Distilling Best Practice Principles for Public Participation in Impact Assessment Follow-Up

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ABSTRACT
Building upon principles for public engagement and for impact assessment (IA) follow-up, this paper distils best practice principles specific to public participation in IA follow-up. Literature review, followed by a simple survey distributed to IA follow-up and/or public engagement practitioners helped identify key principles and related published sources. Twelve principles for public participation in IA follow-up are presented, which relate to: (1) mandatory public reporting, (2) ease of access to published material, (3) full transparency, (4) clarity about the IA follow-up process, (5) input to decision-making, (6) continuous access to IA follow-up activities and feedback, (7) independent verification, (8) two-way communication, (9) partnerships, (10) Indigenous inclusion, (11) participatory monitoring, and (12) involvement in adaptive management. They form a ladder of public engagement; the initial principles pertain mainly to information provision, with increasing levels of participation and legitimacy inherent in the latter principles. The principles are intended to provide a foundation for practitioners and community members involved in IA follow-up to enhance practice at all stages of the development life-cycle, helping to achieve sustainable development.

Keywords: public participation, stakeholder engagement, impact assessment follow-up, monitoring, auditing, evaluation, governance, adaptive management

1. Introduction

There are well established best practice principles for public participation in impact assessment (IA) (e.g., André et al., 2006), and for IA follow-up (e.g., Marshall et al., 2005; Morrison-Saunders et al., 2007; 2021; Arts and Morrison-Saunders, 2022) and both of these components of IA are identified in the broader best practice principles of IAIA and IEA (1999). In the context of IA, public participation is defined by André et al. (2006, p1) as "the involvement of individuals and groups that are positively or negatively affected by a proposed intervention (e.g., a project, a program, a plan, a policy) subject to a decision-making process or are interested in it", while follow-up is defined in Morrison-Saunders and Arts (2021, p2) in terms of "understanding the outcomes of development projects or plans subject to impact assessment". Both of these components of IA can be seen to be vital in regard to determining the effectiveness and legitimacy of IA processes and ensuring sustainable development outcomes are achieved (e.g., Arts et al., 2001; Pope et al., 2018; Morrison-Saunders et al., 2021). The purpose of this paper is to build on this existing work to establish a set of best practice principles for public participation in IA follow-up (Figure 1).

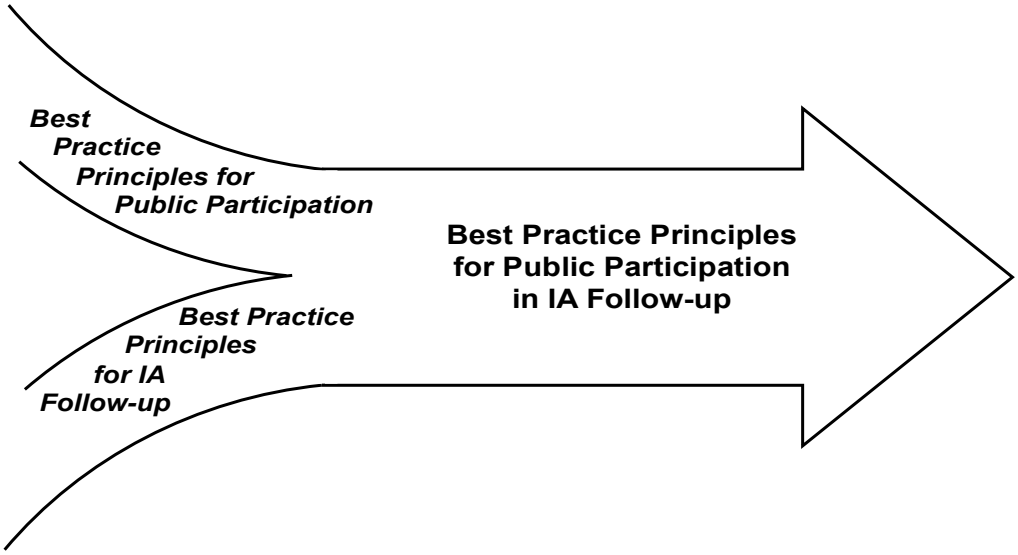

Figure 1: **Distilling best practice principles for public participation in IA follow-up.**

Given that follow-up is an intrinsic part of best practice IA operations (IAIA and IEA, 1999, p3), the core basic principle of being "participative" implicitly applies to IA follow-up as much as to other steps of an IA process. Similarly, it would be possible to extend or extrapolate any of the well-established principles and practices for effective public participation in IA (e.g., Andre et al., 2006; Stewart and Sinclair, 2007; Burdett and Sinclair, forthcoming) to incorporate IA follow-up. While this approach has influenced our research, we have essentially adopted the opposite perspective, i.e. to identify specific IA follow-up activities and then consider how best practice public participation might be best applied to those activities. In this regard, we acknowledge the point made by Andre et al. (2006, p1) that "different levels of PP [public participation] may be relevant to different phases of an IA process" noting that they specifically draw attention to "monitoring and follow-up" (p1) as one of these phases.

We recognise that what constitutes best practice in IA is context-specific (Morgan, 2017) and that "good and best practice changes over time" (Vanclay et al., 2015, p62); thus, any set of principles serve as high level aspirations rather than prescriptions for practice. We also acknowledge that the volume of literature devoted to public participation and to IA follow-up singularly is considerable. Our emphasis here is on those writings that address both components of IA to ensure the relevance of findings for public participation in IA follow-up. Our approach here is to be succinct in distilling and explaining best practices for effectively engaging with the public in IA follow-up; a more extensive foundational account is provided in Morrison-Saunders and Arts (forthcoming).

In the only work we are aware of that specifically discusses public participation in IA follow-up as the primary focus, Grima (1997, p43) wrote that "from the perspective of public participation, it is essential that the follow-up should be done transparently for the public and with the public". Subsequently, the author advocated the establishment of an IA follow-up guide for each project undergoing assessment, which would specify that:

- all stakeholders be included;

- a process for retrospective review of the efficiency and effectiveness of earlier public participation in the IA process should be provided;
- arrangements should be flexible to allow for participation at different times of the day or week (i.e., not only during normal work hours); and
- a variety of engagement techniques should be employed according to need – e.g., advisory committees for issues requiring long time commitments and public meetings or open houses for information exchange purposes.

We note that these suggestions are not specific to IA follow-up activities and resonate with public participation principles more generally (such as those found in Andre et al., 2006). These suggestions also appear or are implicitly included within content later in this paper.

There is brief mention of public participation in the original suite of IA follow-up principles and recent revisions. This includes the principle established in Marshall et al. (2005, p179) and Morrison-Saunders et al. (2007, p3) that "the community should be involved in EIA follow-up", with both sources further explaining that the minimum position is to keep the affected community informed about IA follow-up activities, but emphasising the desirability of "active community involvement in EIA follow-up including sharing of special local knowledge, focussed program design, building trust and partnerships" (Morrison-Saunders et al., 2007, p.3). Furthermore, both documents draw attention to the notion of 3rd party IA follow-up which was first mooted in Morrison-Saunders et al., (2003, p45) as "follow-up activities carried out or initiated by the community". In the recently revised IA follow-up best practice principles, "engagement and communication with stakeholders" (Morrison-Saunders and Arts, 2021, p3; Arts and Morrison-Saunders, 2022, p1) is identified as a key component of effective IA follow-up.

We acknowledge the relevance of the material included in the established public participation and IA follow-up principles to our work here. Rather than simply duplicate such content, we seek to tease out principles specific to public participation in IA follow-up activities. In the next section, we outline our research methods. Section 3 provides our results in the form of 12 best practice principles for practitioners to aspire to. Each of these is then explained more fully in Section 4 and discussed in relation to the literature. In Section 5 we provide some reflections on the suite of principles and conclude in Section 6 with some suggestions on how practitioners might make use of the principles.

2. Methods

Our research commenced with a review of both academic and grey literature (such as guidelines, guidance reports, evaluation reports and case study documents from practice). We first reviewed established works addressing best practice principles for IA (such as those introduced in the previous section). Next, we targeted literature specific to IA follow-up, specifically seeking discussion of the role of public participation and associated synonymous keywords (e.g., stakeholder, engagement, community, Indigenous/first nations) in this regard. These searches were conducted using both the Scopus database and Google Scholar. We also sought assistance from international IA practitioners to identify key works including case study documents from their own practice through a simple survey instrument.

Two main questions were posed in the survey:

1) what do you consider are best practices for public participation in IA follow-up?; and,
2) please provide references and/or web links to examples of good practices of public participation in IA follow-up (available in English).

To guide answers to these questions, we provided a series of prompting points for each. For the first question we drew attention to key points in the life cycle of IA where follow-up considerations might be especially relevant (e.g., screening/scoping, approval decision, as well as the construction, implementation, operation and decommissioning phases) to tease out particular follow-up considerations that may apply in each step. For the second question, our prompts drew attention to the full spectrum of potential source material (including project case study documents, IA legislation or procedural guidance, and academic or grey literature publications).

We emailed our survey (in mid 2021) to around 70 individuals sourced from authorship of recent works on public participation in IA (e.g., the group of authors contributing to a *Public Participation in Impact Assessment Handbook* that was in preparation at the time of the research) and on IA follow-up (e.g., authors cited within our recent reviews of international practice – Pinto et al., 2019; Morrison-Saunders et al., 2021). There was an element of snowballing (Fricker, 2008) in our approach as survey respondents were encouraged to provide us with additional contacts or simply to forward our questions to other practitioners. Ethics approval was obtained from the university of the lead author for the survey with consent forms issued to participants along with a guarantee of anonymity. Our survey generated 23 substantive responses, representing over 30 individuals as sometimes groups of colleagues sent us a collective response. There was considerable variation in the responses received, sometimes just a sentence or two, or a list of key points, or a referral to a specific document, website or another practitioner to contact, and sometimes several pages of text with numerous publication references provided. Ultimately our literature review was usefully expanded in this way.

Principles were distilled through a process of coding of a combination of literature and survey responses, following Mayring (2014). Initially this utilised a deductive approach to highlight any text related to follow-up processes or public participation processes, and then was followed by inductive category formation to develop relevant principles for public participation in IA. Ultimately, the principles were developed based on the interpretation of the authors following systematic coding of the evidence-base gathered.

In the account of our research findings that follows, we have biased our discussion to published sources (i.e., for the benefit of readers wishing to track down this material for themselves). However, we have included some examples of original responses received to our first survey question. A more elaborated discussion of survey responses along with examples from the grey literature and actual IA practice and grey literatures provided by respondents in the survey can be found in Morrison-Saunders and Arts (forthcoming). Finally, we have also included our own views drawn from our own IA experiences or reflections on theory and practice, thus reflexivity (Pillow, 2003) was also a component of our research methods.

3. Results

From our literature review and survey responses, we derived 12 best practice principles for public participation in IA follow-up (Box 1). As will be further clarified in the discussion that follows, the set of principles approximately conforms with the notion of a ladder, or spectrum, of public participation (e.g., Arnstein, 1969; Edelenbos and Klijn, 2006; IAP2, 2018) as depicted in Figure 2. The principles build on each other representing a continuum or spectrum. The principles early in the list represent relatively passive forms of engagement associated with 'informing' the public while those in the middle and towards the end reflect notions of 'consultation' and 'empowering' respectively. Likewise, the earlier principles represent basic approaches to IA follow-up (e.g., such as the disclosure of monitoring results and other IA follow-up program information by proponents or regulators) relative to more 'advanced' practices involving partnerships and collaboration between stakeholders to carry out follow-up.

Box 1: Best Practice Principles for Public Participation in IA Follow-Up

Effective public participation in IA follow-up is accomplished where there is:
(i) mandatory public reporting of IA follow-up activity;
(ii) ease of access to published material;
(iii) full transparency in regard to effective communication and ease of comprehension of the content of IA follow-up documentation;
(iv) clarity about the IA follow-up process itself including governance of IA follow-up and processes for participation;
(v) opportunity for the public to input to IA follow-up decision-making;
(vi) continuous access to IA follow-up activities and outputs, including associated opportunity for public feedback or input;
(vii) inclusion of some form of independent verification of IA follow-up activity;
(viii) two-way flow of communication between stakeholders involved in follow-up;
(ix) establishment of partnerships between proponents, regulators and the community;
(x) inclusion of Indigenous values, knowledge systems and worldviews in the design and implementation of IA follow-up programs;
(xi) participatory monitoring; and
(xii) involvement of community in adaptive management and decision making regarding the activity as well as the community and its environment.

Figure 2: Ladder of best practice principles for public participation in IA follow-up.

4. Discussion

We discuss each of the 12 principles in turn, drawing on key literature but not attempting to provide an exhaustive list of relevant sources related to each principle. Each of the principles articulated in Box 1 is abbreviated in the section headings that follow. We end this section with some reflections and discussion of the set of principles as a whole.

4.1 Mandatory public reporting

Mandatory public reporting of IA follow-up activity is consistent with the long-standing best practice principle of *transparency* in IA generally (IAIA & IES, 1999), as well as in follow-up specifically (Marshall et al., 2005; Morrison-Saunders et al., 2021; Arts and Morrison-Saunders, 2022). As part of "open and regular reporting" (Glasson, 1994, p410), stakeholders should be informed of IA follow-up activities, outcomes realised and the governance arrangements in place (Pinto et al., 2019; Fitzpatrick and Williams, 2020; Morrison-Saunders et al., 2021). This will include the outcomes of any enforcement activity implemented. Specifications for public reporting may form part of IA regulations or be included in the conditions of approval served on proponents when their development activities are authorised by regulators.

4.2 Ease of access to published material

Ease of access to published IA follow-up material refers to both physical and mental accessibility; the focus of this principle is on the former. There have long been calls for the establishment of a single and comprehensive central public register for IA follow-up on a

jurisdictional basis (e.g., Greene et al., 1987; Arts, 1998; Gachechiladze-Bozhesku, 2012; Olsynski, 2021), something that should be relatively simple to achieve through online libraries or databases, but which seems to be rare in practice according to several of our survey respondents. While original data – such as that collected through IA monitoring programs – may be an important resource in its own right, it is important to avoid creating "data dumps – i.e. data rich but information poor" (Noble, 2020, p44). This highlights the importance of "auditing" (e.g., Glasson, 1994, p310; 2022) and of the "evaluation" aspect of best practice IA follow-up (Arts et al., 2001, p177; Marshall et al., 2005, p176), whereby the results of monitoring programs are evaluated for the degree of conformance with any relevant standards, impact predictions or expectations for environmental or sustainability performance.

4.3 Full transparency: communication and comprehension

Full transparency with regard to effective communication and ease of comprehension of the content of IA follow-up documentation is essential if learning is to occur for proponents and the wider public alike (e.g., Carley, 1986; Grima, 1997; Gachechiladze-Bozhesku, 2012; McKay and Johnson, 2017). The relevance of this is underscored by a point made by the United Nations Economic Commission for Europe (UNECE, 1990) that a knowledgeable public can help in disseminating information, which in turn can contribute to better management outcomes. Conversely, poor communication in IA follow-up can alienate the public (Fitzpatrick and Williams, 2020) rather than empower them. We further argue that full transparency of information and learning from follow-up will be important if tiering between different levels of application of impact assessment (i.e., between policies, plans, programmes and projects) is to be accomplished as envisioned in various studies (e.g., Partidario and Arts, 2005; Arts et al., 2011; Thérivel and González Del Campo, 2019).

More generally, the effectiveness of communication and ease of comprehension of IA follow-up is often identified as an important element both for ensuring trust between the public and proponents or regulators, and for the legitimacy of IA processes and public support for development implementation (e.g., Grima, 1997; Arts and Nooteboom, 1999; Hunsberger et al., 2005; McKay and Johnson, 2017; Fitzpatrick and Williams, 2020; Olszynski, 2021). Providing plain language IA follow-up reporting is one approach advocated by the International Finance Corporation (IFC) and by On Common Ground (2010) and demonstrated in the example of the Independent Environmental Monitoring Agency established for the Ekati Diamond Mine project in Canada (IEMA, 2020). Translation into other languages may also be necessary for multi-cultural communities. Another frequently discussed issue in the literature is the need to provide appropriate capacity building or training for the public to ensure that they understand the content of IA follow-up programs and are equipped with the necessary skills to participate (e.g., DEAT, 2005; Noble, 2020; IFC and On Common Ground, 2010).

4.4 Clarity about the IA follow-up process

Clarity about the IA follow-up process itself, including the governance arrangements for IA follow-up and the processes for participation, is essential (Pinto et al., 2019; Morrison-Saunders et al., 2021). People have a right to know how IA follow-up is to be conducted, and such clarity of process will also reveal the arrangements for public participation. It is noted however, that some information related to IA follow-up may be confidential (Olszynski,

2021), i.e. commercially sensitive or pertaining to traditional knowledge held only by certain members of Indigenous communities.

While IA regulations and procedures may establish standard procedures for IA follow-up governance that may serve to provide a degree of clarity, complexities may arise over time as circumstances change for proponents, regulators and communities. For example, proponents may engage different consultants or sub-contractors to carry out follow-up work during implementation of development than those initially involved in baseline monitoring and other pre-approval stage roles, resulting in discontinuity in methods or approaches. Projects may be sold, or proponent companies (or their consultants) taken over by another organisation, leading to changes in internal management structures and procedures. Regulators may also change: for instance, we have witnessed many re-arrangements of government structures in our respective home jurisdictions following elections and changes of the ruling party in power. Such change can be confusing for the public with respect to understanding responsibilities and roles for IA follow-up over time. Furthermore, communities themselves also change over time, meaning that those individuals and groups originally consulted during the pre-approval stages of IA may no longer be present once development is under construction and operation. Communities may change in the proximity of new development activity through processes of self-selection. For example, Nijland et al. (2007) and Hamersma et al. (2017) give accounts for road projects where new residents move into the area specifically to live near recently constructed highways, while others present before construction choose to move away. Other community changes may be unrelated to the development activity, but nevertheless need to be accommodated within IA follow-up arrangements (Greene et al., 1987).

4.5 Input to decision-making

Opportunity for the public to provide input to IA follow-up decision-making is necessary. At a minimum, this would entail the publication of documents (e.g., during the pre-approval stages of IA before follow-up arrangements are finalised) and receipt of written submissions from stakeholders. This can be seen as an existing component of procedural fairness or natural justice already captured in expectations for public participation more generally, for example the Aarhus *Convention on Access to Information, Public Participation and Access to Justice in Environmental Matters* 1998 (https://unece.org/environment-policy/public-participation/aarhus-convention/text). However, Fitzpatrick and Williams (2020) and Olszynski (2021) both draw attention to processes and procedures for adaptive management, as examples of aspects of IA follow-up for which public input is an essential consideration while McKay and Johnson (2017, p20) identify the "ability to inform decision-making" as a key component of community-based monitoring processes.

4.6 Continuous access

Continuous access to IA follow-up activities and outputs, including associated opportunity for public feedback or input has long been identified as important practice. For example, Hollick (1981, p215) argued that "public participation should continue throughout the implementation, monitoring and reassessment phases of a project", Au and Hui (2004, p208) advocated for "continuous public involvement" in IA follow-up that can be achieved at least in part through online access to information and programs, while Devlin and Tubino (2012, p112) called for "persistent community over-sight". A related process that is widely

and commonly advocated in the literature is for proponents and regulators to provide a complaints register (e.g., Arts, 1998; Au and Hui, 2004; IFC and On Common Ground, 2010; Vanclay et al., 2015). Arts and Nooteboom (1999, p230) identified complaints as a type of "effects monitoring", while similarly Pinto et al (2019, p11) considered public complaints to serve as "form of supplementary monitoring" to the formal follow-up work of proponents. The Hong Kong Environmental Monitoring & Auditing (EM&A) system allows for the public to make complaints and each complaint has to be investigated according to an approved EM&A Manual associated with the EIA approval (see Glasson and Therivel, 2019, and https://www.epd.gov.hk/eia/).

4.7 Independent verification

Inclusion of some form of independent verification of IA follow-up activity is important for legitimacy reasons to build or gain the trust of the public (e.g., Arts et al., 2001; DEAT, 2005; IFC, 2007; Gachechiladze-Bozhesku, 2012; Vanclay et al., 2015). Over half of our survey respondents raised this topic, making it one of the most consistently mentioned in this regard. Beyond verification functions, active engagement with the public is also identified as an important role of such independent parties in IA follow-up, including the coordination of public involvement in monitoring and other follow-up activities (e.g., Greene et al., 1987; Ross, 2004; Wessels and Morrison-Saunders, 2015).

4.8 Two-way communication

Two-way flow of communication between stakeholders involved in follow-up is needed if programs are to be truly responsive and adaptive to the needs of all involved (e.g., Fitzpatrick and Williams 2020). Good practice IA follow-up in this regard must extend beyond reporting and informing with receipt of written submissions from stakeholders, to embrace active and ongoing discussion and dialogue between proponents, regulators and the community (e.g., Marshal et al., 2005, Vanclay et al., 2015; IFC and On Common Ground, 2010). For the public, such two-way communication represents an important shift along the spectrum of public participation. From a proponent or regulator perspective, engagement with the public can be viewed as part of business strategy to ensure good working relations with the community are attained (Marshall and Morrison-Saunders, 2003) and to enable them to "stay in control of 'third party' engagement" (IFC, 2007, p106); genuine engagement and two-way flow of communication regarding all aspects of IA follow-up will be essential in this regard.

4.9 Partnerships

Establishment of partnerships between proponents, regulators and the community involved in IA follow-up is frequently mentioned in the literature in terms of good practice (e.g., Hulett and Diab, 2002; Hunsberger et al., 2005; Marshall et al., 2005; Morrison-Saunders and Arts, 2005; O'Faircheallaigh, 2007; Vanclay et al., 2015; McKay & Johnson, 2017). More advanced than two-way flow of communication between stakeholders, here members of the public are joint participants in IA follow-up along with experts representing proponents or regulators. Some independent checker organisations comprise community and industry representatives alike (e.g., Ross, 2004; Gachechiladze-Bozeshku, 2012). The benefits of a partnership approach to IA follow-up include "improved sharing and updating of monitoring results in management and decision making" (Noble, 2020, p42) and empowerment of local people "to become involved in effective management procedures, thereby promoting sound

and environmentally sustainable operations" (Hulett and Diab, 2002, pp304-305). Partnerships are particularly emphasised where Indigenous peoples are impacted by development and are directly involved in IA follow-up, which is addressed in the next principle.

4.10 Indigenous inclusion

Inclusion of Indigenous values, knowledge systems and worldviews in the design and implementation of IA follow-up programs is strongly advocated in the literature (e.g., O'Faircheallaigh, 2007; Croal et al., 2012; Muir, 2008; Solbar and Keskitalo, 2017; McKay and Johnson, 2017). This principle is encapsulated in the *Aashukan Declaration* (https://aashukandotcom.files.wordpress.com/2017/04/the-aashukan-declaration.pdf) while recent Canadian practice provides for *Indigenous Engagement and Partnership Plans* implemented during the pre-approval stages in the national IA approach (e.g. https://www.canada.ca/en/impact-assessment-agency/services/policy-guidance/practitioners-guide-impact-assessment-act/overview-Indigenous-engagement-partnership-plan.html). Beyond inclusion, direct benefits for affected Indigenous peoples should be determined and delivered (e.g., O'Faircheallaigh, 2007; Vanclay et al., 2015; Hanna et al., 2016a; McKay and Johnson, 2017; Strangway et al 2016) to redress entrenched inequalities. The ICMM (2010) provide several examples of partnerships between proponents and Indigenous groups for managing the implementation and eventual closure of mining operations, and they emphasise the importance of developing "benefit streams that will continue beyond mining" and "helping to build community governance capacity" (p92) that will address "discrimination and historical advantage" (p93) with an overarching aim to build "sustainable Indigenous communities" (p94). The principle of Indigenous inclusion in IA follow-up has a specific sense of purpose additional to the long-standing principle for best practice that follow-up should be tailored to the cultural and societal context (e.g., Morrison-Saunders et al., 2003; Morrison-Saunders and Arts, 2021).

4.11 Participatory monitoring

Participatory monitoring, which is closely linked with the two previous principles, is perhaps the single most frequently advocated element for public involvement in IA follow-up (e.g., UNECE, 1990; Hulett and Diab, 2002; Sadler and McCabe, 2002; DEAT, 2005; Hunsberger et al., 2005; IFC, 2007; O'Faircheallaigh, 2007; Moyer et. al., 2008; ICMM, 2010; Devlin, 2011; Devlin and Tubino, 2012; Vanclay et al., 2015; Strangway et al., 2016; McKay and Johnson, 2017; Noble, 2020; IFC and On Common Ground, 2010). While a variety of specific terms are employed in these sources, they are all united in referring to IA follow-up in which community members themselves carry out monitoring and other related functions directly themselves.

Proponents may benefit from participatory monitoring arrangements in various ways including enhanced trust among parties and support for new development proposals (Arts, 1998; Marshall, 2004), access to superior knowledge (especially when traditional ecological knowledge of Indigenous peoples is included) and confidence in the data obtained (McKay and Johnson, 2017) and contribute to better governance including ongoing co-management of the environment (e.g. Moyer et al., 2008; Strangway et al., 2016). Benefits to the public include fostering well-being and empowerment of local communities (e.g., DEAT, 2005; Vanclay et al., 2015) as well as enhancing environmental awareness and education (DEAT,

2005; Moyer et al., 2008; IFC and On Common Ground, 2010). Participatory monitoring will also contribute to the next and final principle.

4.12 Involvement in adaptive management

Involvement of community in adaptive management and decision making regarding the activity as well as the community is the highest level of public participation in IA follow-up. Facilitating adaptive management through IA follow-up is a long-standing best practice principle (e.g., Arts et al., 2001; Pinto et al., 2019; Morrison-Saunders et al., 2021) and one of five design elements of effective adaptive management identified by Fitzpatrick and Williams (2020, p11) is that "design and implementation should incorporate the experience and expertise of the broader policy community". One of our survey respondents advocated "participatory active adaptive management in which stakeholders are involved in a meaningful way in the full adaptive management cycle (simply put – plan, do, evaluate and learn, and adjust)". Advantages of this approach to IA follow-up include ease of "accommodating desirable changes" (Green et al., 1987, p312) identified by the public themselves and also the notion of fostering "local community development" (Gulakov et al., 2020, p382).

5. Reflections on the Principles

The preceding discussion outlines the set of best practice principles for public participation in IA follow-up, corresponding with increasing progress up the ladder of public participation. Active participation such as involvement in adaptive management, participatory monitoring, Indigenous inclusion and partnerships are intrinsically more engaging and empowering of the community. At the same time, they can only be accomplished if the more basic provisions, such as mandatory public reporting, ease of access, full transparency and clarity about the IA follow-up process, are already in place. In this sense, the suite of principles represents a progression of best practice from the basic and essential components to more advanced arrangements. Therefore, the suite of principles has been depicted in Figure 2 as a ladder in which the various principles build upon each other. This does not mean, however, that a quite advanced IA system always will need to include all lower tier principles. Nevertheless, adding any missing principle later on would further improve the IA system. Progressing on the ladder, might imply more effort being required and therefore the need for extra resources for government, proponents, and/or the community. However, if done creatively and with care (in an open collaborative manner) the need for extra resources might well be limited.

Effective public engagement that continues in the follow-up stages is vital not only for delivering better substantive outcomes but also for enhancing the legitimacy of development decision-making and thereby trust in governmental regulators (e.g., Marshall et al., 2005) and the social licence to operate of proponents (Jijelava and Vanclay, 2017). The legitimacy test of Pope et al. (2018, p43) for IA overall as to whether the follow-up process is "perceived to be legitimate by a wide range of stakeholders" is relevant here. It is also consistent with democratic ideals associated with IA in that by providing information about impacts, publicly sharing this knowledge and the appraisal of such impact information, a more balanced democratic decision-making is enhanced. Arguably then,

jurisdictions upholding the more advanced best practice principles reflect an increasing democratic responsibility or maturity as originally envisaged by authors such as O'Riordan and Sewell (1981).

In current practice, however, information about developments, their impacts and associated decision-making is often contested, which may provoke distrust in government and loss of proponents' licence to operate. In order to deal with this, continuous public engagement at an advanced level in the follow-up stages is crucial. As Hanna et al. (2016b, pp.217) argued "Community protest has considerable potential to adversely affect the implementation of large projects", not sincerely engaging communities may create dissent at a high level leading to what could be called the 'ladder of protest'. This demands not only a careful, inclusive impact assessment before an approval decision is taken but surely also an aspirational implementation of the suite of principles for public engagement in the follow-up stages. However, this represents a relinquishing of power and control over development and IA processes, meaning it may not be easy to accomplish in practice (e.g., Cashmore and Axelsson, 2013).

Another way to think about the suite of principles is through the lens of FPIC – free, prior, and informed consent – established in the *United Nations Declaration on the Rights of Indigenous Peoples 2007* (https://www.un.org/development/desa/Indigenouspeoples/declaration-on-the-rights-of-Indigenous-peoples.html - see also Hanna and Vanclay, 2013). While Vanclay et al. (2015) note that FPIC is a "procedural mechanism developed to assist in ensuring the right of Indigenous peoples to self-determination" (pv), they also acknowledge that it is an "appropriate principle to apply to engagement with all communities" (p16). It is important that FPIC is applied throughout the development life-cycle specific to follow-up (i.e., events coming after the approval decision). *Informing* the public of IA follow-up activities and outcomes is a basic right; it is clearly captured in our principles and requires no further comment. *Consent* should not be a one-off step, but rather be continuing; not only with respect to legitimising the development activities of proponents and regulators generally, but also specifically where new interventions take place (e.g., related to adaptive management). *Prior* engagement is achieved through having a formal follow-up program in place. Where rapid response to a problem is necessary (e.g., an accident or unexpected outcome with serious immediate consequences for the environment), the affected community would no doubt prefer action by proponents rather than delaying to consult. However, an effective IA follow-up program would have established contingency measures outlined within it for such occurrences, being part of good adaptive management practice (e.g., Morrison-Saunders et al., 2004) and in this context, there would have been prior consultation. We also note that it will be appropriate to periodically formally review and revise IA follow-up programs, involving the public as appropriate, over the development life-cycle. Finally, the public must always be *free* to choose their level of involvement. Where issues are new (either untested approaches or simply not something the affected community has previously experienced), there is likely to be a higher degree of interest and need to be intimately involved. Once matters become routine, simple reporting of monitoring data and management outcomes may be sufficient to satisfy the public. Thus, it need not be the case that best practice IA follow-up with regard to public participation must always or only be oriented to the more 'advanced' approaches in our spectrum of principles.

6. Conclusion

In this research we set out to distil best practice principles for public participation in IA follow-up, using the well-established principles for public participation and follow-up in their own right as a starting point. Our approach was primarily that of literature review, with use made of a practitioner survey to help us in the identification of key works in this regard, followed by coding of the literature and survey responses. The result is a spectrum of principles, in which higher principles encompass and surpass lower ones.

The principles roughly mirror the spectrum of public participation with the earlier principles in the list representing the minimum position that must be delivered, and with greater legitimacy also likely to arise from activities further up the ladder. Context matters, and the 'more advanced' principles, so to speak, should be evoked as needed. In large measure, this does mean that regulations may not prescribe or include expectations for all principles to always be upheld. Instead, the application of the principles will often be a choice for proponents and regulators, notwithstanding that communities may demand more engagement in IA follow-up – especially in mature democracies where high levels of citizen involvement in governance might be the norm. The 12 best practice principles should not be seen as prescriptive, but rather as a guide to what is possible with respect to public participation in IA follow-up.

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