



**FINAL REPORT
FOR THE PROJECT No:
2003/RD/G004**

**Development and pilot of
sustainability reporting for
organisations**

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**Funded by
THE NEW SOUTH WALES GOVERNMENT
DEPARTMENT OF ENVIRONMENT AND
CONSERVATION'S**





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**E n v i r o n m e n t a l
T R U S T**



Executive Summary

The project

The aim of the *Sustainability Reporting for Organisations* project was to take a TBL reporting methodology developed by the School of Physics at the University of Sydney and make of it a reporting tool that could be used by organisations themselves to report on their triple bottom line. The intended outcomes were: a TBL accounting framework and software tool; a freely accessible online training program; a certificated online training program.

The participants

To accommodate the need to engage stakeholders in the development process the *Sustainability Reporting for Organisations* project adopted a Participatory Action Research (PAR) process. Action research is an approach in which people work together to bring about changes. Project partners were drawn from a range of areas including:

- local government (NSW and VIC)
- non-government organisation (national)
- business (VIC)
- finance (Australia/NZ company)
- industry (global company operating in 40 countries)
- tertiary education (NSW).

Participant experiences

Each of the research partners had quite different experiences during participation in the project. All continued into the second year. Participating organisations provided a number of challenges for their nominated representative. For example participants had to overcome such challenges as:

- convincing their organisation that it was a useful exercise (despite the organisation having accepted the invitation to participate)
- communicating with internal stakeholders and dealing with areas of their organisation where they were unknown
- obtaining the required data
- requesting information that could be regarded as sensitive

In almost all cases these difficulties were overcome and a TBL report was prepared for the organisation.

Project results

The project has resulted in a far more comprehensive and market ready output than had been anticipated in the proposal. The following have been accomplished through the two year action research project and within the budget of the 2004/5 Environmental Trust grant:

- TBL accounting software underpinned by the ISA methodology, developed in consultation with end-users and commercially available and supported through Dipolar Pty Ltd <http://www.bottomline3.com/>
-



- Global software under construction (initially addressing the economies of Germany, Japan, UK, USA)
- Comprehensive software support manual developed in consultation with end-users (Appendix 9)
- Set of information sheets developed in consultation with end-users and available on the ISA website (Appendix 4)
- On-line free access TBL course to support use of the software available from the ISA website <http://www.tblwizard.net.au/>
- Outline and support materials for accredited course including four case studies presenting the experience of: local government, non-government organisation, tertiary institution and industry
- Journal articles accepted for publication (Cybernetics & Human Knowing; Ecological Economics)
- Series of three workshops open to the wider community and each attracting approximately 40 participants
- Conference presentations in Sweden and Slovenia

Recommendations

Participating organisations provide the following advice to other organisations wishing to take up sustainability reporting.

- Ensure commitment at the highest level of the organisation, this includes: providing an accurate and concise information pack; ensuring that the project's potential benefits and challenges are well understood by the executive team; creating awareness of the potential for organisational change based on the output of the project.
- Prepare a communication strategy to ensure that all internal stakeholders understand the reasons for undertaking sustainability reporting, their role in the reporting process, and avenues for providing contributions and feedback.
- Prepare a communication strategy for external stakeholders to convey the reasons for undertaking sustainability reporting, the form it will take and avenues for feedback.
- To become embedded in practice TBL reporting needs to become integral to organisational reporting and part of doing business.

This project has also highlighted a range of future research possibilities. It has laid the groundwork for a comprehensive and ultimately global TBL accounting tool that will provide the standardisation that the global reporting community is seeking. It has also laid the groundwork for a series of micro tools focused specifically towards the needs of different sectors in the economy.

In light of these two areas for future development it is recommended that funding be sought for the following research and development projects that would put Australia in the forefront of the global standardisation and reporting community.



- 1) Development and marketing of tools that specifically address the economies of other nations, with the ultimate aim of a standard global reporting tool
- 2) Development and marketing of a series of tools to support the TBL reporting of discrete sectors of the Australian economy (e.g. local government, education, financial insurance, water services etc)
- 3) Research into accounting systems (people systems as well as software systems) and ways in which they can be dove-tailed into TBL accounting
- 4) Research into and development of scenario tools and results narratives to assist in making full use of the software output.



1 Background to the study

The two-year NSW Environmental Trust funded research project *Sustainability Reporting for Organisations* grew out of the recognition that hard science can sometimes be inaccessible to those who most need to make use of it. Often the ideas are perceived to be too difficult for non-scientists to grasp. However, the popularity of science articles in the media and the appearance of *popular science* as a category in bookshop chains throughout the world indicate that it is often not the concepts that are too difficult but rather the language that gets in the way. Popular science writers are often able to translate the language of Science and make the inaccessible accessible to many.

The aim of the *Sustainability Reporting for Organisations* project was to take a TBL reporting methodology developed by the School of Physics at the University of Sydney and make of it a reporting tool that could be used by organisations themselves to report on their triple bottom line. At the time, because of its complexity, the methodology was only able to be applied by the School of Physics research team. Organisations therefore had to engage the university team on a consultancy basis. This limited the reach of their work to the small number of organisations that could be supported by team members. Not only was the reach of the work limited but the explanation of the methodology and its potential as a tool for addressing organisational issues such as risk management, was sometimes, but by no means always, lost in scientific language, thus further limiting its potential.

To help overcome some of these difficulties the *Sustainability Reporting for Organisations* project was designed to develop a stand-alone tool in partnership with a range of organisations, through participatory action research (PAR). Their input into the design and development would ensure that the end product was understood, user friendly and addressed the varying needs of business and industry, government and non-government organisations. The research partners would give advice on their needs, highlight areas of miscommunication and difficulties in understanding, and provide feedback on the developing tool. It was hoped that the end result would be a greater understanding, awareness and acceptance of the methodology. It was also hoped that availability of a reporting tool would enable a greater take-up of the methodology for TBL reporting across a wide range of organisations.

2 Context for the study

It was against this background of perceived difficulties and, as yet, unrealised possibilities that the *Sustainability Reporting for Organisations* project was developed by the Integrated Sustainability Analysis (ISA) team at the University of Sydney's School of Physics. The project was developed in the context of an ongoing global debate concerning the best way to report the Triple Bottom Line (TBL). In this context ISA was pioneering an integrated, holistic approach which at times seemed to be at odds with other national and



international developments which were concentrating their energies on an audit approach.

2.1 need for a new way of accounting

Current approaches to Triple Bottom Line (TBL)¹ assessment are frequently based on an audit process. An audit examines performance against a set of principles or policies. An organisation may conduct an audit say, to examine its use of resources, or to scrutinise waste. The audit is usually limited to what happens within the actual organisation and has traditionally referred in some way to the economic bottom line. The TBL audit has developed from this process. As with all audit techniques, a boundary is drawn within which the audit is undertaken. For example economic indicators are usually calculated from existing financial records, compiled using accepted accounting standards. Social indicators are usually determined by a local audit of the organisation's operations, typically covering employee conditions, health and safety and support for the local community. Environmental indicators are also usually determined by an on-site audit process.

The major restriction of an audit approach is that in order to make the audit manageable, a *boundary* has to be set. The organisation has to decide, for example, if it will include the employment it generates in the local area; or the effect on the environment of its packaging. This leads to inconsistencies within and between assessments as the boundary inevitably shifts over time. The audit approach is exemplified by the Global Reporting Initiative² which provides good reporting *scope*, or range of indicators, but limited *depth*, because it cannot, and is not designed to, capture effects outside the reporting organisation's immediate sphere of influence. Therefore, whilst being able to deal with the specificities of companies, the audit approach cannot capture full supply chain effects.

2.2 boundary issue

The *boundary* within which an organisation accounts for its environmental, social and/or economic effects is usually defined as that over which the company has direct influence and can exercise control. Also

“[I]t is critical [that] the boundaries adopted for the purposes of reporting are clearly defined and obvious to readers of reports. Careful boundary definition also ensures a report can be verified and meaningful comparisons can be made between information from different reporting periods.” Environment Australia (2003, p.8)³

However, level of influence and control will vary from organisation to organisation and from year to year, making comparisons within and between organisations far from straightforward. And extending the boundary beyond

¹ Triple bottom line (TBL) was a term originally coined by John Elkington (1998) to describe corporations moving beyond reporting only on their financial “bottom line” to assessing and reporting on the three spheres of sustainability: economic, social and environmental.

² <http://www.globalreporting.org/>

³ also contains a wider discussion about the issue of boundaries.



the immediate control of the organisation still begs the question of exactly where to draw the line. Decisions will differ between organisations and over time. Moreover, establishing a clear boundary for an analysis that is consistent across all indicators is a further dilemma. The GRI itself recognises this problem and has set up a boundaries committee to which ISA has made representation.

Taking a full life cycle view it can be seen that an infinite number of upstream suppliers feeds into an organisation (see figure 1). Each one of them has triple bottom line impacts to be accounted for. Most audit approaches are not designed to extend beyond the first level of suppliers. Whilst important local or on-site effects are captured by the audit, the considerable economy-wide effects are not accounted for or reported on. The same is true for downstream impacts, some of which can be accounted for in an audit approach (e.g. GRI Indicator EN18). However exactly the same boundary issues apply in downstream analysis.

2.3 Integrated Sustainability Analysis (ISA)

Recognising the limitations of the audit approach the Integrated Sustainability Analysis (ISA) research team, over a number of years, has developed an analytical framework and techniques that integrate sustainability indicators with detailed structural information from the whole Australian economy. This means that an indicator (e.g. water use) selected at the local level of the organisation, can be accounted for not just within that organisation but also water use bound up in all the inputs to the organisation, and the inputs to the inputs, and the inputs to the inputs to the inputs and so on, following the last drop of water along myriad inputs to inputs to inputs.

To solve the boundary issue by accounting for impacts of the full upstream supply chain the ISA methodology uses input-output analysis (IOA). This is an internationally accepted accounting procedure that documents all monetary flows to and from discrete economic sectors. It covers all traditional economic activity in an economy. Input-output theory was pioneered by Noble Prize winning economist Wassily Leontief in the 1940's. It is governed by UN standard IO tables published regularly by statistics agencies all over the world. However while sectoral studies using IOA have been a common part of standard economic planning for many years it was always Leontief's intention that IOA be extended from purely financial considerations to a range of social and physical elements. Thus the methods used by ISA integrate the structure and function of the financial economy (as described by the national I/O tables⁴) with other national social and physical accounts such as energy, greenhouse emissions, water, land disturbance, employment and so on to account for, as Leontief intended, the social and environmental, as well as the economic affects of doing business. The fact that IOA works at all scales⁵

⁴ The Australian Input Output Tables are compiled by the Australian Bureau of Statistics (ABS). They represent a comprehensive "snap-shot" of the size and structure of the economy.

⁵ IO tables are built from company data

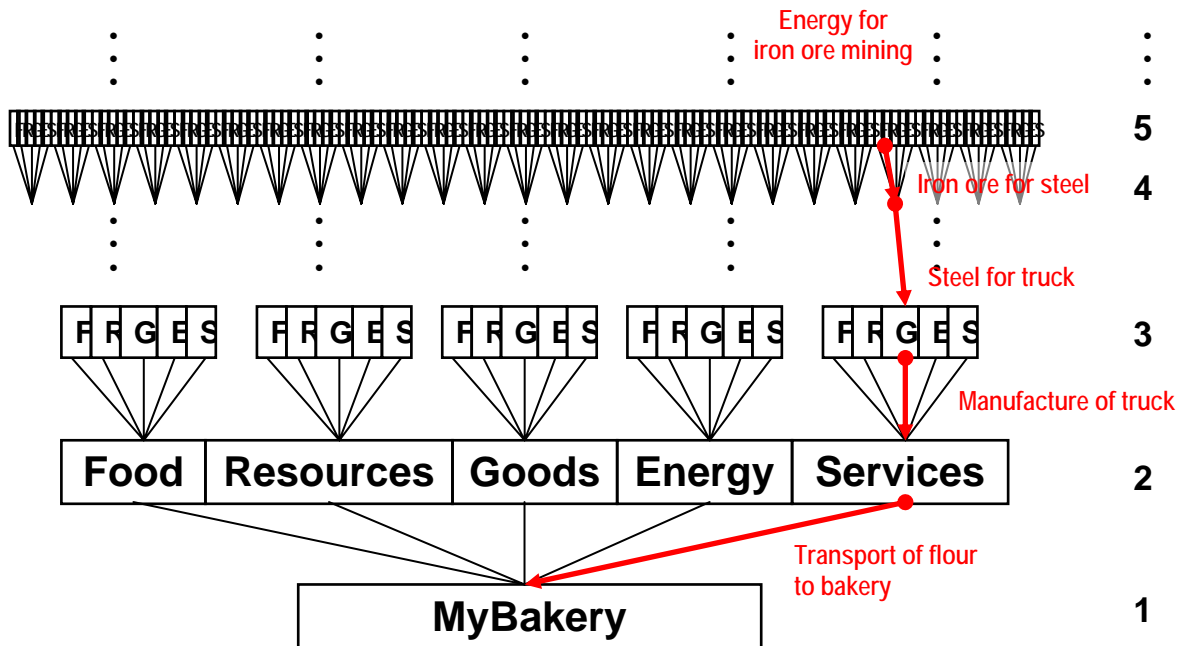


allows for the assessment of nations, states, regions, cities, suburbs, populations, individuals, industry sectors, companies or products.

The ISA method works by taking an organisation’s expenditure data and converting it into TBL indicators that the organisation can choose from the ISA indicator list. For example, say the organisation chose *SO₂ emissions* as an indicator, and provided a value of, say, 100\$ for paper purchased by their organisation. Then ISA calculates how many kilograms of SO₂ are ‘embodied’ in this 100\$ worth of paper. This is added to the other expenditure items and becomes part of the organisation’s SO₂ ‘budget’. And so on for whatever other indicators are chosen (e.g. water, energy, employment, profits).

The ISA framework can be applied to quantitative Triple Bottom Line (TBL) Reporting, Ecological Footprint Analysis, Life-Cycle Assessment (LCA), Environmental Impact Assessment, industry and population studies, and supply chain analysis.

Figure 1: upstream and the issue of boundaries



Explanation of Figure 1

Imagine MyBakery at the foot of a tree that represents MyBakery’s supply chain. The first “canopy” up from the foot is MyBakery’s suppliers. The next canopy up is the suppliers of MyBakery’s suppliers, and so on. This tree is an infinite tree of suppliers. The foot is called *production layer 1*, the first canopy is labelled ‘2’, the second ‘3’, and so on. Impacts occur in every production layer. Take the indicator ‘energy’ for example. MyBakery is connected to town gas used to fire ovens. The gas used on-site belongs in production layer 1. My Bakery buys flour. This flour needs to be produced by a flour mill. The energy used in the flour mill belongs in production layer 2, since the flour mill is a direct supplier of MyBakery. The flour also needs to be delivered to MyBakery by a transport firm. The diesel used by the truck also belongs in production layer 2, since the truck company supplies the transport service to MyBakery. The truck that the transport firm uses needs to be assembled by a vehicle manufacturer. The energy used during this assembly process belongs in production layer 3, since the vehicle manufacturer is a supplier of the transport firm which in turn supplies MyBakery. And so on. The chain of red arrows in the supply chain tree is called a *structural path*. There are millions and millions of structural paths in a typical supply chain tree. This is because the economy is so complex.

2.4 hybrid approach

The micro or audit approach, and the macro or Input Output Analysis (IOA) approach address different aspects of TBL assessment. Specificities and

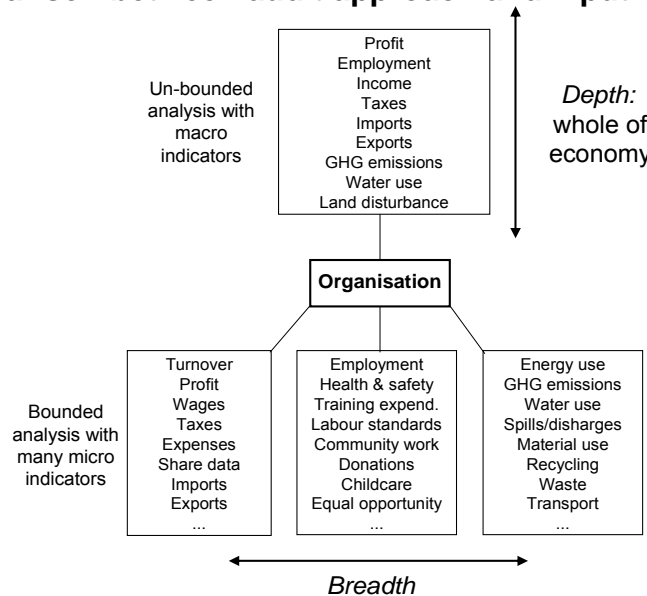


breadth of effects covered in a traditional TBL audit are complemented by the macro approach that gives depth of coverage.

The Global Reporting Initiative’s *Sustainability Reporting Guidelines* for example, take an audit approach. The guidelines contain a range of indicators that provide good reporting *scope* or *breadth*. In order to make the audit manageable a *boundary* is set. This boundary usually limits the audit to immediate onsite inputs that are deemed to be within the control of the reporting entity. Using the audit approach alone can lead to inconsistencies within and between assessments because the boundary can sometimes be arbitrary.

We can summarise the different approaches to TBL assessment and reporting using the notion of assessment *breadth* and *depth*. Both approaches have merit and are best used in combination: a practice known as hybrid analysis.

Figure 2: comparison between audit approach and input-output



Explanation: A simple comparison between bounded audit approaches with large indicator *breadth*, compared with input-output approaches with *depth* from macro indicators extending through the full supply chain (economy). Some indicators in these sets (illustrative only here) are common to both approaches.

This hybrid method makes use of a range of indicators and is a logical combination of the approaches, one that produces much more consistent results for companies.

2.5 ISA’s indicators

ISA’s indicators which now number over a thousand, cover environmental, social and economic issues including: energy, water, land disturbance, greenhouse gas emissions, employment, income, taxes, exports, imports, profits, as well as impacts on education, community and cultural services. When using the methodology organisations choose which indicators they wish to address. The chosen indicators can be decomposed to reveal impacts at



many different levels, from micro, which could be a company's on-site emissions, to macro or world-wide supply-chain emissions.

2.6 summary

The *Sustainability Reporting for Organisations* project was developed in the context of the global debate on sustainability reporting. The major issues of the debate have been tackled by the ISA team and a quantitative, consistent and comprehensive method of accounting for the TBL has been developed. The validity and rigour of the methodology has gained international acclaim however the Australian take-up of this methodology as an accounting tool has been slow. This is in part because of its complexity and the lack of a do-it-yourself reporting tool and partly because explanations of its potential are sometimes lost in translation.

3 Project methodology

To overcome the difficulties for organisations in adopting ISA's TBL accounting methodology it was recognised that work had to be done with potential users to gain insights into what was inhibiting take-up. A participatory action research (PAR) methodology was therefore chosen for this research project.

3.1 project aim

The aim of the project was to develop a reporting framework and stand alone software tool that organisations could use for themselves. It would be accessible and supported by plain English resources and an online course that would explain the process, inputs, output and applications. This would be achieved by working with end users in order to understand their needs.

3.2 action research

To accommodate the need to engage stakeholders in the development process the *Sustainability Reporting for Organisations* project adopted PAR. Action research is an approach in which people work together to bring about changes.

“Action research can be described as a family of research methodologies which pursue action (or change) and research (or understanding) at the same time. In most of its forms it does this by

- using a cyclic or spiral process which alternates between action and critical reflection and
- in the later cycles, continuously refining methods, data and interpretation in the light of the understanding developed in the earlier cycles.” (Dick, 1999)

In the case of this study the cyclic process consisted of:

- reaching common understandings of sustainability reporting issues to be addressed in the workshops (research and reflection)
- conducting workshops (action)



- reporting on the workshops to participants (critically reflecting)
- conveying feedback from workshops to tool development process (critical reflection)
- continually refining tool on the basis of response (action)
- developing information sheets on basis of need identified in workshops (action)
- seeking feedback on information sheets (critical reflection)
- further refining of sheets (action).

Qualitative research is validated through triangulation, which is a “strategy that adds rigor, breadth, and depth to any investigation” (Denzin & Lincoln, 1998:4). Triangulation is achieved through use of a range of data sources and collection methods. These include interviewing (using techniques such as group discussion, telephone or email communication) and document analysis (including previous research, reports, journals). Qualitative research is also validated through a process known as ‘member checking’. This involves checking with participants/stakeholders to ensure that the reports (texts) developed out of discussion are acceptable as a good reflection of what occurred (Guba & Lincoln, 1989).

In the case of this study, validation, in the sense of collecting data that could be verified, confirmed or authenticated was not an issue because we were seeking the opinions of our research partners and using that information to feedback into the development process. However it was important to provide a range of avenues for feedback and discussion. These were achieved through email, telephone and workshops with members of participating organisations.

It was also important to test our growing understanding of the issues faced by project partners and to confirm these issues as common to like organisations. We did this by meetings with, and presentations to, a broad range of non-participating organisations. After each event we refined our presentation and each time gratefully received feedback from our audience.

4. Project design

The project took the form of a series of workshops, two planned for year one (2004) and two for year two (2005). They were to be open to the public, as part of the project’s communications strategy, and followed by closed meetings with project partners. The meetings with partners were to be followed up by email and telephone communication. Out of these workshops and communications would emerge the issues to be addressed in software development and supporting documentation, and a framework for future online training.

A software development company and online course developer were to be engaged to build and modify the software and learning program in line with feedback from the research partners.



It was expected that by the end of the first year there would be a prototype software tool for hands-on exploration by the project partners. During the second year it was expected that a new group of participants would be enrolled. They would meet to explore the software as new users and provide feedback with 'fresh eyes'. They would be supported by workshop sessions presented by the first year's partners as well as by the project team. The two workshops planned for year two were to explore the software and, at the end of the year, to test drive the final product.

By the end of the second year it was envisaged that there would be a software tool, support materials and an online training program. Resources to support the training would be developed including case studies of participating organisations.

4.1 participants in the study

Project partners were drawn from a range of areas including:

- local government (NSW and VIC)
- non-government organisation (VIC based national organisation)
- business (VIC)
- finance (NSW office of Australia & NZ company)
- industry (NSW based global company)
- tertiary education (NSW).

They represented users of TBL reports such as investors, and producers of reports such as business or local government. They were initially invited to participate for one year after which time a further group would be recruited. However, all but one requested that they continue involvement for a further year.

Project partners were promised a TBL report for their organisation. In return their role was to provide feedback on the process, product and their support needs. Participating organisations were expected to contribute in-kind support in the form of:

- introductory meetings as necessary
- preparation for the workshop
- attendance at the workshop and provision of feedback on software and materials
- collection of input data, trialing of the software and provision of advice on the development of the software tool
- assistance in writing a case study and preparation of report for the second workshop
- attendance at the second workshop and provision of feedback on software, materials and online training program
- contribution towards a resource bank (e.g. processes and practices that have proved useful)
- later input (optional) into an online training program; online mentors; guest speakers.



Preparation and feedback was expected to involve one person for approximately four hours per month. The workshops would involve one or possibly two people on two occasions.

Participating organisations could expect to receive:

- a sample Triple Bottom Line Report generated from data provided by the organisation for the research project
- resources developed in the course of the project
- a case study
- an opportunity to contribute to the development of a TBL reporting tool that will be of use to organisations throughout Australia and beyond
- an opportunity to contribute to the development and implementation of an online training program
- a one-year software license at 50% discount.

5 Project implementation

Early in the research project it became apparent through response to the workshops and general interest expressed through website hits during 2004, that we were engaged in a project of high interest to the sustainability community. The very dilemmas outlined above were those facing other researchers and practitioners. All were looking for tools that would deliver consistent and comparable results backed by a sound and rigorous methodology.

It also became apparent during 2004 that what we were asking of a software developer was an enormous task. There was no precedent for this kind of development work. It required an extremely high level of mathematical understanding together with highly developed software design skills and willingness to engage in an action research process. For this reason some adjustments were made to the research design. During 2004 a software interface designer worked with the research partners taking feedback on the user interface. Throughout 2004 and into 2005 Dr Manfred Lenzen, of the ISA team worked to bring the highly complex 'engine' that would drive the software calculations to a form that would be more compatible with software construction tools used by commercial developers.

In 2005 we engaged a commercial software developer who was able to marry the interface needs of the research partners recorded by the interface designer, with the 'engine' developed by ISA, and produce a reliable TBL software tool. An additional demand on the developer was that they must work with a group of research partners as advisors to the project. The tool must be developed not only to meet the rigorous mathematical requirements of the ISA team but also meet the interface specifications and functionality needs of the research partners representing end-users. It must:



- enable scenario analysis
- be generic enough to suit the need of all types of organisations
- be applicable now and for future years
- be up-gradeable to include other countries and other economies
- allow for the addition of further indicators over time.

Notwithstanding the complexity and ambition of the task a beta version of the tool was ready for hands-on trial by November 2005. The first year's project partners, eager to 'see the job through' continued on into the second year. New partners were also recruited in early 2005 but for different reasons were not able to continue (see below), however all expressed interest in being kept informed of progress and possible future involvement. Two local councils were recruited in late 2005 and provided valuable feedback on the products.

Materials to support the online course were developed in consultation with the research partners throughout the two years of the project. An online framework for the course was presented for feedback in November 2005 to coincide with the hands-on software workshop.

5.1 workshops

Workshops took place in April and December of 2004 and in November of 2005. These followed a series of preliminary meetings, telephone conversations and email communications designed to set the agenda and ensure that participant and project needs were met. All workshops were, in part, open to the wider community. This had not been envisaged in the original research proposal but in the event added a great deal of value to the overall outcome. It meant that the research reached a wider audience, more people benefited from the research grant and a far wider range of input could be incorporated into the development of tools and resources.

5.1.1 Workshop 1: Integrated Sustainability Analysis

The first two-day workshop, attended by approximately 40 participants, provided: expert input from invited speakers including presentations on national and international context (e.g. the Global Reporting Initiative); case study reports from other practitioners (e.g. Sydney Water; Wollongong City Council); and discussion forum, helping to define strategic decision making issues to be addressed. The second day of this workshop involved project partners only, meeting for the first time to share their stories and express views on the conduct of the research project.





5.1.2 Workshop 2: Social Sustainability

The focus for workshop two (social sustainability) and the agenda were negotiated with the research partners.



The workshop included: participant reports, expert presentations, sharing of a draft Sustainability Reporting framework, and round table discussion. It was attended by approximately 40 participants. Participants were walked through a prototype software interface with opportunities to provide feedback on interface and content. Scribes were provided for round table discussions.

Each discussion was led by a workshop presenter⁶. A summary of the discussion was mounted on the ISA website the following week and incorporated into a paper on Social Sustainability (in press: *Cybernetics and Human Knowing*, see appendix 8). The focus of the discussion was on additional social indicators to be added to the ISA toolbox.

5.1.3 Workshop 3: *Balancing Act* and software feedback

Workshop three took place in November, 2005. It was held in conjunction with the Financial Services Institute of Australasia (FINSIA) seminar program which hosted a lunch-time seminar to introduce and explain the ISA/CSIRO report *Balancing Act: A triple bottom line analysis of the Australian economy* (Foran et al, 2005). *Balancing Act* is a study commissioned by the Commonwealth Department of Environment and Heritage. It uses input-output analysis to develop a triple bottom line account for each of 135 economic sectors across three financial, three social and four environmental indicators⁷. Taken together these ten indicators provide a macro-landscape against which the sectors can be benchmarked. These benchmarks provide the sector comparisons that will be built into the ISA software. Approximately 40 people attended this session.

⁶ Eva Cox, Faculty of Humanities and Social Sciences, University of Technology, Sydney; Justine Alpe, Manager, Corporate Responsibility Index, St James Ethics Centre, Sydney; Richard Boele, Banarra Sustainability and Social Assurance

⁷ The four environmental indicators are: greenhouse gas emissions, primary energy use, managed water use and land disturbance. The three social indicators are: employment generation, income and government revenue. The economic indicators are: gross operating surplus (or profits), export propensity and import penetration.



The seminar was followed by a closed meeting of project research partners to provide final comment on the software support manual and feedback to the online course developer. The following day was spent in hands-on exploration of the software with feedback directly to the software developers.

5.2 software development

While over a year was spent in finding the right people to develop the TBL software the careful selection process paid off. After several promising starts and a few blind alleys we finally found a group able to do what we were asking and within the project budget. Importantly they agreed to work within an action research paradigm interacting with our project partners, taking feedback and accepting advice.



The software developers, Dipolar Pty Ltd, were also happy to work closely with the ISA team, in particular Dr Lenzen with whom they consulted on technical issues regarding the 'engine'. This close partnership has meant that a far greater potential for the software will be realised than was originally envisaged. The developers are keen to explore German and Japanese language versions of the software using German and Japanese economic data respectively as well as versions reflecting the UK and USA economies. All this is far beyond expectations and will be accomplished within the project budget. In addition Dipolar Pty Ltd will provide software distribution and online support facilities, again far beyond the original scope of the project.



5.3 online course development



Two online courses were to be developed: one short course focusing specifically on the software and provided on the ISA website as a public good; and one broader certificated course provided through a Registered Training Organisation (RTO) or tertiary institute. Throughout the project, and with the help of project partners, resources and materials were written and collected to support both courses.

In response to questions and gaps in knowledge and understanding a series of information sheets was developed. These served the dual purpose of informing the group and forming a resource bank for a future online training program (see appendix 4). They represent the collective learning of members of the research group over the life of the project.

Negotiations for a certificated online learning program are continuing. The original intention had been to place it within the University of Sydney's continuing education program. However the continuing education program's move towards online learning has been delayed. The coordinator of the Masters degree in Sustainable Management at Charles Sturt University (formerly of University of Sydney, Orange Campus) is keen to see the incorporation of a TBL unit into the CSU Masters program. Discussions are now underway for inclusion here rather than with the continuing education program. The course outline is at appendix 5.

5.4 case study development

Case studies were developed using an iterative process. The process began with a semi-structured interview (interview outline appendix 6) either face-to-face or by telephone and was followed by a process of drafting and editing. At each stage of the process drafts were presented, by email or in hard copy, to the research partner for comment. The drafting process continued until both parties were happy with the product.

Along with the resources described above the case studies have become support for the online training program.

5.5 dissemination

A number of dissemination and communication strategies were employed to maximise the reach of the project.



- Three workshops open to the wider community, each attracting approximately 40 participants
- Meetings with individuals and groups throughout 2004 (meeting schedule appendix 7)
- Conference presentations: International Society for Industrial Ecology 2005 Conference June 12-15 Stockholm, Sweden (Poster: *Weaving Net Works: An Action Research Program to Support the Development of Sustainability Reporting Tools and Framework*); 6th International Conference of Sociocybernetics, Cybernetics and Innovation, Maribor, Slovenia 6-10 July, 2005 (RC 51 Discussion: *Systems for social sustainability: global connectedness and the Tuvalu test*)
- Journal articles pending (see appendix 8 in press) also article requested by Financial Services Institute of Australasia
- ISA website link to project information (www.isa.org.usyd.edu.au) which recorded a spike in hits preceding and following each workshop (e.g. average 169 daily hits for November 2005).

6 Results

6.1 challenges experienced by partner organisations

Each of the research partners had quite different experiences during participation in the project. Participating organisations provided a number of challenges for their nominated representative. For example participants had to overcome such challenges as:

- convincing their organisation that it was a useful exercise (despite the organisation having accepted the invitation to participate)
- communicating with internal stakeholders and dealing with areas of their organisation where they were unknown
- obtaining the required data
- requesting information that could be regarded as sensitive

All reported on their experiences to the workshop in December, 2004.

6.1.1 *convincing the hierarchy to get involved*

Despite the organisation having accepted the invitation to participate, one research partner, on two separate occasions, experienced branches of the organisation not involved in the decision, questioning the usefulness of the project. Another proceeded as a partner in the research only after a long internal process of negotiation that delayed participation for almost a year. A Phase 2 organisation was forced to drop out after some senior officers in the organisation feared the results may provide too much information. There was concern that the results may be misunderstood and could be used against them by other similar organisation or by the community.



The industry project partner reported that the first question encountered in any internal discussion or presentation was “what is the value to us?” He reported that he finally gained approval to participate in the project because it did not require a large financial commitment. Perhaps also related to the approval to participate was discussion, at a more senior level, of *sustainability* as part of the company’s larger agenda.

The industry project partner felt that companies might hesitate to get involved because of legal fears. Especially if they felt they could be held in some way responsible for damage (ecological or social) beyond their direct sphere of influence. For example there was some doubt about whether it was fair for the company to accept some responsibility for emissions from other organisations (upstream suppliers). The industry project partner felt that one way to promote the TBL tool was as a means of analysing risk such as carbon emissions in the supply chain; something that would be invaluable in the event of carbon trading.

6.1.2 communicating with internal stakeholders

The local government partner reported considerable difficulties in communicating with internal stakeholders. He pointed out that there were 1100 employees all of whom would need to be at least aware of the project if it was to be used as a basis for changing the organisation’s approach to sustainability. Nevertheless he was keen to continue providing input to the research process, suggesting that a future project focusing on the needs of local government would be extremely beneficial.

The industry project partner spent much of the first year of the project making contact with relevant people in the organisation and enlisting their support. He eventually approached the company’s *Technology and Research & Development* groups who could provide an holistic understanding of the organisation and the way it operated. Through them he was more easily able to track down relevant data.

6.1.3 obtaining data

In large organisations tracking down the ‘owner’ of the information was only part of the story. Some participants found it time consuming to have to explain the project many times and verify the legitimacy of their request. Where the information requested was not immediately to hand and required some time investment then permissions to pursue the data had to be sought from department heads. All of which took time. Research partners saw the need for a streamlining of data collection within organisations with TBL data collection process becoming embedded in policy and practice. They suggested that once the data had been tracked down for the first report future reports would be considerably easier.

Research partners noted that for data on *indirect impacts* the purchasing department had to be asked for summary purchase data along with data on



the production origin of purchases, whether they were imported from overseas, or whether they were purchased interstate. If the organisation sold something data had to be collected on sales and where the sales went to (i.e. own state, inter-state or export, to other businesses, to the government, or to consumers). The annual report or the organisation's accountant had to be consulted to find what tax the organisation paid; annual profit had to be identified. This information had to be entered into the spreadsheet for *indirect impacts* (Appendix 2). Participants reported that they had to track down the owners of various pieces of this information and often did not know who to ask. For example for *direct impacts* they needed to know the land area occupied by the organisation. For this they might have to approach the *Facilities Manager* if there was one, or *Maintenance Branch* or *Engineering* to find out how many sites there were and roughly the size of the sites. If no-one knew, then the information might have to be gleaned from maps. Emissions had to be derived from fuel purchasing data and water and power bills had to be tracked down. For social data such as salaries and wages and number of employees *Human Resources* and *Payroll* were approached. The data had then to be allocated to the correct category and entered into the spreadsheet (Appendix 2).

Project partners observed that once the data collection needs were understood, and the task had been accomplished, future projects would run far more smoothly. However for this first endeavour individual project partners had a range of differing experiences. The industry partner having sought data from the accounting department encountered difficulties with the sheer volume of data. For example the company had over 100,000 suppliers, many imports and also exports.

The local government partner pointed out that staff are involved in many projects, from construction and storm water drainage to childcare and opera on the beach. This made for logistical difficulties in obtaining detailed data. Data were held at the project level and projects belonged in different parts of council. Project managers may not be interested or may not be available to assist because of time constraints. To illustrate the data collection problem the project partner said that to calculate the cost of concrete for entry into the National Account category *Ready-mixed concrete* he would have to go through detailed accounts for a very large number of projects. For him the project highlighted a need for improved internal accounting procedures.

Another consideration was where to draw the boundary. For example council approved development applications from individuals and groups so should he look at environmental costs/benefits for all these developments too? This again pointed to the need for a future project to focus specifically on such needs.



The business project partner did not experience such difficulties. She was part of her organisation's environmental team. She had access to the required data, having previously been responsible for the organisation's environmental reports. In addition her participation in the project was supported at the highest level of the organisation. As the organisation's accountant the representative of the participating NGO also had no trouble in accessing the required data.

The tertiary institution involved in the project experienced a challenge in locating the necessary data. It took almost six months to find the data and then to negotiate with the Chief Financial Officer for access. After a presentation of the methodology and the benefits of TBL reporting the CFO became highly supportive of the project. He provided access to data and nominated a contact person for information. Following this welcome breakthrough a student was employed to track down all the necessary items.

It was pointed out by this particular research partner that accounting systems are not set up for ecological footprint analysis. For example staplers and paper are lumped together under 'office consumables' even though in terms of environmental impact they are very different. This, she suggested, was an area for further study. She also felt that actionable recommendations based on the results of the TBL report would be a great enhancement to any TBL reporting package.

6.1.4 requesting information that could be regarded as sensitive

One or two organisations were reluctant to allow sensitive data off the premises, even though they had assurances of confidentiality. One Phase 2 partner organisation withdrew from the project at this stage when objections were raised by other areas of the organisation that had not been aware of the decision to become involved in the research project. The organisation had a policy that no financial information left the premises. The representative of this organisation was instrumental in the decision to produce a stand alone rather than online software tool. He suggested that the perceived data security issues involved in working online might outweigh an organisation's need for TBL reporting.

6.1.5 making use of the data

As the organisation's accountant the NGO project partner had no difficulty in obtaining data. This left him free to concentrate on the detailed information provided by the TBL report. He felt that the major issues raised by the report were the effect of employee air transport and the organisation's large 'water footprint' despite on-site water treatment. The water footprint seemed to be embedded in services bought by the organisation (e.g. business lunches, legal services). The challenge for the organisation was to reduce air transport and to find ways to influence the water use of those up the supply chain.

Like the NGO representative the business representative was also able to concentrate on the output of the software rather than the inputs. She noted that the report showed that 80% of the business eco-footprint came from



upstream organisations, the remaining 20% was largely due to construction works and electricity. This highlighted the need for good relations with suppliers so that the eco-footprint could be examined and mutually-agreed solutions could be found.

The organisation saw value in the report as a communication tool for stakeholders as well as internally for project assessment and strategic planning. It was noted that help with interpreting the results in narrative form would enhance its use.

6.1.6 summary of Phase 1 partner experiences

All participants chose to stay with the project for the full two years. All provided invaluable feedback into the development of online training, software tools and support materials. During the two years of the study three workshops took place. Following the first workshop, at which participants learned about the ISA methodology, partner organisations were given a spread sheet and asked to fill in the relevant data. They were given brief instructions (Appendix 3) and encouraged to seek help from the team as necessary.

All but two of the project partners reported that gathering data and entering it into the ISA spreadsheet was far more difficult than had been anticipated. This was the beginning of the 'plain English' support development process! Of the two who did not encounter difficulties one was himself his organisation's custodian of the relevant data, the other had previously produced the organisation's environmental reports. Both belonged to relatively small organisations and had support to participate from the highest level of the organisation.

6.1.7 phase 2 partners

Phase two of the project had anticipated taking in a new group of partner organisations. However the six original organisations chose to stay with the project for a second year. Only one did not complete a TBL report because data collection proved too difficult. However he remained connected with the project and participated in phase two meetings to provide feedback.

Nevertheless three new organisations were recruited at the beginning of 2005. All had attended the previous year's workshop/s. All attended a briefing meeting at the start of 2005 that explained data collection requirements. All had signed approval to take part from a senior officer in the organisation. However with great regret on the part of those who had attended the workshop/s and briefing, all three organisations withdrew over the following months as the requests for data caused interest in other parts of their organisations. The reasons for withdrawal were:

- awaiting the outcome of a whole of government approach that is under discussion (a large government department);
- the TBL report would provide more information than the organisation is willing to deal with at this stage; the information may be controversial and could be misinterpreted (a utilities provider); and



- it is not company policy to allow financial data off the premises (large manufacturer).

The representatives of the three organisations recruited at the start of 2005 expressed interest in being kept informed of the project and hoped to be able to participate at some later time.

Towards the end of 2005 two local government authorities from Victoria joined the project through Melbourne's Western Region Environment Centre. They undertook to try out the software and support materials and provide:

- feedback on the software interface and functionality
- feedback on the software manual and support
- case studies documenting the trial
- scenarios applicable to local government
- frequently asked questions.

In return the local councils were provided with trial versions of the software and support to produce sample TBL reports.

6.2 major features of the project output

6.2.1 software tool

The software tool developed by Dr Manfred Lenzen, the project partner organisations and Dipolar Pty Ltd <http://www.bottomline3.com/>

- is highly flexible, it can be applied to product, company, sector, council, region or country;
- is easily updated to the next financial year;
- is easily updated to include additional indicators;
- provides high user flexibility and choice of inputs and outputs;
- can be configured for other economies;
- includes the complete upstream supply chain (there are no boundary issues);
- provides fast and secure in-house access; and
- compatible with all accounting systems.

6.2.2 online training and support materials

The online support materials developed by the project team, the project partner organisations and Postmast Software Pty Ltd

<http://www.tblwizard.net.au/>

- are highly flexible to meet individual needs;
- are freely available from the ISA website as a public good;
- are interactive;
- include a range of support materials and case studies; and
- are underpinned by the principles of sound online learning.



7 Conclusions

7.1 summary of project output

The project has resulted in a far more comprehensive and market ready output than had been anticipated in the proposal. The following have been

accomplished through the two year action research project with the 2004/5 Environmental Trust grant:

- TBL accounting software underpinned by the ISA methodology, developed in consultation with end-users and commercially available and supported through Dipolar Pty Ltd
- Global software under construction (initially addressing the economies of Germany, Japan, UK, USA)
- Comprehensive software support manual developed in consultation with end-users
- Set of information sheets developed in consultation with end-users and available on the ISA website
- On-line free access TBL course to support use of the software available from the ISA website
- Outline and support materials for accredited course including four case studies presenting the experience of: local government, non-government organisation, tertiary institution and industry
- Journal article on Social Sustainability
- Series of three workshops open to the wider community and each attracting approximately 40 participants
- Conference presentations in Sweden and Slovenia

7.2 learnings from the project

All those participating in the project learned a great deal about TBL and about the ISA methodology. The researchers learned much about making their work accessible to the community. Specific learnings that could be of use to future such projects include participants' suggestions for overcoming the challenges they encountered in the workplace.

Some of the difficulties encountered by partner organisations indicate that participants either need prior buy-in and support at the very top of the organisation, or the energy and resources to forge this over time. An organisational communication tool and accompanying strategy would have been useful in this case. In any future project of this nature a communication package could be developed to ensure internal stakeholders are aware of potential changes and have the opportunity to comment.

It seems clear from the experiences of participating organisations that to become embedded in practice the role of TBL reporter needs to sit with the rest of the organisation's reporting function. To become a regular and affordable operation there needs to be access to the organisation's accounts; and data collection needs to be systematic and in a format that can be directly imported into the TBL software.



This points towards an expanded and specialised role for accountancy and a future research and development project that will link accounting software packages directly with the TBL reporting package rather than, as is now the case, exporting to excel from the accounting package and then importing to the TBL software.

8 Recommendations

8.1 for organisations

Participating organisations provide the following advice to organisations wishing to take up sustainability reporting.

- Ensure commitment at the highest level of the organisation, this includes: providing an accurate and concise information pack; ensuring that the project's potential benefits and challenges are well understood by the executive team; creating awareness of the potential for organisational change based on the output of the project.
- Prepare a communication strategy to ensure that all internal stakeholders understand the reasons for undertaking sustainability reporting, their role in the reporting process, and avenues for providing contributions and feedback.
- Prepare a communication strategy for external stakeholders to convey the reasons for undertaking sustainability reporting, the form it will take and avenues for feedback.
- To become embedded in practice TBL reporting needs to become integral to organisational reporting and part of doing business.

8.2 for further research

This project has also highlighted a range of future possibilities. It has laid the groundwork for a comprehensive and ultimately global TBL accounting tool that will provide the standardisation that the global reporting community is seeking. It has also laid the groundwork for a series of micro tools focused specifically towards the needs of different sectors in the economy. In light of these two areas for future development it is recommended that funding be sought for the following research and development projects that would put Australia in the forefront of the global standardisation and reporting community.

1. Development and marketing of tools that specifically address the economies of other nations, with the ultimate aim of a standard global reporting tool
2. Development and marketing of a series of tools to support the TBL reporting of discrete sectors of the Australian economy (e.g. local government, education, finance, timber etc)
3. Research into accounting systems (people systems as well as software systems) and ways in which they can be dove-tailed into TBL accounting
4. Research into and development of scenario tools and results narratives to assist in making full use of the software output.



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Appendix 1

Table 1: spreadsheet to be completed for on-site *direct impact* factors

Your on-site factor usages for year 2003			year	do not fill in coloured fields	Chosen u (if not those in C B)
	UNIT	FACTOR	Amount (don't fill in green cells)	\$ Amount (where applicable)	
Socio-economic factors	emp-y	Employment (full-time equivalents)			
	000\$	Income (wages and salaries)			
	000\$	Operating surplus			
	000\$	Government revenue (taxes less subsidies and/or grants)			
	000\$	Imports			
	000\$	Exports			
	000\$	Expenditure on all operating inputs			
	Selected physical measures	m ³	Timber resources		
t		Mineral resources			
		Number of businesses			
10 ⁶ km		Passenger and commercial vehicle travel			
10 ⁶ km		Truck and bus travel			
Land use	ha	Buildings			
	ha	Road usage			
	ha	Primary grazing land (intensive land use zone)			
	ha	Crop land			
	ha	Forestry land			
	ha	Reversely built (parks, gardens etc)			
	ha	Otherwise consumed (sealed)			
	ha	Marginal grazing land (extensive land use zone)			
	ha	Reserved (defence, mines, water etc)			
	ha	Land use		0.0	

Table 1: organizations were asked to complete the table for their chosen indicators (column 1). For example if *Land use* were chosen as an indicator the organization would have to know how many hectares of their land was occupied by buildings, roads, crops etc. Indicators included: energy consumption; water use; green house gas emissions; combustion activities excluding flaming at processing facilities; fugitive fuel emissions; savanna burning, land use changes and forestry; agriculture, industrial processes, solvent use and waste; land disturbance.



Appendix 2

Table 2: spreadsheet to be completed for indirect impacts

Your expenditure account for year 2003					Input-output categories					
do not fill in coloured fields					year					
Item Serial No.	Item description	Project No.	Project description	Amount	IOPC code 5215.0, "Rem." = Remainder	0101	01210020	01210040	Rem. 0102	0103
						Sheep and shorn wool	Barley, unmilled	Rice, in the husk or grain, oilseeds, oats and other grains	Beef cattle	
Sum				#####	CHECK 0 = not allocated; 1 = allocated	\$0	\$0	\$0	\$0	\$0
1100	Labour Ordinary	00000	Default	#####	0	0	0	0	0	0
1101	Labour Overtime	00000	Default	\$765,876.01	0	0	0	0	0	0
1165	Donations, gifts	00000	Default	\$126,595.38	0	0	0	0	0	0
1195	Labour Oncost	00000	Default	\$101,993.23	0	0	0	0	0	0
1200	Hardwoods, unsawn	1234	Eco Action Team	\$34,555.22	1	0	0	0	0	0
1201	Mixed unsawn timber	00000	Default	\$984,674.47	1	0	0	0	0	0
	THESE ARE EXAMPLES				0	0	0	0	0	0

Table 2: organizations were asked to complete the table by translating from their own account categories (column 2) into one or more of the 135 National Account categories provided (from column 7). If the organizations category fitted into more than one National Account category then an estimate had to be made of what percentage of the item fitted into which category.



1) Expenditure account sheet

- Insert your item / project descriptors / codes into Columns A to D
- Insert amounts into Column E
- Fill in allocation matrix in Columns G and onwards
- Insert 1 for full allocation, leave 0 for non-allocation to input-output categories; consult ABS publication 5215.0
- For fractional allocation, use percentages in multiple columns
- If you are in doubt about the allocation, put in a very good description of the item

- Example 1: you have an expenditure item "Unseen hardwoods"
 - 1) Find suitable input-output category with the help of ABS publication 5215.0 (the 135 categories in this workbook are a mix of 4-digit and 8-digit ABS categories)
 - 2) In the row of your expenditure item and the input-output column, insert 1 (eg. in this example, Column T)

- Example 2: you have an expenditure item "Mixed uncut timber", and you know it consisted of 42% hardwoods and of 56% softwoods and 2% service fee of the forestry industry
 - 1) Find suitable input-output category with the help of ABS publication 5215.0
 - 2) In the row of your expenditure item and the input-output columns, insert 42%, 56% and 2%
 - 3) Ensure that numbers add up to 1 (see column F - CHECK - which will automatically turn from red/yellow = not allocated to white = allocated)

ONLY ALLOCATE EXPENDITURE ITEMS THAT CARRY CORPORATE IMPACT (IE MATERIALS, SERVICES, = REAL REQUIREMENTS)

- **INCLUDE, BUT, DO NOT ALLOCATE ITEMS THAT ARE EITHER
LABOUR AND RELATED COST, OR
THE RESPONSIBILITY OF SOMEONE ELSE (IE DONATIONS), OR
MERE TRANSACTIONS AND FEES THAT DON'T INCUR ANY RESOURCE USE OR POLLUTION.**

2) On-site impacts sheet



- Fill in Column D, and use the units provided in Column B. If in doubt about units conversion, use your own units, but note them in column F
- Fill corresponding \$ amounts in Column E where applicable, ie. only for purchased inputs (such as fuels combusted on-site)
- **ONLY FILL IN FOR THE INDICATORS YOU REQUIRE, AND THEN THE ENTIRE CATEGORY**

FOR EXAMPLE, IF ENERGY IS ONE OF YOUR INDICATORS, FILL IN THE RELEVANT SUB-INDICATORS IN COLUMNS D AND E NEXT TO THE ENTIRE DARK RED FIELD IN COLUMN B AND C (IF ZERO, ENTER ZERO IN THE CELLS)

3) Please do not fill in any coloured fields



Information Sheets

Information Sheet 1
Integrated Sustainability Analysis (ISA)

Information Sheet 2
The Full Supply Chain

Information Sheet 3
The ISA Approach: Hybrid Analysis

Information Sheet 4
Why should local government report on the Triple Bottom Line and why use the ISA methodology?

Information Sheet 5
Why should corporations report on the Triple Bottom Line and why use the ISA methodology?

Information Sheet 6
Indicators

Information Sheet 7
Triple Bottom Line (TBL)

Information Sheet 8
International Standards (ISO)

Information Sheet 9
Ecological Footprint (EF)

Information Sheet 10
Corporate Governance

Information Sheet 11
Social Responsibility

Information Sheet 12
Corporate Responsibility



Change Management & TBL Reporting using ISA Methodology
A program of learning

1 Introduction

So you want to introduce TBL reporting

- 1.1 What problem are you addressing?
- 1.2 Do others agree with you (why/not)?
- 1.3 How will you convince sceptics that TBL reporting is the answer?
- 1.4 What exactly do you want them to agree to?
- 1.5 Issues arising (to be collected throughout the course and revisited to monitor status – addressed or still-to-be-addressed)

Resources: ISA information sheet 7; ISA information sheet 9; ISA information sheet 4 and/or 5; ISA information sheet 10

http://www.bitc.org.uk/resources/publications/reporting_1.html

http://www.ethics.org.au/our_services/projects/corporate_responsibility_index/

http://www.cpaaustralia.com.au/cps/rde/xchg/SID-3F57FEDF-D7C1FEDB/cpa/hs.xsl/8123_ENA_HTML.htm

Follow-up: construct an information pack (or PPP) that says what you want to do and what you see as the benefits; present it to colleagues; plan the next action with interested colleagues

action – the problem as you and others see it, possibilities for change;

Some questions you may need to ask first:

- why report?
 - Who is the report for (internal/external)?
 - What do you want it to convey to the audience/s?

Once clear on why, what and to whom you may need to ask questions like:

- what are the influences that are shaping the company's/organisation's future?
 - Reputation?
 - Brand?
 - Water/climate change/land use
- Risk management issues?
 - Stakeholders
 - Brand
 - Compliance
 - Financial risk
 - OH&S (risk to bottom line)
- Operational excellence?
 - Competitive environment
 - Focus on the margins (eg Woolies – 75% is cost of goods bought, therefore only 25% available on which to make savings)
- Is it consistent with values
 - Respect for customers, suppliers, community
 - Teamwork
 - Consultation
 - Quality of management (proxy for this can be how well you deal with complexity, e.g. do you talk about 'sustainability')

research – what is TBL, what's involved, the business case for TBL

e.g. http://www.cpaaustralia.com.au/cps/rde/xchg/SID-3F57FEDF-D7C1FEDB/cpa/hs.xsl/14131_15386_ENA_HTML.htm

Group of 100 Inc (2003). Sustainability: A guide to triple bottom line reporting
http://www.group100.com.au/policies/G100_guide-tbl-reporting2003.pdf

2 Tools of the trade

Reporting tools

- 2.1 Reporting frameworks and guidelines
- 2.2 Indices and ratings
- 2.3 Standards
- 2.4 Methodologies
- 2.5 Issues arising (and revisiting of previous issues)



Resources: ISA information sheet 8; ISA information sheet 12; <http://www.environment.gov.au/index.html>

Some examples of frameworks: <http://www.globalreporting.org/index.asp>

<http://www.deh.gov.au/settlements/industry/corporate/reporting/>

<http://www.londonstockexchange.com/en-gb/products/irs/cre/>

<http://www.un.org/esa/sustdev/>

http://www.oecd.org/topic/0,2686,en_2649_37425_1_1_1_1_37425,00.html

<http://www.iclei.org/>

<http://www.sustainability.com/index.asp>

<http://www.wbcsd.org/plugins/DocSearch/details.asp?type=DocDet&ObjectId=15971>

Ratings: <http://www.reputex.com.au/>

<http://www.accountability.org.uk/default.asp>

<http://www.ftse.com/ftse4good/index.jsp>

<http://www.bitc.org.uk>

<http://www.corporate-responsibility.com.au/>

Standards: <http://www.iso.org/iso/en/ISOOnline.frontpage>

<http://www.standards.com.au/catalogue/script/search.asp>

<http://www.accountability.org.uk/aa1000/default.asp>

Methodologies: <http://www.footprintnetwork.org/>

<http://www.isa.org.usyd.edu.au/>

Follow-up: collect examples of reporting frameworks, guidelines, indices etc, consider the pros and cons, present a summary to colleagues and plan next action

action – what reporting frameworks etc already exist in the organization, who knows about them;

research – frameworks, guidelines, indices, standards

Some questions to consider:

- What paradigm underpins this framework/these standards? For example:
 - Life cycle thinking
 - Auditing
 - Economic or social
 - Global or local
 -
- What is the fundamental difference between life cycle thinking and an audit approach?
- What's involved in the mind-shift? How can you describe it to others?

Once clear on the different paradigms on offer you may want to ask questions like:

- What are the advantages and disadvantages of a hybrid approach?
- What arguments against life-cycle thinking may you encounter? (and how might you address them) For example:
 - It makes us look too bad
 - If we do it and no-one else does we can't compare ourselves
 - Why should we be responsible for what we can't control
 -

3 The people factor

Decisions about change

3.1 Who and what needs to change

3.2 Surveying current knowledge and attitudes

3.3 Owning the change (education strategy; stakeholder consultation)

3.4 How have others done this (case studies)

3.5 Issues arising (also revisit previous issues)

Resources: ISA case studies

Sample survey: http://www.smith-nephew.com/sustainability2003/global_opinion.html

Public/community surveys: <http://www.joe.org/joe/1999june/a2.html>

<http://www.scotland.gov.uk/library5/environment/pateis-00.asp>

<http://www.defra.gov.uk/environment/tusdac/work.htm#02a>

Community consultation: <http://www.iplan.nsw.gov.au/engagement/stories/alphabetical.jsp#c>

<http://www.wates.demon.co.uk/cph1.htm>

Follow-up: take your ideas to a wider group; with colleagues devise an education strategy (this will probably entail a survey to establish current awareness and attitudes); devise a consultation strategy for stakeholders



action – communication opportunities and existing media, knowledge of and attitudes to TBL reporting;
research – indicators, change management, community consultation
e.g. Doppelt, Bob (2003). Sustainability, governance and organisational change from *Leading Change toward Sustainability: A Change-Management Guide for Business, Government and Civil Society*. Greenleaf publishing
<http://www.greenleaf-publishing.com/catalogue/leadchg.htm>
<http://www.greenleaf-publishing.com/pdfs/lcch5.pdf>

McEwen, S. (2004). Managing Change. In *ecologic: Creating a Sustainable Future*. Sydney: Powerhouse Museum, pp79-86

4 ISA Overview

ISA Methodology

- 4.1 Background and development of ISA
- 4.2 The boundary issue
- 4.3 Data & indicators
- 4.4 Method
- 4.5 Issues arising (also revisit previous issues)

Resources: ISA information sheet 1; ISA information sheet 2; ISA Information sheet 3; papers and reports on the ISA website <http://www.isa.org.usyd.edu.au/> including *Balancing Act*.

Follow-up: use sample data to explore the ISA software tool; explain tool and its advantages to colleagues; discuss potential issues with colleagues; communication of methodology and its advantages across the organization

action – what do colleagues think about supply chain management, whose responsibility is it? what accounting package does your organisation use, who manages it, what indicators does your organization address in its reporting;
research – boundary issue (e.g. GRI boundaries committee), double counting
e.g. Sangwon, S., Lenzen, M., Treloar, G. J., Hondo, H., Horvath, A., Huppes, G., Jolliet, O., Klann, U., Krewitt, W., Moriguchi, Y., Munksgaard, J., & Norris, G. (2004). System Boundary Selection in Life-Cycle Inventories Using Hybrid Approaches Environmental Science and Technology vol 38, no 3, pp657-664.

‘Reporting organizations have started to experiment with expanding their reporting boundaries to better reflect the unique sustainability “footprint” of their organization and its activities.’ *Gaining Momentum*. Global Reporting Initiative, Annual Review 2003, p9

5 ISA input requirements

Preparation for reporting: input

- 5.1 Finding the data (does it exist; who owns it; where is it; what form does it take)
- 5.2 Choosing the indicators
- 5.4 Issues arising (also revisit previous issues)

Activity: The Nursing Home Challenge

Resources: Software information sheets 0 & 1; Information sheet 6 – ISA Indicators

For guidelines in developing indicators <http://www.accountability.org.uk/aa1000/default.asp>

Cox, E. (2003). Trustworthiness and sustainability - why become involved in the third bottom line. IULA-ASPAC Inaugural Congress, Sydney, April 9. available at:

<http://www.alga.asn.au/newsRoom/speeches/EC20030409.php>

St James Ethics Centre (2004). Corporate Responsibility Index. <http://www.corporate-responsibility.com.au/>

Department of the Environment and Heritage. (2003). *Triple Bottom Line Reporting in Australia: A guide to reporting against environmental indicators*. Commonwealth of Australia

The Allen Consulting Group (2002). *Making it Tangible: Triple Bottom Line Measurement and Reporting in Australia*. Commonwealth of Australia

Department of Family and Community Services. *Triple Bottom Line Reporting in Australia: A practitioners' guide to reporting against social indicators*. DRAFT-IN-DISCUSSION, May 2003

Global Reporting Initiative. Sustainability Reporting Guidelines, 2002



Follow-up: use current, non-sensitive, data (or dummy data) and have a go at inputting it into the software; bring results and questions to next session

action – track down the input data (may need to consult HR, accounts, previous reports)
research- get hold of a copy of ABS 5215.0 and use as a guide to how input-output categories are defined. Check with the guide and then use your judgement about the most appropriate split for any input items that do not fit neatly into one single category.

6 ISA output 1

Using the output 1

- 6.1 Discussion of input issues
- 6.2 Interpreting outputs
- 6.4 Addressing the issues
- 6.5 Issues arising (also revisit previous issues)

Resources: Software information sheets 1a-9

Follow-up: produce a graph or chart for discussion next session; either using same or other data discuss results with colleagues;

action – discuss outputs with colleagues; bring questions to next session
research – how others have used the outputs (e.g. Wollongong City Council)

7 ISA output 2

Using the output 2

- 7.1 Discussion of output issues
- 7.2 Using the results for strategic planning
- 7.3 Scenarios that can be addressed using the output
- 7.4 What to do about adding local indicators
- 7.5 Other organizational reporting needs not addressed by the ISA tool
- 7.6 Issues arising (also revisit previous issues)

Follow-up: customize tool to include local indicators

action - using education and community consultation strategies determine local important indicators;
research – samples of indicators (e.g. OECD); read sustainability reports from a range of organizations and note anomalies, differences in reporting methodologies

Sample social indicators:

London First Sustainability Unit. A Triple Bottom Line for London: An Index of London's Sustainability 2003, <http://www.london-first.co.uk>

¹Sustainable Development –the UK Government's approach. Headline Indicators 2004, <http://www.sustainable-development.gov.uk>

¹Wollongong City Council. Annual Report, 01/02

Integral Energy (2002), *Building a better future for all of us. Sustainability: achieving a balance between financial, environmental and social considerations.*

Westpac. *Pressing On: Social Impact Report 2004*

BP Australia. *triple bottom line report, 2000*

Novo Nordisk, *Sustainability Report: What does being there mean to you?*, 2003

“Lafarge's responsibility is about aligning its actions with its values”: Lafarge 2003 Sustainability Report

8 Reporting using the ISA output Reporting

- 8.1 Discussion of local indicators
- 8.2 How other people report their results
- 8.3 Discussion of implementation strategies
- 8.4 Issues arising (also revisit previous issues)

Resources



Sample report formats: http://www.sustreport.org/business/report/templates_b.html

Report auditing: http://www.irca.org/certification/certification_11.html

Follow-up: present report/proposal to colleagues and/or management

action – discuss reporting issues with colleagues

research – global issues related to the sustainability debate (e.g. how can you say ‘don’t export iron ore to China’ when China is using it to gain the standard of living that we are used to).

9 Global reporting

Global context and issues

- 9.1 Discussion of colleagues’ responses
- 9.2 Discussion of global issues
- 9.3 Strategies for making a difference
- 9.4 Issues arising (also revisit previous issues)

Follow-up: plan for embedding TBL reporting in organizational structure

action – investigate ways of engaging stakeholders and/or community in sustainability debate

research – social sustainability e.g.:

http://scn.ecu.edu.au/news_publications.php

<http://wacoss.org.au/index.php?option=displaypage&Itemid=234&op=page>

<http://www.wellbeingmanifesto.net/>

<http://www.worldwatch.org/>

<http://www.unisa.edu.au/hawkeinstitute/research/eco-social.asp>

<http://ijs.cgpublisher.com/home.html>

www.sustainability.dpc.wa.gov.au/pdfs/Papers/WA%20Collab%20Newsletter_.pdf

<http://www.alga.asn.au/newsRoom/speeches/EC20030409.php>

<http://www.regional.org.au/au/countrytowns/strategies/pepperdine.htm>

<http://www.banarra.com/publications.html>

www.minerals.csiro.au/sd/pubs/COX_Final.pdf

http://www.swin.edu.au/sbs/ajets/journal/issue4/abstract_106Buysetal.htm

<http://www.greenleaf-publishing.com/jcc/jcchome.htm>

10 TBL implementation

Implementation strategies

- 10.1 Discussion of social sustainability
- 10.2 Discussion of strategies to engage stakeholders
- 10.3 Outstanding issues
- 10.4 Action plan



Outline for Case Study semi-structure interview

1	Introduction	Name of organisation The organisation: Type Size Notable features Community served: Geographical location Demographics
2	Background	Current Reporting Position Obligation to report Nature of current report Audience Who is responsible? Who uses it? For what purpose?
3	Context for Change	Regulatory framework Organisational Climate Stakeholders Community
4	Driving Forces	Why change Organisational catalyst People Related initiatives Other pressures
5	Process	What the project is Acceptance of project Major obstacles Enablers Raising awareness Engaging/enlisting key people Locating data sources Defining scope Choice of indicators Approval process Time line
6	Product	Systems Report
7	Practice	Changes to practice
8	Conclusion	Summary of experience Future



Date	Meeting	contribution towards framework, software and support materials
7/05/04	Daniella Tilbury (Graduate School of the Environment, Macquarie University) & Katherine Adams (ArupSustainability)	Follow up from workshop; possible links with Macquarie University; explanation of ISA methodology and framework. Note: as a result of this meeting further discussions have been held around the possibilities of building on this work in future joint projects
27/05/04	Sandra Van Der Laan (Economics & Business, University of Sydney)	Follow up from workshop; accountancy considerations in framework and support materials; possible links with School of Economics and Business. Note: following on this meeting a combined Linkages Grant Application has been completed. If successful it will address the issues around financial accounting and data entry for sustainability reporting – this will link with and extend the use of the current project.
4/06/04	Lisa Miller (Wollongong Council)	Understanding of local government support needs
8/06/04	SallyAnn Hunting (TBL reporting research student, University of Sydney)	Follow up from workshop; indicators for universities
10/06/04	Janet Broady & Alison Mrkonja (USYD)	Indicators, framework and support needs
10/06/04	Anne Warner (Randwick Council, Sustainability Officer)	Discussion about joining the pilot group; discussion of reporting needs
11/06/04	Rick Steele (Investment Manager)	Discussion about how ISA fits within investment area
13/07/04	GRI roundtable	Discussion of reports, reporting and methodologies (renewed contact with City West Water and agreement to join 2004 project as a pilot partner)
21/07/04	Bob Kotic (Chief Financial Officer, University of Sydney)	Access to financial data necessary for constructing University of Sydney's TBL report
3/08/04	12 local council Environmental Managers	Presentation of ISA methodology; feedback on council reporting needs; discussion of joining 2004 pilot group (Sutherland Council joined the pilot project following this meeting)
17/09/04	Mark Singer (Department of Housing) and approx 20 DoH officers interested in sustainability issues	Presentation of methodology and project; discussion of possibility of joining the project in 2005
22/09/04	Bob Kotic (Chief Financial Officer, University of Sydney)	Access to financial data necessary for constructing University of Sydney's TBL report
30/09/04	Shaun Mays (CEO, Deutsche Asset Management)	Understanding of reporting needs of business and industry; business case for reporting; publicity for methodology
25/11/04	Anne Stevens, Director, Business, TAFE NSW	Discussion with view to participating in 2005