



# REPUBLIC OF KENYA MINISTRY OF WATER AND SANITATION

#### STATE DEPARTMENT FOR WATER



# TANATHI WATER SERVICES BOARD (MAKUENI COUNTY PROJECTS)

BRIEF SUMMARY OF TANATHI WATER SERVICES BOARD RECENTLY COMPLETED, ON-GOING AND PLANNED PROJECTS WITHIN MAKUENI COUNTY

7<sup>TH</sup> AUGUST 2018

# SUMMARY TABLE OF COMPLETED BOREHOLES IN MAKUENI COUNTY (See Annex 1)

| STATUS OF<br>PROJECTS | NO. OF<br>BOREHOLE                                       | COST IN KSHS.  | POPULATION<br>SERVED       | WATER<br>ADDED IN  |  |  |  |  |  |  |
|-----------------------|--|----------------|----------------------------|--------------------|--|--|--|--|--|--|
|                       | S  |                |                            | M <sup>3</sup> /HR |  |  |  |  |  |  |
| <b>Completed by</b>   | 42   | 268,651,182.00 | 102,000 people & 1,000     | 294                |  |  |  |  |  |  |
| TAWSB and             |  |                | LU                         |                    |  |  |  |  |  |  |
| JICA B/Hs             |  |                |                            |                    |  |  |  |  |  |  |
| SUMMAI                | SUMMARY TABLE OF AND ONGOING BOREHOLES IN MAKUENI COUNTY |                |                            |                    |  |  |  |  |  |  |
| Ongoing               | 12   | 86,549,960.47  | 17,500 people, 1,400<br>LU | 60                 |  |  |  |  |  |  |

### **Completed Projects**

| S/N<br>o | Name Of<br>Project                             | Constituenc<br>y | Cost Of<br>Project<br>(Million) | Populatio<br>n Served | Scope Of Works  | Safe<br>Water<br>Produced<br>(M³/D) | Status   |
|----------|--|------------------|---------------------------------|-----------------------|---|-------------------------------------|--|
| 1.       | Nzai-Emali<br>tank water<br>supply<br>project. |                  | 5.8                             | 5,000                 | <ul><li>6km pipeline</li><li>4 No. Water kiosks.</li></ul>  | 360                                 | Complete   |
| 2.       | Kamunyolo<br>Dam Water<br>Supply<br>Project    | Makueni          | 41                              | 8,000                 | <ul> <li>Dam de-silting.</li> <li>Composite infiltration unit</li> <li>2No. Grade 9 houses</li> <li>2No. pump houses</li> <li>50m³ clear water sump.</li> <li>4Km rising main</li> <li>225m³ masonry tank.</li> <li>Water kiosk and cattle trough.</li> </ul> | 200                                 | Complete<br>but the dam<br>bleached<br>during the<br>recent<br>floodings |
| 4        | Kaiti BH<br>Water Supply<br>Project            | Kaiti            | 33                              | 5,000                 | <ul> <li>2No. pump houses</li> <li>Installation of (2 No) pumping units at intake and booster station</li> <li>2No. grade 9 houses</li> <li>225m³ and 100m³ tanks at Unoa and booster station.</li> <li>6km raising main</li> </ul>                           | 55                                  | Complete   |
| 5        | Mwaani 2<br>BH Water<br>Supply<br>Project      | Makueni          | 44                              | 10,000                | <ul> <li>Rehabilitation of 6.4km rising main.</li> <li>2 No. 225m³ tank</li> <li>2km distribution line for the town.</li> </ul>   | 140                                 | Complete   |

| S/N<br>o | Name Of<br>Project                        | Constituenc<br>y   | Cost Of<br>Project<br>(Million)    | Populatio<br>n Served                     | Scope Of Works   | Safe<br>Water<br>Produced<br>(M³/D) | Status   |
|----------|---|--|------------------------------------|---|--|-------------------------------------|----------|
|          |   |  |                                    |   | <ul> <li>Rehabilitation of 3 No. grade 9 houses</li> <li>2No. water kiosks</li> <li>Installation of 2 No pumping units.</li> </ul>               |                                     |          |
| 6        | Umanyi-<br>Mtito Andei<br>Water<br>Supply | Kibwezi  | 120                                | 70,000                                    | Construction of: Water intake. Water storage tanks (100, 200 and 500m³) Water laboratory. 20 No water kiosks.  Laying of a gravity pipeline 50Km | 4,700                               | Complete |
| 7        | Equipping of 4No. boreholes               | Kilome<br>(Within<br>Konza<br>Techno City                                    | 76.5                               | N/A                                       | 17km raising main, 2 No steel elevated tanks 4 No. pump houses   |                                     | Complete |
| 8        | Thwake<br>Multipurpos<br>e Dam            | Kitui and M<br>Projects. The<br>Multipurpose<br>four phases<br>generation, w | Dam comp<br>Water de<br>namely; da | ponent is the<br>velopment p<br>m compone | component is ongoing and its being   |                                     |          |

# TANATHI WSB SMALL DAMS AND WATER PANS COMPLETED WITHIN MAKUENI COUNTY

| S/No | NAME OF DAM        | CONSTITUENCY | WARD        | CURRENT<br>STATUS |
|------|--------------------|--------------|-------------|-------------------|
| 1    | Kwa Mutaki Dam     | Mbooni       | Tulimani    | Complete          |
| 2    | Kwa Ndia Dam       | Mbooni       | Kako/Waia   | Complete          |
| 3    | Ngunini Dam        | Mbooni       | Kalawa      | Complete          |
| 4    | Kyuasini           | Kibwezi East | Masongaleni | Complete          |
| 5    | Yikuiku /Kwa Tundu | Kibwezi East | Nguumo      | Complete          |

| S/No | NAME OF DAM      | CONSTITUENCY | WARD                       | CURRENT<br>STATUS |  |
|------|------------------|--------------|----------------------------|-------------------|--|
| 6    | Syaathi          | Kibwezi East | Masongaleni                | Complete          |  |
| 7    | Masaku Ndogo     | Kibwezi East | Masongaleni                | Complete          |  |
| 8    | Mikoini          | Kaiti        | Kee                        | Complete          |  |
| 9    | Mwea Sand Dam    | Kaiti        | Kee                        | Complete          |  |
| 10   | Kyenini          | Kibwezi West | Makindi/Kiboko/T<br>waandu | Complete          |  |
| 11   | Mamu             | Kibwezi West | Makindu                    | Complete          |  |
| 12   | Muaa Muasa       | Makueni      | Kikumini/Muvau             | Complete          |  |
| 13   | Kwa Kaluku       | Makueni      | Kitise                     | Complete          |  |
| 14   | Ngomano          | Makueni      | Mavindini                  | Complete          |  |
| 15   | Ikuutani-Mboloti | Kilome       | Kasikeu/Kiou               | Complete          |  |
| 16   | Kwa Mbeu         | Kilome       | Kasikeu                    | Complete          |  |
| 17   | Kemaasya         | Kilome       | Kilome                     | Complete          |  |
| 18   | Nguuni           | Kilome       | Kasikeu                    | Complete          |  |
| 19   | Kwa Mutaki       | Mbooni West  | Tulimani Complete          |                   |  |

## Drought Mitigation Programme - Phase III Ongoing Works Summary of Drilling/Equipping of Boreholes

| Name of Project | Cost (Kshs.) | County (if cross-county indicate) | Constituency | Major Activities                | Population Served                    |
|-----------------|--------------|-----------------------------------|--------------|---------------------------------|--------------------------------------|
| MAKUENI COUNTY  | Y            |                                   |              |                                 |                                      |
| Kwa Kilungu B/H | 5,000,000    | Makueni                           | Kilome       | Drilling and equipping borehole | 2,000 people at 5m <sup>3</sup> /hr  |
| Kwa Mbeu B/H    | 5,000,000    | Makueni                           | Kilome       | Drilling and equipping borehole | 2,000 people at 5m <sup>3</sup> /hr  |
| Matooi B/H      | 5,000,000    | Makueni                           | Kilome       | Drilling and equipping borehole | 2,000 people at 5m <sup>3</sup> /hr  |
| Sub-Total       | 15,000,000   | Makueni<br>County                 |              |                                 | 6,000 people at 15m <sup>3</sup> /hr |

### ONGOING PRIORITY PROJECTS IN MAKUENI COUNTY

| N<br>o. | NAME OF<br>PROJECT/<br>PROGRAM | CONSTI<br>TUENCY | SCOPE   | COST(KES)<br>'000 000 | FINANC<br>IER | STATUS   | OUTCOME   | EXPECTED<br>COMPLETI<br>ON DATE |
|---------|--------------------------------|------------------|---|-----------------------|---------------|--|---|---------------------------------|
| 1       | Usalama<br>Borehole            | Kibwezi<br>east  | <ul> <li>Drilling and equipping of 1 No.         Borehole     </li> <li>Construction of 1 no. water kiosk with 1 No. 10m³ plastic water tank</li> </ul> | 5                     | GoK           | <ul><li>Drilling complete</li><li>Equipping ongoing</li></ul>                          | Will serve 3,000<br>people with clean<br>drinking water         | March, 2018                     |
| 2       | Kwa Mamuu<br>Pipeline          | Kilome           | Laying of 9KM 2" dia. pipeline<br>Rehabilitation of 1No water kiosk   | 5.97                  | GoK           | Contract<br>awarded  | 1,100 people to be served with 5m <sup>3</sup> /hr              | Jun-17 to<br>May-18             |
| 3       | Kautandini<br>Water Project    | Kilome           | Rehabilitation of 8 Km pipeline.  | 5.99                  | GoK           | pipeline repairs<br>at 90%   | 2,500 People and 700 livestock with 5m <sup>3</sup> /hr         | Jun-17 to<br>Apr-18             |
| 4       | Kwa Muloi<br>Tanks             | Kilome           | Construction of 3No. 50m <sup>3</sup> Masonry tanks.  | 5.8                   | GoK           | Contract<br>awarded  | To serve 650 people with 5m <sup>3</sup> /hr                    | Jun-17 to<br>May-18             |
| 5       | Kwa Robert                     | Kilome           | Construction of 2 no. water kiosk with 2No. 10m³ plastic water tank.  | 5.97                  | GoK           | Contract<br>awarded  | To serve 850 people with 5m <sup>3</sup> /hr                    | Jun-17 to<br>Jun-18             |
| 6       | Kwa Kilungu<br>Borehole        | Kilome           | Drilling and equipping borehole   | 2.96                  | GoK           | Hydrogeological surveys complete. Preparation of tender documents for drilling ongoing | To serve 900 people<br>to be served with<br>5m <sup>3</sup> /hr | Feb-18 to<br>Jun-18             |
|         |                                |                  | TOTAL COST  | 31.69                 |               |  |   |                                 |

#### PROPOSED MAJOR DAM AND WATER SUPPLY PROJECT IN ALIGNMENT WITH THE BIG FOUR AGENDA;

| S/no | Project<br>Name  | Constituency          | Est.<br>Cost<br>(kshs.<br>Million) | Target Areas  | Status   | Capacity  | EXPECTED<br>START AND<br>COMPLETION<br>DATE |
|------|--|-----------------------|------------------------------------|---|--|---|---|
| 1    | Mbondoni<br>Community<br>Water<br>Project                  | Kibwezi East          | 15                                 | Machinery market and its environs   | Preliminary Design Complete and proposal forwarded to Ministry of Water              | 72m <sup>3</sup> /day to serve 10,000 people  | 2018  |
| 2    | Kilome-<br>Mikuyu<br>Dam                                   | Kilome                | 4,000                              | Water for irrigation,<br>livestock and domestic<br>use for Kilome<br>constituency | Design Complete and<br>proposal forwarded to<br>ADF 14 and World<br>Bank for funding | To store 1,500,000<br>million cubic and supply<br>15,000m <sup>3</sup> /day of water to<br>Kilome to serve 74,000<br>people | 2019 – 2022                                 |
| 3    | Thwake-<br>Konza<br>Water<br>Supply<br>Project             | Makueni and<br>Kilome | 8,000                              | Water supply to the proposed Konza Techno-City                                    | Preliminary Design<br>Complete and proposal<br>forwarded to ADB for<br>funding       | To supply 15,000m <sup>3</sup> /day of water to Kilome to serve 274,000 people  | 2019 – 2022                                 |
| 4    | Nzai-<br>Ithumba-<br>Masumba<br>Water<br>Supply<br>Project | Kibwezi<br>West       | 181                                | Nguu, Kikumini<br>Masumba, Kakili na<br>Mii                                       | Preliminary Design<br>Complete and proposal<br>forwarded to Ministry of<br>Water     | To supply 518 m³/day of water to Kibwezi West constituency to serve 24,000 people   | 2019 – 2022                                 |

#### OTHER PROPOSED WATER AND SANITATION PROJECTS WITHIN OUR 2017-2022 STRATEGIC PLAN

| No. | NAME OF<br>PROJECT/<br>PROGRAM                                  | COUNTY/<br>Constituen<br>cy           | SCOPE   | COST(KES)<br>'000 000 | OUTCOME   | EXPECTED<br>COMPLETION<br>DATE |
|-----|---|---------------------------------------|---|-----------------------|---|--------------------------------|
| 1.  | Manooni water supply project                                    | Makueni/<br>Kilome                    | Improve access to water supply to 13,000 people in Manooni and Matiliku areas                           | 150                   | 1,500 m <sup>3</sup> /day of water to be produced to serve 35,000 people    | 2017 – 2019                    |
| 2.  | Mzima springs<br>Mtitu Andei water<br>supply project            | Makueni/<br>Kibwezi<br>East           | Improve access to water produced to serve 34,000 people in Mtitu Andei town                             | 3,000                 | 5,000m³/day of water to serve 55,000 people                                 | 2017 – 2021                    |
| 3.  | Wote, Makindu<br>Kibwezi and<br>Matuu Towns<br>Sewerage Project | Makueni/<br>Kibwezi<br>East &<br>West | Increase Waste water treated in Wote, Makindu, Kibwezi and Matuu towns covering 40,000 people           | 3,300                 | At least 25,000M³/day of waste water treated for 100,000 people             | 2017 – 2022                    |
| 4.  | Wote Town Water supply project                                  |                                       | Improve access to water produced to serve 55,000 people in Wote town                                    | 1,500                 | Improve access to water supply by 5,000m³/day construct 33km pipeline       | 2017 – 2022                    |
| 5.  | Nor-turesh bulk<br>w/supply –<br>rehabilitation<br>project      | Makueni/<br>Kasikeu &<br>Kilome       | Improve access to water produced to serve 145,000 people in Simba, Emali, Sultan Hamud and Salama towns | 2,040                 | Improve access to water supply by 4,000m³/day and construct 110 km pipeline | 2017 – 2022                    |
| 6.  | Drilling and<br>Equipping of 50<br>boreholes                    | Makueni/<br>all<br>Constituen<br>cies | Improve access to water produced to serve 50,000 people in Makueni county                               | 200                   | Increase water supply by 5,000m³/day. Drill and equip boreholes             | 2017 to 2022                   |

## Annex 1 - TABLE OF COMPLETED BOREHOLES BY TAWSB, DROUGHT, UNICEF AND JICA PER COUNTY

| S/<br>No | Name of<br>Project                                    | County  | Ward/<br>Constituen<br>cy              | New or<br>Rehabilit<br>ation | Funded<br>Components                                     | Cost (Kshs.) | Populatio<br>n Served          | Total<br>Water<br>Producti<br>on | Date<br>Started/<br>Date<br>Completed | Current Status            |
|----------|---|---------|--|------------------------------|--|--------------|--------------------------------|----------------------------------|---------------------------------------|---------------------------|
| 1        | Kalimbini<br>Watsan<br>Project                        | Makueni | Kasikeu<br>Loc<br>Makueni<br>District  | New                          | Borehole water source system                             | 8,151,210    | 5,200                          | 7.2                              |                                       | complete and operational  |
| 2        | Ndovoini<br>Watsan<br>Project                         | Makueni | Ithumba<br>Loc-<br>Makueni<br>District | New                          | Borehole water<br>source system                          | 6,437,460    | 7,000                          | 9.6                              |                                       | complete and operational  |
| 3        | New matutu<br>B/H                                     | Makueni | Nguu loc-<br>Nzaui                     | New                          | Borehole Water project                                   | 8,354.640    | 5,200                          | 19.2                             |                                       | Complete and operational. |
| 4        | Nthungui<br>Ivovoani W/P                              | Makueni | Utithi loc<br>Kibwezi                  | New                          | Boreholes water project                                  | 7,345,000    | 2300                           | 12                               |                                       | complete and operational  |
| 5        | Ulu B/H3<br>borehole and<br>Kwa Ndiki<br>B/H projects | Makueni |  | Rehabilita<br>tion           | Ulu B/H 3 replacement and reequipping with the old pump. | 3,038,621    | Ulu B/H3 - 3,000 people        | 40m <sup>3</sup> /hr             | 26/01/2017 -<br>9/02/2017             | Complete and operational  |
|          |   |         |  |                              | Kwa Ndiki B/H – supply & installation of draw pipes      |              | Kwa<br>Ndiki<br>B/H –<br>3,000 |                                  |                                       |                           |

| S/<br>No | Name of<br>Project  | County  | Ward/<br>Constituen<br>cy | New or<br>Rehabilit<br>ation | Funded<br>Components  | Cost (Kshs.) | Populatio<br>n Served | Total<br>Water<br>Producti<br>on | Date<br>Started/<br>Date<br>Completed | Current Status           |
|----------|---|---------|---------------------------|------------------------------|---|--------------|-----------------------|----------------------------------|---------------------------------------|--------------------------|
|          |   |         |                           |                              |   |              | people                | 5m <sup>3</sup> /hr              |                                       |                          |
| 6        | Mutulani B/H<br>Project                                   | Makueni |                           | Rehabilita<br>tion           | Installation of pump,<br>draw pipes, airline<br>and servicing of the<br>genset.   | 1,294,309    | 3,000<br>people       | 2m³/hr                           | 25/01/2017 -<br>17/03/2017            | Complete and operational |
| 7        | Sultan<br>Community B/H                                   | Makueni | Sultan<br>Hamud           | Rehabilita<br>tion           | Equipping the B/H with a submersible pump, control panel, installation of 2No. $10\text{m}^3$ plastic tanks on existing steel elevated towers, repair of a water kiosk & a repair of cattle trough, fencing / gate installation & pipeline repairs. | 2,421,942    | 2,000<br>people       | 2m³/hr                           | 26/04/2017 -<br>20/09/2017            | Complete and operational |
| 8        | Kayatta B/H,<br>Kwa Ngumu<br>B/H and Muani<br>B/H Project | Makueni |                           | Rehabilita<br>tion           | Kayatta B/H surface pump replacement, Kwa Ngumu B/H surface pump replacement and Muani B/H surface & submersible  | 2,929,649    | 3,000<br>people       | 10m <sup>3</sup> /hr             | 26/04/2017 -<br>17/07/2017            | Complete and operational |

| S/<br>No | Name of<br>Project                               | County  | Ward/<br>Constituen<br>cy | New or<br>Rehabilit<br>ation | Funded<br>Components   | Cost (Kshs.)      | Populatio<br>n Served | Total<br>Water<br>Producti<br>on | Date<br>Started/<br>Date<br>Completed | Current Status            |
|----------|--|---------|---------------------------|------------------------------|--|-------------------|-----------------------|----------------------------------|---------------------------------------|---------------------------|
|          |  |         |                           |                              | pumps replacement<br>together with their<br>control panels<br>Project  |                   |                       |                                  |                                       |                           |
| 9        | Kyumani<br>pipeline<br>rehabilitation<br>Project | Makueni |                           | Rehabilita<br>tion           | Rehabilitation of 192m GI rising main and 60m gravity line, construction of a composite filtration unit at the weir on a river.  | 5,472,912         | 15,000<br>people      | 20m³/hr                          | 26/04/2017 -<br>26/09/ 2017           | Complete and operational  |
| 10       | Konza-Techno<br>city water<br>supply             | Makueni |                           | New                          | -Equipping of 4 No. Boreholes.  -Construction of 4No. Pump Control rooms.  -Laying of a 5km rising main of assorted sizes.  -Fabrication and erection of 2No. 250m³ Elevated Steel | 76,<br>000,000.00 | 1,000<br>workers.     | 37m³/hr                          |                                       | Complete and operational. |

| S/<br>No | Name of<br>Project                | County  | Ward/<br>Constituen<br>cy | New or<br>Rehabilit<br>ation | Funded<br>Components  | Cost (Kshs.)       | Populatio<br>n Served | Total<br>Water<br>Producti<br>on | Date<br>Started/<br>Date<br>Completed | Current Status            |
|----------|-----------------------------------|---------|---------------------------|------------------------------|---|--------------------|-----------------------|----------------------------------|---------------------------------------|---------------------------|
|          |                                   |         |                           |                              | Tanks.  -Laying of a 7Km 110mm dia. Gravity line and water bowser stands. |                    |                       |                                  |                                       |                           |
| 11       | 26No. JICA<br>funded<br>Boreholes | Makueni |                           | New                          | Drilling and<br>equipping 26<br>boreholes                                 | 155,551,724.<br>00 | 53,000                | 130m <sup>3</sup> /hr            |                                       | Complete and operational. |
|          | Makueni<br>County Sub-<br>Total   |         |                           |                              | Makueni County  | 268,651,182.<br>00 | 102,000<br>people     | 294m³/hr                         |                                       |                           |

#### COMPLETED AND ONGOING PROJECTS UNDER WORLD BANK PROGRAMME BY AWSB

Total of 3 boreholes and associated works of approximately Ksh. 38m were done.

| S/No | Name of Borehole                     | GPS Coordinates                                      | County  |           | Be<br>By<br>or | Current Status  |  |
|------|--------------------------------------|--|---------|-----------|----------------|---|--|
| 1    | Kibwezi Farmers                      | 02 <sup>0</sup> 20'31''S<br>37 <sup>0</sup> 58'06''E | Makueni | Community |                | All activities completed and functional, awaiting community management training and commissioning   |  |
| 2    | Kanyango Primary<br>School at Kalama | 01°37'21"S<br>37°19'18"E                             | Makueni | Community |                | which is almost starting.   |  |
| 3    | Matooi at Nzaui in                   | S-02°00'39.1''<br>E-037°31'37.5''                    | Makueni | Community |                | The B/H was complete but was washed away by floods during the Elnino rains. Reconstruction done to completion. Commissioning will be done on 12/07/2017 then training will be done later. |  |

<sup>➤</sup> All the 3 boreholes were drilled and are equipped with solar pumps