Executive Summary

This policy note discusses the concept of the 'data revolution' in light of the ASER journey in Pakistan. It highlights briefly some key areas where ASER has especially contributed to the mobilisation of this revolution in Pakistan and more broadly at the global level.

What is the Data Revolution?

'Data are the lifeblood of decision-making and the raw material for accountability. Without high-quality data providing the right information on the right things at the right time; designing, monitoring and evaluating effective policies becomes almost impossible.' This is a direct statement quoted from the November (2014) report prepared at the request of the United Nations Secretary-General, by the Independent Advisory Group on a Data Revolution for Sustainable Development. This report is certainly timely in that it highlights and brings to the forefront what many people already recognise but have not articulated: there are huge and growing inequalities across the world in the access and availability of quality data. This is all the more worrying because without data – and good quality data at that – in the education sector we are potentially missing counting numerous children who still need educating, we do not know how many schools to build and where, how public money is being spent and whether it is having the desired impact. Most importantly, the lack of quality data, makes it 'almost impossible' to count and identify those who need our help the most, to develop appropriate policy responses and evaluate the impact of any policies that have been put into place. There are concerns, for instance, that the eradication of poverty is threatened by reliance on partial data¹ and that it is especially needed for a focus on the urban poor².

'The data revolution is:

• An explosion in the volume of data, the speed with which data are produced, the number of producers of data, the dissemination of data, and the range of things on which there is data, coming from new technologies such as mobile phones and the “internet of things”, and from other sources, such as qualitative data, citizen-generated data and perceptions data;
• A growing demand for data from all parts of society.'


How important is quality data for overcoming the 'Learning Crisis'?

'If you want to find an uneducated child, the place to find them is in school'³.

Within the context of what Lant Pritchett – senior research fellow at the Centre for Global Development (CGD), a renowned research centre based in the US - repeatedly terms a 'learning crisis', the importance of gathering and effectively using quality data becomes even more critical. This recognition that while the world's initiative in providing access to millions of children has certainly brought transformational change is also combined now with an equally clear recognition that children are not learning and developing skills that will be useful for adult life.

Quality data are essential in raising awareness and bringing about this shift in mind set. The Annual Status of Education Reports (ASER) have played a critical role in causing what can only be termed a paradigm shift. Ten years ago – when Pratham launched ASER in India – nobody was talking about measuring learning. Fast forward 10 years and citizens-led initiatives know no bounds. ASER Pakistan also tells a compelling story of this paradigm shift in the country. For the first time since it was initially launched in Pakistan in 2008, it is apparent that learning is now central to all education debates in the country.

However, as Pauline Rose – Professor of International Development at the University of Cambridge – puts it: a central focus of this data revolution should be to develop 'new ways to collect data on the hardest-to-reach population groups who, invariably, are also those most likely to be left behind in terms of progress towards development goals'. Moreover, she argues that 'data revolution should not only be about collecting appropriate data, but also about how it is used.'

**ASER’s journey in the Data Revolution**

ASER Pakistan’s journey in mobilising the Data Revolution in Pakistan has surely not been anything less than transformational. However, in fully understanding ASER’s role in this revolution, this policy brief will focus on the following three questions, whilst recognising that these are in no way comprehensive and holistic in describing ASER’s journey fully but do allow a snapshot view of its contribution:

1. Has ASER Pakistan led to a paradigm shift and a shift in mind set within the country and more broadly in other parts of the world?
2. Has ASER Pakistan contributed to the development of new ways to collect data for the marginalised and ‘difficult to reach’ populations in the country?
3. And has ASER Pakistan been conscious not only of collecting relevant data but also been mindful of how it is used?

**A paradigm shift**

Over the past fifteen years, thanks in large part to the Millennium Development Goal (MDG) on universal primary education, major advances have been made in enrolling millions of children worldwide. However, despite significant progress in getting more girls and boys into school, those gains have been uneven, and learning levels remain unacceptably low. And it is only in the last few decades that the international community has become more aware of the need to both get children into schools but also to ensure that they learn. One of the most important steps in this realisation has been the attempt to ‘count’, or identify those children who may be going to school but are not necessarily learning. An innovative approach to learning assessment has been implemented in several Asian and African countries. Using basic reading and arithmetic tasks, these countries have begun to assess for themselves what their children are able to do by conducting household based assessments. The model began in India in 2005 and has been adapted for use in Pakistan (since 2008), Tanzania, Kenya, and Uganda (2009), Mali (2011) and recently Senegal (2012). In India and Pakistan, the exercise is called ASER (which means “impact”), in East Africa it is called Uwezo (which means “capability”). The Mali effort has been named “Beekungo” (meaning “we are in it together”) and in Senegal it is called Jangandoo (meaning “learn together”). In 2013 alone, these citizen-based large scale household assessments covered over one million children in South-Asia and Sub-Saharan Africa and are gathering momentum by illustrating the power of informed citizenry to influence national and global agendas for education and learning. These population-based assessments use rigorous sampling methodologies and generate representative samples of children at national and sub-national levels. The tools are designed to be simple so that parents, teachers, schools, communities and ordinary people understand the findings and can conduct the assessment themselves. Together these efforts provide large scale, annual, household based, easily understandable indicators of children's ability to read simple text and do basic arithmetic operations. Unlike other large scale learning assessments, this approach is led by citizen groups and has emerged from the global south generating a sense of ownership and responsibility. Independently, these initiatives have evolved and come together voluntarily. The model was transplanted from one country to another and adapted to suit each country's context. These citizen-led assessments of basic learning have three primary objectives: 1) to put children's learning at the centre of the debates and discussions on education in their own countries, 2) to engage citizens everywhere in understanding their situation and 3) to promote

---

government, parent and citizen action to influence education policy and practice from the ground-up.

In undertaking this painstaking work in Pakistan since 2008, ASER Pakistan has contributed to this paradigm shift both within as well as outside the country. It has brought ‘learning’ to the forefront of all education debates and has provided a voice to the millions of children, both out of school and often even going to school, but not necessarily being equipped to become productive individuals in society.

New ways of collecting and using data
The ASER experience has demonstrated the value of house-hold surveys as compared to school-based assessments. Up until recently, donor agencies, governments and traditional testing organizations have been the main players in the assessment field. Most testing has been done in schools using pen-and-paper methods. Often assessments are grade or age-based, analysis is done by experts, and results are communicated to high-level decision makers. Usually tests start well into primary school and early grades or basic skills are not assessed. It is assumed that children are able to read and understand written instructions. These approaches for measurement of children’s learning have evolved from developed country settings where there has been universal enrolment for decades, regular attendance in school (both by the students as well as by teachers who teach them), where schools are well regulated, and where children's current learning levels match more closely to the curriculum expectations. In such countries, discussions about children’s learning are not new. Finally, these testing models have also been developed in contexts where measurements are routinely done and understood, not only in education but in other sectors as well. However, in developing new methods of assessment, ASER has shown innovation in several ways and especially in being able to assess out of school children as well as marginalised individuals who may not necessarily fit into the strictly defined lens of typical assessments. The fact that this is done using volunteers in a relatively cheap and cost-effective manner is also a special contribution of ASER to the data revolution as it has been argued that ‘More data [are] only better data if they contain meaningful information and there are no opportunity costs to [their] supply...The potential benefits of more data and better data should be weighed up against the very real cost of providing statistic.’

Even more importantly, ASER Pakistan has demonstrated that it is both possible and important to gather information on those who are typically excluded from assessments. In attempting to gather data nationally, ASER Pakistan has accessed some of the most remote and conflict-ridden areas of Pakistan to demonstrate the extent of the ‘learning crisis’ there. Table 1, for instance, illustrates the learning outcomes data collected on 5 remote and conflict-affected districts in Balochistan, KPK and FATA in 2014. These districts were identified as the most conflict-affected areas in the 2013 ASER survey which gathered basic information on incidence of conflict throughout Pakistan. Year 2014 is the second consecutive round in which volunteers went to these areas bearing life risk and collected data for the greater cause of improving the state of education of their country.

Table 1: Learning Outcomes, children aged 5-16,

<table>
<thead>
<tr>
<th>Province</th>
<th>District</th>
<th># of villages</th>
<th># of HHI</th>
<th>Total Children Surveyed (3-16 years)</th>
<th>Total Children tested (5-16 years)</th>
<th>Who can read at least sentences (%)</th>
<th>Who can read at least words (%)</th>
<th>Who can do at least subtraction (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balochistan</td>
<td>Jhal Magsi</td>
<td>30</td>
<td>600</td>
<td>1390 1292 2682</td>
<td>2065 47 30 46 29 41 26</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balochistan</td>
<td>Dera Bugti</td>
<td>30</td>
<td>595</td>
<td>1422 727 2149</td>
<td>1507 13 2 12 1 13 1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Balochistan</td>
<td>Panjirgur</td>
<td>30 581</td>
<td>755 286 1041</td>
<td>932 55 45 50 42 57 47</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KPK</td>
<td>Kohistan</td>
<td>29 533</td>
<td>973 663 1636</td>
<td>675 54 4 46 6 45 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FATA</td>
<td>Khyber Agency</td>
<td>30</td>
<td>600</td>
<td>2122 1010 3132</td>
<td>2388 49 18 61 28 59 26</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In another innovation, ASER Pakistan has in 2014 also attempted to pilot collection of data on the disabled who are particularly marginalised in the country. To achieve this objective, research expertise from academics based at the University of Cambridge was used to devise seven key questions on disability and health and functioning. These tools were designed to be piloted in a sample of surveyed households. The questionnaire aimed to assess a child’s functioning in the following seven areas: sight, hearing, mobility, self-care, speech, memory and finally in their use of any aids such as spectacles, hearing and mobility aids etc. In addition to these questions aimed at the individual within the household, an additional question was also included as part of the school observation questionnaire to quantify whether schools enrol children with disability or not and also whether they have any kind of facilities for disabled children. Figure 1 below illustrates some of the tentative findings from this pilot in Pakistan in 2014. In doing this, ASER Pakistan attempted to count those individuals who are typically left completely out of all formal assessment mechanisms. These innovations in data collection are necessary if all parts of society are to be represented in effective policy making.

Figure 1: Incidence of disability

- Difficulty
- No difficulty

<table>
<thead>
<tr>
<th>% Children</th>
<th>Seeing</th>
<th>Hearing</th>
<th>Walking</th>
<th>Caring</th>
<th>Understanding</th>
<th>Remembering</th>
<th>Additional Aids</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>25</td>
</tr>
</tbody>
</table>


Going forward: what can ASER bring to the table to mobilise the revolution further?

ASER has grown in leaps and bounds in Pakistan (and in varied forms across the world). However, there are many challenges that lie ahead as countries begin to focus on children’s learning. The challenge is to understand the depth and scale of the problem in learning and then to figure out “what works” to improve learning at scale. The world must get ready for new assessment paradigms for assessing learning that are bound to emerge from these contexts. It is important to acknowledge that there is rich experience of testing and learning assessment that we have available to us today (especially the cross-country variety). However, these experiences typically come from a set of developed countries with "settled" and "stable" school systems. Citizens-led assessments such as ASER have a very powerful role to play in holding governments at the national and international level accountable and to help put that pressure to identify further strategies to achieve more immediate targets while aiming to continue focusing on the longer term as well. The ASER surveys are testament to the influence that citizens-led assessments can have in influencing education thinking and policy. There is no doubt that ASER has contributed hugely to the ‘data revolution’ in Pakistan. However, there are some very practical steps that need to be taken to ensure that the ‘rhetoric’ of the data revolution further translates into reality through ‘practical action’:

- For ASER to be truly transformational, the collection of data needs to feed even more directly into policy debates and planning.
- There is a need to continue collecting data on the marginalised in a big way to ensure they are reflected appropriately in the process.
- The momentum to collect quality data at a low cost must be maintained.
- More advocacy at different levels must be maintained and encouraged and,
- ASER must continue to engage all stakeholders in the process of both collecting and using the data to encourage collaborations and change at all levels.