

THE UNITED REPUBLIC OF TANZANIA
MINISTRY OF WATER



**WATER SECTOR DEVELOPMENT
PROGRAMME (WSDP)**

SEKTA YA MAJI



PROGRAMME IMPLEMENTATION MANUAL

ANNEX 4

**FORMULA BASED ALLOCATION OF
FINANCIAL RESOURCES TO LOCAL
GOVERNMENT AUTHORITIES**

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LIST OF ACRONYMS AND ABBREVIATIONS

LGAs	Local Government Authorities
FY	Financial Year
PEDP	Primary Education Development Programme
PE	Personal Emoluments
NRWSSP	National Rural Water Supply and Sanitation Programme
SBAS	Strategic Budget Allocation System
MKUKUTA	Mkakati wa Kukuza Uchumi na Kupunguza Umasikini Tanzania
MTEF	Medium Term Expenditure Framework
MoW	Ministry of Water
JAS	Joint Assistant Strategy
MoF	Ministry of Finance

ALLOCATION OF WATER SUPPLY AND SANITATION FINANCIAL RESOURCES TO LOCAL GOVERNMENT AUTHORITIES (LGAs)

1.0 INTRODUCTION

1.1 Equitable and transparency distribution of resources

In February 2004, the Cabinet of the Government of Tanzania adopted a policy framework that introduced a system of formula based block grants to Local Government Authorities in order to assure objective, equitable and transparency distribution of resources. After the Cabinet's decision, Education and Health Sectors introduced a formula based block grant system during the FY2004/2005. This was followed by introduction of a recurrent grant formula based for Agriculture, Water and local roads during FY 2005/2006. Due to sectoral criteria differences and conditions the formulae developed differed from sector to sector.

1. 2 Involvement of other sectors

1.2.1 Education

Education and Health Sectors have demonstrated the effectiveness of the formula based approach. For instance, the criteria for education sector on recurrent block grant is 100% of eligible school-aged children in the Local Government Authorities (LGAs) area, based on projections from the 2002 census figures. The main aim of the education recurrent grant is to improve service delivery (administration) and increase enrolment rates. The PEDP development (Capitation) grant criteria consider the total number of students enrolled in Schools. However, it is anticipated that these two formulae will be harmonized in future.

1.2.2 Health

Unlike the education block grant formula, the Health Sector block grant formula is the same for both recurrent and development. It considers four criteria which are 70% for population, 10% for poverty, 10% for length of the mean official vehicle route to a health centre in a district and 10% for infant mortality rate. However, medical supplies are provided through a separate arrangement.

1.2.3 Water

The preliminary recurrent block grant formula for rural water supply that was introduced for FY 2005/2006 considered only 90% of served rural population for monitoring of local access to portable water and provision of technical backstopping to community user groups and committees to ensure proper operation and maintenance of water supply schemes, while 10% is for equal shares to all LGAs intended to cover recurrent costs of PE. This is according to general conditions as set by the Government to the LGAs.

2.0 CONDITIONS

In budgeting and spending of block grant resources, LGAs are required to abide to various general conditions as well as specific sectoral block grant conditions specified by respective line Ministries, including technical and professional standard set by sector Ministries. In addition to sectoral block grants provided to LGAs directly through the Ministry of Finance (MoF), LGAs also receive transfers from Sector Programmes such as the PEDP capitation Grant, Health Sector Basket Fund and the Road Fund.

2.1 Improvement of recurrent formula

Since the Ministry of Water intends to implement the National Rural Water and Sanitation Program (NRWSSP) that will cover entire country by July 2006. This takes cognisance of the need to improve the recurrent block grant formula while at the same time introduce a new development block grant formula. Both of these will assure more objective, equitable and transparency framework for distribution of financial resources to Local Government Authorities for the main purpose of improving water supply and sanitation services. In addition to 10% equal distribution to all LGAs criteria, the Ministry considers technology, coverage and poverty in the recurrent grant formula and introduces technology and unserved population as main criteria for the development grant formula.

Once these two formulae are operational, LGAs will be able to know how much they are supposed to get without consultations, a step that will enhance greater stability in their financial planning and budgeting processes. The relationships between the Strategic Budget Allocation System (SBAS)-MTEF planning/budgeting framework and the formula based grants system to LGAs are well presented in other topics of the Guidelines for Planning and Operating District Water and Sanitation Grants.

2.2 Sanitation consideration

2.2.1 Recurrent budget

To ensure that Sanitation advocacy and promotion activities are done accordingly, the 4% will be part of specific conditions pegged to the 60% total amount earmarked for each particular LGA, which is the amount earmarked for other charges.

2.2.2 Development budget

The inclusion of sanitation in the formula for allocation of recourses to LGAs depends on the total amount budgeted for the programme. The amount for sanitation is computed as 4% of the total sum of the programme budget to each LGA.

3.0 METHODOLOGY

The methodology used in preparing the water supply block grant allocation formula involved cross reference to various reports from different implementing agencies, that included various projects implementation reports, Councils' Service Coverage Reports and planned interventions focused in MKUKUTA, the Ministry's Medium Term Strategic Plan, the NRWSSP and the MTEF. The proceedings were discussed first in the Rural Water Supply Department and later on presented to the Ministry's Management for approval. The focus of the formula is to guide financial resource allocation to all LGAs during implementation of the National Rural Water Supply and Sanitation Programme throughout the country.

Data used for all water supply block grant formulae (number of residents not served by water supply schemes in each rural LGAs council, Technology and Poverty status) based on: (1) routine water supply coverage data produced each year by MoW, (2) 2002 Housing and population Census Statistics (and projections) and (3) regional poverty status computed using the Poverty Count Ratio derived from the House Hold Budget Survey results.

In order to derive the District's Poverty Status which has not been developed, the Regional Poverty Status is weighed by using specific LGAs councils' water supply service coverage, by taking the number of people unserved with water supply schemes as a main weighing factor. After each criteria were identified for recurrent block grant formula (population served, technology and poverty count) and development block grant formula (population unserved and

technology), then criteria were prioritized and assigned scores according to water situation in each LGAs council.

4.0. IDENTIFICATION OF CRITERIA

Several criteria are identified for application in the formula for allocation of funds to the LGAs. The criteria identified for recurrent budget are:

- Technology
- Coverage
- Poverty
- Area of the district
- Political influence
- Topography
- Distance of the district headquarters' from the furthest village.
- Rainfall

and for development budget are:

- Technology
- Coverage
- Area of the district
- Topography
- Political influence
- Rainfall

In the process of analysing and scrutinizing the above criterions it was found out that some are supportive and complementing others and thus were dropped. For example topography, area and distance of the district headquarters from the furthest village are supportive to type of technology used or to be used. While political influence broadly is supportive to coverage and rainfall is supportive to poverty.

Technology criteria entirely depends on the rainfall pattern, where there is adequate rainfall the technology to be adopted will be mainly gravity or shallow wells, but where the rainfall is scarce, technology will necessarily depend on the rainfall pattern which will determine the technology to be adopted. Therefore rainfall will not be considered as independent criteria. In development Poverty is not considered as criteria because it is covered in an independent report on percentage of contribution by communities.

In this identification process the following criteria were found suitable for adoption in recurrent budget:

- Technology
- Coverage
- Poverty and

in the development budget

- Technology
- Unserved population

4.1 RECURRENT BUDGET

4.1.1 Criteria adoption

Three criteria are adopted for the resource allocation to LGAs and these are:

1. **Technology**
2. **Coverage**
3. **Poverty**

4.1.2 Scoring of criteria and sub criteria

The above three criteria adopted and sub criteria identified were prioritized and assigned scores as shown in the table below:

Priority	Adopted criteria	Scores %	
1	Technology		55
1.1	Shallow well with hand pumps	5	
1.2	Gravity schemes	10	
1.3	Pumping schemes	40	
2	Coverage		35
2.1	Less than 20%	5	
2.2	Between 20% and 40%	10	
2.3	More than 40%	20	
3	Poverty		10
3.1	More than 41%	6	
3.2	Between 40% and 30%	3	
3.3	Less than 30%	1	

4.1.2.1 Technology option with a max score of 55%

This criteria is accorded highest priority and awarded a maximum score of 55% and it is divided into 3 sub-criteria according to assumed prevalence within the districts:

4.1.2.1.1 Shallow and deep well with hand pump

The score on this sub-criterion is 5% in the districts dominated by 60% coverage of shallow and deep wells.

4.1.2.1.2 Gravity schemes

The score on this sub-criterion is 10% in the districts dominated by 60% coverage of gravity schemes

4.1.2.1.3 Pumping schemes

The score on this sub-criterion is 40% in the districts dominated by 60% coverage of pumping schemes

4.1.2.2 Coverage with a max. score of 35%

The scoring will be proportionately higher to the coverage and it is distributed into three patterns of percentages of coverage:

Less than 30%	5%
Between 30% and 40%	10%
More than 41%	20%

4.1.3 Poverty with a max. score of 10%

Poverty line

The highest score is assigned to the regions with high percentage of population below basic needs of poverty line. Where data by district is not available, the regional figure is adopted. Scores are distributed into three patterns of percentages and it is direct proportion to the percentage of the population below poverty line.

Three patterns of percentages with their scores are as follows;

Regions with percentage of population:

- above 40% scores 6%
- between 30% and 40 scores 3%
- below 30% scores 1%

4.2 DEVELOPMENT BUDGET

For development budget the projects to be constructed will be in the form of capital investment, therefore unserved population is considered as the main issue rather than the coverage thus will be accorded high priority in order to increase the coverage at the same time improving the service level. The service provision should have a bearing on the appropriate technology with which very low operation and maintenance cost is achievable.

4.2.1 Adoption of criteria

Two criteria are adopted for the allocation of funds to the LGAs and these are:

1. **Unserved population**
2. **Technology**

4.2.2 Scoring of criteria and sub criteria

The above two criteria were prioritized and assigned scores as shown in the table below

Priority	Adopted criteria	Scores %	
1	Unserved population		70
1.1	Less than 30%	10	
1.2	Between 30% and 50%	20	
1.3	More than 50%	40	
2	Technology		30
2.1	Gravity scheme	20	
2.2	Pumping scheme	8	
2.3	Shallow well with hand pump	2	

4.2.3. Scoring Criteria

4.2.3.1. Unserved population max. 70%

The scoring will be proportionately higher to the unserved population and it is distributed into three patterns of unserved population as follows:

Less than 30% scores 10%, between 30% and 50% scores 20% and more than 50% scores 40%.

4.2.3.2. Technology option max 30%

This criterion is accorded high priority and awarded a maximum score of 30% and it is divided into 3 sub-criteria and awarded scores depending on design principles and criteria and nature of projects having minimum affordable and sustainable operation and maintenance cost.

4.2.3.2.1 Shallow well with hand pump

The score on this sub-criterion is 2% with districts having low coverage and scoring proportionately low. The scores are directly proportional to the deficit to achieve full coverage.

4.2.3.2.2 Pumping schemes

The score on this sub-criterion is 8% with districts having moderate coverage and will be adopted where necessary or where gravity projects are not visible.

4.2.3.2.3 Gravity schemes

The score on this sub-criterion is 20% with districts having high coverage and accorded high priority.

5. DEVELOPMENT OF THE FORMULA BASED

Several criteria have been identified for application in the allocation of funds to the LGAs but it has been found that some of the criteria either match or compliment others. Through the process of identification the following criterions were found to be suitable and are adopted in the formulae.

5.1 RECURRENT FUNDS

After identification of criterion in the allocation of funds to the LGAs for both recurrent and development it is imperative to derive the coefficients for both recurrent and development funds. In the process of achieving this, districts have to be identified and grouped in terms of:

Technology

Coverage

Poverty

5.1.1 Grouping districts according to technology

In the recurrent budget there are three criterions of technology with a total score of 55% with sub criterions of shallow well 5%, gravity schemes 10% and pumping 40%.

Therefore let n_1 be group of LGAs with shallow well pumps,
 n_2 be group of LGAs with gravity schemes and

n_3 be group of LGAs with pumping schemes

The coefficient based on the technology to be applied on the allocation of recurrent funds will be as follows (Nt):

$$\frac{0.05}{n_1} \text{ or } \frac{0.1}{n_2} \text{ or } \frac{0.4}{n_3}$$

depending on the type of technology dominating in the LGA

5.1.2 Grouping districts according to coverage

Therefore let k_1 be group of LGAs with coverage of less than 30% with a score of 5%
 k_2 be group of LGAs with coverage between 30 – 40% and with score of 10% and
 k_3 be group of LGAs with coverage greater than 41% with a score of 20%

The coefficient based on the coverage to be applied on the allocation of recurrent funds will be as follows (Nc);

$$\frac{0.05}{k_1} \text{ or } \frac{0.1}{k_2} \text{ or } \frac{0.2}{k_3}$$

depending on the type of coverage dominating in the LGA

5.1.3 Grouping districts according to poverty

The grouping of LGAs will be in accordance with % of population below basic needs poverty line.

District with highest percentage of population (55%-41%) will have 60% of the fund and will be group z_1

District with medium percentage of population below basic needs of poverty line (40% - 30%) will have 30% of the fund and will be group z_2

LGA with low % of population below basic needs poverty line (<30%) will have 10% of the fund and will be group z_3

The coefficient based on the poverty to be applied on the allocation of recurrent funds will be as follows (Np);

$$\frac{0.06}{z_1} \text{ or } \frac{0.03}{z_2} \text{ or } \frac{0.01}{z_3}$$

depending on the level of poverty in the LGA

The formula for resource allocation in the LGAs for recurrent budget is:

Amount to be allocated in a particular LGA = 10% of total budget for recurrent divided by total number of LGAs plus 90% of total recurrent budget times (total number of coefficients for Technology, Coverage and Poverty).

5.2 DEVELOPMENT FUNDS

After identification of criterion to be used in the allocation of funds to the LGAs for both recurrent and development, then the determination of the formula for development funds should be analyzed. In the process of achieving this, LGAs have to be identified and grouped in terms of:

Percentage of unserved population

Technology

5.2.1 Grouping LGAs according to percentage of unserved population

Development budget is dominated by unserved population with a total score of 70% and arranged into three groups, categorised by three groups of percentage of unserved population. The first group is that of unserved population of less than 30%, the second group is between 30% and 50% and the last one is that of more than 50%.

Let h be number of groups

Therefore let h_1 be total number of LGAs with unserved population with less than 30% with a score of 10%,
 h_2 be total number of LGAs with unserved population between 30 – 50% with a score of 20% and
 h_3 be total number of LGAs with unserved population greater than 50% with a score of 40%

N be the coefficient based on the criteria

Then the coefficient based on the unserved population to be applied on the allocation of development funds will be as follows (Nc);

$$\frac{0.1}{h_1} \quad \text{or} \quad \frac{0.2}{h_2} + \quad \text{or} \quad \frac{0.4}{h_3}$$

depending on the type of unserved population dominating in the LGA

5.2.2 Grouping districts according to technology

In the development budget there are three criteria of technology with a total score of 30% and distributed to sub criteria of gravity schemes scoring 20%, pumping schemes scoring 8% while shallow well systems scoring 2%,

Therefore let m_1 be total number of LGAs with of coverage more than 60% of gravity schemes score 20%,
 m_2 be total number of LGAs with coverage of more than 60% pumping schemes score of 8%, and
 m_3 be group of LGAs with shallow well pumps with a score of 2%,

The coefficient based on the technology to be applied on the allocation of development funds will be as follows (Nt);

$$\frac{0.2}{m_1} \text{ or } \frac{0.08}{m_2} \text{ or } \frac{0.02}{m_3}$$

depending on the type of technology dominating in the LGA

Therefore the formula for resources allocation in the district for development budget is:

Amount to be allocated in a particular LGA is equal to: Total development budget times total value of coefficients for Unserved population and technology.

6.0 RESULTS

The developed formula allocation for **recurrent budget** to the LGAs is:

$$A(Dr) = X + N(R) Y$$

Where; **A (Dr)** - is the amount to be allocated to a particular LGA

X - is the amount to be allocated equally in all LGAs which is equal to 10% of total recurrent budget divide by number of LGAs.

Y - is the amount equivalent to 90% of the total recurrent budget

N(R) - is the coefficient to be applied which is equal to the total of **N(t), N(C) and N (p)**

N (t) -is the coefficient to be applied depending on the type of technology.

- For shallow wells it is $0.05/n_1$ where n_1 is the total number of LGAs with shallow wells, deep wells with hand pumps and traditional sources developed are dominant by 60% of the coverage.(see annex A)

- For gravity schemes it is $0.1/n_2$ where n_2 is the total number of LGAs with gravity schemes and protected springs are dominant by at least 60% of the coverage.(see annex B)
- For pumped schemes it is $0.4/n_3$ where n_3 is the total number of LGAs with pumping schemes dominant by at least 60% of the coverage.(see annex C)

- N(c)** -is the coefficient to be applied depending on the Coverage
- For coverage of water supply < 20% it is $0.05/k_1$ where k_1 is the total number of LGAs with coverage of water supply less than 20% (see annex D)
 - For coverage between 20% to 40% it is $0.1/ k_2$ where k_2 is the total number of LGAs with coverage of water supply between 20% to 40% (see annex D)
 - For coverage > 40% it is $0.2/ k_3$ where k_3 is the total number of LGAs with coverage of water supply > 40% (see annex D)

- N(p)** -is the coefficient applied depending on the Poverty
- For the LGAs with highest % of population below basic needs poverty line (55% - 41%) it is $0.06/z_1$ where by z_1 is the total number of LGAs with highest % of population below basic needs poverty line (55% - 41%). (see annex F)
 - For the LGAs with medium % of population below basic needs poverty line (40% - 30%) it is $0.03/z_2$ where by z_2 is the total number of LGAs with highest % of population below basic needs poverty line (40% - 30%). (see annex F)
 - For the LGAs with % of population below basic needs poverty line (<30%) it is $0.01/z_3$ where by z_3 is the total number of LGAs with highest % of population below basic needs poverty line (< 30%). (see annex F)

The developed formula for allocation of **development budget** to the districts is:

	A (Dd) = N (d) Y
Where	A (Dd) - is the amount to be allocated to a particular district
	Y - is the amount equal to the total development budget
	N (d) -is the coefficient to be applied which is equal to the total of N(t) and N(c)

- N (t)** - the coefficient to be applied depending on the type of technology.
- For gravity schemes it is $0.2/m_1$ where m_1 is the total number of districts with gravity schemes and protected springs are dominant by at least 60% of the coverage.(see annex B)
 - For pumped schemes it is $0.08/m_2$ where m_2 is the total number of districts with pumping schemes dominant by at least 60% of the coverage.(see annex C)
 - For shallow wells it is $0.02/m_3$ where m_3 is the total number of districts with shallow wells, deep wells with hand pumps and traditional sources developed are dominant by 60% of the coverage.(see annex A)

N(u) -is the coefficient to be applied depending on the unserved population
For unserved population < 30% it is $0.1/h_1$ where h_1 is the total number of LGAs with unserved population less than 30% (see annex E)

- For unserved population between 30% to 50% it is $0.2/h_2$ where h_2 is the total number of LGAs with unserved population between 30% to 50% (see annex E)
- For unserved population > 50% it is $0.4/h_3$ where h_3 is the total number of LGAs with unserved population > 50% (see annex E)

Example 1: The total allocation for recurrent budget is Tshs 2 billion. How much is to be allocated to Masasi district? (assume there are 99 districts.)

The formula is

$$A(Dr) = X + N(r) Y$$

$$X - 0.1 \times 2,000,000,000/99 = \text{Tshs } 2,020,202$$

$$Y - 0.9 \times 2,000,000,000 = \text{Tshs } 1,800,000,000$$

$$N(r) - N(t) + N(c) + N(p) = 0.003125 + 0.0027 + 0.0003 = 0.008825$$

N(t) - Masasi is dominated by gravity schemes therefore from the annex B the Coefficient is $0.1/31 = 0.003125$

N(c) - Masasi coverage is more than 40% and therefore From annex D the coefficient is $0.2/73 = 0.0027$

N(p) - Masasi is a district with medium % of population below basic need of poverty line (40% - 30%).

Therefore the coefficient is $0.03/33 = 0.0003$

$$A(Dr) = X + N(r) Y = 2,020,202 + 0.008825 \times 1,800,000,000 = 17,905,202$$

Masasi district shall be allocated an amount of Tshs 17,905,202/= forecurrent budget

Example 2: The total allocation for development budget is Tsh. 2 billion. How much is to be allocated to Masasi district

The formula is

$$A(Dd) = N(d) Y$$

$$\text{Where } N(d) = N(t) + N(u)$$

$$= 0.003125 + 0.008889$$

$$= 0.012014$$

$$A(Dd) = 0.012014 \times 2 \times 10^9$$

$$= \text{24,028,000/=}$$

Masasi shall be allocated Shs. 24,028,000/= for development budget

Parallel to this derived formula the program for the formulae have been developed as in page 41 Annex J.

7.0 UPDATING OF GROUPING OF LGAs

It should be noted that the level of technology, coverage and poverty changes according to the status of the economic of the country. Thus it is recommended that these values should be reviewed after every three (3) years and hence updated groups of districts will be recorded accordingly.

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Annex A

List of LGAs where **shallow wells, deep wells** with hand pumps or **improved traditional sources** development technology are dominant by at least 60% of the coverage:

1. Muheza
2. Kilombero
3. Ulanga
4. Mkuranga
5. Handeni
6. Lindi rural
7. Ruangwa
8. Namtumbo
9. Ludewa
10. Singida rural
11. Nzega
12. Sikonge
13. Mpanda
14. Nkasi
15. Bariadi
16. Kahama
17. Meatu
18. Kishapu
19. Ngara
20. Magu
21. Kwimba
22. Ilemela
23. Serengeti
24. Tanga rural
25. Mbarali
26. Sumbawanga
27. Maswa
28. Shinyanga rural
29. Muleba
30. Ukerewe
31. Misungwi
32. Musoma rural
33. Bunda
34. Kilindi
35. Kilosa
36. Morogoro rural
37. Bukombe
38. Karagwe
39. Sengerema
42. Tarime
43. Mvomero
44. Kiteto

40. Mbulu
41. Simanjiro

Annex B

List of LGAs where **gravity schemes** and **protected springs** technology are dominant by at least 60% of the coverage:

1. Mpwapwa
2. Monduli
3. Karatu
4. Ngorongoro
5. Mwanga
6. Same
7. Moshi rural
8. Hai
9. Lushoto
10. Korogwe
11. Liwale
12. Songea Ruaral
13. Mbinga
14. Iringa rural
15. Mufindi
16. Kilolo
17. Kyela
18. Rungwe
19. Ireje
20. Kasulu
21. Kibondo
22. Babati
23. Hanang
24. Arumeru
25. Rombo
- 26 Njombe
27. Masasi
28. Makete
29. Chunya
30. Kigoma rural
- 31 Mbeya Rural
- 32 Mafia

Annex C

List of LGAs where **Pumping schemes** technology is dominant by at least 60% of the coverage:

1. Kondoa
2. Kongwa
3. Dodoma rural
4. Pangani
5. Bagamoyo
6. Kibaha
7. Kisarawe
8. Rufiji
9. Kilwa
10. Nachingwea
11. Mtwara rural
12. Newala
13. Tandahimba
14. Tunduru
15. Mbozi
16. Iramba
17. Manyoni
18. Igunga
19. Uyui
20. Urambo
21. Bukoba rural
22. Biharamulo
23. Geita

Coverage

Group of LGAs with coverage less than 20%

1. Sikonge
2. Kilindi

Group of LGAs with coverage between 20%-40%

1. Mwanga
2. Urambo
3. Nkasi
4. Iramba
5. Misungwi
6. Kigoma(R)
7. Mbinga
8. Bukombe
9. Kiteto
10. Sumbawanga(R)
11. Ileje
12. Kahama
13. Karagwe
14. Kilolo
15. Rungwe
16. Lindi (R)
17. Mpanda
18. Kisarawe
19. Korogwe
20. Igunga
21. Biharamulo
22. Newala
23. Tunduru
24. Liwale

Groups of LGAs with coverage more than 40%

1. Kondo
2. Mpwapwa
3. Monduli
4. Karatu
5. Ngorongoro
6. Rombo
7. Moshi (R)
8. Hai
9. Same
10. Lushoto
11. Muheza
12. Tanga (R)
13. Pangani
14. Handeni
15. Kilosa
16. Morogoro (R)
17. Kilombero
18. Ulanga
19. Mvomero
20. Bagamoyo
21. Kibaha
22. Mkuranga
23. Rufiji
24. Mafia
25. Kilwa
26. Ruangwa
27. Mtwara (R)
28. Nachingwea
29. Masasi
30. Tandahimba
31. Songea (R)
32. Namtumbo
33. Iringa (R)
34. Mufindi
35. Njombe
36. Ludewa
37. Chunya
38. Mbeya (R)
39. Kyela
40. Mbarali
41. Mbozi
42. Singida

43. Manyoni
44. Nzega
45. Uyui
46. Kasulu
47. Kibondo
48. Bariadi
49. Maswa
50. Songea Rural
51. Meatu
52. Kishapu
53. Bukoba Rural
54. Muleba
55. Ngara
56. Ukerewe
57. Magu
58. Sengerema
59. Ilemela
60. Geita
61. Sengereti
62. Tarime
63. Musoma Rural
64. Bunda
65. Babati
66. Mbulu
67. Simanjiro
68. Hanang'
69. Kongwa
70. Dodoma Rural
71. Makete
72. Arumeru
73. Shinyanga Rural

Unserved population

Group of LGAs with unserved population less than 30%

1. Kondo
2. Dodoma (R)
3. Kibaha
4. Pangani
5. Bagamoyo
6. Kyela
7. Mbalali

Group of LGAs with unserved population between 30%-50%

1. Mpwapwa
2. Kongwa
3. Arumeru
4. Rombo
5. Moshi (R)
6. Hai
7. Lushoto
8. Korongwe
9. Muheza
10. Tanga (R)
11. Kilosa
12. Morogoro (R)
13. Kilombero
14. Ulanga
15. Mvomero
16. Kisarawe
17. Mkuranga
18. Rufiji
19. Mafia
20. Ruangwa
21. Newala
22. Tandahimba
23. Tunduru
24. Songea (R)
25. Namtumbo
26. Iringa (R)
27. Mufindi
28. Makete
29. Njombe

30. Ludewa
31. Kilolo
32. Kibondo
33. Kasulu
34. Maswa
35. Bukoba (R)
36. Muleba
37. Ngara
38. Ukerewe
39. Magu
40. Kwimba
41. Sengerema
42. Geita
43. Serengeti
44. Musoma (R)
45. Bunda
46. Hanang
47. Chunya

Group of LGAs with unserved population more than 50%

1. Monduli
2. Karatu
3. Ngorongoro
4. Mwanza
5. Same
6. Handeni
7. Kilindi
8. Kilwa
9. Lindi (R)
10. Nachingwea
11. Liwale
12. Mtwara (R)
13. Mbinga
14. Masasi
15. Mbeya (R)
16. Rungwe
17. Ileje
18. Mbozi
19. Iramba
20. Singida (R)
21. Manyoni
22. Nzega
23. Igunga
24. Uyui
25. Urambo

26. Sikonge
27. Mpanda
28. Sumbawanga (R)
29. Nkasi
30. Kigoma (R)
31. Bariadi
32. Shinyanga (R)
33. Kahama
34. Bukombe
35. Meatu
36. Kishapu
37. Karagwe
38. Biharamulo
39. Misungwi
40. Ilemela
41. Tarime
42. Babati
43. Mbulu
44. Simanjiro
45. Kiteto

Annex F

The following is the list of Regions with their mean expenditure per capital and percentage of population below basic need of poverty line.

i) The regions with their mean expenditure per capital is as follows:

SN	REGION	MEAN EXPENDITURE PER CAPITAL "000" TSHS, 28 days) ACCORDING TO HBS 2002 DATA"
1.	Rukwa	6.7
2.	Singida	6.9
3.	Kigoma	7.3
4.	Shinyanga	8.8
5.	Mwanza	8.1
6.	Mara	8.3
7.	Dodoma	8.5
8.	Kagera	8.7
9.	Tanga	9.3
10.	Lindi	9.5
11.	Ruvuma	9.6
12.	Manyara	9.8
13.	Morogoro	10.0
14.	Arusha	10.3
15.	Tabora	10.4
16.	Coast	10.5
17.	Kilimanjaro	11.2
18.	Iringa	11.2
19.	Mtwara	12.4
20.	Mbeya	12.6
21.	Dar es Salaam	21.9

ii) Regions with the percentage of population below basic needs of poverty line

SN	REGION	PERCENTAGE OF POPULATION BELOW BASIC NEEDS OF POVERT LINE
1	Singida	55
2	Lindi	53
3	Mtwanza	48
4	Mara	46
5	Coast	46
6	Shinyanga	42
8	Ruvuma	41
9.	Manyara	47
10.	Arusha	39
11	Kigoma	38
12.	Mtwara	38
11.	Tanga	36
13.	Dodoma	34
14.	Kilimanjaro	31
15.	Rukwa	31
15.	Morogoro	29
16.	Iringa	29
18.	Kagera	29
19.	Tabora	26
20.	Mbeya	21
21	Dar es Salaam	18

Districts with highest % of population below basic needs of poverty line (55%-41%)

Group Z1

SN	REGION	DISTRICTS
1.	Singida	Manyoni
		Singida
		Iramba
2.	Lindi	Kilwa
		Lindi (R)
		Liwale
		Nachingwea
		Ruangwa
3.	Mwanza	Ukerewe
		Magu
		Kwimba
		Geita
		Sengerema
		Misungwi
		Ilemela
4.	Mara	Bunda
		Serengeti
		Tarime
		Musoma (R)
5.	Coast	Kibaha
		Rufiji
		Kisarawe
		Bagamoyo
		Mafia
6.	Shinyanga	Mukuranga
		Maswa
		Meatu
		Bariadi
		Bukombe
		Shinyanga (R)
7.	Ruvuma	Kahama
		Kishapu
		Songea
		Mbinga
		Namtumbo
		Tunduru

**Districts with medium % of population below basic needs of poverty line
(40%-30%)**

GROUIP Z2

SN	REGIONS	DISTRICTS
8.	Arusha	Arusha
		Monduli
		Arumeru
		Karatu
		Ngorongoro
		Longido
9.	Manyara	Hanang
		Babati
		Kiteto
		Simanjiro
		Mbulu
10.	Kigoma	Kigoma (R)
		Kasulu
		Kibondo
11.	Mtwara	Mtwara
		Newala
		Tandahimba
		Masasi
12.	Tanga	Muheza
		Korogwe
		Handeni
		Lushoto
		Pangani
13.	Dodoma	Bahi
		Chamwino
		Kondoa
		Kongwa
		Mpwapwa
14.	Kilimanjaro	Rombo
		Mwanga
		Same
		Moshi (R)
		Hai
		Sanya
15.	Rukwa	Mpanda
		Nkasi
		Sumbawanga (R0

District with lowest of population below basic needs of poverty line (less than 30%)

GROUP Z3

SN	REGION	DISTRICTS
16.	Morogoro	Ulanga
		Kilombero
		Kilosa
		Morogoro (R)
		Mvomero
17.	Iringa	Njombe
		Iringa (R)
		Mufindi
		Ludewa
		Makete
		Kilolo
18.	Kagera	Biharamulo
		Chato
		Muleba
		Bukoba (R)
		Misenyi
		Karagwe
		Ngara
19.	Tabora	Nzega
		Uyui
		Igunga
		Urambo
		Sikonge
20.	Mbeya	Kyela
		Chunya
		Ileje
		Rungwe
		Mbeya (R)
		Mbarali
		Mbozi
21.	Dar es Salaam	Kinondoni
		Temeke
		Ilala

DISTRICT COVERAGE TECHNOLOGY MIX

S/ N	Region District	Population	Year	Population Served (2000)	% Coverage (2000)	Population Served (2005)	% Coverage (2005)	EXISTING TECHNOLOGY MIX															
								HANDPUMP & SHALLOWWELL	HANDPUMP & BOREHOLE	GRAVITY PIPEED SYSTEMS (Single villages)	GRAVITY PIPEED SYSTEMS (Multi villages)	ELECTRIC/ DIESEL PUMPED & PIPEED SYSTEM (Single village)	ELECTRIC/ DIESEL PUMPED & PIPEED SYSTEM (Multi village)	CHARCO DAMS	COMMUNITY RAINWATER HARVESTING	PROTECTED SPRING	IMPROVED TRADITIONAL WELLS (Rope & Bucket)	WINDMILL SYSTEM	SOLAR SYSTEM	Others			
1. Dodoma Region																							
1	Kondoa	428,090	2002	250,946	61.1%	308,810	72%	4.3%	0.2%	7.6%	18.7%	35.0%	3.5%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
2	Mpwapwa	274,967	2005	182,875	75.2%	170,311	62%	0.0%	0.0%	15.7%	14.1%	0.0%	4.0%	0.0%	0.6%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	10.6%	
3	Kongwa			201,903	84.6%		#DIV/0!																
4	Dodoma rural			333,414	79.2%		#DIV/0!																
2. Arusha Region																							
5	Monduli	185,237	2005	74,158	43.3%	117,602	63%	0.4%	0.0%	32.3%	15.1%	7.5%	0.0%	7.20%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
6	Arumeru			259,458	54.3%		#DIV/0!																
7	Karatu	192,210	2005	81,166	49.2%	136,737	71%	0.0%	4.6%	4.1%	50.1%	2.1%	0.0%	1.6%	0.1%	3.3%	4.6%	0.0%	0.0%	0.0%	0.7%		
8	Ngorongoro	129,776	2002	28,916	24.1%	117,579	91%	0.0%	4.2%	39.3%	0.0%	24.3%	6.2%	2.3%	0.1%	11.2%	0.0%	0.0%	2.3%	0.7%	0.0%		
3. Kilimanjaro Region																							
9	Rombo			138,013	57.8%		#DIV/0!																
10	Mwanga	115,145	2005	49,843	44.5%	41,022	36%	4.3%	0.9%	0.3%	6.3%	1.2%	8.9%	0.0%	1.7%	6.3%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%	
11	Same	218,623	2004	85,361	41.5%	91,926	42%	0.0%	4.5%	18.8%	14.7%	3.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
12	Moshi rural	401,369	2002	246,389	63.2%	256,876	64%	1.2%	0.1%	2.0%	47.8%	4.8%	2.3%	5.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
13	Hai	259,958	2002	117,040	70.3%	181,800	70%	0.0%	0.0%	0.0%	63.5%	0.0%	0.0%	0.0%	5.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
4. Tanga Region																							
14	Lushoto	419,970	2002	230,992	57.0%	220,834	53%	0.0%	0.0%	17.5%	25.4%	0.0%	0.0%	0.0%	0.1%	0.9%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	
15	Korogwe	261,004	2002	155,647	61.8%	95,951	37%	8.3%	0.1%	4.9%	19.6%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.5%	0.0%	0.0%	3.1%		
16	Muheza	279,423	2005	102,729	38.1%	121,613	44%	18.3%	1.7%	0.8%	14.7%	0.0%	4.0%	0.0%	0.2%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	6.6%	
17	Tanga rural			46,417	64.0%		#DIV/0!																
18	Pangani	44,205	2004	36,007	84.6%	32,303	73%	2.3%	10.7%	0.0%	0.0%	12.0%	38.6%	0.0%	0.0%	0.0%	7.4%	2.1%	0.0%	0.0%	0.0%		
19	Handeni	249,572	2005	100,183	41.6%	197,849	79%	5.6%	0.6%	0.0%	0.0%	1.5%	20.2%	0.0%	1.0%	0.0%	50.5%	0.0%	0.0%	0.0%	0.0%		
20	Kilindi	144,359	2005	57,948	41.6%	23,442	16%	5.6%	0.3%	1.6%	1.4%	0.7%	0.7%	2.7%	0.4%	2.8%	0.0%	0.0%	0.0%	0.0%	0.0%		
5. Morogoro Region																							
21	Kilosa	488,491	2002	206,468	44.4%	253,859	52%	0.8%	25.8%	3.5%	5.4%	8.1%	8.0%	0.0%	0.3%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
22	Morogoro rural			111,567	44.5%		#DIV/0!																
23	Kilombo	322,779	2005	126,637	41.3%	217,650	67%	33.1%	0.2%	3.4%	21.3%	1.4%	6.0%	0.0%	0.7%	1.2%	0.0%	0.0%	0.0%	0.2%	0.0%		
24	Ulanga	194,209	2002	115,576	62.7%	132,500	68%	42.2%	0.1%	8.6%	17.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%		
25	Mvomero			110,132	44.5%		#DIV/0!																

6. Coast Region																					
26	Bagamoyo	230,164	2002	131,481	59.9%	207,726	90%	2.2%	0.0%	0.0%	0.0%	0.0%	2.4%	56.8%	3.0%	0.0%	0.0%	25.8%	0.0%	0.0%	0.0%
27	Kibaha	131,242	2005	93,313	74.1%	74,808	57%	5.3%	1.0%	0.0%	0.0%	0.0%	0.0%	2.7%	2.3%	0.3%	1.1%	8.1%	0.0%	0.0%	0.0%
28	Kisarawe	96,614	2005	23,252	25.2%	31,152	32%	7.1%	8.4%	0.0%	0.0%	0.0%	2.4%	2.7%	2.3%	0.3%	1.1%	8.1%	0.0%	0.0%	0.0%
29	Mkuranga	195,766	2004	83,117	46.5%	128,500	66%	22.3%	2.6%	0.0%	0.0%	0.0%	1.1%	0.0%	0.0%	0.4%	0.3%	38.9%	0.0%	0.0%	0.0%
30	Rufiji			117,184	60.5%		#DIV/0!														
31	Mafia	42,000	2005	24,514	63.0%	19,463	46%	9.7%	1.0%	0.0%	0.0%	0.0%	12.4%	0.0%	0.0%	7.5%	14.3%	1.4%	0.0%	0.0%	0.0%
7. Lindi Region																					
32	Kilwa	171,850	2005	49,306	29.5%	98,465	57%	9.2%	5.8%	7.8%	7.3%	10.0%	0.0%	0.0%	2.2%	15.1%	0.0%	0.0%	0.0%	0.0%	0.0%
33	Lindi Rural	215,764	2002	82,470	39.3%	65,500	30%	19.3%	1.3%	1.3%	4.1%	0.2%	4.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
34	Nachingwea			46,660	29.6%		#DIV/0!														
35	Liwale	77,677	2004	19,691	26.8%	25,679	33%	2.0%	24.8%	23.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
36	Ruangwaa	124,516	2002	55,222	45.6%	50,876	41%	21.5%	2.1%	0.0%	8.4%	3.1%	5.1%	0.0%	0.2%	0.0%	0.4%	0.0%	0.0%	0.0%	0.0%
37	Lindi Urban			28,893	71.5%		#DIV/0!														
8. Mtwara Region																					
38	Mtwara Rural			104,336	52.7%		#DIV/0!														
39	Newala	189,532	2002	128,928	72.5%	64,566	34%	3.0%	0.0%	0.0%	0.0%	0.0%	0.0%	27.2%	0.0%	3.2%	0.6%	0.0%	0.0%	0.0%	0.0%
40	Masasi	410,451	2005	246,043	57.5%	229,314	56%	0.0%	17.7%	0.0%	15.5%	2.5%	0.0%	56.9%	11.8%	7.1%	6.1%	0.1%	0.0%	0.0%	0.0%
41	Tandahimba	210,398	2005	130,590	66.0%	174,289	83%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	56.9%	11.8%	7.1%	6.1%	0.1%	0.0%	0.0%	0.0%
9. Ruvuma Region																					
42	Tunduru	215,889	2002	150,585	63.8%	63,052	29%	0.8%	8.8%	0.4%	4.4%	9.4%	1.4%	0.0%	0.0%	0.0%	0.2%	0.0%	0.8%	2.9%	
43	Songea Rural	147,924	2002	93,629	66.5%	84,157	57%	0.0%	0.0%	19.8%	7.7%	0.5%	0.0%	0.0%	0.2%	3.4%	0.0%	0.0%	0.0%	0.0%	0.3%
44	Mbinga	436,819	2002	114,432	29.7%	149,393	34%	0.0%	0.0%	21.8%	11.7%	0.1%	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
45	Namtumbo	173,831	2002	117,180	66.5%	123,472	71%	44.4%	0.0%	3.9%	16.9%	0.0%	0.0%	0.0%	0.5%	2.3%	0.0%	0.0%	0.0%	0.0%	0.3%
10. Iringa Region																					
46	Iringa Rural	245,623	2003	139,474	58.5%	157,542	64%	0.6%	7.5%	10.4%	34.0%	8.2%	2.1%	0.3%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%
47	Mufindi			140,661	51.2%		#DIV/0!														
48	Makete	106,061	2002	48,077	46.7%	43,590	41%	0.0%	0.0%	5.4%	11.8%	0.0%	0.0%	0.0%	0.0%	24.0%	0.0%	0.0%	0.0%	0.0%	0.0%
49	Njombe			206,456	50.6%		#DIV/0!														
50	Ludewa	128,520	2002	64,620	51.8%	66,262	52%	2.0%	24.8%	23.7%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%
51	Kilolo	205,081	2003	111,078	55.8%	72,163	35%	0.0%	3.8%	7.9%	15.4%	8.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
11. Mbeya Region																					
52	Chunya	205,615	2005	81,773	41.5%	106,434	52%	3.4%	14.8%	5.3%	10.8%	6.4%	4.0%	0.0%	0.0%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%
53	Mbeya Rural	254,897	2002	141,964	58.4%	107,361	42%	0.0%	0.0%	3.7%	25.6%	0.2%	0.0%	0.0%	1.5%	0.0%	9.6%	0.0%	0.0%	0.0%	0.6%
54	Kyela	187,336	2005	133,942	80.5%	158,466	85%	9.6%	0.3%	0.0%	74.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
55	Rungwe	311,945		120,145	41.0%	117,922	38%	0.0%	0.0%	4.3%	24.8%	0.0%	0.0%	0.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.8%

56	Ileje	110,194	2002	35,100	33.4%	40,486	37%	2.3%	1.3%	20.9%	11.5%	0.8%	0.0%	0.0%	0.0%	7.7%	1.6%	0.0%	0.0%	0.0%
57	Mbozi	515,270	2002	149,877	30.5%	322,998	63%	2.0%	5.4%	4.5%	7.5%	28.2%	5.4%	0.0%	0.0%	7.7%	1.6%	0.0%	0.0%	0.4%
58	Mbarali			184,821	82.5%		#DIV/0!													
12. Singida Region																				
59	Iramba			93,217	26.5%		#DIV/0!													
60	Singida	393,100	2005	165,113	43.0%	164,016	42%	23.1%	4.2%	0.8%	2.6%	7.5%	0.0%	0.7%	0.0%	0.3%	0.8%	0.8%	1.8%	0.0%
61	Manyoni	205,423	2005	61,831	31.5%	92,321	45%	3.0%	3.2%	1.0%	0.0%	8.0%	5.8%	9.3%	3.2%	0.4%	1.1%	6.1%	3.8%	0.0%
13. Tabora Region																				
62	Nzega	417,097	2002	114,641	29.5%	345,941	83%	35.0%	8.1%	0.8%	18.6%	0.0%	0.0%	0.1%	0.0%	20.4%	0.0%	0.0%	0.0%	
63	Igunga	325,547	2002	97,364	32.1%	111,248	34%	0.6%	0.6%	0.0%	2.2%	1.1%	4.0%	16.4%	0.3%	0.0%	1.2%	0.0%	1.1%	6.7%
64	Uyui			103,883	39.5%		#DIV/0!													
65	Urambo	370,796	2002	8,982	2.6%	108,600	29%	3.2%	3.5%	0.0%	0.0%	10.8%	4.9%	0.8%	0.8%	1.1%	0.0%	0.0%	4.3%	0.0%
66	Sikombe	132,733	2005	16,778	13.5%	14,009	11%	6.6%	1.1%	0.0%	0.0%	0.0%	0.0%	1.2%	0.1%	1.5%	0.0%	0.0%	0.0%	0.0%
14. Rukwa Region																				
67	Mpanda	412,683	2005	235,314	61.2%	156,400	38%	5.1%	16.0%	0.6%	6.8%	0.5%	7.3%	0.0%	0.0%	1.7%	0.0%	0.0%	0.0%	0.0%
68	Sumbawanga Rural			194,657	56.0%		#DIV/0!													
69	Nkasi	207,311		71,876	37.0%	59,250	29%	4.1%	13.3%	0.7%	4.3%	1.3%	3.2%	0.0%	0.0%	0.6%	1.1%	0.0%	0.0%	0.0%
15. Kigoma Region																				
70	Kibondo			256,418	67.9%		#DIV/0!													
71	Kasulu	484,000	2004	359,472	62.8%	286,352	59%	3.3%	0.8%	28.8%	17.3%	0.0%	0.0%	0.0%	2.3%	6.6%	0.0%	0.0%	0.0%	0.0%
72	Kigoma Rural	537,368	2002	218,527	48.9%	139,924	26%	0.8%	0.7%	5.8%	7.3%	4.7%	0.0%	0.0%	3.5%	2.8%	0.5%	0.0%	0.0%	0.0%
16. Shinyanga Region																				
73	Bariadi	605,509	2005	297,906	52.5%	324,160	54%	47.2%	0.1%	0.0%	0.0%	1.7%	1.1%	3.5%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
74	Maswa			232,163	81.1%		#DIV/0!													
75	Shinyanga Rural			156,562	60.2%		#DIV/0!													
76	Kahama	596,456	2002	217,993	39.0%	233,080	39%	27.0%	4.4%	0.0%	0.0%	0.0%	3.0%	0.0%	4.7%	0.0%	0.0%	0.0%	0.0%	0.0%
77	Bukombe			39,007	10.5%		#DIV/0!													
78	Meatu	248,949	2005	73489	31.5%	116,205	47%	41.6%	0.0%	0.0%	0.0%	1.8%	0.0%	0.6%	2.3%	0.0%	0.0%	0.4%	0.0%	0.0%
79	Kishapu			135,445	60.2%		#DIV/0!													
17. Kagera Region																				
80	Karagwe	425,476	2002	177,322	44.3%	171,570	40%	4.6%	4.9%	9.7%	8.3%	1.7%	0.0%	0.1%	3.5%	5.1%	0.0%	0.0%	0.0%	2.4%
81	Bukoba Rural	395,130	2002	224,151	60.3%	207,900	53%	7.8%	4.3%	5.2%	2.4%	0.0%	0.0%	0.3%	6.1%	26.6%	0.0%	0.0%	0.0%	0.0%
82	Muleba			182,086	50.1%		#DIV/0!													
83	Biharamulo	435,442	2004	174,294	45.1%	157,410	36%	18.7%	2.6%	2.1%	2.6%	3.7%	0.0%	0.0%	4.6%	1.3%	0.0%	0.0%	0.5%	0.0%
84	Ngara			249,244	79.1%		#DIV/0!													
18. Mwanza Region																				
85	Ukerewe			89,772	36.5%		#DIV/0!													
86	Magu	431,771	2004	224,657	57.5%	267,166	62%	32.9%	3.0%	0.0%	0.0%	0.5%	13.7%	4.5%	1.4%	0.0%	5.8%	0.0%	0.0%	0.0%
87	Kwimba	316,180	2002	135,079	45.5%	162,210	51%	28.1%	14.9%	0.0%	0.0%	2.0%	5.0%	0.5%	0.3%	0.0%	0.5%	0.0%	0.0%	0.0%

88	Sengere ma	501,915	2002	233,279	49.5%	212,391	42%	17.6 %	2.3%	0.3%	0.0%	1.2%	9.5%	5.4%	1.2%	0.9%	3.7%	0.2%	0.0%	0.0%
89	Geita			298,915	44.7%		#DIV/0!													
90	Misungwi			78,958	32.7%		#DIV/0!													
91	Ilemela	70,768	2002	95,376	38.2%	28,900	41%	40.8 %	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
19. Mara Region																				
92	Tarime			213,419	45.5%		#DIV/0!													
93	Serengeti	176,609	2002	88,252	52.5%	88,379	50%	28.3 %	0.0%	13.0%	0.3%	0.9%	2.7%	1.4%	2.3%	0.2%	0.2%	0.7%	0.0%	0.0%
94	Musoma Rural			55,441	17.6%		#DIV/0!													
95	Bunda			118,291	47.8%		#DIV/0!													
20. Manyara Region																				
96	Babati	268,708	2005	110,243	39.2%	139,728	52%	0.6%	0.2%	28.5%	5.8%	0.2%	0.0%	0.0%	0.2%	1.5%	0.2%	0.0%	0.0%	0.0%
97	Hanang	205,133	2002	80,154	42.1%	87,691	43%	1.5%	0.7%	1.4%	24.5%	0.0%	4.1%	0.0%	4.9%	1.2%	0.0%	0.6%	3.7%	0.0%
98	Mbulu	237,288	2002	85,664	38.8%	101,010	43%	9.4%	6.4%	3.8%	8.4%	1.3%	0.0%	0.2%	1.3%	0.9%	6.7%	0.0%	0.0%	4.2%
99	Simanjiro	141,676	2002	63,116	48.0%	138,679	98%	37.4 %	0.0%	8.6%	6.3%	28.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	17.5 %
10 0	Kiteto			61,248	43.2%		#DIV/0!													

HOUSEHOLD BUDGET SURVEY

Dar es Salaam, July 2002

NATIONAL BUREAU OF STATISTICS TANZANIA

SELECTED INDICATORS BY REGIONS

	DODOMA	ARUSHA	KILIMANJARO	TANGA	MOROGORO	PWAN	DAR ES SALAAM	LINDI	MTWRA	RUVUMA	IRINGA	MBEYA	SINGID	TABORA	RUKWA	KIGOMA	SHINYANGA	KAGERA	MWANZA	MARA	TANZANIA MAINLAND
THE HOUSE HOLD AND HOUSING																					
%households headed by women	27	21	26	24	20	18	88	20	20	14	31	29	29	23	15	11	21	23	22	29	23
%households with modern walls	23	18	39	6	28	6	88	4	11	67	28	32	7	6	32	39	6	13	10	23	25
%households with modern roof	33	53	85	41	45	33	98	16	28	42	48	53	21	24	16	21	24	53	42	43	46
%households connected to elec.grid	6	11	18	7	10	6	59	5	5	5	6	9	5	4	4	6	3	2	5	10	10
%household using a toilet	92	84	97	81	94	98	94	98	93	99	99	96	90	97	88	99	90	95	92	86	93
Main distance to firewood (rural households, km)	2.7	2.8	1.5	3.2	2.8	1.7	n/a	1.6	11.2	2.0	3.6	1.9	10.4	2.5	5.0	6.2	4.2	1.9	1.9	2.9	3.0
main distance to a shop (rural households, km)	1.8	2.8	0.2	1.8	2.3	1.0	n/a	1.1	0.6	0.8	0.9	3.9	1.6	2.1	2.6	1.6	2.7	2.1	1.3	1.6	1.8
EDUCATION																					
% of all adult without education	31	20	12	31	26	39	8	44	28	15	16	16	27	31	30	28	40	25	27	24	25
% of all men without education	22	15	17	23	16	24	6	34	9	9	9	9	18	23	19	21	29	13	20	12	17
% of all women without education	38	24	15	38	35	52	19	52	36	20	24	23	35	39	40	33	49	35	33	34	32
Primary net enrolment ratio	58	53	81	50	61	56	71	44	59	63	76	69	61	55	61	48	46	59	52	62	59
Mean distance to a primary school (km)	2.8	1.9	0.9	2.3	1.7	1.7	0.8	1.2	1.1	0.9	1.5	1.3	1.9	3.0	1.3	1.7	2.7	2.5	1.7	1.8	1.8
Mean distance to a secondary sch. (km)	19.4	6.4	5.0	18.8	16.0	13.1	2.5	25.1	16.6	9.2	12.7	8.7	9.7	15.0	21.3	14.3	20.5	12.0	9.4	6.9	12.6
CONSUMPTION AND POVERTY																					

Main expenditure per capita ('000 Tshs. In 28 days)	8.5	10.3	1.2	9.3	10.0	10.5	21.9	9.5	12.4	9.6	11.2	12.6	6.9	10.4	6.7	7.3	8.0	9.0	8	8.0	10.3
% of population below food poverty line	13	25	11	11	14	27	7	33	12	27	10	8	28	9	12	21	22	18	30	36	19
% of population below basic needs poverty line	34	39	31	36	29	46	18	53	38	41	29	21	55	26	31	38	42	29	48	46	36
% of consumption expenditure on food	67	69	69	70	68	69	54	74	66	60	65	61	69	68	58	65	67	63	64	66	65
DRINKING WATER																					
% of household with piped or protected drinking water	65	58	77	46	70	35	94	19	52	53	54	75	61	25	55	76	39	32	53	40	53
% of household within 1km of drinking water(dry season)	49	49	58	41	61	56	84	47	49	90	72	75	51	54	63	55	33	45	40	31	55
ECONOMIC ACTIVITIES																					
% of adults in agriculture	67	42	56	67	63	62	3	72	62	77	67	55	60	69	76	76	68	81	71	70	62
% of children (5-14) working	67	73	64	80	55	57	28	40	40	73	60	53	52	39	51	60	69	68	84	55	62
Main land owned by rural households (acres)	6.0	3.4	1.5	3.9	4.3	2.9	n/a	2.7	3.5	6.2	2.9	3.7	3.7	6.8	8.6	3.7	14.1	4.0	6.8	8.0	5.3
HEALTH																					
% of individuals ill in 4 weeks before the survey	34	23	23	23	32	34	19	20	28	22	25	24	29	27	24	21	32	34	30	29	27
% of ills/injured who consulted any health care provider	69	62	74	87	70	83	80	61	61	76	79	61	65	69	47	69	68	64	65	72	69
% of above who consulted a govt. provider	58	48	40	64	55	69	49	68	65	52	46	47	45	79	59	67	41	59	48	46	54
% of households within 6 km of dispensary/health centre	49	73	95	62	75	74	98	67	87	85	63	90	82	58	82	93	65	74	75	71	75
Mean distance to a hospital (km)	35.3	11.8	9.5	29.0	24.0	24.5	2.8	22.7	19.2	21.0	18.9	20.7	12.8	13.7	66.0	20.2	18.9	25.1	30.1	13.4	21.8

**INDEX FOR EACH DISTRICT TO BE USED IN THE RESOURCES
ALLOCATION TO THE DISTRICTS FORMULA**

No	Districts	Regions	Index
		Arusha	
1	Simanjiro		168
2	Monduli		268
3	Arumeru		268
4	Karatu		268
		Manyara	
5	Hanang		268
6	Babati		268
7	Kiteto		158
8	Ngorongoro		268
9	Mbulu		168
		Dodoma	
10	Dodoma		368
11	Kondoa		368
12	Kongwa		368
13	Mpwapwa		268
		Coast	
14	Kibaha		367
15	Rufiji		367
16	Kisarawe		357
17	Bagamoyo		367
18	Mafia		367
19	Mukuranga		167
		Kigoma	
20	Kigoma		258
21	Kasulu		268
22	Kibondo		268
		Kilimanjaro	
23	Rombo		268
24	Mwanga		258
25	Same		268
26	Moshi®		268
27	Hai		268
		Kagera	
28	Biharamulo		359

29	Muleba		169
30	Bukoba		369
31	Karagwe		159
32	Ngara		169
		Lindi	
33	Kilwa		367
34	Lindi ®		157
35	Liwale		257
36	Nachingwea		367
37	Ruangwa		167
		Mwanza	
38	Ukerewe		167
39	Magu		167
40	Kwimba		167
41	Geita		367
42	Sengerema		167
43	Misungwi		157
44	Ilemela		167
		Mtwara	
45	Mtwara		368
46	Newala		358
47	Tandahimba		368
48	Masasi		268
		Mara	
49	Bunda		167
50	Serengeti		167
51	Tarime		167
52	Musoma ®		167
		Morogoro	
53	Mvomero		269
54	Ulanga		169
55	Kilombero		169
56	Kilosa		169
57	Morogoro®		169
		Mbeya	
58	Mbozi		369
59	Kyela		269
60	Chunya		269
61	Ileje		259

62	Rungwe		259
63	Mbeya ®		269
64	Mbarali		169
		Ruvuma	
65	Songea		267
66	Mbinga		257
67	Namtumbo		167
68	Tunduru		357
		Rukwa	
69	Mpanda		158
70	Nkasi		158
71	Sumbawanga		158
		Singida	
72	Manyoni		367
73	Singida		167
74	Iramba		357
		Shinyanga	
75	Maswa		167
76	Meatu		167
77	Bariadi		167
78	Bukombe		157
79	Shinyanga ®		167
80	Kahama		157
81	Kishapu		167
		Iringa	
82	Njombe		269
83	Iringa ®		269
84	Mufindi		269
85	Ludewa		169
86	Makete		269
87	Kilolo		159
		Tabora	
88	Nzega		169
89	Uyui		369
90	Igunga		359
91	Urambo		359
92	Sikonge		149
		Tanga	
93	Muheza		168

94	Korogwe		258
95	Handeni		168
96	Lushoto		268
97	Pangani		368
98	Tanga		168
99	Kilindi		148

I

PROGRAMM DEVELOPMENT FROM THE FORMULA

This program is intended to calculate amount of money to be allocated to districts

Department of Rural Water Supply & Sanitation
Allocation of **recurrent** funds for rural districts

```
!Date          Programer          Description of change
!=====
=====
Integer        I,MT(99),MC(99), MP(99)
                Character (20)
Wilaya(99),filename1,filename2,filename3,filename4,filename8,filename9,
                filename10,filename11
```

```
Real NT(99), NC(99), NP(99), P, A(99),A1(99), TE(99), C(99), PO(99),
                NR(99),X, Y
```

```
Real Sum2(99),Sum1,Sum3,Sum4(99),Difference, factor
```

! where

! Nt,Nc and Np represent particular group of technology, coverage and poverty respectively

! P represents Principle allocated fund

! Nd represents total number of districts to be funded

! A represents amount of money to be allocated at particular district

! Mt, Mc, Mp represent code number of technology, coverage and poverty respectively

! D represents name of district to be funded

Print*, 'enter the principle allocated fund'

Read*, p

if(p<0) then

Print*, 'fund can not be negative'

stop

end if

Print*, 'enter the name of file'

Read*, filename1

Open (1, file=filename1, status='old', action='read')

```
Print*, 'enter the name of file'  
Read*, filename2  
Open (2, file=filename2, status='old', action='read')
```

```
Print*, 'enter the name of file'  
Read*, filename3  
open (3, file=filename3, status='old', action='read')
```

```
Print*, 'enter the name of file'  
Read*, filename4  
Open (4, file=filename4, status='old', action='read')
```

```
Print*, 'enter the name of file'  
Read*, filename 8  
Open (8, file=filename8, status='old', action='read')
```

```
Print*, 'enter the name of file'  
Read*, filename9  
Open (9, file=filename9, status='old', action='read')
```

```
Print*, 'enter the name of file'  
Read*, filename10  
Open (10, file=filename10, status='old', action='read')
```

```
Print*, 'enter the name of file'  
Read*, filename11  
Open (11, file=filename11, status='unknown', action='write')
```

```
Y=0.9*P  
X= 0.1*P/99  
Sum1=0.0  
Do I=1,99  
Read (2,*) MT (I)  
Read (3,*) NT (I)  
Read (4,*) MC (I)  
Read (8,*) NC (I)  
Read (9,*) MP (I)  
Read (10,*) NP (I)  
Call Technology (NT (I), MT (I), P, TE (I))
```

```

Call Coverage (NC (I), MC (I), P, C (I))
Call Poverty (NP (I), MP (I), P, PO (I))
NR (I) =TE (I) + C (I) +PO (I)
A (I) = X+ (NR (I)*Y)
Sum2 (I) =Sum1+A (I)
Sum1=Sum2 (I)
IF (I==99) EXIT
End do
Close (2)
Close (3)
Close (4)
Close (8)
Close (9)
Close (10)
Open (2, file=filename2, status='old', action='read')
Open (3, file=filename3, status='old', action='read')
Open (4, file=filename4, status='old', action='read')
Open (8, file=filename8, status='old', action='read')
Open (9, file=filename9, status='old', action='read')
Open (10, file=filename10, status='old', action='read')
Write (11,*)'Ministry of Water'
Write (11,*)'Department of Rural Water Supply & Sanitation'
Write (11,*)'allocation of recurrent funds for LGAs
Write (11,*)'
Write (11, 20)'Sn',' Districts',' allocated amount in Tsh' 20 format
(a2,a15,a20)
Write (11,*)'
Difference = (Sum2 (99)-P)
Factor= Sum2 (99)
if(Difference>500000)then
Sum3=0.0
Do I=1,99
Read (1,*) Wilaya (I)
Read (2,*) MT (I)
Read (3,*) NT (I)
Read (4,*) MC (I)
Read (8,*) NC (I)
Read (9,*) MP (I)
Read (10,*) NP (I)

```

```

NR (I) =TE (I) + C (I) +PO (I)
A (I) = X+ (NR (I)*Y)
A1 (I) =A (I)-((A (I)/factor)*Difference)
Sum4 (I) =Sum3+A1 (I)
Sum3=Sum4 (I)

```

```
Write (11,*)'-----'
```

```

Write (11, 30) I, '.', Wilaya (I), A1 (I)
30 Formats (I2, A1, A15, F20.2)
IF (I==99) EXI Write T
End do

```

```
Else if (Difference<0) then
```

```
Sum3=0.0
```

```
Do I=1,99
```

```
Read 1,*) Wilaya(I)
```

```
Read (2,*) MT (I)
```

```
Read (3,*) NT (I)
```

```
Read (4,*) MC (I)
```

```
Read (8,*) NC (I)
```

```
Read (9,*) MP (I)
```

```
Read (10,*) NP (I)
```

```
NR (I) =TE (I) + C (I) +PO (I)
```

```
A (I) = X+ (NR (I)*Y)
```

```
A1 (I) =A (I) + ((A (I)/factor)*Difference)
```

```
Sum4 (I) =Sum3+A1 (I)
```

```
Sum3=Sum4 (I)
```

```
Write (11,*)'-----'
```

```
Write (11, 50) I, '.', Wilaya (I), A1 (I)
```

```
50 Formats (I2, A1, A15, F20.2)
```

```
If (I==99) EXIT
```

```
End do
```

```
End if
```

```
Write (11,*)'
```

```
Write (11, 40) 'grand total', Sum4 (I)
```

```
40 Formats (A15, F20.2)
```

```
Write (11,*)'
```

```
End
```

```
Subroutine Technology ( tempt, p, te)
```

```
! Purpose
```

```
! To calculate coeficient of tecnology
```

```
!recod of revision
```

! date programmer descriptio of change

!===== =====
=====

```
implicit none
real nt, te, p,p1, nt1
integer mt
p1=p
nt1=nt
if (mt.eq.1)then
te= 0.05/nt1
else if (mt.eq.2)then
te=0.1/nt1
else if(mt.eq.3)then
te= 0.4/nt1
end if
return
end subroutine
```

subroutine coverage (nc, mc , p, c)

! purpose

! to calculate coeficient of coverage

!recod of revision

! date programmer descriptio of change

!===== =====
=====

```
implicit none
Real nc, c, p,p1, nc1
integer mc
p1=p
nc1=nc
if (mc.eq.4)then
c= 0.05/nc1
else if (mc.eq.5)then
c=0.1/nc1
else if(mc.eq.6)then
c= 0.2/nc1
end if
return
end subroutine
```

subroutine poverty (np, mp, p, po)


```

! purpose
! to calculate coefficient of poverty
!recod of revision
! date          programer          descriptio of change
!=====
=====
implicit none
real np, po, p,p1, np1
integer mp
p1=p
np1=np
if (mp.eq.7)then
po= 0.06/np1
else if (mp.eq.8)then
po=0.03/np1
else if(mp.eq.9)then
po= 0.01/np1
end if
return
end subroutine

```

Example of output with 2,000,000,000 Principle allocatefunds
 Department of Rural Water Supply and Sanitation
 Allocation of recurrent funds for rural districts

SN	DISTRICTS	ALLOCATED AMOUNT Tsh
1.	Arumeru	13,940,570.00
2.	Babati	13,940,570.00
3.	Bagamoyo	40,733,060.00
4.	Bariadi	11,845,080.00
5.	Biharamulo	40,941,720.00
6.	Bukoba	38,405,790.00
7.	Bukombe	14,381,010.00
8.	Bunda	11,845,080.00
9.	Chunya	13,051,980.00
10.	Dodoma	39,294,380.00
11.	Geita	40,733060.00
12.	Hai	13,940,570.00
13.	Hanang	13,940,570.00
14.	Handeni	10,406,410.00
15.	Igunga	40,941,720.00

16.Ileje	15,587,910.00
17.Ilemela	11,845,080.00
18.Iramba	43,268,990.00
19.Iringa	13,051,980.00
20.Kahama	14,381,010.00
21.Karagwe	12,053,750.00
22.Karatu	13,940,570.00
23.Kasulu	13,940,570.00
24.Kibaha	40,733,060.00
25.Kibondo	13,940,570.00
26.Kigoma	16,476,510.00
27.Kilindi	49,966,950.00
28.Kilolo	12,053,750.00
29.Kilombero	9,517,814.00
30.Kilosa	9,517,814.00
31.Kilwa	40,733,060.00
32.Kisarawe	43,268,990.00
33.Kishapu	11,845,080.00
34.Kiteto	12,942,340.00
35.Kondoa	39,294,380.00

36.Kongwa	39,294,380.00
37.Korogwe	16,476,510.00
38.Kwimba	11,845,080.00
39.Kyela	13,051,980.00
40.Lindi	14,381,010.00
41.Liwale	17,915,170.00
42.Ludewa	9,517,814.00
43.Lushoto	13,940,570.00
44.Mafia	40,733,060.00
45.Magu	11,845,080.00
46.Makete	13,051,980.00
47.Manyoni	40,733,060.00
48.Masasi	13,940,570.00
49.Maswa	11,845,080.00
50.Mbarali	9,517,814.00
51.Mbeya	13,051,980.00
52.Mbinga	17,915,170.00
53.Mbozi	38,405,790.00
54.Mbulu	10,406,410.00
55.Meatu	11,845,080.00

56.Misungwi	14,381,010.00
57.Monduli	13,940,570.00
58.Morogoro®	9,517,814.00
59.Moshi®	13,940,570.00
60.Mpanda	12,942,340.00
61.Mpwapwa	13,940,570.00
62.Mtwara	39,294,380.00
63.Mufindi	13,051,980.00
64.Muheza	10,406,410.00
65.Mukuranga	11,845,080.00
66.Muleba	9,517,814.00
67.Musoma	11,845,080.00
68.Mvomero	13,051,980.00
69.Mwanga	16,476,510.00
70.Nachingwea	40,733,060.00
71.Namtumbo	11,845,080.00
72.Newala	41,830,320.00
73.Ngara	9,517,814.00
74.Ngorongoro	13,940,570.00
75.Njombe	13,051,980.00

76.Nkasi	12,942,340.00
77.Nzega	9,517,814.00
78.Pangani	39,294,380.00
79.Rombo	13,940,570.00
80.Ruangwa	11,845,080.00
81.Rufiji	40,733,060.00
82.Rungwe	15,587,910.00
83.Same	13,940,570.00
84.Sengerema	11,845,080.00
85.Serengeti	11,845,080.00
86.Shinyanga	11,845,080.00
87.Sikonge	49,078,360.00
88.Simanjoro	10,406,410.00
89.Singida	11,845,080.00
90.Songea	15,379,240.00
91.Sumbawanga	12,942,340.00
92.Tandahimba	39,294,380.00
93.Tanga	10 406,410.00
94.Tarime	11,845,080.00
95.Tunduru	43,268,990.00

96.Ukerewe	11,845 080.00
97.Ulanga	9 517 814.00
98.Urambo	40,941 720.00
99.Uyui	38,405 790.00
GRAND TOTAL	2,000,000,000.00

PROGRAM DEVELOPMENT FORMULA

!This program intended to calculate amount of money to be allocated to district

Department of Rural Water Supply and Sanitation
Allocation of development funds for rural districts

!record of revision:

!DATE	PROGRAMER	DESCRIPTION OF CHANGE
!=====	=====	=====

IMPLICIT NONE

INTEGER I, MT (99), MUN (99)
 CHARACTER (20) Wilaya (99), filename1, filename2, filename3,
 filename4, filename8, filename11
 Real NT(99), NUN(99), A(99),A1(99), TE(99), UN(99), NR(99), Y
 Real Sum2 (99), Sum1, Sum3, Sum4 (99), Difference, factor

! Where

! Nt and Nun represent particular group of technology and unnerved population respectively

! P represents principle allocated fund

! A represents amount of money to be allocated at particular district

! Mt and Mun represent cod number of technology and uncovered population respectively

Print*, 'enter the principle allocated fund'

```
Read*,y
If(y<0) then
Print*, 'fund can not be negative'
Stop
End if
```

```
Print*, 'enter the name of file'
Read*, filename1
Open (1, file=filename1, status='old', action='read')
```

```
Print*, 'enter the name of file'
Read*, filename2
Open (2, file=filename2, status='old', action='read')
```

```
Print*, 'enter the name of file'
Read*, filename3
Open (3, file=filename3, status='old', action='read')
```

```
Print*, 'enter the name of file'
Read*, filename4
Open (4, file=filename4, status='old', action='read')
```

```
Print*, 'enter the name of file'
Read*, filename8
Open (8, file=filename8, status='old', action='read')
```

```
Print*, 'enter the name of file'
Read*, filename11
Open (11, file=filename11, status='unknown', action='write')
```

```
Sum1=0.0 Read
DO I=1,99
Read (2,*) MT (I)
Read (3,*) NT (I)
Read (4,*) MUN (I)
Read (8,*) NUN (I)
```

```
Call TECNOLOGY (NT (I), MT (I), Y, TE (I))
Call UNSERVED (NUN (I), MUN (I), Y, UN (I))
```



```

NR (I) =TE (I) + UN (I)
A (I) = (NR (I)*Y)
Sum2 (I) =Sum1+A (I)
Sum1=Sum2 (I)
IF (I==99) EXIT
END DO
Close (2)
Close (3)
Close (4)
Close (8)
Open (2, file=filename2, status='old', action='read')
Open (3, file=filename3, status='old', action='read')
Open (4, file=filename4, status='old', action='read')
Open (8, file=filename8, status='old', action='read')
Write (11,*)'Ministry of Water
Write (11,*)'department of rural water supply & sanitation'
Write (11,*)'allocation of development funds for Tanzania mainland rural
districts'

```

```

WRITE
(11,*)'=====
=====
Write (11, 20)'sn', 'districts', 'allocated amount Tsh' 20 format (a2, a15,
a20)
WRITE (11,*)
=====

```

```

Difference = (Sum2 (99)-Y)
Factor= Sum2 (99)
if(Difference>0)then
Sum3=0.0
DO I=1,99
Read (1,*) Wilaya(I)
Read (2,*) MT (I)
Read (3,*) NT (I)
Read (4,*) MUN (I)
Read (8,*) NUN (I)
NR (I) =TE (I) + UN (I)
A (I) = (NR (I)*Y)
A1 (I) =A (I)-((A (I)/factor)*Difference)

```

Sum4 (I) =Sum3+A1 (I)
Sum3=Sum4 (I)

Write (11,*)'-----'

Write (11, 30) I, '.', Wilaya (I), A1 (I)
30 format (I2, A1, A15, and F20.2)

IF (I==99) EXIT
END DO

Else if (Difference<0) then
Sum3=0.0

DO I=1,99
Read (1,*) Wilaya(I)
Read (2,*) MT (I)
Read (3,*) NT (I)
Read (4,*) MUN (I)
Read 8,*) NUN (I)

NR (I) =TE (I) + UN (I)
A (I) = (NR (I)*Y)
A1 (I) =A (I)-((A (I)/factor)*Difference)
Sum4 (I) =Sum3+A1 (I)
Sum3=Sum4 (I)

Write (11,*)'-----'

Write (11, 50) I, '.', Wilaya (I), A1 (I)
50 FORMATS (I2, A1, A15, F20.2)

IF (I==99) EXIT
END DO
End if
WRITE

(11,*)'=====

=====
Write (11, 40) 'GRAND TOTAL', Sum4 (I)
40 Formats (A15, F20.2)

Write

(11,*)'=====

====

```

                                END
Subroutine Technology (NT, MT, Y, TE)
    ! Purpose
    ! To calculate coefficient of technology
    !Record of revision
! DATE      PROGRAMER          DESCRIPTIO OF CHANGE
    !=====
    =====
                                Implicit none

                                Real NT, TE, Y,P1, NT1
                                Integer MT
                                P1=Y
                                NT1=NT
                                if (MT.EQ.1) then
                                    TE= 0.2/NT1
                                Else if (MT.EQ.2) then
                                    TE=0.08/NT1
                                ELSE IF (MT.EQ.3) then
                                    TE= 0.02/NT1
                                End if
                                Return
                                End subroutine

```

```

Subroutine unserved (NUN, MUN, Y, UN)
    ! Purpose
    ! To calculate coefficient of coverage
    !Record of revision
! DATE      PROGRAMER          DESCRIPTIO OF CHANGE
    !=====
    =====
                                Implicit none
                                Real NUN, UN, Y,P1, NUN1
                                Integer MUN
                                P1=Y
                                NUN1=NUN
                                If (MUN.EQ.4) then
                                    UN= 0.1/NUN1
                                ELSE IF (MUN.EQ.5) then
                                    UN=0.2/NUN1
                                End if
                                Return
                                End subroutine

```

```

Else IF (MUN.EQ.6) then
  UN= 0.4/NUN1
  End if
  Return
  END

```

Example of output with 2,000,000,000 Principle allocate funds

MINISTRY OF WATER
 Department of Rural Water supply and Sanitation
 Allocation of development funds for Tanzania mainland rural districts

SN	DISTRICTS	ALLOCATED AMOUNT Tsh
1.	Arumeru	13,537,830.00
2.	Babati	22,823,620.00
3.	Bagamoyo	30,371,560.00
4.	Bariadi	26,922,760.00
5.	Biharamulo	19,556,190.00
6.	Bukoba	10,270,400.00
7.	Bukombe	26,922,760.00
8.	Bunda	17,636,970.00
9.	Chunya	13,537,830.00
10.	Dodoma	30,371,560.00
11.	Geita	10,270,400.00
12.	Hai	13,537,830.00

13.Hanang	13,537,830.00
14.Handeni	26,922,760.00
15.Igunga	19,556,190.00
16.Ileje	22,823,620.00
17.Ilemela	26,922,760.00
18.Iramba	19,556,190.00
19.Iringa	13,537,830.00
20.Kahama	26,922,760.00
21.Karagwe	26 922 760.00
22.Karatu	22,823,620.00
23.Kasulu	13,537,830.00
24.Kibaha	30,371,560.00
25.Kibondo	13,537,830.00
26.Kigoma	22,823,620.00
27.Kilindi	26,922,760.00
28.Kilolo	17,636,970.00
29.Kilombero	17,636,970.00
30.Kilosa	17,636,970.00
31.Kilwa	18,798,160.00
32.Kisarawe	10,270,400.00

33.Kishapu	26,922,760.00
34.Kiteto	26,922,760.00
35.Kondoa	30,371,560.00
36.Kongwa	10,270,400.00
37.Korogwe	13,537,830.00
38.Kwimba	17,636,970.00
39.Kyela	33,639,000.00
40.Lindi	26,922,760.00
41.Liwale	22,823,620.00
42.Ludewa	17,636,970.00
43.Lushoto	13,537,830.00
44.Mafia	10,270,400.00
45.Magu	17,636,970.00
46.Makete	13,537,830.00
47.Manyoni	19,556,190.00
48.Masasi	22,823,620.00
49.Maswa	17,636,970.00
50.Mbarali	37,738,140.00
51.Mbeya	22,823,620.00
52.Mbinga	22,823,620.00

53.Mbozi	19,556,190.00
54.Mbulu	26,922,760.00
55.Meatu	26,922,760.00
56.Misungwi	26,922,760.00
57.Monduli	22,823,620.00
58.Morogoro®	17636970.00
59.Moshi®	13,537,830.00
60.Mpanda	26,922,760.00
61.Mpwapwa	13,537,830.00
62.Mtwara	19,556,190.00
63.Mufindi	13,537,830.00
64.Muheza	17,636,970.00
65.Mukuranga	17,636,970.00
66.Muleba	17,636,970.00
67.Musoma	17,636,970.00
68.Mvomero	13,537,830.00
69.Mwanga	22,823,620.00
70.Nachingwea	19,556,190.00
71.Namtumbo	17,636,970.00
72.Newala	10,270,400.00

73.Ngara	17,636,970.00
74.Ngorongoro	22,823,620.00
75.Njombe	13,537,830.00
76.Nkasi	26,922,760.00
77.Nzega	26,922,760.00
78.Pangani	30,371,560.00
79.Rombo	13,537,830.00
80.Ruangwa	17,636,970.00
81.Rufiji	10,270,400.00
82.Rungwe	22,823,620.00
83.Same	22,823,620.00
84.Sengerema	17,636,970.00
85.Serengeti	17,636,970.00
86.Shinyanga	26,922,760.00
87.Sikonge	26,922,760.00
88.Simanjiro	26,922,760.00
89.Singida	26,922 760.00
90.Songea	13,537,830.00
91.Sumbawanga	26,922,760.00

92.Tandahimba	10,270,400.00

93.Tanga	17,636,970.00

94.Tarime	26,922,760.00

95.Tunduru	10,270,400.00

96.Ukerewe	17,636,970.00

97.Ulanga	17,636,970.00

98.Urambo	19,556,190.00

99.Uyui	19,556,190.00
GRAND TOTAL	2,000,000,000.00

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