International Association for Impact Assessment

# An Introduction to the Circular Economy for Impact Assessment Professionals

Impact assessment has an important role to play in driving circular economy considerations into projects, plans, and programs in all nations.


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The circular economy is a new way to design, make, and use things within environmental limits, moving away from our current linear approach of "take-make-use-waste" and its global to local damaging consequences. Transitioning from our current unsustainable and predominantly linear economic approach to a circular economy requires changes in mindsets and activities at all scales across the globe. It includes reducing the need for materials, designing out pollution and waste, and keeping products and materials in use, while also regenerating nature and using renewable energy. This shift has already begun and involves everyone including businesses, governments, financial institutions, individuals, and yes—impact assessment (IA) professionals.

While its origins arise from concepts such as industrial symbiosis[1], the circular economy is becoming recognized as a key driver to both enable sustainable development and provide a positive vision of a future where humanity thrives and its actions actively support natural systems.

The circular economy goes well beyond current concepts of waste management and recycling, to seek to replicate the efficiency and reuse of resources inherent within undisturbed natural systems. Actions to progress towards circularity within the way we live, work, and sustain ourselves and the planet provide a means to address global climate and biodiversity crises, and to progress the 2030 sustainable development goals (SDGs)[2] and the sustainable development agenda, including the net zero carbon target, as a whole.

IA professionals must recognize that the circular economy is not a new "territory" but is a growing component of the global shift in the way governments, organizations, institutions, and people perceive their relationship to nature. Many existing IA practices have the potential to aid this shift, for example, influencing plan and project design for better environmental and social outcomes, considering indirect effects, and undertaking engagement to drive partnership solutions.

IA, however, will also need to evolve. The adoption of new approaches—in particular adopting systems thinking related to material sourcing and potential opportunities for reuse—will be essential to link IA and a circular economy. We must therefore consider how we can develop IA practices to help enable circular economy progress.

To play our role in the shift to a circular economy, IA professionals need to engage with, listen to, and learn from those working in this field (see "further reading" for examples). In addition, we have a proactive role to play in using our skills, existing IA approaches and legislation to help those we work with identify and understand circular economy opportunities. As such, IA has an important role to play in driving circular economy considerations into projects, plans, and programs in all nations.

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1 A relationship between two+ organizations where by-products from one become raw materials for the other.

2 See IAIA FasTips 19: Impact Assessment and the Sustainable Development Goals (SDGs) [May 2019]

Want to know more?
www.iaia.org > Resources > Publications > FasTips

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## FIVE IMPORTANT THINGS TO KNOW

1. The circular economy seeks to transform our current linear economy into one that maintains materials within the system and restores the environment, using renewable energy.
2. Transitioning to circularity will require significant changes across policies, plans and projects—minimizing natural resource use and treating waste as a resource—requiring greater collaboration between professions, broader engagement, and enhanced partnership working.
3. IA skills and experience combined with other approaches (lifecycle thinking, business model development tools) can play a key role in progressing circular economy initiatives.
4. IA thinking and tools can be used to assess whether circular economy proposals help deliver sustainable development, a clear role being the identification and avoidance/mitigation of unintended environmental and social consequences.
5. IA's consideration of the circular economy must be comprehensively applied and avoid being limited only to plans or projects related to the extractive industries and waste management.

## FIVE IMPORTANT THINGS TO DO

1. Impact assessors should improve their understanding of the circular economy so they can raise relevant circularity opportunities and apply circular economy principles within the development of policies, plans, and projects.
2. Strategic environmental assessment provides IA with great opportunities to enable circularity progress, through the greater systemic influence that plan-making can achieve.
3. IA professionals may need to justify why assessing the circular economy implications of a proposal or plan is important. Basing this on its relationship with existing IA topics is a good starting point (waste, materials, natural resources).
4. Assessing circular economy risks and opportunities may require IA to move away from traditional significance evaluation to consider instead whether a proposed action enables or disables progress toward circularity.
5. To successfully assess a plan or project's circular economy effects, IA practices will need to apply systems thinking, including more consideration of transboundary impacts related to material flows along anticipated value chains.

## EXAMPLES

- **Denmark:** A local authority and private enterprises came together to develop the GreenLab green industrial park as an example of industrial symbiosis. The Danish Centre for Environmental Assessment (DCEA) worked with the authority on the Strategic Environmental Assessment of the spatial plan, master plan and stakeholder engagement including applying a lifecycle screening within the assessment. (See https://www.greenlab.dk for further details.)
- **World Health Organization:** While oriented toward health, the report is of value for all professionals seeking to better understand the links between IA and the circular economy. The study applied Health Impact Assessment (HIA) approaches to identify the likely health impacts of a circular economy. This work seeks to encourage the inclusion of positive and negative health effects in circular economy policy debates. The report provides approaches and resources for HIA, analysis, prioritized policy recommendations for use in circular economy initiatives. (Accessible at https://www.euro.who.int/en/health-topics/environment-and-health/health-impact-assessment/publications/2019/assessing-the-health-impacts-of-a-circular-economy-2019)

## FURTHER READING


World Bank open-learning-campus video modules on the Circular Economy: https://olc.worldbank.org/content/circular-economy

Yijun, Ying & Xuhong, 2011. Applying Circular Economy Theory in Environmental Impact Assessment International Conference on Biology, Environment and Chemistry Vol.1. http://www.ipcbee.com/vol1/107-Z00405.pdf

The Circular Economy and Impact Assessment – A Primer. Funded in part by an IAIA Innovation Grant. www.fothergilltc.com/CEandIA.

Applying Circular Economy in Policymaking, Ellen MacArthur Foundation CE toolkit. https://www.ellenmacarthurfoundation.org/resources/apply/toolkit-for-policymakers

Applying Circular Economy at the City Scale, zero waste cities initiative and examples. https://zerowasteworld.org/how-does-it-work/

Apply Circular Economy to Finance, guidelines project led by ABN AMRO, ING, RABOBANK (2018). http://fintecc.ebrd.com/insight/insight-circular-economy-finance-guidelines