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## A Review of Evaluative Evidence on Teacher Policy

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## **ABSTRACT**

There have been some real achievements in global education following the endorsement of the Millennium Development Goals (MDGs) and Education for All in 2000. Given these gains in access to education, while Universal Primary Education remains a global priority, the international community's attention is becoming more concerned with improving education quality. Addressing the twin challenges of teacher supply and quality as a means of improving education quality is an ambitious agenda. This review was initiated by UNESCO to inform the ongoing discourse about teacher policy and to ensure prior lessons learned are reflected in the development of future policies and programming for the 2030 Agenda for Sustainable Development. The desk review revealed that partner agencies such as the World Bank and UNICEF are promoting a range of strategies and policies to help countries respond to the challenges of teacher supply and quality. Evidence reviewed for this assignment included a mix of evaluations, systematic reviews, research synthesis, and issues papers. The review identified three policy messages as well as a number of key areas for further policy attention, such as upgrading teacher quality and dissemination of innovative approaches.

## **ACKNOWLEDGEMENTS**

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# I. Executive Summary

There have been some real achievements in global education following the endorsement of the Millennium Development Goals (MDGs) and Education for All in 2000. In sub-Saharan Africa, for example, the proportion of children enrolled in primary school has risen from 52% in 1990 to 80% in 2015.<sup>1</sup> Globally, the number of out-of-school children of primary school age fell from 106 million in 1999 to 68 million in 2008.<sup>2</sup> Given these gains in access to education, while Universal Primary Education remains a global priority, the international community's attention is becoming more concerned with improving education quality. In the context of the 2030 Agenda for Sustainable Development, Sustainable Development Goal (SDG) 4, which aims to 'ensure inclusive and quality education for all and promote lifelong learning', echoes this shift. With teachers as one of its three means of implementation, SDG 4 reinforces the widespread recognition that education quality has to do, first and foremost, with the availability of qualified teachers in classrooms.

Addressing the twin challenges of teacher supply and quality as a means of improving education quality is an ambitious agenda for even the most well-intentioned of governments. Not only are national budgets a constraining factor, but many developing countries also lack the capacity to design and implement complementary and sustainable policies to address teacher reform. UNESCO, along with partner agencies, has an important role to play by providing technical assistance, monitoring normative instruments, supporting innovative evidence-based responses and promoting platforms for knowledge exchange.

This review was initiated by UNESCO to inform the ongoing discourse about teacher policy within the organisation. It revealed that partner agencies including World Bank, UNICEF and UNESCO are promoting a range of strategies and policies to help countries respond to the challenges of teacher supply and quality. While formal evaluations of the impact of these strategies and policies were limited, there is much to learn from their application in various contexts. Evidence reviewed for this assignment

included a mix of evaluations, systematic reviews, research synthesis, and issues papers. The review identified key insights to consider when strategizing for the future. At the minimum, a mix of immediate solutions combined with longer term plans is needed if sustainable progress is to be made towards SDG 4.

As UNESCO works towards the 2030 sustainable development agenda, it may be timely to reflect on some of the issues emerging from this review, including:

- What is the appropriate mix of short-term and long-term interventions that will address teacher shortages without compromising quality? How do these vary by context?
- To what extent are issues related to workforce diversity and teacher retention considered in the teacher supply discourse?
- Given the centrality of teacher training to educational quality, what innovative approaches to teacher training can be considered and possibly mainstreamed so as to ensure that new and existing teachers are appropriately equipped to teach?
- Are existing strategies and policies to address teacher supply and quality sufficiently gender sensitive? How well do they respond to concerns around gender parity in teaching and learning?
- What role can be effectively played by the private sector in bridging the gap between capacity and need with respect to teacher training such as mainstreaming ICT in teacher training?
- Collectively, do the national capacity building efforts of partner agencies address all aspects of teacher quality and quantity? How can these be strengthened?
- What is the collective impact of partner agencies' upstream (policy-oriented) activities? How can partner agencies work together to identify and close the evaluative evidence gap related to their efforts in the area of capacity building?

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<sup>1</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>2</sup> Ibid.

## Key Policy Messages

The review identified the following three key messages:

1

As the link between teacher quality and student performance becomes increasingly apparent, education leaders are focusing attention on upgrading teacher quality. Unfortunately, chronic teacher shortages remain a serious issue and many governments continue to struggle with the first order problem of sufficient staffing. Given the amount of time it takes to train new teachers, it is essential to think creatively about policy combinations that address the shortage issue in the short-term while keeping an eye on maintaining quality over the long-term. Importantly, while ensuring representation from all groups is critical when discussing teacher supply, institutionalising gender sensitive recruitment and retention policies requires urgent consideration not least because evidence shows that the presence of female teachers can significantly improve girls' enrolment and attendance.

2

It is clear that effective teacher development is an ongoing process which requires considerable investment. It also demands a holistic view which balances content knowledge with pedagogical skills, practical experience and in-situ support with particular attention to creating child-friendly and gender sensitive teaching and learning environments. While what works to improve teaching quality varies by context, innovative approaches do exist and can be

mainstreamed into national teacher development policies. However, despite the plethora of teacher training programmes, evaluative evidence of which innovations work at scale in developing countries and research into what context specific adjustments are required is thin. This is an area that requires substantial ongoing investment.

3

Many partner agencies have invested substantially in capacity building of national governments for teacher reform (both upstream at the policy level and downstream at the implementation level) with some very positive results. To maximise the impact of these investments, agencies can:

- continue promoting existing policy development resources and building the capacity of teacher training institutes/resource centres,
- build their own staff capacity to implement policy development resources locally,
- encourage the involvement of teachers in policy reform, and
- identify and attempt to narrow the evidence gap on teachers by encouraging more evaluation as well as periodic systematic reviews of existing data.


## II. Background

1. The recent adoption of the Sustainable Development Goals (SDG) establishes a new international development framework for the post-2015 period. As UNESCO reflects on how to position itself at the national, regional and global levels within this new operational setting, it is imperative that future action be informed by evaluative evidence and lessons learned from the past.

2. Toward this end, UNESCO initiated a review to draw out key lessons learned from relevant education-related evaluations undertaken by relevant UN agencies, bilateral and multilateral organisations and NGOs working in areas relevant to UNESCO's mandate in education. The findings are expected to support UNESCO and partner agencies by providing constructive inputs to the development of future policies and programming for the 2030 Agenda for Sustainable Development.

3. Consultations with UNESCO’s education sector, as part of an initial scoping phase, led to a focus on teachers. Strengthening programme delivery on teachers is expected to continue as a key priority of UNESCO’s post-2015 agenda. UNESCO’s Education Sector, together with the International Task Force on Teachers, is expected to

provide leadership in this area while strengthening its cooperation with internal and external partners. The global, regional and national policy environment affects teachers as a whole and is a key driver of teacher quality and quantity. Teacher policy was therefore suggested as the focus area for this review. The key question that guided this review is:



**What policies and/or initiatives have been implemented and/or evaluated to support teacher recruitment and development and what insights can be gathered about their effectiveness?**

4. The review complements teacher policy initiatives already underway, such as the UNESCO-supported International Synthesis Report on national and sub-national teacher policies (to be

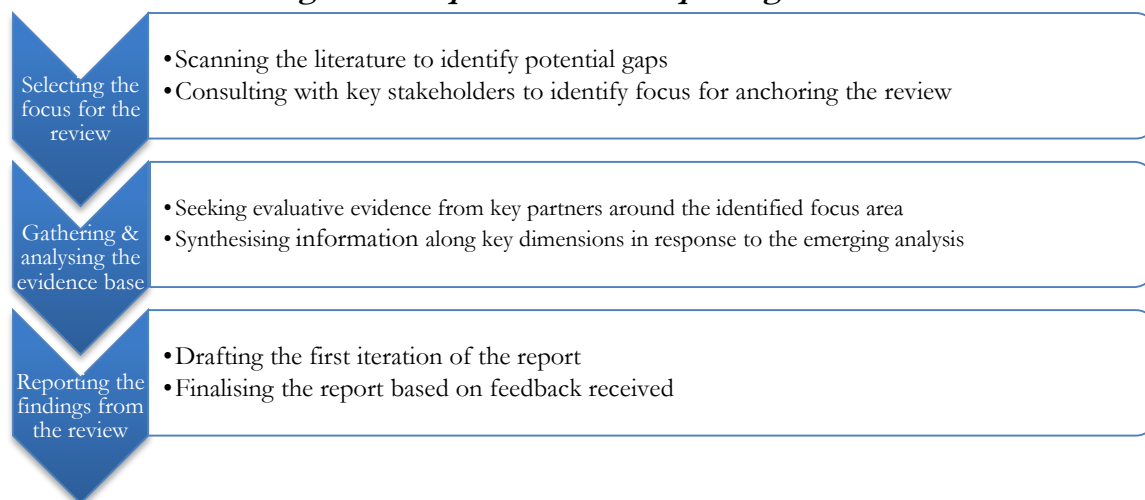
released in 2016), the Teacher Policy Development Guide policy initiatives (launched in 2015) and World Bank supported Systems Approach for Better Education Results (SABER) on Teaching.

### III. Review approach

5. The approach for this review drew on methodological principles offered by evaluation synthesis. This approach was selected as it seeks to provide timely yet comprehensive information through the use of existing data. It is attractive particularly because of its strong utilisation focus. As such, it is designed backward from the end use and is driven by a specific need identified by its primary user. It can contribute to the knowledge base around the topic and also identify potential gaps in current knowledge that may be examined in the future.

6. In keeping with this approach, key stakeholders within UNESCO’s Education Sector and Internal Oversight Service were consulted to identify a clear focus area and a question to be addressed within this focus area, as discussed in the previous section. As a next step, evaluation evidence related to the main question was sought from key partners

*Figure 1: Steps towards completing the review*



7. The team expected to find a wide range of evaluations from key partners relating to our line of inquiry, especially given the centrality of the teacher issue to education policies and programming. However, this did not eventuate and evaluations from agency partners that addressed the topic of teachers and/or teaching policies specifically were limited. The ones that were located focused on particular aspects of teachers and teacher policies which made triangulation challenging. In the end, it was therefore not possible to synthesise evaluative knowledge across partner agencies except in instances where systematic reviews were used as the data source.

8. The evidence/literature used was a mix of evaluations, systematic reviews, research synthesis,

literature reviews, and issues papers (see attached list of documents). Of the 41 sources reviewed, 8 are evaluations, 4 are systematic reviews, 10 are research syntheses, 3 are literature reviews and 4 are policy briefs.

9. Even in the absence of synthesised evaluative evidence across relevant UN partners, the core issues presented in the report are well supported in the reviewed literature. It is important to note, however, that the policies/initiatives discussed in this report are not intended to be comprehensive. The scope of the report is therefore limited and focuses on issues/policies for which sufficient recent evidence or other reliable literature was readily accessible to the team.

## IV. Emerging insights

### Issue 1: Insufficient teacher supply poses a serious challenge for achieving SDGs



**The discourse on teacher supply is about the challenges of hiring new teachers, with a particular view toward workforce diversity, and ensuring that those who are currently in the workforce are retained and show up to work.**

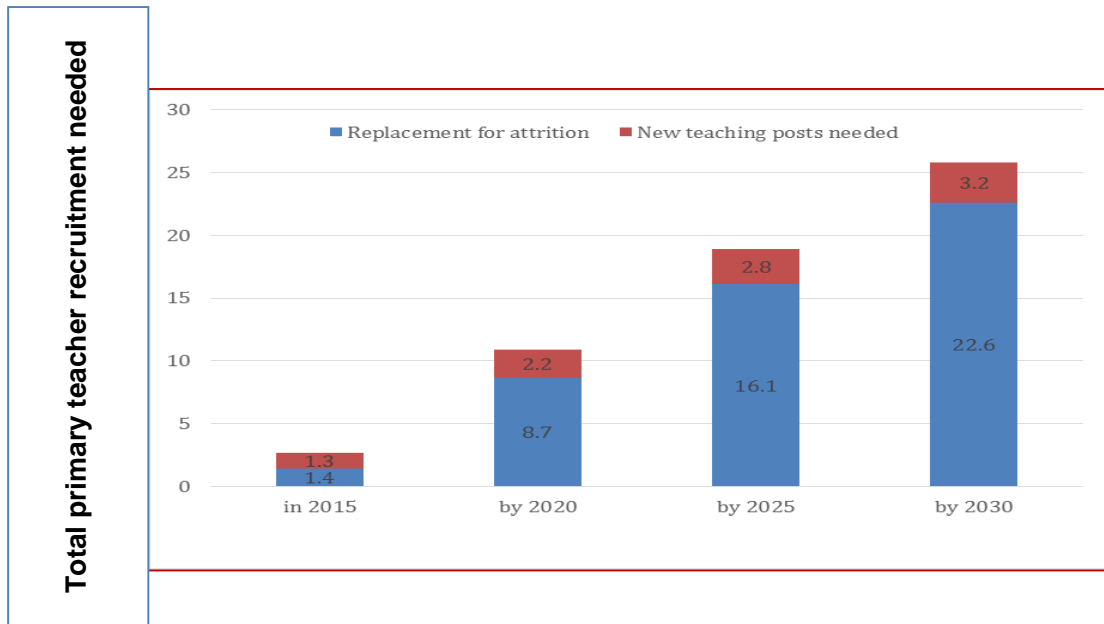
10. Education for All increased access to and enrolment in universal primary education (UPE) across many developing countries. However, it gave rise to the subsequent challenge of ensuring the availability of (qualified) teachers to serve this increased demand. Today, at least 74 countries face an acute shortage of teachers.<sup>3</sup> The target of providing every child with 12 years of education by

2030, as per SDG 4, renders the issue of teacher shortages even more urgent. By 2030, the total demand for teachers will rise to 29.8 million with about 3.2 million new posts needed for UPE and the remaining 22.6 million compensating for attrition (see Fig. 2 below).<sup>4</sup> The problem is most severe in sub-Saharan Africa.

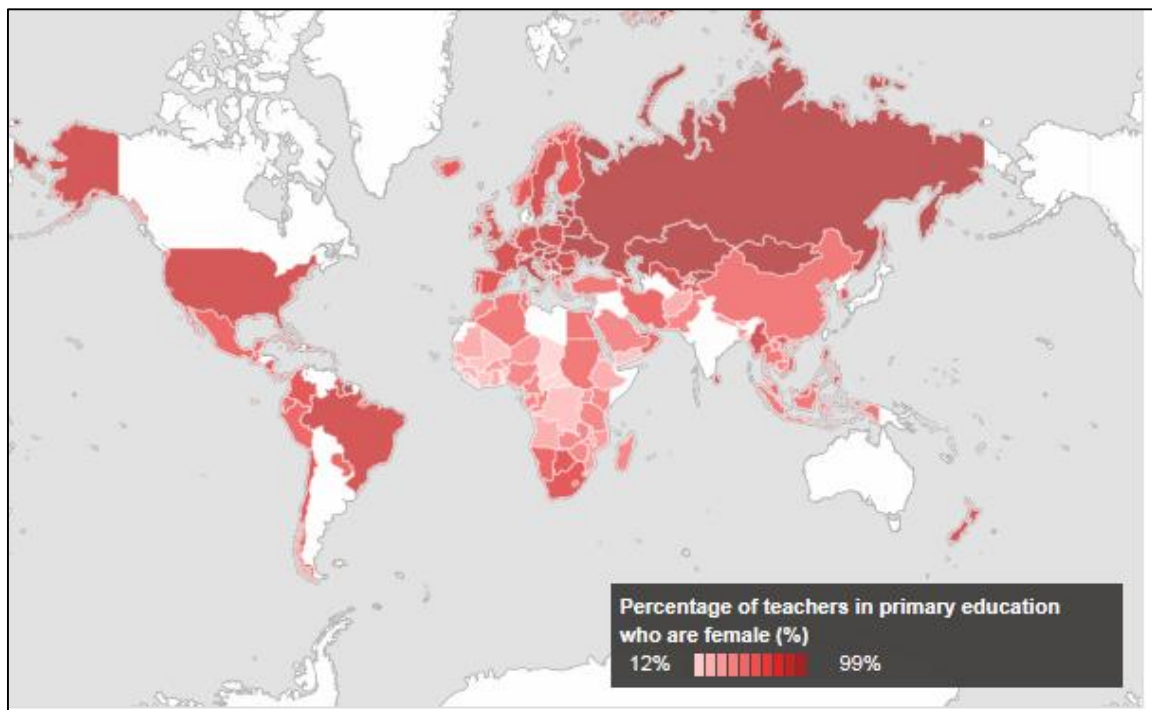
<sup>3</sup> UNESCO Institute for Statistics (UIS) (2015). *Sustainable development goal for education cannot advance without more teachers.*

<sup>4</sup> Ibid.

*Figure 2: Number of teachers (in millions) needed to achieve UPE, 2015-2030*



*Figure 3: Percentage of teachers in primary education who are female, 2011-2015*





**11. It is not only shortages; increasing workforce diversity is equally urgent.** Shortages are not just about numbers, but also about who is represented in these numbers. As enrolment rises, children are more likely to come from marginalised groups, have disabilities or have parents who are not literate. Evidence suggests that children who feel that their teachers have little in common with them are less likely to engage fully in learning.<sup>5</sup> Therefore, reflecting on the diversity of the teaching workforce (gender, ethnicity, mastery of local languages, special needs) is critical when considering strategies to increase the supply of teachers.

A 2006 advocacy brief<sup>6</sup> by UNESCO Bangkok “The impact of women teachers on girls’ education” highlights the critical role of women teachers not least because of the compelling evidence that show a positive link between girls’ education and the presence of female teachers. A study<sup>7</sup> in 30 developing countries found that increasing the proportion of female teachers increased girls’ enrolment and retention, especially in rural areas. Admittedly, while increasing the number of female teachers is not a sufficient condition to increasing girls’ enrolment, in many contexts, it is an essential requirement. Much progress has been made since 1999 in hiring women teachers for pre-primary and lower primary levels<sup>8</sup> with the global proportion of female teachers rising from 58% in 1999 to 63% in 2012.<sup>9</sup> However, there are many developing countries where there is a relatively low percentage of teachers in primary education who are female. (see Fig. 3<sup>10</sup> above) Moreover, the presence of female teachers declines sharply for education levels above lower primary.<sup>11</sup> For example, in sub-Saharan Africa, women represented 43% of primary teachers and 31% of secondary teachers in 2012.<sup>12</sup>

**12. Understanding attrition is critical to addressing teacher supply.** Central to understanding teacher supply is the issue of attrition – who leaves the profession permanently, how many leave and why they leave. As Figure 2 suggests, by

2030, attrition will drive almost 90% of the need for new teachers. Reliable data on teacher attrition is difficult to find with many of the published figures derived from estimates. A study by Education International (2007) in Gambia, Kenya, Lesotho, Tanzania, Uganda and Zambia reported an average rate of teacher attrition of 4%.<sup>13</sup> Studies conducted by the World Bank between 2006 and 2007 found attrition rates ranging from 2% to 10%.<sup>14</sup> The majority of those who leave are: the best qualified and also the most inexperienced (due to lack of induction support), subject matter specialists, those who are posted to undesirable locations, and secondary school teachers.

13. The causes of attrition include demographics (e.g. retirement age); personal factors (e.g. marriage, family, illness); pull factors (e.g. labour market conditions, teacher pay); and push factors (e.g. conditions of schools; living conditions at post; professional autonomy; workload).<sup>15</sup> What is clear is that ‘push’ factors appear to be the most amenable to influence as a result of educational sector reform.

**14. From those who remain, the number of teachers who do not show up regularly to work is significant.** In countries where teacher shortages are already harming children’s learning, exacerbates the problem. Studies have found national averages of teacher absenteeism in developing countries that range from 3 percent to 27 percent.<sup>16</sup> Within countries, absenteeism is larger in poorer, more isolated schools, contributing to unequal educational opportunities. Absenteeism occurs due to a variety of issues (including external factors such as travel to city centers from remote locations to collect salaries) and often appears to be a response to working conditions and poor supervision rather than an endemic problem. This is important as it suggests that it is possible to reduce absenteeism by using appropriate levers that affect teacher behaviour and motivation.

<sup>5</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>6</sup> UNESCO (2006) *The Impact of Women Teachers on Girls’ Education – Advocacy Brief*.

<sup>7</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015), Gender Summary.

<sup>8</sup> Ibid.

<sup>9</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>10</sup>

<http://data.worldbank.org/indicator/SE.PRM.TCHR.FE.ZS/count ries/1W?display=map>

<sup>11</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015), Gender Summary.

<sup>12</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>13</sup> Education International (2007).

<sup>14</sup> World Bank (Aidan Mulkeen) (2010). *Teachers in Anglophone Africa: Issues in teacher supply, training, and management*.

<sup>15</sup> International Teachers Task Force for Teachers for EFA (2010).

<sup>16</sup> Ibid. & Guerrero G, Leon J, Zapata M, Sugimaru C, Cueto S. (2012). What works to improve teacher attendance in developing countries? A systematic review. University of London.



## What has been tried to respond to these challenges and what lessons can we learn from these experiences?

### 15. Increasing use of contract teachers

Contract teachers are teachers hired on fixed-term contracts and often at a fraction of what regular civil servant teachers are paid.<sup>17</sup> Financially constrained governments, particularly those in Africa, South Asia and Latin America, are increasingly using them to address their teacher shortage concerns.

Given the widespread use of this approach, international agencies, NGOs and Education International have undertaken evaluations to assess the impact of contract teaching on the issue of teacher supply and ultimately, on learning outcomes. Evidence suggests that in the short-term, outcomes achieved by contract teachers appear to be favourable – to the extent that they are locally monitored and therefore incentivised to perform.<sup>18</sup>

Importantly, contract teachers are most often assigned to schools with fewer resources and in more remote areas and often serve disadvantaged students, either because they are more amenable to being thus deployed or because they tend to be from these areas. As such, they respond to urgent localised needs for teachers within countries. However, these short-term effects appear to be context specific and linked to the specific features of the contract in each setting.

In the long-term, however, the impact of contract teachers on teaching quality and student learning outcomes appears to be mixed.<sup>19</sup> The sustainability of the positive impacts of contract teaching is also being questioned as most evaluations suggest that contract teachers accept the lower contract conditions because they are “queuing for civil service positions”.<sup>20</sup> These findings from a variety of sources suggest that more needs to be done to understand the long-term impact/sustainability of this policy. Interestingly, the International Teachers Task Force has launched a synthesis study to assess the scope and implications of the use of contract teachers in 25 countries in sub-Saharan Africa.<sup>21</sup> The report is expected to be available in mid-2016.

### 16. Double shift and multi-grade teaching – a reality in many countries

Other strategies that are widely used to address teacher shortages and frequently discussed in the evidence considered for this review include double shift teaching and multi-grade teaching. Most of the evaluations that examine their effectiveness took place in the 1980s and 1990s with limited recent evaluative evidence. However, since many developing countries continue to use these strategies to address their teacher supply challenges, they are being discussed herein.

**Double shift teaching** - Double shift teaching occurs when two separate groups of children are taught in the same school at different times of the day, either by the same teacher or by two separate teachers. It is often used as a strategy to address overcrowded classrooms but, when relying on one teacher only, it is also a means of dealing with teacher shortages. Double shift teaching is practiced in many developing countries by default and, in several contexts; it results in a reduced instructional time for each group. Unsurprisingly, evidence of the impacts on student learning is mixed, with some reporting ‘no real’ impact and others reporting negative impact.<sup>22</sup>

**Multi-grade teaching** - Multi-grade teaching is the more positively regarded of the two strategies. It is endorsed by governments in many developing countries as an appropriate and indeed, cost-effective means of reaching primary school age students especially “when remoteness and low population undermine the viability of normal school practices”.<sup>23</sup> UN agencies and others working in the field of education have recognized the potential effectiveness of multi-grade teaching as well. And there is ample supportive evidence from studies conducted in the 1990s by partner agencies, NGOs, and academic institutions. According to Little, the evidence from developed and developing countries is that multi-grade schools are as effective as mono-grade schools in educating students. “But for a multi-

<sup>17</sup> University of London (2013).

<sup>18</sup> Ibid. and World Bank (2011).

<sup>19</sup> Ibid.

<sup>20</sup> Ibid.

<sup>21</sup><http://www.teachersforefa.unesco.org>

<sup>22</sup> World Bank (Aidan Mulkeen). (2010).

<sup>23</sup> UNICEF (2009). *Child friendly schools manual (Chapter 6)*.

grade school to work well teachers must master and use effective teaching practices, be supported through training programmes, and have appropriate texts and materials at their disposal<sup>24</sup>. A common criticism about multi-grade teaching is the fact that it adds to the workload of teachers (many of whom are already under-resourced and undertrained) and, if not appropriately managed, can negatively impact retention. Notably lessons learned from experiences with multi-grade schools in various developing countries have been translated into handbooks on multi-grade teaching by both UNICEF and UNESCO and the realities of multi-grade teaching have been incorporated into UNICEF's child friendly schools model.<sup>25</sup> However, in most developing countries, the teacher education curriculum does not adequately address multi-grade teaching even today.

### 17. Evidence supporting strategies for reducing absenteeism is patchy

Evidence from a 3ie systematic review in 2012 suggests that a combination of incentives and monitoring can be effective in influencing teacher presence in classrooms, particularly with enhanced parental and community involvement in monitoring.<sup>26</sup> Strategies such as altering workload are not widely used (or indeed studied) but appear to also have positive effects on attendance.<sup>27</sup> However, the same evidence suggests that having a teacher present in the classroom is a necessary but insufficient condition for student learning. Teacher quality matters hugely. Evidence on the impact of improving working conditions or promoting professional development, which are not traditionally regarded as strategies that address absenteeism, is scarce and could be further explored.

### 18. Improving retention through incentives, effective deployment and local recruitment

Policies required to stem attrition that occurs due to push factors are linked to increasing salaries, improving working conditions, investing in teachers professionally (training, induction and mentoring), more effective deployment and greater use of local recruitment.<sup>28</sup> However, there

is limited research on the link between these strategies and improved attrition, as well as on the obvious financial implications associated with many of these strategies. Some lower-cost innovative examples from developing countries that relate primarily to deployment and local recruitment are:<sup>29</sup>

- Providing an additional hardship allowance to teachers who are deployed to remote locations (The Gambia)<sup>30</sup>
- Sending teachers, especially female teachers, in pairs to remote locations to encourage them to stay by providing companionship and support, as in Ghana<sup>31</sup>
- Local recruitment (such as in Lesotho<sup>32</sup>) where teachers are familiar with the area where they work and have strong community links also tends to stem attrition and positively impact learning outcomes because of the commonalities between the teacher and their students' background. However, in several countries it results in many disadvantaged areas settling for untrained teachers, unless local recruitment is supported by intensified initial training and ongoing support.

### 19. Encouraging entry into the profession

Shortages can be sustainably addressed by attracting more people into the profession. However, doing so without compromising the quality of entrants requires a longer-term commitment to raising the overall profile of the profession. A systems level solution is necessary as changes would be required along various dimensions, including compensation structure (salaries, pensions, and benefits), entry and certification standards, and career path trajectory. This will necessarily have budgetary implications.

In the short-term however, lowering standards for entry may result in larger numbers of people entering the profession.<sup>33</sup> Lowered entry standards may also serve to attract more individuals from minority groups who would otherwise not be allowed entry. In several countries, where many women tend not have the

<sup>24</sup> Little, A. (1995). London.

<sup>25</sup> UNESCO (2001), UNICEF (2009), UNESCO (2013) UNICEF (2009).

<sup>26</sup> University of London (2012).

<sup>27</sup> World Bank Economic Review (2010).

<sup>28</sup> International Teachers Task Force for Teachers for EFA (2010).

<sup>29</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>30</sup> World Bank (Aidan Mulkeen) (2010).

<sup>31</sup> UNESCO Education for All Global Monitoring Report (GMR) (2014).

<sup>32</sup> Ibid.

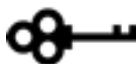
<sup>33</sup> Ibid.

required qualifications, lowered entry standards may also help attract more female teachers.<sup>34</sup>

Attempts to do so are often met with severe criticism because they risk seriously undermining quality, not to mention sometimes attracting people who did not qualify for entry into other professions, leading to teacher attrition due to lack of motivation. Acknowledging the trade-off

between quality and quantity that is inherent in this strategy (and several others that seek to address the shortage issue) however, may prompt governments to introduce parallel measures to strengthen induction and in-service training which may compensate for lower starting qualifications.

<sup>35</sup>



### Key Policy Message 1

**As the link between teacher quality and student performance becomes increasingly apparent, education leaders are focusing attention on upgrading teacher quality. Unfortunately, chronic teacher shortages remain a serious issue and many governments continue to struggle with the first order problem of sufficient staffing. Given the amount of time it takes to train new teachers, it is essential to think creatively about policy combinations that address the shortage issue in the short-term while keeping an eye on maintaining quality over the long-term. Importantly, while ensuring representation from all groups is critical when discussing teacher supply, institutionalising gender sensitive recruitment and retention policies requires urgent consideration not least because evidence shows that the presence of female teachers can significantly improve girls' enrolment and attendance.**

## Issue 2: Ensuring teacher quality is central to improving education quality and learning



**While there is much agreement on the link between teacher quality and student learning, there is limited consensus on how teachers can best be developed and motivated to perform**

20. Undoubtedly, student learning is influenced by what students bring to school – their abilities and attitudes, and family and community background. However, there is broad consensus that teacher quality is the single most important school variable influencing student achievement. Ultimately all learners must have access to quality teachers to ensure they can reach their full potential. Ensuring this depends on getting the mix of recruitment, training and teacher management right. Teacher motivation and morale are also important influences

in ensuring ongoing supply of quality teachers and must be considered.

21. Teacher quality is currently high on policy agendas globally because of the evidence of its impact on student learning and also because of concerns expressed by teachers themselves about the future of their profession – its attractiveness to talented new entrants and its reward structure and the support that teachers are provided.<sup>36</sup>

<sup>34</sup> UNESCO (2006). *The Impact of Women Teachers on Girls' Education – Advocacy Brief*.

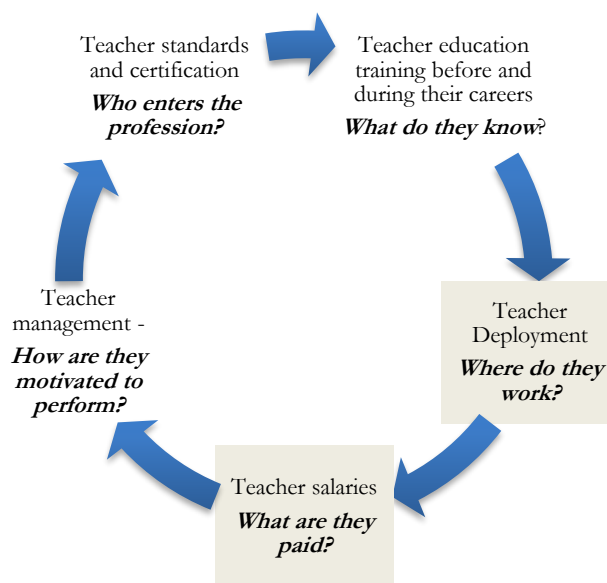
<sup>35</sup> UNESCO Education for All Global Monitoring Report (GMR) (2014).

<sup>36</sup> OECD (2011). *Teachers matter: Attracting, developing and retaining effective teachers. Pointers for policy development*. Paris, France: OECD.

22. The literature identifies five inter-related factors that appear to be the most significant determinants of teacher quality (Figure 3). The discussion on deployment has been covered in the previous section (under strategies for reducing attrition). While increasing teacher salary is an obvious policy lever to increase both quality and quantity of teachers, it is not a viable solution for

already financially constrained governments considering that 80% of education budgets are already dedicated to teacher salary. Therefore, of the five factors identified below, this discussion focuses on the remaining three: who enters the profession, what do they know and how they are motivated to perform.

**Figure 4: Factors that influence teacher quality**



23. Who enters the profession? In most developing countries, school teaching is not regarded as the most sought after vocation. This is due to a variety of factors most notably salary; but also the image and status of the profession vis-à-vis others. Consequently, those who enter the teaching workforce often are not the best and the brightest. While there is no global consensus on standards of entry for teachers, in a majority of countries, the minimum standard for primary teaching is at least secondary schooling.<sup>37</sup> Even though this is not a high standard to begin with, many countries are still unable to attract sufficient numbers of candidates.

becomes critical in helping to compensate for these imbalances and teach new content at the same time. Yet, many teacher education institutions struggle to meet curriculum demands that erroneously assume prior subject knowledge.<sup>38</sup> At the same time, the importance of pedagogical skills cannot be overstated. In many countries, teacher training does not teach future teachers to encourage active student participation, teach in multi-grade classrooms, account for special learning needs and the like. The resultant inadequacy of initial training leads to lack of confidence and eventually retention issues amongst many new teachers.

24. What do they know? Given the existing low quality of education in several developing countries, most candidates entering the profession do so with low academic knowledge and skills to begin with, regardless of official qualification requirements. Therefore, the role of initial teacher education

Despite evidence<sup>39</sup> that teachers play a critical role in influencing students' perceptions of gender roles, in many developed and developing countries, little attention has been paid to gender sensitive teaching. Importantly, recent research<sup>40</sup> in Uganda and Pakistan has found that without gender sensitivity

<sup>37</sup> UNESCO Institute for Statistics (UIS) (2006).

<sup>38</sup> UNESCO Education for All Global Monitoring Report (GMR) (2014).

<sup>39</sup> UNESCO Education for All Global Monitoring Report (GMR)(2015).

<sup>40</sup> UNESCO (2006) *The Impact of Women Teachers on Girls' Education – Advocacy Brief*.

training, there exists a real risk that women teachers themselves perpetuate the gender bias that is prevalent in their broader communities. Gender sensitive teacher training in several developing countries is often included as an add-on programme or part of sector wide reforms funded by international donors or NGOs with very few governments (Bangladesh, Kenya, Mexico, Papua New Guinea) taking the initiative to mainstream gender sensitivity training into formal teacher education policy and programming.<sup>41</sup>

25. Even in instances when teachers enter the profession with quality initial training, one of the most consistent findings in education research is that new teachers face a steep learning curve in their first three to five years on the job.<sup>42</sup> During this window, school leadership has an opportunity to support and maximize the development of new teachers. Yet, formal induction programmes for new teachers are not widespread, even in OECD countries.<sup>43</sup>

26. Ongoing (in-service) teacher training is equally important for new teachers as well as for those already in the workforce. With the rapid expansion of primary schools as a result of the drive for universal access and the growing need for training more teachers in short span of time, many countries struggle to maintain the quality of their initial teacher education programmes.<sup>44</sup> The prevalence of contract teachers, “community teachers” and/or volunteer teachers also means that the teaching workforce includes untrained and/or undertrained teachers. According to UNESCO Institute of Statistics data, in 32 of the 94 countries with data, less than 75% of primary school teachers were reportedly trained according to national standards in 2013.<sup>45</sup> Most of these countries are in sub-Saharan Africa, where less than 50% of teachers in classrooms are trained. Access to ongoing professional development opportunities can make a substantial difference in addressing these issues as it offers an opportunity to compensate for low quality or no initial training and

to keep teachers’ knowledge current whilst simultaneously maintaining their motivation and morale.

27. How are they motivated? For student learning outcomes to be sustainably influenced, teacher presence in the classroom is necessary but insufficient. Teachers also need to perform and for that they need to be motivated. Discussion on motivation often connotes incentives, both monetary and nonmonetary. Recent evaluative evidence of bonus pay for performance, a monetary incentive, suggests ‘positive effects for student learning outcomes that appear to be consistently positive across various country contexts’.<sup>46</sup> Well-designed monetary incentives do indeed improve the quality of teaching and learning but this is not easily done.<sup>47</sup> Moreover, the financial implications of monetary incentives are substantial and many financially constrained governments are reluctant to embrace such reforms on a large scale. Not surprisingly, many governments seek to identify low-cost or non-monetary incentives that can positively affect teacher behavior such as public recognition, respect from peers and supervisors, and promises of preferential next assignments.<sup>48</sup> Non-monetary incentives can also include enhanced autonomy in the workplace, improved working conditions and work-based support systems.

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<sup>41</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>42</sup> World Bank (2014).

<sup>43</sup> Ibid.

<sup>44</sup> Orr D, Westbrook J, Pryor J, Durrani N, Sebba J, Adu-Yeboah C (2013).

<sup>45</sup> UNESCO Institute for Statistics (UIS) (2015).

<sup>46</sup> World Bank (2011).

<sup>47</sup> World Bank (2005).

<sup>48</sup> World Bank (2009).



## What has been tried to respond to these challenges and what lessons can we learn from these experiences?

### 28. **Managing entry requirements**

With regards to who enters the profession, tightening entry requirements is a commonly used tool aimed at attracting more qualified candidates by raising the profile of the profession. Evaluative evidence on the relationship between entry requirements and the quantity and quality of teachers in developing countries is thin. However, a recent UNESCO Institute of Statistics report notes that countries that have raised their entry standards appear to have ended up with fewer appropriately trained teachers.<sup>49</sup> Evidently, tightening entry requirements is often not effective as it further shrinks the pool from which potential teachers can be drawn. Combining reduced or more flexible entry requirements with improvements in initial training and induction may be the pathway which balances quantity *and* quality concerns. Ghana, which restructured its teacher education in the early 2000s – by requiring trainees to pass an exam in core academic subjects at the end of the first year before proceeding to the following two years of training – provides an example of how lower entry standards may be compensated for with creative approaches toward training to keep the attention on quality while addressing quantity.<sup>50</sup>

### 29. **Re-thinking the teacher training curriculum**

The importance of teacher training from initial teacher education through to in-service teacher training is widely recognized as being central to teacher quality. However, *how* teachers should be trained for different situations and groups in the most effective and efficient manner is an area of ongoing discussion.<sup>51</sup> Recent studies by the OECD and the World Bank highlight a number of critical issues in ensuring the quality of initial teacher preparation that are equally appropriate for in-service training.<sup>52</sup> These include:

- Balancing and combining subject matter knowledge with training that teaches learner-centred pedagogy.
- Managing diversity (related to language, ethnicity, special needs and gender) in the classroom which is critical in light of increased access.
- Creating child friendly classrooms in mono-grade and multi-grade environments.
- Including tools and resources to help teachers become reflective practitioners.
- Balancing classroom based training with real world school-based practicums.

### 30. **Bringing the training to the teacher – localising training and promoting distance/e-learning**

While the content of the teacher training curriculum is important, the *means* of delivering the content is equally relevant to determining its effectiveness and reach. In recent years, innovative approaches to delivering teacher training (initial and in-service) have recognized the importance of bringing the training to the teachers.

In the past, teacher training was often delivered in national training institutes, which are mostly located in large cities. More recently, localised training offered in regional and/or district based training centres and distance learning has gained popularity. For example, Malawi, in response to its dramatic teacher shortages, particularly in rural areas (76 students per classroom), recently established four teacher training colleges in rural districts to increase the number of primary school teachers teaching in rural areas. A recent evaluation concluded that the strong practical orientation of the programme provided better preparation than the more theoretical approach in government colleges. By 2011, 564 newly qualified teachers were working in rural primary school and an additional 750 were in training.<sup>53</sup>

<sup>49</sup> UNESCO Institute for Statistics (UIS) (2006).

<sup>50</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>51</sup> Haddad, W. (1985). *Teacher training: A review of World Bank experience*. World Bank Education and Training Series, Report No. EDT21.

<sup>52</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>53</sup> UNESCO Education for All Global Monitoring Report (GMR) (2014).

Many low and middle-income countries in sub-Saharan Africa and South and West Asia use distance learning/e-learning to train more teachers, especially in rural areas. Both Malawi and Tanzania, for instance, successfully used distance learning to expand teacher numbers rapidly after primary enrolment rose when school fees were abolished. In Zimbabwe, the enrolment in the recently introduced distance learning programme reached 1,438 in 2011 alone compared to the 1,087 graduates of the conventional training programme over the previous decade.<sup>54</sup>

Distance/e-learning addresses multiple objectives. It bolsters the capacity of national training centres by helping to train a large number of untrained teachers in the current workforce. It also helps reach teachers who would otherwise not be able to access teacher training, particularly women who are encouraged by the fact that such programmes do not require long absences from home.

Even given these advantages, the outreach of distance education is currently limited to only a small proportion of trainees. Indeed, distance/e-learning programmes tend to struggle with high attrition rates as well as inadequate ICT infrastructure. While evaluative evidence on distance/e-learning approaches in developing countries is patchy, given its potential, distance/e-learning could serve as a multipronged policy lever to respond to quantity and quality issues in a cost-effective manner, especially when coupled with in-situ mentoring and face-to-face support.<sup>55</sup>

### **31. Nurturing reflective practitioners through continuous, in-situ professional development**

Other innovations in delivering in-service, school-based teacher training reflect the growing recognition of the importance of continuous school-based learning support rather than episodic, one-off trainings.<sup>56</sup> They focus on teachers as reflective practitioners who can be empowered to hold themselves accountable for their performance. These approaches often involve some combination of efforts aimed at creating school-based learning clusters, encouraging mentoring, and fostering communities of practice. Such approaches focus on creating learning communities in schools so as

to encourage teachers to collaborate and find local solutions to local problems. As such, they are inherently sustainable. They also make professional development more accessible to those who may otherwise not be able to get away from their teaching and other responsibilities. With respect to women teachers, these innovations in professional development can prove to be very empowering if support is tailored to address the specific concerns of women teachers in the workplace.

Approaches that aim to build a collaborative learning culture amongst teachers and schools provide sustainable solutions to lifting teaching quality. The creation of school-clusters (small groups of allied schools that allow teachers to share resources, experiences and facilities) is one such example and is gaining popularity as a means of offering ongoing professional development.<sup>57</sup> Evaluations of Kenya's school-based development programme (2001-2006) for 47,000 primary school teachers show that school-based training supported by distance learning materials, school clusters and follow-up in classrooms can help close the gap between theory and practice and raise the quality of teaching practices.<sup>58</sup> Ethiopia's school cluster programme, whereby clusters were supported by Cluster Resource Centres, showed positive results such as increased teacher motivation; increased teacher capacity for classroom management, lesson planning, preparation and use of teaching aids; and encouragement of local innovations by promoting greater sense of professional commitment.<sup>59</sup>

Mentoring support for teachers is widely recognized as an effective policy lever for strengthening practice-based knowledge while fostering a commitment to the profession. Examples of effective mentorship programmes are becoming more visible in developed countries (such as New Zealand, England, France and many high performing East Asian countries). Importantly, many of these countries are also emphasizing training for mentors as a prerequisite for them to be truly effective.

However, the evidence suggests that mentoring programmes are not implemented on a large scale in developing countries. This is not surprising given the challenges faced by these countries in

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<sup>54</sup> Ibid.

<sup>55</sup> Ibid.

<sup>56</sup> OECD (2015).

<sup>57</sup> UNICEF (2009).

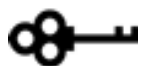
<sup>58</sup> UNESCO Education for All Global Monitoring Report (GMR) (2015).

<sup>59</sup> UNICEF (2009).



recruiting trained teachers. Despite these challenges, some developing countries have experimented with initiatives such as mobile mentors; cluster-based mentors; relying on retired, trained teachers; collaborating with organisations such as Volunteer Services Organisation (VSO) to supply mentors. In Ethiopia and Ghana, for example, teacher candidates work in schools with

mentor teachers.<sup>60</sup> Tying mentoring to career path development might be one way of generating and building a strong cohort of mentors by encouraging experienced teachers to take on additional mentoring related responsibilities by compensating them for their efforts through professional recognition.



### Key Policy Message 2

**It is clear that effective teacher development is an ongoing process which requires considerable investment. It also demands a holistic view which balances content knowledge with pedagogical skills, practical experience and in-situ support with particular attention to creating child-friendly and gender sensitive teaching and learning environments. While what works to improve teaching quality varies by context, innovative approaches do exist and can be mainstreamed into national teacher development policies. However, despite the plethora of teacher training programmes, evaluative evidence of which innovations work at scale in developing countries and research into what context specific adjustments are required is thin. This is an area that requires substantial ongoing investment.**

## V. Looking forward: National capacity building to address teacher quality and quantity

32. As noted throughout this report, teacher quality and quantity are inextricably linked. Addressing one without consideration to the other is, at best, likely to result in short term gains. Experiences in several countries have shown that policy reforms focused solely on teacher supply can come at the cost of quality if resources are not appropriately deployed or if quality management systems are not in place.<sup>61</sup> Countries must decide what minimum standard of education quality is acceptable *across* the country as they continue to expand access to education.

33. A multidimensional, systems approach to these challenges is likely to provide a more sustainable solution. A recent evaluation of the UNESCO Capacity Development for Education for All (CapEFA) Programme supports the view that 'the complexity of the various components of quality

education and their inter-relations call for a holistic approach at national level that would enable authorities to master every component of quality education and develop these in a harmonized way'.<sup>62</sup>

34. However, many developing countries have variable levels of capacity to design and implement the systems level reforms that address teaching quality and quantity simultaneously. This highlights the need for ongoing investment in national capacity building. UNESCO and its partners are well-positioned to offer such support particularly through entities such as UNESCO's International Institute for Capacity Building in Africa (IICBA). Important gains have been made in upstream capacity building as evidenced in the range of resources recently developed by UNESCO and the World Bank in collaboration with governments and key partners to

<sup>60</sup> UNESCO Education for All Global Monitoring Report (GMR) (2014).

<sup>61</sup> World Bank (2012).

<sup>62</sup> UNESCO (2015).

support countries to take a holistic approach when examining their own teacher policies.

35. In 2010, UNESCO, with the International Task Force on Teachers for EFA (ITTF), developed the Teacher Diagnostic Guide, to help countries better understand the issues concerning their teachers. In 2012, the Teachers Framework of the Systems Approach for Better Education Results (SABER), a World Bank product, was developed. SABER offered a checklist to help countries review whether required teachers policies were in place. Since then a Teacher Policy Development Guide has been developed by the ITTF, with UNESCO, to provide guidelines on developing evidence-based teacher policies building on those identified by SABER. In 2015, UNESCO released The Guide for Gender Equality in Teacher Education Policy and Practices as a tool to promote a gender-responsive institutional culture by strengthening the capacity of teacher educators, managers and student teachers.<sup>63</sup>

36. SABER has already been used in 27 countries resulting in country reports that provide a snapshot of the policy choices made by each country and an assessment of how well those policies are oriented towards delivering learning.<sup>64</sup> Since SABER focuses primarily on the presence (or lack thereof) of policies, in 2015, the ITTF worked with the World Bank to include a section on the implementation status of existing policies and any implementation challenges, if any, faced by countries. Adding this information to the SABER country reports is expected to provide more complete information about policies in place as well as their implementation status.

37. These resources collectively provide a pathway for countries to review and rethink their teacher policies. The same policies can have different results in different contexts and the impact of many reforms depends on specific features of their design.<sup>65</sup> The successful application of these tools in a given context therefore requires consideration of policy *and* implementation dimensions. Partner agencies can bring their global experiences to help countries think through options and support them to make tough choices. Importantly, as there are a number of teacher policies already in place in many countries for which no evidence exists regarding their impact, partner agencies can invest in research to fill this knowledge gap.

38. An important consideration while intervening in the teacher policy reform space is the inclusion of teachers in diagnosing needs and developing solutions. Teachers are often the subject of education reform as a result of which their responsibilities can sometimes change quite drastically. However, they are rarely consulted when reforms are being designed.<sup>66</sup> Notably, this is a focus area for the Global Partnership for Education (GPE) which promotes teacher participation in education sector policy dialogues.<sup>67</sup> Indeed, this involves a balancing act between teacher demands and the broader needs of the educational systems. By treating teachers as ‘agents of change’ rather than resources to be managed, countries increase their chances of success in implementing reform which is more cognizant of teacher realities and therefore more sustainable. While promoting the application of the above-mentioned tools, agencies such as UNESCO can encourage national governments to truly involve teachers as key stakeholders.

39. Another consideration is the importance of building capacity of their own staff (especially at country level) to use these tools. For instance, in recognition of the changing role of its education sector staff (from working on projects to working on sector-wide processes and assisting countries to develop education sector plans and policies), UNICEF, in partnership with the World Bank Institute, created staff training opportunities related to policy and education systems reforms.<sup>68</sup>

40. Many countries have different implementation arrangements which range from nationally based teacher-training institutes to localised teacher resource centres. Some are entirely publicly funded while others rely on public-private partnerships or are entirely privately funded. These institutions play an important role in helping countries respond to the twin challenges of quality and quantity. Yet in many developing countries, teacher training institutes suffer from lack of funding, limited human resource capacity and little exposure to current research on content, pedagogy and training modalities that are known to be effective.

41. A number of such institutes are funded by partner agencies through projects such as UNESCO’s China Funds-In-Trust Project which

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<sup>63</sup> UNESCO (2015). A Guide for Gender Equality in Teacher Education Policy and Practices.

<sup>64</sup> World Bank. from

<http://saber.worldbank.org/index.cfm?indx=9&pd=1>

<sup>65</sup> World Bank - SABER (2012).

<sup>66</sup> Education International Research Institute (2013).

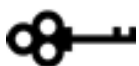
<sup>67</sup> Retrieved from: <http://www.globalpartnership.org/focus-areas/teachers>

<sup>68</sup>Course description: Strategic choices for education reform.

aims to use ICT to support eight African countries to improve the quantity and quality of their teachers<sup>69</sup> and the upcoming Enhancing Teacher Effectiveness in Bihar by the World Bank.<sup>70</sup> These projects represent an opportunity to strengthen the capacity of training institutes whilst encouraging them to consider more innovative approaches to providing initial and in-service training to teachers. They can also lead to effective engagements between the public and private sectors to bridge capacity gaps and introduce innovative solutions. Lastly, formal evaluations of such projects provide an opportunity to gather robust evidence about what works, how these initiatives can be scaled up, and what adjustments may be required for different contexts.

42. More and better data on teachers is required to support improved diagnosis of education systems, nationally and locally. Country specific education management systems need to strengthen annual tracking of teachers – their qualifications; training; gender; ethnicity; language skills; subject knowledge;

disabilities, if any; and their retention within the system. By helping countries better diagnose their needs, up-to-date and complete data can help bridge the gap between policy and implementation. Partner agency supported systems such as SABER and the UNESCO Institute of Statistics can only help collate the data that is available. However, these systems can be used to encourage national governments to invest in more robust national level educational management information systems.



### **Key Policy Message 3**

**Many partner agencies have invested substantially in capacity building of national governments for teacher reform (both upstream at the policy level and downstream at the implementation level) with some very positive results. To maximise the impact of these investments, agencies can:**

- continue promoting existing policy development resources and building the capacity of teacher training institutes/resource centres,**
- build their own staff capacity to implement policy development resources locally,**
- encourage the involvement of teachers in policy reform, and**
- identify and attempt to narrow the evidence gap on teachers by encouraging more evaluation as well as periodic systematic reviews of existing data**

<sup>69</sup>Project description.

<sup>70</sup>Project description.

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