HUMAN RESOURCE DEVELOPMENT PLAN AND IMPLEMENTATION STRATEGY FOR THE NAMIBIAN EDUCATION SECTOR
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Acronyms used

BETD Basic Education Teacher Diploma
CPD Continuing Professional Development
ECD [Integrated] Early Childhood Development
EGRA Early Grade Reading Assessment
EMIS Education Management Information System
ETSIP Education and Training Sector Improvement Programme
HEMIS Higher Education Management Information System
ICT Information and communication technologies
IOL Institute for Open Learning
KPI Key performance indicator
MEAC Ministry of Education, Arts and Culture
NAMCOL Namibian College of Open Learning
NCHE National Council for Higher Education
NDP National Development Plan
NDP4 Namibia’s Fourth National Development Plan
NESE National External School Evaluation
NIED National Institute for Educational Development
NODSOM Namibia’s Occupational Demand and Supply Outlook Model
NPC National Planning Commission
NSFAF Namibia Students Financial Assistance Fund
NTA Namibia Training Authority
OPM Office of the Prime Minister
PDP Personal Development Plan
PMP Performance Management Plan
PoN Polytechnic of Namibia
SACMEQ Southern and Eastern Africa Consortium for Monitoring Educational Quality
SAT Standardised Achievement Tests
TEREP Teacher Requirements and Projection Model
TIMSS Trends in International Mathematics and Science Study
UNAM University of Namibia
UNESCO United Nations Educational, Scientific and Cultural Organization
UNICEF United Nations Children’s Fund
VET Vocational Education and Training
WEF World Economic Forum
EXECUTIVE SUMMARY

The current plan has two distinct parts. On the one hand, sections 2 to 7 describe six policy areas where action is needed. The emphasis here is on explaining the rationale for specific strategies, drawing from international experiences and a detailed analysis of existing policies and recent trends in Namibia. Moreover, 16 indicators which need to tracked are discussed, with a special emphasis on what data should be used and on how indicator values should be interpreted. Thereafter, section 8 puts forward 20 milestones, each linked to one of the six policy areas. These milestones represent specific achievements needed in the coming years.

Summaries of the six policy areas are provided below, as well as the indicators and milestones linked to each area.

Area 1: Overall planning and monitoring systems

Planning for the education sector in Namibia needs to be driven to a much larger degree by good information and in-depth knowledge about the dynamics of the sector, including how various factors impact on the quality of education. Many key steps that should be taken are relatively inexpensive and involve better use of existing data. For instance, better trend analysis using the payroll system, on a routine basis, would put the Ministry in a much better position to make timeous and appropriate decisions. As in many developing countries, existing government data are not perfect and the challenge is to employ planning techniques which take this into account, at the same time as the quality of data are improved. Not using the available data because of its imperfections is not an appropriate strategy. The rolling out of government’s Human Capital Management System in the coming years within the education sector is likely to improve the Ministry’s data situation considerably, but capacity to use these new data for planning purposes must be developed speedily. The monitoring and evaluation work of the Ministry should become more routine, as opposed to being based mostly on once-off reports, and to a greater degree advanced data analysis should be performed by people within the Ministry, as opposed to external consultants.

Indicators:
- Number of employees by category.
- Total personnel spending by category.
- Per employee spending (unit cost) by category.
- Average educator pay over GDP per capita.

Milestones:
- A core team of analysts focussing on human resources.
- Standard reports drawing from the payroll data.
- Standard teacher supply and demand report.
- Growth in personnel funding.

Area 2: Attracting the right people to work in the sector

Namibia’s system of publicly sponsored bursaries and loans has helped to attract young people into the education sector, but coordination between the key stakeholders, in particular MEAC, NSFAF, UNAM and the Ministry of Finance, needs to be greatly strengthened to make funding more predictable. Unpredictability will discourage good people from considering a career in the sector. The multi-stakeholder Teacher Advisory Committee needs to be established. Moreover, the education sector needs to be seen as one where effort and talent are acknowledged and rewarded. Educators are clearly the core of the workforce in teaching institutions, yet the recruitment of other professionals, including psychologists, social workers and librarians, should receive more attention. Long-term staffing scenarios, which cover the full range of employee types and are informed by realistic budget...
assumptions, should be developed on a regular basis, partly to strengthen the Ministry’s bids for personnel funding to the Ministry of Finance. The current situation, whereby public service rules make it difficult to recruit and retain analysts and highly talented knowledge workers in the Ministry’s planning offices, needs to be resolved, partly through long-term arrangements with external partners.

**Indicator:**
Ability profile of youths entering the teaching profession.

**Milestones:**
- Fully functional Teacher Advisory Committee.
- Online advocacy and assistance for prospective teachers.

**Area 3: Effective initial training**

Within teacher training, there is a need to pay better attention to subject content knowledge. SACMEQ teacher tests have shown that subject knowledge amongst Namibia’s teachers is low, and generally lower than what is seen in other countries in the region. There is also a need to base training to a larger extent on existing evidence regarding optimal methods for teaching basic skills, in particular literacy and numeracy, to learners in schools. Namibian researchers should improve research in this area. Expansion in the teacher training capacity of, in particular, UNAM should be informed by the demand for specific specialisations within schools. It is clear that much of the expansion should occur in the area of primary school teaching and with respect to mathematics and science-oriented subjects. Initial training systems for teachers need to be sensitive to the fact that many youths only decide to take up teaching as a career some years into their post-school studies. It should become easier for such students to move into education from other fields of study. The training of more pre-school teachers is a key challenge given government’s plans to achieve a fourfold expansion in ECD enrolments. A part of the challenge will be to build the capacity of those currently working in ECD centres. NAMCOL should continue to play a key role here, though an evaluation of the effectiveness of NAMCOL’s existing training programmes should be undertaken to determine the extent to which they achieve their objectives.

**Indicators:**
- Subject distributions amongst student teachers.
- Subject knowledge amongst younger schoolteachers.
- Level of education amongst pre-school teachers.

**Milestones:**
- Research-based improvements to the way lower primary teachers are trained.
- Assessment of horizontal movement into pre-service teacher training from other streams.
- Evaluation of NAMCOL’s training of ECD caregivers and educators.

**Area 4: Appropriate placement of staff in institutions**

A large part of this challenge is to ensure an optimal distribution of teachers across schools, taking into account teacher specialisations, and ways of attracting teachers to work in remote schools. There is a need to develop a new national post distribution formula which promotes equity in the staffing of public schools and reduces complexity. It is necessary to learn from past mistakes in this regard. In particular, the new formula must be linked to budgets. It should be easier for teachers across the country to access information on vacant posts. Gap-fill measures currently used, in particular the hiring of under-qualified teachers on a temporary basis, should be better regulated and managed. Whilst mismatches between teacher specialisations and the classes teachers teach should be better understood, too much central management of this issue can lead to over-bureaucratisation and inefficiency. Much of
the solution must lie in **insisting that learning outcomes are achieved**. This is arguably the best way of ensuring that as far as possible, the right teachers are teaching the right classes. The existing **system of financial incentives for teachers working in remote schools** functions relatively well, and budgets for the housing of teachers in such schools are relatively good. However, in certain respects this incentive system needs to be fine-tuned.

**Indicators:**
- Learner-staff ratios.
- Personnel spending in per learner terms.
- Mismatches between teacher specialisation and class taught.

**Milestones:**
- New national post distribution formula.
- Improvements to the remoteness classification of schools.
- Review of spending on state housing for teachers.
- Improvements in the amounts of the remoteness incentives for teachers.
- Better packaging of information needed by teachers.

### Area 5: Promoting ongoing professional development

Professional development requires an effective mix of **employer-funded support programmes** and **accountability systems**. Support without accountability (and monitoring) is likely to result in little impact and an inability to realign poorly functioning support programmes. On the other hand, accountability with no support can leave staff without a sense of how their performance can be improved. Currently existing support programmes are generally seen to carry high costs, whilst their impact is low. **Materials and methods** used in such programmes need to be evaluated more carefully, and **feedback from teachers** and schools should be used more effectively. **ICTs** should be used to a greater degree. The effectiveness of the link between **qualifications upgrades** (in particular from three to four years) and **salary improvements** needs to be carefully reviewed. There needs to a shift of emphasis from qualifications to **improving the quality of classroom teaching**.

Turning to accountability, SACMEQ data suggest that Namibia’s teachers have not reached their ‘**performance ceiling**’ with respect to their learners’ results, even with the current relatively low levels of teacher subject knowledge. Accountability systems can help to ensure that the current skills of teachers are put to better use in the classroom. The existing **performance appraisal** system for teachers should be strengthened, and the transition to the new **government-wide Public Management System** in the coming years should be overseen carefully. Namibia has gained exceptional experience in the monitoring of teacher quality through the use of **subject knowledge tests**. Work in this area should continue, but in a manner that allays fears around job security. Moreover, the use of **school-level examination and test results** to strengthen a sense of **collective accountability** at schools should continue, but in a manner that prevents the distortions often associated with such approaches. Post-school institutions should make greater use of **tracer studies** which monitor the success of former students in the labour market, to strengthen a focus on outcomes that matter amongst the staff in these institutions.

**Indicators:**
- Levels of teacher knowledge according to national teacher testing systems.
- Number of educators using ICTs in their work.
- Teacher absenteeism.

**Milestones:**
- The establishment of an evaluated set of flagship in-service training programmes.
- Review of existing practices with regard to the upgrading of qualifications.
A teacher accountability framework with specific innovations.  
Establishment of the Professional Board.  
Tracer studies for post-school education institutions.

**Area 6: Retaining good people in the sector**

The extent to which people leave the education sector needs to become much clearer. To illustrate, commonly cited attrition rates for teachers are probably double what they should be. Policy responses must be informed by accurate information of the scale of the problem. It appears as if Namibia’s actual attrition rates are not exceptional relative to those of other similar countries. Moving forward, one matter that must receive careful attention is rewards for staff who display exceptional commitment and talent. There are two parts to this. On the one hand, promotion into senior posts must to a greater degree be based on merit. On the other hand, there need to be more rewards, not necessarily of a monetary nature, for highly performing individuals who do not wish to take up management positions. In particular, such rewards should make it easier for good teachers to remain classroom teachers.

**Indicators:**
Staff attrition rate by category.
The age-wage gradient.

**Milestone:**
A review of the teacher salary system.
1 Introduction and background

1.1 Purpose of the current plan

Drawing from existing and new knowledge. The current plan, developed in partnership between the Ministry of Education, Arts and Culture (referred to as ‘the Ministry’ in most of this plan), and UNICEF, explains how the human resource capacity of Namibia’s education system should be grown in the years up to approximately 2030, this year being the horizon for Namibia’s Vision 2030. The plan brings together relevant knowledge about the education sector which has been available for some years, as well as some new knowledge and insights put together specifically for this plan, using the available data. The plan also draws from experiences and evidence of what works in other countries. A series of background research reports were produced in conjunction with the development of the current plan. These research reports were in part informed by interviews with planners and stakeholders at the national and regional levels1.

The centrality of human resources. An education system’s strength is determined, to a large degree, by the quality and numbers of people working within the system. Educational development cannot occur without ongoing development of those currently working in the system, and careful human resources planning spanning many years. This is what justifies having a plan dedicated specifically to human resources in the education sector. The National Development Plan (NDP) stresses the importance of building the skills of those working in the sector as follows:

Since education, as with any training, is a direct skills transfer, it is critical that those with the immense responsibility of educating the nation, and of ensuring that skills are efficiently transferred, are in fact equipped to do so.2

Long-term effects. Changing human capacity is in many respects a frustratingly slow process. Decisions taken at one point in time can have serious impacts, negative and positive, over the longer term. Part of the purpose of the plan is to state, as clearly as possible, why certain steps that should be taken now are so important for long term development.

The effect of the institutional environment. The capacity of the people working within the education sector is determined not just by what people know and can do. It is also influenced by the rules and institutions within which they work. Rules and institutions bring about a number of incentives, in the broadest sense of this term, which can encourage people to perform well. But often incentives work poorly in the education sector. Sometimes the way institutions work can actually discourage people from giving their best. Developing human resources is thus also about reforming or completely changing the institutional environment of employees in the interests of better education outcomes.

Whom the plan is aimed at. The plan is aimed at all those involved in the development of Namibia’s education system, and in particular those working in the area of education human resources. It is aimed at guiding planners and managers in the system, including those who draw up annual plans and budgets for key education planning organisations, in particular the Ministry of Education Arts and Culture (MEAC), agencies such as the National Institute for Educational Development (NIED) and Namibia Students Financial Assistance Fund (NSFAF), and education institutions such as the University of Namibia (UNAM), the Polytechnic of Namibia and Namibian College of Open Learning (NAMCOL). But the plan is

1 The research work, and the development of this plan, were funded by UNICEF and carried out by ReSEP (Research on Socio-Economic Policy), a unit based at the University of Stellenbosch. The background reports, which are listed in the bibliography in this plan, are the following: Wills (2014); Gustafsson (2015a), Fleisch (2015), Kotzé (2015) and Van der Berg (2015).

also aimed at stakeholders outside the education sector who need to understand why certain things need to be done, including the National Planning Commission (NPC), Office of the Prime Minister (OPM), the Ministry of Finance and international partners such as UNICEF, UNESCO, the European Union and the World Bank.

**An emphasis on human resources based at schools.** Much of the current plan is devoted towards what must be done with respect to staff in schools, in particular teachers. The human resources of the education sector are of course diverse and consist of not just people working in schools. Yet staff based in schools constitute over 80% of people employed in the sector and there are particularly complex planning challenges relating to their supply, distribution and retention. Thus, whilst the current plan is about the human resources of the education sector as a whole, schools-based staff do warrant a strong focus.

**Human resources planning beyond the education sector.** The plan also serves as a point of departure for work which the Ministry is expected to undertake with regard to a human resources development plan for the country as a whole.

### 1.2 Links to other plans

**Avoiding excessive planning complexity.** The current plan expands on a number of existing high-level plans, in particular the three plans discussed below, and in turn provides guidance to other, more detailed plans. Those working in the public service often complain that there are too many plans, which lead to overly complex planning and reporting procedures. Complexity can be a serious problem in a public service, and can in fact reduce the ability of people to remain motivated and effective. In the current plan attempts are made to minimise this problem by giving direction, rather than very precise instructions to people, by steering away from overly complex and compliance-driven monitoring systems, by not adding unnecessarily to the stock of existing performance indicators, and by making links to other plans explicit.

There are three key ‘parent plans’ of the current plan:

- **Namibia’s fourth National Development Plan: 2012/13-2016/17.** This plan\(^3\), produced by the National Planning Commission, explains what Vision 2030 is and outlines a number of policy priorities for the education sector. It positions these priorities within the context of Namibia’s overall development. Though the horizon for this plan is 2017, it nonetheless provides important guidance on what will occur beyond 2017 too. (See further discussion in section 1.4 below.)

- **Ministry of Education strategic plan 2012-2017.** This plan\(^4\) is in part a summary and a reaffirmation of a detailed earlier plan titled ‘Education and Training Sector Improvement Programme’\(^5\), released in 2007. The strategic plan organises the priorities for the sector within five strategic themes, under which 19 strategic objectives have been identified, and which in turn are supported by 89 key performance indicators.

- **National human resources plan: 2010-2025.** This plan\(^6\), produced by the National Planning Commission, provides a framework and key pointers in relation to the development of Namibia’s human resources in general. It moreover explains in some detail the mechanics and the relevance of NODSOM, Namibia’s Occupational Demand and Supply Outlook Model. The plan calls for the development of more detailed human resources planning beyond the education sector.

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\( ^3 \) National Planning Commission, 2012b.

\( ^4 \) Ministry of Education, 2012b.


resources development plans, including an over-arching detailed plan, for which MEAC would be mainly responsible. In many ways, the current plan, focusing on human resources development in the education sector only, can be seen as a precursor to the larger plan. The NPC’s 2010 to 2025 plan prescribes five broad areas of intervention, each of which in turn consists of a number of priorities and activities. The emphasis on planning and monitoring systems is strong.

**Linking outputs to budgets and people.** The activities outlined in the current plan should ideally be linked, on an annual basis, and in a very direct and explicit way to budgets and the performance agreements of specific units and people in the Ministry, and a few other organisations. Whilst the current plan can point towards these linkages, within an effective public administration it is the formal linking of officials to budgets and expected outcomes through a vote of the legislature, in the case of Namibia the Parliament, which provides the best guarantee that actions will be carried through.

**The importance of the Performance Management Plan.** It is the Performance Management Plan (PMP) of each Ministry, and such plans in units within each Ministry, which are supposed to formalise responsibilities, budgets and outputs. Currently, the performance management system of government in Namibia, of which the PMPs form a part, is under-developed. PMPs are now produced by senior managers across the Ministries, including MEAC, and reporting against these plans occurs as a vital part of the whole accountability system of managers. However, the process whereby systemic change in the sector is inserted as a theme within the PMPs is weak and, crucially, the absence of annual PMPs at the Ministry level available publicly on the internet means it is often not clear what the precise annual commitments of organisations are. Not having key elements of the performance management system in place reduces the chances of successful change. Initiatives become overly dependent on individual champions and are too easily sidelined by new priorities. The success of the current plan on human resources development in the education sector is inextricably linked to improvements in the performance management system within the Ministry.

1.3 **The basic human resources numbers**

This plan is about the workforce in the education sector of Namibia. An overview of the size and composition of this workforce as it stood around 2014 is provided in Table 1 below. Certain statistics are from a few years before 2014, and some are rough estimates gathered through, for instance, interviews with managers. The fact that recent statistics should not be more readily available in, for instance, the various annual reports which should be produced across the sector, represents in itself a key challenge.

**Around 9% of all workers in the country.** The National Planning Commission classifies the education sector as the second-largest ‘industry’ in the country, in terms of employees, after agriculture and forestry. The education sector accounts for around 9% of working adults in Namibia.

**Around 36,000 people working in the sector.** The approach taken in compiling the table was to avoid, wherever possible, double-counting the same people. Thus teachers who also do part-time work for NAMCOL, for instance, were each counted just once, as teachers in schools. However, a person working part-time in just one type of institution would have been

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7 National Planning Commission, 2012a: 54.
11 Namibian College of Open Learning.
counted once in the table. The approximately 36,000 people working in the sector are thus any employees, doing any kind of work (including, for instance, administrative or cleaning work), whether full-time or part-time, whether paid by the state or privately.

Table 1: Human resources numbers around 2014

<table>
<thead>
<tr>
<th></th>
<th>Publicly paid</th>
<th>Privately paid</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff in schools</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teachers (excluding principals)</td>
<td>21,261</td>
<td>1,572</td>
<td>22,833</td>
</tr>
<tr>
<td>Primary</td>
<td>13,999</td>
<td>1,014</td>
<td>15,013</td>
</tr>
<tr>
<td>More than 2 years tertiary</td>
<td>11,102</td>
<td>717</td>
<td>11,819</td>
</tr>
<tr>
<td>Less than above</td>
<td>2,897</td>
<td>297</td>
<td>3,194</td>
</tr>
<tr>
<td>Secondary</td>
<td>7,262</td>
<td>558</td>
<td>7,820</td>
</tr>
<tr>
<td>More than 2 years tertiary</td>
<td>6,891</td>
<td>472</td>
<td>7,362</td>
</tr>
<tr>
<td>Less than above</td>
<td>372</td>
<td>86</td>
<td>458</td>
</tr>
<tr>
<td>School principals</td>
<td>1,614</td>
<td>98</td>
<td>1,712</td>
</tr>
<tr>
<td>Primary</td>
<td>965</td>
<td>50</td>
<td>1,015</td>
</tr>
<tr>
<td>Combined</td>
<td>463</td>
<td>38</td>
<td>501</td>
</tr>
<tr>
<td>Secondary</td>
<td>186</td>
<td>10</td>
<td>196</td>
</tr>
<tr>
<td>Support staff</td>
<td>4,180</td>
<td>613</td>
<td>4,793</td>
</tr>
<tr>
<td><strong>Staff in post-school institutions</strong></td>
<td>2,490</td>
<td>200</td>
<td>2,690</td>
</tr>
<tr>
<td>University of Namibia</td>
<td>990</td>
<td>990</td>
<td></td>
</tr>
<tr>
<td>Academic staff</td>
<td>560</td>
<td>560</td>
<td></td>
</tr>
<tr>
<td>Other staff</td>
<td>430</td>
<td>430</td>
<td></td>
</tr>
<tr>
<td>Polytechnic of Namibia</td>
<td>1,250</td>
<td>1,250</td>
<td></td>
</tr>
<tr>
<td>Academic staff</td>
<td>710</td>
<td>710</td>
<td></td>
</tr>
<tr>
<td>Other staff</td>
<td>540</td>
<td>540</td>
<td></td>
</tr>
<tr>
<td>NAMCOL</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Vocational training centres</td>
<td>150</td>
<td>150</td>
<td></td>
</tr>
<tr>
<td>Miscellaneous</td>
<td>200</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td><strong>Staff in ECD centres</strong></td>
<td>2,080</td>
<td></td>
<td>2,080</td>
</tr>
<tr>
<td><strong>Staff not based in teaching institutions</strong></td>
<td>2,070</td>
<td></td>
<td>2,070</td>
</tr>
<tr>
<td>National offices</td>
<td>480</td>
<td>480</td>
<td></td>
</tr>
<tr>
<td>Regional offices</td>
<td>1,590</td>
<td>1,590</td>
<td></td>
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<tr>
<td><strong>GRAND TOTAL</strong></td>
<td>31,465</td>
<td>4,563</td>
<td>36,028</td>
</tr>
</tbody>
</table>

Sources: Key sources were Ministry of Education (2012a), Bennell, Sayed and Hailombe (2009), National Council for Higher Education (2012), RAISON (2014), Sayin, Trkić-Izmirlija and Hough (2011) [largely to verify number of non-institution staff]. Moreover, EMIS microdata were analysed, websites of organisations were consulted, and figures were gathered through interviews. Note: School figures are from 2012. ‘Primary’ includes the ‘pre-primary’ grade where the two co-exist in the same school. ‘Other staff’ at UNAM is a very rough estimate. Miscellaneous refers to private post-school institutions, in particular International University of Management and Institute for Open Learning. The figure of 2,080 staff in ECD centres is an under-estimate. There could possibly be twice as many people working in the 2,044 centres surveyed in the 2012 ECD survey.

The bulk of overall current spending in the sector. Official documents put personnel spending as a percentage of total current (non-capital) spending in the sector at around 67%. However, in reality the figure is considerably higher as much of what is accounted for as subsidies and transfers ends up being spent on human resources, for instance in post-school institutions.

A relatively even age distribution amongst educators. Using figures from Table 1, one finds that 81% of employees in the sector are based in schools, and 68% of all employees are educators based in schools (either teachers or school principals). It was not possible to obtain a gender breakdown for the entire workforce, but 63% of educators are women. The average...
The average age of educators was 39.4 in 2012. This statistic remained more or less the same over the 2008 to 2012 period. Figure 1 below illustrates the distribution of educator ages in 2012. Overall, the age distribution points to an educator workforce that appears sustainable, in the sense that there is a strong presence of younger employees, reflected in the age 30 peak. At the same time, it is clear that relatively late entry into the profession for many teachers limits supply. Specifically, if more youths completed their schooling at age 18 and proceeded with a four-year teacher training programme, without interruptions, more teachers aged around 23 would be seen within the educator workforce.

**Figure 1: Distribution of educator ages in 2012**

![Distribution of educator ages in 2012](image)

Source: Calculated from 2012 Annual Education Census microdata.

**Half of educators concentrated in specific areas.** As a sparsely populated country, Namibia experiences a number of challenges associated with long distances between schools, and between schools-based educators and centres which could offer training and other resources. The map below illustrates the distribution of educators in public schools. Whilst a widespread distribution of educators is undoubtedly a challenge in many parts of the country, it is also worth noting that reaching, for instance, half of all educators should not pose too large a problem. If one considers the areas of the country with the highest concentration of educators, then one finds that half of all educators can be found in very specific areas, namely the areas around Windhoek, Walvis Bay and along the northern border of the country, in particular around the towns of Rundu, Katima Mulilo and especially Oshakati.

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14 39.0, 39.3, 39.5 and 39.6 for the years 2008 to 2011. Figures obtained through analysis of the Annual Education Census microdata.
1.4 Key development challenges of the education sector

**Effort, commitment and understanding needed.** Progress in the education sector depends to a large degree on the commitment and understanding of the people working within the sector. Importantly, not only are commitment and effort required, there needs to a sufficient understanding amongst people of how their efforts contribute towards change, including overall national development. Put differently, as far as possible effort needs to be directed to the right things, and people are often most willing to put in effort if they understand how this leads to a better society. How educational and national development works is not straightforward, and should be the subject of ongoing debate and research. This section identifies six key challenges reflected across a range of policy and research documents. The focus here is on challenges lying beyond the area of human resources development, given that this area is dealt with in the rest of the plan. The focus here is thus on what the human resources in the sector ought to be contributing towards.

**(1) Strengthening the basic literacy and numeracy of children.** The importance of having children acquire basic literacy and numeracy skills, which form the basis for lifelong learning and education, is often overlooked. Not focussing sufficiently on these basic skills carries not just an educational cost, but also a large economic and social cost. Very often an insufficient focus results because there is too little information and knowledge on the actual basic skills levels of learners. Governments and societies simply do not know how serious the problem is. Clearly, the simplistic view that if children are enrolled at school, then they must be learning, should be avoided. Moreover, a shortage of skills amongst workers is often due not just to insufficient vocational and professional training, but also poor quality basic schooling which

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OECD, 2010.
limits what can be achieved in post-school education. Adults with a solid basic education find it easier to learn things on their own and adapt to new circumstances and needs in the workplace, including technological change.

The national curriculum is clear on the matter:

Through Basic Education, learners develop the competencies, attitudes and values needed for full participation in society by learning to use, acquire, construct, evaluate and transform knowledge. Learning to learn is at the core of this process, and in a knowledge-based society, this continues as lifelong learning. 16

NDP4 is also clear on the importance of quality education. Of its six ‘strategic priorities’ for education, the first says ‘Improve quality at all levels in education’ 17.

Given how much skills acquisition for children occurs outside the school, governments need to pay special attention to the education of the poorest in society, in particular learners whose parents are not highly educated and therefore find it difficult to support their children educationally. What constitutes a good education, in particular within a context of socio-economic disadvantage, is a matter of much debate, a debate which must be central for any human resources development plan for the education sector. Despite the uncertainties, research does point to a few key things that schools and teachers ought to do. This receives attention below in the section dealing with initial professional training.

The Ministry has prioritised the effective monitoring of the quality of basic education through reliable data 18. If such monitoring does not occur, it is not possible to know whether there is progress in the sector, and whether existing strategies are working as they should. National examinations, such as Namibia’s Grade 12 examinations, clearly do serve an important purpose for individual learners, but are generally not considered very useful tools to measure the progress of the system, for a number of reasons, including the fact that schools influence who gets to write the examinations, and subject choices can shift from one year to the next 19. Instead, assessment experts emphasise the importance of more systemic assessments, along the lines of Namibia’s Standardised Assessment Tests (SAT), applied at the grades 5 and 7 levels since 2009. Moreover, monitoring basic skills at a relatively early point in the schooling system means there is more room for remediation. Though Namibia’s SAT has been deemed a well conceptualised programme by external evaluators, challenges remain, including the comparability of tests between one year and the next, and insufficient use of the test data for planning purposes, from the national level down to the school level 20.

(2) Prioritising core values. Not only must those working for or in schools strive to ensure that children learn basic skills, it is also important to ensure that core values are promoted amongst the next generation of Namibians. This is especially important in a country such as Namibia, with its history of inequality and colonisation. Economists are increasingly acknowledging and measuring the contribution made by social cohesion, which depends on the values people hold, on economic and social development 21.

Core values which those working in the education sector ought to promote include the human rights and freedoms enshrined in the Constitution. Within the education sector, the following

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17 National Planning Commission, 2012b: 121. See also pp. 46 and 51.
values are emphasised in policy: integrity, accountability, commitment, respect and empathy, teamwork and professionalism.

NDP4 acknowledges that development works best when core values are made explicit:

... what differentiates highly successful from mediocre companies is that the successful ones deliberately promote their value sets and do not narrowly focus on goal-setting and implementation. In the same vein, we believe that through continuous reinforcement of our common value set, we will enhance our implementation capacity and, hence, the ultimate achievement of goals.

(3) Greater access to early childhood development. Part of the challenge of teaching basic skills to all of Namibia’s children is to acknowledge how important the foundations are which are laid before a child enters Grade 1. There has been an increasing emphasis on early childhood development (ECD) in recent decades as it has become clearer how exactly health, family and care factors impact on a child’s ability to acquire basic skills once at school. Whilst those working in the education sector may not work directly with very young children, at the very least they need to understand and promote best ECD practices. The moving of several ECD responsibilities from the Ministry of Gender Equality and Child Welfare to MEAC is indicative of the greater attention education people are expected to devote to what happens before children enter formal schooling. One of the strategic initiatives for the education sector expressed in NDP4 is: ‘Create more opportunities for early childhood development, especially in poorest sections of society’.

(4) Expanded and better focussed system of vocational training. There is a need to expand and improve vocational and professional training across virtually all fields if Namibia is to achieve its vision of becoming a developed country in the foreseeable future. Skills shortfalls are widely acknowledged as a barrier to development in Namibia. The single greatest obstacle to growth for businesses in Namibia is the difficulty of finding skilled personnel. Poor business growth, in turn, means the economy is less able to absorb less skilled youths entering the labour market.

One of NDP4’s six strategic initiatives for education is the establishment of more vocational training centres. But NDP4 also emphasises growth and improvement across other post-school institutions, which would include the University of Namibia and Polytechnic of Namibia.

Improving the output of post-school institutions is partly a question of ensuring that more youths leave school with a quality basic education. Whilst enrolment at the upper secondary level should increase, NDP4 acknowledges that this should proceed with caution, so that enrolments do not exceed the capacity of schools to offer schooling.

A larger and better education system at the post-school level places demands on the approximately 1,500 existing academic staff at post-school institutions, and requires better staffing levels in future years. Much of the expansion will have to occur in the ‘hard
sciences’, in particular in the fields engineering, physics, chemistry, mathematics and information technology.\textsuperscript{29}

\textbf{(5) More research and development.} Investment in research and development (R&D) has become an increasingly important driver of innovation and economic growth in developing countries. The NDP’s strategic initiatives for education include ‘centres of excellence’ and ‘more applied research’. In fact, NDP4 views the Ministry as the lead agency in government responsible for improving public investments in R&D.\textsuperscript{30} The Ministry will thus have to assume a lead role in the difficult task of determining what activities qualify as R&D and, more critically, what to consider high quality R&D.\textsuperscript{31}

\textbf{(6) Better planning and administration systems.} The processes of good public governance, including government research, monitoring, policymaking, systems development and management, all require considerable improvement in Namibia (as is the case in most countries). This is true both for MEAC, and other ministries and agencies in government. The ongoing process of decentralisation within government has the potential to greatly improve service delivery to citizens, but decentralised governance is skills intensive, requiring highly skilled officials at all levels of government. NDP4 emphasises that, as in the economy as a whole, in government there is serious skills shortfall:

Sadly, public sector weaknesses in respect of delivering services often affect the most vulnerable in our society. This weak delivery capacity stems from a number of factors, but the severe deficit of skills at critical management levels in the State apparatus is the most telling.\textsuperscript{32}

There are a number of human resources challenges in this regard. Effective training and recruitment are part of the solution. However, as emphasised by NDP4, there is also a need for the ‘introduction and enforcement of performance management across all levels and functions of Government’ and a ‘culture of performance management’\textsuperscript{33}. Good performance management systems are difficult to design and manage, and this in itself clearly requires people with specific knowledge and skills.

Namibia’s 2005 \textit{ICT policy for education} document\textsuperscript{34} is important, yet progress in this area has been slow. Modern information and communication technologies (ICTs) have the potential to make planning, administration and communication systems far more efficient than they currently are, and to improve the productivity of those working in the sector.

\textbf{1.5 Structure of the plan}

\textbf{Six areas of work.} The work outlined in the current plan is broken down into six areas, covered in the six sections 2 to 7. The six areas are:

- Overall planning and monitoring systems
- Attracting the right people to work in the sector
- Effective initial training
- Appropriate placement of staff in institutions
- Promoting ongoing professional development
- Retaining good people in the sector

\textsuperscript{29} National Planning Commission, 2012a: 64.
\textsuperscript{30} National Planning Commission, 2012b: 52.
\textsuperscript{31} UNESCO: UIS, 2010.
\textsuperscript{32} National Planning Commission, 2012b: 37.
\textsuperscript{33} National Planning Commission, 2012b: 40, 115.
\textsuperscript{34} Ministry of Basic Education, Sports and Culture, 2005.
Milestones within each area. Much of the work that needs to occur is summarised in a table appearing in section 7, where within each area key outcomes are expressed in terms of milestones to be achieved, with a timeframe attached to each milestone. The milestones do not reflect all the work that should be done, but rather key results which would take human resources development forward. The interrelationships between the various strands of work are moreover illustrated in a diagram in section 2.

Indicators as points of departure for more in-depth analysis. Within each of the six areas key indicators which should be monitored are described. The key indicators were selected after careful consideration of indicators already specified in the Ministry’s 2012-2017 strategic plan, with a view to limiting duplication and encouraging synergy between the different levels of planning and reporting. Detailed specifications for each indicator are deliberately not provided as experience has shown that such specifications should be developed, and fine-tuned, when the relevant data analysis occurs. Data peculiarities and the expertise of the data analysts must influence how values are calculated. The key thing is that any analysis in relation to indicators should attempt as far as possible to establish the comparability of statistics over time. Importantly, key indicators listed in this plan should not be viewed as stand-alone statistics. Instead, each indicator should be viewed as a point of departure for an in-depth analysis, which should explicitly take into account data quality issues, discrepancies across different datasets, the institutional context and ways of improving on existing data collection processes.

Cost estimates in the plan. Financial costs associated with each milestone are given in section 7. The approach was to provide costs which could feature in government budgets as additions to existing spending. Thus the cost of the time used by existing officials to perform some of the work is not explicitly taken into account, partly because this is very difficult to predict. In this sense, the cost estimates provided in the current plan are under-estimates. However, given the strong involvement of donor organisations in policy and research work in Namibia, the costs associated with certain milestones in this plan may be covered by such organisations. There are obviously ways of reducing costs, for instance by combining work across the different milestones. Given that a similar approach has been used for all cost estimates, a key function of these values is to provide a sense of the relative costs of the different initiatives. Assumptions underlying the cost figures can be seen in a simple Excel tool accompanying this plan35.

1.6 Reporting against this plan

No plans without reports. Reporting against this plan is of course important. Reporting against a plan is a clear indication that a plan is being taken seriously. In general, Namibia’s education sector suffers from a phenomenon that is common in other countries too, namely a strong emphasis on generating plans, but far too little emphasis on good reports indicating what has been achieved, what has not been achieved, successes and problems within the monitoring process, and reflecting on what in the original plan should be reconsidered.

Use of existing reporting channels. The channels through which reporting against the current plan occur are not cast in stone. The Performance Management Plan of the Ministry and reports against this plan should deal with human resources matters to a greater degree. The system of Annual Sectoral Execution Plans and progress reports against these plans, a key mechanism linking ministries such as MEAC with the National Planning Commission36, is still weak. This offers a further opportunity for more substantial reporting on human resources development in the education sector. Given that personnel costs account for at least 67% of all current costs in education, clearly reporting on progress in the sector must be to a

35 HRD for education.xls.
large degree be about reporting on human resources development. The process around the annual reviews of the sector produced by the Ministry would be greatly enhanced if it involved a stronger consideration of trade-offs between different priorities and of the impact of various programmes, and systematic analysis of key datasets, in particular the Annual Education Census and payroll data. Finally, the standard annual reports of the Ministry should include more in-depth analysis of how public spending, including personnel spending, supports national development priorities.

**Dedicated education human resources development report.** In the past, advisors to the Ministry have recommended that periodic reports dealing specifically with human resources issues should be produced. This should be considered a further option for reporting against this plan.

### 1.7 Responsibility for revisions to this plan

This plan should periodically be reviewed and revised, in line with emerging pressures in the sector. The Ministry carries the responsibility for this.

### 2 Overall planning and monitoring systems

**This area in brief...**

Planning for the education sector in Namibia needs to be driven to a much larger degree by good information and in-depth knowledge about the dynamics of the sector, including how various factors impact on the quality of education. Many key steps that should be taken are relatively inexpensive and involve better use of existing data. For instance, better trend analysis using the payroll system, on a routine basis, would put the Ministry in a much better position to make timely and appropriate decisions. As in many developing countries, existing government data are not perfect and the challenge is to employ planning techniques which take this into account, at the same time as the quality of data are improved. Not using the available data because of its imperfections is not an appropriate strategy. The *rolling out of government’s Human Capital Management System* in the coming years within the education sector is likely to improve the Ministry’s data situation considerably, but capacity to use these new data for planning purposes must be developed speedily. The *monitoring and evaluation work of the Ministry should become more routine*, as opposed to being based mostly on once-off reports, and to a greater degree advanced data analysis should be performed by people within the Ministry, as opposed to external consultants.

**An internal team of analysts.** The challenge, referred to in the 2007 Education and Training Sector Improvement Programme (ETSIP) document, ‘to transform the current personnel function into a fully-fledged human resources function’ remains a challenge in 2015. Much of the challenge involves a stronger focus on strategy and building the necessary analytical skills within the Ministry. Restructuring of the Ministry in order to improve the organisation’s functionality, a matter which has received considerable attention, is undeniably important. In particular it is important to establish some separation between people who respond to more immediate demands, and people who work on products with relatively long lead times, such as analytical reports. But at least of equal importance is building the skills base in the Ministry, by capacitating existing staff and bringing in ‘new blood’. Skilled people will often find ways of working around a non-ideal organogram, but an ideal organogram in the absence of enough skilled planners and analysts will not deliver the desired results. A UNESCO guide

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38 Bennell, Sayed and Hailombe, 2009: 15.
on how an education ministry should carry out teacher planning places considerable emphasis on quantitative skills. A core team of people is clearly needed. How this team combines data handling, analysis and writing skills should depend partly on who is available to do this work. In other words, a degree of flexibility is needed. Whilst statisticians are typically associated with higher order quantitative analysis skills, it should be remembered that people with other backgrounds, for instance in information technology and economics, can offer similar skills. The envisaged team does not have to be concentrated within one unit in the Ministry, as long as members are not prevented from working together. If new people are brought in, development partners could assist in the funding of such people, but being physically based within the Ministry’s offices is important for skills transfer.

**Regular analysis of the payroll data.** Government’s payroll system seems to function relatively well in the education sector in terms of its primary purpose, which is to get salaries paid. However, analysis of the data, to detect important trends, occurs far too seldom. Though the payroll system is mostly limited to variables which are important for paying salaries, much more could be done with the data that exist. What seems necessary is the periodic extraction of key variables at the employee level, perhaps once or twice a year. Analysis of such extracts would permit, as an example, trend analyses which cannot be performed using the payroll system’s standard interfaces. Such analyses would help to clarify future retirement and resignation trends, future trends in the average cost of an employee, and the average cost of employee benefits, and how many people of specific categories need to be hired to maintain the sector’s workforce. The outcome of this work should be not just reports with statistical tables. Reports need to focus on answering specific policy and implementation questions. Initially, producing the required reports is likely to be costly and labour intensive, but as the production process becomes more predictable, costs will decline. The reports should primarily be directed at decisionmakers and planners, but they also serve as a means for storing knowledge about past trends over several years in the sector. When the Human Capital Management System is rolled out in the education sector, as a system which partly supplements the information in the payroll system, analysis of a wider range of variables will become possible.

**Routine educator supply and demand analysis.** How educators move into and out of the schooling system a complex matter that any ministry of education must understand well. This understanding is needed for proper planning of pre-service training for educators and in order for the Ministry to intervene optimally, for instance to reduce resignations. An educator supply and demand analysis does for the education sector what the NODSOM tool does for the labour market as a whole. The peculiarities of educator supply and demand justify having an approach for education is somewhat separate from NODSOM. Some education work has occurred. In 2011 an analysis exercise resulting in a report occurred and work has occurred on a tool known as the Teacher Requirements and Projection Model, or TEREP. One key finding has been the growth in the educator workforce required to meet enrolment growth, where growth is based on widely shared policy assumptions. It is estimated that by 2020 the number of educators will have to be around 18% higher than was the case in 2015. Roughly this means that personnel spending at the school level would need to grow by a similar percentage. Furthermore, it seems clear that teacher training institutions will have to produce more graduates. Ideally, in 2015 around 1,300 newly graduated teachers should be

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41 UNESCO, 2010: 120.
42 Ministry of Education, 2013b.
45 Bennell, Sayed and Hailombe, 2009.
46 Calculated from Bennell, Sayed and Hailombe (2009: 19, 119) and Ministry of Education (2012a: 71-2). The 18% figure becomes 33% if one’s point of departure is only qualified educators.
entering the labour market, against an actual figure of only around 800\textsuperscript{47}. Though the figures quoted here represent a considerable challenge for the country, they are somewhat conservative insofar as they have not taken into account additional secondary school enrolment increases which may arise out of the recent announcement by the President, in 2014, that school fees would be abolished at the secondary level. Considerable methodological guidance exists for teacher supply and demand modelling\textsuperscript{48}. This guidance and a review of the existing work in Namibia suggests special attention should go to matters discussed in the following box.

**Characteristics of an effective teacher supply and demand analysis**

- The outcome of the work should be an **analytical report** which explains the assumptions, the data and the conclusions. Estimating teacher supply and demand in a context of occasionally problematic data (see following bullets) means data quality, margins of error and the interpretation of calculation results need to be carefully discussed. Whilst software products can facilitate the analysis, the analysis cannot be simply a mechanical exercise.

- In calculating the demand for educators, **official population estimates** need to be compared carefully to enrolment figures. In developing countries it is common for either of the two, or both, to display important anomalies which must be taken into account\textsuperscript{49}. It is also common for official **grade repetition figures** and **educator attrition estimates** to be inaccurate\textsuperscript{50}. Unless the necessary corrections are made, teacher demand estimates could be seriously distorted.

- It is important that assumptions about **future changes to grade repetition** be realistic, rather than idealistic. It is extremely unlikely that a country such as Namibia will be able to eliminate grade repetition in the medium term, a change that could reduce the demand for educators considerably (were such a change possible). Similarly, assumptions around the speed of **future expansions to secondary level enrolments** should be realistic. Such expansion is limited by the quality of primary schooling. Without substantial improvements to the latter, very large increases in the number of learners who are ready for secondary schooling will not be possible.

- Though it is possible to calculate rough estimates of teacher demand using aggregate statistics, for instance the learner-educator ratio for lower primary schooling, more informative scenarios can be generated if the data are analysed at the school and even the individual employee level. This more detailed analysis allows one to deal with the indivisibility of teachers, or the fact that schools generally cannot share the same teachers. This is particularly important when the demand for subject-specific teachers is calculated\textsuperscript{51}. Moreover, an analysis of the influence of small schools and attempts to reduce multi-grade teaching becomes possible with a school-level analysis.

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\textsuperscript{47} Calculated from Bennell, Sayed and Hailombe (2009: 132). See also Fleisch (2015: 5).


\textsuperscript{49} In the case of Namibia, it is probably of particular importance to be wary of under-estimated ratios when enrolments are divided by the weighted population in sample-based household data. Patterns seen in Stukel and Feroz-Zada (2010: 12) suggest that these population figures may be too high (see in particular difference between ‘NER’ and ‘NAR’). See also Gustafsson (2015b).

\textsuperscript{50} Errors with regard to the Namibian teacher attrition rate are discussed in Bennell, Sayed and Hailombe (2009: 122). The calculation of attrition rates is discussed in section 7 of the current report.

\textsuperscript{51} Bennell, Sayed and Hailombe (2009: 133) have argued that complexities at the senior secondary level make it impossible to generate a meaningful subject-level teacher demand picture. Whilst the required analysis is complex, it is probably not impossible and even estimates with wide margins of error are generally better than no estimates at all.
A teacher supply and demand analysis should ideally use data from both the payroll system and the teacher questionnaire of the Annual Education Census. Even if to some degree imputation techniques can overcome problems in the linking of these two data sources, ongoing data quality enhancement efforts need to improve the matching of employee identifier numbers across the two datasets.

If the demand for educators in the public schooling system is found to be \( x \), the supply of educators should typically be larger than \( x \) to deal with a number of ‘leakages’, including the fact that many newly graduated teachers will find work in private schools, or completely outside the education sector.

Ultimately, a teacher supply and demand analysis must focus on two key areas which give rise to a mismatch between the projected supply and demand of teachers. The one is budgetary constraints. It may not be possible for the country to finance the desired expansion in the educator workforce. This seems to be the case in Namibia and is discussed briefly below. The other area is bottlenecks in the pre-service training system, caused possibly by an inability of this system to expand, or an insufficient number of youths graduating from secondary schools with the results required for entry into teacher training.

**Formulation of credible spending arguments.** How government spending is spread across sectors is at least in part due to how convincingly ministries are able to argue for budgets with the Ministry of Finance. The ability of MEAC to do this should be improved. More generally, people in the Ministry need to understand education’s role in society and the economy well, as well as possible imbalances in the way public funds are spent. Without this understanding, proper human resources planning cannot occur, given that personnel spending accounts for most spending in education. Namibia’s public spending on education comes to around 8.4% of gross national product, a figure that is amongst the highest amongst developing countries\(^\text{52}\). It is clearly difficult to argue that the sector is under-funded, even if it may be possible to argue for smaller strategic injections of funds to improve the quality of educational outcomes. Within the education sector there appears to be a serious imbalance, however. Whilst the gross enrolment ratio for primary schooling in Namibia is roughly in line with what is found in other, similar countries, and the secondary ratio is a little low, the tertiary ratio is far lower than what one might expect. Specifically, UNESCO’s published ratio at the tertiary level for Namibia is 9%, compared to around 30% for other middle income countries\(^\text{53}\). There thus seems to be a compelling argument for expanding post-school education substantially, partly by hiring new people\(^\text{54}\), whilst arguments for expanding the schooling system are more difficult to make. Yet there is strong policy pressure to expand the schooling system, by 18% by 2020, as discussed above. This expansion seems possible given current levels of economic growth, but the question remains how best the Ministry should balance growth in the school sector with growth in post-school institutions. With personnel spending in the schooling sector being around 90% of overall spending\(^\text{55}\), there is virtually no scope for hiring new teachers by reducing non-personnel spending. The Ministry’s plans need to deal with these tensions in a more explicit and pro-active manner.

**Archiving and storage of data and knowledge.** Not only must knowledge be produced as described above. Knowledge, data and data analysis tools need to be archived so facilitate referencing and re-use in future years. ETSIP has emphasised the need for better knowledge

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\(^\text{52}\) UNESCO, 2014: 382.


\(^\text{54}\) The NCHE believes that spending on higher education should almost double (National Council for Higher Education, 2012: 13).

management in the Ministry\textsuperscript{56}, and this remains a serious challenge in 2015. Whilst physical resources for this, such as computer servers, are important, the most important ingredient is the team of skilled analysts referred to above. Knowledge management includes producing, periodically, meta-analyses of the various analyses that already exist and evaluations of the quality and relevance of the information and knowledge that has been produced. For the latter, it is key that decision-makers provide feedback on whether the information they receive is packaged in a way that facilitates its use, and assists them in their work.

\textbf{Indicators to focus on}

The indicators listed below are just a few of many key indicators which should receive attention in the \textbf{overall planning and monitoring systems} supporting human resources development. The emphasis here is on indicators of general importance. Indicators specific to certain policy areas are discussed in subsequent sections. For the first three indicators, the payroll system would be a key (but not the only) data source.

- **Number of employees by category.** Employee numbers are often inconsistent and this has been the source of some frustration\textsuperscript{57}. Some of this inconsistency would be simply a matter of definitions, which underlines the importance of always specifying the source, point in time, status of employment, and so on when providing statistics. Key categories would include whether temporary or permanent (currently an area of policy importance, but also confusion), school level (a complex breakdown given that individuals may work simultaneously at more than one level) and age. Occasionally, payroll and Annual Education Census data should be linked to verify the accuracy of both datasets and so that the latter dataset can be used to count the number of privately paid employees.

- **Total personnel spending by category.** For total spending on personnel to be properly understood, the analysis must occasionally occur using data at the level of individual employees, and individual types of payments (and possibly deductions). Without this more detailed analysis, it becomes impossible to understand changes over time, or differences across regions, fully.

- **Per employee spending (unit cost) by category.** This is found by dividing total spending by number of employees, using the same version of the payroll data, and the same category of employees. Total cost per employee is a vital statistic for human resources planning. There are many reasons why it might change over time, including agreed upon salary increases, changes in the composition of the workforce and changes in the age profile. These reasons must be properly understood. It is useful to break the total unit cost down into more fixed costs (mostly the basic salary) and more variable costs (for instance variable benefits and allowances).

- **Average educator pay over GDP per capita.** This is a standard indicator often used to compare the level of educator pay across countries\textsuperscript{58}. It is an indicator which must be interpreted with considerable caution\textsuperscript{59}.

To conclude this section, the diagram on the following page is intended to assist in understanding the inter-linkages between the six areas of the current plan, and their various components. The symbol \large{★} points to a desired outcome, whilst the symbol \large{➔} signifies a policy or a system.

\textsuperscript{56} Ministry of Education, 2007: 89.
\textsuperscript{57} Sayin, Trkić-Izmirlia and Hough, 2011: 17.
\textsuperscript{58} UNESCO, 2010: 94.
\textsuperscript{59} Gustafsson and Patel, 2009.
Attracting the right people to work in the sector
★ The best possible recruits
- Communication strategy aimed at youths
- Multi-stakeholder structure to plan teacher training

Effective initial training
★ Graduates, in the right numbers, specialising in various fields, from ECD to advanced research, with an in-depth grasp of their field, plus the ability to adapt
- Bursaries and loans
- Accountability mechanisms governing training institutions

Appropriate placement of staff in institutions
★ Placement of educators in schools in a manner that matches formal specialisations to classroom needs, whilst accommodating school and teacher preferences
- Policy on the distribution of educators and other staff across schools
- Effective dissemination of information on vacancies

Promoting ongoing professional development
★ Professionals who update their skills, remain inspired and understand their role in reducing poverty and building the nation
- Policy on promoting ICT in the classroom and in system management
- Effective measures of school performance

National Development Goals

Overall planning and monitoring systems
★ Skilful analysts supporting effective decision-making and leadership
- Training and mentoring strategies to build and maintain core teams of internal analysts
- Effective data strategies
- System of useful and credible reports

Retaining good people in the sector
★ An education system that excels in retaining its best people
- Career paths, not necessarily ending in management positions
- Carefully balanced system of salary levels and special incentives
- Zero tolerance of corruption and nepotism in the promotion process
- National professional development interventions
- Incentives aimed at encouraging professional development driven by teachers and schools
3 Attracting the right people to work in the sector

This area in brief...

Namibia’s system of **publicly sponsored bursaries and loans** has helped to attract young people into the education sector, but coordination between the key stakeholders, in particular MEAC, NSFAF, UNAM and the Ministry of Finance, needs to be greatly strengthened to make funding more predictable. Unpredictability will discourage good people from considering a career in the sector. The multi-stakeholder **Teacher Advisory Committee** needs to be established. Moreover, the education sector needs to be seen as one where effort and talent are acknowledged and rewarded. Educators are clearly the core of the workforce in teaching institutions, yet the recruitment of **other professionals, including psychologists, social workers and librarians**, should receive more attention. Long-term staffing scenarios, which cover the full range of employee types and are informed by realistic budget assumptions, should be developed on a regular basis, partly to strengthen the Ministry’s bids for personnel funding to the Ministry of Finance. The current situation, whereby **public service rules** make it difficult to recruit and retain analysts and highly talented knowledge workers in the Ministry’s planning offices, needs to be resolved, partly through long-term arrangements with external partners.

**Better planning of funding for teacher trainees.** Namibia possesses the institutions needed for the effective funding of student teachers. In particular, the Namibia Students Financial Assistance Fund (NSFAF) has for several years been financing loans and, for priority areas such as mathematics teaching, grants, directed at student teachers (and other tertiary students). There are however two problems with the current system. One is that even for priority areas numbers of students should be capped to prevent an over-supply of certain specialisations (which can in turn result in an under-supply of teachers in other specialisations). The second problem is that there have been no clear long-term commitments around funding levels, making it difficult for, in particular, UNAM to plan for long-term growth in the Faculty of Education. A coordinating structure to deal with these matters, often referred to as the Teacher Advisory Committee, has been discussed for over a decade but has never been established. Such a structure is clearly necessary and should encompass, as a minimum, the Ministry (which must calculate teacher demand scenarios), NSFAF (which must report on past trends in relation to, for instance, the uptake of grants and the dropping out of funded students), UNAM and the Ministry of Finance (which must indicate what funding levels are feasible in the long run).

**Promoting the educator profession amongst youths.** There needs to be a better communication strategy aimed at attracting the right youths into the teaching profession. Such a strategy cannot resolve all bottlenecks, in particular the general problem of poor scores amongst secondary school graduates, but it can nevertheless make a difference. Communication with youths needs to occur partly through the internet, in line with government’s commitment to better use of ICTs. NSFAF, the Ministry and UNAM need to ensure that youths have access to the information they need: entrance requirements to enrol at UNAM’s Faculty of Education, how youths can upgrade their results to meet requirements through NAMCOL’s distance education system, how youths should decide on what teaching specialisation to pursue, current and future salaries of teachers, promotion opportunities in

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60 Ministry of Education, 2013a: 27.
61 Importantly, the future salaries of teachers suggested in existing salary scales may not be the same as what older teachers currently earn. Yet when youths assess what teachers earn they look at existing teachers. Such anomalies, which tend to result in an under-estimation amongst youths of future earnings, need to be understood by the Ministry and should be clarified to potential teachers. The dynamics of this in the case of South Africa is explained in Gustafsson and Patel (2009).
the sector, non-financial rewards associated with making a difference to children’s lives, opportunities for further studies (possibly abroad), and so on.

The Ministry should actively promote the credibility and status of the education sector, without distorting information. There are clear opportunities for this. Progress with respect to the quality of schooling, as seen in Namibia’s SACMEQ results, has received too little attention\(^{62}\). What has received attention are the indicators of the World Economic Forum (WEF), which point, for instance, to the quality of Namibia’s higher education system being in position 118 out of 148 countries\(^{63}\). The Ministry needs to make it clear that the WEF’s education quality indicators are controversial\(^{64}\) and are far from being a scientific reflection of quality. Values are calculated using opinion surveys directed at a small number of business people separately in each country. If anything, what the WEF values indicate is that expectations in Namibia’s private sector around quality education are high and that the Namibian government has been frank in admitting there are serious quality problems.

**The importance of support staff.** The education system requires not just educators, but also a range of support staff, including professionals such as social workers, librarians and psychologists. School administration clerks and teacher assistants also have an important role to play. Recruitment plans should pay attention to these occupations too.

**Innovative hiring practices for recruiting scarce talent.** A common complaint in institutions requiring exceptionally talented people, for instance the head office of the Ministry and the National Institute for Educational Development (NIED), is that public service rules make hiring and retaining such people very difficult. It is possible that opportunities offered within the existing rules are not fully understood. The Ministry should explore with the relevant officials in the Public Service Commission and the Office of the Prime Minister how talented individuals needed for innovation work in the areas of policy, systems and analysis can be recruited. Essentially what is needed is the hiring of certain people on a contract basis, and at competitive salary levels, without requiring them to assume management and bureaucratic responsibilities which take their focus away from the innovation work needed.

**Staffing tertiary and post-school institutions.** Post-school institutions are currently faced with a serious under-supply of potential lecturers with the right skills and qualifications, who are willing to work in institutions such as UNAM and the Polytechnic of Namibia (PoN). Posts are left vacant and lecturers who do not have the required specialisation or skills will sometimes be hired. The availability of lecturers determines, to an excessive degree, what programmes institutions offer. Demands of students and government’s development plans end up playing a smaller role than they should. The under-supply of staff is particularly acute in the areas of the natural sciences and engineering\(^{65}\). Recent large increases in enrolments in vocational education and training (VET) institutions have created new pressures around the availability of lecturers for these institutions. UNAM and the Polytechnic are large institutions with their own human resources planning staff and strategies. This should continue, but the Ministry, through the National Council for Higher Education (NCHE), should play a more pro-active role in certain respects. There needs to be a stronger engagement on the part of the NCHE and institutions with the skills needs identified by the National Planning Commission, through for instance the NODSOM system. The NCHE should tackle bottlenecks which institutions report experiencing when foreigners are recruited as lecturers. The NCHE should also explore the funding of scarce skills supplements to lecturers in fields where hiring is particularly difficult currently.

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\(^{64}\) Spaull, 2015.  
**Indicator to focus on**

The following indicator is of special importance for understanding whether Namibia is attracting the right people to work in the sector.

- **Ability profile of youths entering the teaching profession.** One key issue which has not been investigated in the case of Namibia, but should be from time to time, is the ability profile of youths entering teaching, relative to youths who enter other professions. Typically, some measure of how well youths enrolled in teacher training fared in their secondary school examinations, relative to other university students, is used. For instance, a United States Department of Education monitoring report indicates that only 14% of those studying to be teachers were from the top one quarter of secondary school students, compared to, for instance, 31% for humanities studies. It is of course not easy to bring about rapid improvements in relation to this indicator because who enters teaching changes very slowly over time, for a number of reasons relating to, in particular, the structure of the labour market. It is nonetheless important to monitor in which direction this indicator is moving as this has implications for education policy, in particular teacher pay. In Namibia it would be relatively easy to calculate values for this indicator. The work would involve linking individuals, using their national identity numbers, across two existing datasets, namely the Grade 12 examinations data and data on university students kept in the recently developed HEMIS system.

### 4 Effective initial training

*This area in brief...*

Within teacher training, there is a need to pay better attention to **subject content knowledge**. SACMEQ teacher tests have shown that subject knowledge amongst Namibia’s teachers is low, and generally lower than what is seen in other countries in the region. There is also a need to base training to a larger extent on **existing evidence regarding optimal methods for teaching basic skills, in particular literacy and numeracy**, to learners in schools. Namibian researchers should improve research in this area. Expansion in the teacher training capacity of, in particular, UNAM should be informed by the demand for specific specialisations within schools. It is clear that much of the expansion should occur in the area of primary school teaching and with respect to mathematics and science-oriented subjects. Initial training systems for teachers need to be sensitive to the fact that many youths only decide to take up teaching as a career some years into their post-school studies. It should become easier for such students to move into education from other fields of study. **The training of more pre-school teachers** is a key challenge given government’s plans to achieve a fourfold expansion in ECD enrolments. A part of the challenge will be to build the capacity of those currently working in ECD centres. NAMCOL should continue to play a key role here, though **an evaluation of the effectiveness of NAMCOL’s existing training programmes** should be undertaken to determine the extent to which they achieve their objectives.

**Strengthening pedagogy, in particular for the early school grades.** What qualifies someone to be an educator is partly knowledge of one’s field or subject, but also one’s ability to impart this knowledge, using an appropriate pedagogy, and the relevant teaching tools. Future schoolteachers should ideally enter pre-service teacher training with levels of subject knowledge which are already relatively good. However, for most student teachers, it is only when they enter teacher training that they are taught pedagogical skills, or how to teach. There

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67 Higher Education Management Information System.
has been a growing awareness that teacher training institutions need to improve their methods in this core area. In particular, there are concerns that future lower primary teachers are not adequately prepared. The importance of the pedagogy of these teachers is easy to underestimate because it is too often assumed one can make up for basic reading and numeracy deficits in later grades. Much research in fact emphasises that a weak grounding in the early grades in many ways condemns a learner to academic failure for the rest of her life. The fact that inappropriate teaching methods, such as choral repetition, are still predominant in a large portion of the schooling system is indicative of the challenge teacher trainers are up against.

Making pre-service teacher training a responsibility assumed only by universities from 2010 has made quality assurance easier. Quality assurance clearly occurs, as reflected in the fact that in 2013 20% of student teachers were not passing their annual examinations. The current move back to a three-year diploma for lower primary teachers need not be a step backwards in terms of quality, as long as training focuses on the right things. Areas needing improvement in the training of lower primary teachers include a stronger awareness of the social and language realities teachers are likely to face when they begin teaching, greater emphasis on practical teaching techniques which research has indicated are effective, how to use the Early Grade Reading Assessment (EGRA) tools, and how to deal with multi-ability classes within the context of the inclusive education philosophy.

A stronger focus on how to use modern ICTs to enhance learning is needed in the training of teachers. ICTs are of course not fundamental in the sense that basic language and numeracy skills are. Good education can be achieved even without ICTs, yet ICTs can improve teaching and learning, if applied effectively, and understanding how to use ICTs is becoming increasingly important for active citizenry, independently of any impact ICTs may have on academic results. Namibia has a good policy basis for the use of ICTs in education and a number of initiatives exist which offer lessons for teacher trainers.

**Learning from evidence on the teaching of language in the early grades**

- There has been a remarkable increase in the availability of rigorous experimental research into what makes a difference to learning outcomes in the early grades. The field is technically complex and so meta-analyses which evaluate the quality of the available research and identify common findings are important. This evidence must clearly be taken into account when teacher training programmes are designed. However, it cannot answer all the questions and the extent to which the Namibian context makes the evidence from elsewhere applicable locally must be carefully considered. Expert opinion clearly has an important role to play where findings appear to be ambiguous. Moreover, for teacher training to be practical, it needs to take the opinions of typical teachers into account.

- The evidence suggests strongly that widely used methods to teach reading and writing to Namibian children, such as choral repetition of basic texts, are not effective. So what should teachers do? The choice of language matters hugely. The initial acquisition of reading skills must occur in a language the learner speaks well. Reading stories to children is important. Clear routines for learners to follow, from one day to the next, are needed. But at the same time there should be progress towards more challenging tasks. The speed with which the teacher advances should be determined mainly by what skills learners have really mastered, and this needs to be revealed through effective assessment.

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72 Ministry of Education, 2013a, 34.
73 McEwan (2014) offers an outstanding example of a meta-analysis.
moving too fast because an unrealistic curriculum demands this can do more harm than good. Children should be able to select texts for reading which they like, from a collection of books in a small library. ICTs can enhance reading and writing, but only if the purpose and use of new equipment is made very clear to teachers. Teachers must have good materials in sufficient quantities. But what constitutes a ‘good’ resource is not cast in stone, and teachers should to some extent be critical of the quality of materials they have, partly so that they can insist on more appropriate ones. The Early Grade Reading Assessment (EGRA) tools, used in Namibia and elsewhere starting in 2007, represent a step forward for the quality and relevance of assessment tools. A part of the challenge is to make these important materials available in more languages and to quality assure these new versions.

- It is important for the acquisition of language skills to be ‘demystified’. The process is complex, but there are important and simple points that everyone should understand. Testing reading ability by counting the number of words a learner can read out loud in a minute has been used as an effective way to get teachers, learners and parents together in understanding a fundamental skill and setting targets.

- Education experts in Namibia have emphasised that the training of teachers, in particular teachers at the lower primary level, must be based on better Namibian research than what is currently available. Current practices in schools need to be understood better, and desirable and realistic changes to these practices need to be proposed, on the basis of a good mix of qualitative and quantitative research. Some of the required work is costly, in particular where the gathering of data across a sufficiently large random sample of schools is concerned. There are a few excellent examples from other countries which Namibian researchers could learn from. Research expertise from beyond Namibia is probably needed, but it is essential that the capacity of Namibian researchers should be strengthened through any work undertaken.

Strengthening subject knowledge. Teacher training in the past should have paid closer attention to the subject knowledge of teachers, if patterns in the mathematics knowledge of Grade 6 mathematics teachers are indicative of general trends. Figure 3 below, which draws from SACMEQ data, shows that in 2007, not only did Namibia’s learners obtain the lowest scores, compared to learners the other countries shown in the graph, Namibia’s teachers scored poorly in similar tests, worse than their counterparts in, for instance, Uganda and Swaziland. The problem is that it is often falsely assumed that students entering teacher training already have sufficient subject knowledge obtained through their own schooling. UNESCO’s latest Global Monitoring Report identifies the problem as one shared by many countries and puts forward, as a possible intervention, a strong focus on revising subject content taught at school during the first year of teacher training. One could then test student teachers at the end of the first year to verify that they were ready to proceed with the rest of their training. UNAM in particular needs to find a way of verifying the level of subject knowledge of incoming student teachers so that the right type and levels of remediation can occur during the four (or three) years the student spends studying to be a teacher.

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76 Gove and Wetterberg, eds. (2011) and Ngololo (2012).
77 USAID, 2006.
78 Ministry of Education, 2014c.
79 Varly (2011) provides one of several noteworthy examples, with a focus on Senegal.
**Horizontal movement into pre-service teacher training.** Not all students entering tertiary education are certain about which career they ultimately want to pursue. A student wanting to switch to teacher training after having commenced his studies at UNAM, the Polytechnic or some other tertiary institution, faces considerable hurdles as it is difficult to convert past studies to credits within the teacher training stream. It has been argued that this problem is sufficiently widespread to warrant some reconsideration of the way recognition of prior learning works in UNAM’s Faculty of Education.

**The right spread across teaching specialisations.** As discussed previously, public funding of teacher trainees at UNAM is a critical means for ensuring that the spread of future teachers across different specialisations, according to school level and subject, is in line with what the schooling system requires. The fact that the funding system has only partially been used for this purpose has resulted in a situation where imbalances across specialisations amongst UNAM student teachers are serious. But there is also a problem of a general under-supply of future teachers. Available figures suggest that only at the upper primary level is there an over-supply. This appears to have occurred because there were no limits imposed on the number of publicly funded student teachers opting for this specialisation. At the lower primary and secondary levels the current supply of teachers is well under what it should be, roughly 30% to 40% of the desired level.\(^{81}\) The under-supply seems worst at the secondary level. It appears as if one disincentive resulting in low enrolments of student teachers at the secondary level is the fact that both the qualifications requirements and the salaries of secondary teachers are similar to those of primary teachers, whilst in terms of subject knowledge, teaching is more demanding at the secondary level (even if the formal requirements for entering training at the two levels is the same). This is a matter that requires careful consideration. It should be remembered that it is common in other countries for secondary school teacher salaries to be higher than those for primary school teachers.\(^{82}\)

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\(^{81}\) Calculated from Bennell, Sayed and Hailombe (2009: 132), for demand, and Fleisch (2015: 5), for supply. Ministry of Education (2012a) also consulted. Breaking the secondary level situation down by lower and upper secondary was not possible with the available figures.

Turning to the spread of student teachers across school subjects, a proper supply against demand analysis needs to be undertaken. The Annual Education Census data are an adequate source for calculating demand and presumably the HEMIS data from UNAM can provide the required breakdowns by subject on the supply side, but the usability of the HEMIS data for the latter has yet to be verified.

**The training of ECD teachers.** The demand for ECD caregivers and educators is expected to rise substantially in the coming years, creating enormous pressure to train new teachers at this level. At the level of the pre-primary grade within the formal schooling system, sometimes referred to as Grade 0, enrolments, and the number of teachers, are expected to multiply by three in the coming years as universal attendance of this grade is attained. At the same time, enrolments of children of around four and five years at ECD centres are expected to multiply by four, creating a corresponding demand for additional staff. In absolute numbers, this means about 1,300 new Grade 0 teaching positions will be created, and 6,000 new teacher (or caregiver) positions at ECD centres. NAMCOL has played a critical role during the last five years in providing training for ECD teachers working at ECD centres, mainly through distance courses but with some face-to-face tutoring provided through NAMCOL’s network of around 80 tuition centres distributed across the country. Some NAMCOL graduates have ended up teaching Grade 0 at schools and NAMCOL has been considering a qualification specifically aimed for Grade 0 teachers. UNAM has recently begun offering training for ECD teachers, with a three-year diploma programme accepting its first intake in 2015. The envisaged expansion of ECD is large, meaning relatively cost effective modes of training will have to provide the bulk of the new human resources needed. NAMCOL seems well placed to provide such training. However, a large expansion in NAMCOL’s operations, which would require a considerable increase in public funding, should be accompanied by a formal evaluation of the existing NAMCOL programmes, specifically the materials used, and the balance between distance learning and face-to-face sessions. The evaluation should be based partly on a survey of past trainees and (where applicable) their managers at the ECD centres. Such an evaluation would assist NAMCOL to make the necessary adjustments to its programmes.

**Indicators to focus on**

To monitor effective pre-service training, the following indicators stand out as important.

- **Subject distributions amongst student teachers.** The subject specialisations of student teachers is an inherently complex matter because many students specialise in more than one subject. However, it is vital that a useful way of reporting this important information is found in Namibia. Ideally, HEMIS student-level data collected from tertiary institutions should contain the required information.

- **Subject knowledge amongst younger schoolteachers.** It is extremely difficult to change the skills profile of teachers who have been teaching for many years. The most effective way of changing the capacity of the teaching force is to ensure that new teachers entering the system are provided with the best possible pre-service training. For this reason it is particularly important to monitor teacher knowledge by age. If younger teachers are

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83 Calculated from RAISON (2014: 9, 13-14) and Ministry of Education (2012a).
84 NAMCOL (2013: 11) provides a sense of the magnitude and level of this training. In 2012, there were around 380 ECD teacher trainees enrolled in certificate programmes, and around 80 in diploma programmes.
increasingly displaying better levels of subject knowledge, then this points to successes in this aspect of the pre-service training system.\textsuperscript{85}

- **Level of education amongst pre-school teachers.** Information on what happens in Grade 0 and, in particular, in Namibia’s ECD centres, has been limited in the past. As ECD expands, monitoring and information systems will need to improve. This includes monitoring how well trained teachers and caregivers are. The existing EMIS function in the Ministry seems well placed to take this work forward. The aim should be to conduct a census each year of all ECD centres.

5 **Appropriate placement of staff in institutions**

This area in brief...

A large part of this challenge is to ensure an optimal distribution of teachers across schools, taking into account teacher specialisations, and ways of attracting teachers to work in remote schools. There is a need to develop a new national post distribution formula which promotes equity in the staffing of public schools and reduces complexity. It is necessary to learn from past mistakes in this regard. In particular, the new formula must be linked to budgets. It should be easier for teachers across the country to access information on vacant posts. Gap-fill measures currently used, in particular the hiring of under-qualified teachers on a temporary basis, should be better regulated and managed. Whilst mismatches between teacher specialisations and the classes teachers teach should be better understood, too much central management of this issue can lead to over-bureaucratisation and inefficiency. Much of the solution must lie in insisting that learning outcomes are achieved. This is arguably the best way of ensuring that as far as possible, the right teachers are teaching the right classes. The existing system of financial incentives for teachers working in remote schools functions relatively well, and budgets for the housing of teachers in such schools are relatively good. However, in certain respects this incentive system needs to be fine-tuned.

A new national post distribution formula. Officially, formulas from 2001 and 2002 are meant to govern how post entitlements are distributed across schools. However, over the years adaptations of the original formulas and completely different approaches have arisen, partly to deal with real pressures experienced in schools which are not dealt with in the official formulas.\textsuperscript{86} For instance, the needs of very small schools were not dealt with in the original formulas. Ad hoc solutions have served the system fairly well. The distribution of posts across schools appeared in 2015 to be relatively equitable and responsive to school needs. However, for two reasons a standard national formula is needed. Firstly, such a formula can improve the equity of teacher availability in schools. Secondly, a standard formula will reduce complexity and improve transparency, making it easier for schools to know what they are entitled to with respect to publicly funded human resources.

The process of producing a new post distribution formula must have two key inter-linked sub-processes. On the one hand, there needs to be consultation with various stakeholders to clarify exactly what the current problems are. On the other, there needs to be a team of technical people who will simulate the impact on schools and budgets of various suggested formulas. The findings of the technical team will need to be fed back into the stakeholder consultations. It should be possible for a new formula to be finalised by 2017.

\textsuperscript{85} Armstrong (2014b) demonstrates how the analysis can be done, in her case by using SACMEQ teacher test scores.

\textsuperscript{86} Gustafsson (2015a) and Wills (2015).
Elements of a new post distribution formula

- It should be **budget-sensitive**, meaning the total number of posts distributed should be affordable. This matter is complex, partly because an under-supply of qualified teachers results in a situation where under-qualified teachers, who are less costly, are appointed on a temporary gap-fill basis. The formula needs to take this and other complexities into account.

- It should **balance comprehensiveness and simplicity**, meaning it should take into account key factors, but should not be so complex that, for instance, school principals are not able to understand it. If every factor relating to school need is explicitly incorporated in the formula, the formula will become overly complex, and this complexity will add little value.

- Key factors the formula should take into account include differences in need at the **primary and secondary levels** (largely relating to subject choices in the latter), and the fact that up to a point it is necessary to **avoid multi-grade teaching**. In terms of the ratio of learners to educators, small schools need to be treated advantageously, but the degree to which this occurs should be carefully considered.

- It should explicitly **promote equity** in the distribution of human resources across schools. Using factors such the availability of physical resources in the form of, for instance, computer centres or libraries to improve staffing at schools is likely to result in inequities, and a bias against schools serving poorer communities. To some extent the formula should take into consideration **physical resources**, in particular classrooms, but the equity implications of doing this should be made explicit. Equitable service delivery can still be maintained if, say, schools without libraries receive funds to establish libraries instead of the library staff enjoyed by schools which already have fully-equipped libraries.

- It should promote **year-on-year stability** by explicitly phasing in different staffing entitlements. For instance, if the basic formula indicates that a school should gain or lose a post, but this change is driven by just a small enrolment change, then it may be best for the staffing change to take effect only after the new enrolment level has been sustained over two years.

- It should include elements which reduce ‘**gaming by schools**. For instance, it would be undesirable if school principals deliberately encourage grade repetition in order to inflate enrolment numbers and hence maintain certain post entitlements. Policy should require careful monitoring by the authorities of trends which could point to gaming, and investigations into particular cases where this appears to be occurring. Moreover, the formula would need to be linked to a strategy that combats **fraudulent inflation of enrolment figures** by schools. Such a strategy is in any case needed for a number of reasons, and could include migration to a learner records system and site visits where auditors perform physical headcounts of learners.

- It should cover not just educators, but also **other staff needed by schools**, including librarians, hostel workers, administrative staff and ground staff.

- The policy containing the formula should include a **monitoring component** explaining how adherence to the formula, and possible changes needed to the formula, would be monitored.

**Regulation of gap-fill measures where appropriately qualified teachers are not available.**
The appointment of under-qualified teachers on a temporary basis where there are no
available qualified teachers has been widespread for many years, though the exact extent of this phenomenon has not been clear\textsuperscript{87}. Partly because there has been so little policy guidance on the appointment of under-qualified teachers, too often the person appointed has not been the best person for the job from an educational angle. Policy is needed to promote a number of things. Firstly, the powers of the school board in relation to the regional administration when it comes to temporary appointments should be clarified in order to reduce disputes between the two. Secondly, controls are required to ensure that temporary appointments respond, as far as possible, to the teaching needs of the school. Nepotism in the appointment process should be actively combated. Thirdly, the fact that under-qualified teachers cost less than qualified teachers should not result in a situation where the former are appointed when the latter are indeed available.

**Exploring the sharing of human resources across institutions.** Traditionally, the education system in Namibia has tended to attach employees firmly to specific institutions. However, many systems, notably the schooling systems of many Latin American countries, employ a more flexible approach, whereby teachers work across several schools. This is one way of promoting the spread of ideas and providing educators with scarce skills the opportunity of developing capacity amongst more fellow teachers. Whilst there are clear advantages associated with having a team of full-time educators working in a school, some degree of flexibility should be considered when attaching employees to institutions.

**Incentives for teachers working in remote schools.** Incentivising teachers to work in remote areas is typically a difficult policy area in most developing countries, and Namibia is no exception in this regard. Namibia’s system of incentives, whereby teachers are paid between 5% and 12% more, depending on the level of remoteness of their school, has been evaluated and has been found to be relatively effective, at least in attracting qualified teachers to remote schools\textsuperscript{88}. However, there is a need for certain changes to this system. In particular, it appears as if the amount of the incentive should increase, from around 0.9% to 1.5% of overall spending on teachers, partly to compensate for the effects of inflation, and that the process whereby schools are classified according to level of remoteness, and the periodic updating of this information, should be improved. State-owned houses for teachers near remote schools serve as a further incentive for choosing to work in such a school. Spending on the building and maintenance of such houses has been found to be roughly adequate, though how funds are spent should be scrutinised with a view to strengthening the incentive effects of this spending\textsuperscript{89}.

**Getting appropriately trained teachers to teach specific classes.** Past analyses have concluded that classes in schools are too often taught by teachers who do not have the right teaching specialisation. There are two distinct reasons for this phenomenon. On the one hand, if there is a shortage of certain specialisations amongst trained teachers, then schools will be forced to place someone with the wrong specialisation in front of the class. On the other hand, even if the overall number of teachers with the right specialisation is adequate, mismatches in the classroom may still occur, depending on where individual teachers prefer teaching and how individual schools decide to distribute teachers across classes in the school. It is clearly the state’s responsibility to determine what the overall demand for teachers, by specialisation, is and will be in future years. The state should also direct public funding for teacher training in such a way that the right balance of specialisations amongst teachers is maintained. These matters have been dealt with in section 4 above. When it comes to distributing the available teachers across schools and across classes within schools, it needs to be accepted that formal

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\textsuperscript{87} Gustafsson (2015a) and Wills (2015).

\textsuperscript{88} As explained in Van der Berg, Van Wyk, Meyer, \textit{et al} (2014), the incentives have been less effective in improving the education service experienced by learners in remote areas, at least judging by indicators such as examination results and retention and promotion rates.

qualifications are not always the best indicator of where exactly teachers should be placed. On the whole, there should be a match between qualifications and placement. However, too much central determination over where teachers teach can lead to the resignation of teachers placed in schools they do not want to teach in, and this could do more harm than good to the overall teacher supply situation. Moreover, within a school there can be educationally sound reasons for some ‘mismatches’ between teacher qualifications and classes, reasons which the central authorities would not be aware of.

A focus on the educational outcomes of each school. In section 6, how educational outcomes can be measured and then used to incentivise school staff, in fair and relatively simple ways, is discussed. If school principals and their staff know that school performance is effectively monitored, and that there are consequences if schools under-perform, strong incentives are created for schools to ensure that good teachers are recruited into the school and that the utilisation of teachers within the school is as effective as possible. Such an approach would be in line with the Ministry’s general strategy of decentralisation.

The monitoring of teacher utilisation. What the authorities do need to do is to monitor ‘mismatches’ between teacher specialisation and the classes teachers teach, as such monitoring is a necessary prerequisite for determining when corrective action is necessary. The Annual Education Census of the Ministry collects comprehensive data at the level of individual teachers, class groups and subjects which could be used to produce valuable monitoring reports on the degree of ‘mismatches’ between teachers and their classes. However, it appears as if the data have never been used for this purpose due to capacity constraints within the Ministry. The data have been used for related purposes, for instance to monitor the degree to which subject teachers are qualified to be teachers, but this is several steps away from a fully-fledged teacher utilisation analysis where, for instance, the subject-specific qualifications of teachers are considered and, crucially, mismatches between the language backgrounds of teachers and learners at the lower primary level. Analysis done in 2009 using alternative and less comprehensive data concluded that one widespread mismatch problem was that teachers qualified to teach at the primary level were teaching at the secondary level. What is also considered a problem is that teachers qualified to teach at the lower primary level often end up teaching at higher levels, leaving the lower primary level with insufficient numbers of appropriately qualified teachers. It was also found that mismatches between the teacher’s subject specialisation and the class taught by the teacher were not very large. Of course these phenomena are dynamic and these types of analysis should be repeated periodically and should use all the key data which are available, the best of which are currently the data collected through the Annual Education Census.

Information directed at school staff. Whilst in many respects the Ministry website is informative, much improvement is needed in terms of the packaging of information often needed by teachers and other staff in the sector. For example, the website should be used to publicise what vacancies exist in schools across the country. Relying on just one paper-based gazette each year, as has been the case, reduces the chances that interested teachers and schools will be matched, given that new vacancies emerge continuously. Not all teachers have access to the internet, but increasingly they do and the Ministry can accelerate this process by

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90 One important caveat would be that it is accepted and often effective practice in many countries to place newly qualified teachers whose studies were funded by the state in specific schools, for the duration of a few years.
93 Gustafsson (2015a: 6) and Bennell, Sayed and Hailombe (2009).
ensuring that the internet is used to disseminate important information to teachers. This would be in line with the strong emphasis on better ICT usage in the Ministry’s strategic plan.

### Indicators to focus on

To monitor the appropriate placement of staff in institutions, the following indicators are of particular importance.

- **Learner-staff ratios.** The Ministry’s strategic plan emphasises the importance of tracking learner-educator ratios and envisages, on average, a gradual move towards more learners for each educator. In fact, the opposite seems to be occurring, as the trend has been for the ratio to decline. To establish the degree to which staffing is equitable, ratios need to be compared across schools, but in a manner which takes into account the staffing bias in favour of smaller schools but also in favour of secondary schools. If patterns seen in the data point to greater equity, then progress is being made.

- **Personnel spending in per learner terms.** As discussed above, shortages of qualified teachers result in the hiring of less costly under-qualified teachers. This has important but complex equity implications which should be monitored closely. One important yet relatively simple measure to use is total public spending on personnel per school and per year, divided by the school’s enrolment. Again, in comparing schools using this measure school size and level would need to be taken into account. The aim should be to improve equity across schools in terms of personnel spending per learner.

- **Mismatches between teacher specialisation and class taught.** As discussed previously, analysis in this area has not occurred, though the required data exist. There are no widely used standard methods for this kind of analysis, partly because schooling systems differ and methods need to be adapted to a system’s specific features. The analysis for this indicator would thus require some innovation.

### 6 Promoting ongoing professional development

**This area in brief...**

Professional development requires an effective mix of employer-funded support programmes and accountability systems. Support without accountability (and monitoring) is likely to result in little impact and an inability to realign poorly functioning support programmes. On the other hand, accountability with no support can leave staff without a sense of how their performance can be improved. Currently existing support programmes are generally seen to carry high costs, whilst their impact is low. **Materials and methods** used in such programmes need to be evaluated more carefully, and feedback from teachers and schools should be used more effectively. **ICTs** should be used to a greater degree. The effectiveness of the link between qualifications upgrades (in particular from three to four years) and salary improvements needs to be carefully reviewed. There needs to a shift of emphasis from qualifications to improving the quality of classroom teaching.

Turning to accountability, SACMEQ data suggest that Namibia’s teachers have not reached their ‘performance ceiling’ with respect to their learners’ results, even with the current relatively low levels of teacher subject knowledge. Accountability systems can help to ensure that the current skills of teachers are put to better use in the classroom. The existing

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95 Ministry of Education, 2012b.
97 Gustafsson, 2015a: 27.
98 Proposals for doing this, using Namibian data, can be found in Gustafsson (2015a: 24-8).
Performance appraisal system for teachers should be strengthened, and the transition to the new government-wide Public Management System in the coming years should be overseen carefully. Namibia has gained exceptional experience in the monitoring of teacher quality through the use of subject knowledge tests. Work in this area should continue, but in a manner that allays fears around job security. Moreover, the use of school-level examination and test results to strengthen a sense of collective accountability at schools should continue, but in a manner that prevents the distortions often associated with such approaches. Post-school institutions should make greater use of tracer studies which monitor the success of former students in the labour market, to strengthen a focus on outcomes that matter amongst the staff in these institutions.

Quality assurance and learning-through-doing within in-service training. Namibia is not alone in having difficulties in translating efforts invested in the in-service training of teachers to measurable improvements in learning outcomes. This is a challenge across many countries, including developed countries. A key part of this challenge is to ensure that support to teachers and accountability complement each other, and that training is not only supply-driven. This is discussed below. Problems with the current modes of in-service training in Namibia are widely acknowledged. There is a sense that training courses are too short, and that their overall purpose is often not clear. Training is often undertaken without due acknowledgement of problems other than teacher capacity, including textbook shortfalls and problems with the quality of existing textbooks and teacher guides. Training is often brief because planning around costs is inadequate. Training often occurs in hotels, even when this is not the most cost-effective approach. What is called training is frequently no more than planning sessions or meetings to deal with bureaucratic compliance. Training experiences tend not to be documented, meaning for instance that regions are unable to learn from each other’s practices. Videos and other innovative media are seldom used to communicate best teaching practices. The cascade model, according to which trainees run a next wave of training as trainers, is said not to work, at least not in the way it is currently applied. There is not enough quality assurance, even through relatively simple methods such as accreditation of courses and the analysis of feedback from trainees. Too often the Ministry supplies the training and is the quality assurer, creating a player and referee problem.

The English Language Proficiency Programme (ELPP) appears to be one of a few in-service training programmes which have demonstrated a significant degree of success. The ELPP, started in 2011, involved the testing of all teachers, generated carefully prepared and widely disseminated materials, included a relatively good quality assurance component managed by UNAM and employed a relatively cost-effective mix of distance education and face-to-face sessions. The programme is expected to end in 2015. It offers a number of important lessons for Namibia’s education sector and an adapted version of the ELPP should probably be taken forward in the coming years. Reporting using the test data generated from the programme was not as it should have been. In the end data were leaked and this resulted in sensationalist and largely misleading reports in the media. Moreover, communication with teachers was not effective enough to prevent a sense of job insecurity in relation to the testing process. These reporting and communication problems can and should be avoided in future programmes of this type. In the final analysis, training programmes that produce quality materials and pay close attention to impacts, for instance through the testing of trainees, are a good thing for the schooling system. The focus, in terms of subjects and grades, of future large-scale training programmes such as the ELPP, needs to be carefully determined. It is impossible to focus on

100 Chung (2013) and Clegg and Courtney-Clarke (2012: 20).
103 Clegg and Courtney-Clarke, 2012: 69.
everything. The need to improve the teaching of languages and numeracy in the lower primary level stands out as particularly important.

Of course not all successful in-service training is large-scale and ‘top-down’. Especially in an environment where accountability mechanisms are strong, teachers themselves are likely to initiate quality capacity building activities, for instance through so-called learning communities established between teachers. But even these kinds of activities can benefit from materials distributed by the administration, in the form of guides and research into best practices.

Qualifications upgrades and qualitative improvement. A teacher who entered the profession with a three-year diploma, in particular a Basic Education Teacher Diploma (BETD), is currently considered a qualified teacher. Yet teachers who fall into this category have an incentive to improve on their qualifications as qualifications upgrades are linked to salary improvements. It is clearly important to ensure that the approximately 15% of teachers who are under-qualified upgrade their qualifications to a minimum level. But beyond this, the educational benefits of the additional spending on salaries are not always clear, and it is possible that private training providers benefit from qualifications upgrades, and therefore promote this, in ways that are not fully understood. It is currently difficult for the Ministry to anticipate the budgetary implications of teacher-initiated upgrading, partly because information on the qualifications that educators currently have, collected largely through the Annual Education Census, is not as detailed as it should be. Moving forward, better information is required and the rules linking qualifications upgrades to salary improvements may need to be revised.

The right signals to educators with respect to the curriculum. Researchers have increasingly come to recognise that the gap between a highly ambitious curriculum, and what can realistically be achieved in the typical developing country classroom, is huge and problematic. This is not an easy matter to resolve. Virtually every society wants to reflect ‘world class’ standards in its school curriculum, regardless of its level of economic development and levels of poverty. Yet there are certain measures that can be taken to address the problem, and these can greatly improve the ability of teachers to be effective professionals. In Namibia, as in many developing countries, the curriculum is in some respects even more demanding than what it is in developed countries. This should be rectified. It has also been suggested that the curriculum should be better at indicating different levels of achievement, so that teachers are able to plan the level of their teaching better. It is currently envisaged that curriculum change will continue for several years beyond 2015. Whilst curriculum change may be necessary, it can also shift attention away from important work in improving the subject knowledge of teachers, or their basic pedagogical skills. As far as possible, this should be avoided.

The centrality of learning outcomes. In recent years the emphasis on the centrality of improving learning outcomes has been strong in Namibia. This means that the planning of professional development must involve questioning, repeatedly, what training programmes in the past appear most likely to have impacted on learning outcomes. Of course this requires a good understanding how learning outcomes are measured. In section 1.4 above, challenges in this regard were briefly discussed. Clearly examinations do not offer an ideal measure of the performance of the system. SAT and SACMEQ results are better suited for this. The 2007

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ETSIP document indicates that Namibia should participate in the TIMSS\textsuperscript{112} international testing programme, at the primary and secondary levels, to further improve the monitoring of learning outcomes\textsuperscript{113}. This is something which should be pursued.

**An effective accountability framework.** In an accountable system people firstly acknowledge what they produce and assume some responsibility for this. Secondly, they take responsibility for learning and improving upon what they produce. Clearly there are limitations to what one can be responsible for. Teachers, for instance, have limited control over how well resourced their schools are, or over the negative home background experiences of learners. Their own training opportunities are moreover limited. A critical question is to what extent teachers make the most of the resources they have, including their own capabilities. The 2007 SACMEQ data suggest that teachers outside Namibia have performed better, and that Namibia’s teachers have not reached their ‘performance ceiling’, given their current capabilities. Figure 4 below, which uses the same data as Figure 3, indicates for instance that Namibian teachers scoring around 750 in their SACMEQ tests produce learner results which are considerably lower than those produced by similarly capable teachers in Tanzania, Swaziland and Botswana. This suggests that accountability needs to be strengthened in Namibia. Without a strong sense of accountability, there is a risk that even well-designed teacher in-service programmes will not have the desired results. They could improve the capabilities of teacher, but this may not translate into better results for learners.

Though the current accountability system for teachers is incomplete and somewhat fragmented, several mechanisms with at least the potential to promote accountability do exist. At the level of the individual teacher, personal development plans (PDPs) are periodically updated, on the basis of evaluations, including class visits, conducted by the school principal and colleagues. A professional standards document, in existence since 2006, guides the process\textsuperscript{114}. At the level of the school, examination and SAT results are often the subject of intense discussion between school staff, on the one hand, and regional officials, on the other, the aim being to find ways of improving results in the future. Efforts are under way to strengthen the overall accountability system. The incorporation of teachers within the Performance Management System applicable to public servants in general, and which like the current system for teachers is largely focussed on development, is expected to bring about improvements. Yet the details of this are less clear than they should be. A pilot project begun in 2011 has been exploring ways of improving the accountability of schools to communities\textsuperscript{115}. This is in line with current thinking which says that accountability from schools should flow in two directions, to the administration and to the community\textsuperscript{116}.

There are mistakes which need to be avoided. Accountability which does not concern itself with what learners actually learn is incomplete accountability\textsuperscript{117}. Accountability systems should not be overly complex, or aim to do what is probably impossible (see the discussion box below). Collecting very detailed information on what professional development activities teachers engage in may not be a worthwhile investment\textsuperscript{118}. A piecemeal approach to

\textsuperscript{112}Trends in International Mathematics and Science Study.

\textsuperscript{113}Ministry of Education, 2007: 23.

\textsuperscript{114}Ministry of Education, 2006.

\textsuperscript{115}UNICEF (2014) describes work that has occurred in relation to the Social Accountability and School Governance in the Education Sector programme.

\textsuperscript{116}World Bank, 2003: 49.

\textsuperscript{117}Ellis and Yates, 2014.

\textsuperscript{118}The idea of establishing a database of teacher professional development activities (Ministry of Education, 2014b: 12) should be thought through carefully. Experiences in South Africa with such a database suggest that the costs and complexities may make it unfeasible (South African Council for Educators, 2012). The alternative approach, used in many successful schooling systems, is for professional development information to be kept at the school level, and for the school principal to be accountable for this.
accountability can be problematic\textsuperscript{119}. Ideally, a widely supported overall framework indicating how teachers are supported, and are accountable, should exist. Such a framework should display a sensitivity to what teachers themselves consider important, and the system as a whole should above all be seen as transparent, fair and not open to corruption\textsuperscript{120}. It should also indicate how the sector as a whole is accountable to society, and how a social dialogue around quality education is to be promoted\textsuperscript{121}. It seems practical for an accountability framework in Namibia to be seen as an extension of work that resulted in the General Education Educator Policy of 2014.

\begin{figure}[h]
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\includegraphics[width=\textwidth]{figure4.png}
\caption{Teacher and learner mathematics performance in African countries}
\end{figure}

\textit{Source: Calculated from 2007 SACMEQ microdata. Note: Teachers were grouped according to their test scores for the purposes of this graph. For instance, teachers with scores from 700 and less than 800 are pegged at the 750 level on the horizontal axis, those with scores from 800 and less than 900 are pegged at the 850 level, and so on. The area of the circles is in proportion to the percentage of learners in the country taught by these teachers.}

\textbf{The merits of different types of incentives for teachers}

- Though most people associate the word ‘incentive’ with a financial reward, the research is very clear that \textbf{non-financial incentives}, derived for instance from the joy of working with young people, or the structure of the school year with its school holidays, are extremely important too\textsuperscript{122}. Incentives influence each other, so any policy change in this area must view the existing system of incentives, including non-financial incentives, holistically.

- There are many ways of classifying \textbf{financial incentives} for teachers. One way is to classify in terms of what is being incentivised. Here one can think of four categories. Firstly, one finds incentives which reward teachers who gain \textbf{additional qualifications}. This approach, which is very common around the world, has been criticised for not paying enough attention to what one gains from the additional spending, in terms of better

\begin{thebibliography}{9}
\item Sayin, Trkić-Izmirlja and Hough, 2011: 19.
\item Clegg and Courtney-Clarke, 2012: 27, 62-3.
\item UNESCO, 2010: 115.
\item Vegas and Umansky, 2005: 5.
\end{thebibliography}
teaching and learning in the classroom. In certain circumstances, these kinds of incentives may work well, but they have serious limitations.

- Secondly, one can pay teachers incentives for demonstrating, through a **formal examination**, that they have achieved a certain **level of competency in terms of their subject or pedagogic knowledge**. This approach is potentially very useful insofar as it is relatively easy to implement and is not easily accused of being unfair or subjective. Yet the approach is seldom introduced, often because teacher unions tend to be apprehensive, for instance because examinations can expose weaknesses amongst teachers which one may prefer not to face up to. Chile is one country that has pursued this approach.\(^{123}\)

- Thirdly, incentives can be paid to teachers who **demonstrate the right practices**, for instance during a **class visit** by a panel of evaluators. There is some evidence that countries which pursue this approach produce better learning outcomes.\(^{124}\) The disadvantage is that the approach can be costly. Moreover, it is difficult to maintain the same standards across hundreds or thousands of evaluations.

- Fourthly, one can **link teacher incentives directly to learner test results**. This approach is often a popular one, in particular amongst people outside the education sector, who may not understand the complexities of schools. What has been proven to be very difficult, and is hence hardly ever implemented, is incentives paid to **individual teachers** based on their learners’ results. This has only really been successful in experimental situations where much testing of learners is possible and one teacher does all the teaching for a class, across all subjects.\(^{125}\) What is more implementable, and more common, is **incentives paid to all the staff of a school** when results improve. Such an approach recognises the fact that teachers within one school complement each other to a large degree. But this collective approach is nonetheless difficult, partly because teachers may **manipulate the testing process** to obtain the monetary rewards, and because the **socio-economic background of learners** can limit the scope for improvements, a factor which lies largely beyond the control of the teacher. Yet some examples of this kind of collective incentive exist in developing countries.\(^{126}\)

**A professional board for educators.** For many years the Ministry has been committed towards the establishment of a Professional Board for educators, a semi-autonomous structure which would promote professionalism amongst educators, partly by regulating entry into and, if necessary, expulsion from the profession.\(^{127}\) Largely due to tensions between the employer and teacher unions, the establishment of the Professional Board has been delayed. The establishment of this structure seems both important and possible. What seems necessary is a more concrete proposal than what is currently available on how the Board would combine developmental and regulatory functions, based on experiences in other countries. How the Board is expected to contribute towards better quality education is a key matter that should be made explicit. What should be avoided is the setting up of a structure that is mainly symbolic, or purely developmental without any regulatory function. How the Board would promote voluntary professional associations, of which there are already several in Namibia, should also be clarified.

**Professional development amongst post-school staff.** When it comes to academic staff at post-school institutions, it becomes especially important to rely on accountability systems as a

\(^{123}\) Taut, Santelices and Stecher, 2011.

\(^{124}\) Woessman, 2011.

\(^{125}\) Muralidharan and Sundararaman, 2007.


\(^{128}\) Ministry of Education, 2013a: 34.
way of promoting professional development, partly because the development needs of individual staff members are often highly specialised, meaning it is not possible to rely on top-down training models. Currently, a number of relatively traditional accountability approaches are pursued, all of which are at least potentially valuable. In particular at UNAM and the Polytechnic, there is considerable pressure for staff to upgrade their qualifications to the Masters or PhD levels. There is also pressure for academics to produce and publish research. The NCHE’s approval of academic programmes is aimed at ensuring that staff are capable of designing effective and appropriately focussed curricula. The HEMIS system, which has been strongly promoted by the NCHE, should soon be able to provide better information on matters such as the promotion rates of students, matters which are important for accountability purposes. What still seems lacking, however, is a sufficient focus on the quality of post-school education, and the readiness of students for the labour market. To fill this gap, the National Planning Commission (NPC) has been promoting a more extensive use of tracer studies. Some experience in the implementation of such studies by the NCHE has confirmed their feasibility in the Namibian context. Importantly, future tracer studies should not just focus on whether students end up working in the area they specialised in, but also whether the quality of the post-school education received was sufficient. This can be done by asking former students how they believe their education could have been better and, if possible, by gauging the opinions of employers. Data gathered through tracer studies can also be useful for youths planning their post-school studies. In Chile, tracer study data, specifically the average earnings of graduates from different institutions and specialisations as well as their employment rates, are made public in a web-based system. This assists youths to make appropriate career choices, which ultimately is good for the economy.

The Namibia Training Authority (NTA) has been establishing a system of competency testing for academic staff at vocational training centres. This should both assist the NTA to select appropriate in-service training for staff, and encourage accountability amongst staff.

### Indicators to focus on

- **Levels of teacher knowledge according to national teacher testing systems.** The SACMEQ teacher tests discussed previously provide one useful source for understanding the subject knowledge gaps of teachers. But national testing systems, such as the one designed within the ELPP, should also be used for this purpose. The importance of this type of indicator is reflected in the Ministry’s 2012-2017 strategic plan, which includes the key performance indicator (KPI) ‘% of educators meeting set competency standards’.

- **Number of educators using ICTs in their work.** A further KPI in the 2012-2017 strategic plan is ‘Number of educators using ICTs in education’. As training, including self-initiated training, in the use of ICTs for educational purposes improves, so should values against this indicator. The teacher questionnaire in the Annual Education Census includes a question on the teacher’s own rating of his or her computer skills. The utility of the data collected through this question must be examined, and if necessary, additional data gathering should occur in relation to ICTs.

- **Teacher absenteeism.** Excessive levels of absenteeism are common in schooling systems and are clearly a sign of low levels of professionalism amongst teachers. This is a vital indicator for which reliable data have arguably not been available in Namibia. At the

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school level it is clear that it is the school principal’s responsibility to ensure that accurate information on teacher attendance and absenteeism is kept\textsuperscript{132}. The challenge is to collect summaries of this information for regional and national statistics. The Annual Education Census seems to be an appropriate mechanism for this.

7 Retaining good people in the sector

\textit{This area in brief...}

The extent to which people leave the education sector needs to become much clearer. To illustrate, commonly cited attrition rates for teachers are probably double what they should be. Policy responses must be informed by accurate information of the scale of the problem. It appears as if Namibia’s actual attrition rates are not exceptional relative to those of other similar countries. Moving forward, one matter that must receive careful attention is \textbf{rewards for staff who display exceptional commitment} and talent. There are two parts to this. On the one hand, \textbf{promotion into senior posts} must to a greater degree be based on merit. On the other hand, there need to be more rewards, not necessarily of a monetary nature, for highly performing individuals who do not wish to take up management positions. In particular, such rewards should make it easier for good teachers to \textbf{remain classroom teachers}.

\textbf{The effectiveness of teacher pay and promotion rules}. Salaries within the education sector are one key factor influencing decisions around whether an employee stays in education. The salary rules applicable to educators are now essentially those of a unified system applicable to all public servants. Thus, for instance, the salary increases received by public servants in general are also received by educators. The implementation of the salary system is relatively good, though one fairly straightforward matter that should be resolved speedily is delays in the implementation of upward salary adjustments, something which is likely to cause dissatisfaction amongst employees. One complaint about the rules that is sometimes heard is that it is possible for one person to report to another person with an equal salary status. Specifically, this is often the case between school principals and inspectors. This is not necessarily a problem, and is common in many employment situations. What is clearly a problem is that a lack of salary advancement options for teachers who wish to remain teachers motivates many of the sector’s best teachers to leave the classroom to assume management positions\textsuperscript{133}. Currently the head of department position in schools provides some scope for salary advancement whilst allowing the educator to continue dedicating some time to teaching. Whether this avenue could be expanded, or should be supplemented by a new position such as that of senior teacher, is one of a several matters that should be addressed in an educator salary review, something which has apparently never been undertaken in Namibia.

The Office of the Prime Minister (OPM) performs periodic reviews of the general public service remuneration, job categorisation and promotion rules. These reviews need to be studied carefully within the Ministry. But given the fact that there are salary issues which are very specific to education, it is also necessary for the Ministry itself to examine the educator salary situation from time to time. To illustrate, the schooling sector of any country is inherently very ‘flat’ in the sense that a large number professionals must do essentially the same job, namely teach in the classroom, for their whole working lives. For the education sector to compete successfully with other sectors, and to avoid losing human resources, it must ensure that sufficient salary advancement is possible, even if the basic nature of the job and the set of responsibilities do not change greatly. How to achieve this is a complex matter which requires careful analysis of existing trends.

\textsuperscript{132} Ministry of Education, 2014a: 7.

\textsuperscript{133} Ministry of Education, 2014a.
The importance of listening to teachers. It is a mistake to believe one can improve the quality of educational outcomes without paying close attention to the opinions of educators, and their levels of job satisfaction. Yet education policymakers are often largely unaware of what educators, lecturers and school principals actually think about what needs to be done to improve the system. Clearly, if policies do not address concerns felt ‘on the ground’ by educators, they are unlikely to achieve much. It is also a mistake to believe that a sufficient view of the opinions of educators can be gained through their union representatives. These representatives are themselves often not well informed about what educators want with respect to pay, promotion opportunities, in-service training, induction programmes, employee wellness programmes, and so on. What should be used on a routine basis is data gathered from teachers themselves, through surveys. In the case of Namibia, the SACMEQ teacher questionnaires include a few relevant questions, but what is also needed is a periodic teacher opinion survey, run on a representative sample of teachers. One matter that should be explored further is the degree to which educators and managers, especially those with scarce skills, would be willing to continue working in the sector in some manner beyond the official retirement age. Greater flexibility in the employment rules in this regard could assist in dealing with needs on the part of both the employer and the employee.

**Indicators to focus on**

- **Staff attrition rate by category.** The attrition of educators is important to monitor. If it rises, the dynamics behind this need to be understood and, if necessary, interventions should be put in place. Teacher attrition is typically poorly measured in developing countries. In Namibia, estimates of the attrition rate vary from 2.0% to 7.5%, but the true figure is almost certainly closer to the bottom of this range, in other words not high by international standards. There are several reasons why attrition is so poorly measured. Often the required data analysis skills are lacking. In the case of Namibia, a proper analysis of two existing data sources, the payroll data and the Annual Education Census, for several years (not just two), should provide an estimate of the attrition rate that is more reliable than what is currently available. ‘Churning’, or the cyclical movement of teachers in and out of the system, needs to be taken into account. To illustrate, if 10% of educators seen in Year 1 are not present in Year 2, it may seem that the attrition rate is 10%. However, if many of these educators return in Year 3, then the 10% figure provides an exaggerated view of attrition. The methodological guidance in this area is not strong, partly because different education systems require different approaches to the calculation. The Ministry should arrive at an approach which is appropriate for Namibia and is repeated periodically to facilitate comparison over time. The attrition rate should be disaggregated by age, gender, level of school, region, job tenure status (permanent or temporary) and job category.

- **The age-wage gradient.** This can be understood as the steepness of the salary increases different categories of educators experience as they age. Clearly, this gradient can be different for young and older teachers as they would have experienced (or will experience) rules applying at different historical points. Various versions of this indicator need to be understood. The gradient for newly appointed young teachers, based on the salary progression rules applicable to classroom teachers, needs to be understood. However, certain teachers, which should be better performing teachers, can expect promotions, meaning the actual gradient differs between different categories of teachers. Promotion patterns need to be calculated on the basis of existing trends in the system. Sometimes the gradient is expressed as a ratio, for instance the ratio of the anticipated pay

of an average teacher 30 years into the future, over the current pay for a new teacher, all expressed in constant dollars. This ratio can vary to a large degree across countries, from 2.5 to a completely flat 1.0\textsuperscript{137}. It is important to understand where Namibia fits in within this range, and whether the situation ought to be changed in order to improve the system’s ability to retain educators.

8 Key milestones, timeframes and cost estimates

The table beginning on the following page sums up, in the form of milestones, work that must be done to develop the human resources of the education sector. The six areas introduced previously are repeated in the table and the reader should consult the previous discussions for more details on each of the milestones. Importantly, the milestones do not capture every activity proposed in this plan, but rather the larger and more costly activities, which underlines the importance for users of the plan of consulting the document as a whole. Assumptions used for the cost estimates can be found in the Excel file that accompanies this plan (HRD for education.xls).

All milestones in the table are important, but within each of the six areas around two milestones were selected for their particularly strong strategic importance. The selected milestones are marked with a star (★).

\textsuperscript{137} See Armstrong (2014a), Gustafsson and Patel (2009) and Vegas, Pritchett and Experton (1999).
Milestones and timeframes

**Overall planning and monitoring systems**

- **A core team of analysts focussing on human resources.** How this team is set up depends partly on the people able and willing to take on this work, and support from development partners. The seeds of such a team probably exist already in the Ministry, but the challenge is to develop the team. The focus should be on having at least three skilful analysts based inside the Ministry who can take forward the analysis and knowledge management required. Timeframes should be expressed in terms of the products emanating from the team (see next two rows).

  - Ministry: The additional annual cost for two additional staff members is estimated at N$ 1,400,000. Initial investment in computer hardware and software is estimated at N$ 70,000. These estimates are very rough, as much would depend on the available human resources.

- **Standard reports drawing from the payroll data.** The first such report should be finalised in 2016, and should involve analysis of employee-level data extracted from the payroll system. It is important that the point of departure should be key questions the Ministry needs answers for. Moreover, considerable attention should go towards developing and documenting methods for calculating and interpreting key indicators.

  - Ministry: This cost is incorporated in the labour cost of the team (see above).

- **Standard teacher supply and demand report.** The first such report should be finalised in 2017. Given that some work has already occurred in the area of teacher supply and demand, and given that the key policy problems in this area are broadly understood, the analysis drawing from the payroll data (previous row) has been placed first. Clearly some shorter analysis relating to teacher supply and demand will have to be produced before 2017.

  - Ministry: This cost is incorporated in the labour cost of the team (see above).

- **Growth in personnel funding.** One reasonable scenario put forward outside this plan suggests the number of publicly paid educators should increase by 18%. The NCHE has suggested an expansion in the post-school education and training system of 66%. These figures, and the cost figures to the right, are very rough and should be considered indicative. For better costing of growth in the schooling sector, a detailed analysis of unit costs which takes into account, for instance, changing age and qualifications profiles, is needed.

  - Ministry: Expansion in the schooling sector could increase annual personnel spending by N$ 733 million. The figure for expansion in post-school education is N$ 655 million.

**Attracting the right people to work in the sector**

- **Fully functional Teacher Advisory Committee.** This structure, which should include as a minimum representatives from the Ministry, NSFAF, Ministry of Finance and UNAM, should begin meeting regularly (at least twice a year seems necessary) in 2016. The Ministry should initiate this committee and existing Ministry staff should assume secretariat responsibilities.

  - Ministry: No new costs are envisaged.

- **Online advocacy and assistance for prospective teachers.** The Ministry and NSFAS should work together in ensuring that information needed by youths considering a career in teaching is available in a user-friendly format on their websites. This work should also be used as a catalyst for fine-tuning policies in relation to, for instance, the funding of teacher trainees. The relevant web pages should become active in 2017.

  - Ministry, NSFAF: The once-off cost of technical support is estimated at N$ 180,000.

**Effective initial training**

- **Research-based improvements to the way lower primary teachers are trained.** The Ministry and UNAM

  - Ministry, Data collection and professional
### Milestones and timeframes

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<th>Description</th>
<th>Responsibility</th>
<th>Cost implications (2015 N$ values)</th>
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<td>should take forward proposals that have recently been made in relation to</td>
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<td>more ‘action research’ oriented towards improving teaching practices at</td>
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<td>the lower primary level. By 2016, UNAM’s Faculty of Education should have</td>
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<td>on its website a report describing what the recent research suggests</td>
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<td>Assessment of horizontal movement into pre-service teacher training from</td>
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<td>other streams. By 2016 a short investigation into the merits and risks of</td>
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<td>education, with previous tertiary training being credited, should be</td>
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<td>this kind of horizontal movement becomes possible.</td>
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<td>Evaluation of NAMCOL’s training of ECD caregivers and educators. NAMCOL</td>
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<td>has in a short space of time established a training system for ECD</td>
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<td>relative emphasis on distance learning and face-to-face interaction with</td>
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<tr>
<td>trainers. An independent body should evaluate the existing training</td>
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<tr>
<td>system, with a special focus on making recommendations on how this system</td>
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<td>could be expanded to meet the demands of higher levels of ECD service</td>
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<tr>
<td>delivery across the country. The evaluation should be completed in 2017.</td>
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<tr>
<td>Appropriate placement of staff in institutions</td>
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<tr>
<td>★ New national post distribution formula. Such a formula should be</td>
<td>Ministry</td>
<td>The one-off cost of stakeholder consultations and</td>
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<tr>
<td>developed to improve equity in the distribution of school staff. The</td>
<td></td>
<td>technical support is estimated at N$ 450,000.</td>
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<tr>
<td>process should involve a combination of stakeholder consultations and</td>
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<tr>
<td>technical support work. The policy with the formula should be finalised</td>
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<td>by 2017. The policy should regularise the appointment of under-qualified</td>
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<td>teachers as a gap-fill measure where qualified teachers are not available.</td>
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<tr>
<td>Improvements to the remoteness classification of schools. One outcome of</td>
<td>Ministry</td>
<td>The one-off cost of technical support is estimated at</td>
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<tr>
<td>this should be more rigorous and transparent guidelines, including</td>
<td></td>
<td>N$ 120,000.</td>
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<tr>
<td>guidelines on the updating of the remoteness classification of individual</td>
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<td>schools. This should be completed by 2018.</td>
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<tr>
<td>Review of spending on state housing for teachers. This review can be the</td>
<td>Ministry</td>
<td>The one-off cost of technical support for just the</td>
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<tr>
<td>outcome of a relatively simple desktop exercise, with a few interviews</td>
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<td>review is estimated at N$ 60,000.</td>
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<td>with key managers. It should focus on ways of strengthening the incentives</td>
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<tr>
<td>to teach in remote areas, by means of state housing for teachers. The</td>
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<tr>
<td>review should be ready in 2016. The implementation of the review’s</td>
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<tr>
<td>recommendations are likely to be realised over several years thereafter.</td>
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<tr>
<td>★ Improvements in the amounts of the remoteness incentives for teachers.</td>
<td>Ministry</td>
<td>The annual additional recurring cost of what has</td>
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<tr>
<td>In line with the recommendations of a 2014 evaluation of the system of</td>
<td></td>
<td>been considered an affordable solution is estimated</td>
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<tr>
<td>financial incentives for teachers working in remote schools, increases in</td>
<td></td>
<td>at N$ 35 million.</td>
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<td>the amounts of these incentives should be seriously considered. As a</td>
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<td>minimum, the decline in the real value of the incentives after inflation</td>
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<tr>
<td>should be reversed. Policy should be finalised by 2016, for</td>
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<td>implementation in 2017.</td>
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<tr>
<td>Milestones and timeframes</td>
<td>Responsibility</td>
<td>Cost implications (2015 NS values)</td>
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<tr>
<td><strong>Better packaging of information needed by teachers.</strong> As an important step towards a better overall information dissemination strategy, the Ministry should establish, on its website, a facility which would make widely available up-to-date information on vacant posts across the schooling system. This facility should become operational in 2016.</td>
<td>Ministry</td>
<td>The once-off cost of technical support is estimated at N$ 180,000.</td>
</tr>
</tbody>
</table>

**Promoting ongoing professional development**

| The establishment of an evaluated set of flagship in-service training programmes. The internet should be used to a greater degree to disseminate existing in-service teacher training materials, but this should be accompanied with advice and advocacy directed at users. It should be remembered that these materials are often useful to a wider audience than was originally envisaged when they were developed. The website of the Continuing Professional Development (CPD) Unit at UNAM seems a good point for distributing materials. As a start, the materials from the English Language Proficiency Programme should be made available. Work should also proceed to make useful videos available. This should be accomplished by 2016. Over and above this, the CPD Unit should strengthen its capacity to source materials, from within Namibia and beyond, to evaluate their utility in the Namibian context, partly through piloting in classrooms, and to advise users accordingly. The CPD Unit should also initiate the production of new materials. | Ministry, UNAM, CPD Unit | The one-off cost of technical support for the website is estimated at N$ 180,000. Producing video materials (assuming adequate materials do not already exist) is estimated to cost N$ 540,000. |

| ★ Review of existing practices with regard to the upgrading of qualifications. A short investigation into the dynamics behind the enrolment of teachers for upgrading purposes with private providers (in particular IOL) should be conducted, with a view to establishing if this is likely to benefit the quality of schooling, and if so how. This investigation could lead to changes in the way credits from upgrading courses lead to salary improvements. | Ministry | The estimated cost of an external evaluator is N$ 60,000. |

| ★ A teacher accountability framework with specific innovations. The Ministry should lead a process to develop a teacher and school accountability framework. This work should be seen as an extension to the existing General Education Educator Policy. The process should involve rigorous research and simulation work, as well as broad consultation. The framework should include proposals for taking forward innovative programmes which will not only serve Namibia well, but could be an example for other countries. The ELPP appears to be a particularly innovative and interesting programme which could be adapted and linked to demand-driven professional development via accountability mechanisms (which should be seen as fair by most teachers). An initial accountability framework document should be finalised by 2016, and a final approved document should ideally be completed in 2018. It is important not to see the document as the only outcome of this process. The consultations themselves, if managed well, can help to shift mindsets amongst both administrators and teachers. | Ministry | Whilst much of the work would need to be done by existing Ministry officials, some external assistance with an estimated cost of N$ 180,000 is envisaged. |

<p>| Establishment of the Professional Board. Proposals on the exact functions and workings of this body should be drawn up as a prelude to broad consultations and revisions. This should be completed by 2017. The Board should then be established, ideally by 2019. | Ministry | The estimated cost of external assistance needed for the initial proposal is N$ 240,000. The annual running cost of the Board is |</p>
<table>
<thead>
<tr>
<th>Milestones and timeframes</th>
<th>Responsibility</th>
<th>Cost implications (2015 N$ values)</th>
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<tbody>
<tr>
<td><strong>Tracer studies for post-school education institutions.</strong> The NCHE should, together with UNAM and PoN, review the tracer study data that have been collected, however flawed this may be, and produce a report detailing problems with the data collection process and, if possible, findings that can inform policy. This should be done by <strong>2016.</strong> The report should be used to plan further tracer studies. These studies should preferably not be seen as once-off studies, but rather as a part of the annual operations of the institutions concerned. A key matter that must be resolved, partly because it has serious cost implications, is the optimal sample sizes to be used when tracing students.</td>
<td>NCHE, UNAM, PoN</td>
<td>A small amount of external expertise for the first report is estimated at <strong>N$ 3.0 million.</strong> It is difficult to estimate the cost of the subsequent work, but an annual cost for one institution of <strong>N$ 400,000</strong> seems possible.</td>
</tr>
<tr>
<td><strong>Retaining good people in the sector</strong></td>
<td>Ministry</td>
<td>The estimated cost of the external assistance is <strong>N$ 180,000.</strong></td>
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<tr>
<td><strong>A review of the teacher salary system.</strong> A fully-fledged review, focussing on salary advancement and job promotion rules and patterns, should be completed by <strong>2018.</strong> This review should include an analysis of opinions gathered from employees. One important policy concern that this review should focus on is how to retain more excellent teachers in the classroom, as opposed to management positions. Before 2018, a number of preliminary analyses would be undertaken (in line with what has been proposed in previous rows of this table). The work would be done by Ministry analysts, with some external assistance.</td>
<td>Ministry</td>
<td>The estimated cost of the external assistance is <strong>N$ 180,000.</strong></td>
</tr>
</tbody>
</table>
Bibliography

Where documents are available on the internet, the website address of the organisation on whose site the document appears, is indicated.


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