaced communities. Using case studies and examples from countries like Mozambique, upcoming trends and innovative practices will be presented.

Promoting rather than avoiding resettlement

Jimmy Mnisi

Resettlement can be viewed as an opportunity in some communities. Resettlement practitioners need to revisit the meaning of "minimize resettlement."

Resettlement in Moldova: Challenging aspects

Grigore Stratulat, Gordon Appleby, Karen Fadely, Corneliu Busuioc

Resettlement in Moldova: peculiarities of using the digitized cadastre database and Moldovan legislation.

GROWING URBANIZATION AND SMART CITIES SOLUTIONS

Impact assessment and resilience to environmental stress in urbanized deltas

Wednesday 22 April | 14:30-16:00 | Villa 4

Paper Session

Chair(s): Jan Nuesink

Growing cities in river deltas face environmental challenges to safeguard a sustainable future. Urban development, intensive land use, congestion, or climate effects increase vulnerability. Improved resilience to environmental pressures and water management challenges is in demand. This session explores cases and role of IA in interventions addressing resilience in delta areas.

Cumulative environmental impacts of cascade hydropower

Wanli Shi, Denghua Yan

Through the case of the middle and lower reaches of Yangtze River, the cumulative environmental effects of cascade hydropower on river ecosystems was assessed.

The case of Cartagena: Canal del Dique, Colombia

Hugo Woesthuis

Case study of the Canal del Dique project (Colombia), its background, and the way resilience is dealt with in the planning study.

Resilience in the face of natural disasters

Prince Mmom, Ibitoroko George-Opuda

Most parts of the Niger Delta were hit by severe flooding in 2012. This presentation reviews the traditional adaptation strategies for the 2012 flooding in parts of the Niger Delta, Nigeria.

Dilemmas in the appraisal of multi-functionality

Julieta Matos Castano, Timo Hartmann, Geert Dewulf

We provide a practice-based study about the challenges that practitioners face while defining and selecting function combinations in a multifunctional project in the South West Delta in The Netherlands.

IA and urban resilience planning: A happy couple?

Jan Nuesink

This presentation explores interrelationships of urban resilience planning and IA. Considerations elaborate on global case examples to feed discussion on (strategic) assessment's role and conditions in delivery of sustainable resilience outcomes.

HOW COMMUNICATION TECHNOLOGY IS CHANGING THE ROLE OF EXPERTS AND NON-EXPERTS

Effect of information and knowledge technologies in impact assessment

Tuesday 21 April | 11:00-12:30 | Villa 9

Workshop

Chair(s): Luis E. Montañez Cartaxo, Javier Clausen, Elizabeth Brito

The continuous increase in the use of information and knowledge technologies (IKT) is changing the "game rules" of impact assessment (IA) dynamics. This raises many questions, such as "Do IKTs ensure transparency, availability, and accessibility of information and knowledge for stakeholders' participation?" Questions of this kind will be addressed after a few very short presentations. Come and have your say.

EIASS as a web-based information service in Korea

Kongjang Cho, Jung Ho Yoon, Tae Yun Kim

The EIASS (environmental impact assessment support system) web site was opened in Korea. EIASS is the online information service to provide information such as GIS data, local environmental quality, and spatial analysis data.

Green ICT platform for environmental assurance

Henry Leung, Andy Chung

DANTE Manager is the latest showcase of MTR's culture of adopting green information and communications technologies (ICT) for operational efficiency and environmental assurance.

A pressure-state-response approach to cumulative IA

Luis Sanchez, Ana Claudia Neri, Patricia Dupin

The limitation of available project-level information to derive indicators for assessing cumulative impacts of spatially-concentrated mining projects showed that standardized databases are needed to provide landscape/watershed scale mitigation and management.

ICTs and islanders regarding wind energy

Judith Priam

For Puerto Rico, information communication technologies (ICTs) are part of IA since the first wind farm projects. For Guadeloupe, a European outermost region, a recent Directive modified the ICTs' importance.

Information technology for Inuit EIA participation

Ryan Barry, Valter Blazevic, Amanda Hanson Main, Cesare Tatarelli

Information management for Inuit participation in environmental impact assessments in Nunavut, Canada.

Knowledge integration in IA and mine closure plans

Ross Mitchell, Bryan Leach

This presentation examines knowledge integration in environmental impact assessment and mine closure plans through three main questions, and recommendations are made for future incorporation of knowledge for the extractive sector.

HOW STAKEHOLDER CONSULTATION IS CHANGING THROUGH NEW SOCIAL PARTICIPATION

The digital interface with local community

Monday 20 April | 11:00-12:30 | Villa Verde

Theme Forum

Chair(s): Daniel Franks, Antoine Heuty,

Digital technologies are reshaping the relationship between project developers and the communities around their projects. This session will hear from technology developers and community relations practitioners who are implementing mobile phone, software, and handheld digital technologies to complement traditional community engagement, social impact assessment, and management techniques.

Real time complaints handling using SMS technology

Antoine Heuty

The paper presents progress toward implementing a short message service- (SMS) based information platform that connects communities to mining companies in areas of conflict, facilitating information flow between stakeholders.

Interfacing with community through IMS

Patrick Gregoire

Information management systems (IMS) are powerful tools to deploy community teams on the ground. If properly implemented they can support team competencies, measure social performance, and improve relations with communities.

Measuring social license real time using mobiles

Kieren Moffat, Airon Zhang, Naomi Boughen

This presentation describes a series of pilot projects in Australia and South Africa to generate a "real time" understanding of community sentiment using online and mobile phone technology platforms.

Empowering community with water monitoring devices

Flaviano Bianchini

The paper reports on support provided to communities to empower them to undertake monitoring with both "old" and "new" digital technologies.

Oil industry and stakeholders

Wednesday 22 April | 16:30-18:00 | Villa 105

Paper Session

Chair(s): Roberto Mezzalama

This session presents new tools and experiences of stakeholder engagement in the environmental and social impact assessment of oil and gas projects.

The use of tailored stakeholder management tools

Emanuele Bobbio, Sara Valentini, Roberto Mezzalama, Francesco Belfiore, Vito Bretti

In early phases of environmental and social impact assessment (ESIA) and project design, tailored stakeholder management tools provide valuable support in mapping stakeholders' positions and analyzing their evolution, allowing a focused implementation.

Stakeholder engagement in Nigeria's oil and gas industry

Chizoba Chinweze, Chinny Kennedy-Echetebu, Ijeoma Onyeri

Judging from the maze of agitations from virtually every quarter in the country, particularly the "host communities," it could be deduced that their stake is grossly marginalized.

A "Boundary Object" for a natural gas region

Will Rifkin, Vikki Uhlmann, Jo-Anne

Everingham, Katherine Witt

Development of onshore natural gas requires collaboration across business, government, and the community; one example is our co-creation of a decision tool, based on socioeconomic indicators, as a "boundary object."

New ways of communication with stakeholders in the oil and gas industry

Monday 20 April | 11:00-12:30 | Affari 2nd Floor

Theme Forum

Chair(s): Arne Dalfelt, Peter Tarr

The digital era may lead to changed minds in the traditional oil and gas industry because of enhanced public knowledge and awareness leading to demands for changes towards more sustainable alternative energy sources.

Working together: A panacea for environmental management in oil and gas development

Kojo Agbenor-Efunam

Environmental management in the oil and gas sector in developing countries such as Ghana requires concerted effort from government, industry, development partners, and communities working together in partnership.

OECD/DAC ENVIRONET and developing countries oil/gas

Peter Croal

How OECD/DAC ENVIRONET can assist developing countries with environmental challenges related to the oil and gas sector.

Regulatory challenges in Timor-Leste's petroleum industry

Vearwati Corte Real de Oliveira, Jose Goncalves

History, challenges, and opportunities in the oil and gas industry in Timor-Leste.

Benefits of social media to oil and gas

Fernando Rodriguez

Similar to the use of digital technology for production, social media brings the capability to remotely troubleshoot potential problems at an earlier stage and maintain a license to operate.

Analysis of efficacy of environmental management

Arnold Waiswa Ayazika

The current policy, legal, and institutional framework for the management of environmental aspects of oil and gas, approaches, challenges, and proposed measures in mitigating the challenges.

NEW TECHNOLOGY'S ROLE IN VISUALIZING SOCIETAL CHANGES ASSOCIATED WITH MAJOR PROJECTS

Spatial models and data for land use planning

Thursday 23 April | 09:00-10:30 | Villa Verde

Paper Session

Chair(s): Tamara Hochstrasser

Innovative tools are sought for addressing conflicting policy targets regarding land use. With the help of case studies, this session will discuss how system models and spatial data infrastructures (SDIs) can help identify and resolve conflicts in land use policies.

Scoping land-use policy issues in Ireland

Tamara Hochstrasser, David Meredith, Alex Herzig, Alan Renwick, Nicholas M. Holden, Maarten Nieuwenhuis

Policy issues (including greenhouse gas mitigation) regarding land-use change in Ireland and appropriate modelling frameworks for policy appraisal are discussed.

New industrial cities: Planning for air quality

Marc Blanche, Ian James

The paper examines options available to the regulator at a planning stage that promote the sustainability of the industrial area in terms of ambient air quality.

Impact assessment as a design tool

Thursday 23 April | 09:00-10:30 | Villa 6

Paper Session

Chair(s): Elsa João

IA should be a proactive agent in sustainable development and not a regulatory hurdle. Enhancement can increase the value and business case of IA, and make better projects. However, IA can be criticized by people who fail to grasp its true potential. This session explores the use of IA as an inspiring design tool.

EA as a design tool: Lessons, impediments, enablers

Steve Bonnell

This paper explores recent experience in the perception and use of EA as a design tool and identifies key factors that have facilitated and hindered its use in this manner.

IA and decision-making in the spotlight

Claire Gronow, Lex Brown, Angus Morrison-Saunders

Attempts to demonstrate the substantive effectiveness of IA encounter theoretical and methodological hurdles. New research directions focus on better understanding the mechanisms by which IA affects decision-making and project design.

Integrating EIA with popular design methodologies

Neil Cochrane, Elsa João

This presentation examines opportunities for environmental practitioners to work more closely with the broader design community by identifying areas where EIA outcomes can integrate with, rather than precede, construction design.

Concurrent sessions

Using IA to design R&D programs

Ivar Lyhne

This paper documents how IA performs as a voluntary design tool in the case of a Danish R&D programme. IA, for example, influences focus areas, allocation of funds, and performance requirements.

Putting impact assessments into action

Douglas Mason, Jonathan Richart

We explore opportunities to ensure that environmental and social impact assessments recommendations are put into practice, both up front as a design tool as well as throughout project implementation.

Using EIA as a design tool for irrigation plans

Farahnaz Sabzevari, Reza Khalili

This paper discusses the experience of applying qualitative and quantitative impact assessment methods simultaneously, so EIA can be used as a design tool for plans based on the environmental criteria.

Visualization and data management

Thursday 23 April | 09:00-10:30 | Villa 105

Paper Session

Chair(s): David Burack

This session aims at promoting different methods of managing data and visual representations and reflects on how these can lead to better impact assessment.

Turning survey data into digital data overnight

Beni Patel

Surveys are paper-based forms that require manual transcription into digital format before the data can be used for analysis and decision making. See how technology can completely transform that process.

Visual impact assessment of hydropower plant

Mojca Golobic, Nadja Penko Seidl, Alenka Cof, Jelka Hudoklin, Lucija Gritli

An impact assessment of the hydropower plant on the Mura River (Slovenia) on the visual characteristics of the landscape is presented in this paper.

The ART of EIA: Creating a masterpiece

Richard Grasseti

This presentation differentiates the on the art and science of preparing effective EIAs, focusing on often-overlooked subjective art of the EIA.

Portraying the local voice in public participation

Anna-Sofie Skjervedal

This paper presents a research frame including photographic portraits of local representatives in northwest Greenland as a method to gain access to their opinions, values, and thoughts for the future.

NEW TOOLS FOR RISK ASSESSORS AND MANAGERS

Collecting and visually communicating impact assessment data to decision-makers

Wednesday 22 April | 09:00-10:30 | Affari 2nd Floor

Theme Forum

Chair(s): Teresa Bernhard

An accurate understanding of the environmental baseline situation is required in any impact assessment process to characterize impacts and risks, and inform decision-making. We showcase and provide an opportunity for dialogue on innovative digital approaches to collecting and visually communicating impact assessment data to decision-makers.

Do I have to read another million-word ESHIA?

Dan Mistler, Tony Coggan, Isolina Sanchez, Chris Pratt

A discussion of the utility of visualization (specifically infographics and 3D animation) in environmental social and health impact assessment (ESHIA) and its application for multiple audiences and technical functions.

Who else cares about environmental information?

Charles Hernick, Carrie Stokes

With visualizations, impact assessors can maximize the transferability of environmental information gathered and interpreted through the impact assessment process—particularly on land use—so it resonates with non-environmental development efforts.

Scenarios, data visualization, and mitigation

Joseph Kiesecker, Jeff Evans, Christina Kennedy

Scenario-based analysis and data visualization methods can help improve the value of EIA so that it can become more effective in fostering sustainable development.

Natural capital: Sweating the baseline data assets

Mervyn Mason, Brendan Hart, Aiden Stoop

An approach to natural capital impact assessment using the Natural Capital Project's InVEST suite of GIS-based tools.

Participatory GIS for resource mapping in SIA

Meshach Ojile, Deji Bodude, Rekiyatu Okhade

A community/stakeholder integrated participatory GIS study undertaken as part SIA for airport project, involving a detailed resource inventory, mapping, and sensitivity of project environment.

Tools to integrate epidemiology and risk assessment in HIA

Monday 20 April | 14:30-16:00 | Villa 5

Workshop

Chair(s): Nunzia Linzalone

The evaluation phase in the process of HIA has been deepened in different studies in Italy. Tools to optimize the integrated use of the methods of epidemiology and risk assessment in the HIA process will be presented and presentations of methods and application in case studies will be provided.

Scenarios for air quality management in São Paulo

Simone Miraglia, Ricardo Popescu Junior, Karina Abe

Air pollution scenarios in São Paulo showed that a decrease to 10microgram/m3 in the PM2.5 annual mean concentration could avoid 3,856.6 annual deaths, meaning 12 months in life expectancy.

Silent danger: A tragedy of cumulative impacts of pollution

Aungkana Boonsem, Passanan Assavarak

Cumulative impacts are overlooked during the EIA process. Most laborers did not have diseases prior to working in some areas; however, after 3-5 years, they started to develop health issues.

The national project "Tools for HIA" (t4HIA)

Marinella Natali, Adele Ballarini

The Italian project "Tools for HIA" addresses the need to provide tools for public health professionals and proponents to adequately develop the health component within SEA and EIA procedures.

Improving the participation of stakeholders in HIA

Nunzia Linzalone, Alessandra Pedone, Roberto Romizi, Tommaso Pagliani, Fabrizio Bianchi

Stakeholder participation is critical to identify methods, impacts, and actions for effective HIA.

Use of GIS to foster multidisciplinary ESIA

Wednesday 22 April | 11:00-12:30 | Villa 101

Panel Discussion

Chair(s): Jeremy Ansell, David Gibson

Complex land issues, production suitability, and environmental requirements are restricting critical investment in agriculture and forestry. This panel will review promising geospatial applications and tools that support accelerated and interdisciplinary ESIA for land-based investments. Panelists will explore GIS applications and remote sensing instruments for land use planning, forestry, and agriculture.

Using GIS to add value to ESIA

David Gibson

This presentation illustrates several applications of GIS in assessing and implementing forest management programs in several regions.

Landscape modeling with GIS

Frank Altamirano

Geoprocessing tools, developed by GIS technologies and enhanced with good basemap baseline scoping, can estimate potential landscape impacts in a mine exploration at the southeast region of Peru in the Apurimac Region.

Resource region impact visualization tool

Will Rifkin, Bev Kubat, Alex Lechner,

Margaretha Scott, Neil McIntyre

Development of an integrated visualization tool promises to enable taking a risk-based approach to assessing trade-offs in land use among different development pathways for a mineral-rich resource region.

Assessing the energy-water-land use nexus

Ulla Mortberg, Lucia deStrasser, Mark

Howells, Sara Gordon

System models addressing the nexus of energy, water, and land use in transboundary watersheds. Issues of stakeholder involvement and integration of ecosystem aspects in nexus assessments are discussed.

Use of UAVs in the development of ESHIAs

David Blatchford, Martin Lednor

The use of unmanned aerial vehicles (UAVs), in combination with traditional forms of data acquisition, potentially leads to more accurate assessments of impacts, reduced risks and costs, and enhanced environmental and social outcomes.

Digital technologies for spatial analysis of ecosystems and biodiversity

Thursday 23 April | 09:00-10:30 | Villa 104

Paper Session

Chair(s): Lorenzo Bertole

This session focuses on the last applications of digital technologies for spatial analysis of ecosystems and biodiversity.

Sensitivity analysis and ecosystem mapping in Peru

Claudia Valencia

Multi-criteria sensitivity analysis for the sustainable management of projects: a methodology was developed based on GIS and geo-spatial drone technology for studying sensitive ecosystems affected by linear projects in Peru.

Habitat mapping in a subtropical environment using remote sensing

Marco Rusmini, Jessica Hughes, Simone

Poli, Lorenzo Bertole

Remote sensing can assist IA experts in defining habitat distribution. This study demonstrates the value of fieldwork combination and remote sensing as a reliable approach for remote areas habitat mapping.

Digital database for 4 eco-channels in Hong Kong

Mark Shea, Bin Chen, Vincent Liu

A digital database developed by integrating ecological survey data from four eco-channels in Hong Kong to an existing web platform served for channel management and free public access.

Short-term data to long-term gain

Carol Stefan, Amy Darling, Scott Grindal, Chris Godwin

Regional trends for bird and bat species were evaluated using short-term data collected over many years. Results were used to inform coarse-scale data, resulting in more accurate and efficient assessments.

A new prize for best impact assessment inspired design?

Tuesday 21 April | 16:30-18:00 | Villa 101

Workshop

Chair(s): Elsa João

It is important to find ways to communicate worldwide the best and most clever outcomes of impact assessment, to enthuse developers, engineers, politicians and decision-makers. This workshop discusses a potential new international competition of impact assessment: local and regional winners compete for national awards, and eventually an overall global winner is found.

Towards a global prize for best impact assessment

Elsa João, Sheena Boyd

An international prize/competition of impact assessment could help communicate worldwide the best and most clever outcomes of impact assessment. This paper proposes how this competition could be carried out.

Showcasing excellence: The IAIA Premium Awards

Carli Steenkamp, Francois Retief

This paper examines how the IAIA Premium Awards programme has been implemented in South Africa since 2002.

The National Impact Assessment Program in Pakistan: Outcomes and lessons

Thursday 23 April | 09:00-10:30 | Villa 101

Panel Discussion

Chair(s): David Annandale

The National Impact Assessment Program (NIAP) was a trendsetting initiative of the government of Pakistan, IUCN, and the NCEA. It helped to significantly strengthen the EIA regime and to introduce SEA. It is hoped that lessons will be used by governments and donors to better design and implement similar programs in challenging developing countries.

NIAP in Pakistan: Overall introduction

David Annandale

For four years until its completion in 2014, the National Impact Assessment Programme (NIAP) broke new ground in Pakistan.

NIAP EIA Handbook and EIA curriculum for Pakistan

Thomas Fischer

The EIA Handbook and EIA course curriculum for higher education institutions in Pakistan were developed on the basis of a total of seven National Impact Assessment Programme in Pakistan (NIAP) workshops conducted between 2011 and 2013.

Revitalizing industrial growth in Pakistan: SEA

Ernesto Sanchez-Triana, Santiago Enriquez,

Javaid Afzal, Ana-Luisa Gomes-Lima

This presentation discusses the SEA approach adopted to identify environmental priorities and develop policy options to revitalize manufacturing in Pakistan by stimulating green industrial growth through appropriate reforms and investments.

EIA guidance for coal-fired power plants

Miguel Coutinho

A specific EIA guidance for coal-fired power plants in Pakistan was developed to support Pakistani provincial EPAs, financial institutions, and civil society to address its environmental and social concerns.

Transboundary natural gas pipelines

Peter Tarr

EIA guidelines for transboundary natural gas pipelines were developed to help the authorities and other stakeholders in identifying, avoiding, and mitigating major environmental and social impacts.

Partnership in capacity development

Bobbi Schijf

The Netherlands Commission for Environmental Assessment (NCEA) provided technical support to the National Impact Assessment Programme (NIAP) of Pakistan. We share some of the lessons learned from this experience.

Sustainability assessment: Latest research and emerging trends (I)

Tuesday 21 April | 14:30-16:00 | Adua 2

Paper Session

Chair(s): Jenny Pope

Sustainability assessment (SA), defined as a process that directs decision-making toward sustainability, has been the subject of considerable recent research, both conceptual and practical. This session showcases some of the latest thinking in the field, including contributions to the forthcoming book *Handbook of Sustainability Assessment*.

Conceptual framework for sustainability assessment

Jenny Pope, Alan Bond, Angus Morrison-Saunders

A proposed new conceptual framework for sustainability assessment is presented. Three dimensions comprise the framework: underpinning sustainability discourse, representation of sustainability within the assessment process, and decision-making contexts.

Equity in SA: A conceptual framework

Lydia Lamorgese, Davide Geneletti

One hallmark of sustainability is equity. However, equity is rarely incorporated into sustainability assessment. We propose a conceptual framework to promote the systematic inclusion of equity in sustainability assessment.

Emerging directions for public participation in SA

John Sinclair, Alan Diduck

This presentation offers an integrative review inquiring into practical challenges and emerging directions for participation in SA and establishes three linked issues that must be confronted in designing participatory programs.

SA: Deliberative collaborative governance approach

Janette Hartz-Karp, Svetla Petrova, Jenny Pope

This paper explores through practical examples how deliberative collaborative governance (DCG) can contribute to sustainability assessment theory and practice.

Key learning from psychology for SA

Francois Retief, Angus Morrison-

Saunders, Jenny Pope, Alan Bond

This presentation distills key learning from the field of psychology towards gaining a better understanding of how thinking happens and what it means for sustainability assessment.

Sustainability assessment: Latest research and emerging trends (II)

Tuesday 21 April | 16:30-18:00 | Adua 2

Paper Session

Chair(s): Jenny Pope

Sustainability assessment (SA), defined as a process that directs decision-making towards sustainability, has been the subject of considerable recent research, both conceptual and practical. This session showcases some of the latest thinking in the field, including contributions to the forthcoming book *Handbook of Sustainability Assessment*.

Setting and measuring objectives in SA

Samuel Hayes, Thomas Fischer

This discussion, and the book chapter to which it relates, considers one of the fundamental aspects of many forms of sustainability assessment: the use of objectives.

Overcoming lock-in: A new tool for sustainability

Amar Sjaauw En Wa, Jos Arts

This paper discusses practical experiences with a new tool to assess sustainability of project scopes in early planning stages and the potential for sustainable area development in order overcome lock-in.

Recent sustainability assessment tools: Urban apps

Fodil Fadli

This presentation sheds light on the use of sustainability assessment tools (SATs) in evaluating and measuring the sustainability levels of neighborhoods and urban districts.

Concurrent sessions

Possibility of sustainability assessment in Japan

Sachihiko Harashina, Yoichi Kuwabara

The possibility of introducing sustainability assessment into Japan will be examined by analyzing a case of the planning process of a new national stadium for the 2020 Tokyo Olympic Games.

Sustainability content in Brazilian ethanol planning

Carla Duarte, Tadeu Fabricio Malheiros, Amarilis

Lucia Castelli Figueiredo Gallardo, Luis Sanchez

We gauge to what extent Brazilian national energy planning embraces sustainability thinking when framing ethanol strategies.

Alternatives: The backbone of EIA

Monday 20 April | 16:30-18:00 | Affari 4th Floor

Paper Session

Chair(s): Inga Carlman, Anna Longueville

As time has passed, the purpose and practice of investigating alternatives seems to have been lost. This session critically explores how the fundamental issue of the alternatives analysis has become one of the most abused parts of the EIA tool.

Why is the backbone softening?

Hein van Gils

Possible scenarios for handling the softening of the requirement for alternatives are discussed and include accepting the status quo and regulating environmental assessment differently.

EIA alternative analysis: Case studies

Pedro Bettencourt, Maria Grade, Nuno Silva

Discussion of EIA alternative analysis for two types of projects, one in Portugal and one in Brazil.

Alternatives in Swedish nuclear waste management

Antoinette Wärnbäck

The results highlight that over time, interactions between implementer and regulator have resulted in adoption of a shared understanding concerning downgrading the need for more thorough investigation of alternative methods.

Good practice on alternatives: The Portuguese case

Julio Jesus

The EU EIA Directive is quite weak regarding alternatives. Portugal is an example of good practice, with the public involved in the selection of alternatives submitted to the EIA process.

The zero alternative in EIA

Elina Baheram, Charlotta Faith-Ell

Exploring the purpose of the zero alternative and describing different interpretations and approaches to the zero alternative in Sweden.

What's wrong with the alternatives analysis?

Anna Longueville, Inga Carlman, Patience Whitten

Some critics believe that the international community has passively allowed meaningful alternatives analysis to disappear in practice. If true, what are the reasons for this, and at what cost?

Art in impact assessment

Tuesday 21 April | 14:30-16:00 | Affari Groundfloor

Panel Discussion

Chair(s): Matthew Cashmore

This session seeks to foster discussion on how art might contribute to impact assessment and, in so doing, improve the political and social relevance of this family of policy tools. Panelists will be asked to reflect upon how art may help society understand and engage with such issues as alternatives, impacts, trade-offs and the long-term future. The panel includes established IA professionals and practitioners. The session will also involve short "interventions" that illustrate the potential contribution of art to impact assessment. The interventions will take the form of provocative think pieces, which include "pecha kucha"-style presentations and display items, as opposed to formal papers. Audience participation in the discussions will be strongly encouraged. Prepare to be inspired.

Images with Impact: Use of digital media in E/SIA

David Burack

A multi-media presentation of examples of effective use of graphics in E/SIA and the documentation of environmental conservation and sustainable development. Thoughts on the future use of media in E/SIA.

Land art: Re-imagining impact assessment

Caroline Henderson

Our failure to address environmental issues is not a failure of information but a failure of imagination. A data-driven approach won't drive a sustainable future. We need more emotional engagement.

But is it any good? The search for quality in impact assessment (I)

Tuesday 21 April | 09:00-10:30 | Affari Groundfloor

Theme Forum

Chair(s): Ben Cave, Alan Bond, Luke Sandham

How do different bodies involved in IA address quality? What makes for a good quality assessment? How do quality assurance systems differ between countries and sectors? We examine the simple, but central, challenge: how do we know if an impact assessment is any good?

Difficulties of EIA in urban development projects

Gabriele Buerger

The requirement of EIA in urban development projects leads to a range of difficulties in the course of implementation, e.g., forecasting noise or air emissions on future residents.

Environment without humans?

Sandra Kainz

A biophysical understanding of environment in association with EIA risks the loss of the added value of EIA and the deferment of problems in subsequent project phases.

Minimum Elements and Practice Standards (MEPS) for HIA

Marla Orenstein, Murray Lee

This presentation will introduce the MEPS guidance document and describe its purpose, evolution, uptake, and weaknesses in order to stimulate discussion on how to define or identify quality in HIA.

EIA report quality: Lessons from the first 17 years

Luke Sandham, Alan Bond

EIA report quality in South Africa is satisfactory, but the perception of EIA is negative. The question is to what extent report quality is representative of EIA quality and effectiveness.

But is it any good? The search for quality in impact assessment (II)

Tuesday 21 April | 11:00-12:30 | Villa 203

Paper Session

Chair(s): Alan Bond

How do different bodies involved in IA address quality? What makes for a good quality assessment? How do quality assurance systems differ between countries and sectors? We examine the simple, but central, challenge: how do we know if an impact assessment is any good?

Quality control for environmental appraisal tools

Matthew Cashmore, Ivar Lyhne, Hens

Runhaar, Frank van Laerhoven

The effects of quality control are investigated through surveys and in-depth interviews with actors centrally engaged with EA implementation and the testing of five hypothesis developed from conventional premises on quality control.

Is a quality mark a mark of quality EIA?

Josh Fothergill, Thomas Clayton, Peter Jones

The latest data from the UK's ground breaking EIA Quality Mark scheme will be released, allowing four years of data across over 50% of UK assessments to be analyzed.

Pythia: An evaluation algorithm for EIA studies

Georgios Phaedon Papakonstantinou,

Panagiotis Kazamias, Constantinos

Cassios, Dimitris Papakonstantinou

Pythia: A quality algorithm for evaluation of environmental impact assessment studies.

Aligning EIA with regulatory frameworks

Celesa Horvath, Jeffrey Barnes

Existing regulatory and management frameworks are often inadequately considered when determining the need for and scope of EIA and administering EIA processes. These issues are examined and practical improvements are recommended.

But is it any good? The search for quality in impact assessment (III)

Tuesday 21 April | 14:30-16:00 | Villa 203

Paper Session

Chair(s): Luke Sandham

How do different bodies involved in IA address quality? What makes for a good quality assessment? How do quality assurance systems differ between countries and sectors? We examine the simple, but central, challenge: how do we know if an impact assessment is any good?

Impact assessment amid corporate transitions

Garth Thomson

This presentation discusses the effect of transitions in management and/or ownership at mining projects on relationship building, regulatory compliance, and impact assessment.

Effectiveness of ESIA in mining finance decisions

Emily Harris

This presentation draws on direct experience from conducting and reviewing environmental and social impact assessment (ESIA) processes in the mining industry to consider the effectiveness of ESIA in meeting project finance requirements.

What is under the table of fishery diagnostic?

Davi Rodrigues, Cordts Priscila, Loureiro

Barbara, Carolina Figueiredo, Samir Silva

Fishery activity diagnostics lack uniformity, and this fact is inducing conflicts between the oil and gas industry and the fishery community.

The weak link in EIA effectiveness: Challenges

Jeffrey Barnes, John Boyle

Observations of negative trends in the administration of EIA process in Canada that contribute to a decrease in EIA effectiveness and related quality are considered.

But is it any good? The search for quality in impact assessment (IV)

Tuesday 21 April | 16:30-18:00 | Villa 203

Paper Session

Chair(s): Peter Duinker

How do different bodies involved in IA address quality? What makes for a good quality assessment? How do quality assurance systems differ between countries and sectors? We examine the simple, but central, challenge: how do we know if an impact assessment is any good?

Improving screening practice: South Australia empirical case study

Beverley Clarke

This paper presents an empirical study from South Australia that investigates the adequacy of its discretionary screening process for development proposals between 2009 and 2014 and suggests practical improvements.

Quality-assuring health impact assessments

Liz Green

An overview of the Welsh experience of regularly quality-assuring health impact assessments (HIAs) reflects on many of the issues encountered and how they are being addressed.

The "grey" assessment practice of IA screening

Morten Bidstrup

Through a case study, this presentation elaborates on the wider implications of the assessment-like practice which surrounds IA screening in Denmark.

IA research: Achievements, gaps and challenges

Thomas Fischer, Bram Noble

A summary is provided of statements written by 20 leading global impact assessment (IA) researchers on achievements, gaps, and future challenges of IA research.

But is it any good? The search for quality in impact assessment (V)

Wednesday 22 April | 11:00-12:30 | Villa 203

Paper Session

Chair(s): Peter Duinker

How do different bodies involved in IA address quality? What makes for a good quality assessment? How do quality assurance systems differ between countries and sectors? We examine the simple, but central, challenge: how do we know if an impact assessment is any good?

Streamlining EIA in Australia

Carolyn Cameron, Dean Knudson

Australia is undertaking major reforms to streamline environmental regulation while maintaining high environmental standards and providing certainty and cost savings for industry.

Cross-country comparison of quality control in EA

Markus Gunther, Johann Koepfel

We analyzed approaches of quality control for environmental assessments in Canada, The Netherlands, United Kingdom, and the United States, and identified good practice elements.

How was it for you? The quest for quality

Ben Cave, Alan Bond, Luke Sandham

Did IA15 respond to our simple, but central, challenge: How do we know if an impact assessment is any good? We will discuss conference findings concerning quality in IA.

Increased complexity in impact assessment

Wednesday 22 April | 16:30-18:00 | Villa 203

Paper Session

Chair(s): Shirley Sau Ling Lee

Impact assessment is a constantly evolving process, and an increased number of issues are addressed by both decision-makers and project proponents in the assessment. This session presents aspects of complex projects and the SEA process and aims to identify emerging trends.

ECOstatus: Mapping a vision for urban rivers

Karl Fuller, Rebecca Skinner, Ross

Marshall, Mark Ross, Angela Gurnell

Urban rivers are valued local resources and require sensitivity if positive relationship are to be maintained between the developer and local communities. Careful baseline assessment helps identify risks and opportunities.

Using CEA for urban expansion planning in China

Ning Yang, Juan Quintero

The EIA for an urban and industrial expansion project in southwestern China addressed environmental and social impacts at strategic level and incorporated cumulative impacts issues.

Integrating poverty, social, and environmental assessment

Javaid Afzal, Santiago Enriquiz, Ernesto Sanchez-Triana

A review of the integrated strategic environmental, poverty, and social assessment that was prepared to enhance the sustainability of reforms in Pakistan's trade and transport sector.

HOW INSTANT AVAILABILITY OF INFORMATION IS INFLUENCING IMPACT ASSESSMENT

Practical approaches to impact significance assessment (I)

Tuesday 21 April | 14:30-16:00 | Villa 104

Paper Session

Chair(s): Mika Marttunen

There is an increasing need for generic systematic approaches to support impact significance assessment. However, increasing systematization also involves several challenges including how to still keep the assessment and reporting illustrative and compact.

The enigmatic pursuit of significance

Jeffrey Barnes

This paper explores the pivotal nature of significance in decision-making in Canada and issues around its determination and contemplates the utility of the concept.

Defining significance: Baseline vs. VC integrity

Celesa Horvath

Defining significance based on degree of change from baseline can influence the adequacy of cumulative effects assessment. Defining significance based on valued component integrity is recommended to address the issue.

Narrative approach for significance determination

Kyle Knopff, Carol Stefan

Biodiversity assessment examples illustrating a reasoned narrative approach taking impact assessment beyond impact classification matrices to a more transparent, meaningful, and relevant determination of significance that is easier to understand.

Impact significance in sugarcane industry

Carla Duarte, Luis Sanchez

We evaluate the impact significance determination in Brazilian sugarcane mill projects, seeking to identify if impact significance is applied and how and if mitigation measures are associated with significance results.

IMPERIA: Impact significance assessment framework

Jyri Mustajoki, Mika Marttunen, Joonas Hokkanen,

Sakari Gronlund, Timo P. Karjalainen, Anne Vehmas

We introduce an integrated framework providing new tools and guidance for supporting the coherent and transparent realization of the EIA process. The framework is based on experiences of real-life EIA projects.

Practical approaches to impact significance assessment (II)

Thursday 23 April | 09:00-10:30 | Affari 4th Floor

Paper Session

Chair(s): Lea den Broeder

There is an increasing need for generic systematic approaches to support impact significance assessment. However, increasing systematization also involves several challenges including how to still keep the assessment and reporting illustrative and compact.

Concurrent sessions

The UK's approach to transitioning practice

Josh Fothergill, Peter Jones, Thomas Clayton

The approach EIA practitioners are taking to ensure the UK has a smooth transition to meeting the amended EIA Directive's requirements.

Dealing with challenges: EA research needs in NL

Hens Runhaar, Jos Arts

Engaging in ongoing debates in other domains is essential to prepare for new challenges and may enrich both EA research and practice by fostering learning and innovation.

Practical challenges in the Netherlands

Hugo Woesthuis, Paul Eijssen

This presentation deals with the practical challenges in The Netherlands in implementing the new EU EIA Directive.

Effect characterization and the human disciplines

Marla Orenstein, Susan Dowse

Definitions for effect characterization are often formulated with reference to environmental disciplines and are not well-suited for human disciplines. We discuss characterization approaches suited for all disciplines in environmental assessment.

Accessing and applying digital data: Successful and unsuccessful EIA case studies

Monday 20 April | 14:30-16:00 | Affari 4th Floor

Paper Session

Chair(s): Aaron Goldschmidt

Presenters will describe project-specific examples and discuss innovative methods to identify, access, and apply data via digital/electronic mechanisms. Further, presenters will share how access and application of these data to describe existing environmental and social conditions have either: 1) facilitated impact analyses resulting in project time and cost savings while maintaining positive public engagement and trust, or 2) prolonged project schedules and increased budgets that resulted in damaged project reputations.

IT applied to impact assessment in Brazil

Isabela Cardoso, Luis Correia, Marcio

Rodrigues, Leandro Cordeiro

Achievements related to information and knowledge management tools in Brazil aimed at availability of data, information, and knowledge regarding EIA.

Stakeholder engagement in the digital age

Russell Foxwell, Iain Wood, Vanessa

Sanderson, Barnaby Burman

Technological advances have increased the opportunity for stakeholders to engage. This presentation examines a transboundary gas pipeline that developed an innovative database to respond to this changing landscape.

Digital media in impact assessment during construction

Mohamed Hasan Isa

Monitoring records as per EIA and EM&A are regularly put on the website, including the stage of construction with photos for public view.

Application of big data in public participation

Jianbiao Teng, Wen Zhou, Yuhuan Zhang, Dakui Wang

The general theory of emergency public participation and the applications of big data in static and dynamic decision-making.

Collaborative processes and spatial data portals for enhanced IA

Thursday 23 April | 09:00-10:30 | Villa 4

Paper Session

Chair(s): Miles Scott-Brown

This session will examine how these new technologies and universal access to information can make for better impact assessment. Case study approaches and challenges will be presented.

Big data (gaps) and EIA

Rufus Howard

Exploring the benefits and challenges faced by the management and accessibility of big data in environmental impact assessment.

Geospatial tools to enhance ESIA quality for IFIs

Mandar Parasnis

Experiences of applying geospatial information tools to enhance the quality and depth of environmental and social impact assessments (ESIAs) during the International Finance Corporation's (IFC) investment due diligence of some complex projects.

Simple tools for smart results in the digital age

Alan N. Cochran

How increased access to data is enabling quicker, cheaper, and more flexible tools for better decision making at the strategic planning stage: an SEA case study in Namibia/Angola.

Spatial data portal enhances stakeholder relations

Kyla Jacobsen, Claire Preece, Tim Taylor

Spatial data portal enhances stakeholder relations consultation and compensation process through increasing collaboration, transparency and efficiency.

An ontology-based knowledge network for EIA

Sanaz Sanaye Goldouz

An ontology model is a way to specify a conceptualization, and it has some nice properties for EIA knowledge sharing among artificial intelligence (AI) software.

Collaborative processes and IA data portals

Miles Scott-Brown, Tim Taylor, Kyla Jacobsen

Static EIA/EIS reports do not provide access to EIA data. New technologies and approaches are clearly needed to assist in project planning and IA decision-making. We have the solution!

SMART CITIES

Smart cities: Rapid assessment and mitigation with real-time information

Monday 20 April | 14:30-16:00 | Verde Villa

Paper Session

Chair(s): David Carruthers

A "smart city" approach to sustainability provides instant access to sensor information and creates new information from social media and crowd sourcing. Impact assessment tools can combine this information and respond rapidly through integration with city systems. This session looks at existing and proposed projects operating in these ways.

Christchurch City: A smart city rebuild

Alison Mackie

By developing smart technology, "big data" may be utilized to enable accurate decision-making for future investment, as well as inform future public policy for Christchurch City.

Air quality networks in smart cities

Miguel Coutinho, Joao Ginja, Margarida

Costa, Clara Ribeiro, Carlos Borrego

Air pollution control systems based on micro-sensors opens a new vision for air quality control. We will discuss the impact of these sensors in a network designed for Fortaleza, Brazil.

UK grid: A changing landscape

Rufus Howard

This paper explores the drivers, benefits, and challenges of new underground grid infrastructure for renewable energy and explores the environmental impacts of our changing grid infrastructure.

From a short-term problem to a long-term strategy

Joao Morais Sarmento, Candida Castro

REFER is the Portuguese Railway Infrastructure manager. A 3-year invention and design (I&D) project is underway with the objective of developing knowledge on the railway's impacts biodiversity. First results are available.

Real-time crowd sourcing, data, and modelling

Mark Jackson, Giuseppe Magro

We present case studies for the QCumber platform: a feasibility study for five UK cities including air quality forecasts and real-time assessment of odor in Italy using crowd-sourced data.

LOOKING FOR EMPLOYEES?
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BOARD!**



Andrea Ceccarelli
Metropolitan City of
Florence, City Planning and
Infrastructure

Meet the challenges of the 21st century. Smart cities and strategies of e-governance.

More than two-thirds of Europe's population lives in urban areas.

Cities are places where problems emerge, but they are also (or should be) solutions. They are a breeding ground for science, technology, culture and innovation, progress, democracy and development; in short, we could say that they are able to help the creativity of the individual and the community.

Cities also have a key role in the effort to mitigate the impact of climate change. On the other hand, it is in the cities that problems such as unemployment, discrimination, and poverty also exist.

Their administrative boundaries do not correspond to the physical, economic, cultural, or environmental reality of urban development, and they require new models of governance that are more appropriate and more flexible.

E-governance tools, together with innovative practices of vertical and horizontal collaboration between different institutional levels, can represent items that can meet the challenges facing the cities of the 21st century.

The E-Governance forum is sponsored by Cisco, Cobat, Google, and Microsoft.

Italian-to-English translation is provided.

E-Governance in future cities: Needs and opportunities

Wednesday 22 April | 09:00-10:30 | Villa Verde

Theme Forum

Chair(s): Giuseppe Magro

A powerful focus on sustainability demand in a digital inter-connected world, opportunities, and critical issues of future cities governance. Understanding big data challenge for impact assessment, smart city context, and environmental/social responsibility promotion.

The future city will be a network system in which we have to find the best opportunities for coexistence between people and environment. Impact assessment would play a powerful key role for promoting social participation and innovative strategies of stakeholder engagement.

A worldwide strategy for bio-cognitive cities

Giuseppe Magro, IAIA15 Program Chair and IAIA-Italia President

Implications of e-governance for future cities

Julian Hunt, University College London and University of Cambridge; Chairman of CERC

Smart cities and strategies of e-governance

Andrea Ceccarelli, Metropolitan City of Florence

Digital and social innovation into H2020 UE policies

Fabrizio Sestini, European Commission DG Communications Networks, Content and Technology

Smart participation into governance processes

Claudia Maria Terzi, Department of Environment, Energy and Sustainable Development in Lombardia Region

A consultant's perspective

Miguel Coutinho, IAIA President
IDAD - Institute of Environment and Development, Portugal

E-Governance in future cities: Collaborative win-win strategies and tools for sustainability management in future cities

Wednesday 22 April | 11:00-12:30 | Villa Verde

Panel Discussion

Chair(s): Giuseppe Magro

Collaborative win-win strategies and tools for promoting and managing sustainability will be presented: the role and social responsibility of IT big players, industry, and agrifood networks in dynamic "bio-cognitive" cities.

Opening of a "Table of Governance" to overcome the reductionist approach of smart city as a place of automation and efficiency in management processes.

Integrated social responsibility approaches for industry/agri-food sector

Pietro Bartolini, Environment, Security, Energy Quality & Operations area; Confindustria Firenze

Advanced strategies for improving agri-food quality and social responsibility

Stefano Masini, Environment and Territory area; Coldiretti

New challenge in managing impacts of digital technologies

Giancarlo Morandi, COBAT President

IOT for sustainability in future cities

Agostino Santoni, Chief Executive Officer; CISCO Italia

Advanced cloud system for sustainability in smart cities

Roberto Filipelli, Sales and Business Development Director; Microsoft Italy

Smart tools for collaborative working in digital era

Fabio Fregi, Country Manager; Google Enterprise Italia

Best practices and funding opportunities for governance in smart cities

Wednesday 22 April | 14:30-16:00 | Villa Verde

Roundtable

Chair(s): Giuseppe Magro

Opportunities of EU funding instruments for smart sustainable cities. E-governance cases based on social media for managing environment of mega city.

Giuseppe Magro, IAIA15 Program Chair

Miguel Coutinho, IAIA President; IDAD - Institute of Environment and Development, Portugal

Dario Sciunnach, Department of Environment, Energy and Sustainable Development in Lombardia Region

Julian Hunt, University College London and University of Cambridge; Chairman of CERC

Andrea Ceccarelli, Metropolitan City of Florence

Fabrizio Sestini, European Commission DG Communications Networks, Content and Technology

Concurrent sessions

AGRICULTURE, FORESTRY, AND FISHERIES

An expanded repertoire for the Agriculture, Forestry, and Fisheries Section

Tuesday 21 April | 16:30-18:00 | Villa 4

Panel Discussion

Chair(s): Patrick Duffy, Ijeoma Vincent Akpu

To include the following in our AFF work: agriculture, biodiversity, fisheries and aquaculture, forestry, livestock and animal husbandry (including ranching), fertilizers and pesticides, water development, socio-economic dimensions, and gender considerations. We seek your participation in this panel/attendee session, from which a journal publication will be prepared.

An expanded repertoire for the Agriculture, Forestry and Fisheries Section

Patrick Duffy, Ijeoma Vincent-Akpu

The agenda of the Agriculture/Forestry/Fisheries Section stands to take on new sub-Sections for which ESIA is well-suited to improve planning and execution of field projects.

Applications of EIA to the subsectors

Ijeoma Vincent Akpu

Applications

Pamela Gunther, John Fry, Jean-Roger Mercier

BIODIVERSITY & ECOLOGY

Biodiversity conservation and management challenges faced by IFIs

Tuesday 21 April | 11:00-12:30 | Villa 4

Panel Discussion

Chair(s): Alistair Clark

This panel session is intended to shed light on the role of, and challenges faced by, all international finance institutions (IFIs) in managing biodiversity. Through audience participation, the session will share pragmatic lessons learned gained through multi-sectoral and regional project experience to help further advance biodiversity conservation and management best practices.

Can one effectively achieve NNL on the ground?

Eva Mayerhofer

International financial institutions (IFI) standards are based on the mitigation hierarchy with an objective of no net loss (NNL). There is a divide between conceptual appropriateness and practical experiences, which the EU could bridge.

Leveraging biodiversity management action through infrastructure projects in Latin America and the Caribbean

Graham Watkins

In Latin America and the Caribbean, new infrastructure is being built close to, or within, important habitats. Engagement with governments and infrastructure project sponsors can help minimize impacts and potentially improve land use planning and management.

ECAs and biodiversity: Problems and lessons learned

Claudio Falciano

Assessment of impacts on biodiversity produced from the projects in which export credit agencies (ECAs) are involved is somewhat challenging. Using case studies, this presentation will summarize SACE's (the Italian ECA) experience in facing biodiversity issues.

To go or no go: A look at IFI lending requirements

Peter Moore

An inside perspective into international financial institutions' (IFI) project appraisal and biodiversity risk management approach.

Biodiversity impact assessment: Methodological and technological advances

Tuesday 21 April | 14:30-16:00 | Villa 4

Panel Discussion

Chair(s): Elizabeth Clarke, Pippa Howard

What needs to be in place to demonstrate no net loss, and what really counts when it comes to the mitigation hierarchy? What approaches are most likely to help achieve this at a site, landscape and ecosystem scale? Short presentations on innovative tools and panel discussion from the business-biodiversity interface.

CSBI: Implementing the mitigation hierarchy

Ruth Thomas, Jessica Smith, Gail Ross, Jessica

Smith, Courtney Lawrence, Lucie N'Guesson

The Cross-Sector Biodiversity Initiative would like to share and invite comment on their new good practice guidance for the oil and gas, mining, and financial sectors.

Promoting avoidance for conservation gains

Genevieve Hayes, Samir Whitaker

Birdlife International, in collaboration with several partner organizations, aims to provide decision support tools on the avoidance phase of the mitigation hierarchy based on real-world examples of global best practice.

Benefits of mainstreaming ES into the EIA process

Eva Mayerhofer

Mainstreaming ecosystem services (ES) into the EIA will bring together people from different functions in the EIA process, thereby promoting more sustainable solutions that optimize multiple benefits and effective land-use management.

Need for creative infographics (CIGs) in EIAs

Naushad Tahsildar

The important role that digital/visual presentation can play in EIA reporting in helping decision-makers, regulators, and communities to easily understand new projects, potential impacts, and their management.

Digital biodiversity data for fast- tracking impact assessment

Monday 20 April | 14:30-16:00 | Villa 4

Paper Session

Chair(s): Vinod B. Mathur, Asha Rajvanshi

This session is aimed to help impact assessment professionals share their delights, despairs, and new hopes of evolving mechanisms of sharing, generating, and processing biodiversity relevant-data in the digital age.

Designing alternatives for landscape in IA

Willemijn Smal

The Netherlands Commission for Environmental Assessment has developed an approach to give landscape a more prominent role in Dutch IA practice and will share some experiences.

Digital biodiversity data for EIA decision-making

Vinod Mathur, Asha Rajvanshi

Digitally-available biodiversity data has the potential to enhance quality of the EIA decision-making process. Nevertheless, several barriers have to be addressed to make the best use of data publishing frameworks.

Geodatabases for impact assessment

Hein van Gils

We suggest a contract clause for submission of original biodiversity data in a prescribed format in a dedicated geodatabase. Further, the inclusion of a standard budget-line for geodatabase products for impact assessments is advocated.

Survey for African freshwater fish using eDNA

Suzi Coey, Phil Atkinson, Alfried Vogler, Douglas Yu

ERM has teamed with researchers to trial environmental DNA as a commercial survey technique for freshwater fish in Africa. The technique uses DNA extracted from water to identify species present.

Collecting quality biodiversity data digitally

Kyle Knopff, Carol Stefan

This paper presents examples of how digital recording tools and other technological innovations are improving the ability of impact assessment practitioners to efficiently and accurately collect data for biodiversity baselines.

How much data is enough? Baselines and big data

Mervyn Mason

The benefits and challenges of using big data for biodiversity baselines for four projects on three continents.

Integrated regional planning: A prerequisite for impact assessment

Monday 20 April | 14:30-16:00 | Villa Onice

Paper Session

Chair(s): Dennis Grossman

This session showcases the benefits of an integrated regional planning approach for the assessment of development projects and to guide the application of mitigation resources to protect regional conservation priorities.

Gray and green: Planning for advance mitigation

Douglas Wheeler

California's Natural Communities Conservation Planning (NCCP) program demonstrates the feasibility of advance mitigation to protect biodiversity on a landscape scale while facilitating the development of much-needed infrastructure.

The process for drafting a regional plan

Elke Nickel, Jerzy Ruszczynski, Zdzislaw Petlicki

The challenges for drafting an integrated regional development plan for a river in Poland, the process designed to meet those challenges, and its contribution to a future EIA.

Merging bottom-up and top-down approaches in IRPs

Nicholas King

Communities on South Africa's Wild Coast are driving "bottom-up" planning in opposition to externally-imposed top-down planning. Recent cooperative meetings suggest a more integrated regional planning approach may be possible.

Operationalizing biodiversity offsetting via EIA

Rachel Morrison, Adam Barker, Carys Jones

Operationalizing biodiversity offsetting through environmental impact assessment: interactions and outcomes for no net loss of biodiversity.

Biodiversity impact assessment: 10-year review

Monday 20 April | 16:30-18:00 | Adua 2

Roundtable

Chair(s): Elizabeth Clarke

It has been 10 years since "Biodiversity in Impact Assessment" was published by IAIA. Facilitated by the Biodiversity and Ecology section co-chairs and attended by experts working on the business-biodiversity interface, this roundtable will review the document. A core working group will be established to discuss the document in advance, before meeting at the conference to discuss both possible amendments to the document and potential new guidance, and effective means of communicating best practice.

Ecosystem services in SEA for regional spatial planning (I)

Tuesday 21 April | 14:30-16:00 | Affari 4th Floor

Paper Session

Chair(s): Roel Slootweg, Ulrike Troeger

Spatial planning is often characterized by a demand-driven approach, producing a wish list of development plans. Ecosystem services assessment in SEA for such plans looks at development opportunities and constraints of a region and the supply side. Lessons from practical experiences will lead to best practice recommendations and an IAIA FasTip.

Feasibility study on "Satoyama Banking" in Japan

Akira Tanaka, Masashi Kobatake

The first "Satoyama Banking" pilot project involving multi stakeholders of one 6.4 ha Satoyama ecosystem consisting of former paddy fields and second-growth forests in a Chiba City suburb has feasibility.

Subjective assessment of forest ESs in Japan

Kiichiro Hayashi, Makoto Ooba, Yasuhiro Hasegawa

Mountain rural towns in Toyota City, Japan, were selected for the study. A drop-off and pick-up method was used for the survey of 12 forest ecosystem services.

Nature conservation in regional spatial planning

Nunu Pesu

A focus on nature conservation in regional spatial planning in Finland. I use the driver-pressure-state-impact-response (DPSIR) framework and several digital materials and GIS databases that make this research possible.

CES provision and pressure in compacting Stockholm

Juan Azcarate, Jan Haas, Ulla Mortberg, Sara Odelius, Berit Balfors

Valuations of green area cultural ecosystem services (CES) provision-pressure relations and SEA can contribute to improve green area planning and place CES in the compact city planning agenda.

SEA on hatchery resource management plans in US

Pamela Gunther

SEA for hatchery resource management plans to determine biodiversity impacts and appropriate mitigation for Puget Sound salmon and steelhead hatcheries that produce 146 million fish per year.

Ecosystem services in SEA for regional spatial planning (II)

Tuesday 21 April | 16:30-18:00 | Affari 4th Floor

Paper Session

Chair(s): Roel Slootweg, Ulrike Troeger

Spatial planning is often characterized by a demand driven approach, producing a wish list of development plans. Ecosystem services assessment in SEA for such plans looks at development opportunities and constraints of a region and the supply side. Lessons from practical experiences will lead to best practice recommendations and an IAIA FasTip.

Spatial planning in Africa's growth corridors

Andrea Athanas

Using participatory land and resource planning in growth corridors across Africa to secure rights and benefits for communities and to ensure ecosystem services needed for economic development are sustained.

People, plans, nature and wealth: Tana Delta, Kenya

Peter Nelson

An examination of the role that ecosystems service analysis has played in the land use plan and SEA for the Tana Delta in Kenya.

SEA for land use plan: Tana Delta, Kenya

Arend Kolhoff

Lessons learned from a comparison between two studies for Tana delta, Kenya: SEA for a land use plan (2013) versus an ecosystem services valuation study (2014).

Ecosystem service assessment in SEA in Namibia

Ulrich Scheffler, Ulrike Troeger, Roel Slootweg

First time to include ecosystem services in SEAs for Namibia's regional planning process.

Green infrastructure: Using a holistic approach

Tuesday 21 April | 14:30-16:00 | Villa 202

Paper Session

Chair(s): Francisco Dallmeier, Benjamin Wilson,

A holistic understanding can benefit development before implementing the mitigation hierarchy, which addresses actions to reduce environmental impacts. Presenters discuss the economic analysis of alternatives, cooperative planning for environmental management, ecosystem services, and how a holistic view can provide additional alternatives and benefits that are not normally assessed.

Humboldt penguin at PERU LNG marine terminal

Anibal Diaz, Martha Ly

How green infrastructure can protect and preserve endangered species on the Peruvian coast, a rich upwelling ecosystem with no background on similar artificial penguin colonies.

Smart green infrastructure for transport corridors

Leanne Farrell, Andrey Kushlin

Challenges and good practices from South and Southeast Asia are highlighted for integrating biodiversity considerations, especially wildlife migration and movement, into development of regional trade and transport corridors.

Promoting avoidance through cost-effective routing

Geoffrey Mwedde, Grace Nangendo, Dan Segan, Irene Burgués Arrea, Rhona Barr, Andrew Plumpré

This presentation shows how economic and GIS tools can be used when routing linear infrastructure to avoid biodiversity loss in a cost-effective manner.

Identifying priority ecosystem services in Peru

Helen Nyul, Oriol Lope

Repsol and Fauna & Flora International's (FFI) ecosystem services risk management project in Peru identified the importance of coordinating a multi-disciplined team and the need to strengthen and align social and biodiversity baselines.

Sustainable infrastructure in Latin America

Graham Watkins, Boulet Emmanuel

This presentation examines the application of the mitigation hierarchy in case studies of "sustainable infrastructure" projects in Latin America including innovative approaches to offsets.

Mitigation hierarchy best practices: Green infrastructure case studies

Tuesday 21 April | 16:30-18:00 | Villa 202

Paper Session

Chair(s): Raymi Beltran, Francisco Dallmeier

Effective guidelines to integrate conservation priorities with development needs are being developed and revised globally. Examining current legislation to promote avoidance, raising awareness of natural solutions for restoration, and exploring financial incentives to promote implementation, authors present new toolkits and potential guidance to integrate development and conservation.

The avoidance stage of the mitigation hierarchy

Samir Whitaker, Genevieve Hayes

Birdlife International, in collaboration with several partner organizations, aims to provide decision support tools on the avoidance phase of the mitigation hierarchy based on real-world examples of global best practice.

GI: Nature-based solutions for business

Johan Lammerant, Violaine Berger,

Tatiana Fedotova, Ginny King

There is a strong business case for companies to invest in green infrastructure. This presentation presents the intermediary outcomes of the World Business Council for Sustainable Development (WBCSD) "Investing in Green Infrastructure" business solution.

Financial incentives for the mitigation hierarchy

Irene Burgués Arrea, John Reid, Alfonso Malky

This presentation explains the logic of linking EIAs and financial incentives to insure application of the mitigation hierarchy. It also highlights some of the most common financial incentive options.

Concurrent sessions

Offset planning: Green infrastructure case studies

Tuesday 21 April | 14:30-16:00 | Villa 105

Paper Session

Chair(s): Lori Conzo, Francisco Dallmeier

Offsets have become an important component for addressing impacts, but lack extensive planning. However, offsets can be effective if prepared appropriately and managed on a regional or national level. Panelists will use case studies to discuss internal offset planning and cumulative benefits from regional coordination.

Using biodiversity plans to guide mitigation

Jessica Hughes, Mark Botha, Susie Brownlie, Phil Desmet

Biodiversity offset planning for a mine in a global biodiversity hotspot in South Africa relied on conservation planning tools to identify offset areas following a spatially-explicit process.

Green infrastructure as a biodiversity offset

Mojca Golobic, Katja Novak

Integrating biodiversity offset measures into green infrastructure enables their use for recreation and education and justifies the involved costs as well as increases their long-term environmental benefits.

Funding conservation through biodiversity offsets

George Ledec, Sally Johnson

Biodiversity offsets provide an underutilized opportunity to mobilize substantial new funding for protected areas and similar conservation investments. An emerging challenge is supplementing project-specific offsets with an aggregated offsets system.

Reviewing mitigation hierarchy implementation

Tuesday 21 April | 16:30-18:00 | Villa 105

Paper Session

Chair(s): Alfonso Alonso, Benjamin Wilson

The mitigation hierarchy provides guidance for conservation, but it is important to review implementation and its benefits. Presenters examine case studies where implementation was reviewed and discuss reasons for success or failure. Projects include a pipeline in Peru, a highway in China, the metro in Portugal, and infrastructure in Denmark.

Challenges of quantifying the mitigation hierarchy

Francisco Dallmeier, Pablo Taborga

Science-based monitoring provides adaptive management feedback to set the basis for "no net loss." PERU LNG with Smithsonian's Center for Conservation designed an effective methodology to quantify the mitigation hierarchy.

Environmental supervision in China: YiBa Highway

Juan Quintero, Ning Yang

Independent environmental supervision is proven highly valuable for large-scale infrastructure projects that are carried out in environmentally sensitive areas.

The Red Line (Oriente-Aeroporto) of Lisbon's Metro

Ana Cerdeira

This presentation describes the environmental follow-up developed in the last decade and during the infrastructure project of Lisbon's Metro, the Red Line, between Oriente and Aeroporto.

Mitigating for nature in infrastructure projects

Sanne Vammen Larsen, Lone Kørnøv, Per Christensen

This paper presents results of a Danish study of suggestions for, and implementation of, mitigation efforts directed at nature protection in EIA of Danish infrastructure projects.

Mitigation hierarchy best practices for roadways

Wednesday 22 April | 11:00-12:30 | Villa 105

Paper Session

Chair(s): Benjamin Wilson, Francisco Dallmeier

Presenters discuss the use of the mitigation hierarchy to reduce impacts and integrate conservation priorities with road development needs. Presentations cover an economic analysis of alternatives for avoiding impacts, the benefits of reduced road development, designs to reduce the environmental impact, and a review of current offset practices.

Making the economic case to promote avoidance

Irene Burgues Arrea, Aaron Bruner, Rhona Barr, Alfonso Malky, Anna Behm Masozera, John Reid

This presentation shows how economic tools, such as cost benefit analysis and valuation, can be used to demonstrate that the avoidance of biodiversity loss makes economic sense.

Camisea

Sandra Martinez, Gustavo Mange

The offshore inland approach used in the Camisea Gas Project (Cuzco, Peru) is discussed, presenting the results of over a decade of intensive socio-environmental monitoring.



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Global Environmental Consulting Strategies and Competitor Analysis – Environment Analyst, 2014

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Impacts of NH-7: Lessons for conservation

Asha Rajvanshi, Vinod B. Mathur

This presentation shares the results of NH-7 roads routed through wilderness areas and presents the mitigation options to reduce animal mortality and construct wildlife-friendly roads.

Analysis of biodiversity offset for road projects

Hideyuki Ito, Jun Nishijima, Takahiro

Fujii, Makoto Oba, Kiichiro Hayashi

This paper analyzes the current situation of biodiversity offset for road projects all over Japan.

CLIMATE CHANGE

Assessing climate change and natural disaster impact on urban area

Wednesday 22 April | 16:30-18:00 | Affari 4th Floor

Paper Session

Chair(s): Juchul Jung

This session encompasses all fields including urban planning, public policy, atmosphere science, civil engineering, and so on.

Use of green infrastructure for climate adaptation

Jung Eun Kang, Hyunjoo Bae

This study is to develop a green infrastructure planning model to reduce negative impacts caused by flooding, urban heat islands, and air pollution closely associated with climate change.

Flood mitigation by adaptive use of urban infrastructure design

Taejung Kwon, Joongdon Kim, Kwangwoo

Nam, Hong Gyu Kim

Recently-approved flood-sensitive underpass road design by the municipal government of Busan, Korea, is introduced to facilitate further discussion and future development of creative flood-sensitive urban infrastructure design.

Estimation of future economic damages from floods

Dong Keun Yoon, Junsung Park, Dong-

Hyun Cha, Seung-Hu Jeong

The purpose of this study is to estimate future economic losses from floods based on simulated outputs from five different regional climate models at local communities in Korea.

Building resilience in cities

Marcus Ip, Michael Nolan, Thomas Tang

Resilience of cities is crucial. The use of tools for developing resilience capacity and strategies is presented with case studies, through the use of a scorecard for local governments.

Climate change risk management: Achievements, lessons learned, and challenges in international development

Wednesday 22 April | 14:30-16:00 | Villa 203

Practitioner Exchange

Chair(s): Hope Herron, Hilary Hoagland-Grey

This session seeks to build a community of practice for climate change through exchange of lessons learned and shared experiences. Perspectives from the IDB, World Bank, and IFC will first be provided followed by an interactive facilitated discussion to promote practitioner exchange.

Climate change risk assessment and risk management

Hilary Hoagland-Grey

Lessons learned on climate change risk assessment and adaptation from the Inter-American Development Bank perspective.

Supporting data, information, and knowledge sharing tools to mainstream climate change

Rita Cestti

Lessons learned on climate change risk assessment and adaptation from the World Bank perspective.

Climate adaptation opportunities

Douglas Mason

This presentation highlights initiatives to mainstream climate adaptation and explores areas for collaboration.

Supporting tools to engage private sector on climate change adaptation

Mauricio Athie

Lessons learned from climate change risk assessment and adaptation from the International Finance Corporation (IFC) perspective.

Communicating climate change science and impacts

Hope Herron

Lessons learned on communicating climate change science working with MFIs and the development community.

Climate change and impact assessment: Good practice cases (I)

Wednesday 22 April | 11:00-12:30 | Villa Onice

Paper Session

Chair(s): Arend Kolhoff

Good practice cases from around the world are presented that show how policies, approaches, and methods can be used to integrate climate change (adaptation and mitigation) in a variety of impact assessment tools.

Assessing GHG in agriculture modeling approach

Miguel A. Casermeiro, Sergio Gonzalez-

Ubierna, Ignacio Jorge-Mardomingo, Beatriz

Carrero, Maria Teresa de la Cruz

Greenhouse gas (GHG) soil emission plays a major role in the global carbon cycle and is clearly understudied. We show preliminary results of different models applied to agriculture.

Adaptation strategy for the electricity sector

Katia Garcia

Companies that do not expand their strategies beyond mitigation will drastically suffer the impacts of climate change. Brazil is building its national and sectoral strategies to face this challenge.

Climate change aspects in the SEA in Serbia

Branislava Matic, Dejan Dimkic, Bozidar

Stojanovic, Miodrag Milovanovic

Serbian Law on strategic environmental impact assessment was adopted in 2004. An analysis of the SEA reports indicates that consideration of climate change aspects in the SEA has been insufficient.

Social impact monitoring and vulnerability assessment

Duyen Nguyen Van

People are vulnerable to declining availability of water resources and the degree of dependence on water resources is very high, especially from the perspectives of occupation, income, and food.

Community vulnerability to climate change impacts

Chizoba Chinweze, Chinny Kennedy-Echetebe

Severe soil erosion due to flooding as a result of climatic changes constitutes a major natural disaster in Anambra State with attendant massive land degradation, loss of farmland and property/ infrastructure.

Legal system of adaptation to climate change

Xianglan Yu

This paper introduces the legal system of adaptation to climate change in China.

Climate change and impact assessment: Good practice cases (II)

Wednesday 22 April | 14:30-16:00 | Onice

Paper Session

Chair(s): Arend Kolhoff

Good practice cases from around the world are presented that show how policies, approaches, and methods can be used to integrate climate change (adaptation and mitigation) in a variety of impact assessment tools.

Climate change adaptation in the mining sector

Samantha Arnold, Allison Barrett, Sean

Capstick, Arnaldo Santander, Javiera Perez

An illustration through a series of case studies how mines in Africa, North America, and South America are dealing with a changing climate in their environmental and social impact assessments.

Sustainable coastal planning in Athens, Greece

Gerasimos Balatsinos, Maria Kyratzi, Helena

Papachristoforou, Evangelia Siavala, Ilias

Armatas, Panagiotis Koliotsis

Urban adaptation to climate change in coastal Athens, Greece. The role of information and communication technologies (ICTs) in the environmental impact assessment of the metropolitan physical plan.

Climate change and hydropower in the Indus Basin

Michael Clarke

The Indus Basin is vulnerable to climate change. Impacts and adaptations that should be considered as hydropower development in Pakistan enters a period of unprecedented expansion are discussed.

Tool for risk management related to climate change

Virginie Defromont

A presentation of methods that enhance environmental assessment by taking into account climate change, industrial risks, and ecosystem services.

Climate change and Brazilian SEA practice

Amarilis Gallardo, Veronica Nadruz

After analyzing 40 Brazilian SEA reports, the results of this research showed that the climate change issues have been poorly addressed in Brazilian planning supported by SEA.



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To this end the EIB Statement on Environmental and Social Principles and Standards sets the policy context for the protection of the environment and human well-being. The EIB Environmental and Social Handbook provides an operational translation of those standards.

Together with our ambition, these standards ensure that not only are the potential negative impacts of projects minimised, but that the highest standards and smart forward-looking solutions tackling the challenges ahead are consistently promoted and applied.

It is in these respects that the EIB can make a difference by adding an important non-financial value to the projects it is financing.

For more information: www.eib.org



Climate change and impact assessment: Good practice cases (III)

Wednesday 22 April | 16:30-18:00 | Villa Onice

Paper Session

Chair(s): *Arend Kolhoff*

Good practice cases from around the world are presented that show how policies, approaches, and methods can be used to integrate climate change (adaptation and mitigation) in a variety of impact assessment tools.

Climate change foresight in EIA

Alexandra Jiricka, Sonja Voeller, Markus Leitner, Friedrich Wachter

Within a two-year research project funded under the Austrian Climate Research Program, the capabilities and perspectives of actors involved in EIA were examined regarding the consideration of climate change.

Klimatkalkyl: A model for climate calculations

Cecilia Kjellander, Malin Kotake

Klimatkalkyl is an important tool to limit energy use and the carbon footprint of the Swedish Transport System. The model is owned by the STA but openly accessible at <http://www.trafikverket.se/klimatkalkyl/>.

Guidance for climate-proofing project planning

Markus Leitner, Sonja Voeller, Sabine McCallum, Alexandra Jiricka

Practical guidance for climate-proofing infrastructure, and in which phases of the EIA can consequences of climate change (CC) best be considered.

Adapting to climate change in Sierra Leone

Peter Nelson, Ranita Sandi-Koroma

Presentation of an African Development Bank study aimed at building climate change resilience into the rural water and sanitation programme for five districts covering one-third of Sierra Leone.

Role of IA in Mongolia's climate-influenced future

Vigya Sharma, Byambajav Dalaibuyan

Findings from a recent multi-stakeholder capacity building project undertaken in Mongolia and exploration of how IA principles may be applied to manage climate change risks across multiple industries in Mongolia.

applications of HRIAs and rights-based approaches across different industries, including the supply chain, tourism, and sector-wide approaches.

Lessons and challenges from HRIAs

Steve Gibbons

Drawing on human rights impact assessments (HRIAs) carried out in various sectors, this paper seeks to draw out key themes, trends, and challenges in HRIA practice and provide some concrete practical examples of action.

Integrating human rights in social impact and risk

Lidewij van der Ploeg, Frank Vanclay

We address how the corporate responsibility to respect human rights can be incorporated into SIA and corporate practice. We propose a conceptual model to manage human rights impacts.

HRIA for sustainable tourism development in TFCAs

Amanda Tapiwa Mugadza

Human rights impact assessment (HRIA) should be implemented by private tourism developers for sustainable tourism in the transfrontier conservation areas (TFCAs), given that these areas include communal lands inhabited by marginalized rural and indigenous communities.

Using multimedia techniques for HRIA in Nunavut

Lloyd Lipsett

How multimedia techniques can be used to consult with Indigenous Peoples, and how a human rights impact assessment (HRIA) can be the basis for intervention in a formal impact review process.

Community-based HRIAs: Added value of empowerment

Irit Tamir

Community-based HRIAs (COBHRAs) add a critical new dimension to traditional human rights impact assessment (HRIA) approaches by empowering local communities, pursuing rights-based development, and ultimately improving corporations' bottom line.

Sector-wide impact assessments: Human rights lens

Margaret Wachenfeld

A sector-wide impact assessment looks at the impacts of an entire sector on human rights through the Protect-Respect-Remedy lens, examining three levels of impacts: project level, cumulative, and aggregate.

New metrics on E&S risks and impacts and business decision making

Wednesday 22 April | 11:00-12:30 | Villa 9

Panel Discussion

Chair(s): *Carlos Arias, Mauricio Athie*

Leading organizations around the world have realized that their business decisions must address E&S performance. Thus, an environmental and social risk and impacts metrics is required to inform strategic decisions. Explore new approaches to measurement, monitoring, and reporting that interprets performance relative to social and environmental thresholds. We focus on explaining these developments and collecting active feedback.

How big data can support E&S risk management

Alexandra Mihailescu Cichon

In a hyper-transparent and hyper-connected world with rapidly changing stakeholder expectations, big data and open-source intelligence can help support the effective management and mitigation of E&S risks.

How to link E&S metrics to business value

Rina Kupferschmid

Putting sustainability in terms decision-makers relate to by demonstrating how the environmental and social (E&S) metrics collected affect the bottom line is key to corporate stewardship and risk management.

Risk and opportunity in global growth landscape

James Allan, Alyson Warhurst

Using Maplecroft's portfolio of global risk indices and maps, the presentation identifies the potential hotspots of political, environmental, and social risks pinpointing current threats of countries worldwide.

Measuring biodiversity performance in mining

Robin Mitchell, Ruth Thomas, Annelisa Grigg, Rachel Asante-Owusu

A recent review of biodiversity performance of International Council of Mining & Minerals (ICMM) member companies since 2003, based on management system metrics and demonstrated significant improvements.

Roundtable on Private Equity Funds: Management of social and environmental risks

Thursday 23 April | 09:00-10:30 | Villa 9

Roundtable

Chair(s): *Debra Zanewich, Diane Brown*

Financial Institutions (IFC, EBRD, IIC), Fund Managers (Phatisa, SilverStreet) and Consultants (ERM, PwC) will share perspectives on managing and monitoring environmental and social (E&S) risks related to Private Equity Funds. Topics will include E&S Investment Principles, E&S due diligence during pre-investment, E&S action plans and digital platforms reporting E&S matters.

Jeremy Ansell, IFC

Senior Environmental Specialist, International Finance Corporation

Edwin Doeg, SilverStreet Capital

ESG Manager, SilverStreet Capital

Christoph Scaife, Phatisa

SEMS Manager, Phastisa

Phil Case, PwC

Director, PricewaterhouseCoopers

Shahila Perumalpillai, ERM

Partner, Sustainable Finance Practice, ERM

Waste and natural resource efficiency in EIA

Monday 20 April | 14:30-16:00 | Villa 203

Panel Discussion

Chair(s): *David Roettgen*

The session highlights the environmental and economic benefits arising from the implementation of waste legislation and policies. Said environmental benefits contribute to render a project compliant with EIA principles. Furthermore, the economic potential for developers consist in cost savings due to reduced waste quantities produced and the recovery of valuable materials.

EIA: Is waste an issue?

David Roettgen

According to European EIA, waste is an issue relevant within EIA. Modern waste legislation establishes a series of principles that need to be taken into account within an EIA.

CORPORATE STEWARDSHIP & RISK MANAGEMENT

Business and human rights: Advancing human rights impact assessment

Tuesday 21 April | 11:00-12:30 | Affari Groundfloor

Paper Session

Chair(s): *Susan Joyce*

Drawing on a wealth of practitioner expertise and experience, this session tackles the questions that continue to shape contemporary human rights impact assessment. The session's papers and presentations examine integrating impact assessment from a human rights perspective from different angles, and will represent a diverse range of

Concurrent sessions

Waste treatment: Which facilities to be preferred?

Giovanni Corbetta

According to the waste hierarchy, certain waste is to be treated with preference to recycling and, only as second best solution, to energy recovery and, in exceptional cases, to disposal.

Moringa oleifera for treatment of batik wastewater

Hefni Effendi, Raden Delima Sari, Sarwani Hasibuan

The best treatment combination was demonstrated by dose treatment of 5000 mg/l and 180 minutes deposition, with reduction result of turbidity (61 NTU) and TSS of 170 mg/l.

CULTURAL HERITAGE

Beneath the waves: Underwater archaeology and IA

Thursday 23 April | 09:00-10:30 | Villa 202

Paper Session

Chair(s): Christopher Polglase

During this session we will summarize the development of the technologies used to identify submerged cultural heritage sites. As archaeologists have developed techniques to remotely identify submerged sites, they also have developed appropriate standards for applying these techniques. The evolving tools and standards used by underwater archaeologists will be presented.

Marine geophysics: From survey to significance

Paul Baggaley, Caroline Budd

Collaboration between archaeologists and engineers can allow geophysical and geotechnical surveys to be used for multiple purposes, giving improved archaeological interpretations and leading to improved advice on significance and mitigation.

Managing impacts: Digital data and Dogger Bank

Victoria Cooper

How spatial representation of digital data has been fundamental to the advancement of strategies to avoid impacts through embedded mitigation within the Dogger Bank offshore wind zone.

Developing underwater archaeology standards for IA

Christopher Polglase, Benjamin Siegel

This presentation calls for underwater archaeological standards that are fit-for-purpose for international impact assessment. The authors provide examples of projects to highlight the need for standardized survey and mitigation approaches.

Cultural heritage in IA: Collaborative approaches

Wednesday 22 April | 14:30-16:00 | Villa 202

Paper Session

Chair(s): Arlene Fleming

The spatial approach of impact assessment offers the potential for identifying material cultural heritage and contributing to a country's record of human habitation. Realizing this potential requires increased participation by cultural experts in IA, systematic transmission of findings to cultural authorities, and a framework for integrating and managing the information.

Material culture identification in mining projects

Michele Fulcher

A discussion of two case studies where the identification of material culture has significantly informed the record of human habitation, thereby ensuring a prominent role for cultural heritage in development.

Any old iron? In search of Congo's heritage

Paul Wheelhouse

Local knowledge is key to the successful identification, recording, and analysis of cultural heritage, and the rewards of collaboration are multifarious.

Archaeology as added value: Bring in the locals!

Dietske Bedeaux

Community archaeology to create added value: bring in the locals! Minimize risks and create value propositions through involvement of local people.

Impact assessment for historical sites in ROW

Kittiphong Songrukkiat, Worawut Hamarn, Penrug Pengsombut, Narasak Chotchamlong, Poramate Sukchum, Yaowalak Chuchot

Impact assessment for archaeological and historical sites in rights-of-way of natural gas transmission pipeline to establish specific mitigation and measure plans.

Systematizing impacts on cultural heritage

Carlos Eduardo Caldarelli

Proposition of a systematization of the impacts caused by large undertakings on cultural heritage goods.

Cultural heritage in IA: The intangible social layers

Wednesday 22 April | 16:30-18:00 | Villa 202

Paper Session

Chair(s): Ishanlosen Odiava, Vincent Roquet

Investment projects can have considerable impacts on cultural heritage and associated socio-economic and cultural practices. Digital technologies present useful tools for engaging discussions on these multiple layers and complex relationships between the seen and the unseen. These digital tools can in turn contribute to effective mitigation, planning, and community engagement.

CHIA in Iran and the role of social networks

Behzad Raissiyani, Reihaneh Esmaeilipouya

In this study, we reviewed the potential and actual role of social networks in impact assessment in Iran, where there is no requirement for public participation in impact assessment.

Artisan-Fez Medina Project: Social dimensions

Vincent Roquet

An overview of lessons learned from two cultural heritage projects in the Fez Medina, with a focus on the social dimensions of these development and conservation projects.

Socio-cultural impacts of proposed Lamu Port, Kenya

Ishanlosen Odiava, Karel Bakker, George Abungu

The proposed Lamu port development will have far-reaching impacts on cultural heritage and social practices in the Lamu archipelago.

Revealing the socio-economic potential of CH

Anna Augustyn, Gusztav Nemes, Gabor Soos

Our project develops a multidisciplinary methodology to assess the local socio-economic impacts of investments into cultural heritage, integrating various impact assessment narratives and using trans-disciplinary methodology in an iterative process.

DISASTERS AND CONFLICTS

Impact assessment across disasters and conflict (I)

Monday 20 April | 14:30-16:00 | Villa 101

Paper Session

Chair(s): Charles Kelly

This session brings together presentations on conflict or disasters, the assessment of their impacts, and how these assessments can be used to reduce the impact of these events.

Winter floods: Role of EIA in disaster recovery

Kevin House, Ross Marshall, Richard Woodward

A case study identifying the management and development of a river-dredging EIA to aid recovery during a national flood risk management emergency.

Impact assessment of Typhoon Haiyan

Stephanie Sangalang

Because the impacts of natural disasters on typhoon-affected communities in the Philippines are not well understood, a new IA framework is needed.

Impact of radioactive waste after nuclear disaster

Takehiko Murayama

After a nuclear disaster in 2011, a tremendous volume of radioactive waste was generated. After reviewing the current situation, this paper suggests viewpoints for resolutions as well as lessons learned.

Tsunami, aquaculture and donor intervention impact

Laila Wijaya, Jesmond Sammut

Following the 2004 tsunami, donor interventions in the aquaculture industry in Aceh, Indonesia, brought changes to the industry and community. This study investigated factors that produced and constrained these changes.

Impact assessment across disasters and conflict (II)

Monday 20 April | 16:30-18:00 | Villa 101

Paper Session

Chair(s): Charles Kelly

This session brings together presentations on conflict or disasters, the assessment of their impacts, and how these assessments can be used to reduce the impact of these events.

Environmental intelligence in impact assessments

Birgitta Liljedahl, Annica Waleij

Environmental intelligence can provide indications of the environmental conditions and environmental changes in a region and inform early warning capabilities, i.e., anticipating future events, weak signals detection, and trends analysis.

Public involvement in disaster-related EAs

Ryo Tajima, Tomohiro Tasaki, Masahiro Osako

Public involvement in EA within the context of disaster management will be discussed based on literature reviews and results of a survey on environmental risk perception in emergency circumstances.

Measuring performance standards in fragile states

Gary MacDonald, Krista Hendry

This presentation will review current lessons learned from work with the International Finance Corporation (IFC) on how to implement the performance standards in fragile and conflict areas focusing on the role of assessments.

Assessing disaster impacts on IAIA

Charles Kelly

This presentation looks at the impacts of disaster on a professional association like IAIA, identifies the risks from these impacts, and how these risks can be addressed.

ENERGY

Environmental monitoring and compliance on energy

Monday 20 April | 16:30-18:00 | Villa 4

Panel Discussion

Chair(s): Yuan Xu

To effectively control and mitigate environmental impacts in energy supply and consumption, monitoring, reporting, and verification (MRV) are necessary to detect non-compliance. This session compares and analyzes MRV systems and cases in developed and developing countries, particularly from technological and institutional perspectives.

Improving China's MRV system on coal power plants

Yuan Xu, Zhenzhong Yang

A technology-management-mixed method is explored to enhance the effectiveness and cost-effectiveness of the monitoring, reporting, and verification (MRV) system with imperfect satellite data for implementing environmental regulations in China's coal-fired power plants.

Fishing monitoring and drilling impact assessment

Rodrigo Campos, Cristiano Dapper, Maria Pessoa, Thays Amaro

Offshore drilling operations and fishery monitoring programs: a quantitative impact assessment experience in Southern Bahia, northeast Brazil.

Compliance monitoring on offshore oil and gas

Cristiano Vilardo, Vanessa Horta

Compliance monitoring on offshore oil and gas: lessons from Brazil and Norway. Follow-up remains a critical challenge to EIA. What are the best practices? What is an adequate level of oversight?

Methods in environmental assessment of renewables

Sverker Molander, Rickard Arvidsson

A framework combining life-cycle thinking and environmental risk assessment approaches is presented and the relationship between nonsite-dependent and site-dependent methods is exemplified using some Scandinavian renewable energy systems.

Is compliance MRV for Hong Kong energy sector effective?

Shirley Lee

The Hong Kong energy sector monitoring, reporting, and verification (MRV) experience will be shared with

session participants to stimulate ideas to overcome current limitations, improve effectiveness, and allow "leap frog" progress towards sustainability.

Understanding independent Environmental Control Officers

Jan-Albert Wessels, Angus Morrison-Saunders, Francois Retief

The study confirms the benefits of having adaptable, proactive, experienced, and independent EIA follow-up verifiers such as environmental control officers (ECOs) on major energy construction projects.

Energy

Tuesday 21 April | 11:00-12:30 | Villa 104

Paper Session

Chair(s): Jan Nuesink

National and regional energy plans are nowadays based on a mix of technologies and energy resources; however, each resource is associated with a set of different and distinct challenges that make comparisons problematic. This session presents issues that emerged while conducting impact assessment of energy projects and plans and aims at identifying aspects of common concern.

Gender dimensions of energy planning

Andrea Athanas, Lorena Aguilar, Ana Rojas, Jackie Siles

Transmission infrastructure is central to the changes in energy systems and a determining factor in the energy mix used. IUCN and USAID are exploring gender dimensions energy developments.



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Concurrent sessions

ESIA and adaptive management: GIS in forestry

David Gibson, Jeremy Ansell

The presentation will illustrate the recent innovations in the use of GIS to support multidisciplinary ESIA processes in adaptive forest management through applications case studies from Africa and Latin America.

Tourist response to visual

impacts: Geothermal plant

Shigeo Nishikizawa, Kenta Tsubakura, Takehiko Murayama

This study focused on geothermal developments in national parks and clarified the tourists' evaluations on visual impacts with photomontage simulation.

Biodiversity in the energy sector: Latest developments in wind power and oil and gas (I)

Monday 20 April | 14:30-16:00 | Villa 6

Paper Session

Chair(s): Johan Lammerant, Steef van Baalen

Different examples of the way biodiversity is taken into account in energy projects like hydropower plants, windfarms, LNG facilities, shale gas developments, etc.: the focus lies in practical implementations of biodiversity in ESIA studies for energy-related projects. What specific issues are related to these projects, and which challenges are still there? The first session focuses on biodiversity issues related to wind power. The second session focuses on oil and gas related developments.

Avoiding harm: Potential in wind energy?

Genevieve Hayes, Samir Whitaker, Benedict Gove

Birdlife International aims to review a range of literature and case studies relating to current avoidance measures being used by the wind energy sector to reduce its impact on biodiversity.

Tackling bird fatalities in wind farms in Mexico

Genevieve Beaulac

The Inter-American Development Bank (IDB) is involved in the financing of numerous wind farms in this region. This presentation explains the pattern of bird and bat fatalities, the efficiency of the mitigation measures implemented, and more.

Wind energy and species protection in Germany and the U.S.

Victoria Gartman

AN examination of trans-Atlantic commonalities and differences at/around onshore wind facilities in terms of use of the mitigation hierarchy and compensatory measures for endangered species or species of concern.

Can African biodiversity survive powering Africa?

Caroline Henderson

As Africa approaches an "electrical" age, do those who value its spectacular biodiversity need to prepare for the "satanic mills" that decimated Europe's biodiversity? Some thoughts on preventing a replay.

Spatial conservation data for wind farm siting in Lesotho

Jessica Hughes, Grant Benn, David Allan, Andrew Jenkins

Conservation plans and bird locations for the Lesotho Highlands were used to identify biodiversity risks of wind farm siting. The study confirmed high risks to a declining vulture population.

Biodiversity in the energy sector: Latest developments in wind power and oil and gas (II)

Monday 20 April | 16:30-18:00 | Villa 6

Paper Session

Chair(s): Johan Lammerant, Steef van Baalen

Different examples of the way biodiversity is taken into account in energy projects like hydropower plants, windfarms, LNG facilities, shale gas developments, etc. The focus lies in practical implementations of biodiversity in ESIA studies for energy-related projects. What specific issues are related to these projects, and which challenges are still there? The first session focuses on biodiversity issues related to wind power. The second session focuses on oil and gas related developments.

Mitigation and restoration to enhance biodiversity

Paul R. Krause, Will Gala, Maria Hartley

Recent energy-related projects have shown that with careful design a significant increase in biodiversity and ecological enhancement can be made. Case studies from both offshore and onshore projects are included.

Impacts of developments in sensitive ecosystems

Justine Namara

Uganda parks have been experiencing pressure from oil and gas, hydropower, and mining. The sensitivity atlas for Murchison Park is one of the tools to minimize the impacts.

GIS mapping biodiversity and endangered species

Jeanne Ellis, Neal Brody, Tamara

Klug, Margaret Anderson

Cardno developed an online GIS mapping system tool of US endangered species for use by oil and gas companies to ensure regulatory compliance with the Endangered Species Act.

Addressing rare plant data limitations in IA

Randall Krichbaum

Methods to evaluate potential project impacts on rare plants given incomplete distributional data. A case study from a major proposed hydroelectric project in Canada is presented.

HEALTH

Strategies for improving health impact assessment

Monday 20 April | 16:30-18:00 | Villa 5

Paper Session

Chair(s): Marla Orenstein, Lindsay

McCallum, Mirko Winkler

Health impact assessments have primarily been based on qualitative methods of evaluating policies and projects. As HIA practice progresses, issues around health and sustainability have become important. This session explores new HIA approaches and methodologies in a variety of situations including industrial development and the green economy agenda.

Health and sustainability in the extractive industry

Mark Dival

Equitable and sustained economic development is a cornerstone in development/operations of extractive

sector projects. The application of health impact assessment (HIA) in achieving these objectives is presented from experiences in Mozambique.

Value of quantitative data: A biofuel project HIA

Astrid M. Knoblauch, Mary H. Hodges, Mark

J. Dival, Juerg Utzinger, Mirko S. Winkler

For the health impact assessment (HIA) of a biofuel project in Sierra Leone, qualitative and quantitative methods were applied. The added value of different approaches is discussed by taking into account stakeholders' perspectives.

Development of an HIA evaluation matrix

Lindsay McCallum, Chris Ollson, Kathleen

Souweine, Mary McDaniel

Development of an evaluation matrix and a decision-making framework that allow for a more quantitative and consistent approach to health impact assessment (HIA) is presented and discussed.

Different health data for and beyond HIA

Janis Shandro, Mirko Winkler

From assessment to the management of community health risks and impacts: this presentation discusses the value and effective application of both qualitative and quantitative approaches for and beyond health impact assessment (HIA).

Health indices to measure sustainable development

Astrid M. Knoblauch, Mary H. Hodges, Mark

J. Dival, Juerg Utzinger, Mirko S. Winkler

Based on a case study of a biofuel project in Sierra Leone, this contribution argues for the value of health indicators as part of monitoring sustainable development.

Top-bottom promoted HIA: Best practices and attempts to formalize

Wednesday 22 April | 16:30-18:00 | Villa 5

Paper Session

Chair(s): Marinella Natali

The last decade has witnessed an increased number of attempts to promote top-down processes of health impact assessment, even through tools of both hard and soft laws. The session presents the best practices and the conditions of success of HIA promoted by institutions at the national or local level.

Leading from the front: HIA in Wales

Liz Green

This paper reflects on the progress of HIA in Wales and how the Welsh government has put in place the policy levers and drivers and support to influence its extensive use.

HIA implementation at the regional level in Austria

Bianca Neuhold, Ralf Aschemann, Daniela

Gangl, Frank Michael Amort

A research project for supporting the establishment of a regional HIA support unit for the Austrian province of Styria used a three-fold methodology and generated eight key recommendations for policy-makers.

Towards the definition of HIA practice in Italy

Nunzia Linzalone, Adele Ballarini,

Marinella Natali, Fabrizio Bianchi

Drafting health impact assessment (HIA) guidelines is the focus of a series of projects in Italy aimed at integrating health assessments in the licensing processes of plans and projects.

Mainstreaming HIA: Experience from England

Salim Vohra, Chimeme Egbutah, Judy Kurth, Filipe Silva
England has attempted to mainstream health impact assessment (HIA) for a long time. Stoke-on-Trent and Luton are two areas that have made good attempts at embedding HIA. Key barriers and enablers are discussed.

Strategic health impact assessment (sHIA) in Ghana

Edith Clarke, Patrick Harris, Francesca Villiani
The presentation describes a procedure for conducting a strategic health impact assessment (HIA) in the oil and gas sector through a learning-by-doing approach. This process has not been achieved elsewhere.

Health evaluation in impact assessment (I)

Wednesday 22 April | 11:00-12:30 | Villa 5

Paper Session
Chair(s): Christopher Ollson

Globally, consideration of health effects is a key component in impact assessment. This session brings together practitioners to share their experiences on how they integrated evaluation of potential health effects into the process.

Identifying vulnerable communities in HIA

Sarah Hartsig, Tatiana Lin
This presentation showcases the use of a topic-tailored vulnerability score to identify geographical areas that might be at greatest risk for disproportionate health effects and its application in HIA.

A learning by doing approach to HIA

Katie Hirono, Fiona Haigh
This presentation examine the process and strengths of a learning-by-doing approach to HIA training.

Use and impact of HIA in directing health programs

Gertrude Musunka, Mark Divall, Milka Owuor, Anna Pascall
Health impact assessment (HIA) can be integrated into the EIA process as an effective tool in anticipating and mitigating impacts related to HIV and AIDS, with monitoring systems to effectively evaluate intervention success.

Challenges in public access to HIAs by FOI request

Peter Barss
Freedom of information (FOI) legislation is a potential source of access to suppressed health impact assessments (HIAs) and EIAs. Users should be aware of all potential blockage points in access and how to appeal.

Health evaluation in impact assessment (II)

Wednesday 22 April | 14:30-16:00 | Villa 5

Paper Session
Chair(s): Christopher Ollson

Globally, consideration of health effects is a key component in impact assessment. This session brings together practitioners to share their experiences on how they integrated evaluation of potential health effects into the process.

Do health impacts vary in rural and urban settings?

Margaret Douglas, Martin Higgins
Impact assessments of rural developments like windfarms present challenges. Understanding the complexity of rural development—context, scale, direct, indirect—should enable better, more nuanced mitigation and enhancement strategies.

Alberta's oil sands and human health

Bart Koppe, Christine McFarland, Karl Bressee
This presentation discusses whether or not Canada's oil sands are posing a risk to the health of Indigenous Peoples in northeastern Alberta.

Impact assessment for mining in Thailand

Phongtape Wiwatanadate
Examining the measure of community-based health impact assessment (CHIA) in legislation to ensure more effective impact assessment.

Challenges in valuing health care services in EIA

Galina Ivanova, Delwar Akbar
Challenges in valuing health care services at a regional level as a part of the EIA are discussed. Suggestions on how to increase industry's value in the region are made.

Health in environmental assessments: Institutional approaches

Tuesday 21 April | 11:00-12:30 | Villa 5

Paper Session
Chair(s): Julia Nowacki, Francesca Villiani, Michaela Pfeiffer

Despite many discussions on HIA and health integration into environmental assessment, these often lack either consideration of health or health is not considered adequately and in an effective and comprehensive manner. We move the discussion a step ahead through discussing institutional approaches, practical applications, and stakeholder engagement.

Health considerations within environmental assessment

Vincent Onyango
This presentation explores the provisions and potential effectiveness for using EA in Kenya to adequately consider health issues within the EA process, based on desktop document analysis and questionnaire surveys.

A cross-institution approach to integrated impact assessment

Margaret Douglas, Lesley Boyd
An integrated impact assessment approach developed for use across five health and local government organizations that includes populations, equality, health, environment, sustainability, and economic impacts.

Evolving practice of HIA: Quo vadis?

Mark Divall, Mirko Winkler
The practice of health impact assessment (HIA) has advanced significantly, but ongoing evolution to effectively address health impacts in the framework of EIA is required, which will involve capacity building at various levels.

Health in EIA and SEA: Experience from England

Salim Vohra, Filipe Silva
Although health impact assessment (HIA) has been a part of project and policy development in England, Health in EIA/SEA has been limited due to a perceived lack of legal framework, guidance, and experience.

Health in environmental assessments: Moving a step ahead through practical applications

Tuesday 21 April | 14:30-16:00 | Villa 5

Paper Session
Chair(s): Julia Nowacki, Francesca Villiani, Michaela Pfeiffer

Despite many discussions on HIA and health integration into environmental assessment, these often lack either consideration of health or health is not considered adequately and in an effective and comprehensive manner. We move the discussion a step ahead through discussing institutional approaches, practical applications, and stakeholder engagement.

Health impact assessments in the transport sector

Bianca Neuhold, Frank M. Amort, Daniela Gangl
Through the research, framework conditions were identified that support the implementation of health impact assessments in the area of transport on a regional level in Austria.

Impact grid for health assessment of hydroelectric

Simone Miraglia, Diego Veronez, Karina Abe
Health impact assessment (HIA) was applied to analyze the network of health impacts of a hydroelectric in Brazil. There are positives and negatives aspects affecting population. The HIA process has been a useful mechanism.

Procedural effectiveness of the new EHIA, Thailand

Chaunjit Chanchitpricha, Alan Bond
The effectiveness of the newly-legislated EIA processes in Thailand, which includes a requirement to consider health for particular types of project development, is analyzed through approved power plant projects.

Capturing vulnerability using open data and GIS

Alison Stockwell, Janis Shandro, Aleck Ostry, Malcolm Scoble
Using open access data and GIS to better identify and mitigate extractive industry impacts to vulnerable people. A case study of EIA and rural and Aboriginal women in northern Canada.

A cumulative environmental health risk indicator

Brigit Staatsen, Hanneke Kruize, Danny Houthuijs
This new integrated health risk indicator can be used to facilitate decision-making and stakeholder discussions on spatial development. It contributes to a better integration of health into spatial planning decisions.

Health in environmental assessments: Moving a step ahead through communication and stakeholder involvement applications

Tuesday 21 April | 16:30-18:00 | Villa 5

Paper Session
Chair(s): Julia Nowacki, Francesca Villiani, Michaela Pfeiffer

Despite many discussions on HIA and health integration into environmental assessment, these often lack either consideration of health or health is not considered adequately and in an effective and comprehensive manner. We move the discussion a step ahead through discussing institutional approaches, practical applications, and stakeholder engagement.

Concurrent sessions

Using HIA in EA for proposed oil drilling project

Christopher Ollson, Mary McDaniel, Kathleen Souweine, Lindsay McCallum

Integration of health impact assessment (HIA) into environmental assessment is challenging, especially on highly-contentious and politically-polarized projects. Lessons learned and successes on how to effectively communicate results will be presented.

Scoping by stakeholders of infrastructure HIA

Loes Geelen, Lea den Broeder, Monique Scholtes, Kai Yin Chung, Annemiek Van Overveld

"We are all experts!" An approach to engage stakeholders in scoping, combining expert and lay/local knowledge, was piloted in a high-impact railway extension project. Results show potential, but also pitfalls.

EA consultants' capacity to influence practice

Mari Kågström

To improve health integration in EA, there is a need to better understand EA practitioners' roles in EA, and their different capacity to influence practice.

Social determinants of risk perception

Martin Birley

New information does not lead to a convergence of risk perceptions. It's what we feel that counts. Risks become amplified or attenuated, and this affects mitigation.

IAIA

Meet the editor of *Impact Assessment and Project Appraisal*

Wednesday 22 April | 11:00-12:30 | Villa 202

Workshop

Chair(s): Riki Therival

Are you considering writing an article or professional practice paper on impact assessment? Would you like to be a guest editor for *IAPA*? Do you have a good idea for the journal? The new editor of *IAPA*, Riki Therival, would love to discuss your ideas, and offer support and advice on publishing in *IAPA*.

IAIA Affiliates and Branches Forum

Thursday 23 April | 09:00-10:30 | Villa 203

Workshop

Chair(s): TBC

This year our topic is "Taking Advantage of new Technologies" within the context of the digital era. IAIA gives background to Affiliates and Branches, but current and new communication technologies could permit much more information exchange between HQ and Affiliates and Branches, and between Affiliates and Branches themselves. The discussion will center around determining new ways to improve interaction in order to achieve best Affiliate and Branch efficiency, always looking for our common final goal: improving impact assessment.

INDIGENOUS PEOPLES

Emerging trends in community-based and indigenous impact assessment

Monday 20 April | 16:30-18:00 | Villa 202

Paper Session

Chair(s): Jill Baker

Local communities can count on an increased number of options to promote a stronger and more coordinated voice when decisions about projects are taken. This session presents experiences of community- and/or indigenous-led impact assessment or processes with an improved community involvement.

"It's not reindeer herding": Mini on Saami lands

Rasmus Klocker Larsen, Rebecca Lawrence

This presentation discusses a community-based impact assessment undertaken by the authors together with an indigenous Saami reindeer herding community in Northern Sweden.

Accommodating various discourses in mangroves IA

Jean Hugel, Tom Waas, Francisco Benitez, Nibedita Mukherjee, Nico Koedam, Farid Dahdouh-Guebas

The effectiveness of IA in supporting decision-making in complex socio-ecological tropical systems (mangroves) is illustrated by way of a discourse-accommodation perspective focusing on the often-marginalized perspectives of local communities.

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Canadian First Nations take control of IA

Janis Shandro, Aleck Ostry, Mirko Winkler

Three Canadian First Nations have partnered with researchers to understand the risks and impacts of resource development on health. This presentation reviews these projects and provides recommendations for impact assessment.

The Reappropriation and Continued Use Agreement

Marc Dunn

The Reappropriation Agreement, signed between Cree First Nation and Hydro-Québec, creates a precedent for impact and benefit agreements (IBAs): impacted communities assume mitigation responsibilities on behalf of the proponent.

Indigenous Peoples and cumulative effects

Monday 20 April | 16:30-18:00 | Villa 104

Panel Discussion

Chair(s): Angeles Mendoza Sammet

This session explores how to improve the qualitative and quantitative analysis of cumulative effects, with a special focus on addressing the impacts on Indigenous Peoples' livelihoods, lands, resources, cultures, and spirituality.

Gaps in cumulative effects for Indigenous Peoples

Angeles Mendoza Sammet, Veronica Chirino Baker

This paper presents preliminary results of a revision to identify best practices and gaps in the assessment of cumulative effects of development projects on Indigenous Peoples.

Integrated cultural assessment

Jose Zorrilla

This paper explores the use of the integrated cultural assessment model to determine cumulative cultural impacts in indigenous communities.

Maintaining social cohesion

Itoah Scott-Enns

Diamond mines are socially impacting Tlicho women and families as Tlicho men are being taken out of the community for work. However, Tlicho stories offer ideas for building better support.

The use of media to inform impacted communities

Marc Dunn

Various communication media were successfully utilized to communicate the environmental monitoring program to communities, including traditional and social media. However, for impacted hunters, fishers and trappers, personal contact remains preferable.

INDIGENOUS PEOPLES, CULTURAL HERITAGE

Indigenous cultural landscapes, indigenous protests, and IA

Wednesday 22 April | 11:00-12:30 | Villa 6

Paper Session

Chair(s): Patricia McCormack, Angeles

Mendoza Sammet

How to better include Indigenous cultural landscapes, which are often invisible to outsiders, in impact assessments.

The seen and unseen in mining impact assessment

Michele Fulcher

This presentation illustrates, through case studies and the author's experience, the living dynamism of cultural landscapes and how to assist others to acknowledge the validity of how landowners see it.

Aboriginal trails and cultural landscapes

Patricia McCormack

Overland trails are key aspects of historic and modern Aboriginal cultural landscapes in northern Alberta, yet they are ignored in current impact assessment for oil sands and other industrial projects.

Forms of indigenous protests

Phillippe Hanna, Frank Vanclay

Indigenous protest is necessary to achieve respect for Indigenous rights, frequently enhances the quality of life, and builds social capital for Indigenous Peoples likely to be impacted by large projects.

OIL FOR DEVELOPMENT

Working with IA in the oil and gas sector in developing countries

Wednesday 22 April | 11:00-12:30 | Adua 2

Practitioner Exchange

Chair(s): Morgan Hauptfleisch

Presenters highlight key issues encountered in their own work with impact assessments in the oil and gas sector in their home countries, with a focus on digital tools and social media. The facilitator will then engage all participants in a discussion of lessons learned and experiences as to the importance and usefulness of digital tools and media when working with IA in the oil and gas sector.

Handling challenges in environmental governance in the oil and gas sector in Ghana

Kojo Agbenor-Efunam

Gas flaring is undesirable in many countries that are developing hydrocarbons resources. However, challenges in the sector could result in revision of the zero-flare policies adopted by countries.

Requirement for IA in oil and gas industry in Timor-Leste

Verawati Corte Real de Oliveira, Jose Goncalves

Process and challenges of assessing IA submission for oil and gas activities.

Donors use of Impact assessment for oil and gas

Peter Croal

The presentation focuses on lessons learned with respect to the use of impact assessment by the donor community in developing countries' oil and gas sector.

IFC guideline implementation in Africa: Challenges

Ian James

Insight into the challenges associated with the implementation of the International Finance Corporation (IFC) General EHS Guidelines and Performance Standards, with reference to the oil and gas sector in Africa.

Regulating the oil and gas sector in Uganda

Arnold Waiswa Ayazika

This paper discusses the EIA process in Uganda in relation to the oil and gas sector and the challenges faced by the regulatory agencies and practitioners.

Permitting in a changing regulatory environment

Henry Camp, Kenneth Kirkby

Exploration of strategies being used to manage environmental permitting processes in an uncertain regulatory environment. Case studies from oil and gas exploration and development in Africa will be used.

Getting back on track: Issue management and IA

Jay Wagner, Murray Jones

This presentation explores the rationale, process, and outcomes of an issue-identification and management process that was applied to a large-scale oil development in Madagascar.

Taking care of the pre-salt environment in Brazil

Cristiano Vilaro

Taking care of the pre-salt environment: opportunities for EIA improvement in the biggest oil and gas province in offshore Brazil. Can we do better?

New ways of negotiating impacts and impact mitigation with oil and gas companies

Wednesday 22 April | 14:30-18:00 | Villa 101

Role Playing Workshop

Chair(s): Arne Dalfelt, Morgan Hauptfleisch, Peter Tarr

This workshop demonstrates negotiation techniques in practice. It focuses on providing negotiated information to be used in the decision making process after an impact assessment has been done. The negotiations will be based on a fictitiously-planned oil or gas project with five or six interest groups involved in the negotiations. These groups will represent the project proposer, the government, the locally affected population, and various interest groups. A public hearing will be held by the Ministry that received the project proposal.

Country experiences with impact assessment in the digital era (I)

Monday 20 April | 16:30-18:00 | Villa 203

Paper Session

Chair(s): Peter Tarr

Representatives from oil for development countries and others present examples of how environmental concerns have been addressed under new digital and technological settings in oil and gas developments

Concurrent sessions

in their own countries, including legislation, administration, cooperation between government departments, social media involvement, public consultations with new technologies, etc. What has worked and what has not?

Environmental impact assessment and digital media in Lebanon

Roula El Cheikh

PP in HKEIA: Transparent system, limited influence

Cho Nam Ng, Chi Chung Chris Wong

An exploration of the extent to which the transparent EIA process meets rising public expectation and demand in Hong Kong.

Preparing for an oil and gas industry in Myanmar

Nay Aye

Planning tools in Brazilian petroleum exploration

Francisco Fabbro-Neto, Marcelo Pereira de Souza

This paper analyzes the planning tools in the land use and natural resources applied in Caraguatuba, SP, Brazil, based on the amount of projects concerning the deep petroleum and gas exploration areas.

Country experiences with impact assessment in the digital era (II)

Thursday 23 April | 09:00-10:30 | Villa Onice

Paper Session

Chair(s): Arne Dalfelt

Representatives from oil for development countries and others present examples of how environmental concerns have been addressed under new digital and technological settings in oil and gas developments in their own countries, including legislation, administration, cooperation between government departments, social media involvement, public consultations with new technologies, etc. What has worked and what has not?

Communication in post-commissioning IA in Nigeria

Edward Bristol-Alagbariya

The ongoing NLNG fish-catch and biological health studies of the Bonny River Estuary demonstrate the significance of communication among stakeholder-groups, especially effective communication with host-communities, in post-commissioning IA in Nigeria.

Digital 21 Strategy and EIAs in Hong Kong

Andy Chung, Henry Leung, Wm To

How new technologies are leveraged following the Digital 21 Strategy—the latest trends of EIAs in Hong Kong.

Pressures for change in Brazil's EIA system

Alberto Fonseca, Luis Sanchez

The study critically analyzed four recent documented proposals that lobby for significant changes in Brazil's EIA system.

Comparison between Chinese and Cambodia EIA system

Fang Zhao, Zhao Fang, Li Dong

By comparing the two environmental impact assessment systems, the study comprehensively summarizes Chinese experience in construction project environmental management and provides a reference for Cambodia.

PUBLIC PARTICIPATION

Information exchange and logistics in public participation

Monday 20 April | 16:30-18:00 | Villa Onice

Panel Discussion

Chair(s): Timothy Peirson-Smith, Lisa

Odparlik, Kevin Hanna

A sharing of best international practice in planning, organization, and the logistics of public participation events through to post-event follow-up and feedback processes and discussion on the role and requirements to provide EA documents and process information for participation, where aspects like “fair notice,” “time to prepare,” and the “readability” of documents play an important role.

Public participation events in EIA in NU, Canada

Amanda Hanson Main, Ryan Barry

The presentation highlights challenges associated with undertaking public consultation EIA events in Canada's Arctic, steps to facilitating successful events, and lessons learned for improvement and evolution of EIA participation programs.

SIA, participation, and mediation on the ground

Steven Vella, Mark Reed, Julian

Sidoli del Ceno, Ana Attlee

The realities of participation in EIA are contrasted with best practice using three Maltese case studies to explore the role of the SIA practitioner as mediator between disciplines and stakeholders.

Digital information and Canadian EA processes

Kevin Hanna, Brandon Gregg

This study examines Internet and GIS-based mechanisms used for participation and communication, and the management of information used in the assessment and review of EA applications in Canada.

Are agencies turning a blind eye on access to EA information?

Lisa Friederike Odparlik

This paper examines implementation of legal requirements providing access to environmental assessment information in Germany's grid expansion and transport planning sectors with criteria based case study analysis of agency websites.

GIS and cumulative effects assessment in BC

Kevin Hanna, Eric Valdal

A cumulative effects framework in British Columbia will coordinate information and data sources and systems as part of providing a comprehensive tool to support the review of resource development applications.

Public participation in strategic environmental assessment (SEA) (I)

Tuesday 21 April | 16:30-18:00 | Affari Groundfloor

Paper Session

Chair(s): Mario Gauthier, Guy Chiasson, Louis Simard

The objective of this panel is to explore the links between public participation and SEA. How have public participation practices evolved in different extracting industries and energy sector such as shale gas, mining and oil, or wind power?

Public participation effect in uranium mining

Jong-Gwan Jung, Sang-Wook Han

Public participation should be fully incorporated into environmental assessment and decision making processes, and it should be recognized by local government and communities of the processes in the SEA requirement.

Adapting SEA to the Kenya context

Harry Spaling, Heidi Walker, A. John Sinclair

How can public participation in SEA be adapted to Africa? We evaluated emerging SEA practice in Kenya using SEA principles and criteria adapted to the Kenya context.

Public participation in strategic environmental assessment (SEA) (II)

Wednesday 22 April | 16:30-18:00 | Adua 2

Paper Session

Chair(s): Mario Gauthier, Guy Chiasson, Louis Simard

The objective of this panel is to explore the links between public participation and SEA. How have public participation practices evolved in different extracting industries and energy sector such as shale gas, mining and oil, or wind power?

Contested participation: Shale gas in Quebec, Canada

Marie-José Fortin, Yann Fournis

Public participation appears to be the main channel to gain social acceptability. But results are not always those expected, as shown by the SEA launched on shale gas in Quebec.

SEA in shale gas sector: Public acceptability

Guy Chiasson, Mario Gauthier

In contemporary social sciences, public acceptability has many meanings. The case of the SEA on shale gas in Quebec is used to examine what type of public acceptability is promoted.

Public participation in SEA: Dutch experiences

Rob Verheem, Ineke Steinhauer

This presentation reflects on recent practice experience in The Netherlands on public participation in SEA. It outlines principles and recommendations for effective participation illustrated with practice examples.

Public participation in EIA: What lessons for SEA?

Mario Gauthier, Louis Simard

The objective of this communication is to explore the links between public participation and SEA in the natural resources and energy sector.

The role of digital and social media to facilitate public participation (I)

Wednesday 22 April | 14:30-16:00 | Villa 9

Paper Session

Chair(s): Gwen Brice

This session looks at the role, use, and effectiveness of a variety of digital and social media tools in consultation programs. Case studies from around the world illustrate how these innovative tools are changing how we engage with the public and contribute to successful project planning and outcomes.

E-government and social media's role in meaningful participation

Timothy J. Peirson-Smith, A. John Sinclair, Morrissa Boechers

This work explores the evolution of e-governance and social media in EA and its contribution to meaningful public participation through considering literature and case studies in Hong Kong and Canada.

The digital and stakeholder engagement: Cameroon

Lendzemo Larissa Takwa, Francois Roger Nguene, Suzanne Aimee Nien Ngapout

Improving the effectiveness/efficiency of stakeholders engagement strategy in the environmental assessment process in Cameroon via incorporating the right combination of adapted digital tools to suit the socioeconomic context of Cameroon.

Social media and citizen role in policymaking (Iran)

Maryam Najibi Rabiei

This presentation reviews impacts of social media on managers' decisions or implementation of policies in Iran and presents suggestions for re-defining the non-governmental stakeholder's role in the policymaking cycle.

IA and community-based monitoring:

Potential of crowdsourced data

John Devlin

How social media platforms designed for social engagement could serve as tools to encourage community-based monitoring and how "knowledge to action" initiatives as project problems are identified.

Facebook or open houses: Planning considerations

Gwen Brice

Planning considerations when designing a public consultation program to include social media tools.

The role of digital and social media to facilitate public participation (II)

Wednesday 22 April | 16:30-18:00 | Villa 9

Paper Session

Chair(s): Gwen Brice

This session looks at the role, use, and effectiveness of a variety of digital and social media tools in consultation programs. Case studies from around the world illustrate how these innovative tools are changing how we engage with the public and contribute to successful project planning and outcomes.

Digital technologies enabling public participation

Svetla Petrova, Robert Weymouth, Janette Hartz-Karp, Brian Sullivan

This presentation demonstrates an innovative online deliberation platform that enables people to engage in a meaningful conversation and collaboratively solve problems.

Open access assessment in collaborative planning

Nick Taylor, Mike Mackay

In Canterbury, New Zealand, collaborative land and water policy and plan-making processes require dedicated catchment webpages to provide participating stakeholders with access to requisite information and iterations of technical reports.

Usefulness of the Internet in public participation

Anne Vehmas

Introducing successful experiences of online surveys and social media in facilitating public participation, the EIA, and the technical design of projects.

The influence of social and digital media

Leonardo Marotta, Ilaria Bernarda, Roberta Lotito, Francesca Maietta, Fabiola Voza

In an increasingly knowledge-based society and economy, environmental knowledge and public participation in environmental policies can be supported, by information and communication technologies as well as mobile applications.

Contention, social movements, and the politics of impact assessment (I)

Monday 20 April | 14:30-16:00 | Villa 9

Paper Session

Chair(s): John Devlin

Impact assessment is a recurrently contentious process. Project proponents seeking a social license to operate perceive contention as undesirable. Project opponents often see contention as the only way to offset business and government power. This session presents cases exploring these divergent approaches to public participation in impact assessment.

Ready to fight: Local government satisfaction in EA

Robin Lattimer, Virginia Maclaren

In light of mounting political tension and opposition in Canada, our research outlines key factors influencing local government satisfaction with EA processes and outcomes.

EIA challenges as perceived by entrepreneurs

Alberto Fonseca, Sander Rodrigues, Tamires Paiva

The study surveyed the perception of 320 business representatives of EIA challenges in the Brazilian State of Minas Gerais. Data show an overall concern with time and cost factors.

Deal or no deal? HIA and public debate of the TPP

Katie Hirono, Fiona Haigh

This presentation will discuss the health impacts of an international free trade agreement and the involvement of an advocacy steering committee in the HIA process.

Measuring the role of local governments in EA

Robin Lattimer, Virginia Maclaren

In light of mounting political tension and opposition in Canada, our research outlines key factors influencing local government satisfaction with EA processes and outcomes.

Power of residents in EIA

Bomi Kim

Our research reviews how to expand the participation and role of residents and local governments in the process of EIA of national projects through a comparison of national and regional newspaper.

Contention, social movements, and the politics of impact assessment (II)

Monday 20 April | 16:30-18:00 | Villa 9

Paper Session

Chair(s): John Devlin

Impact assessment is a recurrently-contentious process. Project proponents seeking a social license to operate perceive contention as undesirable. Project opponents often see contention as the only way to offset business and government power. This session presents cases exploring these divergent approaches to public participation in impact assessment.

The dynamics of micro-mobilization in sensemaking

Sara Bjorn Aaen, Soeren Kernstrup

Citizens will mobilize many different actors, human as well as non-human, in order to make sense of their experienced reality and base their actions on this sensemaking process.

Social movements and the viability of projects

Michael Kent

The social viability of projects in areas with strong indigenous movements is related to factors beyond their content, such as implementation methods, nature of relationships, and alignment with local norms.

Escalating conflicts and types of social mobilization

Daniela Serra

Crucial insights about public perceptions and social strategies of the communities involved in the mining project conflict in order to delay, interrupt, and even shut it down.

SIA and social acceptance of wind farms in England

Tara Muthoora, Thomas Fischer

Applications for onshore wind farms in England are not gaining planning permission. This presentation argues that the introduction of social impact assessment could ensure meaningful participation, local democracy, and social acceptance.

SEA

IAIA SEA Performance Criteria: A new set for the digital era

Tuesday 21 April | 09:00-10:30 | Affari 4th Floor

Workshop

Chair(s): Marie Hanusch, Monica Fundingsland Tetlow

The "IAIA SEA Performance Criteria" are over a decade old. Did they stand the test of time? At IAIA13, a large audience revisited the criteria. The conclusion? Most of them still apply to SEA practice today, but some changes were needed. At IAIA14 a series of proposals was discussed. This was followed by a further debate with SEA experts. At IAIA15 the revamped set of now-renamed "IAIA SEA Performance Principles" will be presented.

Marine and coastal planning and management: Using SEA and EIA

Tuesday 21 April | 14:30-16:00 | Villa 9

Workshop

Chair(s): Amanda Chisholm

During the first half of this workshop, speakers will share their experience of national-level and regional marine and coastal planning, sector/ activity planning, and the use of assessment tools. The second half will discuss the key issues identified with a focus on outcomes and the lessons learned.

Using SEA to protect marine values in Australia

Carolyn Cameron

A key challenge for Australia is to respond to population and economic growth while managing impacts on the environment. A prime example is ensuring protection of the Great Barrier Reef.

Concurrent sessions

Main problems in marine environment protection

Ouyang Yurong, Juanjuan Dai, Yaojian Wu, Ling Cai
Contradictions have emerged in the process of marine environment protection in Fujian province.

Stakeholders' perspectives on small islands SEA

Alexandra Polido, Elsa João, Tomas Ramos
This research investigates and ascertains the different stakeholders' perspectives on SEA in small islands and the key factors are to be introduced in SEA of these territories.

A study on the EIA of offshore wind farms

Taeyun Kim, Junho Maeng
This study suggests strategies for selecting locations of offshore wind farms in consideration of the environment in the coastal areas.

Ecological compensation in China: Meizhou Bay case

Ning Yang, Juan Quintero
A dredging project EIA leads to a comprehensive review of SEAs for coastal area development in southeast China and results in biodiversity compensation plans.

Integrated marine management planning in Norway

Terje Lind
In order to meet enhanced demand for revisions, more detailed plans, international obligations and cooperation initiatives, a system for digital data supported marine spatial planning is now being developed.

Vulnerability indices for SWI assessment

Mutasem El Fadel, Grace Rachid, Ibrahim Alameddine, Majdi Abu Najm
Development of vulnerability indices using spatial analysis to assess saltwater intrusion in coastal aquifers along the Eastern Mediterranean.

Public engagement in SEA: A new kind of democracy in digital era?

Wednesday 22 April | 14:30-16:00 | Adua 2

Paper Session
Chair(s): Giorgio Baldizzone, Carlo Rega

Public and stakeholder engagement in SEA holds a great potential as a tool to influence decision-making and lead to environmentally sounder plans and programs. However, current practice still lags behind theory and various elements seems to obstruct the full deployment of this potential. This session provides examples to elicit factors of success or failures and possible ways forward.

How to successfully conduct a participatory SEA

Giorgio Baldizzone, Carlo Rega
Public engagement: a "black hole," notwithstanding its tremendous potential in delivering more effective SEA. What are the conditions for meaningful participation process and the most common errors/pitfalls to avoid?

Manual for stakeholder engagement

for Graz, Austria
Ralf Aschemann
The Austrian city of Graz developed a manual for stakeholder engagement covering all projects and plans within the city's competence. It will be applied, tested, and evaluated until December 2015.

Equality in on-line participation

Hanna Herkkola
E-tools offer tempting possibilities for communication. But can equality of stakeholders be guaranteed purely online? Are e-tools used to promote equality or to avoid personal contacts with stakeholders?

Sustainability and stakeholder engagement framework

Aldi Muhammad Alizar, Anas Nikoyan, Choerunisa Noor Syahid
This paper discuss how the private sectors embrace the stakeholders of development actors (which are government and community) to achieve sustainable development without ignoring their business objectives.

Toward a systems approach to SEA capacity development: Lessons learned

Wednesday 22 April | 16:30-18:00 | Affari Groundfloor

Paper Session
Chair(s): Bobbi Schijf, Daniel Slunge, Anna Francis Olsson

Many low and middle income countries are developing their SEA capacity. How can SEA capacity best be developed in different country contexts? Can a systems approach be useful? In this session representatives from different countries and their international partners share experiences and results from SEA capacity development.

A systems approach to SEA capacity development

Bobbi Schijf
The Netherlands Commission for Environmental Assessment has developed a systems approach for SEA capacity development. We briefly outline this approach and share some experiences with its application.

Capacity of individuals, organizations, or systems?

Daniel Slunge, Anna Francis Olsson
We take stock of the experiences from an ambitious international SEA training programme. Participants from Kenya, Vietnam, and Cambodia discuss challenges in developing SEA systems in their respective countries.

SEA capacity development in India

Asha Rajvanshi, Vinod B. Mathur
The Indo-German cooperation supported by Federal Agency for Nature Conservation (BfN) of Germany has been successful in promoting SEA as a promising approach for integrated planning in India.

Application of NCEA systems approach in Pakistan

Hamza Butt, Ahmad Saeed
This paper will present experience of applying systems approach to 7 jurisdictions in Pakistan, a middle-income country with a devolved institutional framework.

Asian SEA, EIA and ecosystem services assessment: EIA system in Asia

Tuesday 21 April | 09:00-10:30 | Villa Verde

Theme Forum
Chair(s): Kiichiro Hayashi

Participating in this session will give you a good overview of the EIA/SEA system and good practices in the Asian region and will also provide you with a good human network in Asia.

Why concise EIA had not been introduced into Japan

Sachihiko Harashina
Japanese EIA systems are applied only to special types of huge projects that cannot respond to various public concerns. We analyze why this happens by showing the historical backgrounds.

Lessons learned from EIA for 35 years

Myungjin Kim, Jiyeon Kim
Lessons from 35 years of EIA are to develop and comprehend not only formal rules but also informal rules.

EIA systems in South Asian countries

Ernesto Sanchez-Triana, Bilal Rahill, Ana Luisa Lima, Santiago Enriquez, Javaid Afzal, Shakil Ferdausi
A review of EIA systems in South Asian countries suggests that these procedures focus predominantly on managing the negative environmental impacts of specific projects rather than on strengthening decision-making processes.

The nonpoint source pollution of economic activity

Sang Hee Lee, Soo Hyung Lee, Dongho Kim, Jun Bae Lee
The impact of nonpoint source pollution of economic activities was assessed using the emission load per unit gross regional domestic product (GRDP) related to the economic activities in Chuncheong region, the Republic of Korea.

Asian SEA, EIA, and ecosystem services assessment: Ecosystem and ecosystem services

Tuesday 21 April | 11:00-12:30 | Villa Verde

Paper Session
Chair(s): Jong-Gwan Jung

Participating in this session will give you a good overview of the EIA/SEA system and good practices in the Asian region and will also provide you with a good human network in Asia.

Integration of SEA and Ramsar Convention for India

Paritosh Deshpande, Berit Balfors, Kedar Uttam, Shyam Asolekar
Integrating SEA and Ramsar guidelines for biodiversity to develop an ecosystem services-inclusive SEA methodology for the sustainable future of Sewri wetlands in India.

Biodiversity offset assessment case study in Japan

Kiichiro Hayashi, Makoto Ooba, Keizo Fukushima, Keiko Oomori
The forest assessment methods of biodiversity offsets were studied as a hypothetical case study in Aichi prefecture, Japan.

Assessment of ecosystem services with land use maps

Makoto Ooba, Kiichiro Hayashi, Hideyuki Ito, Minoru Fujii, Yasuhiro Hasegawa
A system was developed and validated for the assessment of offset ability of forest ecosystems on a regional scale based on quantitative evaluation terrestrial ecosystem services.

Topographic linkage for sustainable forest

Yongwon Mo, Dongkun Lee, Hogul Kim, Jinhan Park, Sunyong Sung
The study is about finding comprehensive topographical linkages around protected areas to maintain sustainable forest ecosystems using generic topographical classification.

Asian SEA, EIA, and ecosystem services assessment: Ecosystem management

Tuesday 21 April | 14:30-16:00 | Villa Verde

Paper Session

Chair(s): Sachihiko Harashina

Participating in this session will give you a good overview of the EIA/SEA system and good practices in the Asian region and will also provide you with a good human network in Asia.

Developing the Satoyama Quantitative Evaluation Method

Akira Tanaka, Masashi Kobatake

We developed a comprehensive quantitative ecosystem evaluation method incorporating habitats, landscape aesthetic values, and human wise-use called the "Satoyama Evaluation Process" (SEP) and used SEP methods to evaluate Satoyama conservation plans.

A case study of Xiamen City in China

Juanjuan Dai, Yaojian Wu, Yurong Ouyang

This study is conducive to the further calculation of ecological footprints and the comparison of ecological footprints. The sustainable development trends of natural capitals in China can be reflected.

Study of restoration of *Gobiobotia Naktongensis*

Jin-Young Na, Ji-Yeon Yoo, Sang-Chul Hwang, Hyun Yang

In this study of restoration for *Gobiobotia Naktongensis* of Naeseong stream, it is confirmed discharged fry have moved widely along the stream and adapted themselves to natural environmental condition successfully.

Environmental monitoring of a butterfly reserve

Richard Cheung, Ophelia Chu, Macy Fung, Queenie Lo, Colleen Chiu, Nelson So

Baseline environmental monitoring of a butterfly reserve in Hong Kong Special Administrative Region, China. Baseline water quality monitoring (dissolved oxygen, turbidity) and background noise information were collected in recent years.

Asian SEA, EIA, and ecosystem services assessment: Various EIA systems (I)

Tuesday 21 April | 16:30-18:00 | Villa Verde

Paper Session

Chair(s): Myungjin Kim

Participating in this session will give you a good overview of the EIA/SEA system and good practices in the Asian region and will also provide you with a good human network in Asia.

JICA's challenge to realize inclusive development

Naoki Kakioka

Japan International Cooperation Agency (JICA) applies its Guidelines for Environmental and Social Considerations to sustainable infrastructure development projects in developing and emerging economies to realize "inclusive development."

Environmental impact assessment and sensitivity

Naghmeh Mobarghei, Sedigheh Mousavipour, Mitra Ghasemi

Using environmental impact assessment and sensitivity analysis for a feasibility study of road construction through the Miankale wetland in the north of Iran.

Impact Assessment: Story of Mongolia

Oyunaa Lkhagvasuren, Tsetsegsaikhan Batmunkh, Delgermaa Vanya

The Mongolian Environmental Impact Assessment Law requires any new project to assess its impact not only on the environment but also on health; the challenge is in its implementation.

Compare EIA characteristics:

Thailand, Japan, and China

Kultip Suwanteep, Takehiko Murayama, Shigeo Nishikizawa

Experience from studying EIA systems between these countries indicates that a clear legal framework and establishment of an independent body for reviewing EIA studies is important to enhance EIA's quality.

Asian SEA, EIA, and ecosystem services assessment: Various EIA systems (II)

Wednesday 22 April | 14:30-16:00 | Affari Groundfloor

Paper Session

Chair(s): Keizo Fukushima

Participating in this session will give you a good overview of the EIA/SEA system and good practices in the Asian region and will also provide you with a good human network in Asia.

SEA for geothermal development in Japan and New Zealand

Yuki Shibata, Yuki Tsukimura, Yumiko Takemae

This paper compares the planning systems for geothermal development in Japan and New Zealand and clarifies the lessons to learn for making the Japanese geothermal planning process more efficient and effective.

Public participation in China:

Weaknesses and strengths

Bert Enserink, Mariachiara Alberton, Dusica Radojicic, Peggy Lerman

Analysis of the strengths and weaknesses of the Chinese legal EIA system, focusing on the public participation practices and lessons learned in the provinces of Shandong and Yunnan.

Bangladesh: SIA and addressing inequality

Margriet Hartman

There is an opportunity for social impact assessment in Bangladesh to address relative inequality and support inclusive development by improving its quality and therewith supporting changes in governance and society.

Quantitative and qualitative analysis of EIA reports in China

Jiaying Xu, Takehiko Murayama, Shigeo Nishikizawa

Studying the characteristics of EIA reports in China by analyzing the EIA documents of the year 2014 from two viewpoints.

Ecosystem services in SEA and EIA (I)

Wednesday 22 April | 09:00-10:30 | Affari 4th Floor

Theme Forum

Chair(s): Thomas Fischer

Case studies are presented on how the ecosystems services approach has been used in SEA and EIA. In this context, the usefulness of digital data is explored.

ESA, EIA and the business case for development

Ross Marshall, Bruce Munro, Karl Fuller, Mark Ross

The application of ecosystem services must influence the business case in developmental infrastructure if it is to develop as a valued tool in sustainable development.

Ecosystem services in SEA of spatial policies

Daive Geneletti

An application of an ecosystem service approach for the SEA of a spatial development policy is presented. The findings are discussed and compared with more conventional SEA approaches.

A Swedish case study on ecosystem services

Alies van Rhijn, Antoinette Wärnbäck

One main finding was that it was difficult for the stakeholders to relate to some of the values that comprise the total economic value.

Ecosystem services review for impact assessment

Jo Treweek, Florence Landsberg, Sarah Prinsloo, Philippe Bouzet, Robert Lwanga

This presentation presents some practical experiences of integrating ecosystem services review with impact assessment in a Ugandan context, focusing on baseline assessment to support future environmental and social impact assessments (ESIAs).

Ecosystem services in SEA and EIA (II)

Wednesday 22 April | 11:00-12:30 | Affari 4th Floor

Paper Session

Chair(s): Ross Marshall

Case studies are presented on how the ecosystems services approach has been used in SEA and EIA. In this context, the usefulness of digital data is explored.

Ecosystem services: (AULNES) method and toolkit

Nicolas Jacotot

The Egis Ecosystem Services Toolkit, a methodology for the assessment of the impact of a project on ecosystem services throughout the lifetime of a project.

Participatory methods in coastal systems

Floortje d'Hont, Jill Slinger

The implications of stakeholder and expert consultation in ensuring the efficacy and impact reduction of coastal nourishments are addressed to improve long-term flood defense in a sustainable manner.

Ecosystem services in SIA: The human aspects

Gabriela Factor, Francesca Villiani

This paper presents challenges faced and makes suggestions for a more participatory and people-centered ecosystem services (ES) analysis.

Strengthening environmental assessment in Iran

Fereshteh Mirzaei, Naghmeh Mabargheei

Mainstreaming the global environment and economic valuation of ecosystem goods and services for strengthening environmental assessment in Iran.

Ecosystem services in SEA and EIA (III)

Wednesday 22 April | 14:30-16:00 | Affari 4th Floor

Paper Session

Chair(s): Thomas Fischer, Ross Marshall

Case studies are presented on how the ecosystems services approach has been used in SEA and EIA. In this context, the usefulness of digital data is explored.

Facilitated or spontaneous participation: Case ESS

Hanna Herkkola, Kaisa Mustajarvi

Crowdsourcing is participative problem-solving, where "the crowd" is invited to solve certain issues for mutual benefits. What is the role of crowdsourcing compared to facilitated participation for in ESS?

Concurrent sessions

Incorporating ES to the study of ecosystems in EIA

Claudia Valencia

Two Peruvian cases are presented to illustrate how the incorporation of ecosystem services (ES) to the study of fragile ecosystems in EIAs led to the development of effective mitigation and compensation strategies.

Mainstreaming the global environment

Fereshteh Mirzaei, Naghme Mobarzheei

Through a comparison between the EIA process and the economic valuation of ecosystem goods and services, an integrated model has been proposed.

Emerging uses of strategic environmental assessment (I)

Monday 20 April | 14:30-16:00 | Affari Groundfloor

Paper Session

Chair(s): Zsuzsa Banhalmi-Zakar, Sanne Vammen Larsen

For more than a decade, strategic environmental assessment has been incorporated into legislation in the European Union and has become a valuable addition to the toolbox of environmental practitioners worldwide. This session seeks to shed light on the non-traditional uses of SEA in informing and improving decision-making and developmental outcomes.

Potential SEA use in corporate strategic planning

Steve Bonnell

Exploring the potential use of SEA in corporate strategic planning, including organizational decision-making around whether, why, and how to voluntarily adopt and apply SEA.

Assessing wastewater investment plans using DSS

Mutasem El-Fadel, Rania Maroun, Majdi Abou Najem
Decision support system (DSS)- based assessment of investment plans to alleviate the impacts of wastewater discharge on river water quality.

SEA to build a sustainable Djibouti-ville

Laura Verdier, Raffaele Gorjux

SEA of Djibouti-ville urban plan can demonstrate how the SEA process could be used as a sustainable planning tool.

SEA to enhance sustainability in Piauí, Brazil

Santiago Enriquez, Ernesto Sanchez-Triana, Ana Luisa Gomes Lima, Marcelo Montaña

This presentation will focus on the potential benefits of undertaking strategic environmental assessments that integrate social and poverty dimensions, focusing on the experience of the government of Piauí, Brazil.

Emerging uses of strategic environmental assessment (II)

Monday 20 April | 16:30-18:00 | Affari Groundfloor

Paper Session

Chair(s): Zsuzsa Banhalmi-Zakar, Sanne Vammen Larsen

For more than a decade, strategic environmental assessment has been incorporated into legislation in the European Union and has become a valuable addition to the toolbox of environmental practitioners worldwide. This session seeks to shed light on the non-traditional uses of SEA in informing and improving decision-making and developmental outcomes.

SEA for renewable energy in South Africa

Lydia Cape-Ducluzeau, Cornelius van der Westhuizen

The outputs of the study will be submitted to the Ministers for gazetting in 2015 and thereafter will form part of the new environmental impact assessment regulations of South Africa.

SEA and long-range hydropower planning

Michael Clarke

A discussion of the recommendations of a strategic sectoral and environmental and social assessment (SSESA) to address cumulative impacts of multiple hydropower projects in the Indus Basin at a system level.

SEA and biomass energy industries planning

Chiara Rosnati, Marcelo Mangone, Quirico Antonio Cossu

There are still several problems in renewable energy field, particularly in the assessment of cumulative impacts and environmental sustainability. SEA and good planning are essential instruments to solve these problems.

SEA for sustainable energy planning in Brazil

Helen Tambolim, Marcelo Montaña

This study identifies how SEA and some aspects of the Dutch experience on the use of this tool may contribute to the incorporation of sustainability to Brazilian energy planning.

The research of control GHG in SEA

Wang Yanan

This presentation discusses the necessity and the operability of control greenhouse gases (GHG) in SEA, forms the technology route map, and sets the accessing index of control GHG in SEA.

Exploring the role of SEA as a facilitator for sustainable planning (I)

Wednesday 22 April | 14:30-16:00 | Villa 6

Paper Session

Chair(s): Charlotta Faith-Ell, Berit Balfors, Thomas Fischer, Antoinette Warnback, Kristina Lundberg

This session explores the role of SEA in planning and critically discuss recent experiences of reforming SEA in different legal systems. Further, the session discusses various mechanisms behind linkages between SEA and planning, identifying potential synergies but also highlight potential challenges.

Sustainable planning and EA knowledge

Berit Balfors

This presentation addresses potential synergies and challenges for spatial planning and the application of EIA and SEA as effective tools to enhance sustainable development.

All at SEA? SA SOS? Contribution to sustainability

Samuel Hayes

This research explores SA in England and SEA in Scotland and the implications of system variation upon the contribution made to sustainable planning.

SEA and spatial planning in Sweden: Tiered or not?

Johan Högström, Berit Balfors, Monica Hamner

Exploring the role of SEA as a tool for coordination and improved governance over system scales by examining the role of SEA in Swedish municipal spatial planning.

Challenges of SEA in regional planning in Sweden

Sirje Padam

Understanding the obstacles of using SEA in strategic regional planning is a step towards closer integration of sustainability in current planning practices.

Future of spatial planning related IA in Estonia

Tiit Oidjärv

Spatial planning-related SEA has established its position in Estonia. Economic and social consequences are treated in less detail. Promoting wider IA has to overcome institutional, organizational, and legislation challenges.

Exploring the role of SEA as a facilitator for sustainable planning (II)

Wednesday 22 April | 16:30-18:00 | Villa 6

Paper Session

Chair(s): Charlotta Faith-Ell, Berit Balfors, Thomas Fischer, Antoinette Warnback, Kristina Lundberg

This session explores the role of SEA in planning and critically discuss recent experiences of reforming SEA in different legal systems. Further, the session discusses various mechanisms behind linkages between SEA and planning, identifying potential synergies but also highlight potential challenges.

Assessing transport infrastructure sustainability

Anna Furberg, Holger Wallbaum, Sverker Molander

Reviewing academic literature of practices in sustainability assessment and in planning of transport infrastructures leads to the conclusion that, in general, there is a need for wider perspectives.

SEA for local and neighborhood plans in England

Mark Fessey, Steve Smith, Alex White

Leading SEA practitioners exploring an issue that may well be at the heart of long-standing misconceptions around the SEA process.

The use of SEA for municipal plans in Sweden

Kristina Lundberg, Berit Balfors, Christina Hornberg, Johan Hogstrom, Maria Johansson

Swedish governmental agencies have noted difficulties in the implementation of SEA, but systematic examinations are missing. This paper provides such scientific state-of-the-art of SEA practice in municipal planning between 2004-2014.

A case study of SEA screening practice in Sweden

Charlotta Faith-Ell, Jon Halling, Elina Baheram

The paper builds on a study of the practice of screening with regards to the application of the SEA Directive within Swedish municipalities.

SEA applications (I)

Tuesday 21 April | 11:00-12:30 | Villa 105

Paper Session

Chair(s): Chiara Rosnati

Strategic environmental assessment is nowadays used worldwide to address a wide range of policies and societal challenges. This session presents SEA conducted for specific topics or issues. The final aim is to reflect more broadly on the lessons learned across sectors and governance challenges.

“Shirtfronting” Australian banks about CC

Zsuzsa Banhalmi-Zakar, Leila Eslami-Andargoli

We challenge the climate change disclosure practices of Australian banks based on the results of a study of publicly-accessible information through the Internet of 68 Australian banks.

Integrating green qualities and densification projects

Sara Khoshkar

Opportunities and challenges for integration of green qualities in the densification of regional cores of Stockholm green qualities.

SEA and river basin management plans

Bruce Munro, Ross Marshall, Andy Guffogg, Karl Fuller

This presentation sets out the approach adopted by the UK Environment Agency's National Environmental Assessment Service (NEAS) to the river basin management plan's (RBMP) SEA.

SEA applications (II)

Tuesday 21 April | 16:30-18:00 | Villa 104

Paper Session

Chair(s): Carolyn Cameron

Strategic environmental assessment is nowadays used worldwide to address a wide range of policies and societal challenges. This session presents SEA conducted for specific topics or issues. The final aim is to reflect more broadly on the lessons learned across sectors and governance challenges.

Culturization model of SEA and better integration

Bahareh Khodaparast, Stephen

Knight-Lenihan, Jenny Dixon

This presentation discusses developing a new approach for better integration of SEA to decision-making. A culturization model that considers culture in the SEA process is proposed.

The use of SEA for long-term spatial policy plan

Dick van Straaten, Katrien Debeuckelaere

Flanders (Belgium) in 2050: how can SEA influence the decision-making process for a long-term spatial policy plan, and which methodology can be used?

How is governance addressed in SEA?

Margarida Monteiro, Maria Partidário

This presentation explores how specific governance-related aspects are being addressed in SEA and the role it plays in the assessment.

The effective Umbrella SESA for spatial development

Deolinda Nunes, Odete Semiao

The effectiveness of the Umbrella Strategic Environmental and Social Assessment (SESA) for spatial development planning project.

Regulation and participation for SEA

Zsolt Szilvacsku

The development of impact assessments means the renewal of the public management systems from a social-ecological perspective, and the development of decision-making culture focusing on the values of sustainability.

SIA

Local content policies, benefit-sharing, and sustainable regional development

Tuesday 21 April | 16:30-18:00 | Onice

Paper Session

Chair(s): Ana Maria Esteves, Galina Ivanova

Local content presents new challenges and opportunities for IA practitioners who work actively in the design of projects to ensure they maximize the

benefits for local and regional communities. Included in this session is an introduction to the new IPIECA guidance for local content for oil and gas.

IPIECA update of local content guidance

Helen Murphy, Ana Maria Esteves

IPIECA, the global oil and gas industry association for environmental and social issues, is updating its local content guidance document. This presentation focuses on the implications for socio-economic impact assessments.

IA and local content in a Greenlandic context

Rikke Carlsen

Based on lessons learned from conducting several SIA processes in Greenland, this paper addresses how the IA process supports local content policies, benefit sharing, and sustainable regional development in Greenland.

Local procurement and development to avoid enclave

Evandro Moretto, Sergio Pulice, Daniel Roquetti

Concepts used in economic development theories can be useful to address phenomena triggered by projects, therefore contributing to the understanding of local procurement benefits and negative impacts.

Exploring regulatory stimuli

Jan-Albert Wessels

Developing countries such as South Africa incorporate green and new technology use stimuli into principles and objectives of law and policy, but challenges prevent the implementation thereof in EIA follow-up.

International Guidance for SIA

Monday 20 April | 11:00-12:30 | Affari 4th Floor

Theme Forum

Chair(s): Frank Vanclay

This theme forum celebrates the launch of IAIA's recently-published guidance document, *Social Impact Assessment: Guidance for assessing and managing the social impacts of projects*. Key stakeholders will share what the guidance document will mean for them.

SIA and CSR in natural resources industries

Monday 20 April | 14:30-16:00 | Villa 202

Paper Session

Chair(s): Rauno Sairinen

This session focuses on the social impact assessment and corporate social responsibility activities of various natural resources industries and their relations. We ask how these practices can benefit each other and sustainable local development.

Putting the "social" in shale gas development

Ceit Wilson, Tiffany Morrison, Daniel Franks

Social impact assessment, United States, shale gas, resource extraction, private governance, community and not-for-profit organizations, housing affordability in resource towns.

Coupling SIA and CSR in unconventional oil and gas

Ross Mitchell

This paper outlines how SIA and CSR can be linked using a sustainable livelihoods framework (SLF) during the exploratory phase of a shale gas operation in eastern Poland.

SIA lessons for Mongolia's minerals development

Vigya Sharma

This presentation explores how Mongolia's mining sector may employ existing SIA principles and frameworks to better align with other stakeholders and improve sustainable development outcomes both socio-economically and ecologically.

Successful CSI project identification

Jimmy Mnisi, Daphne Hartney

A corporate social investment (CSI) project is providing 300 youth, who are largely unemployed, with skills to source employment and divert protest action to jobs.

It's just a matter of faith?

Tuesday 21 April | 11:00-12:30 | Villa 202

Paper Session

Chair(s): Marcello Iocca

Holistic approach to IA, social justice, public acceptance, voice to gender issues, HIA and war. Are those Mission Impossible? What is the *fil-rouge* linking all these aspects? This session introduces with a wide-angle perspective the efforts in different operational contexts to approach such crucial and apparently disparate issues.

Towards multidisciplinary household questionnaires

Sebastien Essaye

In order to promote a holistic IA, it is argued that multidisciplinary household questionnaires are produced, using a relational database which enables the data to be queried in diverse ways.

The development of SIA in Sweden

Jon Halling

A number of SIAs studied indicates a not-entirely-satisfying path that Swedish SIA practice is embarking on: one where social arguments might be the aim rather than social justice.

A balancing act: Predicting acceptance of mining in Australia and Chile

Airong Zhang, Kieren Moffat

The research examines how mining-associated benefits and negative impacts affect the public's acceptance of mining in Australia, and the important role of governance in addressing environmental impacts.

Giving gender issues a voice

Ranita Sandi-Koroma, Peter Nelson

Sharing lessons on developing an all-inclusive approach to gender issues in Sierra Leone based on experience in the development of palm oil plantations, fisheries, water supply, and sanitation.

Predicting the unthinkable: HIA and conflict

Ben Cave, Marion Birch

Medact undertook a health impact assessment (HIA) of the potential consequences of military action against Iran. We will discuss the issues arising from this HIA.

Concurrent sessions | IAIA Sections

STUDENTS AND EARLY PROFESSIONALS

Early professionals and students: Sharing technical advances and innovation

Tuesday 21 April | 11:00-12:30 | Adua 2

Pecha Kucha

Chair(s): Alexandra Polido, Anne Caroline Malvestio, Claudia Valencia, Adam Wright

Students and early professionals present their research/work in a Pecha Kucha format, inviting the audience to provide comments. The session will have two presentations by experienced professionals to help future IA professionals understand their role in the IA community and will also provide a networking opportunity between young and senior practitioners.

EIA effectiveness: Conceptual basis for an integrative approach

Fernanda Veronez, Marcelo Montaña

The research proposes a set of criteria, based on a known framework, to evaluate the effectiveness of EIA practice in Brazil considering procedural, substantive, and transactive aspects.

Stakeholder engagement: Lessons from HRIAs

Anne-Marie Levesque

Using lessons from recent human rights impact assessments (HRIAs), this presentation will set out some of the key issues in stakeholder engagement practice and propose some innovative responses to these challenges.

Engaging in key issues for IA effectiveness

John Boyle

Session participants will be challenged to consider how IA effectiveness is influenced by people, their strengths and weaknesses, and the culture and systems they work within.

Paul Sage

Guest speaker.

Aaron Goldschmidt

Guest speaker.

The future of the African EIA professional development program

Tuesday 21 April | 16:30-18:00 | Villa 9

Practitioner Exchange

Chair(s): Dieudonne Bitondo, Hussein Sosovele, Peter Tarr

This open meeting will provide the opportunity for African EIA professionals and donors to examine past successes, suggest improvements, and commit to strengthening the Professional Development Fellows Programme as a vital contribution to building the capacity of a new generation of EIA professionals in Africa. Costs are approximately \$25,000 per Fellow. Donors and others are now interested in refining and building upon the Programme, which has been dormant for the last 3 years.

MEET THE IAIA SECTIONS

IAIA is a member-based organization which has numerous special-interest Sections that cover different types and aspects of impact assessment.

IAIA Sections provide opportunities for IAIA members with these mutual interests to share experiences and discuss ideas in an informal setting. Sections provide a forum for active topical debate and for development and promotion of good practice.

IAIA Sections have a chance to meet during each annual conference, and they also have a rolling program of work throughout the year.

The members of the Sections and their activities are the life-blood of IAIA: through the Sections, IAIA members can feed into the organization of each annual conference, publish different materials, and develop new lines of thought.

When you pay the non-member conference rate, you automatically become an IAIA member and are eligible to join one or more Sections.

WHERE CAN I FIND THE SECTIONS AT IAIA15?

- Sessions that have been organized by the Sections are clearly identified in the preliminary and final programs.
- Each Section will hold one or more Section meetings during the conference, which everyone is welcome to attend.
- Rendezvous tables will be identified at lunch times, where Sections can meet informally to continue discussions.
- Section chairs will be identified by ribbons on their name tags so that you can find them during the conference.

ANY QUESTIONS?

Please contact Angeles Mendoza Sammet, and Jill Baker, co-chairs of the Sections Coordinating Committee (angeles@angelesmendoza.com and jill@iaia.org), or visit www.iaia.org > Sections for more information.

SPECIAL-INTEREST SECTIONS

- Agriculture, Forestry and Fisheries
- Biodiversity & Ecology
- Climate Change
- Corporate Stewardship & Risk Management
- Cultural Heritage
- Disasters & Conflicts
- Health Impact Assessment
- Indigenous Peoples
- Oil, Gas, and Renewable Fuels
- Power Generation and Transmission
- Public Participation
- Strategic Environmental Assessment
- Social Impact Assessment
- Students and Early Professionals



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The European forum is sponsored in part by the European Commission.

The EU impact assessment systems: To which extent a global role model?

Monday 20 April | 11:00-12:30 | Villa Auditorium

Theme Forum

Chair(s): Aurel Ciobanu-Dordea, Matthew Arndt

The European Union's IA mechanism for policies and legislation (IA), plans/programs (SEA) and projects (EIA) is sometimes a role model for countries that are setting up such mechanisms. We discuss what can be learned from the introduction of the EU systems into countries outside Europe.

The EU's IA system: Recent changes

Rosalinde Van der Vliet

Recent changes introduced in the Commission's impact assessment system, possible further improvements, and the relevance of the EU system for countries outside Europe will be discussed.

SEA Directive elements: Applicable beyond EU?

Jiri Dusik

Key strengths and weaknesses of the SEA directive: can it serve as a global role model for impact-centered SEA approaches?

EU-EIA policy for IPA projects in Turkey

Ali Albayrak, Seda Neriman Arzik, Volkan Turan

The EU supports environmental infrastructure projects and improves the life quality in Turkey. For this purpose, how the Instrument for Pre-Accession Assistance (IPA) project application process works and challenges to achieve EU requirements.

EU Directive and DFI Environmental and Social Policies

Jean-Noel Rouleau

The presentation discusses the coherence between the EU Directive (in particular Directive 2011/92/EU of 13 December 2011) with the environmental and social policies and procedures of development financial institutions.

Ex ante assessment of economic governance: Potential benefits of comprehensive IAs for economy and environment

Tuesday 21 April | 11:00-12:30 | Affari 2nd Floor

Paper Session

Chair(s): Louis Meuleman, Adina Relicovschi

The European Commission and European Investment Bank will discuss the results and follow-up of a study on the cost-avoidance potential of impact assessments of (environment-related) economic policies of EU Member States. The study assesses which essential elements of IAs are present, and what cost-avoidance impacts such IA (elements) may have.

Potential of IA to support environmental goals

David Fleet, Daniel Vencovsky

Study for the European Commission identifying key criteria and assessment of EU Member State impact assessment systems and procedures in relation to environmentally-relevant policies.

Determining the benefits of IA: A business method

Angus Morrison-Saunders

This paper outlines a methodology for determining the benefits of impact assessment to proponents and other stakeholders based on learning from the business and management professions.

30 Years of environmental impact assessment of projects: Challenges in transposing the revised EIA Directive (I)

Monday 20 April | 14:30-16:00 | Affari 2nd Floor

Paper Session

Chair(s): Georges Kremlis, Piotr Otawski

The amended EU EIA Directive (2014/52/EU) entered into force on 15 May 2014 and should be transposed by 15 May 2017. The new Directive simplifies the rules for assessing the potential effects of projects on the environment, while improving the level of environmental protection. The session identifies main transposition challenges.

The Italian experience toward new EIA Directive

Paola Ceoloni, Margherita Cudemo, Valentina Pucci, Monica Torchio, Antonio Venditti

A focus on the Italian EIA system and its best practices in line with the provisions of the revised EIA Directive, in particular regarding access to information via digital media.

A Portuguese perspective on the amended Directive

Julio Jesus

What are the challenges of the transposition of the amended EIA Directive from a Portuguese perspective? And what should the stakeholders do to improve EIA and ensure a smooth transposition?

Impact of transposing EIA Directives in Flanders

Jan de Mulder

The experience of transposing and implementing the EIA Directives in Flanders is presented and assessed within a broader regulatory and policy development framework to enhance the use of IA tools.

25 years of the UK EIA system: SWOT analysis

Urmila Jha-Thakur, Thomas Fischer

This paper evaluates the EIA system of the UK upon completion of 25 years using SWOT analyses while drawing comparisons with Glasson's (1999) review of the first 10 years of the UK EIA system.

Lessons learned from Canadian EA legislation

John McCauley, Ron Hallman

Insights from implementing the 2012 Canadian Environmental Assessment Act will be shared.

30 Years of environmental impact assessment of projects: Challenges in transposing the revised EIA Directive (II)

Monday 20 April | 16:30-18:00 | Affari 2nd Floor

Paper Session

Chair(s): Georges Kremlis, Piotr Otawski

The amended EU EIA Directive (2014/52/EU) entered into force on 15 May 2014 and should be transposed by 15 May 2017. The new Directive simplifies the rules for assessing the potential effects of projects on the environment, while improving the level of environmental protection. The session identifies main transposition challenges.

From defensive to proactive EIA quality assurance

Lone Kørnøv, Ulf Kjellerup

The transposition of the EIA Directive can lead to a defensive quality assurance: how to secure a more proactive quality assurance, which goes beyond merely ensuring the quality of the report.

The role of international organizations and development banks

Javaid Afzal, Santiago Enriquez, Ernesto Sanchez-Triana

The role of international organizations and development banks in Pakistan's environmental impact assessment practices.

Concept of reverse environmental impact assessment

Leila Neimane

The research examines to what extent the new EU EIA Directive contributes to strengthening the new legal discipline "climate change law" and integrating it in the EIA.

Evaluating the implementation of the EU SEA Directive (I)

Tuesday 21 April | 14:30-16:00 | Affari 2nd Floor

Paper Session

Chair(s): Stephanos Ampatzis, Matthias Sauer, Waltraud Petek

In 2016, the European Commission will prepare its second report on the application and effectiveness of the EU Strategic Environmental Assessment Directive (2001). The current challenges are related to a large extent to implementation issues. The session identifies possible ways of addressing such challenges.

Approaches to evaluation of SEA implementation

Lone Kørnøv, Ulf Kjellerup

Presentation of possible approaches on how to evaluate the application and effectiveness in future evaluation of the SEA Directive.

Bottlenecks in SEA implementation

Antonio Ledda, Andrea De Montis, Amedeo Ganciu, Simone Caschili, Mario Barra

SEA implementation is hindered by a number of factors. Guidelines are crucial documents for identifying them and increasing effectiveness in SEA integration in planning processes.

SEA fitting the nature of plans/programs

Maria Partidário

This presentation discusses how the EU SEA Directive is fit for plans and programs if it so faithfully resonates the EIA model which has been successful mainly with development projects.

Why not finally make SEA relevant?

Felix Sternath

Guidelines and handbooks concerning SEA according to the EU Directive demonstrate a shift from a rather narrow and biologicistic to an increasingly wider and holistic understanding of SEA.

Power distribution in the SEA European Union model

Margarida Monteiro, Maria Partidário

This paper aims to create evidence on how power is distributed and responsibilities are set in the European Union model for SEA.

Evaluating the implementation of the EU SEA Directive (II)

Tuesday 21 April | 16:30-18:00 | Affari 2nd Floor

Paper Session

Chair(s): Stephanos Ampatzis, Matthias Sauer, Waltraud Petek

In 2016, the European Commission will prepare its second report on the application and effectiveness of the EU Strategic Environmental Assessment Directive (2001). The current challenges are related to a large extent to implementation issues. The session identifies possible ways of addressing such challenges.

SEA in Germany: State of the art and future needs

Marie Hanusch

This presentation reflects on the application of SEA in Germany, building on numerous practical cases from different planning sectors. Based on the findings, future needs of SEA will be discussed.

SEA application in Germany

Anke Rehhausen, Gesa Geissler

We present the analysis of empirical data on SEA practice in Germany and discuss strengths and weaknesses and point to challenges for effective federal level SEA application in Germany.

SEA practice in Austrian spatial planning

Gernot Stoeglehner

Starting from the EU SEA Directive, regulatory frameworks reveal pitfalls for effective SEA implementation. This paper presents ideas how an often-ineffective assessment instrument can be transformed to a valuable planning instrument.

Capacity building and participation (I)

Wednesday 22 April | 11:00-12:30 | Affari 2nd Floor

Paper Session

Chair(s): Norbert Hahn, Elizabeth Smith

Impact assessments are part of good governance systems. Key elements of IA are public consultation and participation. We discuss if investing in capacity building and participation in general strengthens implementation and enforcement capacities and can nudge governments into taking the next step and improving IA legislation.

Evaluating the effectiveness of EIA training

Luis Sanchez, Michelle Milhomem

A questionnaire survey captured the organizational learning outcomes of EIA training offered to 420 officials at the Brazilian federal environmental agency.

Building EIA capacity together: Central Africa

Gwen van Boven, Dieudonne Bitondo

This regional EIA programme was co-designed, co-implemented, and co-monitored by the participating organizations and the providers of technical assistance. Did this joint approach result in more sustainable strengthening of capacities?

Information system: Estimation of cadmium exposure

Wisa Supanpaiboon, Wachana

Joobanjong, Orasa Tetiwat

A community information system for estimation of dietary exposure to cadmium was initiated, introduced, and compared to tolerable daily intake (TDI) for the impact assessment of people living downstream from a zinc mining site.

Impact assessment as a tool for capacity building

Naja Marot, Mojca Golobic

A comparison of the power and usefulness of different techniques of public participation for the capacity building process in impact assessments that confront planning policies with sector policies, e.g., health, natural protection, etc.

Capacity building and participation (II)

Wednesday 22 April | 14:30-16:00 | Affari 2nd Floor

Paper Session

Chair(s): Elizabeth Smith, Norbert Hahn

Impact assessments are part of good governance systems. Key elements of IA are public consultation and participation. We discuss if investing in capacity building and participation in general strengthens implementation and enforcement capacities and can nudge governments into taking the next step and improving IA legislation.

Conflict management and public participation

Ralph Bergmüller

Conflict management is central in the process of impact assessment and public participation. We highlight potentially fruitful avenues for future development.

Meaningful dialog in the IA process

Kalle Reinikainen, Timo P. Karjalainen

The roles and the tasks of IA and present methods for strengthening confidence towards IA.

Introducing the notion of airport community

Isabel Lavadenz

An introduction to the airport community notion to foster a common identity across neighborhoods, operators, and other stakeholders to improve their capacity to adequately identify and manage environmental and socio-economic risks.

Social risks mitigation and stakeholder engagement plan

Aldi Muhammad Alizar, Anas Nikoyan,

Choerunisa Noor Syahid

A comprehensive understanding and innovative knowledge for companies in the development of stakeholder engagement plans to enhance social risks mitigation strategy and action plans (SRMAP), which could move the companies' action from reactive to proactive

Capacity building and participation (III)

Wednesday 22 April | 16:30-18:00 | Affari 2nd Floor

Paper Session

Chair(s): Matthias Zoellner

Impact assessments are part of good governance systems. Key elements of IA are public consultation and participation. We discuss if investing in capacity building and participation in general strengthens implementation and enforcement capacities and can nudge governments into taking the next step and improving IA legislation.

Way to strengthen implementation of EIA in Asia

Ikuko Matsumoto

Based on case studies of sound implementation of EIA for development agencies-funded projects in Southeast Asia, this paper explores impacts of these good practices to non-development agencies' projects.

ZANSEA capacity building in GIS/EIA in Zanzibar

Sigurd Juel Kinn, Makame Omar Makame, Yves

Barthelemy

ZANSEA is a capacity building project between Statoil and SUZA to develop a coastal SDI/GIS to support CZM/EIA/SEA as a response to weak national capacities within these subjects in Zanzibar.

Key role in improving regional IA system in Mexico

Javier Clausen, Sergio Contreras

The key role of capacity building and participation in promoting the improvement of a regional impact assessment system's structure and performance in western Mexico.

Do SEAs make a difference?

John Carstensen

Key findings of the 2014 Department for International Development (DFID) Topic Guide on Strategic Environmental Assessment and how to get better evidence of what works.

Capacity building and participation (IV)

Thursday 23 April | 09:00-10:30 | Affari 2nd Floor

Paper Session

Chair(s): Matthias Zoellner

Impact assessments are part of good governance systems. Key elements of IA are public consultation and participation. We discuss if investing in capacity building and participation in general strengthens implementation and enforcement capacities and can nudge governments into taking the next step and improving IA legislation.

Environmental education and advocacy in Nigeria

Silas Agaja

This study examines the prospects and advocacy of environmental education and advocacy among students and tutors in selected secondary schools (private and public schools) in Delta State, Nigeria.

Current status and issues of public participation

Kenichiro Yanagi, Hironobu Asaga

This study aims at contributing to development of better public participation and consensus building by grasping the current status of the public participation in each country.

Engaging local communities in inland areas

Angelo Jonas Imperiale, Frank Vanclay

We develop an SIA approach to participation and capacity building in rural areas to address European cohesion policies at project scale, exploring SIA's role in achieving community development outcomes.

Information management for IA:

Issues on access and re-use of data and information for IA-enablers in EU legislation

Thursday 23 April | 09:00-10:30 | Affari Groundfloor

Paper Session

Chair(s): Matthew Arndt, Hugo de Groof

The 2007/2/EC INSPIRE Directive establishing an infrastructure for spatial information in Europe to support community environmental policies, and policies or activities which may have an impact on the environment, should provide the legal frameworks through which efficient measures for information access and re-use are implemented within and across country borders. What is the state of play, what are the main challenges?

The value of INSPIRE for impact assessment

Max Craglia

INSPIRE is a key infrastructure delivering data for EIAs/SEAs, reducing cost and time to access and use the data needed to support them.

Enabling INSPIRE and Sensor Web: A software tool

Cristiano Fugazza, Anna Basoni, Paola Carrara, Stefano Menegon, Paolo Tagliolato, Andrea Vianello

An enabling software suite lets environmental researchers overcome information technology (IT) challenges by easily creating their own open geospatial consortium (OGC) services for geo-data and upload dataset and metadata, in compliance with INSPIRE.

Posters are listed by general topic areas and then in numerical order.
 Use the ballot provided on page 51 to vote for your favorite poster by 11:00 on Wednesday 22 April!
 Drop off your ballot at the registration desk.

Biodiversity, ecology, and ecosystem services

Calculation of nonpoint pollution load in Korea (180)

Jae Woon Lee, Kwon Heongak, Cheon Seuk
 Nonpoint source pollution, management planning, soil and water assessment tool (SWAT).

Cost-benefit analysis of forest ecosystem services (541)

Dongkun Lee, Inhye Kong
 To compare how much payment for environmental services (PES) compensation is satisfying landowners' opportunity cost in Vietnam, we analyzed three ecosystem services from preserving forests and potential agricultural income to converting forests into croplands.

Marker Wadden (580)

Paul Eijssen
 Marker Wadden: an extraordinary bird paradise to be created with the silt from from freshwater Lake Markermeer through an innovative project for nature and technology.

Biodiversity conservation in dam development (932)

Yong-Moon Jung, Seok-Bae Bang, Sang-Chul Hwang, Sung-Oh Sa, Beong-Su Kim
 This study was carried out to review restoration attempts made to minimize ecological damage and to suggest a development model that can be used for preserving and sustaining ecological diversity.

Ecological impact assessments of weir construction (933)

Ji-Woong Choi, Young-Jin Yun, Kwang-Guk An
 Artificial weir, fishway, fish movement, fish monitoring methodologies.

Influences of water quality on fish community (958)

Ji Yoon Kim, Ji-Woong Choi, Kwang-Guk An
 Self-organizing maps (SOMs), fish community, water quality, longitudinal gradient.

Eco-health assessments using bioindicators (965)

Kwang-Guk An, Han-il Kang, Ji-Woong Choi
 Evaluation of integrative aquatic ecosystem health of an urban stream using various ecological parameters of bioindicators and biomarkers, physical habitat, and chemical water quality.

Impacts of aquatic biota in limestone mine streams (1008)

Sang-Jae Lee
 Ecosystem health was evaluated in streams influenced by drainage of limestone mines along with ecological impacts of biological taxa and water chemistry.

Port management eco-efficiency in Brazil (1166)

Sandrelly Amigo, Victor Patiri, Augusto Martini, Alessandra Jesus
 The eco-efficiency program operating at the Samarco terminal port displays environmental responsibility as a criteria for reducing potential negative impacts and producing new opportunities for the protection of sea turtles.

Data visualization

System mapping for social assessment and consultation (635)

Leticia Solaun, Rosetta Moreland
 System mapping serves as an innovative tool in social impact assessment and stakeholder engagement planning. By completing the mapping exercise, a project's impacts on social networks are identified.

ARVI tool for impact significance assessment (747)

Jyri Mustajoki, Mika Marttunen, Vesa Riekkinen
 We introduce an Excel-based "ARVI tool" for supporting the structured impact significance assessment. ARVI provides help with managing information and producing illustrative charts to present the results.

Bat3Data: The 3D automated detection of bat flight (794)

Patricia Jacotet, Hippolyte Pouchelle, Martyn Gest
 Bat3Data is a field-based technology for detecting and plotting in 3D the flight paths of bats, allowing better interpretation of the impact of infrastructure projects on bat ecology.

Ecosystem services: (AULNES) method and toolkit (801)

Nicolas Jacotet
 The Egis Ecosystem Services Toolkit, a methodology for the assessment of the impact of a project on ecosystem services throughout the lifetime of a project.

Environmental sensitivity analysis of Yaran oil field, Iran (842)

Naghmeh Mobarghei, Mitra Ghasemi, Sedighe Mousavipour
 An environmental sensitivity analysis of Yaran oil field in Iran using GIS-based environmental sensitivity index (ESI) maps.

SoftGIS for impact assessment (1124)

Ian Babelon
 SoftGIS provides a method and tools for a participative mapping of place values. SoftGIS can be integrated in impact assessment, including for assessing impacts on urban ecosystem services.

Automatic sorting of camera trapping data (1240)

Patricia Rodrigues, David Gaspar, Ana Rosa, Joao Gonçalves, Daniel Pires, Vitor Rodrigues
 The preliminary result of a method that automatically sorts photographs from camera trapping is presented. Results suggest that the time necessary to sort positive animal identifications could be greatly reduced.

Environmental impacts of e-government in Iran (1248)

Lisa Pourlak
 Digitization of data in Iran has helped in reducing ecological footprints.

Disasters, conflicts, and climate change

Building design factors for disaster prevention (125)

Seonghwan Yoon, Sukjin Jung, Seonghwa Lee, Jiyeon Kim, Dongsik Kim
 The purpose of this study was to figure out the problems and seek an improvement plan for the actual condition and recognition of an architecture disaster prevention plan.

Building damages due to natural disasters in Korea (127)

Seonghwan Yoon, Sukjin Jung, Seonghwa Lee, Jiyeon Kim, Dongsik Kim
 An analysis of types of building damage and influencing factors of regional climate change through detailed analysis of building damage.

National impact assessment of Korea by sea level rise (657)

Kwangwoo Cho, Junho Maeng, Taeyun Kim, Haemi Lee
 This study quantitatively assesses socio-economic impacts and vulnerabilities in coastal zones of South Korea and draws the adaptation measures based on the expected sea level rise under the assumption.

Do stakeholders have the same resilience strategy? (900)

Gyoungjun Ha, Kyungwan Bae, Juchul Jung, Hyungjun Park
 Evidence through a case study of differences between citizens and public officials about resilience strategies focusing on natural hazard mitigation.

Regional differences on social vulnerability index (901)

Juchul Jung, Sungho Lee, Dalbyul Lee, Gyoungjun Ha
 This study analyzed the difference in social vulnerability results according to social vulnerability index selection.

Posters

EIA

Discussion on the main issues of the island city (741)

Yurong Ouyang, Yaojian Wu, Juanjuan Dai, Shang Jiang
Island, city, the overall planning EIA, main issues, Pintan.

EIA and Bonsucro Certification in ethanol industry (890)

Davi Wilkson Furtado Sozinho, Amarilis Lucia Casteli Figueiredo Gallardo, Carla Grigoletto Duarte
This research aims to answer to what extent the requirements of EIA and Bonsucro Certification are overlapping for the sugarcane industry.

Minimizing environmental impacts with thermal power plant ash management (903)

Junho Maeng, Kwangwoo Cho, Donghwan Suh
Effective uses of coal ashes and the practice of recycling are identified in this study as effective plans to reduce the environmental impacts associated with ashes and to create a society of resource recycling.

CEAM glances at Brazil's oil and gas EIA practice (1090)

Marcelo Montaña, Vitor Calcenoni
Cumulative effects occur for oil and gas due to spatial restrictions for digging. How may Brazil's environmental institutions cope with rising effects on booming recent exploration, especially at the pre-salt layer?

How is the Brazilian EIA scoping practice? (1114)

Rossana Borioni, Amarilis Gallardo, Luis Enrique Sanchez
From ten cases related to some of the biggest infrastructure projects, this research has showed substantial differences between international best practices and the Brazilian practices of EIA scoping.

Evaluating the IA system in Western Mexico (1150)

Javier Clausen, Grace Gomez Quiroga, Rafael Chavez Garcia Silva, Alejandra Torres Rodriguez, Daniel Hernandez Martinez
Mexican EIA, the only IA tool in this country, is ineffective. An evaluation of the IA system's performance was carried out, resulting in proposals to address IA quality through a systems approach.

Comparative matrix: EIA framework in Latin America (1317)

Ruth Tiffer-Sotomayor, Ernesto Sanchez-Triana, Marcelo Acerbi, Pilar Fernandez, Katharina Siegmann, Rosario Navarro
A snapshot of the current EIA systems that have been adopted in 22 Latin American countries.

Legal framework of environmental impact assessment (1333)

Ana Luisa Gomes Lima, Bilal Rahill, Ernesto Sanchez-Triana, Santiago Enriquez, Javaid Afzal, Shakil Ferdousi
Summary of a comparative review of the main elements of environmental impact assessment systems in seven South Asian countries.

HIA

Health in IAs: An underutilized potential (456)

Julia Nowacki, Francesca Vilianni, Rainer Fehr, Marco Martuzzi
Prospective impact assessments (PIA), as established around the world, provide unique opportunities for "foresight" which should, and are, used for protecting and promoting human health; nonetheless, there is room for improvement.

Malaria dynamic in Belo Monte's dam impact area (1116)

Alexandre Wiefels, Missifany Silveira
The implementation of large projects causes impacts on the health of populations. This study notes changes in the dynamics of malaria in the impact area of the Belo Monte dam.

Improved health assessments by proxy and digital tools (1266)

Birgitta Liljedahl, Annica Waleij, Louise Simonsson, Per Wikstrom
By using proxy indicators and digital tools, e.g., satellite imagery, multivariate data analysis, and GIS to generate health exposure proxy metrics, more comprehensive assessments can be made.

Indicators, technology, and methods

Overcoming lock-in: A new tool for sustainability (774)

Amar Sjauw En Wa, Jos Arts
Practical experiences with a new tool to assess sustainability of project scopes in early planning stages and the potential for sustainable area development in overcoming lock-in.

Tool for risk management related to climate change (783)

Virginie Defromont
A presentation of methods that enhance environmental assessment by taking into account climate change, industrial risks, and ecosystem services.

Social Imprint by Egis (810)

Mireille Falque
Social Imprint by Egis: the toolbox to add social value into mining projects.

Digital technologies and New Zealand IA (867)

Richard Morgan
Slower adoption of digital technologies by competent authorities in New Zealand may be hindering more inclusive and participatory IA processes.

City resilience through the efficiency of LID (904)

Hyungjun Park, Juchul Jung, Kyungwan Bae, Saewoom Jang
This study reviews, from an urban planning point of view, the efficiency of the low impact development (LID) in preparation for damages by heavy rainfall.

A review of IA tools for CAP measures (941)

Christina Moulogianni, Thomas Bournaris
A review of impact assessment tools for common agricultural policy (CAP) measures. These tools were analyzed and classified using different criteria.

Results from LIFE+ project IMPERIA (1070)

Elisa Vallius, Mika Marttunen, Timo Karjalainen, Jyri Mustajoki
Tools, methods, good practices, and other results from a project aiming to improve the quality and effectiveness of EIA and SEA by bringing good practices and methods from multi-criteria decision analysis (MCDA).

Policy and decision-making

Capacity building in IA for Thai local governments (527)

Pornchai Sithisarankul, Sarunya Hengpraprom, Surat Bualert, Alongkorn Intharaksa
Phase 2 of a study aimed at empowering Thai local governmental authorities so that they can handle environmental issues via the processes of IA.



Canadian Environmental
Assessment Agency

Agence canadienne
d'évaluation environnementale



Importance of legalizing SEA in Jordan (931)

Dina Kisbi

The importance of performing EIAs along with demonstrating the intense need for legalizing SEA in Jordan, which can be highlighted through the delays of having wind farm projects in Jordan.

Innovative approaches to site options assessment (1177)

Mark Fessey, Barnaby Burman, Anthony Whitaker

Completed proformas (communicating the performance of a given site option) and summary tables (summarizing the performance of numerous site options), and exploring their use for consultation/engagement.

SPEAK: Sustainable planning and EA knowledge (1275)

Berit Balfors

Presentation of the SPEAK project and invitation to collaborate in order to meet the challenges of sustainable development through spatial planning and the application of EIA and SEA.

Public participation and community empowerment

EIA and citizen attitudes towards the environment (781)

Andrew Snow, Carys Jones, Adam Barker

EIA, public participation, governmentality, EIA effectiveness, power, environmental governance, environmental citizen.

Participative quality of life study (799)

Mireille Falque

The participative "quality of life study" is a tool that improves the understanding of the values held by a community. Results allow planners to co-design a project with its inhabitants.

IA-supported community-based landscape maintenance (860)

Zsolt Szilvacsku

The main aspects of becoming alive and valuable, accentuating the importance of community- and value-based landscape management with support of impact assessments.

Capacity building in EIA and HIA for a Thai community (892)

Suthat Chaithui, Pornchai Sithisarankul,

Sarunya Hengpraprom

This research examines development of the capacity building process in EIA and HIA for a Thai community so that they could solve a lack of both knowledge and community participation in legislation.

Successful community development projects (1106)

Daphne Hartney, Jimmy Mnisi

How to identify a feasible community benefit project, how to identify beneficiaries without causing friction with non-beneficiaries, and how to implement the project.

SEA

Assessment factors applicable to SEA in Korea (337)

Young Han Kwon, Jinkwan Oh

In this study, 17 assessment factors of 6 areas applicable to a policy-level SEA report were suggested to identify whether a proposed plan coincides with environmental policy in Korea.

Strategic assessment for renewable energy in South Africa (929)

Lydia Cape-Ducluzeau, Cornelius van der Westhuizen

The outputs of this study will be submitted to the Ministers for gazetting in 2015 and thereafter will form part of the new environmental impact assessment regulations of South Africa.

SEA and ecosystem services for regional planning (1055)

Daniel Rozas, Davide Geneletti, Christine

Fürst, Francisco Munoz

Identifying understanding about SEA and ecosystem services, which is currently managed by institutions with a relevant influence in the decision-making process in spatial planning.

SIA

The social impact of domestic tourism in Otematata (256)

Mike Mackay, Jude Wilson, Nick Taylor

An SIA in rural New Zealand finds that domestic tourism provides more than economic benefits. Tourist involvement in community activities keeps the town alive and the wider rural area connected.

Putting SIA to the test for responsible tourism (577)

Lucy McCombes, Frank Vanclay, Yvette Evers

Call for collaboration: Pilot study "Putting SIA to the Test as a Method for Implementing Responsible Tourism Practice" and how IAIA and responsible tourism practitioners can collaborate.

Challenging Hongsa resettlement and livelihoods (731)

Suranee Phusuwan, Sommy Xayalath

How the resettlement and livelihoods of Honsa Mine-Mouth Power Plant Project have been implemented and carried out through creating alliances among project-affected persons, government, and project developer.

WIP: Social research agenda on mining issues (989)

Mariana Lyra, Olga Seedorenko, Sarah Olivier

Call for collaboration: How is social research going to influence systemic and procedural changes across the mining industry?

Preconditions and tools for social license to mine (1171)

Tuija Mononen

Social acceptance of mining depends heavily on impacts at regional and local level. Thus, practices related to social acceptance must be approached from the view point of local preconditions.

A framework to guide SIA and social management plan (1196)

Eddie Smyth, Frank Vanclay

A new analytical framework grounded on established development theories and informed by practice to identify, measure, assess, and manage social impacts.

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Exhibit hall | Annual General Meeting

EXHIBITORS



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ERM • IAIA16 • S4Win

AFFILIATE POSTERS

Check out the posters in the entrance of the Villa to learn about these Affiliates and their latest activities!

- Iran
- Italy
- Germany
- Korea
- New Zealand
- Portugal
- Spain
- South Africa
- Zambia

Tables are provided in Salone Club for IAIA members to display information, distribute conference papers, or announce/distribute non-commercial items. Delegates must be in attendance personally 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.

Save the date : IAIA17
1-8 April 2017
Montréal (Québec, Canada)



We look forward
to welcoming you !

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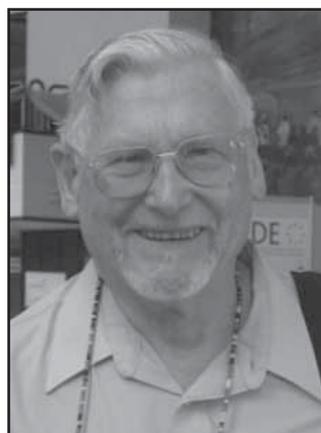
ANNUAL GENERAL MEETING

Tuesday 21 April | 12:40-13:30 | Affari Groundfloor

This is the annual business meeting of the Association. All conference participants are encouraged to attend, learn more about the operation of IAIA, and ask questions.

2015 AGM Agenda

1. Welcome, introductions and confirmation of the 2014 AGM Minutes.
2. IAIA 2014: What have we accomplished?
3. IAIA 2015: Where are we going?
4. IAIA's Financial Report
5. Presentation of the IAIA Lifetime Achievement Award and address by the recipient, Maria Partidário
6. Q&A from members
7. Commemorating Charlie Wolf, IAIA Founding Member



CHARLIE PARKER WOLF
(1933-2015)

In 1980 Charlie Wolf was one of the founding members of IAIA, together with Alan Porter and Fred Rossini. The story goes that at the end of a good Chinese dinner, Charlie opened his fortune cookie and read: "You will do well to expand your business." IAIA was born a few months later!

Charlie had since been always active within IAIA, closely following developments and progress within the organization. He served the IAIA Board from 1981 to 1983, was President from 1984 to 1987, and regularly attended IAIA conferences. Charlie received his Ph.D. in sociology from Princeton University in 1963. He taught at Brown University from 1964-1970. Among the other schools and universities where he taught was the Environmental Psychology Program at the City University of New York from 1976-79. He was also Professor of Management Science and Acting Director of Academic Planning at the Federal University of Technology, Yola, Nigeria, 1983-1984. He was among the first to use the expression "Social Impact Assessment." In 1987 he was the recipient of the IAIA Rose-Hulman award. At the time of his death he was working on a book, *Impact Assessment: State of the Art, Science and Craft*. In this book Charlie brings together forty years of experience in impact assessment to take stock of the field and looks at its beginnings, current state, and future paths.

Charlie passed away on February 5, 2015, in New York City, and leaves behind his wife Nancy Wolf and Deogratias Niyizonkiza, who joined the family in 1994.

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 11:00 on Thursday, 23 April.

Vote for your favorite poster!

Please drop off your ballot at the registration desk by 11:00 on Wednesday, 22 April.

OUTSTANDING PRESENTATIONS

Presenter's name

Presentation title

Session Date	Session Time		
Monday 20 April	11:00	14:30	16:30
Tuesday 21 April	09:00	11:00	14:30 16:30
Wednesday 22 April	09:00	11:00	14:30 16:30
Thursday 23 April	09:00		

What makes this presentation outstanding?

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What makes this presentation outstanding?

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BEST POSTER: PUBLIC CHOICE

My vote for Best Poster

Poster #: _____

PLEASE RETURN THIS BALLOT TO THE IAIA REGISTRATION DESK
BY 11:00 ON WEDNESDAY, 22 APRIL

Networking activities and events

WELCOME RECEPTION

Stroll the grounds of the venue while enjoying hors d'oeuvres and the unique setting. The IAIA15 welcome reception is an excellent opportunity to network, meet old friends and colleagues, and make new ones to get your conference off to a great start. Maggio Musicale Fiorentino will provide live brass music.

Monday 20 April | 18:15-20:15 | Congress Center Garden (Villa Passi Perduti in case of rain)

Pre-registration by 30 March required.

BANQUET

The week's work is nearly over, and the banquet is a cornerstone of the annual conference. Beyond the meal, which features Italian cuisine, live music will round off the night.

The location of the banquet, Teatro Opera, represents a wide European cultural context, planned and designed as a musical center of primary importance and absolute excellence. Spaces specifically dedicated to music define a place of great urban and landscape value, and a system of terraces and spaces link up with the urban, architectural, and visual plan of the city of Florence.

Delegates are invited to relax and exchange conference experiences with old colleagues and new acquaintances, or to take this last opportunity to meet someone you might not have a chance to see during the week.

Wednesday 22 April | 20:00-24:00 | Teatro dell'Opera (Address: Viale Fratelli Rosselli 15)

Pre-registration by 30 March required.

DINE OUTS

The tradition of dine-outs is back for IAIA15! Share an evening with your colleagues at a "pay your own way" dinner. Organizing committee members have that all-important local knowledge about where the best food and the best dining experiences can be found in Florence, and they are ready to take you to experience it!

To join, sign up on the forms posted on the message board in the Villa entrance. Dine-outs are a great opportunity to meet new people and see some different parts of the city of Florence.

Tuesday 21 April | 20:00 onward

MENTOR/BUDDY PROGRAM

This program helps students and early professionals (SEPs) and first-time conference attendees feel more comfortable and less overwhelmed with their conference experience.

The mentor is an experienced IAIA member who acts as a discussion partner for a mentee. Mentees do not shadow mentors, but rather meet at the conference to begin conversation that extends beyond the conference. Mentors and mentees with similar interests are matched wherever possible.

Matching of mentors and mentees took place prior to the conference. If you would like to be a mentor or mentee at a future conference, e-mail impact@iaia.org or notify staff at the registration desk.

Mentor/Buddy Orientation

Sunday 19 April | 17:15-17:45

Location: Check in at registration desk

FUN RUN

The Fun Run continues to grow in popularity. This is a great way to start the day and network with fellow runners. The morning run through the historic center of Florence will invigorate your mind and body and offer a chance to meet people you might not otherwise meet during formal sessions.

Everyone is welcome: runners, walkers, spectators, and volunteers.

Wednesday 22 April | 07:00-08:00

Location: Parco Delle Cascine

See the message board in the Villa entrance for more information.

Pre-registration and nominal fee (\$5) by 30 March required.

BUFFET OF IDEAS

IAIA15 continues a simple methodology introduced at IAIA09 for hosting conversation about issues of interest and concern.

The "Buffet of Ideas" is an informal networking session that provides participants the opportunity to create their own workshops in small groups over lunch.

This meeting method allows yet another opportunity for participants to network, sharing ideas on topics of interest and connecting with colleagues who have similar interests, but you might not meet during formal sessions.

At lunch on Monday, select tables will be labeled with discussion topics. Find a table with a topic you would like to discuss and have a seat. Lunch is provided, and discussion flows.

SECTION RENDEZVOUZ

Rendezvous tables will be identified at lunch times on Tuesday and Wednesday, where Sections can meet informally to continue discussions.

INDABA

IAIA provides space for impromptu discussions and "pop-up" topics in unanticipated/unscheduled areas of interest, or to carry on a discussion begun during a session.

"Indaba" or open space sessions, from a concept first introduced at IAIA95 in South Africa, will be held at the end of the day on Tuesday and Wednesday, with the

opportunity to schedule your topic throughout the day. The informality and spontaneity guarantee a lively end to each day's sessions.

To participate, write the topic you would like to discuss on the sign-up sheets in the Villa entrance, or add your name to a discussion topic already posted. In the late afternoon, a program committee member will assign rooms to selected topics. Selection is based on popularity of the topic and available rooms.

TECHNICAL VISITS

Participants must be pre-registered and pre-paid to participate. Delegates are not expected to pay tips to the servers. The tours are hosted in English. Casual clothing and walking shoes are recommended. Tours depart from the main entrance of the Firenze Fiera Conference Center (just outside from IAIA registration at Piazza Adua). Please plan to check in for the visit a minimum of 15 minutes prior to the noted departure time. Buses will not wait for latecomers. Participants will be required to sign a liability release waiver upon check-in for the visits.

JOBS BOARD

A bulletin board specifically designated for job advertisements is available in the Villa entrance. If you are looking for a job or if your company has jobs to post, post the announcement! Also see Career Central (www.iaia.org/careercentral/) before and after the conference for the latest job openings.

BOOK SHARE

Bring one or two of your favorite environmental reference books, new or recycled, as a contribution to the book share table in Salone Club. The books are available on a first-come, first-served basis to delegates who might not readily find such books in their own locales.

FREE WORKSHOP

IAIA-Italia invites you our free workshop on "New Governance Opportunity for Italian Cities" and an exhibition of local high-quality Italian food.

The event has the objective of defining the best strategies to start an innovative process of social collaboration for smart communities, where technologies and participation improve the conditions of sustainability and coexistence between people and cultures in future cities.

The event will be attended by institutions, citizens, associations, and representatives of schools who will present their experiences of governance of the territory and teaching of sustainable education. At the end of the event, there will be an open debate and discussion with delegates.

Thursday 23 April | 15:00-19:00 | Palazzo degli Affari-Conference Center Firenze

Index of presenting authors and panelists

A

Aaron Goldschmidt 44
Aaron Licker 12
Aaron Rosenberg 13
Agostino Santoni 25
Airon Zhang 43
Akira Tanaka 27, 41
Alan Ehrlich 16
Alan N. Cochran 24
Alberto Fonseca 38, 39
Aldi Muhammad Alizar 40, 46
Alexandra Jiricka 31
Alexandra Mihailescu Cichon 31
Alexandra Polido 40
Alexandre Wiefels 48
Ali Albayrak 45
Alies van Rhijn 41
Alison Mackie 24
Alison Stockwell 35
Amanda Hanson Main 38
Amanda Tapiwa Mugadza 31
Amarilis Gallardo 29
Amar Sjauw En Wa 21, 48
Ana Cerdeira 28
Ana Luisa Gomes Lima 48
Anders Ekbohm 14
Andrea Athanas 27, 33
Andrea Ceccarelli 25
Andrew Snow 49
Andy Chung 38
Angeles Mendoza Sammet 37
Angelo Jonas Imperiale 46
Angus Morrison-Saunders 45
Anibal Diaz 27
Anke Rehhausen 46
Anna Augustyn 32
Anna Furberg 42
Anna Longueville 22
Anna-Sofie Skjervedal 20
Anne-Marie Levesque 44
Anne Merrild Hansen 17
Anne Vehmas 39
Anthony Sutton 13
Antoinette Wärnbäck 22
Antoine Heuty 19
Antonella Bernasconi 15
Antonio Ledda 45
Arend Kolhoff 27
Arnold Waiswa Ayazika 37
Asha Rajvanshi 29, 40
Astrid M. Knoblauch 34
Aungkana Boonsem 20

B

Bahareh Khodaparast 43
Barry Sadler 14
Bart Koppe 35
Basilio Verduzco 17
Behzad Raissiyani 32
Ben Cave 23, 43
Beni Patel 12, 20
Ben Witchalls 12
Berit Balfors 42, 49
Bert Enserink 41
Beverley Clarke 23
Bianca Neuhold 34, 35
Birgitta Liljedahl 32, 48
Bobbi Schijf 21, 40
Bomi Kim 39
Branislava Matic 29
Brigit Staatsen 35
Bruce Munro 43

C

Carla Duarte 22, 23
Carli Steenkamp 21
Carlos Arias 15
Carlos Eduardo Caldarelli 20
Caroline Henderson 22, 34
Carol Stefan 13, 21
Carolyn Cameron 23, 39
Cecilia Kjellander 31
Ceit Wilson 43
Celesa Horvath 22, 23
Charles Hernick 20
Charles Kelly 33
Charlotta Faith-El 42
Chaunjit Chanchitpricha 35
Chen Aizhong 12
Chiara Rosnati 42
Chi Chung Chris Wong 13
Chizoba Chinweze 19, 29
Cho Nam Ng 38
Christina Moulgianni 48
Christopher Johnson 18
Christopher Ollson 36
Christopher Polglase 13, 32
Christoph Scaife 31
Claire Gronow 19
Claudia Maria Terzi 25
Claudia Valencia 21, 42
Claudio Falciano 15, 26
Cleone Botelho 15
Cristiano Fugazza 46
Cristiano Vilardo 33, 37

D

Daniela Serra 39
Daniel Rozas 49
Daniel Slunge 40
Dan Mistler 12, 20
Daphne Hartney 49
Dario Sciunnach 25
David Annandale 21
David Blatchford 21
David Burack 13, 22
Davide Geneletti 41
David Fleet 45
David Gibson 20, 34
David Jijelava 14
David Roettgen 31
Davi Rodrigues 23
Davi Wilkson Furtado Sozinho 48
Deolinda Nunes 43
Dick van Straaten 43
Dietske Bedeaux 32
Dina Kisbi 49
Dong Keun Yoon 29
Dongkun Lee 47
Douglas Mason 20, 29
Douglas Wheeler 26
Duyen Nguyen Van 29

E

Eddie Smyth 49
Edith Clarke 35
Edward Bristol-Alagbariya 38
Edwin Doeg 31
Eelco de Groot 13
Elina Baheram 22
Elisa Vallius 13, 48
Elke Nickel 27
Elsa João 21
Emanuele Bobbio 19
Emily Harris 23
Ernesto Sanchez-Triana 21, 40
Eva Mayerhofer 26
Evandro Moretto 43

F

Fabio Fregi 25
Fabrizio Sestini 25
Fang Zhao 38
Farahnaz Sabzevari 20
Fardin Alikhah 13
Felix Sternath 45
Fereshteh Mirzaei 41, 42
Fernanda Veronez 44
Fernando Rodriguez 16
Flaviano Bianchini 19
Floortje d'Hont 41
Fodil Fadli 21
Francisco Dallmeier 28
Francisco Fabbro-Neto 38
Francois Retief 21
Frank Altamirano 20

G

Gabriela Factor 41
Gabriele Buerger 22
Gael Gregoire 13
Gaetano Battistella 16
Galina Ivanova 35
Garth Thomson 22
Gary MacDonald 33
Genevieve Beaulac 34
Genevieve Hayes 26, 34
Geoffrey Mwedde 27
George Ledec 28
Georgios Phaedon Papakonstantinou 22
Gerasimos Balatsinos 29
Gernot Stoeglehner 46
Gertrude Musunka 35
Giancarlo Morandi 25
Giorgio Baldizzone 40
Giovanni Caldana 14
Giovanni Corbetta 32
Giovanni De Franchi 15
Giulianna Faria 13
Giuseppe Magro 25
Graham Watkins 26, 27
Grigore Stratulat 18
Guy Chiasson 38
G.V. Reddy 17
Gwen Brice 39
Gwen van Boven 46
Gyoungjun Ha 47

H

Hamza Butt 40
Hanna Herkkola 40, 41
Harry Spaling 38
Hefni Effendi 32
Hein van Gils 22, 26
Helen Murphy 43
Helen Nyul 27
Helen Tambolim 42
Henry Camp 37
Henry Leung 18
Hens Runhaar 24
Hermanus Prinsloo 16
Hideyuki Ito 29
Hilary Hoagland-Grey 29
Hope Herron 29
Hugo Woesthuis 18, 24
Hyungjun Park 48

I

Ian Babelon 47
Ian James 37
Ian McCubbin 16
Ijeoma Vincent Akpu 26
Ijeoma Vincent-Akpu 17
Ikuko Matsumoto 46
Ineke Steinhauer 12
Irene Burgues Arrea 27, 28
Iris van Duren 12
Irit Tamir 31
Isabela Cardoso 24
Isabel Lavadenz 46
Ishanlos Odiaua 32
Itoah Scott-Enns 37
I.U.B. Reddy 18
Ivar Lyhne 20

J

Jae Woon Lee 47
James Allan 31
Jan-Albert Wessels 33, 43
Jan de Mulder 45
Janette Hartz-Karp 21
Janis Shandro 34, 37
Jan Nuesink 18
Javid Afzal 45
Javier Clausen 46, 48
Jay Wagner 37
Jean Huges 36
Jeanne Ellis 34
Jeannette Tramhel 17
Jean-Noel Roulleau 45
Jean-Roger Mercier 12, 26
Jeffrey Barnes 23
Jeremy Ansell 31
Jessica Hughes 28, 34
Jianbiao Teng 24
Jiaying Xu 41
Jimmy Mnisi 18, 43
Jin-Young Na 41
Jiri Dusik 45
Ji-Woong Choi 47
Ji Yoon Kim 47
Ji Young Kim 14
Joao Morais Sarmiento 24
Johan Högström 42
Johan Lammerant 27
John Boyle 44
John Carstensen 46
John Devlin 39
John Fry 26
John Mackedon 13
John McCauley 45
John Sinclair 21
Jong-Gwan Jung 38
Jon Halling 17, 43
Joseph Kiesecker 20
Jose Zorrilla 37
Josh Fothergill 22, 24
Jo Treweek 41
Juan Azcarate 27
Juanjuan Dai 41
Juan Quintero 28
Juchul Jung 47
Judith Priam 18
Julian Hunt 25
Julia Nowacki 48
Julieta Matos Castano 18
Julio Jesus 22, 45
Jung Eun Kang 29
Junho Maeng 48
Justine Namara 34
Jyri Mustajoki 23, 47

Index of presenting authors and panelists

K

Kalle Reinikainen 46
Karl Fuller 23
Katia Garcia 29
Katie Hirono 35, 39
Kenichiro Yanagi 46
Kevin Hanna 38
Kevin House 32
Kieren Moffat 19
Kiichiro Hayashi 27, 40
Kin Che Lam 16
Kittiphong Songrukkiat 32
Kojo Agbenor-Efunam 37
Kongjang Cho 18
Kristina Lundberg 42
Kultip Suwanteep, 41
Kwang-Guk An 47
Kwangwoo Cho 47
Kyla Jacobsen 24
Kyle Knopff 23, 26

L

Lachlan Wilkinson 13
Laila Wijaya 32
Laura Verdier 42
Leanne Farrell 27
Leila Neimane 12, 45
Lendzemo Larissa Takwa 39
Leonardo Marotta 16, 39
Leticia Solaun 47
Lidewij van der Ploeg 31
Lindsay McCallum 34
Lisa Friederike Odparlik 38
Lisa Pourlak 47
Liz Green 23, 34
Lloyd Lipsett 31
Loes Geelen 36
Lone Kørnøv 45
Louise Emond 14
Lucy McCombes 49
Luis Sanchez 18, 46
Luke Sandham 22
Lydia Cape-Ducluzeau 42, 49
Lydia Lamorgese 21

M

Makoto Ooba 40
Mandar Parasnis 24
Marc Blanche 19
Marc Dunn 37
Marcelo Montaña 48
Marco Rusmini 21
Marco Sumini 12
Marcus Ip 29
Margaret Douglas 35
Margaret Wachenfeld 31
Margarida Monteiro 43, 45
Margriet Hartman 41
Mariana Lyra 49
Maria Partidario 13, 45
Maria Silvia Romitelli 12
Marie Hanusch 45
Marie-José Fortin 38
Mari Kågström 36
Marina Montes Bastos 14
Marinella Natali 20
Mario Gauthier 38
Mark Divall 34, 35
Mark Fessey 42, 49
Mark Jackson 24

Mark Liskowich 16
Mark Shea 21
Markus Gunther 23
Markus Leitner 31
Marla Orenstein 22, 24
Martin Birley 36
Martin Lednor 15
Maryam Najibi Rabiei 39
Matthew Cashmore 22
Mauricio Athie 29
Max Craglia 46
Mervyn Mason 20, 26
Meshach Ojile 20
Michael Clarke 29, 42
Michael Kent 39
Michael Steyn 18
Michele Fulcher 32, 37
Miguel A. Casermeiro 29
Miguel Coutinho 21, 24, 25
Mike Mackay 49
Miles Scott-Brown 24
Mireille Falque 48, 49
Mirko Palmesi 18
Mohamed Hasan Isa 24
Mojca Golobic 20, 28
Morten Bidstrup 23
Mutasem El Fadel 40
Mutasem El-Fadel 42
Myungjin Kim 40

N

Naghme Mobarghei 41, 47
Naja Marot 46
Naoki Kakioka 41
Naushad Tahsildar 12, 26
Nay Aye 38
Neil Cochrane 19
Nicholas King 16, 27
Nick Taylor 39
Nicolas Jacotet 47
Nicolas Jacotot 41
Ning Yang 23, 40
Nonita Yap 16
Nunu Pesu 27
Nunzia Linzalone 20, 34

O

Ouyang Yurong 40
Oyunaa Lkhagvasuren 41

P

Pamela Gunther 26, 27
Paola Ceoloni 45
Paola Gazzola 14
Paritosh Deshpande 40
Patricia Jacotet 47
Patricia McCormack 37
Patricia Rodrigues 47
Patrick Duffy 26
Patrick Gregoire 19
Paul Baggaley 32
Paul Eijssen 47
Paul R. Krause 34
Paul Sage 44
Paul Wheelhouse 32
Pedro Bettencourt 13, 22
Peter Barss 35
Peter Croal 16, 37
Peter Moore 26
Peter Nelson 27, 31
Peter Tarr 21

Phil Case 31
Philip Byer 16
Philippe Hanna 37
Phongtape Wiwatanadate 35
Pietro Bartolini 25
Pornchai Sithisarankul 48
Prince Mmom 18

R

Rachel Morrison 27
Ralf Aschemann 40
Ralph Bergmüller 46
Randall Krichbaum 34
Ranita Sandi-Koroma 43
Ran Li 13
Rasmus Klocker Larsen 36
Richard Cheung 41
Richard Grasseti 20
Richard Morgan 48
Rikke Carlsen 43
Rina Kupferschmid 31
Rita Cestti 29
Roberto Filipelli 25
Robin Lattimer 39
Robin Mitchell 31
Rob Verheem 14, 38
Rodrigo Campos 33
Ronni L. Wilcock 16
Rosalinde Van der Vlies 45
Rossana Borioni 48
Ross Marshall 41
Ross Mitchell 18, 43
Roula El Cheikh 38
Rufus Howard 24
Russell Foxwell 24
Ruth Thomas, 26
Ruth Tiffer-Sotomayor 48
Ryan Barry 18
Ryo Tajima 32

S

Sachihiko Harashina 22, 40
Salim Vohra 35
Samantha Arnold 29
Samir Whitaker 27
Samuel Hayes 21, 42
Sanaz Sanaye Goldouz 24
Sandra Kainz 22
Sandra Martinez 28
Sandrelly Amigo 47
Sang Hee Lee 40
Sang-Jae Lee 47
Sanne Vammen Larsen 28
Santiago Enriquez 14, 42
Sara Bice 13
Sara Bjorn Aaen 39
Sarah Hartsig 35
Sara Khoshkar 43
Sebastien Essaye 43
Seonghwan Yoon 47
Shahila Perumalpillai 31
Shigeo Nishikizawa 34
Shirley Lee 33
Sigurd Juel Kinn 46
Silas Agaja 46
Simone Miraglia 20, 35
Sirje Padam 42
Sophie Grinnell 16
Stefano Masini 25
Stephanie Sangalang 32
Steve Bonnell 19, 42

Steve Gibbons 31
Steven Vella 17, 38
Sunrita Sarkar 18
Suranee Phusuwan 49
Suthat Chaitui 49
Suzi Coey 26
Sverker Molander 33
Svetla Petrova 39

T

Taejung Kwon 29
Taeyun Kim 40
Takehiko Murayama 32
Tamara Hochstrasser 19
Tara Muthoora 39
Terje Lind 40
Thomas Fischer 21, 23
Tiit Oidjärv 42
Timothy J. Peirson-Smith 39
Tjark Huisman 13
Tom Streater 12
Tuija Mononen 49
Tung-shing So 13

U

Ulla Mortberg 12, 20
Ulrich Scheffler 27
Urmila Jha-Thakur 45

V

Verawati Corte Real de Oliveira 37
Victoria Cooper 32
Victoria Gartman 34
Vigya Sharma 43
Vincent Onyango 14, 35
Vincent Roquet 32
Vinod Mathur 26
Virginie Defromont 29, 48

W

Wang Yanan 42
Wanli Shi 18
Weston Fisher 16
Willemijn Smal 26
Will Rifkin 19, 20
Wisa Supanpaiboon 46
Worawut Hamarn 14

X

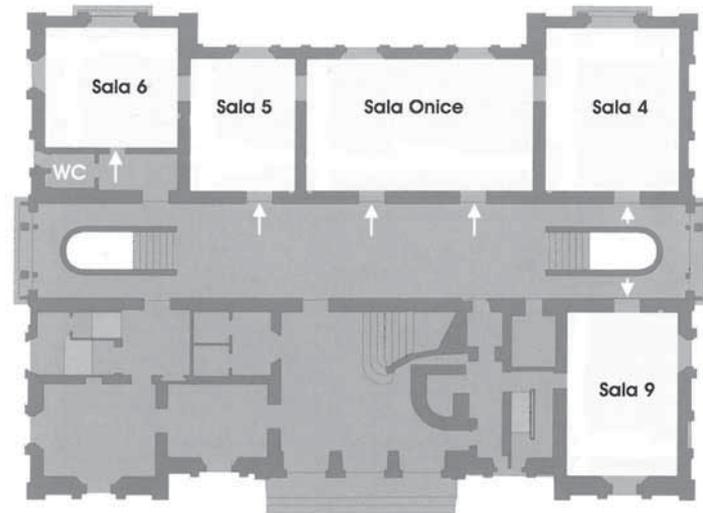
Xianglan Yu 29
Ximena Herbas 15

Y

Yong-Moon Jung 47
Yongwon Mo 40
Young Han Kwon 49
Yuan Xu 33
Yuan Zhu 14
Yuki Shibata 41
Yurong Ouyang 48

Z

Zsolt Szilvacsku 43, 49
Zsuzsa Banhalmi-Zakar 42



Villa Groundfloor

Villa Vittoria

Groundfloor: Rooms 4, 5, 6, 9, Onice
 First Floor: Rooms 101, 104, 105, 106
 Second Floor: Rooms 202, 203, Verde
 Auditorium
 Passi Perduti

Affari

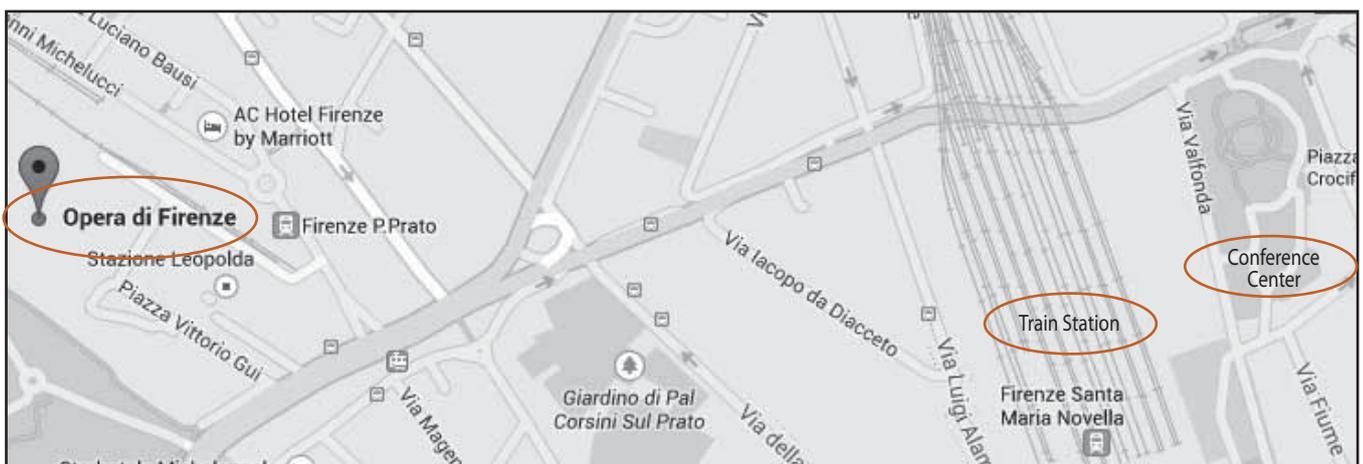
Groundfloor
 Second Floor
 Fourth Floor
 Adua 1
 Adua 2



Villa First Floor



Villa Second Floor



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