It may take more than a thorough read of this IIED/CTA co-publication to become an expert on PGIS – but there could be no better starting place (Critchley, 2006).

Introduction

In April 2006, IIED and CTA co-published a special issue of Participatory Learning and Action on participatory mapping and related technologies (issue 54). In August 2006, we invited our readers to participate in an online survey about the special issue – and 124 participants took part.¹

The articles in the special issue were based on a selection of papers presented at the Mapping for Change International Conference of Spatial Information Management and Communication, held in Nairobi, Kenya, in September 2005.

Our aim was for community mapping practitioners from around the world to share their experiences and learning with a wider audience. Working with an international team of guest editors and authors, we wanted this special issue to highlight and document a significant coming-of-age in Participatory Geographic Information Systems (PGIS) practice:

PGIS is an emergent practice in its own right. It is a result of a merger of Participatory Learning and Action (PLA) methods with geographic information technologies. PGIS practice is geared towards community empowerment through measured, demand-driven, user-friendly and integrated applications of geo-spatial technologies (Corbett et al, 2006b).

The survey questions reflected a number of issues. Broadly, we wanted to get an idea of:
• who our readers are;
• what readers thought of the articles;
• what experience our readers have in practicing PGIS; and
• how our readers might use the information from the special issue in the future.

The feedback from the survey has been very encouraging. It has given us an overview of a broad cross-section of our readership, and has revealed both criticism and praise. As promised, we are sharing the results with you here…

The participants and their backgrounds

First, we wanted to find out more about the survey participants:
• what kind of organisation did survey participants work for?
• how did they define their role in development; and,
• what area(s) of development did they work in?

Nearly half our survey respondents work for non-governmental organisations. Most participants are development factories...

¹The participants represented just under 7% of people invited to participate.
**Figure 1: What sort of organisation do you work for?**

- Other (please specify) 10%
- Private sector 6%
- Academic institution 17%
- International financing institution 1%
- International development institution 6%
- Government agency 11%
- Community-based organisation 3%
- Non-governmental organisation 31%
- International non-governmental organisation 15%

Total Respondents 124 (skipped this question) 0

**Figure 2: How would you define your role in development?**

- Other (please specify) 10%
- Trainer 12%
- Student 1%
- Publisher 1%
- Participatory development practitioner 21%
- GIS practitioner 6%
- Development specialist 18%
- Development researcher 17%
- Community activist 6%

Total Respondents 124 (skipped this question) 0

**Figure 3: What area(s) of development do you work in?**

- Other (please specify) 4%
- Agriculture 8%
- Planning 8%
- Indigenous issues 6%
- Culture and development 5%
- Economic development 7%
- Information 9%
- Gender and development 8%
- Rural development 13%
- Environment (green) 7%
- Environment (brown) 2%
- Infrastructure 2%
- Conservation 6%
- Health and nutrition 4%
- Natural resource management 11%

Total Respondents 124 (skipped this question) 0
practitioners, with 38.7% working as participatory development practitioners. After this, the next highest results were for the development researcher and development specialist categories. For the full results, see Figures 1, 2 and 3.

However, we had much lower results for the other organisation categories. The results show that we need to reach more community-based organisations, activists, and students. On the other hand, we also need to do more to reach government agencies and international development and financial institutions.

This could reflect on a number of issues. For example, a lack of online participation may be because, for many of our readers, online access is still an issue. It could also be because English is a less accessible language for community groups in the South. And we also need to make sure the series is more widely known about.

We are however making efforts to address these issues. This includes our forthcoming multi-lingual CD-ROM version of the special issue. In addition, we are hoping to put the whole issue online in the future. And we are looking at promoting both the series and the special issue more widely to higher education institutions.

We then asked in what areas of development our survey participants worked. The highest proportion work in rural development, closely followed by natural resource management. But as Figure 3 shows, our survey participants also work in a wide variety of development fields, from indigenous issues, to health and nutrition, and gender issues.

Your experiences of using PGIS

These answers tell us where people work and what they do. But what previous experience did our survey participants have in practicing PGIS (see Figure 4)? Only 10% described themselves as experienced PGIS practitioners. Half (50%) indicated some experience of participatory mapping. And nearly a quarter of our participants described themselves as new to PGIS practice.

Language and content

The language and content section was presented as a table of statements. We asked participants whether they agreed with the statements made. The first three statements were about what positive impacts reading the special issue has had on survey participants. The next three were more specifically about language and content (see Table 1).

We know that the technical content and specialist terms used in PGIS can sometimes be hard for beginners to follow! This is especially true for readers for whom English is not their first language. So as editors, we worked very closely with the guest editors and the authors to try to make our articles easy for our readers to understand. We asked our survey participants whether:

- the articles were easy to understand; and if
- the articles clearly explained the processes and approaches used with the right amount of specialist/technical language and detail.

The results were positive (see Table 1). The highest-ranking result for each question was ‘I agree’ followed next by ‘I strongly agree’. However, some participants did disagree with our statements. These results tell us that we may need to work harder to make our language and content easier to understand. This is particularly true if we want to reach a
Our aim is to help widen people’s thinking around new topics, by sharing learning from practice. We asked participants whether they agreed with the following statements:

- reading this special issue provided me with new knowledge useful for carrying out my job more effectively;
- reading this special issue provided me with new contacts and links;
- reading this special issue has expanded my thinking about the topic; and
- the articles gave sufficient space to critical reflections and ideas for ways forward.

Encouragingly, most of you agreed with these statements. Very few of you disagreed with them (see Table 1). Twice as many people only ‘agreed’ with the statements as ‘strongly agreed’ with them. Perhaps the articles could have been of better quality, containing more useful information. However, the results from these questions show that the special issue generally – and overall – has had a positive impact. For example, when asked whether they agreed with the statement ‘Reading this special issue has expanded my thinking about the topic’, 109 participants responded – 95% of participants agreed with the statement, and only one person (1%) disagreed.

The following is a selection of comments from our participants:

- The language used is too technical and difficult to understand taking my background not in research but in livestock production and animal health into consideration.
- The length is too long for some articles.
- The simplicity lies in the practical and illustrative works of the PLA issue.
- Very good idea and very well thought out and presented. If only more workshop reports were presented in such a user-friendly manner.
- I appreciate the practical format of this issue. The glossary and introduction, the case studies and conclusion were a great tool for my research.
- Exemplary issue. A great contribution to the field. The way it was organised and edited was excellent.
- This is one of the best special issues of PLA. It is a reader friendly document, especially for community workers.
- Excellent, very useful for academics and practitioners.
Two comments were:

- This topic is new for our country and on the basis of this information we were able to conduct participatory mapping activities. And we believe that it was mapping for positive change.

- I think it is a good starting point for a PGIS community. But more has to be done within the regional networks to take this work forward.

In relation to the geographical spread of articles, one respondent also said:

- This was a very informative and relevant issue. Kudos to the PLA team. There were large number of articles from African countries but I feel it would have been good if there were articles also from Asian countries (like India) where lot is happening in participatory mapping and PGIS.

We do try to publish articles that are representative of as many regions as possible, but sometimes this is not always possible. Given the limited space, we had to make the decision to focus instead on articles that covered a wide range of tools, issues and theory and reflections on practice.

### Putting PGIS into practice

We were interested to know what future PGIS projects our participants might get involved in — and whether PLA 54 would have an impact on that work. To explore this, we asked:

**After reading this special issue, in which areas of work do you see yourself putting your acquired knowledge and contacts into practice?**

We added up the total responses where participants said they would ‘certainly’ put their acquired knowledge and contacts into practice. And it seems that potentially, **PLA 54 could have a positive impact on as many as 237 PGIS-related projects!**

<table>
<thead>
<tr>
<th>Supporting collaborative planning and management of terrestrial, coastal and marine natural resources</th>
<th>Certainty</th>
<th>Likely</th>
<th>Possibly</th>
<th>Unlikely</th>
<th>No</th>
<th>I do not know</th>
<th>Response Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>27% (25)</td>
<td>20% (19)</td>
<td>23% (21)</td>
<td>15% (14)</td>
<td>6% (6)</td>
<td>9% (8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Asserting ancestral land and resource rights and entitlements</td>
<td>24% (23)</td>
<td>22% (21)</td>
<td>18% (17)</td>
<td>15% (14)</td>
<td>11% (10)</td>
<td>10% (9)</td>
<td>94</td>
</tr>
<tr>
<td>Networking and communication</td>
<td>44% (41)</td>
<td>23% (21)</td>
<td>24% (22)</td>
<td>2% (2)</td>
<td>4% (4)</td>
<td>3% (3)</td>
<td>93</td>
</tr>
<tr>
<td>Conducting collaborative research</td>
<td>29% (27)</td>
<td>30% (28)</td>
<td>28% (26)</td>
<td>9% (8)</td>
<td>1% (1)</td>
<td>3% (3)</td>
<td></td>
</tr>
<tr>
<td>Managing and ameliorating conflicts amongst and between local community groups, and between communities and higher-level authorities or economic forces</td>
<td>30% (28)</td>
<td>27% (25)</td>
<td>26% (24)</td>
<td>7% (7)</td>
<td>4% (4)</td>
<td>6% (6)</td>
<td>94</td>
</tr>
<tr>
<td>Supporting cultural heritage preservation and identity building among Indigenous peoples and rural communities</td>
<td>30% (28)</td>
<td>20% (19)</td>
<td>20% (19)</td>
<td>13% (12)</td>
<td>9% (8)</td>
<td>8% (7)</td>
<td>93</td>
</tr>
<tr>
<td>Risk management</td>
<td>18% (17)</td>
<td>32% (30)</td>
<td>24% (23)</td>
<td>16% (9)</td>
<td>9% (8)</td>
<td>7% (7)</td>
<td>94</td>
</tr>
<tr>
<td>Supporting collaborative planning and management of social services (education, water, sanitation, health, communication, transport, etc.) and neighbourhood development</td>
<td>52% (48)</td>
<td>17% (16)</td>
<td>23% (21)</td>
<td>3% (3)</td>
<td>2% (2)</td>
<td>3% (3)</td>
<td>93</td>
</tr>
<tr>
<td>Total Respondents</td>
<td>94</td>
<td></td>
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<tr>
<td>(skipped this question)</td>
<td>30</td>
<td></td>
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</tbody>
</table>
Remember, most participants do not consider themselves to be experienced PGIS practitioners, although half indicated some experience of participatory mapping. But these results indicate to us that many of our readers may already be involved in – or are planning to start – participatory mapping or PGIS projects in one of these development areas.

Fifty-six survey participants also listed other areas of work where they were likely to use PGIS in areas of development that other readers might not be familiar with. Perhaps you have a story to share?

Box 2: Other areas of work for putting acquired knowledge and contacts into practice

The following is a small selection of responses, listing other areas of work where participants are likely to use PGIS:

- Supporting women livestock groups in identifying resources for livestock rearing activities
- Development planning in post war/conflict regions
- Participatory animal disease mapping
- Participatory mapping for the disabled
- Researching endangered languages
- Transparent financial management of local (indigenous) development projects
- Community-based adaptation to extreme events such as storms, floods and droughts
- Identifying risk and hazardous environments for children

We are sure there are many examples where people are using PGIS in areas of development that other readers might not be familiar with.

Which theme articles would you recommend to others?

Overall, your responses show that you considered all the articles important enough to share with a wider audience. The three articles that ranked the highest were the overview, followed next by the article on community information systems and local knowledge, and then practical ethics for PGIS practitioners. Table 3 shows the proportion of survey participants who would recommend articles to others.

How many people will read your copy of this special issue?

We wanted to know who else might be reading the special issue. Ninety-four people responded to this question (see Figure 5). And based on their answers, we estimate that as many as 1,900 other readers could have access to those 94 copies of the special issue. Over 3,500 copies were distributed. So if these responses are indicative, that could amount to as many as 70,000 extra readers!

Some issues raised in the general comments

Our survey participants provided us with some very thought provoking additional reflections. Several of you also indicated that you would write a review about the special issue in your own newsletters or magazines. Some comments we would like to highlight here:

This is more than a special issue, it is a working tool that can help in communication, planning, coordination and sustainable development.

This special issue […] helps the reader and development practitioner to cite different examples and gives confidence to use
or adapt in the local context. But [...] there will be other social factors influencing the success or failure of the tools and procedures. The context is the most important factor.

In the article on practical ethics for PGIS practitioners, the authors and guest editors examined some potential dangers of mapping, in particular concerning the ‘overarching issues about empowerment, ownership and potential exploitation’ (Rambaldi et al, 2006a). One of our respondents provided us with an additional and critical reflection on ethics:

I was looking for perspectives on the ethical use of GIS in public health mapping which has troubled me deeply in my work, but the journal appeared to assume that public health mapping using GIS had no ethical grey areas (there were several transferable principles but not a comprehensive review). Perhaps a future single article on the subject could usefully add to the PGIS literature... I have seen practitioners discussing covert logging of GPS coordinates whilst visiting the homes of people with a history of leprosy, again without telling them what they are doing, all in the name of ‘public health’ which label appears to legitimise or normalise what such practitioners do (as might arguably be implied by PLA 54).

Table 3: Which theme articles would you recommend to others?

<table>
<thead>
<tr>
<th>6. Which theme articles would you recommend to others?</th>
<th>Response Percent</th>
<th>Response Total</th>
</tr>
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<tbody>
<tr>
<td>1. Overview: Mapping for Change – the emergence of a new practice</td>
<td>68.1%</td>
<td>64</td>
</tr>
<tr>
<td>2. Using Community Information Systems to express traditional knowledge embedded in the landscape</td>
<td>63.8%</td>
<td>60</td>
</tr>
<tr>
<td>3. Resource use, development planning, and safeguarding intangible cultural heritage: lessons from Fiji Islands</td>
<td>38.3%</td>
<td>35</td>
</tr>
<tr>
<td>4. Finding common ground in land use conflicts using PGIS: lessons from Ghana</td>
<td>35.1%</td>
<td>33</td>
</tr>
<tr>
<td>5. Is there life after tenure mapping?</td>
<td>21.3%</td>
<td>20</td>
</tr>
<tr>
<td>6. PGIS as a sustained (and sustainable?) practice: First Nation experiences in Treaty 8 BC, Canada</td>
<td>23.4%</td>
<td>22</td>
</tr>
<tr>
<td>7. A participatory approach to monitoring slum conditions: an example from Ethiopia</td>
<td>37.2%</td>
<td>35</td>
</tr>
<tr>
<td>8. Capacity development and PGIS for land demarcation: innovations from Nicaragua</td>
<td>29.8%</td>
<td>28</td>
</tr>
<tr>
<td>9. The power of maps: cartography with indigenous people in the Brazilian Amazon</td>
<td>28.7%</td>
<td>27</td>
</tr>
<tr>
<td>10. Land and natural resource mapping by San communities and NGOs: experiences from Namibia</td>
<td>35.1%</td>
<td>33</td>
</tr>
<tr>
<td>11. Participatory GIS and local knowledge enhancement for community carbon forestry planning: an example from Cameroon</td>
<td>38.3%</td>
<td>36</td>
</tr>
<tr>
<td>12. Mapping projects: identifying obstacles, finding solutions</td>
<td>40.4%</td>
<td>38</td>
</tr>
<tr>
<td>13. Mapping power: ironic effects of spatial information technology</td>
<td>31.9%</td>
<td>30</td>
</tr>
<tr>
<td>14. Practical ethics for PGIS practitioners, facilitators, technology intermediaries, and researchers</td>
<td>51.1%</td>
<td>48</td>
</tr>
<tr>
<td>15. Precision for whom? Mapping ambiguity and certainty in (Participatory) GIS</td>
<td>42.6%</td>
<td>40</td>
</tr>
</tbody>
</table>

Total Respondents: 94

(asked this question) 30
To respond to this comment, yes – we would be interested in publishing a single article on practical ethics for public health mapping! However, we feel it is important to emphasise that we felt that this was an example of an extractive, unethical practice where surveyors – far from using a participatory approach – gather sensitive data without prior informed consent from those concerned. It is not an example of what is considered to be PGIS practice. To read about an example of what may be considered as good PGIS practice in public health, please visit: www.red-road.org/map/index.html.¹

One other participant also highlighted that practitioners should be aware of the need to monitor and evaluate PGIS work:

Mostly, once a project has ended, there is no follow-up to see how the knowledge is helping the community. I would suggest that a follow-up team be created to assist the community put the knowledge to meaningful use. Remember it [PGIS] uses new technologies which we need to help many people put into practice.

This makes two important points:

• the need to embed PGIS components into long-lasting interventions to ensure that new realities emerging from the process are addressed; and

• the need to build capacity among technology intermediaries working with communities and helping these in practising PGIS.

¹ The website of the Red Road HIV/AIDS Network (RRHAN) in British Colombia, Canada. The purpose of the Network is to:

• reduce or prevent the spread of HIV/AIDS;

• improve the health and wellness of Aboriginal people living with HIV/AIDS; and

• increase awareness about HIV/AIDS and establish a network which supports the development and delivery of culturally appropriate, innovative, coordinated, accessible, inclusive and accountable HIV/AIDS programmes and services.

Both these points are discussed in detail in several of the articles in PLA 54. In relation to both the above comments, we do want to stress two things:

• PGIS is neither a technology, nor a tool. PGIS is a practice that combines participatory learning and action approaches with geographic information technologies; and

• Using GIS in development is not the same as practicing PGIS.

Finally, we felt this next comment reinforced this message, which is also one of the main aims of this special issue:

This issue is special indeed in that it highlights the missing link between GIS/mapping and participatory process. For a long time, GIS specialists did not use participatory processes in their work, while those who were involved with community/participatory mapping did not see the value of GIS in their work. This issue brings on board the best of two worlds.

Mapping for Change: one-year post conference impact assessment survey results

In September 2006, CTA administered a one-year post-conference impact assessment survey among those who attended the Mapping for Change event. This provided another avenue for feedback for PLA. The response rate to CTA’s post conference impact assessment survey has been close to 50%, testifying a lot of commitment from those who attended the conference. In the survey, participants were asked to comment on CTA-supported, PGIS-related initiatives, which included PLA 54:

The PLA 54 is such a useful resource and I have been able to refer many people to it.
PLA 54 was a great forum for sharing the experiences of those who spoke at the event.

PLA 54 was self explanatory and quite inspiring. A person who did not attend the conference would find it quite useful.

Mapping for change and PLA 54 are great for getting PGIS more into the public sphere! This has helped greatly to expose new practitioners to the opportunities (and challenges) of PGIS and has stimulated some donors to take PGIS more seriously as a tool for participatory development practice.

Getting the issue out there....

There were a few comments related to access and distribution:

This issue is not available on Internet – that limits access.

Make it available on line ASAP for downloading, in order to ease the sharing of its contents.

I hope it is widely read by those who would find it useful. There is a question about promoting its distribution, and whether this can be very proactive.

You can already read some of the key articles online, but not the whole issue. We’re working on it! However, the new multi-lingual, multi-media CD-ROM version will be sent out to all subscribers to the series in 2007.

Conclusions?

Our participants have been generous enough to share their feedback and comments with us. As always, there is room for improvement. But the results show that our aim of sharing learning about PGIS practice should become a positive influence on the future work of other participatory development practitioners.

As PGIS practice becomes more widespread, there will constantly be new lessons learnt, and new experiences to share. So we’d like to finish on this note. At the end of their article, Giacomo Rambaldi et al (2006b) said, ‘Conclusions’ are never ‘real conclusions’ – and this is the beauty of innovation.

We hope that one day there will be a new special issue of Participatory Learning and Action on mapping practice, technologies and communications. And we hope that it will provide a platform for sharing new experiences and innovations.

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REFERENCES

NOTES
The full results can be read online here: www.surveymonkey.com/DisplaySummary.asp?SID=2196590&U=219659015421
