Zambia 2008 District Profile for Solwezi

At a glance

Grades

	1-9	10-12
Female Pupils	30,739	1,803
Male Pupils	34,386	2,230

Teachers 1120.11 180.893

Schools	172	10
Classrooms	705	110
Textbooks	1645 k	4.8 k



Basic School

	Goal	Actual Value
NIR	80%	58%
NER	110%	107%
Survival to G9	50%	37%

Pupil-Teacher Ratio	60	60
Teacher Attrition Rate	5%	21%
% Teachers Qualified	50%	93%
Pupil-Book Ratio	1	2.7

ANALYSIS

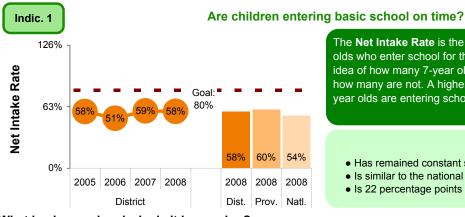
Solwezi district is one of the seven districts in North Western province and it is the provincial capital.

The district covers a total surface area of 30,361 square kilometres and has a total population of 265,789 people according to the national census conducted in 2000

The district has 7 high schools with the enrolment of 4, 033 pupils. There are 120 basic schools with an enrolment of 65, 125 pupils of which 30,739 are females and 34,386 males, against the staffing of 1,120 for basic schools and 180 for high schools.

In terms of socio-economic activities Solwezi is becoming a household name in mining activities. After the reopening of Kansanshi mine and opening up of Lumwana mine which is the largest open pit mine in Africa, which has attracted other economic sectors like financial institutions and small to medium scale enterprises resulting in tremendous population increase. The population explosion has exerted pressure on education facilities resulting in crowded classrooms, inadequate staff accommodation, inadequate water and sanitation facilities, desks, learning materials and teachers.

Issue #1: Progress in primary school enrolment in Solwezi



The Net Intake Rate is the percentage of seven-year olds who enter school for the first time. It gives us an idea of how many 7-year olds are entering school and how many are not. A higher NIR means more seven year olds are entering school on time.

- Has remained constant since 2005.
- Is similar to the national value.
- Is 22 percentage points below the goal of 80%.

What is observed and why is it happening?

The enrolment rate has been constant on the average for the past four years. The goal was achieved, that is when you look at Net Intake Rate for the District against the National NIR goal at 80% as compared to 55% in 2005, dropping to 51% in 2006, then rising to 59% in 2007 and 2008.

WHY IS IT HAPPENING:

There are more under age children that are enrolled in urban schools as compared to rural schools were over age children are enrolled.

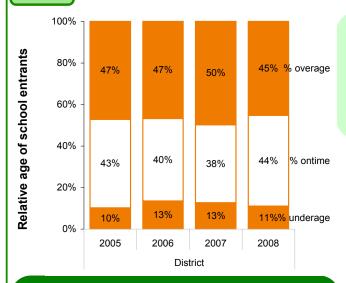
What action is required?

- 1.The Board should ensure that children are enrolled at the right age both in rural and urban schools
- 2. Sensitise parents on the essence of enrolling their children at the right age.
- 3. Retraining of school administrators.

Collaboration:

We will work with SNV in sensitising chiefs and communities on enrolling their children at the right age. We will also work with Equip 2, SNV and Chambers of Commerce in training school administration in management skills to the schools effectively.





This graph shows the percentage of new school entrants who are on-time (age 7), overage (older than 7) and underage (younger than 7). A high percentage of overage entrants means a lower NIR, but is acceptable because it means that older children are receiving an education. Once all the older children have been cycled through school, the percentage of overage entrants should decrease and the percentage of on time entrants should increase. If underage pupils are entering in large percentages, they are taking spaces from older pupils.

Since 2005 in Solwezi:

- Overage entrants have decreased by 2 percentage points.
- Properly aged entrants have increased by 1 percentage points.
- Underage entrants have remained unchanged.

What is observed and why is it happening?

On time entrants is constant on average for categories. WHY? - Distances between schools in rural areas has seen more of the over age children being enrolled. In urban schools underage children are enrolled in schools.

- Opening up of unregistered schools in the district.

What action is required?

Construct more schools

Sensitise parents on the importance of enrolling their children at the right age.

Legalise unregistered schools so that we capture the data concerning the given school.

Indic. 3

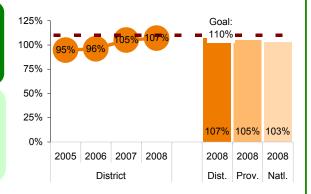
Are all basic school age children enrolled in basic school?

The **Basic Net Enrollment Rate** is the percentage of basic-aged (ages 7-15) children who are enrolled in basic school (grades 1-9). A higher **Basic NER** means more children are attending school at the correct age.

Basic NER

The Net Enrollment Rate in Solwezi:

- Has increased by 12 percentage points since 2005
- Is 4 percentage points below the national average.
- Is 3 percentage points below the goal of 110%.



What is observed and why is it happening?

Steady increase in percentage in the NER

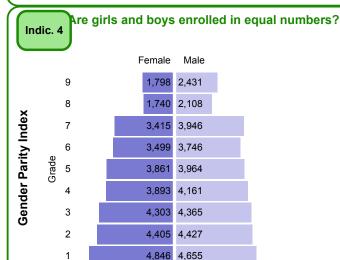
WHY?- rapid population growth and new settlement

What action is required?.

Opening up of new schools in the new settlement and also expanding the existing schools

COLLABORATION

Work with Central Statistics Office to know the population within the District so that we are able to plan for population expansion . Also work with Migration office to know the indigenous Zambians.



The **Gender Parity Index** is the ratio of female to male pupils. A **GPI** larger than one mean there are more females than males in school. A **GPI** smaller than one means there are less females per male in school. A **GPI** of 1 is desirable because it means there is an equal number of males and females in school.

The Gender Parity Index in Solwezi:

- Is within 0.06 of the national goal of 1 for grades 1
- Is highest in grades 1-4, with 0.99 girls per boy.
- Is lowest in grades 8-9, with 0.78 girls per boy.

What is observed and why is it happening? At grade one there are more girls than boys enrolled, as they progress the number of girls is dropping especially at the selection points

WHY?- Early marriages and pregnancies. There no role models especially in solwezi east

Limited school places at secondary school level

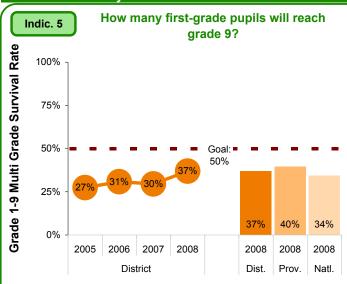
What action is required?

More classrooms to constructed in Solwezi East. Sensitisation of parents on the importance of Education. Explore more learning areas that are interesting to them in their areas.

Collaboration

With DDCC, Lumwana and Kansanshi mines, World vision, FAWEZA in promote gender and encourage girl child education. Send female teachers in all schools.

ISSUE #2: Efficiency in Solwezi



The Grade 1-9 Multi Grade Survival Rate is the percentage of pupils enrolled in grade 1 during the current school year who are expected to reach grade 9, no matter how many years It is estimated using data from a single year. A higher survival rate means more pupils are expected to reach grade 9 and less drop out.

The Grade 1-9 Multi Grade Survival Rate in Solwezi:

- Has increased by 10 percentage points since 2005
- Is 3 percentage points below the national
- Is 13 percentage points below the goal of 50%.

What is observed and why is it happening?

The number of pupils reaching Grade 9 is generally increasing.

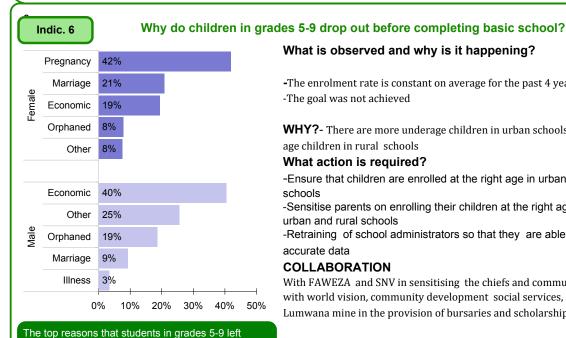
WHY? - incoming transfers from other regions because of economic activities

What action is required?

Intensify training in multi grade teaching and recruit more teachers.

COLLABORATION

Work with DDCC, Lumwana Mine, Financial Institutions, Kasanshi Mine, World Vision and also work with DATF, corridors of hope II, and Youth Alive, Council and Faith Based organisations on the importance of Education and expansion of schools



school as reported by school head-masters.

Headmasters may not always know the exact reason.

What is observed and why is it happening?

- -The enrolment rate is constant on average for the past 4 years.
- -The goal was not achieved

WHY?- There are more underage children in urban schools and over age children in rural schools

What action is required?

- -Ensure that children are enrolled at the right age in urban and rural schools
- -Sensitise parents on enrolling their children at the right age both in urban and rural schools
- -Retraining of school administrators so that they are able to provide accurate data

COLLABORATION

With FAWEZA and SNV in sensitising the chiefs and communities with world vision, community development social services, and Lumwana mine in the provision of bursaries and scholarships.

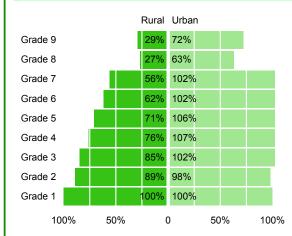
Are some Grade 1 students less likely than others to reach higher grades of Basic School?

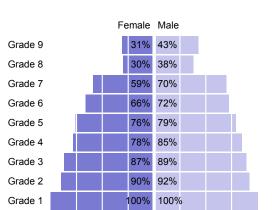


These pyramids compare the multi-grade survival rates for a grade 1 pupil from different education situations. When one group has a lower survival rate to a particular grade, pupils from that group are less likely to reach that grade.

In Solwezi, students are less likely to stay in school through grade 9 if they are female or if they attend a rural or community school.

- 29% of rural school entrants will reach grade 9 as compared with 72% of urban entrants.
- 31% of female school entrants will reach grade 9 as compared with 43% of male entrants.
- 0% of community school entrants will reach grade 9 as compared with 45% of government school entrants.





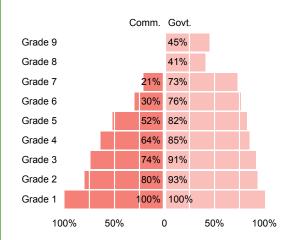
0

50%

100%

100%

50%



What is observed and why is it happening?

Pupils that enter rural schools are less likely to reach grade nine as compared to pupils in urban schools.

Drop out rates are high in rural schools at grade nine urban schools.

Graph 2 - The drop out rate for females is higher than male pupils.

Graph 3 - Drop out rate in Community Schools is higher as compared to government schools.

WHY? - There are few role models in rural areas especially in Solwezi East.

- Education in rural areas is considered not to have value.
- High poverty levels in the rural areas.

Graph 2 - Value of Education among girls is less as compared to boys.

Graph 3 - There is luck of good infrastructure and inadequate teaching staff.

What action is required?

Organise career talks and involve the people that have interest in education and come from the designated places like Solwezi East.

Increase more bursaries in rural schools

Sensitisation of traditional rulers and community members on the value of Education.

Send role models to rural schools to offer motivation talks.

Deployment and transfers of teachers to

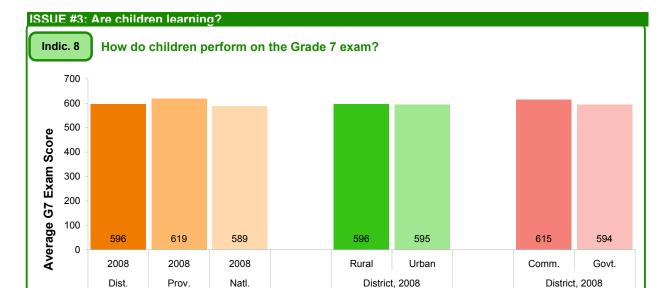
schools with less number of teachers.

Infrastructure development in community schools.

COLLABORATION

Work with district Gender committee in carrying out career talks by also involving the people who have succeeded in Education and come from the given place. Work with world Vision, FAWEZA, Lumwana Mine and other organisation that are offer charity works.

Infrastructure development involving UNICEF, Solwezi Council, World Vision and other stakeholder involved in infrastructure development.



The **Grade 7 Exam** is designed to measure individual students' learning levels at the end of grade 7. Exams are a common measure of learning, though critics argue that students with a high knowledge level could perform poorly if they are not good at taking tests.

Exam scores are tabulated according to wher the test is taken rather than where a pupil attends school. For example, if a community school pupil travels to a government school to take the exam, then their score is recorded as a government school score. Because of this, the Urb./Rur and Comm./Govt. scores in the graph may not reflect learning levels properly.

Not all grade 7 pupils sit for the exam, which means that exam scores may not be representative of the learning level of all grade 7 pupils. If high achieving pupils take the exam and low achieving pupils avoid it, then the average scores represent the learning level of high achievers more than that of low achievers.

The average Grade 7 exam score in Solwezi :

- Is 7 points higher than the national average.
- Is 1 points higher in rural schools than in urban schools.
- Is 20 points longer in community schools than in government schools.

What is observed and why is it happening?

The district average score was higher than the nation but lower than the province and the nation.

Rural Schools performance is better than urban schools

Community Schools are doing better than government schools .

WHY?

Supervision of examinations is not well done ,due to luck of transport and poor road network.

What action is required?

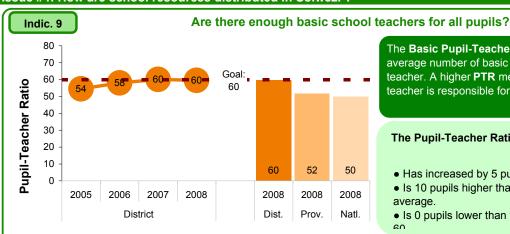
Enhance monitoring during examinations

External supervisors to be sent to schools to supervise the exams and school activities.

COLLABORATION

 $\ \square$ Work with line ministries to assist with transport during exams and deployment of supervisors.

Issue #4: How are school resources distributed in Solwezi?



The Basic Pupil-Teacher Ratio is the average number of basic pupils to each basic teacher. A higher PTR means that each teacher is responsible for more pupils.

The Pupil-Teacher Ratio in Solwezi:

- Has increased by 5 pupils since 2005.
- Is 10 pupils higher than the national average.
- Is 0 pupils lower than the national goal of

What is observed and why is it happening?

Pupil teacher ratio has been increasing gradually since 2005

The district pupil teacher ratio is higher than both for the province and national ratio.

WHY? - More pupils are coming to the district than the teachers the district is receiving

The district is losing teachers to other provinces.

What action is required?

Construction of additional classrooms and staff houses for the teachers recruit more teachers

Transfers of teachers should only be on swapping basis

Lobby government to approve staff establishment for community schools

COLLABORATION

With district development coordinating committee to organize meetings with stakeholders so that they are presented with ministry of education programs e.g. Lumwana mine, financial institutions, Kansanshi mine, world vision in the provision of the needed services to retain the teachers e.g. purchasing of solar panels, staff houses, good road network, etc

Indic. 10

How are basic school teachers distributed by school type?

What is observed and why is it happening?

Very high pupil teacher ratio in community and rural schools than in urban and government schools

WHY? - Poor infrastructure and no accommodation for teaching staff in rural and community schools.

What action is required?

Recruitment of more teachers

Transfers of teachers should be done on swapping basis.

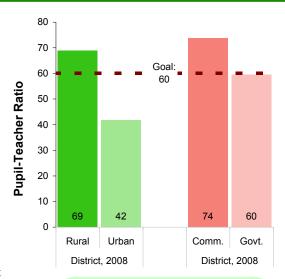
Deployment of more teachers in rural schools.

Construct more houses for teachers

COLLABORATION

Lobby the government to put more teachers on the pay role that are newly trained.

Work with the Mines to assist in the construction of Staff houses both in community schools and rural schools.



Basic Pupil-Teacher Ratio by School Type:

- PTR in rural schools is 27 pupils higher than PTR in urban schools.
- PTR in community schools is 14 pupils higher than PTR in government schools.

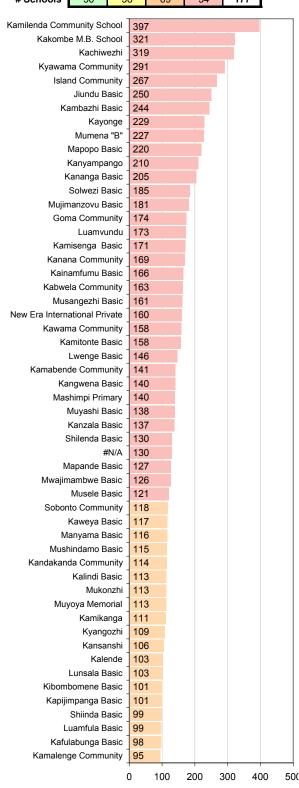
Indic. 11

In which basic schools are pupil-teacher ratios the largest?

This page lists the 50 basic schools with the highest G1-G9 **pupil-teacher ratios**. The schools with the highest ratios are listed first and have the greatest need for assistance. In a school with a PTR of 60 or less, learning is possible. In a school with a PTR of more than 60, learning is difficult. In a school with a PTR of 120 or more, learning is nearly impossible. Schools with high PTR's may be in need of additional classrooms and other resources as well as teachers.

Schools with the highest Grade 1-9 PTR's

i					
PTR	< 40	40-59	60-119	>= 120	Total
# Schools	36	38	69	34	177



What is observed and why is it happening?

There is a serious shortage of teachers in rural schools WHY? - The information might not reflect what is obtaining on the ground.

Few teachers are recruited and put on pay role

What action is required?

Recruitment of more teachers

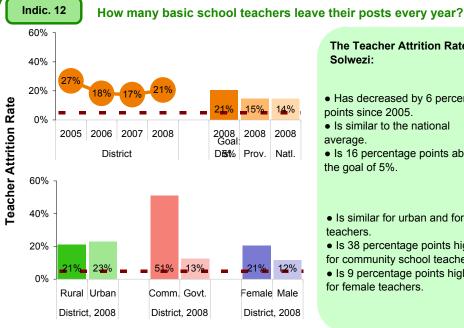
There are social amenities in rural areas to attract teachers Lack of staff accommodation

Redeploy of teachers in rural schools

COLLABORATION

Lobby the government to put more teachers on the pay role that are newly trained.

Work with the Mines to assist in the construction of Staff houses both in community schools and rural schools



The Teacher Attrition Rate in Solwezi:

- Has decreased by 6 percentage points since 2005.
- Is similar to the national average.
- Is 16 percentage points above the goal of 5%.
- Is similar for urban and for rural teachers
- Is 38 percentage points higher for community school teachers.
- Is 9 percentage points higher for female teachers.

The **Teacher** Attrition Rate is the percentage of teachers reported to have left their position in the past year. Teachers may have left for another teaching post, or left teaching altogether.

A lower Teacher **Attrition Rate** means that less teachers have left their positions each vear.

What is observed and why is it happening?

- There is a decrease in attrition rate from 2005/05 but in increase 2007/08

The District percentage is higher than the province and the nation. Community schools have a higher attrition rate. Female teachers leave their stations more frequently than males.

.WHY? - No incentives in community schools. No proper contracts in community schools.

No social amenities for female teachers to be retained in the rural areas.

What action is required? -Recruitment of more teachers. Contracts to be signed by community schools. Infrustucture development

COLLABORATION: Mines, world vision in infrastructure development, ZAIN, MTN to connect all rural schools with networks

Indic. 13

The **Teacher** Qualification Rate is

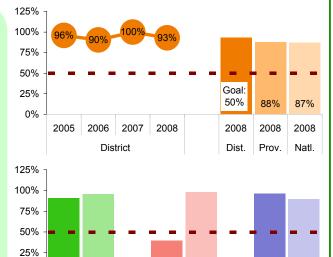
the percentage of teachers who are known to have a teaching degree, diploma, or certificate. If a teacher's qualification is unknown, they are counted as unqualified.

A higher **Teacher Qualification Rate** means more teachers are qualified to teach.

The Teacher Qualification Rate in Solwezi:

- Has decreased by 3 percentage points since 2005. • Is similar to the national
- Is 43 percentage points avove the goal of 50%.
- Is 4 percenage points lower for rural teachers.
- Is 59 percentage points lower for community school teachers.
- Is 7 percentage points higher female teachers.

Are basic school teachers qualified to teach?



District. 2008 District 2008 District 2008 ACTION. Deploy qualified teachers to community schools. Build infrustructure in community schools.

40%

Comm. Govt.

98%

97%

Female Male

89%

What is observed and why is it happening?

Qualifications for teachers is above the national average. Most teachers are less qualified in community schools. On average more women are qualified, The district is doing well on average.

WHY? More teachers are upgrading themselves with ZAOU, UNZA and the local college ZAMCOL.

COLLABORATION

96%

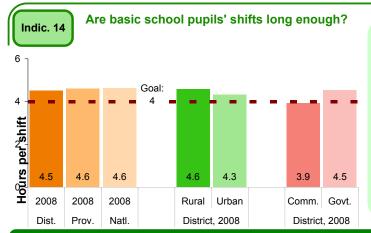
Rural Urban

91%

0%

Lobby government to set rules regulations after being put on the pay roll they should come back and continue teaching.

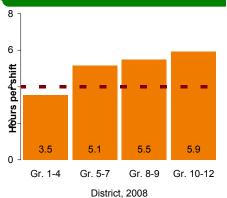
Improve incentives to retain teachers.



The average shift duration in Solwezi:

- Is 0.12 hours shorter than the national average.
- Is 0.51 hours longer than the goal of 4 hours.
- Is 0.26 hours longer in rural schools than in urban schools.
- Is 0.61 hours shorter in community schools than in government schools
- Is 0.46 hours shorter than the goal of 4 hours in grades 1-4.

Shift duration is the average number of hours out of a school day that a pupil attends school. Higher values mean pupils spend more time learning. 4-6 hours per day is recommended by the Ministry of Education. Shift duration is lower when schools use multiple shifting.



What is observed and why is it happening?

Grade 1-4 the shift is lower than the recommended hours per shift.

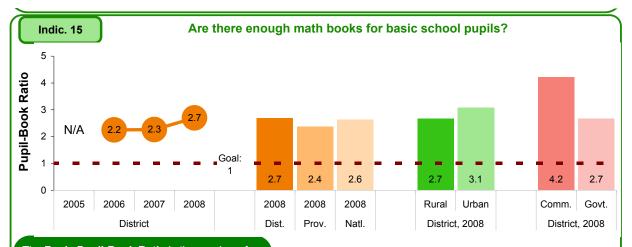
The shifts level in Grade 5, 7, 8,9 10-12 we are well above the recommended hours of the shift. The higher the grade the longer the shift.

WHY? - The lower grades have a lot of shift s with few teachers to teach.

At higher grades we have fewer shifts (8 - 12)

What action is required?- We shall plan for more hours per class at grade 1-4 and more teachers at grade 1-7. More houses and incentives to retain teachers

COLLABORATION - Work with district development coordinating committee to organize meetings with stakeholders so that they are presented with ministry of education programs e.g. Lumwana mine, financial institutions, Kansanshi mine in constructing staff houses and classrooms.



The **Basic Pupil-Book Ratio** is the number of primary pupils for each book. A higher **Basic PBR** means more pupils share each book. This graph uses the PBR for Math books as an indication of the PBR across all subjects. Other subjects are equally important and BPR's for these subjects are available in Ed*Assist.

What is observed and why is it happening?

Graph 1 The PBR in Maths has been worsening. Since 2005 we have been moving away from the same trend.

Graph 2 District PBR is lower than the Province

Rural PBR is better than the Urban PBR

for community schools is higher than government schools.

WHY? A rise in enrolment from 2006 - 2008 as compared to the number of books.

No. of Books being received does not correspond to the enrolment .

Urban is receiving more pupils than rural schools

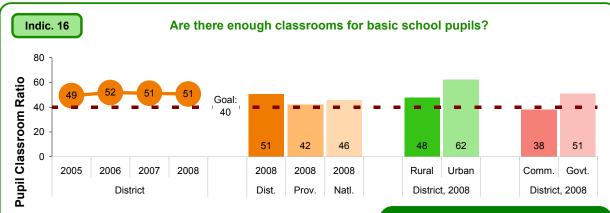
Low funding and luck storage facilities for community schools. What action is required?- Stock take the Books trebly, lobby other

organisation for funds and construct specialised storage rooms.

COLLABORATION- work with world vision and mines in the procurement of text books.

The pupil book ratio in Solwezi:

- Is similar to the national average.
- Is 1.7 pupils higher than the goal of 1.
- Is 0.4 pupils lower in rural schools.
- is 2 pupils higher in community schools.



What is observed and why is it happening?

Stead rise of PCR from 2005 - 2006 and was constant between 2007 - 2008

- the PCR for the district is higher than the Province and the National one. Rural PCR is higher than the Urban

Community schools have a better PCR than Urban Schools.

WHY? - More pupils are coming to the district which has limited classroom space.

Fewer pupils in community schools than in government schools.

What action is required?

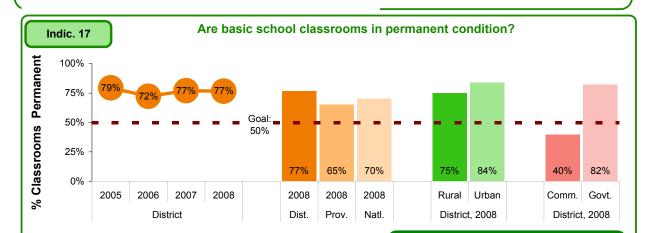
Construct more schools in urban areas and encourage more enrolment in rural schools

COLLABORATION- Work with organisation that are involved in construction works for the poor like World Vision, UNICEF, Solwezi Council and Building Department.

The **Basic Pupil Classroom Ratio** is the average number of basic pupils for each classroom. A higher **Pupil Classroom Ratio** means a larger number of pupils in each classroom. In schools that practice multiple shifting, the pupil-classroom ratio is not the same as the pupil class ratio.

The number of pupils sharing each classroom in Solwezi:

- Is 5 pupils above the national average.
- Is 11 pupils above the goal of 40.
- 15 pupils better in rural schools than in urban schools.
- 13 pupils better in community schools than in government schools.



What is observed and why is it happening?

There is a drop in percentage from 79% in 2005 to 72% in 2006. 2007 and 2008 shows a constant percentage of 77%. Urban schools have more permanent condition than rural schools. Government schools have more permanent schools than community schools.

WHY? - Steady rise in percentage in 2006 to 2008 because of the sector pool ,MOE strategic plan for infrastructure development and involvement of Mines ,CDF by council and world vision.

- What action is required? Verify data on 31st Oct. 2009 why there was a drop in % in 2005/06

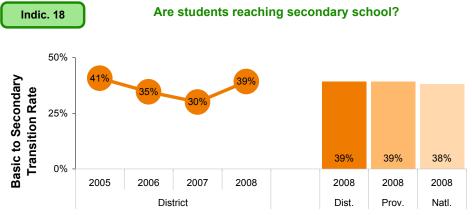
COLLABORATION work with the mines and district council in the construction of permanent condition structures.

The Percentage of Classrooms in Permanent Condition is the percentage of classrooms that are reported to be permanent rather than temporary or incomplete.

The Percentage of classrooms in permanent condition in Solwezi:

- Is similar to the national average
- Is 27 percentage points above the goal of 50%
- 9 percenage points lower for rural schools.
- 42 percentage points lower for community schools.

Issue #5: Overview of secondary schools in Solwezi



The Basic to
Secondary Transition
Rate is the percentage
of students in the last
grade of basic school
(grade 9) who reach
the first grade of
secondary (grade 10).
A higher rate means
more pupils are being
promoted to secondary.

What is observed and why is it happening?

in 2005 there was higher transition rate but dropped in 2006/2007. However it rose in 2009 by 9%. The district average is the same with the province but slightly higher than the national average WHY? - There were more pupils coming to the district than the corresponding number of classrooms in schools..

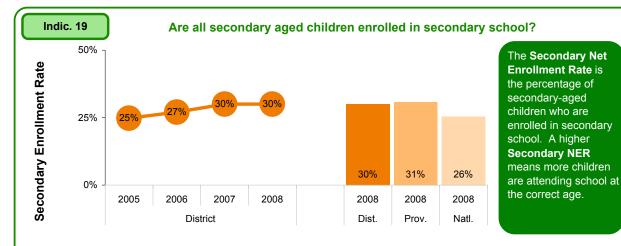
there was a second selection in 2007 in which the district was directed to enrol all the grade nine pupils that obtained full certificate to enter grade ten this resulted in having a higher transition rate.

What action is required?

Construction of new additional classrooms and staff houses

Phasing out junior secondary classes at Kyawama, and Maheba so as to create more places in the high schools.

COLLABORATION - With DDCC, Lumwana mine, financial institutions, Kansanshi mine, world vision and faith based organizations to help in the construction of additional class rooms and staff houses district council through the administration of CDF and ward development funds



What is observed and why is it happening?

NER rose from 25% to 27% in 2005/2006 and remained a constant at 30% in 2007/2008 Low number of Pupils attending school at Secondary Schools at the right age

WHY? - Introduction of APU as re-entry policy, Repetition rate in High Schools is higher with limited classroom space.

What action is required? - Sensitisation and opening up of new high schools and expansion of existing high schools.

COLLABORATION - Work with Community leaders and chiefs and also radio media on the importance of Education, With the Mines and other stakeholders.



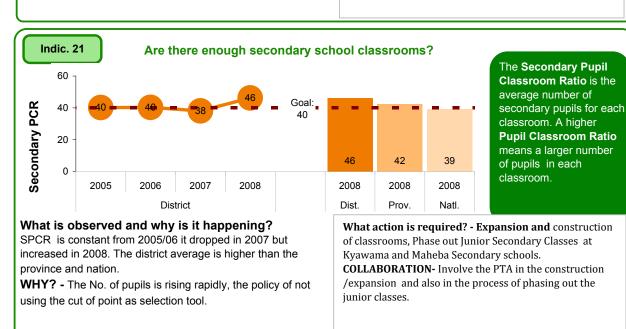
What is observed and why is it happening?

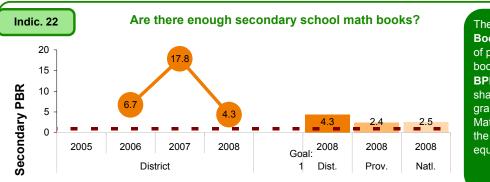
There is a fluctuation in the percentage of PTR, the percentage for the district is higher than the province and nation.

WHY? - The district has not been receiving enough teachers to carter for the high population of pupils in schools. One high school is not gazetted.

More teachers to be recruited and Lamba High School to be gazetted.

COLLABORATION- Lobby the government to put more teachers on pay roll and deploy them.





The Secondary Pupil-Book Ratio is the number of primary pupils for each book. A higher Secondary **BPR** means more pupils share each book. This graph gives the BPR for Math books, but ratios for the other subjects are equally important.

What is observed and why is it happening?

PBR seriously rose from 6.7 to 17.8 then dropped to 4.3 in 2008

PBR District is higher than the nation and the province.

WHY? - There are very few text books for Math it could be an error in the Data in 2007 where there is a

sharp increase.

What action is required?

- Verification of the sharp rise and drop in PBR in 2006-2008

Training of Head teachers on data entry and periodic stoketaking of text books

COLLABORATION - Work with SNV to train Head teachers in management skills