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Introduction

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Introduction

This book is concerned with an area of applied anthropology broadly defined as social impact assessment (SIA). Such studies are driven by a requirement, most usually of a legal nature, to prospectively evaluate types of social and cultural change likely to follow some interventionist programme, project or scheme. Importantly, the findings of such inquiries are harnessed to policy and planning decision-making in a manner that attempts therefore to anticipate and minimize adverse impacts. We are alerted here to the fact that SIAs are generally forward-looking in nature, highly evaluative, and seek to manage change responsibly by articulating how the findings and recommendations of any study can be translated into preferred and sustainable projects.

The contributors to this volume have at least two things in common. First, they are all variously practitioners, professionals or pedagogues in the field of SIA. Second, they all share the opinion that there is a need for a unified resource text on this genre of study that prioritizes the pragmatic tasks of doing SIA, and does so from the perspective of first-time students, indigenous and government personnel, developers, consultants and social scientists. While some two decades ago it may have been appropriate for Finsterbusch to pass comment that 'ethnographic studies . . . should definitely have a larger role in SIAs' (1981:9), today such advice merely expresses what is conventional wisdom. Why should this be the case?

In the intervening period global exploration and exploitation of natural resources in the world have continued at an inexorable pace. This process has unsurprisingly been conterminous with increased public and political sensitivities to issues of native title, cultural heritage, environmental damage, and the general place and role of ethnicity as an important world resource. At the same time, anthropology has itself emerged from the

reflexivity of the post-modern era with a renewed understanding and focus on what it means to study anthropology, to be an anthropologist, and to practise anthropology in a way relevant to the demands of the 21st century. Succinctly stated, the anthropologist/sociologist of tomorrow will work and study in a profoundly transformed set of institutional relationships from that of their founding predecessors. Two trajectories in particular can usefully be isolated:

1 Academic institutions that are compelled to implement rationalist economic policies in the face of dwindling financial support will require the social sciences to increasingly pursue mutually beneficial partner-ships with external agencies such as industry and government. This is both in the interest of 'becoming relevant', and as a perceived means of attracting outside funding. Attached consulting wings will become the norm to maintain independent financial viability and competitiveness. Increasingly, departments will look to mount short-term courses which can train non-anthropologists, resource operators and indigenes in other countries in impact analysis. This is not to suggest that expediency should determine what anthropologists do, but merely to indicate that there will be institutional demands and pressures which shape the survival of anthropology as an academic profession within universities – 'Scholarship cannot survive in an ivory tower' (Adams, 1971:335).
2 There will be related pressures for increased interdisciplinary research, teaching and publication as reorganization in academic institutions – at the university, school, faculty or departmental level – amalgamates anthropology with other behavioural or social-science disciplines. More so than in the past, degree programmes will incorporate both and stress the importance of acquiring cross-disciplinary skills.

The combined effects of the above processes of change can be briefly charted as follows. On the one hand, and most especially in countries such as Australia and the US, anthropologists are now experiencing a rapid rise in demand for their expertise as consultants to resource developers, governments, local land councils, indigenous bodies, and various national and international aid, fiscal and legal agencies. The private-enterprise sector of anthropology has witnessed unprecedented growth in the last decade. On the other hand, those who trained during the 1970–80s generally attended universities at which curriculums in applied anthropology were either non-existent or newly emerging. These professionals who sought to engage in applied or SIA-type work would

undoubtedly have encountered steep self-learning curves. By contrast, and for all of the reasons alluded to above, it is clear that the anthropology graduate of the new millennium will be, and will demand to be, equipped with applied research skills.

In many ways, then, a focus on social impact analysis is timely. While it clearly looks to the past in terms of acknowledging the importance a conventional ethnographic study has for the task of evaluating change, of importing and remaining sensitive to what we conveniently gloss as 'culture', it also looks to the future by stressing the compelling case for inter-disciplinary teamwork. 'The task of any serious assessment is almost surely beyond the ken of any single individual practitioner or profession' (Porter & Rossini, 1983:6). As a multi-task endeavour, an SIA may well team the anthropologist/sociologist with human or political geographers, geographical scientists, policy analysts, educationists, environmentalists, medical and public health specialists, engineers, economists, demo-graphers or human resource analysts to name but a few.

For the initiate anthropologist, a paradigmatic shift occurs in work practices as a response to these new sets of demands and constraints:

1 He/she must adapt to working in a multi-skilled team where the parametric indices to be quantitatively or qualitatively measured by others will in part be critically determined by what the anthropologist reveals about the socio-cultural organization of the community.
2 The analyst will no longer be primarily driven by critical theory concerns in the discipline but by the requirement to adapt his/her knowledge of a social milieu to the practical and problem-solving tasks of forecasting or predicting change, of evaluating risk and mitigation strategies, of formulating impact monitoring systems, and of providing a voice for the impacted community in the evaluation process.
3 There will be a premium on writing in a clear, non-technical, non-jargon-infested prose so that the findings are both readable and widely accessible. That is, for example, the science of kinship/descent has to be rendered comprehensible to the non-specialist with only the amount of detail given that is absolutely relevant to the task at hand. A substituted vernacular of 'bottom-lines, cost-benefits and sustainability' is henceforth segued to the report format of executive summaries, dot-points and sub-section recommendations as the conventional style of report production.
4 While nevertheless conscious that one's report will itself become part of the literary resource for a given area, it will often remain a non-refereed item considered of lesser significance in any publication

profile. Indeed, few opportunities for publication of SIA reports as documents in their own right may exist.

5   Where the work is undertaken on a paid basis by a sponsoring organization that is also a stakeholder in the project, the risks of compromising one's position of neutrality in the community is increased with all the attendant consequences this can have for future research there.

These implications begin to beg questions about the role of SIA as critical practice, about the relationships of patrons and clients in the SIA context, and about the ethical dimensions to practising this kind of anthropology that can compromise the integrity of the researcher and breaches conventional codes of disciplinary practice.

While more than a decade ago some might have viewed SIA work as somewhat tangential to the theory-building inquiries of anthropology, the processes of social and institutional change alluded to above have effected a narrowing of the chasm between what is now peripheral and what is core in the discipline. In this regard, it is not an exaggeration to suggest that developing programme courses in environmental and social impact work is for most anthropology departments in the world an inexorable (if not mandatory) trajectory.

This volume was conceived in part as an attempt to address the need for a manual which would discuss and present in a 'how to' format the framework of tasks – for example, screening, scoping and assessing – associated with undertaking social impact assessment research. That is, it seeks to explain what is meant by impact mitigation and risk management; why the ramifications of alternative 'with-and-without' project scenarios have to be considered; what makes up a baseline study and how this can constitute an impact monitoring and management system for post-intervention analysis; and how social mapping helps identify the cross-cutting variables used to index social impact and feeds into the sectoral evaluation studies of, say, health, education, governance and communication. In tackling these issues, the contributors frequently illuminate how rational problem-solving can be achieved and, further, what kinds of resources the analyst(s) will require to complete the job. This volume is distinguished from other environmental and social impact assessment resources (cf. Bowles, 1981; Branch, Hooper, Thompson & Creighton, 1984; Burdge, 1998; Carley & Bustelo, 1984; Erickson, 1994; Finsterbusch, 1980; Finsterbusch & Wolf, 1981; Leistritz & Ekstrom, 1981; Leistritz & Murdock, 1981; Rossini & Porter, 1983; Soderstrom, 1981) in respect to both focus and priorities. These can summarily be stated as follows:

The papers in this volume exclusively engage the human rather than the biophysical/natural environment. While accepting that these are intertwined and co-dependent fields of assessment in any SIA or environmental impact study (EIS) – most especially where developments affect an environment that constitutes a residential and subsistence base for communities – the authors restrict themselves to discussing what are manifestly *social* indices of impact.

There is very little enmeshment *per se* with the profound ethical, theoretic or methodological conundrums that are part of the ongoing discourse and development in SIA research. Readers will therefore not find detailed discussion of multivariate or risk analysis, model building or forms of statistical or computational packages that could serve to tabulate or organize data. This is not, however, to suggest that the issue of methodology has been inappropriately ignored. Rather, the authors have prioritized the twin tasks of providing: (a) relevant SIA case synopses as illustrations of how problem-solving occurred in specific instances, or how research designs were adapted to given situations; and (b) examples of research tools such as questionnaires, logframe matrices and monitoring forms which can be adapted or customized by prospective practitioners. Research techniques as discussed by the authors here augment the step-by-step demonstrations of those tasks constituting each component phase of an SIA.

The contributions in this volume collectively reflect various sequential tasks depicted in the generic model (see Figure 1.1) of the SIA phases. The intention was to provide, within the limitations of a single volume, an overview of the practical requirements of doing an SIA.

Aside from the issue of having to become acquainted with the specific cant or *terms of art* in which SIA reports have to be fashioned, for the first-time student entering this field of inquiry the experience can prove daunting.

Firstly, the majority of reference papers are inevitably marked by a proliferation of tree/flow diagrams, models, route-maps, steps, pathways and signposts. Often these can appear both overwhelming in detail and simply variations on a theme. They are not, however, gratuitous. Because the social scientist effectively addresses the total realm of socio-cultural phenomena – the physical, aesthetic, recreational, psychological and institutional – subsuming unlimited types of indices within umbrella categories is no easy task. Moreover, as Simpson indicates, each of the selected social factors may require assessment or evaluation along the parameters, for example, of reversibility, probability, duration, magnitude, distribution or scope.

Secondly, the novice will be confronted by a plethora of acronyms, country-specific regulations and assessment process terminologies that are not always explicitly clarified for the beginner. In addition to the generally used terms such as SIA (social impact assessment), SEIS (social and economic impact study), EIA (environmental impact assessment), EIS (environmental impact statement), ERMP (environmental review and management programme), EMP (environmental management plan), EPA (environmental planning acts), and SEA (strategic environmental assessment), a welter of alternative impact-related acronyms have been generated in the literature such as CIA (community impact assessment) or IIA (integrated impact assessment, cf. Rossini & Porter, 1983).

Thirdly, there is the now proliferating World Wide Web (WWW), which includes sites that provide downloadable teaching and resource guides – e.g. United Nations Program EIA Training Resource Manual (http:// www.erin.gov.au/portfolio/epg/eianet/manual/) – or which have registered Impact Associations defining or providing 'best practice procedures/ protocols', updated information on current projects, conferences etc., list of members, associated journal publications and links (http:// www.soc.titech.ac.jp/uem/eia/impactassess.html) to other international agencies – e.g. International Association for Impact Assessment (IAIA: http://www.iaia/org/), Manchester University (*http://www.art.man.ac.uk/ EIA/*) or in Australia the EIA network (*http://www.erin.gov.au*). In addition to the professional organizations and codes of ethics which may by consent govern the researcher's work, these resources often function to co-ordinate the disparate SIA work that goes on around the globe.

Fourthly, there will be the perennial problems of how to identify and isolate from the complex skein of connections, and endlessly dynamic interrelationships, variables of social behaviour which might constitute beginning and end points in causal chains. On the one hand, SIAs rarely retrospectively test initial hypotheses or forecasts. Moreover, the variables one commenced research with are themselves changed once an intervention and its impacts occur. On the other hand, these impact reactions may trigger primary, secondary or even tertiary waves of changes rendering the task of crystal-ball gazing precarious. Even here, the unpractised researcher will be bemused by advice to delineate potential futures or scenarios in terms of such finely discriminated categories as the 'probable, possible, plausible, preferable and practicable' (Vlachos, 1981:212–13).

This volume responds to such minefields of complexity by providing the student with a practical guide to SIA illustrated by real-world SIA scenarios. In the same way that social phenomena can never really be

presented as frozen landscapes of certitude, so too, despite sincere attempts to scaffold all possible decision-making options, 'it is recognized that research may never achieve these purist objectives' (Bowles, 1981:10). What is found in these chapters is thus more appropriately viewed as indicative suggestions for applying anthropological knowledge rather than stipulations about SIA best-practice guidelines.

What is Social Impact Assessment?

What comes to mind when we think about social impact assessment? To the average person, a social impact assessment usually involves reports made for governments that set out the impacts of large infrastructure projects such as roads and dams. These are about identifying the consequences or impacts of projects on a particular risk population. The 'at risk' population may include individuals, small communities or larger subgroups of society. Most usually, SIAs occur within a crucible of dynamic stakeholder relations – e.g. between communities, governments and developers – representing a type of policy-orientated social research. That is, they attempt to 'scientize' public policy by providing information about project outcomes, by establishing trajectories for beneficial social change, and by indicating how project success or failure can be monitored through the application of social science methodology (Bowles, 1981).

The best way to define social impact assessment is to consider a sample of definitions drawn from different sources.

A social impact assessment is defined to be the identification, analysis and evaluation of the social impacts resulting from a particular event. A social impact is a significant improvement or deterioration in people's well-being or a significant improvement change in an aspect of community concern (Dietz, 1987:54).

Social Impact Assessment (SIA) is a method of analysing what impacts actions may have on the social aspects of the environment. SIA involves characterizing the existing state of such aspects of the environment, forecasting how they may change if a given action or alternative is implemented, and developing means of mitigating changes that are likely to be adverse from the point of view of the affected population (US General Services Administration, 1998).

These definitions highlight the key points that social impact assessments are clearly related to wider processes of social change, and are an important part of the planning and political/bureaucratic framework. The argument is often made that SIAs are a sub-branch of impact assessment research (along with environmental impact assessments and economic

impact assessments) which are subsumed within the more encompassing field of evaluation research. However, social impact assessments tend to concentrate on both public and private projects, while the focus of evaluation research tends to be firmly in the public domain only. In addition, the role of evaluation research is to identify the extent to which a project has achieved its stated goals. By contrast, social impact assessments are generally charged with discovering the impacts or consequences of embarking on a particular project. Finally, social impact assessments aim to anticipate the likely future outcomes before a project is implemented, while evaluation research gauges the impacts of ongoing or past projects (Burningham, 1995; Meidinger & Schnaiberg, 1980).

In applied terms, social impact assessment could be utilized to assess any potential government or non-government project. However, practical experience suggests that analysis has been limited to five sets of actions that come under the umbrella of social impact assessment. These can be identified as:

1 The assessment of new technologies to predict potential outcomes.
2 The assessment of constructed facilities such as roads, dams or power stations.
3 Environment use plans, including plans for managing public lands.
4 The assessment of environmental design, focusing on the relationship between the built form (i.e. buildings) and human behaviour.
5 Infrastructure/social projects in developing countries (Finsterbusch, 1985).

The Theoretic Context of Social Impact Analysis

Although the declared intention of this volume is not to enter into critical theory debate, it is important to briefly place the academic and policy concern with assessment processes within a broader historical and theoretical context.

A concern with social consequences was at the foundation of many of the social sciences, including the work by sociologists such as Emile Durkheim (1964) and Ferdinand Tönnies (1963; see Freudenburg 1986). For these scholars the important questions confronting sociologists were to explain and interpret the social changes that were under way during the nineteenth and twentieth centuries. These changes have been referred to as the 'great transformation' (Polanyi, 1944) but are generally considered under the umbrella of the industrial revolution. The changes

included a shift away from a largely rural, less complex, self-sufficient and traditional way of life to an increasingly complex, urban-based, rationalized and bureaucratic way of life. In essence therefore there were fundamental concerns about the social effects of industrialization and the emergence of a largely rational bureaucratic society. Social scientists were interested in explaining the changes that impacted on community life as a result of a shift from a 'pre-modern society' to a 'modern' or 'modern industrialized society'.

Whilst then scholarly concerns with social impact assessment can be traced to the development of early social science, the political genealogy is traced firstly to the seventeenth century – with the introduction of scientific analysis of demographic and health impacts in France and the UK – and more recently to the passing of the National Environmental Policy Act (NEPA 1969) in the United States (Becker, 1997). NEPA reflected an emerging concern with broader environmental issues that surfaced in the United States during the late 1960s. At the time it was passed, the Act required that any action by a federal government agency likely to have some impact on the human environment had first to be subjected to a balanced, interdisciplinary and publicly available assessment of these outcomes (Freudenburg, 1986). What followed was an expansion of the biophysical aspects of development with the inclusion of socio-economic aspects. This assessment is now what we refer to as a social impact assessment (Becker, 1997).

Similar legislation and guidelines have since been passed in other countries and within international organizations with the result that social impact assessment is increasingly being used by government agencies and commercial and non-profit-making bodies as part of a set of formal requirements both in developed and increasingly in developing countries. Within developed countries, social impact assessment has become a compulsory part of government actions so as to reduce the possibility of wastage of taxpayer money on failed projects. In developing countries, social impact assessment has increasingly been applied to large projects such as infrastructure provision, generally at the request of the funding body (Becker, 1997).

As Branch and Ross argue on pp.100–101, addressing 'the impact causing concerns of the day' with broad social science theories such as Marxism or structuralism can prove problematic. At the macro level, SIA assessors are increasingly having to grapple with, on the one hand, the question of the emergence of a set of social relations increasingly defined by risk (risk society), and on the other hand, the question of the linkages between scientific analysis, policy and participation in a democracy.

Risk and Society

In the context of shifts from the condition of 'modernity' to 'post-modernity', Giddens has commented that 'in the late twentieth century ... we stand at the opening of a new era, to which the social sciences must respond and which is taking us beyond modernity itself (1990:1). One interesting strand of these discussions has dealt with concerns about the emerging risk society (Beck, 1992; Giddens, 1990; Luhmann, 1989). Whilst the issue of risk has been a part of the discourse in natural sciences since the 1970s, in recent years the concept has taken on new meaning by becoming part of the discourse of general social theory and decision-making. What then do we understand by a risk society?

Luhmann's (1989) – see also Reddy (1996) – concept of a risk society revolves around the distinction between natural danger, which Luhmann sees as a characteristic of pre-modern society, and risk as an engineered or manufactured characteristic of post-modern society. Dangers in the pre-modern context included floods, famine and storms and were fund-amentally beyond the control of members of society. Within the modern period, technological and scientific breakthroughs have meant that these dangers have, to a certain extent, been brought under control. At the same time, however, modern societies have constructed a technological and institutional order in which risk is built into social life. Giddens has drawn much the same point:

> In all traditional cultures, one could say, and in industrial society right to the threshold of the present day, human beings worry about the risks coming from external nature – from bad harvests, floods, plagues and famines. At a certain point, however – very recently in historical times – we started to worry less about what nature can do to us, and more about what we can do to nature. (1999:3)

Despite precautions, certain minimal levels of accident are inevitable. Risk in a risk society has therefore become socially constructed.

The work of the German sociologist Urlick Beck (1992) is perhaps the most well known in respect to risk society theories. Beck's concern with risk society can be summed up thus: 'The driving force in the class society can be summarized in the phrase: *I am hungry*. The movement set in motion by the risk society, on the other hand, is expressed in the statement: *I am afraid*' (Beck, 1992:49). For Beck, western nations have undergone transitions from an industrial society whereby the central issue was how produced wealth can be distributed in a socially unequal way, to a paradigm focused on a risk society in which risks and uncertainty

are produced by the very act of modernization. One paradox of these processes is the realization that although science becomes more and more necessary, it becomes less and less significant for socially binding definitions of the truth. That is, 'techno-scientific development becomes contradictory' (Beck, 1992:155). While, on the one hand, scientific analysis is important in identifying and finding solutions to risk, it is, on the other hand, seen as increasingly losing legitimacy. Concerned communities (Hannigan, 1995) exert pressure for change with the result that new forms of alternative and advocacy sciences have to be engend-ered. In other words, there is a much-needed caution and corrective to any claims that SIA experts are somehow the last word on 'impact' evaluation. Again, Giddens has eloquently commented on the 'limitations of expertise'.

> Widespread lay knowledge of modern risk environments leads to awareness of the limits of expertise and forms one of the 'public relations' problems that has to be faced by those who seek to sustain lay trust in expert systems. The faith that supports lay trust in expert systems involves blocking off the ignorance of the lay person when faced with the claims of expertise; but realization of the areas of ignorance which confront the experts themselves, as individual practitioners and in terms of overall fields of knowledge, may weaken or undermine that faith on the part of the individuals. Experts often take risks 'on behalf' of lay clients while concealing, or fudging over, the true nature of those risks or even the fact that there are risks at all. More damaging than the lay discovery of this kind of concealment is the circum-stance where the full extent of a particular set of dangers and risks associated with them is not realized by the experts. For in this case what is in question is not only the limits of, or gaps in, expert knowledge, but an inadequacy which compromises the very idea of expertise. (1990:130)

Succinctly stated, for these theorists, the conditions that surround the risk society are the root of the increasing inefficacy of experts and expertise.

The questions raised by our understanding of global change as risk are:

1 How do we deal with the increase in risk associated with this new period of social life? – 'how can the risks and hazards systematically produced as part of modernization be prevented, minimized, dram-atized and channelled . . . how can they be limited and distributed away so that they neither hamper the modernization process nor exceed the limits of that which is tolerable – ecologically, medically, psycho-logically and socially?' (Beck, 1992:19).

2 Where does this leave our appreciation of the nature, role and function of social impact assessments?

The theorists' (e.g. Giddens, 1990; Luhmann, 1989) answer to the first question is that what is needed to address these problems is a more public means of engaging with science and technology and allowing society to reduce some of the more damaging consequences of manufactured risk. The key concepts here are those of participation and dialogue. In answer to the second question, social impact assessments are uniquely equipped to facilitate dialogue between public and professional both because they deal with risk management as a policy tool, and because (as contributors to this volume reiterate) the risk community constitutes a fundamental resource input into every facet of the SIA process (Figure 1.1).

Science, Policy and Participation

As indicated above, social impact assessors are also grappling with issues about the linkages between scientific analysis, policy and participation. This embraces concerns not just about the emerging risk society, but the more general political science discussions about legitimacy and political participation. In respect to the former, we have already noted the limitations of scientific analysis which seek to de-voice the participatory input of impacted communities. Beck has suggested that debates about the subject matter of risk have remained at heart technocratic and naturalistic: 'There exists accordingly a danger that an environmental discussion conducted exclusively in chemical, biological and technological terms will inadvertently include human beings in the picture only as organic material' (1992:24). With specific regard to the process of social impact assessment the dilemma faced by policy analysts is just how one integrates the values of competing individuals and interest groups with information derived from scientific analysis. Where is the middle ground between expert and impacted citizen?

Members of the general public are often at a disadvantage in terms of their understanding of technical procedures, specifications, risk analysis or cost–benefit ratios in resource projects. Equally, not all experts are capable of assessing work done by analysts in a different field. The end result is that policy/project analysis can become unintelligible to interested parties, especially those not well versed in scientific procedures or language. Moreover, because of the status granted to scientific technical analysis within a modern society, such analysis is afforded a great deal of legitimacy and becomes a source of power for those whose political

positions are aligned to the technical outcomes (Dietz, 1987). The problem as articulated by Habermas (see also Ritzer, 1992) is 'one of the relation of technology and democracy: how can the power of technological control be brought within the range of consensus of acting and transacting citizens?' (1971:57).

Habermas (1971) considers three possible models to deal with this problem – the decisionistic model, the technocratic model and the pragmatistic model. Each places different emphasis on the role of science and values. In the decisionistic model, science is subordinated to politics in such a way that decisions reached are in response to the lobbying of pressure groups. The key ingredient in the policy process becomes the values of interest groups. Scientific analysis enters decision-making in terms of clarifying implications of policy to key stakeholders and in terms of providing legitimation for decisions made on a political basis. In terms of the broader goal of unconstrained communication, this model is problematic as it places too little emphasis on the rational overview of outcomes and relies instead on reconciling the desires to promote public interest with the interests of well-informed pressure groups.

The second model Habermas discusses is the technocratic model in which the role of the scientist and the politician appear to be reversed: 'The later becomes the mere agent of a scientific intelligentsia, which, in concrete circumstances, elaborate the objective implications and requirements of available techniques and resources as well as of optimal strategies and rules of control' (1971:63–4). In this case the initiative has passed to scientific analysis and the planner as the technical expert (Howe, 1980; Vasu, 1979). The social system, rather than being determined by the free flow of ideas, is determined by the logic of scientific-technological progress. The role of values and political processes in this case are to legitimate decisions to the public. As such this model follows arguments that policy prescriptions that are dominated by special interest groups have resulted in irrational and counter-productive outputs and that the only resolution is to leave key decisions to rational-scientific decision processes.

The third model, and the one that Habermas sees as most useful in terms of meeting the goal of unconstrained communication, is the pragmatistic. In this model the separation between the function of the expert and the politician gives way to interaction. Habermas argues that:

On the one hand the development of new techniques is governed by a horizon of needs and historically determined interpretation of those needs in other words, of value systems ... On the other hand, these social interests, as

reflected in the value systems, are regulated by being tested with regard to the technical possibilities and strategic means for their gratification. (1971:67)

In this case, discussion by an informed public integrates values and scientific information (Dietz, 1987) and the repressive nature of communication that is dominated and legitimized by technology and science is removed or at least mitigated.

What lessons can be learnt from the above discussions in respect to SIA? Clearly social impact assessment has the capacity to open up the policy decision-making process by encouraging strong lines of participation by affected communities. That is, social impact assessment has the potential to address some of the concerns about the linkages between scientific analysis, policy and participation. In short, 'social impact assessment can be designed to make the mode by which science and values are integrated into policy closer to Habermas' pragmatistic ideal' (Dietz, 1987:60).

Ethical Dimensions to Social Impact Assessment

There is little doubt that social impact analyses are never scientifically or politically neutral endeavours. They are by definition orientated towards providing a critical platform from which to engage development processes. As such they invoke for the investigator profound ethical issues concerning their commission, their conduct, their communication, and judgements about their efficacy for the community about which, if not for which, they speak. While we cannot hope here to satisfactorily disentangle all issues germane to SIA from those more widely associated with the discipline in which the researcher works, we can outline some key issues likely to confront all SIA practitioners.

Stuart Kirsch (private communication), when pondering the power milieu in which SIAs are conducted, has posed a number of pertinent questions, which we have paraphrased as follows: Who really benefits from SIAs and the information they contain? Does the multi-national corporation that is often charged with the responsibility of commissioning and paying for SIAs seek to use them for corporate objectives? If so, is the scientific authority of the anthropologist here co-opted to endorse these agendas? How can the anthropologist or social scientist address this concern, guard against a 'use and abuse' attitude, and on what basis should the anthropologist's recommendations in any event be privileged over those of the resource developer, national government, community or local operator?

Finding answers to these questions is important precisely because all the contributors to this volume have highlighted the importance of community participation in SIA. Adherence to this principle implies for most anthropologists a professional responsibility to give something back to the host populace in return for their input or assistance. Their agency or voice in the eventual SIA cannot be a quiescent one. At the same time, while we may not be able to tolerate, either intentionally or unintentionally, the disempowerment of our clients, defining what an acceptable level of community involvement looks like in each instance is equally no simple matter. That is, while we acknowledge the need for SIAs to become a critical practice for anthropology, searching for guidelines inevitably enmeshes one in the philosophical and ethical dilemmas of anthropology itself (cf. Jorgensen, 1971) about which there are as many views as there are anthropologists. Recourse can be made to the professional organizations but many recoil at the idea that such institutions and their codes of ethical conduct can effectively and appropriately regulate all SIA activity. While these codes continue to be refined they are often couched in such generalities as to leave many questions unanswered. A good example of this is the following code taken from the International Association of Impact Analysis website (*http://www.iaia.org*):

Code of Ethics for IAIA Members

1 The member shall carry out his or her professional activities, as far as possible, in accordance with emerging principles of sustainable development and the highest standards of environmental protection.
2 The member shall at all times place the integrity of the natural environment and the health, safety and welfare of the human community above any commitment to sectoral or private interests.
3 The member shall ensure the incorporation of environmental protection and social or socioeconomic impact considerations from the earliest stages of project design or policy development.
4 The member shall not conduct professional activities in a manner involving dishonesty, fraud, deceit, misrepresentation or bias.
5 The member shall not advertise or present the member's services in a manner that may bring discredit to the profession.

While few practitioners would disagree that these 'best practice' protocols deserve to be promulgated, they clearly cannot be automatically applied like some calculus for good disciplinary behaviour, nor do they in and of themselves suffice to answer either the kind of questions posed above by Kirsch, or those which will inevitably arise during the course of any SIA fieldwork.

In inception, an SIA engenders a series of ethical relationships that arise out of the association of the investigator with the commissioning agent, with the people he or she studies, with the institution to which they belong or which gives support, with the various governments of the nation in which research is conducted, and ultimately with the profession and discipline under whose rubric they claim identity. Each of these associations will have attached layers of legal, economic and political constraints. It may seem a somewhat trite point to make but the fledgling SIA analyst always confronts choices concerning the advisability of conducting an SIA in this kind of moral milieu. Clearly, a risk assessment and management overview should be undertaken which (a) attempts where possible to anticipate and therefore minimize the possible and foreseeable harms that can eventuate from information getting into the wrong hands; (b) puts in place checks and constraints on organisations attempting to distort findings through opportunistic editing or blatant misrepresentation; and (c) which always remains sensitive to issues of consent, confidentiality and privacy. We cannot hope here to legislate for every scenario, nor adumbrate a definitive list of harms or avoidable circumstances. The SIA contractee can exercise a degree of control through the SIA terms of reference, and clearly can instigate strategies to remove politically dangerous and confidential information – e.g. genealogies, sacred sites, or oral history accounts – from the final report.

Exercising self-control is of course much easier than limiting the capacity of a commissioning agent or anyone else to exploit the SIA for their own agendas. Limiting privileged information and distributing copies back amongst the host community may appear sensible but not efficacious where there are low levels of literacy among the people. While on the one hand there may be little the SIA analyst can do to effect an attitudinal change within the corporate culture which perceives the report as a milestone tick on the road to project fruition – as merely a matter of compliance with government regulations – on the other hand the relevant government agencies to whom the report is submitted have a gate-keeping function to enforce compliance with recommendations made in the report. How effective this will prove will depend on the infrastructure capacity and willingness of those agencies to police statutory processes. The problem is not whether the investigator can be reasonably held responsible for any inadequacies of the host nation government but whether, with foreknowledge of this, it is reckless or irresponsible to continue or commence an SIA in such a climate. Is there an ethical obligation to withhold one's research services – even where one is an acknowledged expert on an area or people – until a satisfactory outcome appears likely or achievable?

While then the questions posed by Kirsch are at the very heart of an ethically responsible SIA endeavour, we are not of the opinion that appealing to a professional community for such decision making is a viable, judicious or even desirable course of action. The factors to be weighed are multiple and require a 'situation sensitive' judgement that in part reposes on professional conduct criteria and in part on the value frameworks which etch the researcher as a human being. Not every situation will present itself as clear-cut or resolvable. Pierce comes closest to the views held by many of the present contributors when he noted:

> there is only one solution to the ethics problem, and that is for each of us to do the very best that he can to assure that his materials are not misused, that his informants are not hurt, and that his data is not distorted. However the only man who can make a decision in the field as to what is and is not ethical is the anthropologist on the spot, because in every situation there will be hundreds of variables, many of which have never been encountered before, and all of which will bear on the decision of what to do. The proper evaluation of that situation should be the responsibility of the anthropologist who is there and faced with the problem ... anthropologists, of all people, should stop attempting to legislate morality (1971:346)

However sensitive and concerned the multi-national corporation may be about community development their expectations may equally be hampered by government laws concerning the provision of infrastructure, personnel and support in sectoral fields such as health and education. The passageway from SIA recommendations to project implementation is, as Simpson indicates in his chapter, fraught with problems. What can usefully be indicated here is the need for the researcher to ensure there is a post-SIA forum process which is attended by all stakeholders and which has as its explicit agenda the objective of discussing, dismissing or prioritizing the SIA findings. That is, a committee has to be established which is given the task of reading the SIA, and making principled choices in discussion with community representatives about what is and what is not achievable, and what should and should not be implemented. If the analyst has any doubt about the intentions of the commissioning agent in this regard it is always an option to include this item as a contractual term of reference.

Just as the decisions in Family Law Courts concerning custody are loosely based on the canon of 'what is in the best interests of the child' so in many senses the SIA analyst has continually to orientate to the overarching concern with 'what is in the best interest of the community'. Playing god or social engineer inevitably opens a can of ethical worms;

this anxiety is all the more heightened for the fact that so much of what is included in an SIA incorporates elements of crystal-ball gazing. Responsible SIA research is no guarantee of perfect results or sustained community benefit. Because SIAs are not conducted in a political vacuum, their intervention within a development situation will inevitably carry risks no matter what cautions are issued or checks exercised. Lessons learnt, as disseminated through the collective experience of practitioners, can prove illuminating, but equally the negative corporate management or government department of today can be quite different to their successive incumbents of tomorrow. Those hoping that by importing critical theory – whatever that may look like – we can establish SIAs as a platform or practice governed by some professionally encoded absolutist rules are likely premature in their aspirations. Such is the variability and differing nature of circumstances which may intrude on the analyst's decision-making that accentuating particular elements over others – the analyst as advocate, activist or advisor – can appear arbitrary. While we do not here suggest that one should recoil from broaching these complex theoretic or ethical issues, we rather express the opinion that progress in SIA work is likely to evolve through inductive, if pedestrian, attempts to demonstrate the validity of applying culture concepts. The perennial question that will be asked of the SIA is how can this type of work 'make a difference.'? This book is a partial attempt to explore some answers.
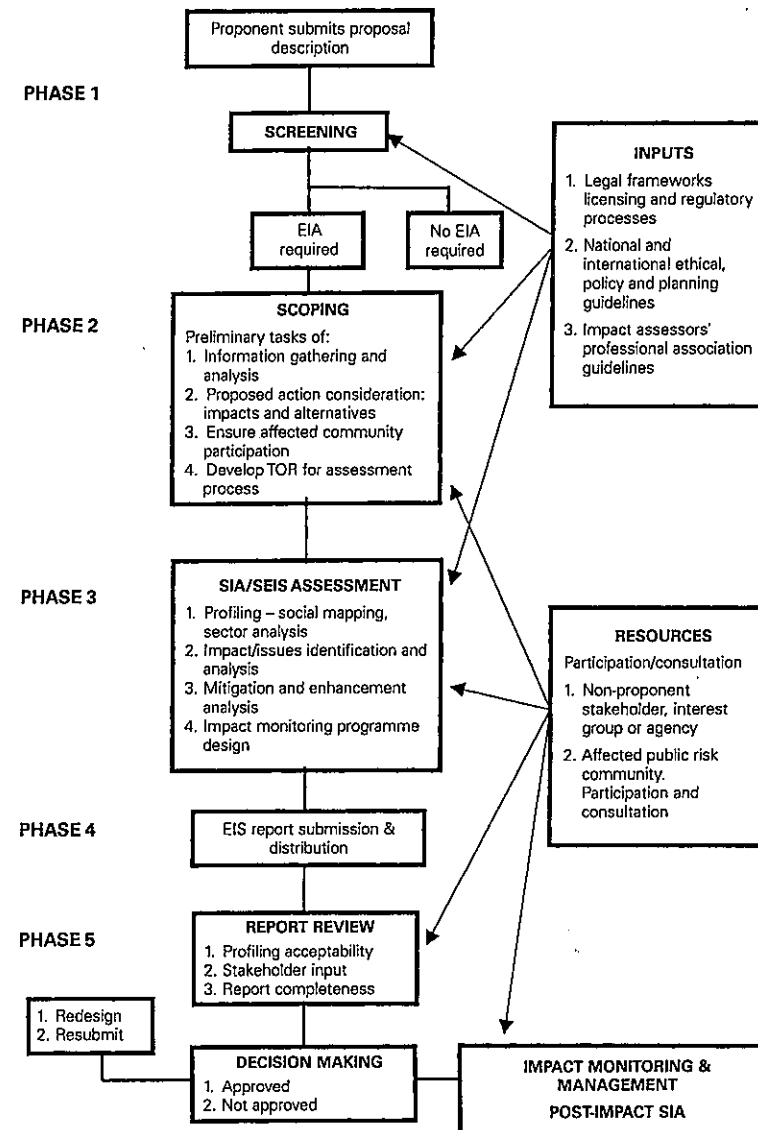
Social Impact Assessment Phases

Figure 1.1 presents an overview of the component phases and tasks which are conventionally associated with the conduct of an SIA. Also shown are some of the standard consultative resources and regulatory inputs which contribute to each of the principal SIA steps.

Figure 1.2 depicts how the various contributing chapters refer, explain and cross-reference the delineated SIA phases. There is some degree of overlap between the various discussions which mirrors precisely the interconnected nature of the tasks within and across the phases isolated below.

Phase 1: Screening

Following the submission of a proposal by a proponent the initial phase is constituted by what is commonly referred to as screening. This process will be informed by statutory legal requirements, and policy and planning objectives. Whimp provides a succinct introduction to the kinds of issues

EIS: Environmental impact statement
EIA: Environmental impact assessment
SIA/SEIS: Social impact assessment/social and economic impact study
TOR: Terms of reference

Figure 1.1 SIA Phase Delineation

PHASE 1

Proponent submission
Chapter 2: Western & Lynch

SCREENING
Chapter 3: Whimp
Chapter 5: Simpson

EIA required — No EIA required

PHASE 2

SCOPING
Chapter 4: Branch & Ross
Chapter 5: Simpson

INPUTS

1. Legal frameworks licensing and regulatory processes
2. National and international ethical, policy and planning guidelines
3. Impact assessors' professional association guidelines

PHASE 3

SCOPING

1. Profiling – social mapping
   Chapter 6: Goldman
   Chapter 7: Stoffle
   Chapter 8: Liebow
2. Impact identification & mitigation
   Chapter 2: Western & Lynch
   Chapter 5: Simpson
   Chapter 9: Howitt & Jackson
3. Impact monitoring programme design
   Chapter 10: Banks

RESOURCES

Participation/consultation

1. Non-proponent stakeholder, interest group or agency
2. Affected public risk community. Participation and consultation

PHASE 4

EIS report submission & distribution

PHASE 5

REPORT REVIEW

1. Proposal acceptability
2. Stakeholder input
3. Report completeness

1. Redesign
2. Resubmit

DECISION MAKING

1. Approved
2. Not approved

IMPACT MONITORING & MANAGEMENT

POST-IMPACT SIA

EIS: Environmental impact statement
EIA: Environmental impact assessment
SIA: Social impact assessment

Figure 1.2 Phase Schema of Chapter Contributions

likely to be governed by laws at various supervening levels within a country. These include national resource ownership, customary land registration, native title legislation, the fiscal regimes governing benefits and royalties, and the complicated overlay of politico-legal definitions of 'boundaries'. Whilst then these concerns manifest the importance of understanding SIAs as policy and planning tools, they equally argue for a natural role of the law expert on SIA teams.

As Simpson makes clear, the screening process will effectively determine whether an EIA is required or not. The EIA is a process which leads to the submission of a report known as the EIS. The SIA/SEIS is thus a sub-component of, or task encompassed by, the EIS. The simplest explanation of what is entailed by an EIA, much of which is illustrated above in Figure 1.1, is given on the web page (*http://www.ext.nodak.edu./IAIA/* principles) of the IAIA: 'The process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made'.

Operating Principles   The EIA process should be applied:

- as early as possible in decision making and throughout the life cycle of the proposed activity;
- to all development proposals that may cause potentially significant effects;
- to biophysical impacts and relevant socio-economic factors, including health, culture, gender, lifestyle, age, and cumulative effects consistent with the concept and principles of sustainable development;
- to provide for the involvement and input of communities and industries affected by a proposal, as well as the interested public, in accordance with internationally agreed measures and activities.

Specifically the EIA process should provide for:

Screening. To determine whether or not a proposal should be subject to EIA and, if so, at what level of detail.
Scoping. To identify the issues and impacts that are likely to be important and to establish terms of reference for EIA.
Examination of alternatives. To establish the preferred or most environmentally sound and benign option for achieving proposal objectives.
Impact analysis. To identify and predict the likely environmental, social and other related effects of the proposal.

Mitigation and impact management. To establish the measures that are necessary to avoid, minimize or offset predicted adverse impacts and, where appropriate, to incorporate these into an environmental management plan or system.

Evaluation of significance. To determine the relative importance and acceptability of residual impacts (i.e. impacts that cannot be mitigated).

Preparation of environmental impact statement (EIS) or report. To document clearly and impartially impacts of the proposal, the proposed measures for mitigation, the significance of effects, and the concerns of the interested public and the communities affected by the proposal.

Review of the EIS. To determine whether the report meets its terms of reference, provides a satisfactory assessment of the proposal(s) and contains the information required for decision making.

Decision making. To approve or reject the proposal and to establish the terms and conditions for its implementation.

Follow up. To ensure that the terms and condition of approval are met; to monitor the impacts of development and the effectiveness of mitigation measures; to strengthen future EIA applications and mitigation measures; and, where required, to undertake environmental audit and process evaluation to optimize environmental management.[1]

The research processes which pursue these objectives were succinctly stated by Wolf to be those of 'SIA profilings – assessment, evaluation, mitigation and monitoring' (1981:ix). Research is undertaken to establish what the social situation is, the provision of baseline data, what is proposed by way of intervention, what processes affect what kinds of social phenomena, and how change comes about through non-project factors as part of the state-of-society assumptions. This is followed by forecasting and projecting work as to the likely type, scope and sequential timing of change in both a with- and without-project/scheme scenario. The investigator then attempts to identify strategies which might minimize or mitigate negative impacts and those which might maximize or enhance the positive benefits.

Ultimately, all of these findings provide informed input into decision-making forums with respect to alternatives, cost–benefit ratios, plans or projects that can sustain acceptable development. International as well as national considerations may come into play here. For example, there has been a quantum shift in policy priorities to aid in the Pacific rim area in the last few years. Supporting infrastructure is now regarded as a less

efficacious, less productive use of financial assistance than initiating and managing 'projects'. As Simpson reminds us, the EIS submission may further be augmented by the need to also provide ERMP/EMP, which is precisely the avenue for recommendation of 'project' required finance. In this kind of work, there is a requirement for assessors to lay out costings, timings, service requirements, etc., which Simpson graphically illustrates for some health-related projects.

Phase 2: Scoping

As Branch & Ross indicate in their synoptic overview, the legal requirements for a scoping phase differ from country to country. Where it is not legally mandatory, it may equally be driven by acceptance of 'best practice' protocols or common-sense reasoning that for cost estimations a forward projection of the work to be done in the assessment phase needs to be completed. In essence, scoping is all about setting the terms of reference for the assessment phase. 'Scoping serves disclosure, problem definition, and planning functions' (Branch & Ross, p.95). However, for this to happen a preliminary assessment is conducted, as outlined in Branch & Ross's five-step scoping framework. All the contributors variously touch on some foundation principles generic to any scoping exercise.

Because, in scoping, one is concerned to insightfully grasp the 'big picture', phases and tasks are never wholly discrete operations in time. Identifying who the stakeholders are, where the risk constituency geographically and socially stops and starts, and who functions as community representatives, all requires a preliminary social mapping. What appear then as independent time-managed tasks in a flow diagram are, in practice, overlapping research jobs.

To mitigate the kinds of alienation between risk public and professional expert alluded to in the above discussions, scoping should always seek the participation of the potentially affected community and other interested stakeholders. Getting community relations right from the outset by precisely this kind of consultative empowerment is both cost-effective for operators and defines what is meant by an 'open' scoping process. Excluding communities from this part of an SIA risks their non-cooperation during the remainder of the research and may serve to engender an antipathy towards the proponent's scheme

As touched upon by both Western & Lynch and Simpson, scoping provides the opportunity to assess the costs, timing schedules, and the requisite human and technical resources necessary to complete the task

within the given constraints. Simpson provides an example matrix worksheet pertinent to a health-assessment programme that would form part of a scoping exercise (p.135).

Phase 3: Assessment

The assessment phase proper gets down to the core business of examining alternatives, of indicating impacts, and of identifying how these can be managed across space and time. Irrespective of how one defines the component tasks here (see for example, the generic assessment paradigm in Branch & Ross, p.102), the commencement point is always the conduct of what is more frequently referred to nowadays as 'social mapping'. That is, a description of the initial conditions of an impact situation which provides both baseline social data and constitutes a before-measure of social conditions. This is very much the conventional theatre of anthropological operations.

The dilemma for most analysts writing SIAs is circumscribing or delimiting fields of relevance when one is dealing with possible change of a tangible and intangible nature, and change that has the potential to ramify throughout just about every sphere of social behaviour.

More often than not, separate sectoral analyses are conducted usually under the umbrella rubrics of :

- governance;
- education;
- health;
- subsistence;
- business/employment;
- transport/communications;
- management;
- benefit streams;
- socio-cultural organization.

These sectors are indicative rather than exhaustive, and each may present phenomena more amenable to qualitative than quantitative analysis. For example, under socio-cultural organization it may be relevant to consider psychological impacts on values and beliefs (Enk & Hornvick, 1983:59); equally, as Western & Lynch detail (p.39), mining activities or urban renewal programmes frequently have aesthetic impacts pertinent to community values about their ecological landscapes. Attempting any definitive list of topic areas or indices then is redundant because no SIA

textbook is capable of covering the variety of circumstances or social systems likely to be encountered by assessors throughout the world. Notwithstanding this caveat, some general principles are adhered to and include:

1 Complementing the expert analysis with a balanced presentation of affected public views about the impending intervention, about the scope and timing of benefit streams, and about their social priorities and problems.
2 Accounting for endogenous and exogenous factors in an ongoing dynamic of change into which the proposed scheme may enter. The intervention is never presented as a totally isolated catalyst for change since the social environment is never in a quiescent state.

The first three contributions, which address the assessment phase, descend in generality from a discussion by Goldman of the conventional ethnographic task of social mapping in a small-scale indigenous context of Papua New Guinea, to a sub-sector consideration of cultural heritage by Liebow among North American Indians, followed by a sectoral analysis of environmental health by Liebow. Common to all three studies is the attempt to portray the problems involved in actually doing the tasks described; that is, how to present and apply knowledge being extracted by the tools of one discipline for a readership conventionally outside that discipline. Descent principles can be complex things to convey in a non-technical language and in a manner capable of being accessed by the non-specialist. Goldman talks us through some of the ways of presenting the importance of understanding kinship systems in terms of their nomenclatures as codes which can crucially affect decisions about landowner representation and landowner status. Equally of interest will be the types of compromises he illuminates for researchers who are required to cover large numbers of clans spread over equally large and inhospitable terrain.

Stoffle develops on the social-mapping sector of cultural heritage with an in-depth demonstration of how to gauge impacts on archaeological sites, flora, fauna and mineral resources. Stressing the input of public consultation, Stoffle shares with the reader the interview and inventory questionnaires he has used in his own SIA work. Much as anthropologists have always argued, physical landscapes have cosmological and sacred properties which need to be taken account of in EMPs and which form part of the 'common knowledge base' constituting the partnership between assessment team and risk community.

In many ways Liebow's consideration of the environmental health sector should be read in conjunction with Simpson's human health-focused examples. Like all other contributors Liebow stresses the singular importance of engaging and collaborating with the potentially affected community in order to strengthen their 'capacity-building' endeavours. What he presents is the other side of the structured interview form: the graded series of questions each researcher must ask in the assessment of hazards and risks, and in the formulation of risk reduction measures. In the field of environmental health, baseline indices will include impacts not only on risk factors, but perceptions of risk – that is, the differences between a 'hazard' and a 'stigma' – and changes in the delivery of health-care services. In these regards the scientific status of the investigator and the conduct of the research are themselves factors which can exacerbate impacts. For example, restricting access to data may increase misinformation, or relying on technical language risks alienating a community. These processes fall within what Liebow refers to as the 'social amplification of risk' and ultimately harks back to the problems discussed above of minimizing the distances between public and professional in SIA work.

The final contribution in this section of the book reflects an important point, 'the characteristics of the resource development project and the characteristics of the site area interact to influence virtually all impact dimensions and all phases of the impact process' (Leistritz & Murdock, 1981:6). Howitt and Jackson contrast 'linear' projects – those which traverse more than one cultural, political or geographic boundary – with 'site-specific' projects such as dams or mines. They take the example of a rail-link in Australia's Northern Territory, Goldman's discussion of the proposed Papua New Guinea–Queensland Gas pipeline is similarly linear in nature – to flesh out the specific methodological issues such projects engender. The detailed history of this scheme presented by the authors is a graphic demonstration of the lessons learnt when the resource of Aboriginal views and interests are inadequately addressed in an EIS. Critical issues were noise, sacred sites, tourism, land boundaries, and benefit streams.

Howitt & Jackson highlight: (a) the political machinations involved in simply doing the study with conflicting interests, priorities and perceptions between local representatives and government bodies; (b) the final recommendations made in the SIA to the particular problems which emerged from consultation with the community. There are no universal panaceas one can reach for and apply in each individual SIA as a ready option for one's recommendation section. Indeed, what emerges

from this detailed case example is that any wholesale reliance on statistical or technical formulae to solve problems can be doomed to failure. The surest route to continued satisfaction of all stakeholders is ongoing consultation and ongoing impact monitoring and mitigation.

How does one do this? Banks provides some answers by explaining the evaluation tool of Household Surveys still much favoured amongst analysts working in Papua New Guinea. As part of the task of providing baseline profiles other standard social research tools include rapid rural appraisals (RRA), random sample surveys (RSS) or participatory rural appraisals (PRA). He looks at the issues of survey design, the problems of sampling, the perils of question language, responses and the problems of survey implementation. In the task of extrapolating trends, deviations, etc, Banks argues for supplementing findings with other primary and secondary data sources. In an ideal world, ongoing post-intervention monitoring should occur by follow-up surveys which aim to track a selected number of variables from the larger pool gathered by the initial pre-project baseline survey.

Conclusion

No pretence has been made here that this manual will answer every query or address every topic related to SIAs or doing SIA research. There remain, for example, a host of questions concerning the final product which we have not dealt with: What are my professional responsibilities as an anthropologist/sociologist to ensuring the community receives a copy of my work? What copyright does the researcher have on the data and its utilization for other purposes such as publication? How can I ensure that politically sensitive information, or 'sacred' knowledge given in confidence, is not misused advertently or inadvertently by others? Figure 1 has indicated that the ethics codes of professional bodies – e.g. Association of Social Anthropologists, American Association of Anthropologists, Australian Anthropological Society – will be an input factor into the formulation of SIA foci. Equally, they may stipulate what is regarded as a 'duty of care' in specific consultancy contexts as aids to decision making in the above contexts. Very little has also been said about the actual process or format of report writing itself. Like many other SIA monographs, a presumption is made that readers will seek out relevant resource manuals in this or consult actual SIAs for comparative enlightenment. Notwithstanding this, however, it will be evident that many of the chapters are in fact written and formatted in precisely the same style the authors have used in their applied work.

No apologia is necessary then for reiterating that our intention in this volume was to provide a starting pack in SIA for first-time students, indigenous and government personnel, developers, consultants and social scientists. The catch-cry of our contributors might be succinctly stated as 'there is no such thing as too much community consultation and empowerment'. Any SIA has to aim at improving the quality of communication and minimizing the risk of conflict between the developer/proponent and other stakeholders. This belief is predicated on the need for mutual trust and clarified communication especially between community and consultant team. To achieve these objectives, risk publics have to be aware of what goes into the complex task of SIA through mediums such as this volume. While then we have attempted to provide a set of tools, methods and apt examples, readers looking for a trouble-shooting guide (in the mould of an 'SIA for Dummies' guidebook) will be sorely disappointed. The sheer scope of phenomena addressed, the almost infinite range of possible social milieu, in addition to context specific factors associated with the proposed intervention, would defeat any such attempt. In this regard, the book is better appreciated as an opening rather than a closing on a vector of applied anthropology now very much at the centre of disciplinary attention.

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Note

1 It is desirable, whenever possible, if monitoring, evaluation and management plan indicators are designed so they also contribute to local, national and global monitoring of the state of the environment and sustainable development.