Work, resilience and sustainable futures

The approach of work-based research to problems and their solutions

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Abstract

Purpose – This paper examines the relationship between work, resilience and sustainable futures for organisations and communities by considering the nature of work-related problems (WRPs) and the work-based research designed to investigate them. The authors explore the axis of work environment > work-related problem > resilience > sustainable futures as it might be impacted by work-based research.

Design/methodology/approach – The paper introduces two current real-world examples, one in Australia and one in Asia, of work-based research projects associated with higher education aimed at promoting resilience and sustainability, and discusses the research problems, questions, designs, methods, resilience markers and sustainability markers used by these projects.

Findings – Work-based research, when conducted rigorously using mixed methods, may contribute to increased resilience of organisations and communities and thereby seeks to promote more sustainable organisational and social futures.

Practical implications – Work-based research conducted in higher education seeks to investigate, address and solve WRP, even when such problems occur in unstable, changing, complex and messy environments.

Social implications – Resilience and sustainable futures are ambiguous and disputed terms, but if work-based research can be brought to bear on them, organisations and communities might better adapt and recover from challenging situations, thus reducing their susceptibility to shock and adversity.

Originality/value – While resilience and sustainability are commonly referred to in the research literature, their association to work, and specifically problems associated with work, have yet to be examined. This paper goes some of the way to addressing this need.

Keywords Work, Resilience, Sustainability, Work-based learning, Work-related problems, Work-based research

Paper type Research paper

Introduction

The meaning and relevance of the three main themes examined by this paper—work, resilience and sustainability—have been conceived variously within the published literature

and, in many cases, are ambiguous or even disputed. For example, debate persists about whether housework is 'work' (Oakley, 2018); it is unclear if resilience is a trait, process or phenomenon; and van der Laan (2014, p. 205) believes the term sustainability is "overloaded and abused" and mostly associated with leader rhetoric. Despite acknowledging that such definitional disagreement exists, it is not our purpose to address, let alone resolve, disputes within this theoretical territory. Rather, building on the notion of work-based learning (WBL), we are interested in exploring the associations between each theme and whether it is possible to identify examples of organisational and social sustainability as they have been promoted as a result of work-based research.

Such an exploration has led us to ask if a more sustainable future can be considered possible, specifically in relation to identifying solutions to problems associated with work environments. This matter is particularly challenging for organisational researchers and social scientists because work environments have been described variously as unstable, constantly changing, complex and messy (Fergusson, 2019; Smith, 2017), and the problems that occur within them short-lived, making research tricky. Nevertheless, our conceptual plan for describing this effort can be seen in the proto-theoretical model advanced in Figure 1, which not only posits the axis of work environment (A) > resilience (B) > a sustainable future (C) but also describes the proposed relationship between the three themes, along with citations of some of the key literature on them.

A work environment, in our conception—such as a company, government agency, sole trader's practice domain, volunteer organisation or simply work conducted in the community—may or may not be resilient (i.e., in simple terms, may or may not be able to withstand change nor able to adapt and recover from challenging situations, thus making resilience a measure of internal susceptibility to shock, as represented by the dotted arrow between work environment and resilience in Figure 1). However, we contend that if a work environment is resilient, it may also enjoy a more sustainable future (i.e., it can be maintained or kept going without depleting itself or damaging the social or physical environment in which it is embedded). For the purposes of this paper, we have conceptually separated
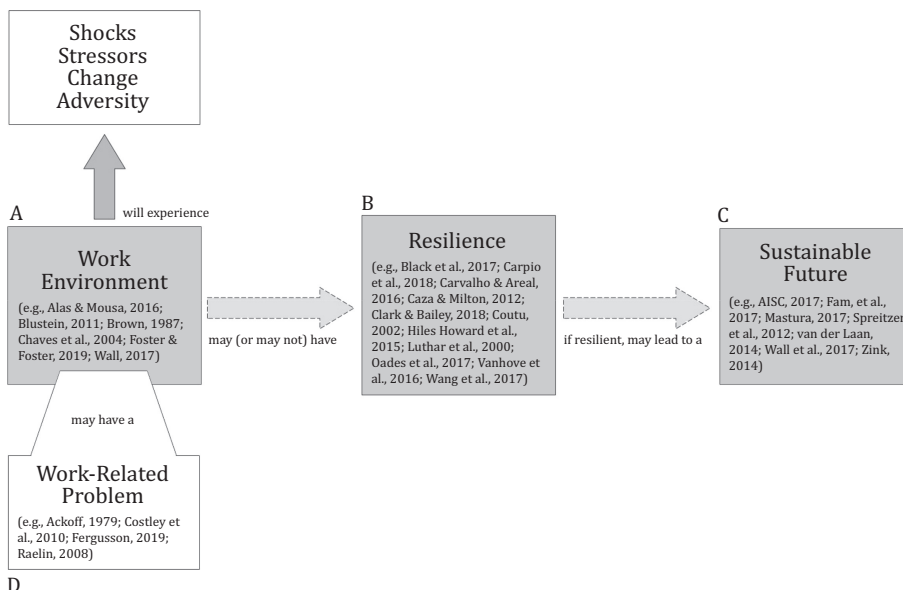

Figure 1.
Proto-theoretical model
of primary research
themes

resilience from sustainability, but Walker (2013, p. 5) and others contend resilience and sustainability are "two-sides of the same coin", and, in keeping with our own conception, Jarzebski *et al.* (2016) maintain resilience is an 'indicator' of sustainability. Thus, resilience and sustainability may be inextricably related in ways not contemplated by this research, but to what extent and in which direction is a subject for future research.

Figure 1 also presupposes that work environments (A) are likely to face work-related problems (D). These challenges may include systemic issues related to health, organisational culture and climate, workforce competency and capability, and leadership, as well as transient problems of competition, technology uptake and governance, among a great many other variations. Work-related problems (WRPs) can also relate to more or less resilience of individuals within a workforce, which, in turn, can result in more or less organisational resilience and/or resilience of the community (B). Test instruments have even been developed to not only measure 'levels' of resilience but also its 'parallel occurrence' in individuals, teams and organisations (Schulte *et al.*, 2016). As noted later, resilience is generally classified as an ability by an individual, organisation or community to manage change and cope with internal and external stressors. Thus, it is generally thought that less resilient and adaptable individuals, organisations and communities are, by definition, likely to be less sustainable (C), a view supported by the recent work of Fam *et al.* (2017).

Figure 2 goes further by showing that WRPs can be systematically researched with the goal of identifying solutions to problems and applying these to make individuals and organisations, and ultimately society itself, more resilient. We argue, and will show in this study, that by researching and addressing WRP, an organisation or a community can become more resilient as a result of evidence-based problem solving, which, in turn, we propose will lead to a more sustainable future for the beneficiaries. As discussed later, such work-based research (E) is, by its nature, often purposively multidisciplinary or transdisciplinary to account for the complex nature of these WRPs.

One example of a WRP is 'occupational stress' (and the various useful as well as maladaptive responses to it). Occupational stress from work has had a significantly negative impact on the health of individuals and, as a consequence, has also adversely impacted organisations, communities and society more generally (Black *et al.*, 2017). For example, in the UK, 35 percent of all health-related work illnesses and 43 percent of work absences can be attributed to work stress (Black *et al.*, 2017). Elsewhere, such WRPs have been described as 'wicked' (Fergusson, 2019), and that working conditions are predicators of the future health and well-being of workers (Black *et al.*, 2017). Kennedy's (2016, p. 23) analysis of solastalgia
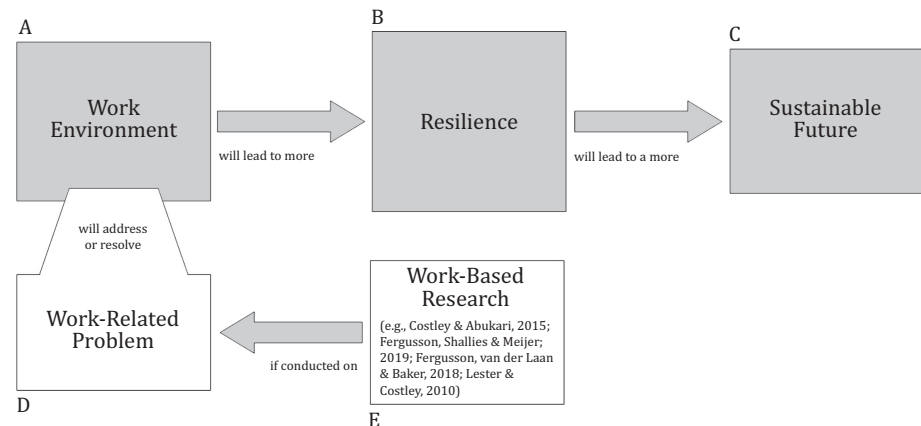

Figure 2.
Proto-theoretical model of work-based research and its relevance to work-related problems and increasing resilience and sustainability in work environments

and the attempt to 'capture the distress and suffering experienced by people when their place of residence [is] threatened by significant environmental transformation' contribute to the same discussion. As discussed later, finding ways to address and counter these types of WRPs is among the goals of WBL and the research which supports it.

Elements of the model
Each of the three main themes of this paper can be defined in the following ways; however, each theme has a history, and current usage and application have developed over time.

Work and work environments
Conceptions of work have changed in the last 40 years, just as the nature of work itself has changed. Consider Brown's (1987) early analysis of what constitutes 'work'. He began by contending that descriptions of work are about the people who perform work, not about work itself. He cites managerial work, accounting work and unskilled work as examples of this proclivity towards people. One way of countering this tendency, Brown argued, was to define work as a role or a job, which "can be objectively and distinguishably described in terms of its prescribed and discretionary content" (p. 41). The so-called prescribed content of work is what "the occupant of the role must do if he is to avoid a charge of negligence or insubordination. One of the characteristics of prescribed work is that a person knows when he has completed it" (p. 41). Within this prescribed content, the occupant of the role may or may not have discretionary power, such as the discretion to make decisions. Brown goes on to define work in terms of job descriptions (i.e., defined roles within the organisation), thus locating the job within a larger organisational structure and within the laws and policies which prescribe the job, including the influence of subordinates on a job, the job *vis-à-vis* managing change within the organisation and the nature of the job in the context of responsibility.

The view of work as a job, prescribed by specific content with possible discretionary responsibility, has been supplanted by later theories of work, largely due to changes in the nature of work. Such changes include increased global competition due to advances in communications technology, an increased pace of innovation and workplace change and a tendency towards assigning people to projects rather than to jobs which make work simultaneously both more flexible and more demanding (van Beek *et al.*, 2012). For example, by the 2000s, the so-called 'career choice theories' posited that work was the confluence of vocational activity and personal interest. This view of work "within middle-class and relatively well-educated populations in Western cultures [advanced] the notion that people have choice or volition in their work lives and that work offers an outlet for one's interests, abilities, and values" (Chaves *et al.*, 2004, p. 275).

However, this viewpoint has since been criticised for its inability to consider what work means for the poor and the disadvantaged in society and for workers who may lack volition in choosing and carrying out work. Indeed, many people struggle to find meaning in work, and view it as a requirement—a burden which must be borne—not an outlet for personal interest, no matter how much meaning one seeks to obtain from it. Nevertheless, according to Chaves *et al.* (2004), "a picture emerges [during this period] of individuals seeking to make meaning of their working experiences, often by placing their observations into a context defined by their family history, cultural background, or individual dreams" (p. 276).

More recently, when viewed from the perspective of a psychology of work and the relational theories that support it, work has been conceived as "a source of identity for people as well as [a] means of interpersonal connection, social contribution, and optimally, opportunities for self-determination" (Blustein, 2011, p. 3). Indeed, "with the advent of the internet and computer-based working, employees can work wherever and whenever they want, blurring the boundary between work and private life" (van Beek *et al.*, 2012, p. 31). As a consequence of this "huge transition and transformation [and the need to put] people much

more at the heart of business thinking and practice" (Wall, 2017, p. 304), coupled with the shift towards self-determination at work, current theory suggests work is associated with 'spirituality' (e.g., Alas and Mousa, 2016), although "there is a dearth of empirical research relating to spirituality in the workplace" (Foster and Foster, 2019). Of interest in our current discussion is the identification of what can be called 'spiritual values and practices' at work, as they may relate to sustainability (Mastura, 2017).

In contrast to the continuing argument about work as simply a way to be compensated for effort (Schmid and Altfeld, 2018) or the source of spiritual affirmation, for the purposes of this paper and as documented elsewhere (Fergusson *et al.*, 2019a), we draw on the work of Blustein and others by defining work to mean that innate human expression of effort, activity and energy given to tasks that contribute to the overall social and economic welfare of communities and environments from which personal meaning and benefit can be derived. We define a work environment to be any place or space (no matter how virtual, informal or mobile) where work is carried out. These environments may include a home, an office, a factory, a field site and so on, and are described when related to sites of research as complex and messy (Smith, 2017). Positive relations between work environments and resilience have been noted in the literature, and (Somers 2009, p. 12) has explored whether a causal relationship "exists between crisis planning and effective adaptive [organisational] behaviors in crisis".

Resilience
The term 'resilience' in relation to individuals has gained increasing favour in recent years, and is now found dotted throughout the published literature addressing topics ranging from childhood trauma, quality-of-life and workplaces (Hiles Howard *et al.*, 2015), through engagement with work and stress reactivity (Black *et al.*, 2017), to its impact on frontline nurses (Carpio *et al.*, 2018). Its positive association with 'transformational leadership' has also been explored (Wang *et al.*, 2017). However, its examination by specialists has resulted in comments such as: "My exploration has taught me much about resilience, although it's a subject none of us will ever understand fully. Indeed, resilience is one of the great puzzles of human nature, like creativity or the religious instinct" (Coutu, 2002, p. 42). Thus, resilience, as a construct both in terms of its relevance to individual life and to the life of organisations and society, is ambiguous and has been problematic for a number of years (Luthar *et al.*, 2000), and "there is growing concern that lack of clarity on the operationalization of the concept will limit its application" (Chuang *et al.*, 2018, p. 353).

Consider, for example, the following statements related to individual resilience: "Resilience is a personal psychological attribute that has been defined as the process of negotiating, managing, and adapting to significant sources of stress or trauma [and] assets and resources within the individual, their life and environment facilitate the capacity for adaptation and bouncing back in the face of adversity" (Carpio *et al.*, 2018, p. 481); in children, the so-called 'three domains' that contribute to the phenomenon are '"I am" (inner strengths), "I have"'(external supports and resources), and "I can" (social strengths)' (Hiles Howard *et al.*, 2015, p. 142); and resilience is "the process by which individuals demonstrate more positive outcomes than would be expected, given the nature of the adversity experienced" (Parsons et al., 2016, p. 296). Moreover, research with young children, adolescents and adults suggests there are many pathways to achieving resilience and that a combination of "personal attributes, family circumstances, and the nature of supportive networks outside the immediate family are critical to the development of either resilience or vulnerability in the wake of severe life adversity" (Parsons *et al.*, 2016, p. 296).

According to Oades *et al.* (2017, p. 136), resilience has long been "associated with stress and coping, which are to an extent embedded in definitions of the construct. . . .This has clear links with. . .work on hardiness. . ..Consistent with a positive psychology emphasis, more research

is now concerned with well-being and adaptation in response to stress as a function of resilience". Resilience at work has therefore been 'conceptually reported as 1) a measure of recovery (from work demands), 2) a measurement of engagement at work, 3) a measure of physical health, and 4) measures of chronic fatigue and poor sleep' (Carpio *et al.*, 2018, p. 482), and the meta-analytic research of Vanhove *et al.* (2016) has explored the relationship of resilience to employee absenteeism and counterproductive work behaviours.

However, resilience is not limited to individuals and their ability to cope. As noted earlier, organisations, too, can be more or less resilient (e.g., Carvalho and Areal, 2016; Caza and Milton, 2012; Oades *et al.*, 2017). Indeed, research at some of the best performing U.S. companies suggests that those organisations which are the most resilient in times of crisis are also the best places to work and the ones which perform best during both growth periods and times of crisis, although 'reverse causation' (i.e., it is not clear whether organisations are resilient because they are good places to work, or whether they are good places to work because they are more resilient) may play a part in some studies on this subject (Carvalho and Areal, 2016). Caza and Milton (2012) define resilience at work as a "positive developmental trajectory characterized by demonstrated competence in the face of, and professional growth after, experiences of adversity in the workplace". It is of interest to note that generally when the literature speaks about organisational resilience, it is mostly talking about individual resilience, as testified by the following statement: "When times are tough [for an organisation], employees at great workplaces show the resiliency to pull through" (Carvalho and Areal, 2016, p. 479). Nevertheless, while individual resilience is obviously relevant to a work environment and may indeed be the basis upon which organisational and social resilience can be contemplated, organisations and communities in and of themselves can similarly display resilience.

One of the key features of a resilient organisation is its ability to adapt (Lundberg and Johansson, 2015). For example, Schulte *et al.* (2016, p. 140) state that resilient organisations are "able to maintain positive adjustments under challenging conditions. Resilient firms actually thrive and become better in part because they faced and overcame serious challenges", and Borsci *et al.* (2018, p. 16) explain that "at an organizational level, resilience is defined as the ability to 'anticipate, prepare, respond, and adapt' to events. Engineers consider an organization to be resilient if it is able to adjust its functioning before, during, and after expected and unexpected events. A service fails to be resilient if it is unable to cope with this complexity". Chuang *et al.* (2018, p. 353) have also researched adaptability in the context of resilient communities, noting that the concept has gained favour among academics and professionals in light of "rapid changes in environmental, social, technological, and economic systems".

Biesbroek *et al.* (2017) have gone further by discussing resilience in the context of socio-ecological systems. In contrast to the continuing debate about the concept and operationalisation of resilience, for the purposes of this paper on work environments, we consider resilience to mean the organisational and communal ability, largely built on a foundation of individual strength, to withstand and adapt to internal and external (i.e., environmental) stressors. However, as noted earlier, resilience may be used interchangeably with sustainability, and their similarities and differences have therefore been the subject of separate research (e.g., Marchese *et al.*, 2018). Moreover, direct alignment between resilience and sustainability has also been the focus of research on water (e.g., Santora and Wilson, 2008), urban resilience (Meerow and Newell, 2019) and community resilience (Berkes and Ross, 2016).

Sustainable futures
Since the late 1980s when the term became popular, sustainability has, for many theorists, lost its value and been overused to the point of irrelevance. Lindsey (2011) and others (e.g., Clayton and Radcliffe, 2018) have therefore maintained there are as many definitions of sustainability as there are entities striving to achieve it, and the concept of realising a sustainable future can be viewed from many different perspectives—

environmental, ecological, commercial, industrial, administerial—with each propounding its own goals and imperatives. In addition to definitional uncertainty, the multidisciplinary nature of sustainability makes it a challenging concept to explore.

Following earlier separation between disciplines concerned with sustainable futures, the concept of sustainability has evolved in the last 15 years to become the integrated discipline of sustainability science (e.g., Heinrichs *et al.*, 2016). This science has emerged as a result of the concerns of scientists, politicians and the general public that there is increasing evidence that we have approached, or have perhaps even exceeded, the capacity to support continued human population growth and socioeconomic development (Jaramillo *et al.*, 2015; Steffen *et al.*, 2015). But the rapid acceptance and adoption of sustainable development as a worthy goal of modern society has resulted in a plethora of new terms, principles, practices and frameworks, and, as a result, some researchers argue that while the 'essential idea' of sustainability is valid, its meaning has become vague, and its practical application more difficult as a consequence (Ciegis *et al.*, 2009).

While the concept of harvesting or using resources such that they are not depleted or damaged while encouraging lifestyles and practices which embrace this worthy goal is fundamental to each definition, since the early 2000s, some practitioners have maintained there has been a general and growing disappointment in the gap between the rhetoric of sustainability and the outcomes it has achieved. For the purposes of the present paper, we simplify systems and complex circumstances in the exploration of sustainable outcomes by identifying 'sustainability markers'. These, too, can take many different forms, with markers sometimes representing a single quality of sustainability or representing the sum of many qualities in what are called composite or headline markers. However, identifying and isolating themes is critical in achieving a sustainable future, in our case for work environments, and thus we use sustainability markers (SMs) to measure and report sustainable outcomes.

Importantly in this context, the link between work and sustainability has been explored elsewhere. For example, Hall and Lansbury (2006, p. 587) examined "the principle of workforce development for sustainable skill ecosystems", and an association between organisational performance and sustainable futures was investigated by Spreitzer *et al.* (2012), showing that when employees thrive and are encouraged to grow and develop, organisations also perform better and are more sustainable. The Australian Industry and Skills Committee (2017) has also investigated the link between future workforce skills, government, technological advancements and sustainability, and Zink (2014) has done so in terms of sustainable work systems. Nevertheless, according to Wall *et al.* (2017, p. 211), as is the case for associating spirituality with work, there is a "continuing dearth of scholarship about the role of work-based learning in education for sustainable development, and particularly the urgent demands of climate literacy".

For the purposes of this paper, we maintain that aspiring to a sustainable future for work environments is, in many cases, worthwhile, and thus we define sustainability as something—for example, a process, programme, model, framework, system or practice— that can be maintained or kept going without depleting itself or its inputs, and which does not damage or degrade its surroundings. Van der Laan's (2014, p. 205) reference to "renewal or revitalisation" as "key contributors to sustainability of effort and impact" also informs our conception. Nevertheless, we recognise that the term sustainability has multiple meanings, particularly when applied to different domains of praxis, and acknowledge that numerous types and levels of usage are possible in different work contexts.

Work-based learning and research

Lester and Costley (2010, p. 562) have pointed out that WBL is not only "situated in the workplace [but] arises directly out of workplace concerns". Such views have been reframed

and expanded to include considerations of higher education programme structures, curricula, student-centric learning and the recognition of experiential learning, among other issues associated with work and learning (Costley and Abukari, 2015; Costley *et al.*, 2010; Raelin, 2008). Moreover, WBL has been integrated into the higher education curricula of many universities throughout the world, for example, in Indonesia (Nurdiyanto, 2018), Spain and Finland (Devins *et al.*, 2015), France (Rouvrais *et al.*, 2018), the UK (Bravenboer and Workman, 2016) and Australia, and summative analyses of qualitative results generated from WBL have been reported (Nevalainen *et al.*, 2018).

The site for this investigation is the Professional Studies programme of Higher Degree by Research (HDR) at University of Southern Queensland in Australia. This programme was founded on the principles of WBL and offers advanced practice professionals the opportunity to self-direct learning and research to solve real-world, practical WRPs. Thus, advanced practice professionals in WBL are typically insider-researchers (Costley *et al.*, 2010).

Features of the programme which align with, and in some cases extend, standard WBL pedagogies include the development and application of a unique student and faculty ethos aimed at learner transformation (Fergusson *et al.*, 2019a), use of different levels of micro- and macro-reflective practice, particularly as they relate to mixed methods research (Fergusson *et al.*, 2019b), an articulation of WRPs (Fergusson, 2019) and an analysis of advanced practice in relation to WBL (Fergusson *et al.*, 2018). Many students within this programme are motivated by altruism, and thus the association of WBL with responses to WRPs informs a significant part of the research generated by this HDR programme. While qualitative research techniques are more common in WBL, a particular strength of the Professional Studies programme is its use of mixed methodologies to examine complex WRPs; the association of work-based research with first principles of science, including use of models, testability and applicability (Fergusson *et al.*, 2019c), has been explained elsewhere.

Work-related problems
The association of work with 'problems' has been well documented, although many of the exact characteristics of problems occurring in work environments have been less well documented. However, four types of WRP have been identified (Fergusson, 2019): 1) standard problems within work environments, which are straightforward and for which causes and optimal solutions can be identified, 2) messy problems (i.e., problems which are hard to describe and define), 3) co-produced problems (where multiple causation results in complexity and perplexity within work environments) and 4) wicked WRPs, which share many of the same qualities of messy and co-produced problems but also exhibit characteristics of malignancy, trickiness and circularity. These may include a challenge to definitional clarity and certainty, the inapplicability of one-off solutions, the lack of an ultimate test for ever actually solving the problem, their likelihood of generating conflicting evidence and their need for perpetual intervention. Thus, while standard problems can be identified by the logical sequence of antecedent > problem > solution, messy, co-produced and wicked problems are not as easily understood or resolved.

Of most significance in this context is the seminal work of Russell Ackoff (e.g., 1979, 1981, 2003) associated with complexity, change, messiness of work and the lifespan of problems. His insights into problems in work environments have found resonance with many theorists, and his thinking on work, management, organisational change and other topics of relevance to this paper continues to be explored (e.g., Hancock, 2017; Mitroff, 2019; Mitroff *et al.*, 2012).

Ackoff famously showed that due to the rapid pace of change within contemporary work environments and societies and the complexity and messiness of the aforementioned types of problems, work-related solutions are often short-lived and may be redundant before they

have a chance to make a real-world difference or contribute meaningfully to the environments in which they occur. In this sense, many work environments are not resilient and solutions to problems not sustainable. Ackoff (1979) pointed out 40 years ago that any potential solution to these types of problems is necessarily short-lived because:

> The structure and the parameters of problematic situations continuously change, particularly in turbulent environments. Because optimal solutions are very seldom made adaptive to such changes, their optimality is generally of short duration. They frequently become less effective than were the often more robust solutions that they replace. Let us call this cross-over point the moment of death of the solution. (p. 79)

Drawing upon the earlier work of Donald Schön, Ackoff maintained that

> the life of solutions to many critical social and organizational problems is shorter than the time required to find them. Therefore, more and more so-called optimal solutions are still-born. With the accelerating rate of technological and social change dramatized by Alvin Toffler and others, the expected life of optimal solutions and the problems to which they apply can be expected to become increasingly negative. (p. 79)

This negative correlation between optimal solution to a WRP and the time it takes to find and implement that solution begs the following question: is it possible to speak about sustainability in contemporary work environments? Indeed, according to Ackoff's view, solutions to WRPs may never be sustainable. However, we posit that sustainability might be possible if the solutions examined and *researched* within a WBL context are factored into the change, complexity and instability of the types of work environments Ackoff speaks about.

Work-based research
In order to investigate complex problems associated with work environments, particularly when related to a possible sustainable future, WBL and research are necessarily purposive and transdisciplinary (Fam *et al.*, 2017) when located in a higher education context. The following examples utilise mixed methods research designs, and elsewhere we have identified the multiple lines-of-inquiry and sources of evidence drawn upon in this type of insider-research (Fergusson *et al.*, 2019d). Thus, Figure 3 (an example of *organisational* resilience and sustainability in Australia) and Figure 5 (an example of *social* resilience and sustainability in Asia) are operationalised versions of Figure 2, or what Ackoff (1981, p. 353) called 'planning models', which mean 'models from which plans could be extracted'. These two studies have been chosen because they naturally follow the logic of work environment > problem > resilience > sustainable future, but many other projects within the Professional Studies programme, such as those related to evaluating culturally and linguistically diverse training for early-career police officers and case study research on at-risk indigenous community welfare programmes, could have been equally considered.

In Figures 3 and 5 we have identified the work environment (A), the WRP which inform and influence it (D), the type of WBL and research being conducted to assess and evaluate changes in organisational and/or social resilience (E), resilience marker (RM) example the researcher will count as evidence of organisational and/or social resilience (B) and sustainability marker (SM) examples the researcher will count as evidence of growing sustainability in the organisation or society under investigation (C).

Study No. 1: Sustainability in a professional membership association
BS (the second author), a former law enforcement officer and lawyer who entered the Professional Studies doctoral programme with a significant record of professional and academic success, including a Master of Education, Bachelor of Law and Bachelor of Arts, is a Canberra-based executive manager at one of Australia's largest Professional Membership Associations (A).
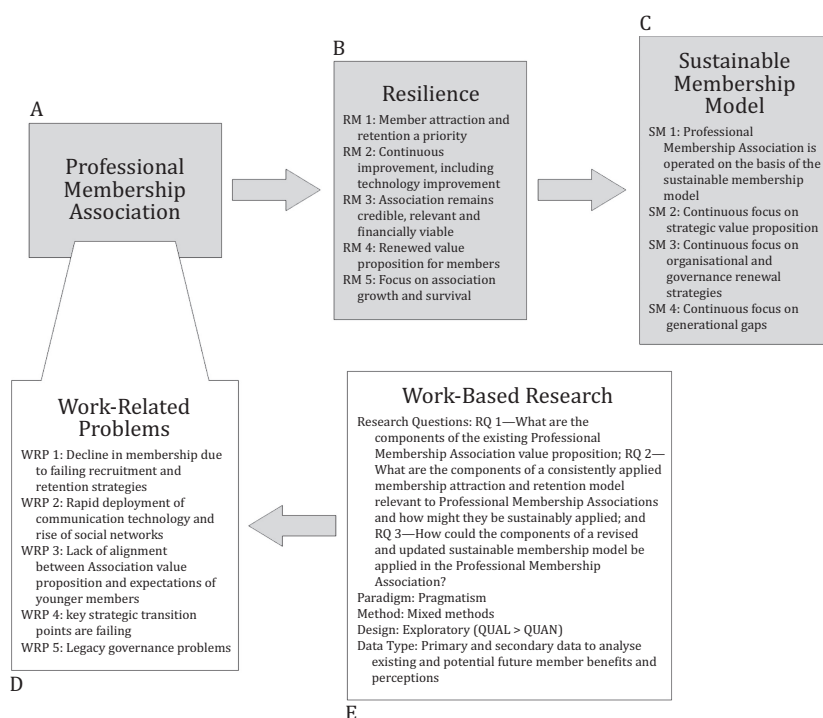
A

Professional
Membership
Association

B

Resilience

RM 1: Member attraction and
retention a priority
RM 2: Continuous
improvement, including
technology improvement
RM 3: Association remains
credible, relevant and
financially viable
RM 4: Renewed value
proposition for members
RM 5: Focus on association
growth and survival

C

Sustainable
Membership
Model

SM 1: Professional
Membership Association is
operated on the basis of the
sustainable membership
model
SM 2: Continuous focus on
strategic value proposition
SM 3: Continuous focus on
organisational and
governance renewal
strategies
SM 4: Continuous focus on
generational gaps

Work-Related
Problems

WRP 1: Decline in membership due
to failing recruitment and
retention strategies
WRP 2: Rapid deployment of
communication technology and
rise of social networks
WRP 3: Lack of alignment
between Association value
proposition and expectations of
younger members
WRP 4: key strategic transition
points are failing
WRP 5: Legacy governance problems

D

Work-Based Research

Research Questions: RQ 1—What are the
components of the existing Professional
Membership Association value proposition; RQ 2—
What are the components of a consistently applied
membership attraction and retention model
relevant to Professional Membership Associations
and how might they be sustainably applied; and
RQ 3—How could the components of a revised
and updated sustainable membership model be
applied in the Professional Membership
Association?
Paradigm: Pragmatism
Method: Mixed methods
Design: Exploratory (QUAL > QUAN)
Data Type: Primary and secondary data to analyse
existing and potential future member benefits and
perceptions

E

Figure 3.
Planning model for
sustainable futures
Study No. 1

According to BS, the Association is experiencing a decline in membership due to a failing recruitment strategy and an inability to retain members, particularly younger members (the headline WRP 1). 'The evidence suggests', BS points out, 'that the nature and fundamental existence of membership associations is subject to a spectrum of contemporary threats'. Citing the work of Burritt *et al.* (2016, p. 12), as illustrated in Figure 3, BS points out that 'with the rapid development of communication technology and the rise of sites such as Facebook, Twitter and LinkedIn, we have seen many activities related to building communities of practice which are outside the professional membership association's traditional sphere of influence' (WRP 2).

As a result of generational change and access to technology, the current milieu in which membership associations operate is in a state of flux. Thus, according to real-world evidence from within this field, "unless associations find a way to reorient themselves to better align with the values and expectations of younger-generation professionals, associations can expect to see their membership numbers drop even further" (Fabian, 2013, p. 17). In this paper, along with others listed in Figure 1, we identify this type of systemic organisational challenge to be a messy WRP (D), a problem with the potential to adversely impact the Association's ability to survive and thrive into the future.

Related to the headline WRP, BS goes on to explain that the Association has identified: a) a difficulty in articulating the value of membership, b) a significant proportion of its members do not consider they benefit significantly from membership in the Association, c) member needs vary, particularly according to career stage, yet membership processes and value propositions are mostly uniform for all members, d) attitudinal differences exist between different member age groups, e) a lack of internal clarity as to what actually constitutes the

value proposition of membership in the Association and a notable lack of alignment between this proposition and member expectations and f) organisational effectiveness has been adversely impacted by legacy of governance problems.

As a result of exploring and attempting to address these WRPs through work-based research, which could provide the evidence upon which future organisational resilience (B) can be built and measured, it was hoped the following resilience markers could be achieved: the attraction and retention of members would become a priority (RM 1); focus will shift to a mentality of continuous organisational improvement, including technology improvement (RM 2); the Association will remain credible, relevant and financially viable as a result of these foci (RM 3); a renewed value proposition for members will be implemented (RM 4); and there will be an ongoing emphasis placed on Association growth and survival (RM 5).

For the purposes of this analysis in using RM 2 as an exemplar of a resilience marker, we note Borsci *et al.*'s (2018) explanation of how development and deployment of technical solutions can increase organisational resilience when they point out that if technology is 'endemically owned by the system' (p. 16), a shift within the organisation can occur from technology designed for usability to technology designed for resilience.

Anticipated organisational resilience, BS has assumed, will inevitably result in the application of a renewed sustainability membership model, leading the Association to identify the following sustainability markers: the Association will henceforth be operated on the basis of an evidence-based sustainability model (SM 1), and there will be continuous focus within the executive management group on the three main elements of the model: 1) the Association's strategic value proposition (SM 2), 2) organisational and governance renewal strategies (SM 3) and 3) a bridging of generational gaps (SM 4), thereby facilitating the long-term viability of the Association (C).

Work-based research project. The research project (E) is designed to directly address the WRPs (D) listed in Figure 3 and thus elicit the evidence necessary for the Association to build its resilience and sustainability credentials. To do that, BS has asked and addressed three research questions:

RQ1. What are the components of the existing Professional Membership Association value proposition

RQ2. What are the components of a consistently applied membership attraction and retention model relevant to the Professional Membership Association, and how might they be sustainably applied

RQ3. How could the components of a revised and updated sustainable membership model be applied in the Professional Membership Association?

As shown in Figure 4, in order to examine the sustainable future of the Association through the lens of pragmatism, BS has designed a two-phase exploratory QUAL > QUAN mixed methods study. In this research, BS has begun with a three-stage qualitative process of concept formation based on secondary data supplemented by two stages of semi-structured interviews—one primary data stage exploring the opinions of eight senior Association staff, and a second primary data stage of 20 senior Association officer bearers in order to answer RQ1. In the second quantitative phase, BS will analyse existing historical membership data, including analysis of data from 6,516 fellows, 44,879 members, 13,560 graduates and 35,379 students, in order to understand member demographics, qualifications, location of members, length of time of membership and other baseline data, and will then conduct two surveys—a pilot member survey of 149 members, and a main member survey made up of 1,490 members—the topics of which will be informed and directed by findings from the three-stage qualitative stage, to further answer RQ1.
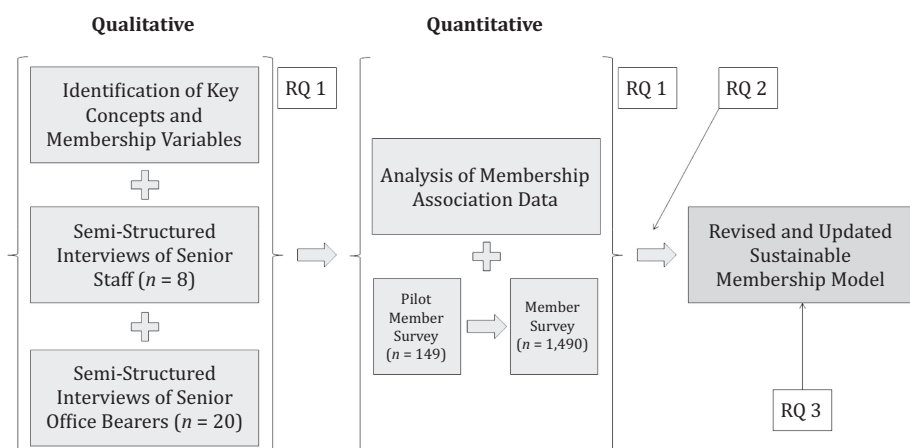
The findings from these two phases will be used to understand the components of a membership attraction and retention model relevant to membership associations and to provide direction on how such models might be sustainably applied (to answer RQ2), resulting in the creation of a revised and updated sustainability membership model for the Association (to answer RQ3). The model in these ways will represent a combined product of objective data (including lessons learned from its current membership model and literature on other successful sustainability models) and the opinions of existing members.

BS's research initiative does not attempt to test the efficacy of the model once implemented due to the time it would take to monitor its long-term potential impact *vis-à-vis* a doctoral-length study. Nevertheless, the model will represent a reliable view of the Association's membership and its potential sustainable future. Thus, while confirmatory evidence beyond the RMs and SMs of further resilience and sustainability will be forthcoming, Study No. 1 represents a viable attempt through work-based research to generate more organisational resilience, and thus the hope for a more sustainable future, for the Professional Membership Association. However, to fully realise the goals of this research, further planning and modelling not only of the Association but also of other member associations is required. Such planning may include an expanded research base of secondary data beyond the Association, and modelling may include other forms of primary data gathering, particularly where contemporaneous and/or future member associations differ in purpose, scale and vision.

Study No. 2: Sustainability in the Association of Southeast Asian Nations
MB (the third author) is an environmental lawyer with over 30 years' experience in environmental law. For the past ten years, MB has worked with member states in the Association of Southeast Asian Nations (ASEAN) region, providing advice on environmental law, in particular the role of Environmental Impact Assessment (EIA) for major development and infrastructure and investment projects. The most significant problem in this milieu is that large-scale national and regional ASEAN infrastructure projects and mega-projects (i.e., those projects with budgets greater than $1.0 billion and/or projected to take a minimum of seven years to complete) are often conducted without an appropriate (or in some cases necessary) EIA (WRP 1 in Figure 5). The financial sustainability of such infrastructure projects, particularly mega-projects, has also been the subject of recent research (Lee and Jeon, 2018), and their impact on ASEAN national and regional environments, most particularly on water flows and flooding, has been assessed (Douglass, 2010).
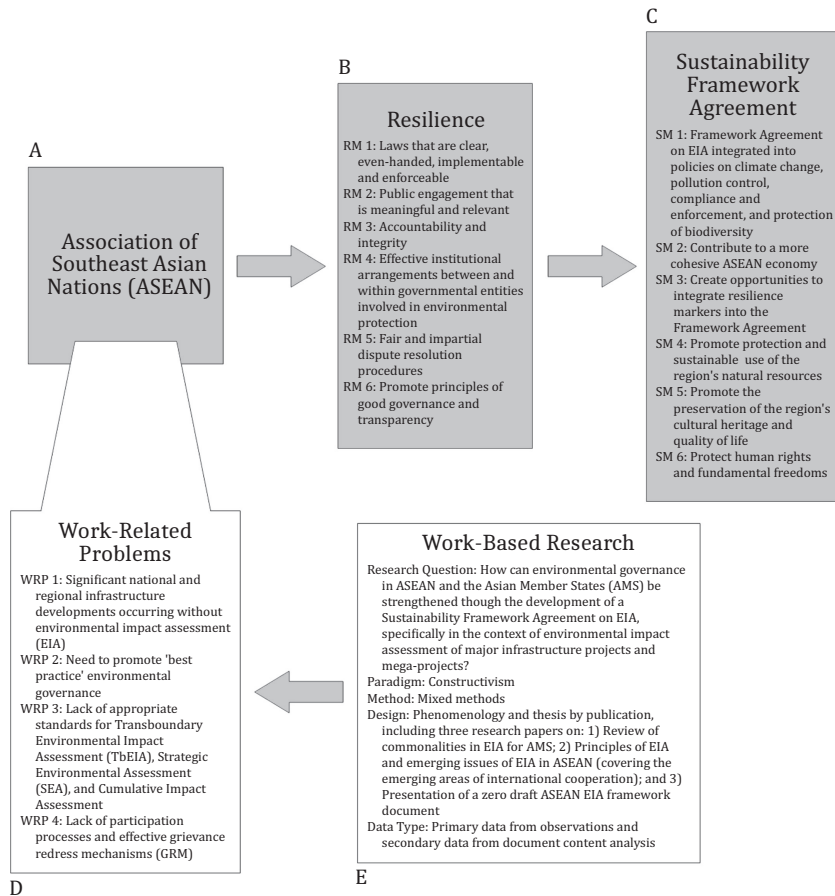
A

Association of
Southeast Asian
Nations (ASEAN)

B

Resilience

RM 1: Laws that are clear,
even-handed, implementable
and enforceable
RM 2: Public engagement that
is meaningful and relevant
RM 3: Accountability and
integrity
RM 4: Effective institutional
arrangements between and
within governmental entities
involved in environmental
protection
RM 5: Fair and impartial
dispute resolution
procedures
RM 6: Promote principles of
good governance and
transparency

C

**Sustainability
Framework
Agreement**

SM 1: Framework Agreement
on EIA integrated into
policies on climate change,
pollution control,
compliance and
enforcement, and protection
of biodiversity
SM 2: Contribute to a more
cohesive ASEAN economy
SM 3: Create opportunities to
integrate resilience
markers into the
Framework Agreement
SM 4: Promote protection and
sustainable use of the
region's natural resources
SM 5: Promote the
preservation of the region's
cultural heritage and
quality of life
SM 6: Protect human rights
and fundamental freedoms

**Work-Related
Problems**

WRP 1: Significant national and
regional infrastructure
developments occurring without
environmental impact assessment
(EIA)
WRP 2: Need to promote 'best
practice' environmental
governance
WRP 3: Lack of appropriate
standards for Transboundary
Environmental Impact
Assessment (TbEIA), Strategic
Environmental Assessment
(SEA), and Cumulative Impact
Assessment
WRP 4: Lack of participation
processes and effective grievance
redress mechanisms (GRM)

Work-Based Research

Research Question: How can environmental governance
in ASEAN and the Asian Member States (AMS) be
strengthened though the development of a
Sustainability Framework Agreement on EIA,
specifically in the context of environmental impact
assessment of major infrastructure projects and
mega-projects?
Paradigm: Constructivism
Method: Mixed methods
Design: Phenomenology and thesis by publication,
including three research papers on: 1) Review of
commonalities in EIA for AMS; 2) Principles of EIA
and emerging issues of EIA in ASEAN (covering the
emerging areas of international cooperation); and 3)
Presentation of a zero draft ASEAN EIA framework
document
Data Type: Primary data from observations and
secondary data from document content analysis

D

E

Figure 5.
Planning model for
sustainable futures
Study No. 2

EIA can be defined as the "process of identifying, predicting, evaluating and mitigating
the biophysical, social and other relevant effects of development projects prior to
decisions being taken and commitments made about them" (Baird, 2019, p. 7). According
to Baird (2019), the objectives of EIA are to ensure that environmental considerations are
explicitly addressed and incorporated into the development decision-making process; to
anticipate, avoid, minimise and/or offset the adverse significant biophysical, social and
other relevant effects of development projects; to protect the productivity and capacity of
natural systems and the ecological processes which maintain their functions; and to
promote development that is sustainable and optimises resource use and management
opportunities.

Effective EIA is thus achieved through the adoption and application of key principles,
including a legally established clear and effective proposal approval process; the
proponent bears the cost of the application and assessment process; meaningful public
participation at every stage of the process; access to information by project-
affected persons and other stakeholders; all relevant information available; open and
evidence-based decision-making; and effective monitoring, compliance and enforcement.

It has become clear to MB that unless a more effective and sustainable system of environmental and social governance can be implemented across the region, the environmental impact of current development will be catastrophic to both the environment and ASEAN societies. The development of a sustainable EIA process for the ASEAN region is thus the main topic of MB's research.

As shown in Figure 5, MB has identified a series of WRPs related to headline WRP 1 in the ASEAN region (D), which further motivates his study. These include a need to promote 'best practice' environmental governance (WRP 2); a lack of appropriate standards for Transboundary Environmental Impact Assessment (TbEIA), Strategic Environmental Assessment (SEA) and Cumulative Impact Assessment (WRP 3); and a lack of access to information, participation processes and effective grievance redress mechanisms (WRP 4). MB has also identified what he believes will be the key EIA resilience markers for future ASEAN projects, including laws that are clear, even-handed, implementable and enforceable (RM 1); public engagement that is meaningful and relevant (RM 2); accountability and integrity in the ASEAN EIA approval system (RM3); effective institutional arrangements between and within governmental entities involved in environmental protection (RM 4); fair and impartial environmental dispute resolution procedures and mechanisms (RM 5); and the promotion of principles of good governance and transparency (RM 6).

RM 6 is a good marker of resilience. It posits that if the EIA process is managed according to the rules of good governance and transparency, it (and the project it represents) will be more resilient. Indeed, there is evidence to suggest a direct link (even a causal link, according to some authors) between good governance and resilience (e.g., Biesbroek *et al.*, 2017; Gajendran and Oloruntoba, 2017), and Cascio (2009, p. 92) explicitly linked transparency with resilience when he said: "don't hide your systems—transparency makes it easier to figure out where a problem may lie. Share your plans and preparations, and listen when people point out flaws". Once realised, these resilience markers (B), MB postulates, will lead to a more sustainable future for Asian Member States (AMS), as indicated by the following sustainability markers (C): a Framework Agreement on EIA will be fully integrated into ASEAN policies on climate change, pollution control, compliance and enforcement, and protection of biodiversity (SM 1), which will contribute to a more cohesive ASEAN economy (SM 2), create future opportunities to integrate the aforementioned RMs as well as other resilience markers into the Sustainability Framework Agreement (SM 3), promote protection and sustainable use of the region's natural resources (SM 4), promote the preservation of the region's cultural heritage and quality of life (SM 5), and protect human rights and fundamental freedoms (SM 6).

Work-based research project. The core ideas to be explored in this research have been summarised elsewhere by the study's author (Baird *et al.*, 2016; Baird, 2018, 2019). These documents indicate that to achieve a sustainable project outcome, EIAs should be conducted according to the summary process outlined in Figure 6. One of the key features of the proposed Sustainability Framework Agreement is a consideration of the likely environmental and health effects of a project, comprised of the need to determine the scope of an environmental report and its preparation, the provision of information about the project and its impacts, the carrying out of public participation and consultations, and the taking into account of the environmental report and the results of public participation and consultations in a plan or programme of work. The stages of the EIA process, which represent those involving public participation, have been highlighted in Figure 6.

There are clear commonalities in the current EIA processes used throughout ASEAN, and these can form the basis of advancing a more harmonised and 'rights-based approach'. MB also believes that such an approach will result in a more robust EIA approval process, which will naturally lead to more resilient AMS and a more sustainable future for ASEAN.
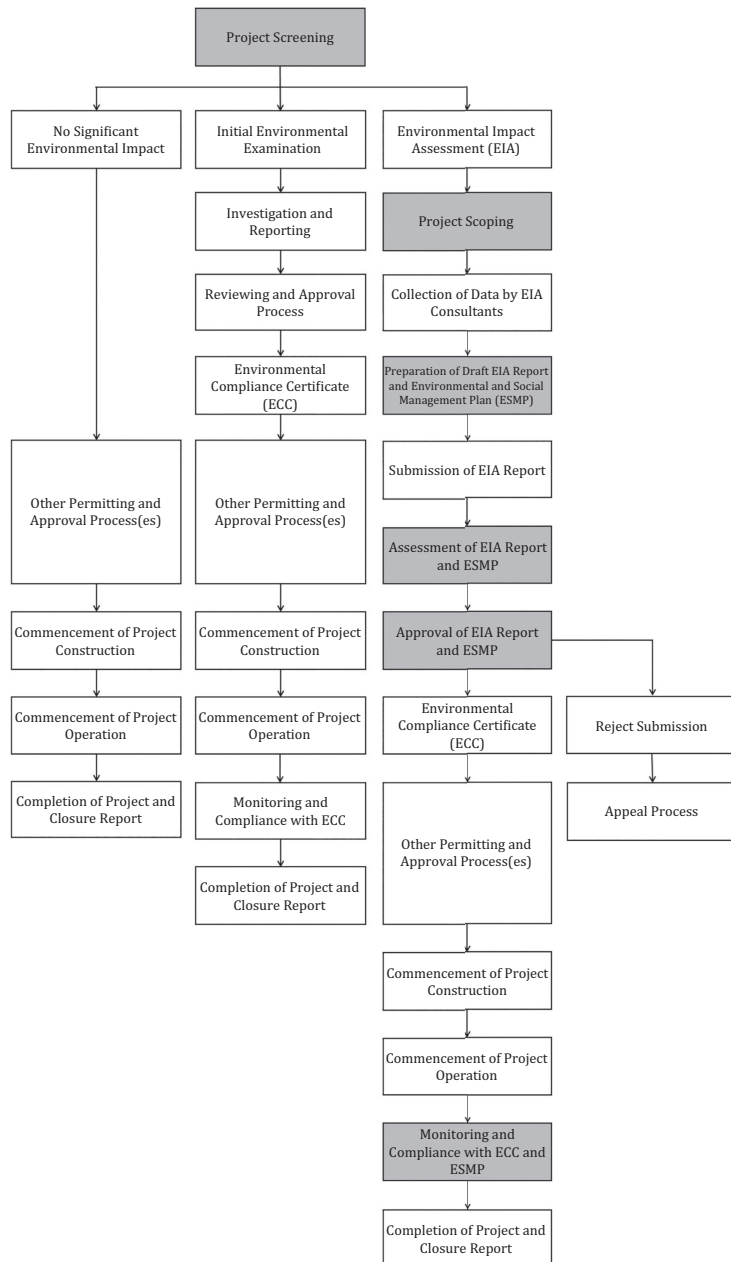
Figure 6.
The Environmental
Impact Assessment
process proposed for
project and mega-
project screening and
approval in AMS

Source: Baird, 2019, p. 16

The six main areas to be considered in the new Sustainability Framework Agreement are as
follows: 1) screening lists of projects requiring EIA, 2) greater public participation, including
access to information and remedies, 3) application of transboundary EIA policies and

procedures (to limit adverse trans-frontier environmental effects), 4) use of a strategic environmental assessment, 5) monitoring, compliance and enforcement and EIAs and Environmental and Social Management Plan (ESMP) and 6) registration of EIA consultants. There is evidence to suggest that engaging stakeholders, including the general public, in the approval process of large-scale projects leads to greater social sustainability (Valdes-Vasquez and Klotz, 2012), and thus there is every reason to believe that integration of the ESMP alone into the Sustainability Framework Agreement will make environmental practice within ASEAN more sustainable.

To address the WRPs listed in Figure 4, MB's Professional Studies work-based research project (E) asks one overarching research question: How can environmental governance in ASEAN and the AMS be strengthened though the development of a Sustainability Framework Agreement for EIA, specifically in the context of EIA of major infrastructure projects and mega-projects? To answer the RQ through a constructivist lens using a mixed methods phenomenological design of mostly observation and model and framework construction, MB will write three published papers embedded in an exegesis, which, when taken together, will result in a doctoral thesis by publication. The three research papers will address the following topics: 1) a review of commonalities in EIA for AMS, 2) an analysis and articulation of core principles of EIA and emerging issues of EIA in the ASEAN region (covering emerging areas of international cooperation) and 3) a presentation of a zero draft of ASEAN EIA Sustainability Framework Agreement for use by AMS. Such topics already form part of the AMS's planning and modelling for future research and implementation, and hence the overarching goal of MB's work-based project is to have the Agreement incorporated into ASEAN best practice.

Conclusion

We have attempted to show a linear relationship between work environments, resilience and sustainable futures. While contention and debate persist around each of these three constructs, enough reliable evidence exists to suggest that when individuals and organisations become more resilient, work environments (including private corporations, government agencies, charitable and non-government organisations and other practice domains) also become more sustainable. We have noted that one of the factors that inhibit resilience in work environments is the presence of messy, complex, co-produced and, in some cases, wicked WRPs. These problems have an adverse impact on organisational and social performance, and their persistence makes each more prone to stress, trauma and instability, thus leading to less sustainable futures.

Using two project examples from Australia and Asia, we have shown that through WBL and research, it is possible, in combination with resilience markers and sustainability markers, to isolate WRPs, to identify ways of addressing them through rigorous mixed methods research and to thereby seek ways of making work environments become more resilient with a view to helping them becoming more sustainable. This preliminary study, using real-world examples from our region, has thus sought to better understand the relationship between work-based research and sustainable futures for organisations and communities. Such an endeavour appears worthwhile given the economic, social, regulatory and environmental pressures being placed on work environments in the twenty-first century. The historic reliance on market and financial determinants alone, and not on research, would appear to offer a restricted (albeit valid) indication of the resilience and sustainability of work environments. However, further long-term and continuous research efforts, including the publication of findings from these two studies, will be required to provide the robust evidence necessary to determine if work environments can indeed become more sustainable as a result of this type of work-based research.

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