



‘Only when the well is dry, does one realise the worth of water.’ . . . Benjamin Franklin.



**AUGMENTATION OF SURFACE WATER  
BY GROUND WATER  
FROM UNCONFINED ACQUIFERS (OPEN WELLS)  
AND  
FIXING MINI FILTER PLANTS AND DOZING  
SYSTEMS FOR THE SUPPLY OF POTABLE  
WATER TO BELGAUM CITY**

*Presentation by : Shri R. S. Nayak*

*B.E. M. I. E.*

*City Engineer, City Corporation, Belgaum, Karnataka.*

# **AIM OF THE PROJECT**

**Utilization of underground water  
(from open wells ) to augment  
surface water supply.**



# **SITUATION UNDER WHICH THIS PROJECT WAS INITIATED**

**In the year 1995 the Rakaskop Reservoir was the only source of potable water for Belgaum city.**

**Wells had fallen into disuse over the forty years of piped supply of water.**

**Rains were delayed till July 22<sup>nd</sup>**

**The Reservoir was completely empty.**

**Alternate sources of water had to be found.**

# Necessity for Technological Innovation . .

- There are technological breakthroughs of a grand scale, as engineered by Apple, Microsoft or Sony, . . . and technological innovations of only national and regional importance.
- Belgaum's attempt at water security for all its citizens by harnessing local resources falls into the latter category.

- The Open Well Project represents a local initiative undertaken through local innovation to radically transform a public service to solve a local problem and benefit a Tier II city. It represents an attempt to involve various groups of people with an innovative local mindset to solve a particular problem for a local and underserved market, which without this innovation would have experienced **serious supply shortage**.

This effort is presented, in all humility, merely because it is a **replicable** effort for almost everywhere there are unmapped and untapped underground water resources.

(For instance, in August 2011 an Indian Scientist discovered an enormous river below the Amazon River flowing in the opposite direction and this underground river has now been named after him . . . the Hamza River).

This innovation breaks up into four separate parts.

1. Innovation in **mapping and tapping** underground resources.
2. Innovation in **relocating and de-centralizing** the site of filtration.
3. Innovation in **reducing cost of production.**
4. Innovation in **reducing energy consumed** in supply.

With this innovation the focus in Belgaum has **completely shifted** to the rejuvenation of ancient, historical and perennially dependable sources of water.



# PRELIMINARY RESEARCH



**Consultation with Senior citizens regarding alternate sources of water.**

**Hydro-geological survey regarding water level contours above MSL in and around Belgaum city during pre-monsoon season.**

**Identification of old, high yielding open wells.**

**Removal of malba and silt and thorough cleaning of these wells.**

**Testing of yield and quality of water.**

# **PARTICIPATIVE DESIGN**

**Design of mini filter, alum dozer, chlorinator, pumps, connection to existing network for supply of water.**

**Involvement of community, social organizations, N.G.O.'s, Private entrepreneurs and donors to execute the project.**

**MAP SHOWING  
WATER LEVEL  
CONTOURS ABOVE  
MSL IN AND  
AROUND  
BELGAUM CITY  
DURING PRE-  
MONSOONSEASON  
- 1996**



**Ground water flow lines.**



**Well Location**



**Water Level contours  
in meters above MSL**

# LIST OF HIGH YIELDING WELLS IDENTIFIED

1. Open well at Veerbhadranagar.
2. Open well at Goods shed Road Shastrinagar.
3. Open well at Congress Road.
4. Open well at Shetty galli.
5. Open well at Kirloskar Road.
6. Open well at Shivaji Garden, Shahapur.
7. Open well at Math galli.
8. Open well at Nazar camp, Vadgaon.

09. Open well at Rayat galli, Vadgaon.
10. Open well at Polytechnic premises Kakatives.
11. Open well at Darga premises Kamat galli.
12. Open well at Khanjar galli.
13. Open well at Kasai galli.
14. Open well at Joshi Mala.
15. Open well at Teggin galli, Vadgaon.
- 16. Open well at Konwal Galli.**
- 17. Open well at Samartha Nagar.**
- 18. Open well at PWD Quarters.**
- 19. Open well at Alwan Galli..**

# LIST OF SMALL OPEN WELLS IDENTIFIED

1. Open well at Shivaji nagar.
2. Open well at Khadak galli.
3. Open well at Gondhali Galli.
4. Open well at Yamanapur.
5. Open well at Vantamuri colony, Malmaruti.
6. Open well at Laxmi Galli, June Belgaum.
7. Open well at Margai Galli, June Belgaum.
8. Open well at Bapat Galli.
9. Open well at Harijan wada, Chavat Galli.
10. Open well at Kangral Galli.
11. Open well at Kudchi.
12. Open well at Kamat Galli.
13. Open well at Subhash Market, Hindwadi

# **HISTORY OF WELLS**

**Belgaum city was dependent on well water before commencement of Rakaskop scheme.**

**Most of these wells were constructed before and during the British Raj almost 100 to 200 years back.**

**Dr. M. Vishveshwarayya who designed the Rakaskop Scheme had mentioned in the Preamble to his Report that Belgaum water supply can be maintained by a chain of wells.**

The 'Congress Well', then known as 'Pampa Sarovar', was constructed in 1924 during the Congress Party's historic convention which was presided over by Mahatma Gandhi.

Cost of construction of the well at that time was Rs. 4370 and 3 annas.

This well supplied water to lakhs of people who had assembled for the Convention.



The well at Veerbhadra Nagar was constructed by the British in 1908 and has a water column of 100 feet.

The source of water for this well is a stream coming from nearly 5 kms away between two trap rock layers and opening at this point.

Three wells were constructed at this place and are connected by a tunnel which is six feet in height.

**The well at Shetty Galli was constructed by the British in 1885. The well is perfectly rectangular in shape and the dimension of the well is exactly the same both at the top and the bottom (in mm).**

**The well at Math Galli was constructed by the British in 1883. The Fire Station was located near this well.**

**The well at Kirloskar Road is a high yielding open well centrally located in the city. The Borough Municipality was supplying water from this well by constructing a small overhead tank.**

The well at Goods Shed Road was constructed by the British and has a water column of 90 feet.

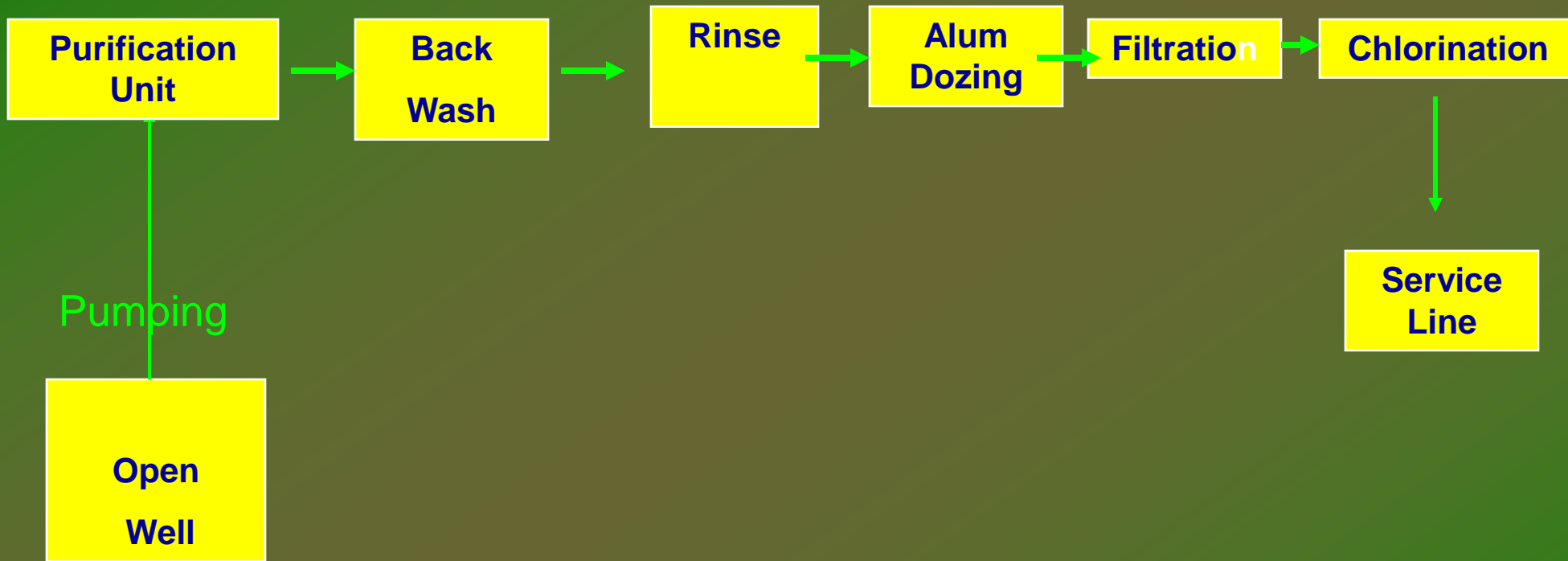
It was observed that almost all these wells were surrounded and protected by a layer of laterite.

Our survey was assisted by several Senior Citizens who reminded us of the central principle of Gandhiji's economic philosophy -

***'Use local resources for local needs'.***

**This was an appropriate starting point for us.**

# Operational Procedure.



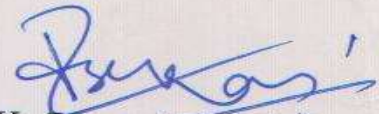
## Quality Testing

Physical, Chemical and Bacteriological analysis of water samples are carried out periodically by KUWS & D Board in their laboratory and results are found to be “highly satisfactory”.

**NATIONAL INSTITUTE OF HYDROLOGY  
HARD ROCK REGIONAL CENTER  
BELGAUM**

**GROUNDWATER STUDIES IN BELGAUM CITY**

As a part of the regular work program of National Institute of Hydrology, Regional Center groundwater investigations in Belgaum city were conducted. Six wells were monitored during Pre-monsoon and Post monsoon season in the year 1995. Apart from that pump were conducted in some of the wells which are presently selected for water supply by Belgaum municipal Corporation. Based on that it is found that the Transmissivity and specific yield are considerably high in Tilakwadi (congress well). The variation it found in selected wells were between 74 m<sup>2</sup>/day to 195 m<sup>2</sup>/day. However, normal transmissivity in Belgaum 20 -30 m<sup>2</sup>/day. Based on the study for this particular region, it is found that these wells can supply water for at least another 50 years. It is very important to keep the environment around well suitable for recharge. Precautions also should be taken to see that at any time discharge should not go above the recharge.



B. K. Purandara  
Scientist 'C'

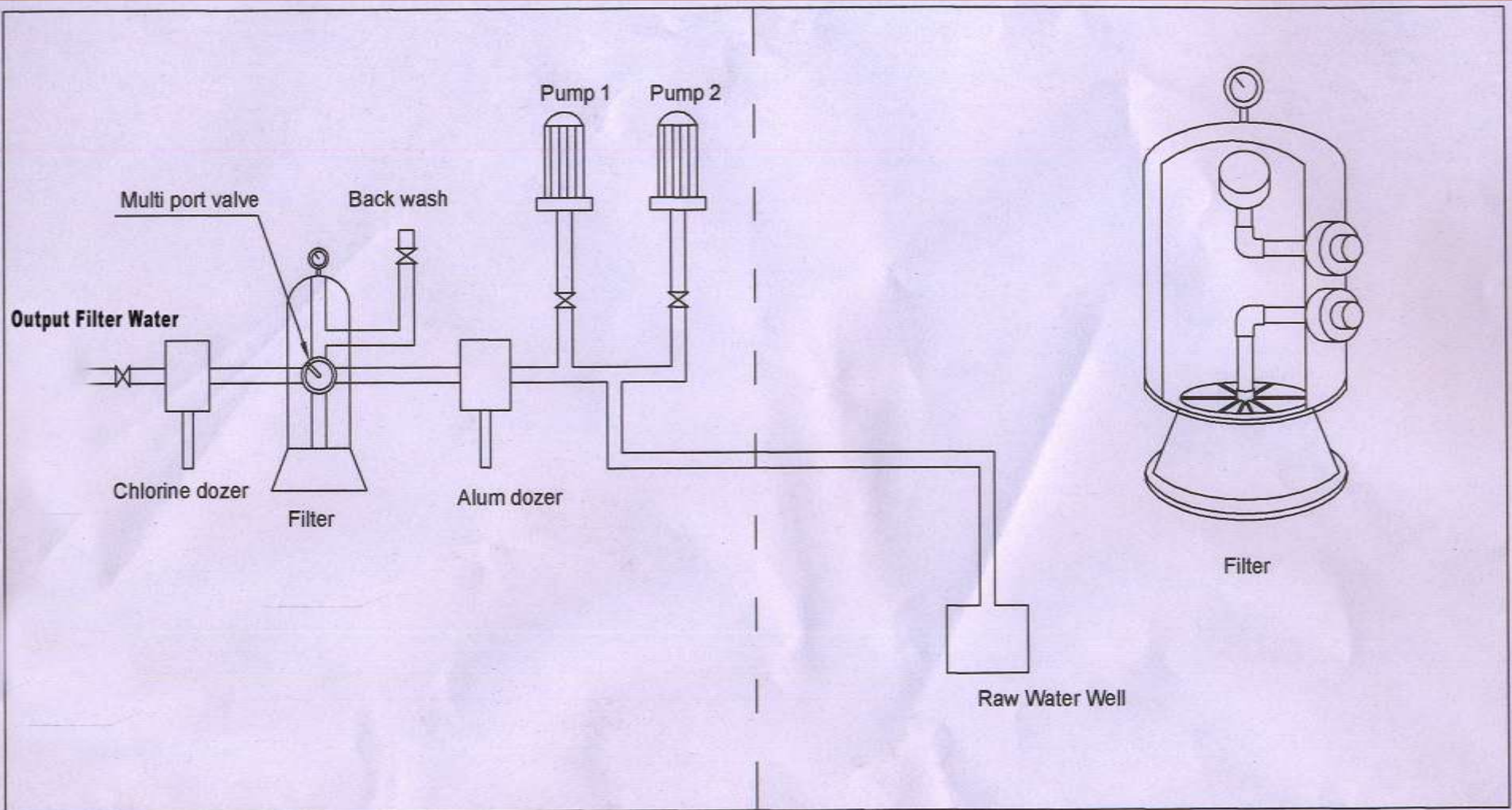
**HARD ROCK REGIONAL CENTER  
NATIONAL INSTITUTE OF HYDROLOGY  
HANUMAN NAGAR, RACE COURSE  
BELGAUM-590001**

**Physical, Chemical and Bacteriological Analysis Results of Tilakwadi Congress Well Water Samples**

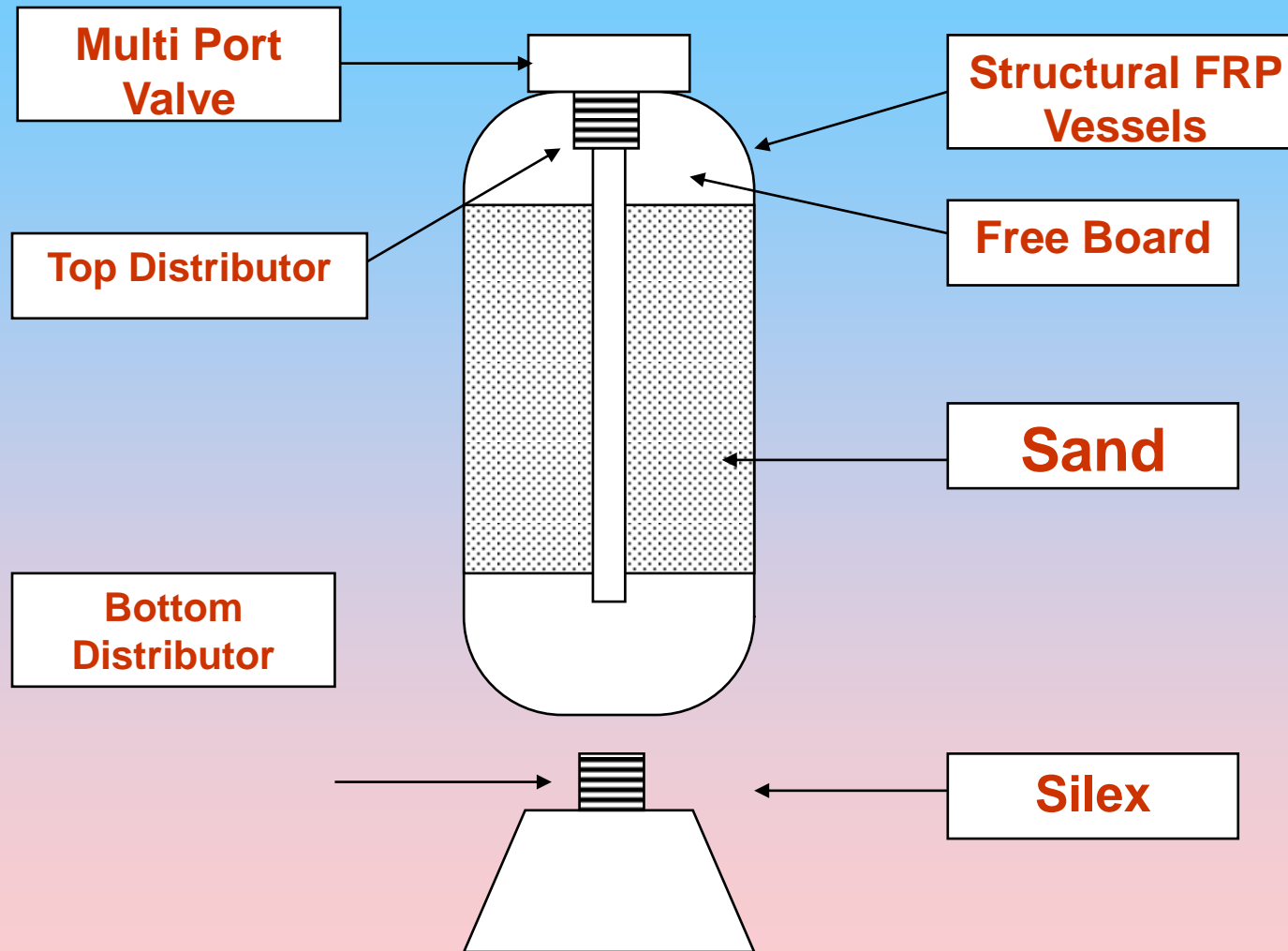
| Sl. No | Characteristics                              | Result of Well water sample | Result of filter water sample | Acceptable Limit | Cause for Rejection | REMARKS |
|--------|--|-----------------------------|-------------------------------|------------------|---------------------|---------|
|        |  | 9.5.2008                    | 9.5.2008                      | 9.5.2008         | 9.5.2008            |         |
| 1      | Turbidity (NTU)                              | 2.2                         | 1.2                           | 1.0              | 10.0                |         |
| 2      | Taste and Odour                              | Un-objectionable            | Un-objectionable              | Un-objectionable | Un-objectionable    |         |
| 3      | pH   | 6.60                        | 6.7                           | 7.0 to 8.5       | <6.5, >9.2          |         |
| 4      | Total dissolved solids (mg/l)                | 220.00                      | 220.00                        | 500.00           | 2000.00             |         |
| 5      | Total hardness (as CaCo <sub>3</sub> )(mg/l) | 118.00                      | 118.00                        | 200.00           | 600.00              |         |
| 6      | Chloride (as Cl) (mg/l)                      | 46.00                       | 46.00                         | 200.00           | 1000.00             |         |
| 7      | Sulphates (as So <sub>4</sub> ) (mg/l)       | 17.30                       | 17.3                          | 200.0            | 400.00              |         |
| 8      | Alkalinity (as CaCo <sub>3</sub> ) (mg/l)    | 103.00                      | 100.00                        | 200.00           | 600.00              |         |
| 9      | Magnesium (as Mg) (mg/l)                     | 7.80                        | 7.80                          | <30              | 150.00              |         |
| 10     | Calcium (as Ca) (mg/l)                       | 34.5                        | 34.5                          | 75.0             | 200.00              |         |

  
 Assistant Executive Engineer  
 K.U.W.S. & D.Board, Sub-Division,  
 Belgaum.

# TYPICAL ARRANGEMENT FOR WATER TREATMENT PLANT



# 6.0 ASSEMBLY, INTERNAL FILLING AND OPERATION DETAILS FOR SAND FILTER WITH SIDE MOUNTED MULTIPOINT VALVE



Open well PRE. Video.VOB

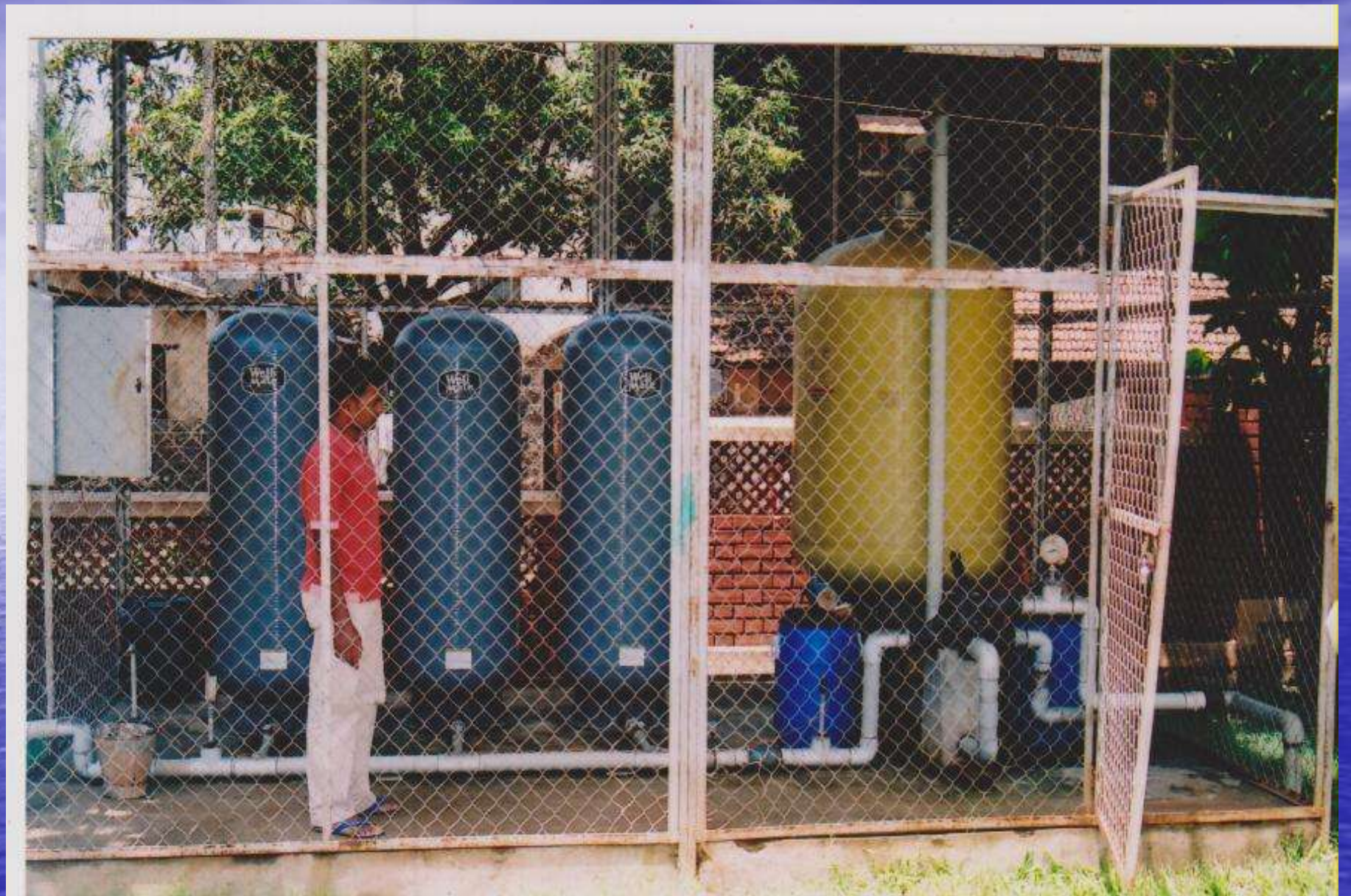
















Adding beauty to utility . .







# SUCCESSFULLY COMPLETED PROJECTS

## WITH MINI FILTERS AND DOZING SYSTEMS

| Sr. No. | Name of Work  | Donated by                 | Water supplied to population |
|---------|---|----------------------------|------------------------------|
| 1       | Mini filter units fitted to open well at veebhadra Nagar                      | Rotary Club Amwell England | 12000                        |
| 2       | Mini filter units fitted to open well at Goodshed road Shashtri Nagar.        | Indal Factory              | 10000                        |
| 3       | Mini filter units fitted to open well at Shetty Galli.                        |                            | 10000                        |
| 4       | Mini filter units fitted to open well at Navagraha Temple Kirloskar Road.     |                            | 12000                        |
| 5       | Mini filter units fitted to open well at Shivaji Garden – Unit 1              |                            |                              |
| 6       | Mini filter units fitted to open well at Shivaji Garden Unit - II             |                            | 12000                        |
| 7       | Mini filter units fitted to open well at Congress Well Tilakwadi.             |                            | 10000                        |
| 8       | Mini filter units fitted to open well at Math Galli                           | }                          | 12000                        |
| 9       | Mini filter units fitted to open well at Rayat Galli.                         |                            | 8000                         |
| 10      | Mini filter units fitted to open well at Polytechnic Compound Kakatives.      |                            | 8000                         |
| 11      | Mini filter units fitted to open well near Darga @ Kamat Galli.               |                            | 10000                        |
| 12      | Mini filter units fitted to open well at Khanjar Galli.                       |                            | 8000                         |
| 13      | Mini filter units fitted to open well at Teggim Galli, Vadagaon.              |                            | 8000                         |
| 14      | Mini filter units fitted to open well at Konwal Galli                         |                            | 8000                         |
| 15      | Mini filter units fitted to open well at Nazar Camp, Vadagaon.                |                            | 8000                         |
| 16      | Mini filter units fitted to open well at Joshi Mala                           |                            | 4000                         |
| 17      | Mini filter units fitted to open well at Samartha Nagar                       |                            | 3000                         |
| 18      | Mini filter units fitted to open well at PWD Quarters, Gandhi Nagar (2 Units) |                            | 10000                        |
| 19      | Mini filter units fitted to open well at Alwan Galli                          |                            | 3000                         |
|         | <b>Total</b>  |                            | <b>156000</b>                |

# SUCCESSFULLY COMPLETED PROJECTS WITHOUT MINI FILTERS AND DOZING SYSTEMS

| Sr. No. | Name of the Work                                 | Donated by                | Benefited population |
|---------|--|---------------------------|----------------------|
| 1       | Open well project at Shivaji Nagar               | Rotary Club South Belgaum | 3000                 |
| 2       | Open well project at Khadak Galli                | Rotary Club South Belgaum | 2000                 |
| 3       | Open well project at Gondhali Galli              |                           | 3000                 |
| 4       | Open well project at Kangral Galli               |                           | 2500                 |
| 5       | Open well project at Yamanapur                   | Indal                     | 3000                 |
| 6       | Open well project at Vantmuri Colony Mal Maruti. |                           | 1500                 |
| 7       | Open well project at Laxmi Galli, June Belgaum.  |                           | 2000                 |
| 8       | Open well project Margai Galli, June Belgaum.    |                           | 2500                 |
| 9       | Open well project at Harijan wada, Chavat Galli  |                           | 3000                 |
| 10      | Open well project Kudchi.                        |                           | 3500                 |
| 11      | Open well project Bapat Galli                    |                           | 3000                 |
| 12      | Open well project Kamat Galli                    |                           | 2500                 |
| 13      | Open well project Subhash Nagar, Hindwadi        |                           | 2000                 |
|         |  |                           | <b>33500</b>         |

# Punar jeevan – A Rebirth

- Thus, the local **potable** water needs of as many as **1,56,000** citizens of Belgaum are now being supported through local resources - - the 15 revitalized communal wells.
- In addition, the local water needs of **33,500** citizens are being supported by the local resources available at 13 small, revitalized communal wells through public stand-posts.
- Belgaum City Corporation is the only Urban Local Body to have successfully implemented such a project, and to have supplemented the water needs of as many as **1,89,500** people out of its population of 5 lakh people, (almost 38% of its population).

# The Wider Picture

- **From the early 1990's, the 'Earth Summits' have emphasized the criticality of basic resources of our planet and the delicate balance of life forms and these resources. As a nation we are committed to reduce our 'Carbon Footprint'.**
- **Pumping urban water supply to Belgaum city from a source 52 kms away, up a steep incline to the purification works and then delivering it to various parts of the city is highly energy intensive.**
- **In contrast, lifting water from a local well just a few metres to the surface has reduced the carbon footprint of Belgaum's urban water supply considerably.**
- **We are evaluating the feasibility of installing Solar Pumps at these wells to reduce electricity consumption further.**

# **The Longer Term. Sustainability**

- **The sustainability of these wells comes from a simple hydrological fact that these wells are fed by ‘unconfined aquifers’ and a continuous flow is ensured by the excess recharge of ground water, (by rain water), percolating through the laterite layers and leading to a process called an ‘interflow’.**
- **The local office of the National Institute of Hydrology has certified that this will ensure the sustainability of these wells for at least the next 50 years.**

# Stake Holder Participation

- **Recognising that the *'sine qua non'* (i.e., 'without which nothing') for the success of a community project is stake holder participation, it was decided to urge the local communities, through local leadership, to adopt the project.**
- **First, a house to house education campaign was undertaken to involve youth in cleaning the old wells of accumulated debris.**
- **Housewives were persuaded not to dump any more garbage in the wells and garbage collection points were established near the wells.**
- **Alternate sites were identified for Ganesh Idol immersion.**
- **Local leaders went from house to house to drink the first glass of water and assure the people of its potability.**
- **Today, there is wide spread acceptance of the Scheme because of the active involvement of the local community.**

# ECONOMICS OF THE SCHEME

Mini filter plant with 50,000 LPH filtration capacity can supply 4 lakh litres of water per day. (8 hours pumping)

Expenditure for electricity Rs. 152 Per day.

Expenditure for chemicals Rs. 55 Per day.

Expenditure for labour Rs. 100 Per day.

**Total Rs. 307 Per Day.**



## **Cost of production :-**

$307 / 400000 \times 1000 = \text{Rs. } 0.76 / \text{ per } 1000 \text{ liters}$

## **Cost of production of surface water :-**

**Rs. 10.50** per 1000 liters (Domestic Subsidized)

## **Cost of production through tanker :-**

$300 / 3000 \times 1000 = \text{Rs. } 100 / \text{ per } 1000 \text{ liters}$

## **Recovery of Investment**

$4,00,000 \times 30 / 1000 \times 10.50 = \text{Rs. } 126000 \text{ per month}$

**Cost of Project : Rs. 5,00,000**

**Project Cost can be recovered within 4 Months**



# Comparative Cost

| Name of the Project            | Initial Cost of Project. (Rs.) | O & M cost of each unit/year (Rs.) | Benefited Population | Cost per head. (Rs.) |       |
|--------------------------------|--------------------------------|------------------------------------|----------------------|----------------------|-------|
|                                |                                |                                    |                      | Initial              | O & M |
| Open Well, Mini Filter Project | (19 * 5 )<br>95 lakhs          | 1,10,520                           | 1,56,000             | 60.89                | 13.46 |
| Hidkal Surface Water Scheme    | 70 crores                      | 29 crores                          | 5,00,000             | 1,400                | 580   |

# **BENEFITS OF THE SCHEME AND SITUATION AFTER IMPLEMENTATION OF INITIATIVE**

**Ground water which is readily available locally in plenty can be utilized in a proper way.**

**Cost of production is very minimum compared to surface water supply and tanker water supply.**

**Savings in energy charges.**

**Wells and aquifers recharged due to regular use.**

**Underground water table remains clean.**

**Savings in amount spent by local body on drilling of bore wells and supply of water through tankers during scarcity.**

# Potential for replication

In the past townships used to be developed wherever there was plenty of ground water. People all over India used to crucially depend on open well water before Independence.

Unfortunately, the attention of Public Authorities shifted from these dependable, locally available sources of water to distant supplies of surface water which have proved to be seasonally variable, more expensive to harness and involve more energy consumption.

It now emerges from our efforts that those wells that had been abandoned after surface water schemes were implemented, could be rejuvenated, after conducting hydrological surveys and knowing the exact yield and sustainability. The benefits flowing from the rejuvenated wells could be passed on to succeeding generation and a clean natural resource harnessed for all time to come.

The local water needs of the people can, to some extent be met at a very reasonable cost.

However this source can only augment, not substitute, the main source of water supply to cities.

# **APPRECIATION FROM PRESS AND PUBLIC**

Project is well accepted by the public since water is available on local demand.

The scheme is appreciated in State and National level Newspapers like Times of India, Indian Express, Hindu, Deccan Herald, Prajawani, Kannada Prabha, Vijay Karnataka, Samyukta Karnataka, Tarun Bharat, Pudhari, Sakal Etc.

An appreciative article features in the web site:

[www.indiatogether.org](http://www.indiatogether.org)

# The Hindu

## 20th March 1996



### Putting unused wells to effective use

From Shrikant R. Mangalwedhe

BELGAUM:

The Belgaum Corporation has turned to old and neglected open wells in an effort to bridge the big gap between the city's water demand and supply.

This was inevitable. The city is fast expanding and has already developed into a metropolis. Its salubrious climate and location lure people to migrate to the city. Belgaum has a population of 4.5 lakhs and gets only about 60 to 65 lakh gallons of water everyday, less than half its requirement of about 1.15 lakh gallons.

Supply has never kept pace with the ever-growing demand. This has led to the exploitation of groundwater through borewells. Along with the poor urban waste management and sewage system, this has led to the contamination of the aquifer. This is evident in areas near Kapleshwara temple, Mal-Maruti, and the banks of Bellary nulli. But the officials concerned have turned a Nelson's eye to the problem, probably because of their own limitations.

#### Problems faced

The Third Stage Water Supply Scheme of the city, with Hidkal dam as source, was taken up by the Karnataka Urban Water Supply and Drainage Board (KUWS&DB) in 1991, at an estimated cost of Rs. 25.60 crores. However, because of its tardy progress, the civic body is not in a comfortable position as far as water supply is concerned. No one is quite sure when the Chhatraprabha waters will start flowing to the city from Hidkal.

There are a few other problems too. One of them relates to the dependability of the source of water. For, while the reservoir at Ankhanisip, the present source of water for the city, receives the 'dry weather flow' even during the drought years, Hidkal does not have this advantage. The supply from Chhatraprabha source is bound to suffer during the intense drought years.

The town has the example of Hubli-Dharwad to go by. Hubli-Dharwad suffered due to water shortage despite abundant availability from Nallurtha reservoir near Soudatti. The Mala-

prabha waters never reached the twin cities fully, thanks to the former tampering with the pipes all along the pipe-route. The Chhatraprabha pipeline may suffer similarly.

The city Corporation is gearing up to tackle the water shortage in the coming months of summer. A water cut — supply only on alternate days — has already been introduced. When the authorities were considering alternative water sources to tackle the possible situation in summer, some old unused wells caught their attention. But they were not sure how to put them to use once again.

At about the time the Corporation authorities were examining one such well a year ago, an expert on water resources, Dr. A. G. Chachadi, Principal Investigator of the Goa University-based Bhoje Gandhi National Drinking Water Mission, was visiting Belgaum. He had come to the city along with his students on a project called 'Belgaum water supply from old sources'. The city Corporation asked Dr. Chachadi to undertake field-testing to find out the possible yield and the quality of water in open wells in the city.

#### Study undertaken

Dr. Chachadi studied the ground water recharge and storage capabilities of the underground rock strata in and around the city and the potential of open wells owned by the city Corporation and private parties. He recorded in his report the great potential of groundwater and its fine quality and said this could help augment the supply by about 40 per cent, if used in a sensible manner. The source is not only safe but also dependable, he said. Mr. Hegade of the Underground Water Survey Department, Dharwad, did not differ.

Sixteen open wells in different areas have been identified. Each is capable of catering to a minimum of 10,000 people. An estimate says that if all these wells are to be put to use, connecting them in a network after purifying the water, it may cost about Rs. 40 lakhs. The Corporation has decided to take up work on three wells initially — the Kapleshwar Theertha, the 'Congress well' and the well on the Goods Shed Road.

Providing a mini-filter unit with a capacity to filter 50,000 litres per hour, pumps and power lines would cost Rs. 2.75 lakhs. The filter unit consists of a pressure filter, alum doser and chlorinator.

The Kapleshwar Theertha is a 100 ft. X 100 ft. well, behind Kapleshwara temple, the oldest in the city. The temple is mentioned in a 1204 AD inscription at the Kumar Basti and also in the Puranas. Pilgrims returning from Kasi take a bath in the water from the Theertha as they believe the 'Punya' of Kasi Yatra can be obtained only after having a bath in Kapleshwar Theertha.

The Kapleshwar Theertha can store about 1.2 lakh litres of water, which can be supplied at the rate of 4 lakh gallons a day in the area of Mahadwar Road, Shastri Nagar, Sant Sena Marg, Shyama Prasad Mukharjee Road and Kapleshwar Colony.

The work of cleaning the well began in the last week of January and took a whole week as they had not been used for long. Cleaning the pond/humans from the well, which has posed problems, has been going on since. Work is nearing completion and water supply is likely to commence in a fortnight. The mini filter plant has been installed.

Water in the renovated 'Congress well' is not contaminated. The well was sunk for supplying water in the venue of the Congress session in 1924, presided over by Mahatma Gandhi. The storage capacity of the well is about 60 lakh litres and it can supply water to about 15,000 people in the areas of Thakwadi, SV Colony, Maratha Colony, and Scheme No. 33.

There is a proposal to put to use the well in Veebhudra Nagar. The Rotary Club is considering granting funds.

Thanks to the efforts of the city Engineer, Mr. Gururao, the Assistant Executive Engineer, Mr. Naik, the Deputy Commissioner, Mr. Pradip Singh Kharia (who was also the Administrator of the Corporation a couple of months ago) and the Corporation Commissioner, Mr. D. B. Nayak, the old wells may soon stretch Belgaum's water.

# The Belgaum City Corporation Is now Implementing, with great success, a water supply scheme proposed decades ago by Sir M Visvesvaraya, writes PADMARAJA DANDAVATHI

**W**ATER scarcity is now a problem round the year and not just in summer. In recent years, the only solution everybody seems to opt for is to sink more and more borewells. In the '80s, Abdul Nazeer Saab, who was the rural development minister, ensured drinking water for people in many drought-prone areas by sinking borewells on an unprecedented scale. But now we find that the borewell solution is counterproductive in the long-run.

## Borewells

Owing to indiscriminate sinking of borewells, the groundwater table has gone down so drastically that in many places, water cannot be struck at depths of less than 500 feet. While groundwater resources are fast depleting, the increase in the population is making water scarcity an endless problem.

While borewells may still be viable in many rural areas, it is clear that they cannot be a solution to water scarcity in urban areas, where there are limits to the number of borewells that can be sunk without greatly lowering the groundwater table. Only permanent water sources like lakes and rivers can meet the water demand in urban areas.

However, owing to industrialization and population growth, many urban water supply schemes, which were executed some years ago, have become inadequate, prompting the water supply authorities to plan and execute more and more projects to lift water from lakes and rivers. Such schemes involve a lot of expenditure. Is there an alternative scheme of this nature? The Belgaum city corporation has found such an alternative, which has not been tried anywhere else in the state.

Several decades ago, Sir M Visvesvaraya, who had drawn up a blueprint for a drinking water supply scheme for Belgaum several decades ago, had suggested that the city's demand for water could be met by sinking a series of open wells in the city. At present, Belgaum gets most of its drinking water from the Rakkasakoppa reservoir, some 22 km from the city. If the reservoir, which gets water from the



The filter unit at Kapila Theertha in Shahpur locality in Belgaum

Markandeya River on the Maharashtra-Karnataka border, fills up after the monsoon rains, it can meet the drinking water requirements of Belgaum city for six months. The reservoir was built over three and a half decades ago at a cost of just Rs 74 lakh.

## The reservoir

Since the Rakkasakoppa reservoir meets the water needs of Belgaum for only six months, a Rs 20-crore project was started five years ago to lift water for the city from the Hidkal reservoir across the Ghataprabha river. Over the last five years, the cost of the project has escalated to Rs 48 crore, and going by the progress in the

project so far, it seems it will not be completed before the end of this century.

So, Belgaum City Corporation officials are trying the alternative that Sir Visvesvaraya suggested decades ago.

Belgaum is known for heavy rainfall of the kind that occurs in Malnad, though rainfall in the city has been poor in recent years. There are wells in the backyards of most old houses and also at many public places.

These wells used to have water not only in the rainy season but throughout the year. Old residents of the city recall times when the water levels in the wells used to be so high that they could take water

from them without the help of a rope.

But after they got used to piped water, the people forgot the old wells. The unused wells naturally turned useless and people started using them for disposing of refuse.

The city corporation has now worked out a project to desilt and clean up these wells, lift water from them, purify and supply it to the people through the regular water pipes.

## Kapila Theertha

In Shahpur locality of the city, there is a water source called Kapila Theertha, which has two big wells with a depth of about 30 feet.

The city corporation authorities have now set up at Kapila Theertha a small filter unit with an alum doser and a chlorinator, and are lifting 4 lakh litres of water per day (at the rate of 50,000 litres per hour for eight hours) and supplying it to about 15,000 to 20,000 people in the neighbouring areas.

## Water saved

Thanks to the Kapila Theertha project, the authorities are able to save 4 lakh litres of water at the Rakkasakoppa reservoir every day, according to Corporation Commissioner D B Naik and Water Supply Division Engineer R S Naik.

Besides the Kapila Theertha scheme, the authorities have already salvaged another well at Mathagalhi and are supplying water from it to about 15,000 people.

Similarly, a water filter is being set up at a well in Veerabhadranagar near SP's office in association with the Belgaum South Rotary Club. Water filters have already been procured from New Metalica Industries of Satara for installing them at wells in Shetti Galli, Kiroloskar Road and Nazaara Camp.

Instead of implementing all these schemes at its own cost, the Corporation is looking for private parties to sponsor them.

There are 16 major wells in the city, and if filter units are set up at all of them at a cost of about Rs 1 crore, it will be possible to increase the water availability in the city by about 60 lakh litres, which is about one third of the quantity of water now being lifted from the Rakkasakoppa reservoir.

## Timely solution

As long as the project for lifting water from the Hidkal reservoir is not completed, water scarcity is bound to continue in Belgaum. So the programme of salvaging old wells is timely, and is likely to prove to be a reliable water source even in the long run. Belgaum seems to have shown a way to many other cities and towns which are also suffering an acute water shortage.

(Translated by MIT)

Deccan Herald, October 19, 1996

# The Hindu, 17<sup>th</sup> June 1997

## Belgaum heading for major water crisis

By Our Staff Correspondent

BELGAUM, June 17.

The delay in the arrival of monsoon has caused anxiety in Belgaum due to prospects of acute shortage of drinking water. Water-level in Rakkasakoppa reservoir, the main source of water supply to the city, is fast depleting. The level was 2451.05 ft., just 3.05 ft. above the dead storage level today. Despite the reduction in supply, the level had been receding at the rate of 0.20 feet daily.

The situation will be alarming if the reservoir dries up by this month end and monsoon fails. M. C. Y. Gokak, engineer, who visited the reservoir, said, "the soil was somewhat wet on Sunday. But, on Monday it was dry. No clouds were seen either. In contrast, last year, the reservoir had started getting filled when the flow of water into it had begun on June 11, after rain in its catchment area".

The water supply was reduced from seven mgd to six mgd from June 9 and again to five mgd on June 15. Water was being supplied once in three days from June 15 instead of on alternate days.

This is the third time in the last five years, the city is facing such a situation. In 1995, the

shortage was so acute that for the first time, the arrangement of water supply once in three days had been introduced from June 1 that year. Earlier, in the same year, the system of closing the supply twice in a month had been introduced from March to conserve water. The reservoir had dried up. However, rain lashed Rakkasakoppa when all arrangements to pump water from dead storage had been made on July 13, bringing relief to the people.

In 1992, the shortage of water was felt in the last week of May. The reservoir had dried up. This continued till the third week of June, when the monsoon set in.

Water scarcity in June has become an annual feature in the town. Every year women's organisations take out protest processions to the Belgaum City Corporation office. However, this year there had been no such demonstrations so far.

Mr. R.S. Nayak, Assistant Executive Engineer in-charge of the water supply, said the requirement of the town with a population of 4.5 lakh population, is about 13.5 Mgd, at the rate of 30 gallons per capita, which is the standard fixed by the World Health Organisation. But, against this, the city gets just seven mgd during normal period. This was slashed to six mgd in the beginning of June and there had been further cut,

bringing it to five mgd.

No tankers had been engaged this year and not a single borewell had been drilled in the city by the Corporation. In 1992, more than 15 private tankers were pressed into service for about 20 days, starting from May 24. In the same year, 75 borewells were drilled. In 1994-95 146 borewells were sunk. In 1995-96 and 1996-97 97 (including those sunk by the Corporation and other agencies) 97 and 62 bore wells were drilled respectively.

But despite no tankers being pressed into service and no borewells drilled, there had been very few complaints this year. This was because the groundwater supply was augmented. Old public open wells were identified and cleansed. Mini filter units were fitted to them. This was the first such experiment in the State.

At present, water was being drawn from five such wells - Kapileshwara temple well, ones in Mathgalli, Shettygalli, Veerabhadra Nagar and the Navagraha temple. Two more at Raithgalli and Nazar Camp in Vadgaon would be commissioned shortly. Each mini filter plant had cost Rs. 3.5 lakhs, including creation of infrastructure and is capable of catering to the need of about 15,000 population, in about 15 lanes or in other words, area covering two wards.



# The Hindu, 28<sup>th</sup> June 1999

## Old wells cleaned, rejuvenated in Belgaum

By Our Staff Correspondent

BELGAUM, June 28.

Belgaum is facing its worst water crisis with scanty rains recorded in the catchment areas of the Nakkasakoppu reservoir, which is the main source of water for the city. But for the old wells in the city, the problem would have been very serious.

The Belgaum City Corporation had cleaned some public wells and even fitted pumps to them to augment the water supply. It all began with the civic body initially taking up work on a 100 feet diameter well behind the Kapileshwara temple in January 1996. The well was desilted, cleaned and fitted with a mini-filter unit with a capacity to filter 50,000 litres an hour. Pumps and powerline were installed at a cost of Rs. three lakhs. The well yields about 60 lakh litres, catering to the need of nearly 15,000 people in the area.

The Kapila Teertha was rejuvenated at the end of April, 1996. Its success inspired the Corporation to take up similar projects. Eighteen open wells were identified. Two more old unused wells in Math Galli and Veerabhadra Nagar were put to use.

In 1997, another four wells at Shetty Galli, Navagraha Temple, Nazar camp and Raithu Galli (both in Vadgaon) were added to the list. Two such wells at Good Shed Road and at Konwal Galli were cleaned this year. The mini filter units installed at these wells are awaiting inauguration.

So far nine wells have been put to use. Another two — the Congress Well in Tilakwadi and another at Shivaji Garden in Shahapur — are likely to be added to the list by this year end. Cleaning each well and providing it with a mini filter plant requires Rs. three lakhs. Each well can cater to the drinking water requirements of nearly 15,000 people.

Although there was paucity of funds, which could have slowed down the work, some agencies came to the Corporation's help and ensured that at least a few of the identified wells were put to use in three years.

Mr. Pradeepsingh Kharola, when he was the Deputy Commissioner, had released funds for the work on the well at Navagraha Temple. The Rotary Club, Belgaum, and the Indal factory provided funds for the wells at Veerabhadra Nagar and Good Shed Road.

There were some public wells, which were not big, but had a good yield of water that could cater to the surrounding locality. The Rotary Club of Belgaum South chalked out a plan to rejuvenate these wells. These wells needed cleaning and a mesh cover, a pump and a stand post had to be installed.

The Club identified water scarcity and lack of sanitation for school children as the problems that required immediate attention. The Club made a humble beginning by providing water facility at two schools, making use of the wells in their premises.

The Club found a partner in the Rotary Club of Amwel, England, to cosponsor a project. The

Rotary Club of Amwel, England, was willing to donate \$5,000, if the project was registered under a matching grant scheme of the Rotary Foundation. The scheme envisaged the two partner clubs each sharing 25 per cent of the project cost and the Rotary Foundation giving the remaining 50 per cent.

The project, estimated to cost Rs. nine lakhs, was approved by the Rotary Foundation in 1995-96, under which 15 drinking water facilities, covering 45,000 people in Belgaum and surrounding areas. The project was inaugurated in November 1996 with taking up a work at a well in Veerabhadra Nagar. The well was connected through tunnels by two other small wells.

All the three wells were cleaned, their walls were raised and they were covered with a mesh to prevent people from throwing garbage into the wells. A mini filter unit was installed and it was connected to main line in the city, providing water supply to 25,000 people. The President of the Rotary Club, Amwel, attended the handing over function.

Mr. V. H. Deshpande, chief of the project committee, said the Club had completed the work on 15 wells, fitted them with a pump and stand post. These wells are situated in Jere Galli (Anagol), Khadak Galli, Shivaji Nagar, Gangwadi (Maimaruti Extension) in the city and Jyoti Nagar, Vijaynagar, Halaga, Mutyanatti, Mandoli and Bhavani Nagar on the outskirts of Belgaum.

The Club is handing over these facilities to the Corporation tomorrow.

# British wells come to the rescue of Belgaum City

By NAUSHAD A BUAPUR

Belgaum, June 2: Experts on water management believe that Belgaum City will never again face water scarcity if the authorities do not mess up with the existing system which happens to be one of the best in the State.

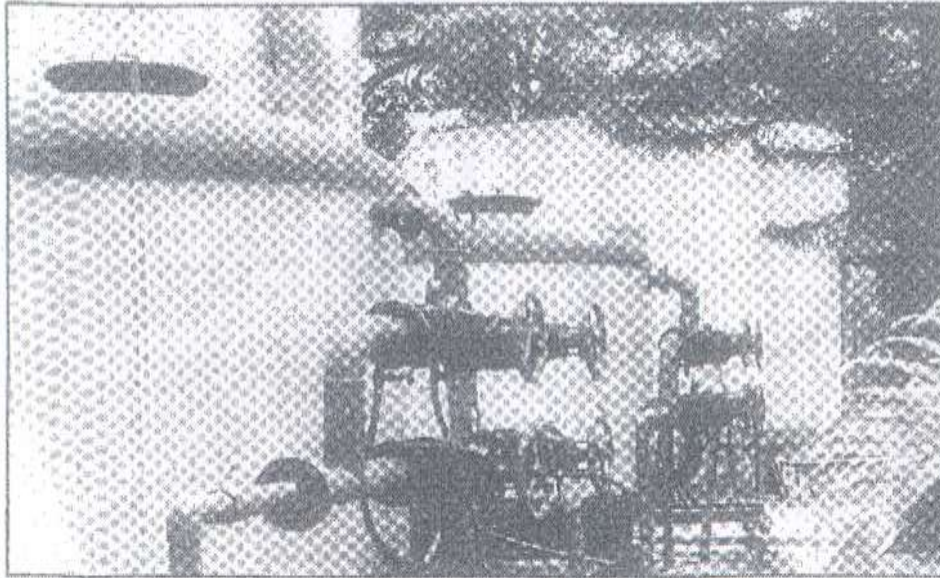
Although the scorching sun has increased the demand for water here, the rich water sources like the Hidkal reservoir, nine renovated British wells and the Rakkaskop reservoir, which supplies water to Belgaum, have kept people away from the drought scare.

With the recent implementation of the third stage Hidkal project and the renovation of nine of the British wells in the City, the water needs of the people here have been met.

According to experts, a large number of people can depend on nine of the British wells which have been renovated.

"Even though water levels recede in both the reservoirs, the British wells are capable of supplying water to lakhs of people in the city. Authorities should keep these wells in good condition to help people fetch clean water from it," an expert added.

RS Nayak, a corporation engineer, has been instrumental in 'discovering'



Pumpsets installed after renovating an old well constructed by the British in Shivaji garden, Belgaum, decades ago — Express photo

these wells a few years ago. He says "around 17 wells constructed during the British regime had 'disappeared'. Many of these had turned into garbage dumps"

Through his relentless efforts, nine wells were desilted and put to better use with help from the Rotary International.

"Today, at least 15,000 people can fetch water everyday through each of these wells in the City," he says.



Presently, water from these wells is being supplied to many areas of Belgaum through corporation pipelines.

Without any alternative water source other than Rakkaskop, Belgaum was facing a crisis a few years ago.

As the chief of the Water Supply Department in the City Corporation, Nayak took up a geological survey to ascertain the direction of the flow of groundwater in the City.

With assistance from NGOs, Nayak got nine of

the high-yield wells designed, got mini filters, alum dozers and chlorinators installed to the wells. Presently, water is being supplied non-stop to many areas through these wells, he says.

"If all the 17 wells are put to use, I am sure water from these wells will be enough for the people of this city. There is no need of any other water source," he said.

Water scarcity in many areas has never been felt since the time water from these wells started flowing through the corporation pipelines in 1998. Most of these wells were renovated by Nayak.

*The Indian Express,  
June 3, 2003*

Water is available in plenty here and hence the Corporation has stopped supplying water from Rakkaskop reservoir reserving it for emergency. However, the supply from Hidkal reservoir and nine of the wells is continuing.

Seven other wells constructed by the British are yet to be cleaned. The cleaning of these wells came to a standstill with

the transfer of Nayak from the Water Supply Department in 1999.

The City, however, faces water scarcity at times due to leaks in the old pipelines laid in parts of the City many years ago. According to the authorities, efforts were made to get these pipes replaced. If the present water sources are utilised properly, Belgaum will never face a water crisis in future.

# WELLS FOR THE WELL - BEING

Writes : Shree Padre in [www.indiatogether.com](http://www.indiatogether.com)

**INDIA TOGETHER**  
Thu 14 Dec 2006 The news in proportion.

free advertisement : [Learn more](#)

 **Toxics Link**  
for a toxics-free world

[HOME](#) [OP-ED](#) [STATES](#) [INTERACT](#) [SUPPORT](#) [SEARCH](#)

**ENVIRONMENT**

**WATER**

**Wells for the well-being**

The Belgaum City Corporation has in the last one decade revived 16 big and 21 small dug-wells. Today, 2 million gallons (16 per cent) of Belgaum's water supply comes from these local wells alone, leading to precious cost savings that have paid back the revival expenditure long ago. Shree Padre reports.

- [Write the author](#)
- [Water](#)
- [Cities](#)
- [Karnataka](#)
- [Send to a friend](#)
- [Printer friendly version](#)

 **congress India Together**

**4 December 2006** - Most of the citizens at Belgaum know 'Congress well' though it was abandoned till recently. In 1924, Congress party's historic convention held here was presided over by Mahatma Gandhi. This well was dug for that occasion. At that time, it cost Rs.4,370 and 3 annas, and it was supplying water to half of the city. But once the tap water was introduced, this well, like scores of others in the city, turned into a dustbin. Recalls M K Hegde, senior reporter, Kannada Prabha, "Later it had earned notoriety as a 'suicide well'. There was lot of wild plant growth around; also, goondas used this area as their den. Gentlemen were scared to come near."

 **Congress well now brimming with water. Pic: Shree Padre.**

If you visit this place now, there is no tell-tale indication of the past deterioration. The well is full with water. A beautiful garden around. Water level remains just 2-3 feet below the ground in monsoon. It falls to six feet in May, that's the peak summer.

This is not a solitary case. Belgaum Corporation, in the last one decade has revived 16 big and 21 small dug-wells in two stages. It cost about Rs.2.75 lakhs each for the big wells for cleaning and subsequent water supply arrangements such as installing a motor, filtering unit etc. To save costs, overhead tanks were not constructed to push down water at pressure. Water is supplied to the areas wherever it can reach by gravity. Today, 16 per cent of the water needs of the city are met by these wells.

**Reviving water independence**

Belgaum's well revival campaign started in 1995. Monsoon that generally begins in June first week hadn't started even in the third week. The Rakoscope reservoir that supplies water had dried up. Frequency of water supply to the city fell to once a week from the earlier three days. At this juncture, people and administration started hunting for alternative water sources. They recalled the old wells which at a time were the only sources that fed water to the whole city.

**ENVIRONMENT**

- Biodiversity
- Education
- Energy
- Fisheries
- Forests
- Hazards
- Mining
- Opinions
- Profiles
- Regulation
- Reviews
- Urban
- Waste
- Water
- Wildlife

 **RSS Feeds**

enter e-mail ID

 **Newsletter**

**SERVICES**

- Advertise
- Contact Us
- Newsletter
- Submit

An expert committee led by Dr Chachadi, Head of the Department, Geology, Goa University studied the viability of revival of these wells had given an encouraging report.

The conditions of all the wells were pretty distracting. Each one had silt of 8 – 10 feet. This was the result of immersing Ganesh idols in the well every year. Added to that, the residents used these as dumping pits. And unlike desilting of tanks, well desilting posed a challenge. Silting of tanks is done with polkline machines. These machines cannot get down into the wells nor do their arms have the reach the inside of a well. So wells can't be desilted with machines as with tanks. Doing it manually was the only option. But a new problem arose. None of the workers could stand firmly in the loose silt. Engineers were in a fix.

In 1964 population of the city was 1.5 lakh. Now it has risen to 5.5 lakh. Out of the daily supply of 12 million gallons of water, combined contribution of these revived wells is 2 million gallons.

#### related articles

- [Water meters help everyone](#)
- [Networked ponds transform drylands](#)

Seeing the work come to a standstill, a locally known rowdy came to the fore. As per his suggestion, a top-open barrel was used to send him into the well. He climbed the barrel in a upside down position as it was being let down by a bunch of people with the help of rope and pulley. After touching the silt, some portion of the barrel got sunk. 'Now send me a bucket from there', he advised. Then, standing firmly on the barrel platform, he filled the empty bucket with silt. Lo, a local 'technology' had evolved!

The city corporation started acting quickly. Local organisations like Rotary and India Aluminium Company also joined hands in the revival task. Luckily, none of the well water was contaminated. Once the desilting was done, providing filters, chlorinator and alum-dose were the only required safety measures before distribution. An alum-doser releases small doses of alum into the water to reduce its turbidity, to settle down any dust or other particles.

#### Reaping the benefits

In 1964 population of the city was 1.5 lakh. Now it has risen to 5.5 lakh. Out of the daily supply of 12 million gallons of water, the combined contribution of these revived wells is 2 million gallons.

Today, in about 8 hours pumping, each of the big wells provide 4 lakh litres of water everyday. "We have carried out recuperation tests in these wells. It takes about eight hour for them to refill. That means, if need be, we can go upto a maximum of 16 hours pumping. Moreover, in summer none of these wells dry. In fact, decrease in the water level from monsoon to summer is very minimal," says R S Nayak, Assistant Executive Engineer Belgaum Corporation who is one of the masterminds behind this campaign. One big well caters to 1000 citizens while the smaller ones serve 500 people a day by supplying 1,50,000 litres.



**Banashankari Theertha, constructed in 1885, one of the big revived wells. Pic: Shree Padre.**

The quality of well water is also superior to the surface water that is supplied from far away. It is naturally filtered water that oozes out from the sub

# WELLS FOR THE WELL - BEING

Writes : Shree Padre in [www.indiatogether.com](http://www.indiatogether.com)

soil everyday.

Rakoscope reservoir is 22 kilometres away from Belgaum city. Hidkal dam, from where additional water supply started later, is 45 kilometres away. Monthly electricity charges for pumping water from Rakoscope is Rs.20 lakh while that of Hidkal dam is Rs.1 crore! Compared to this, the wells require about Rs.60-90,000 for the same period.

Interestingly, nowhere in the vicinity of the revived wells, the corporation has had to dig new bore wells thereafter. Earlier, every year, it had to dig one or two in each ward. The total expenditure per annum for this was around Rs.35 lakh. Added to this was the expenditure for providing tanker water. Usually, from February, the corporation was spending in the range of Rs.20 lakh a year for this. Tanker owners typically charge Rs.400 for supplying 3,000 litres. At this rate, each one of the big wells are saving Rs.54,000 rupees a day. Going by that, the expenditure for the revival of the wells was repaid well within a week's time.

[continue reading article ...](#)

## Reader-funded journalism



Last year we raised nearly 400,000 rupees through annual contributions from readers like you. To cover all of India Together's costs at market rates, however, we would have needed to raise close to a million rupees (ten lakhs). We need your help to bridge this gap. Support us at one of the levels indicated below:

### ANNUAL CONTRIBUTIONS

- Rs.1000 (recommended)
- Rs.5000 (Friends of India Together)
- Rs.365 (basic, a rupee a day)

- [Contribute now](#)
- [Why your support matters](#)

p.s.: Your support is voluntary. Nevertheless, we rely on it.

At Kudachi, in the outskirts of the city, the corporation has revived another very old well which probably is more than 300 years old. Nobody in this village knew that there was a filled up well here. The only indication of a possibility was a huge stone water trough used to provide water for horses. Only one old man of this village had always been recalling that there was a well here. But nobody had taken him seriously though there was persistent water shortage. While digging with polkline, stones used for wall construction of old wells were noticed. Yet, the corporation officers weren't very sure that they will strike water. Yet, the carried on. Today this well is the only water source that supplies to the 800 families around. While cleaning, even after 8 hours pumping with a 7 HP motor, the water level hadn't lowered much!

"Now we are not worried even if supply from Hidkal gets interrupted. No festival in this city is now affected by water shortage. In fact, these wells are a great blessing," says out M Channappa Gowda, the Commissioner of Belgaum Corporation, with pride.

## There's more

However not all wells that could be rejuvenated, have been. A high capacity well is at under the soil near Hutlathuma Chowk, opposite Kaveri cold house. It was named as 'bar gadgal' because twelve pulleys were fitted to it. Recalls auto driver Parashuram Kamble, have seen it when I was a young boy of twelve. Families from around one kilometre vicinity were coming here for water. Till midnight, the pulleys were making noise." In 1978 this well was deliberately filled up; it was around seventies that the culture of digging new wells came to a halt in Belgaum. Reason? When tap water was introduced, there was only lukewarm response to that. Hearing this from the field staff, an over-enthusiastic senior officer order for closure of the well. This was his method of making tap water popular. Today this is vehicle parking area. Complain locals, "there was a move to revive this well recently; but politics came in the way."

About 300 to 400 wells still exist and these could be rejuvenated. There could be some other filled-up public wells too. One great advantage for Belgaum is that tube wells are very limited in the city. And while awareness about water harvesting is currently low, there is good scope for reviving most of the private dug wells by harvesting the rain each family gets over their site.

Delegations from many other city corporations have come to Belgaum to study the well revival success story. Among them were the ones from Kolhapur, Dharwar, Mangalore and Mysore. Though every delegation hailed this success, no efforts seem to have been done in their respective cities on these lines.

R S Nayak says efforts from the administration alone won't do. He points out that open wells are as sacred as a place of worship, and that years of efforts are behind the revival. "Minutes would be sufficient to spoil them again," he warns. "It is not enough if only the administrations take care about this. Water bodies are the assets of local communities. They have shoulder the responsibility of protecting them too," says Nayak.

One pertinent plus point about this well-revival abhiyan is that it has helped to retain the ground water level high. If only Belgaum had opted for more bore wells, there would always been the question of unsustainability, and the ground water level, in this one decade, would have gone down considerably. @

## Shree Padre

4 Dec 2006

*Shree Padre is a journalist with many years of experience in agricultural reporting. He is the author of several books, including one on rainwater harvesting, published by Altermedia.*

**Contacts:** M S Channappa Gowda, City Commissioner: +91-94483 82773. R S Nayak, Asst

# Appreciation Letter From Rotary Club



## ROTARY CLUB OF BELGAUM SOUTH

CLUB NO. 26995 DISTRICT 3170

Lion's Club's Smt. Sucheta Angolkar Hall, Near Vaccine Depot,  
Nalwadi, Belgaum - 590 006 India



SERVICE ABOVE SELF

RTN. DURGESH HARITAY

President 1998-99  
"RAMANWIL" 2nd Cross, Belgaum-590007  
Belgaum-590006 Ph: (0831) 481717 (R) 482000  
Fax: 0831-481163

RTN. ANAND KULKARNI

Secretary 1998-99  
"Nalwadi" Saal Compound  
Nalwadi Road, Belgaum-590006  
Ph: (0831) 22891

**Shri R.S.Nayak,**  
**A.E.E.**  
Corporation of the City of Belgaum.

April 15, 1999

Dear Sir,

Warm greetings.

We, the members of Rotary Club of Belgaum South wish to express our gratitude for the help and interest shown by you in completing our prestigious humanitarian Matching Grant project of providing safe drinking water to the citizens of Belgaum city.

Without your guidance, the project of eighteen drinking water points in various localities of Belgaum such as Veerabhadra nagar, Shivaji nagar, Khadak galli, M.M. extension, Purvati nagar etc. would not have come into existence. This project has certainly reduced the scarcity of drinking water faced by the citizens of Belgaum.

Your consultation in the field of survey, location of streams, cleaning of existing wells, fixing of required machinery and pump sets are worth appreciating. Your association with this international project has helped us to fulfil one of the basic needs of this environmental friendly scheme.

We thank you for your kind gesture and seek the same cooperation from you in our future projects.

Regards.

Yours in Rotary Service,

*Durgesh Haritay*  
Rtn. Durgesh Haritay

RTN. SUBODH KULKARNI  
VICE PRESIDENT  
Ph: (0831) 481193 (R) 4854187  
RTN. NIRMALA PRAKASH  
PRESIDENT ELECT  
Ph: (0831) 482514  
RTN. APARNA BHATKAL  
HMM. PAST PRESIDENT  
Ph: (0831) 420292 (R) 4239110

RTN. SATISH CHIRMURE  
JOINT SECRETARY  
Ph: (0831) 441788 (R) 4411044  
RTN. ASHOK SADAUSA  
DEVELOPER  
Ph: (0831) 440808 (R) 431235  
RTN. ARUNAGRI K.  
DIR. CLUB SERVICE  
Ph: (0831) 420371 (R) 420372

RTN. V. MARGALE  
DIR. VOCATIONAL SERVICE  
Ph: (0831) 441346 (R) 440148  
RTN. PRASHANT SAMANT  
DIR. COSMA SERVICE  
Ph: (0831) 482111  
RTN. GIRISH BAGI  
DIR. HMT. SERVICE  
Ph: (0831) 440561 (R) 432741

RTN. BABAN DESHPANDE  
DIR. INTL. SERVICE  
Ph: (0831) 441053 (R) 25866  
RTN. PRAKASH BADAKUNDRI  
SGT. AT ARMS  
Ph: (0831) 433220 (R) 480499  
RTN. RAGHUNATH BANDAGI  
SGT. AT ARMS  
Ph: (0831) 440174 (R) 481996

# National Acclaim

- **Belgaum's Open Well Project was selected amongst the top 16 projects for the Urban Water Award 2008, by the Ministry for Urban Development.**

# Kannad Prabha, 6th June 1999

British Wells

ಬಾವಿಗಳ ನಗರ ಬೇಗೂರು

## 'ಬ್ರಿಟಿಷ್ ಬಾವಿ'

ಎಸ್. ಗೋಪ್ ಬಾವು



ಬೆಂಗಳೂರಿನಲ್ಲಿ ಬಾವಿ

ಬಾವಿಗಳ ನಗರ ಬೇಗೂರು...  
 ಕೆಲವು ಬಾವಿಗಳಿಗೆ ಹಿರಿಯರೇ  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...



ಬಾವಿಗಳ ನಗರ ಬೇಗೂರು

### ಬಾವಿ

ಬಾವಿಗಳ ನಗರ ಬೇಗೂರು...  
 ಕೆಲವು ಬಾವಿಗಳಿಗೆ ಹಿರಿಯರೇ  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...

ಬಾವಿಗಳ ನಗರ ಬೇಗೂರು...  
 ಕೆಲವು ಬಾವಿಗಳಿಗೆ ಹಿರಿಯರೇ  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...

ಬಾವಿಗಳ ನಗರ ಬೇಗೂರು...  
 ಕೆಲವು ಬಾವಿಗಳಿಗೆ ಹಿರಿಯರೇ  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...  
 ಕೆಲವು ಕೆಲವು ಕೆಲವು ಕೆಲವು...

ಅನಂತರ ಅಯ್ಯಯಾದ ವಾವಿಗಳ ಬಳಿಯೇ ಫುಟ್ಟು ಕುದ್ರೀಕರಣ ಘಟಕ (ಮಿನಿಯೇಜರ್ ವಾಟರ್ ಪ್ಲಾಂಟ್) ಸ್ಥಾಪಿಸುವುದು.

ಪಂಪ್ ಸೆಟ್ ಮೂಲಕ ನೀರನ್ನು ಹೊರತೆಗೆದು ಕುದ್ರೀಕರಣ ಘಟಕಕ್ಕೆ ಪಾಯಿಸುವುದು, ಅನಂತರ ಕುದ್ರಿ ನೀರನ್ನು ಬೆಳಗಾವಿ ನೀರು ವಿತರಣಾ ಪಾಲಿಕೆ ಸಂಪರ್ಕಿಸುವುದು.

### ನೀರು ನಾಯಕ

ಈ ಯೋಜನೆಯ ರೂಪಾಂತರ ಪಾಲಿಕೆಯ ಕಾರ್ಯಕಾರಿ ಅಧಿಯಂತರ ಆರ್. ಎನ್. ನಾಯಕ. ಬೆಳಗಾವಿ ನೀರು ವಿತರಣೆ ಸಮರ್ಪಕಗೊಳಿಸಲು ನಾಯಕರು ಮೂಡಿರುವ ಸೇವೆಯನ್ನಾಗಿ ಅವರನ್ನು ನೇಮಿಸಿ ನಾಯಕ ಅಧಿಕಾರವನ್ನು ಗುರುತಿಸುವುದು.

ಈ ಯೋಜನೆಯಂತೆ ಕಮಲೇಶ್ವರ ಬಾವಿ, ಮಹ ಗಲ್ಲಿಯ ಬಾವಿ, ಶೆಟ್ಟಿ ಗಲ್ಲಿಯಲ್ಲಿರುವ ಬಸಂತಕುರಿ ಕೆಳಭೂ, ನವಗಿರಿ ಗುಡಿ ಬಳಿಯಿರುವ ಬಾವಿ, ವೀರಭದ್ರ ನಗರದ ಬಾವಿ, ಗುಡ್ಕೆಡ್ ರಸ್ತೆಯಲ್ಲಿನ ಬಾವಿ, ಕೊನಣ್ಣ ಗಲ್ಲಿಯ ಬಾವಿ, ವರ್ತಮಾನ ಪ್ರದೇಶದ ಜಾಕರ್ ಕ್ಯಾಂಪ್ ಮತ್ತು ರೈತ ಗಲ್ಲಿಯಲ್ಲಿನ ಬಾವಿಗಳಿಗೆ ಕುದ್ರೀಕರಣ ಘಟಕ ಸ್ಥಾಪಿಸಲಾಗಿದೆ.

ಶಿವಾಜಿ ಪಾರ್ಕ್‌ನಲ್ಲಿರುವ ಬಾವಿ, ಮೋಟಿಮಾರ್ಗದಲ್ಲಿನ ಬಾವಿ, ಪಾಸಬಾಗಿ ಹಾಗೂ ಸಿಟಿ ಪೊಲೀಸ್ ಲೈನ್‌ನಲ್ಲಿನ ಬಾವಿಗಳು, ಕಡಕ್ ಗಲ್ಲಿಯಲ್ಲಿರುವ ಬಾವಿ, ಅನಗೋಳ ಮತ್ತು ಮುಕ್ಕಾನಪಟ್ಟಿಯ ಬಾವಿಗಳಿಗೆ ಕುದ್ರೀಕರಣ ಘಟಕ ಸ್ಥಾಪಿಸುವ ಕೆಲಸ ಪ್ರಗತಿಯಲ್ಲಿದೆ.

ಈ ಯೋಜನೆಯಂತೆ ಬಾವಿಗಳಿಗೆ ಕುದ್ರೀಕರಣ ಘಟಕ ಹಾಗೂ ಪಂಪ್ ಸೆಟ್‌ಗಳನ್ನು ಅಳವಡಿಸಲು 3 ಲಕ್ಷ ರೂ. ವೆಚ್ಚವಾಗುತ್ತದೆ. ಬೆಳಗಾವಿಯ ರೋಟರಿ ಕ್ಲಬ್ ಹಾಗೂ ಇಂಡಾಲ್ ಕಾರ್ಪೊರೇಷನ್‌ಗಳು ಈ ಯೋಜನೆಯಲ್ಲಿ ಪಾಲ್ಗೊಂಡಿದ್ದು, ರೋಟರಿ ಕ್ಲಬ್ ವೀರಭದ್ರನಗರದ ಬಾವಿಯ ಯೋಜನೆಗೆ ತಗಲುವ ವೆಚ್ಚವನ್ನು ಸಂಪೂರ್ಣ ಫರಿಸಿದೆ. ಇಂಡಾಲ್ ಕಾರ್ಪೊರೇಷನ್ ಗುಡ್ಕೆಡ್ ರಸ್ತೆಯಲ್ಲಿರುವ ಬಾವಿಗೆ ಕುದ್ರೀಕರಣ ಘಟಕ ಸ್ಥಾಪಿಸಲು ನೆರವಾಗಿದೆ.

ಹಾಗೆ ದೋಡಿದರೆ, ಬೆಳಗಾವಿಯಲ್ಲಿ ಬಾವಿಗಳ ಸಂಖ್ಯೆ 3 ಸಾವಿರ ದಾಟುತ್ತದೆ.

ಬಾವಿ(ಶೇ) ಬೆಳಗಾವಿ ಪ್ರದೇಶದಲ್ಲಿ ಪಾಸಬಿ ಬಾವಿಗಳನ್ನೆಲ್ಲ ಸೇರಿಸಿಕೊಂಡರೆ 2 ಸಾವಿರ ಬಾವಿಗಳಿವೆ. ಬೆಳಗಾವಿಯಲ್ಲಿ ಅಂತರ್ಜಲದ ಮೊತ್ತಿಗೆ ಸರ್ಕಿಸ್ ಪೈಪ್ ವಾಟರ್(ಫೂಮಿಯ ಮೇಲ್ದರದಲ್ಲಿ ಎರಡು ಕಲ್ಬುಗಳ ನಡುವೆ ಹರಿಯುವ ನೀರು) ಕೂಡ ವಿಪುಲವಾಗಿರುವುದರಿಂದ ಫೂಮಿಯಿಂದ ಕೇವಲ 20 ಅಡಿ ಅಂತರದಲ್ಲಿ ನೀರಿನ ಒರೆಗೆ ಆರಂಭವಾಗುತ್ತದೆ. ಇದನ್ನು ಅರಿತುಕೊಂಡಿದ್ದ ಸರ್. ಎಂ.

ಸಹಜವಾಗಿಯೇ ಹೆಚ್ಚಾಯಿತು. ಆದರೆ ಈ ಬಾವಿಗಳಲ್ಲಿ ಒತ್ತುವಂತೆ ಬಾವಿಗಳ ನೀರು ಕಲುಷಿತಗೊಂಡಿದೆ. 1964ರಲ್ಲಿ ಬೆಳಗಾವಿಗೆ ಅಳವಡಿಸಲಾದ ಒಳಚರಂಡಿ ವ್ಯವಸ್ಥೆ ಇದಕ್ಕೆ ಕಾರಣ. ಬೆಳಗಾವಿಯಲ್ಲಿ ಒಳಚರಂಡಿ ವ್ಯವಸ್ಥೆ ಆರಂಭವಾದ ಹತ್ತೇ ವರ್ಷಗಳಲ್ಲಿ ನಗರದಲ್ಲಿ ಸಹಸ್ರಾರು ಬಾವಿಗಳ ಸಾರ್ವಜನಿಕವಾದ್ದು. ಈ ಕಲುಷಿತ ಬಾವಿಗಳ ನೀರಿನಿಂದಾಗಿ ರೋಗದಾಹಿನಿಗಳು ಹೆಚ್ಚಿದ್ದರಿಂದ ಕಲುಷಿತ ಬಾವಿಗಳನ್ನು

ಬಾವಿ ಎತ್ತು ಪ್ರತ್ಯಾಕ ಎಂದರೆ, ಬಾವಿ ಬಳಿಯಿರುವ ವ್ಯಕ್ತವನ್ನೂ ಸಹ 'ಬಾರಾ ಘಡಘಡೆ ಲೋ' ಎಂದೇ ಗುರುತಿಸಲಾಗುತ್ತದೆ. ಇಂತಹ ಬಾವಿಯ ನೀರು, ಒಳಚರಂಡಿಯ ನೀರು ಸೇರಿರುವುದರಿಂದ ಕಲುಷಿತವಾಯ್ತು. ಹೀಗಾಗಿ ಬಾವಿಯ ನೀರು ಬಳಸದಂತೆ ಬೆಳಗಾವಿ ಮಹಾನಗರ ಪಾಲಿಕೆ ಆದೇಶ ತಂದು ಬಾವಿ ಮುಚ್ಚಿಸಿತು. ಬಾರಾ ಘಡಘಡೆ ಬಾವಿಯ ಕೆಳಯೇ ಬೆಳಗಾವಿ ಸಾವಿರಾರು ಬಾವಿಗಳಿದ್ದು ಕೂಡ. ಹೀಗೆ

ಉದ್ದೇಶಿಸಿರುವ 19ನೇ ಬಾವಿ ಕಾಂಗ್ರೆಸ್ ಬಾವಿ.

ಪಾಲಿಕೆ ಕುದ್ರೀಕರಣ ಘಟಕ ಸ್ಥಾಪಿಸಲು ಅಯ್ಯುಕೊಂಡ ಬಾವಿಗಳೆಲ್ಲ ಬ್ರಹ್ಮವಿಷ್ಣು ಕಟ್ಟಿದ ಬಾವಿಗಳಾದರೆ, ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಮಾತ್ರ ಬ್ರಹ್ಮವಿಷ್ಣು ಕಾಲದಲ್ಲಿ ನಿರ್ಮಿಸಲಾದ, ಆದರೆ ಬ್ರಹ್ಮವಿಷ್ಣು ಕಟ್ಟಿದ ಪಾಕಿಸ್ತಾನ ಬಾವಿ.

ಸ್ವಾತಂತ್ರ್ಯ ಹೋರಾಟಕ್ಕೆ ಸಂಬಂಧಿಸಿದಂತೆ ಭಾರತದ ಭೂಪಟದಲ್ಲಿ ಬೆಳಗಾವಿಗೆ ಎಂದೂ ಅಳಿಯದ ಸ್ಥಾನ ಗಳಿಸಿಕೊಳ್ಳಿ ಓರಿಯಂನ್ನು 'ಕಾಂಗ್ರೆಸ್ ಬಾವಿ' ಹೊಂದಿದೆ.

ರಾಷ್ಟ್ರಪಿತ ಮಹಾತ್ಮ ಗಾಂಧೀಜಿ ಅಧ್ಯಕ್ಷರಾಗಿದ್ದ ಏಕೈಕ ಕಾಂಗ್ರೆಸ್ ಅಧಿವೇಶನ ಬೆಳಗಾವಿಯಲ್ಲಿ 1924ರಲ್ಲಿ ಡಿ. 26ರಿಂದ 28ರವರೆಗೆ ನಡೆಯಿತು. ಈ ಅಧಿವೇಶನಕ್ಕೆ ಆಗಮಿಸಿದ್ದ 5 ಲಕ್ಷ ಜನರಿಗೆ ಮೂರು ದಿನಗಳ ಕಾಲ ನೀರು ಪೂರೈಕೆ ಶ್ರೇಯಸ್ಸು ಕಾಂಗ್ರೆಸ್ ಬಾವಿಯದು.

ಮಹಾತ್ಮಾ ಗಾಂಧಿ ಅಧ್ಯಕ್ಷತೆಯಲ್ಲಿ ನಡೆದ 39ನೇ ಕಾಂಗ್ರೆಸ್ ಅಧಿವೇಶನದಲ್ಲಿ ಮೂರು ತಲೆದಾರನ್ನು ಪ್ರತಿನಿಧಿಸಿದ್ದ ಮೋತಿಲಾಲ್ ನೆಹರು, ಜವಾಹರಲಾಲ್ ನೆಹರು ಮತ್ತು ಆಗ 7 ವರ್ಷ ವಯಸ್ಸಿನ ಇಂದಿರಾ ಗಾಂಧಿ, ಸರಾಜರ್ ವೀರಭವಾನು ಪಟೇಲ್, ಸುಭಾಷ್‌ಚಂದ್ರ ಬೋಸ್ ಮೊದಲಾದ ರಾಷ್ಟ್ರೀಯ ನಾಯಕರು ಆಗಮಿಸಿದ್ದರು.

ಬೆಳಗಾವಿಯ ಈಗಿನ ಬೆಳಗಾವಿ ಪ್ರದೇಶದ ಬಳಿಯ ಈಗಿನ ಮೊದಲನೇ ರೈಲ್ವೆ ಗೇಟ್ ಬಳಿಯ ಮೈದಾನದಲ್ಲಿ ಅಧಿವೇಶನ ನಡೆಯಿತು. ಅಧಿವೇಶನ ನಡೆದ ವೇದಿಕೆಗೆ 'ವಿಜಯನಗರ ವೇದಿಕೆ' ಎಂದು ಹೆಸರಿಡಲಾಗಿತ್ತು ಹಾಗೂ ಅಧಿವೇಶನಕ್ಕೆ ಆಗಮಿಸುವ ಜನರಿಗೆ ವಸತಿ ಕಲ್ಪಿಸಲು 85 ಎಕರೆ ಪ್ರದೇಶದಲ್ಲಿ ತಾತ್ಕಾಲಿಕ ಡೇರೇಗಳನ್ನು ನಿರ್ಮಿಸಲಾಗಿತ್ತು.

ಈ ಅಧಿವೇಶನಕ್ಕೆ ಆಗಮಿಸುವ ಜನರಿಗೆ ನೀರು ಪೂರೈಕೆ ಸಲಹೆ ಉದ್ದೇಶದಿಂದ ಬಾವಿಯೊಂದನ್ನು ಆಗಿನ ಮುಖಂಡರು ಕಟ್ಟಿಸಿದರು. ಈ ಬಾವಿಯನ್ನು 6 ತಿಂಗಳ ಅವಧಿಯಲ್ಲಿ ಹಾಗೂ ಆಗಿನ ಕಾಲದಲ್ಲಿ 60 ಸಾವಿರ ರೂ. ವೆಚ್ಚದಲ್ಲಿ ನಿರ್ಮಿಸಲಾಗಿತ್ತು. ನಿರ್ಮಾಣವಾದಾಗ ಈ ಬಾವಿಯ ಸುತ್ತಳತೆ 40 ಅಡಿ ಆಗಲ ಮತ್ತು 50 ಅಡಿ ಅಳವಿತ್ತು.

ಇಂದಿರಾ ಗಾಂಧಿ ಬಾವಿಗೆ ಕಮಲೇಶ್ವರ ಬಾವಿ, ಪೂರೈಕೆಯ ಬಾವಿಯಿಂದಲೇ ಜಲದ ವಿತರಣೆ ಒಳಗಾಗಿದ್ದ ಕಾಂಗ್ರೆಸ್ ಬಾವಿಯ ಅಧಿಕಾರವನ್ನು ಕೆಲವು ವರ್ಷಗಳ ಬಾವಿಗೆ ಅಧಿಕಾರವಿತ್ತು.

ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಅಳವಡಿಸಿದ ಪ್ರದೇಶದಲ್ಲಿ ಇದ್ದು. ಈ ಪ್ರದೇಶದಲ್ಲಿ ಯು. ಕೆ.ಎಸ್. ಎಲ್ಲರ ಜನಿಯಲ್ಲಿ ಬಾವಿಗಳಿವೆ. ಹೀಗಾಗಿ ಸಾರ್ವಜನಿಕರು ಈ ಬಾವಿಯ ನೀರನ್ನು ಬಳಸುವುದು ಅಪರಾಧವಾಗಿತ್ತು. ಹೀಗಾಗಿ ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಅಳವಡಿಸಿದರೆ ಈ ಬಾವಿ ಸೇಳಿಸಲಾಗಿದೆ. ಕಮಲೇಶ್ವರ ಬಾವಿಯಲ್ಲಿ ಕುರುಕುಲದ ಕುರುಕುಲದವರಿಗೆ ಅತ್ಯಂತ ಪ್ರಾಮುಖ್ಯತೆ ಇತ್ತು.

ಎನ್.ಎಸ್.ಎಲ್.ಎಸ್. ಪರೀಕ್ಷೆಯಲ್ಲಿ ಸಮಾಧಾನ ವಿರುದ್ಧಿಗಳು ಅತ್ಯಂತ ಮಾಹಿತಿಗಳನ್ನು ಅಯ್ಯುಕೊಟ್ಟಿದ್ದು ಈ ಬಾವಿಯಲ್ಲೇ. ಈ ವೆರಿಸಿಕೆ ಎನ್ನು ಗಣನೀಯವಾಯಿತೆಂದರೆ, ಎನ್.ಎಸ್.ಎಲ್.ಎಸ್.

ವಿಶ್ವೇಶ್ವರಯ್ಯನವರು, 'ಬಾವಿಗಳ ಸರಣಿಯ ಮೂಲಕವೇ ಬೆಳಗಾವಿಯ ನೀರಿನ ಸಮಸ್ಯೆಯನ್ನು ಬಗೆಹರಿಸಬಹುದು' ಎಂದು ಓಡಕೆಲೆ ಜಲಾಶಯದ ಪ್ರಾಥಮಿಕ ವರದಿಯಲ್ಲಿ ಹೇಳಿದ್ದರು.

ಬೆಳಗಾವಿಯ ಪಾಸಬಾಗಿ ಹಾಗೂ ವರ್ತಮಾನ ಪ್ರದೇಶಗಳು ಹಿಂದೆ ಸಂಸ್ಥಾನಗಳಾಗಿದ್ದವು. ವೇರೆ ನೀರಿನ ಮೂಲ ಇಲ್ಲದ್ದರಿಂದ ಆಗಿನ ರಾಜರು ಬಾವಿಗಳನ್ನು ತೆಗೆಸಿದರು. ಅಂತರ್ಜಲ ವಿಪುಲವಾಗಿದ್ದು, ರಾಜರ ಸಹಕಾರವೂ ಸಿಕ್ಕಿದ್ದರಿಂದ ಬೆಳಗಾವಿಯಲ್ಲಿ ಬಾವಿಗಳ ಸಂಖ್ಯೆ

## ಬದುಕು ಭಾರವಾದವರಿಗೆ ಕಾಂಗ್ರೆಸ್ ಬಾವಿ

ಭವಿಷ್ಯದ ಭವಿಷ್ಯದ ಒಂದು ವಾರ ಬಾವಿಯ ಬಳಿಯಲ್ಲಿ ಪೊಲೀಸರ ಕಾವಲಿಗೇ ಹಾಕಲಾಗುತ್ತಿತ್ತು.

ವಿವಿಧ ರೀತಿಯ ದುರ್ಬಳಿಯಿಂದಾಗಿ 1979ರ ಹೊತ್ತಿಗೆ ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಕುಸಿದು, ಎರಡಾಗಲಿಂತಿತು. ಕಾಂಗ್ರೆಸ್ ಬಾವಿಯ ಮುಚ್ಚುವಂತೆ ತಂದು ರೋಟರಿ ಕೆಲಸವು ಸ್ವಾತಂತ್ರ್ಯ ಹೋರಾಟಗಾರರು 1980ರಲ್ಲಿ ಬಾವಿಯನ್ನು ದುರಸ್ತಿಗೊಳಿಸುವಂತೆ ಸರ್ಕಾರದವರೇ ನಡೆಸಿದರು.

ಮುಖ್ಯವೆಂತೆ ಅದೇಕೆ ಮಾಡಬೇಕಾಗಿ ಬಂತು.

### ಬಾರಾ ಘಡಘಡೆ ಬಾವಿ

ಸರ್ಕಿಸ್ ಪೈಪ್ ವಾಟರ್ ಕಲುಷಿತಗೊಂಡಿದ್ದರೆ ಪರಿಣಾಮವಾಗಿ ಮುಚ್ಚಿಹಾಕಲಾದ ಬೆಳಗಾವಿಯ ಅತಿ ದೊಡ್ಡ ಬಾವಿ ಕಿರೋಗ್ಯರ್ ರಸ್ತೆ ಬಳಿಯಿರುವ 'ಬಾರಾ ಗಡಗಡೆ' ಬಾವಿ.

ಘಡಘಡೆ ಎಂದರೆ 'ತಿರುಗಣಿ'(ರಾಟ) ಎಂದರ್ಥ. ಈ ಬಾವಿಗೆ 12 ತಿರುಗಣಿಗಳಿದ್ದುದರಿಂದ ಇದು ಬಾರಾ ಘಡಘಡೆ ಬಾವಿ ಎಂದೇ ಪ್ರಸಿದ್ಧವಾಗಿತ್ತು. ಈ

ಬಾವಿಯನ್ನು ಯೋಜಿಸಿದ ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಪಾಲಿಕೆ. ಈ ಬಾವಿಗೆ ಕಾಂಗ್ರೆಸ್ ಕಟ್ಟಿ ಸುಸ್ಥ ಬಣ್ಣ ಬಳಿಯಿತು. ಆದರೆ ಬಾವಿಯ ನೀರಿನ ಸೆಲೆಯನ್ನು ಸರಿಯಾಗಿ ತಿಳಿಯಲೇ ಕಾಂಗ್ರೆಸ್ ನಿರ್ಮಿಸಿದ್ದರಿಂದ ಬಾವಿಯ ಮೇಲ್ದರದಲ್ಲಿ ನೀರಿನ ಸೆಲೆಯೇ ಒತ್ತು ಹೋಗಲೇ ಇದ್ದರಿಂದಾಗಿ ಬಾವಿಯ ಅಳವಡಿಸುವ ಏಕೈಕ ನೀರಿನ ಸೆಲೆಯನ್ನು ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಅಳವಡಿಸಿತ್ತು.

ಕಾಂಗ್ರೆಸ್ ಬಾವಿಯ ನೀರಿನ ಸರಗು ಸಮರ್ಪಕ ತಂದು ಇದ್ದರೂ ಪಾಕಿಸ್ತಾನ ಕಾರಣಗಳಿಗಾಗಿ ಈ ಬಾವಿಗೆ ಕುದ್ರೀಕರಣ ಘಟಕವನ್ನು ಅಳವಡಿಸುವ ನಿರ್ಧಾರವನ್ನು ಪಾಲಿಕೆ ತೆಗೆದುಕೊಂಡಿದ್ದು, ಈಗ ಬಾವಿಯ ಕೊಳವೆ ನೀರನ್ನು ಮೊದಲಾಹುವ ಕಾರ್ಯ ಪ್ರಗತಿಯಲ್ಲಿದೆ.

ನಗರದಲ್ಲಿ 3 ಸಾವಿರಕ್ಕೂ ಹೆಚ್ಚಿದ್ದ ಬಾವಿಗಳ ಸಂಖ್ಯೆ ಈಗ ಒಂದು ಸಾವಿರಕ್ಕೂ ಕಡಿಮೆಯಾಗಿದೆ.

ಸಾಗರಿಕರಿಗೆ ಸೌಲಭ್ಯ ನೀಡಲು ಆರಂಭಿಸಿದಾಗ ಯೋಜನೆಯೊಂದು(ಒಳಚರಂಡಿ) ಕಡಿಯುವ ನೀರಿಗೆ ಕತ್ತರ ಹಾಕಿದ ವಿಚಿತ್ರ ಸ್ವಾವೇಶವನ್ನು ಬೆಳಗಾವಿಗದು ಎದುರಿಸುತ್ತಿದ್ದಾರೆ.

ಕಾಂಗ್ರೆಸ್ ಬಾವಿ ಬೆಳಗಾವಿ ಮಹಾನಗರ ಪಾಲಿಕೆ ನೀರು



# Kannad Prabha, June 1, 2003

“Water in your locality – then why are you thirsty?”

ಇದೇ ಬೆಳಗಾವಿಗಿಂತರಂತರ ನೀರು ಪೂರೈಸಬಲ್ಲ ಸತಿಹಾಸಿವೆ ಬಾವಿಗಳು

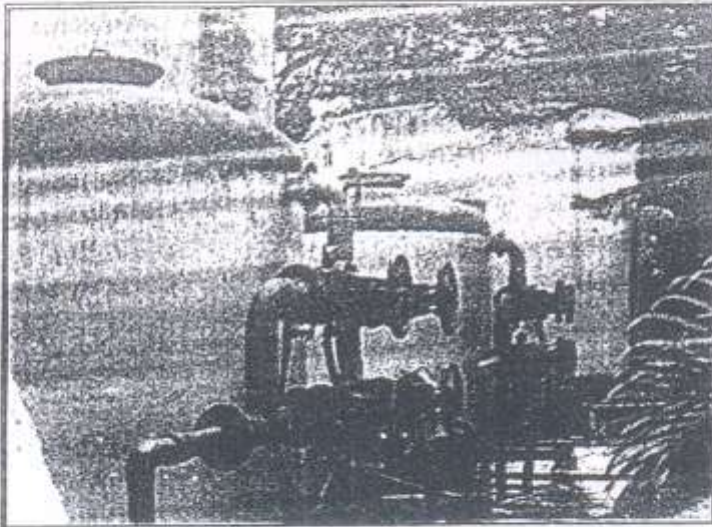
## ಮಡಲಲ್ಲೇ ನೀರು: ಮತ್ತೇಕೆ ದಾಹ?

ಎಂ.ಕೆ.ಹೆಗಡೆ

ಕನ್ನಡಪ್ರಭ ವಾರ್ತೆ, ಬೆಳಗಾವಿ, 2003

‘ಬೆಳಗಾವಿ ನಗರದಲ್ಲಿ ಟ್ರಿಟೇಶ್ ಕಾಲದಲ್ಲಿ ನಿರ್ಮಿಸಲಾಗಿರುವ ಬಾವಿಗಳೇ ನಗರಕ್ಕೆ ಪರ್ಷ್ ಪೂರ್ತಿ ಸಾಕಾರವನ್ನು ನೀರನ್ನು ಒದಗಿಸಬಲ್ಲ ಸಾಮರ್ಥ್ಯ ಹೊಂದಿದೆ’ ಎನ್ನುವ ಕುತೂಹಲವಾಂಸಿ ಅಂಶವೊಂದು ಬೆಳಕಿಗೆ ಬಂದಿದೆ.

ಬೆಳಗಾವಿ ನಗರದಾದ್ಯಂತ ಇರುವ ಟ್ರಿಟೇಶ್ ಬಾವಿಗಳನ್ನು ಪರಿಷ್ಕರಣೆಗೊಳಿಸಿದರೆ ಅವು ಬೆಳಗಾವಿ ನಗರಕ್ಕೆ ಎಂದೂ ಕೊರತೆಯಾಗದಂತೆ ನೀರನ್ನು ಪೂರೈಸಬಲ್ಲವು. ಇದಕ್ಕಾಗಿ ಮಾಡಬೇಕಾದ ವ್ಯಯ ಕೂಡ ಅತ್ಯಲ್ಪ ಮತ್ತು ಅತ್ಯಂತ ಕಡಿಮೆ ಅವಧಿಗಳಲ್ಲಿ ಇಂತಹ ಬೃಹತ್ ಹಾಗೂ



ಬೆಳಗಾವಿಯ ಶಿವಾಜಿ ಗಾರ್ಡನ್‌ನಲ್ಲಿರುವ ಟ್ರಿಟೇಶ್ ಬಾವಿಯನ್ನು ಪುನರ್ಬೀಜನಗೊಳಿಸಿರುವುದು /ಕನ್ನಡಪ್ರಭ ಚಿತ್ರ

ವಿಸ್ತೃತ ವ್ಯವಸ್ಥೆ ಮಾಡಲು ಸಾಧ್ಯವಿಲ್ಲದಿದ್ದರೆ ವಿಷಯ ಪ್ರಾಯೋಗಿಕವಾಗಿ ಅಳವಡಿಸಿ ನೋಡಬೇಕು ಎಂದು ಬಾವಿಗೇ

‘ಅನತ್ಯಕತೆಯೇ ಸಂಶೋಧನೆಯ ತೀವ್ರ ಕೊರತೆಯಾಗಿ, ಪರ್ಯಾಯ ಮೂಲ’ ಎನ್ನುವಂತೆ ನಗರಕ್ಕೆ ನೀರಿನ ಮಾರ್ಗವೇ ಇಲ್ಲದೆ ಸಂಕಷ್ಟಕ್ಕೆ ಸಿಲುಕಿ

ದಾಗ ಮಹಾನಗರ ಪಾಲಿಕೆಯ ಎಂಜಿನಿಯರ್ ಒಬ್ಬರು ಇಂತಹ ಮಹತ್ವಪೂರ್ಣ ಕೆಲಸವನ್ನು ನಡೆಸಿದ್ದಾರೆ. ಇದೇ ನಗರಕ್ಕೆ ಒಂದು ವರ್ಷ ಟ್ರಿಟೇಶ್ ಮೂಲಕ ನೀರು ಒದಗಿಸಲು ವ್ಯಯ ಮಾಡುವಷ್ಟು ಹಣವನ್ನು ಒಮ್ಮೆ ಖರ್ಚು ಮಾಡಿದರೆ ನಗರದಲ್ಲಿರುವ 17 ಟ್ರಿಟೇಶ್ ಬಾವಿಗಳನ್ನು ಪೂರ್ಣ ಪ್ರಮಾಣದಲ್ಲಿ ಸುವ್ಯವಸ್ಥಿತಗೊಳಿಸಬಹುದು ಎನ್ನುವ ವಿಷಯವನ್ನು ಅವರು ಹೊರಗೆಡವಿದ್ದಾರೆ. ಈ ಯೋಜನೆಯನ್ನು ಅವರು 1995ರಲ್ಲಿಯೇ ಆರಂಭಿಸಿ, ತಾಂತ್ರಿಕ ಕಾರಣದಿಂದಾಗಿ ಪೂರ್ಣಗೊಳಿಸಲು ಗಡೆ ನಿಲ್ಲಿಸಿದ ವಿಷಯ ಕೂಡ ಈಗ ಬಹುರಂಗವಾಗಿದೆ. ಬೆಳಗಾವಿ ಮಹಾನಗರ ಪಾಲಿಕೆಯಲ್ಲಿ 21 ವರ್ಷಗಳಿಂದ ಎಂಜಿನಿಯರ್ ಆಗಿರುವ ಆರ್.ಎಸ್. ನಾಯಕ ಅವರು 1995ರಲ್ಲಿ ಇಂತಹ ಯೋಜನೆಗೆ ಕೈ ಹಾಕಿದ್ದರು.

5ನೇ ಪುಟಕ್ಕೆ

## ಮಡಲಲ್ಲೇ ನೀರು: ಮತ್ತೇಕೆ ದಾಹ?

(1ನೇ ಪುಟದಿಂದ)

ನಗರದ 9 ಬಾವಿಗಳನ್ನು ಜೀರ್ಣೋದ್ಧಾರಗೊಳಿಸಿ, ಇಂದಿಗೂ ಬೆಳಗಾವಿ ನಗರದ ಜೈವಿಕ ಭಾಗದಲ್ಲಿರುವ ಜನತೆ ಸಂತೃಪ್ತಿ ಪಡುವಷ್ಟು ಬಾವಿಯ ನೀರು ಪಡೆಯುವಂತೆ ಮಾಡಿದ್ದಾರೆ. ಆದರೆ 1999ರಲ್ಲಿ ಅವರು ನೀರು ಪೂರೈಕೆ ವಿಭಾಗದಿಂದ ಬೇರೆ ವಿಭಾಗಕ್ಕೆ ವರ್ಗವಾದ ನಂತರ ಈ ಯೋಜನೆ ಪೂರ್ಣ ನೆಲಕಚ್ಚಿ ಹೋಯಿತು.

‘ಯೋಜನೆಯನ್ನು ಮುಂದುವರಿಸಿ, ಸಮರ್ಪಕವಾಗಿ ನಿರ್ವಹಣೆ ಮಾಡಿದರೆ ನಗರ ಎಂದಿಗೂ ನೀರಿನ ಕೊರತೆ ಎದುರಿಸುವ ಪರಿಸ್ಥಿತಿಯೇ ಬಾರದು’ ಎನ್ನುವುದನ್ನು ರವೀಂದ್ರ ನಾಯಕ ಅತ್ಯಂತ ಪ್ರಭಲವಾಗಿ ಪ್ರತಿಪಾದಿಸುತ್ತಾರೆ. ‘1995ರಲ್ಲಿ ಬೆಳಗಾವಿ ನಗರ ತೀವ್ರ ನೀರಿನ ಸಮಸ್ಯೆ ಎದುರಿಸುವ ಸ್ಥಿತಿ ಇತ್ತು. ನಾಳೆ ಎಂದರೆ ನೀರಿಲ್ಲ ಎನ್ನುವ ತೀವ್ರ ಸಂಕಷ್ಟ ಪರಿಸ್ಥಿತಿಗೆ ನಾವು ತಲುಪಿದ್ದೆವು. ಆಗ ನನಗೆ ನಗರದಲ್ಲಿರುವ ಬಾವಿಗಳ ನೆನಪಾಯಿತು. ತಕ್ಷಣ ಆ ಕುರಿತು ಅಧ್ಯಯನ ನಡೆಸಿದೆ. ತೀವ್ರ ಗತಿ ಇಲ್ಲದಿದ್ದರೂ ಕಾರ್ಯರೂಪಕ್ಕೂ ಇಳಿದೆ. ನಮ್ಮ ನೀರಿನ ಸಮಸ್ಯೆಗೂ ಮೀರಿ ಅವುಗಳಿಂದ ಪ್ರಯೋಜನವಾಯಿತು’ ಎಂದು ನಾಯಕ ಹೇಳುತ್ತಾರೆ.

ನಾಲ್ಕನೇ ಹಂತದ ಕೆಲಸವು ಈ ಹಂತದ ಕೆಲಸವನ್ನು ಮುಂದುವರಿಸುತ್ತದೆ. ಇದರ ಜೊತೆಗೆ ನಗರ ಸ್ವಚ್ಛತೆ ಮತ್ತು ಸುರಕ್ಷತೆ ಕಾರ್ಯಗಳನ್ನು ಕೂಡಾ ನಡೆಸಲಾಗುತ್ತಿದೆ. ಈ ಹಂತದ ಕೆಲಸವು ಈ ಹಂತದ ಕೆಲಸವನ್ನು ಮುಂದುವರಿಸುತ್ತದೆ.

ಮಾನ್ಯ ಮಂತ್ರಿಗಳು ಈ ಹಂತದ ಕೆಲಸವನ್ನು ಮುಂದುವರಿಸುತ್ತಾರೆ. ಇದರ ಜೊತೆಗೆ ನಗರ ಸ್ವಚ್ಛತೆ ಮತ್ತು ಸುರಕ್ಷತೆ ಕಾರ್ಯಗಳನ್ನು ಕೂಡಾ ನಡೆಸಲಾಗುತ್ತಿದೆ. ಈ ಹಂತದ ಕೆಲಸವು ಈ ಹಂತದ ಕೆಲಸವನ್ನು ಮುಂದುವರಿಸುತ್ತದೆ.

# ಬಾವಿಗಳಿಗೆ ಮರುಜೀವ ಬೆಳಗಾವಿಗೆ ನೀರ ನೆಮ್ಮದಿ

ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

ಬಾವಿಗಳಿಗೆ ನೀರ ನೆಮ್ಮದಿ... ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.



ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.



# Rebirth of wells. Ample water in Belgaum City



(1ನೇ ಭಾಗದಿಂದ)

## ... ಬೆಳಗಾವಿಗೆ ನೀರ ನೆಮ್ಮದಿ

"ಜಿಲ್ಲಾ ಕಾರ್ಯನಿರತರ ಅಧಿಕಾರಿಗಳ ಸಹಾಯದಿಂದ ನಗರ ಸ್ವಚ್ಛತೆ ಮತ್ತು ಸುರಕ್ಷತೆ ಕಾರ್ಯಗಳನ್ನು ನಡೆಸಲಾಗುತ್ತಿದೆ. ಇದರ ಜೊತೆಗೆ ನಗರ ಸ್ವಚ್ಛತೆ ಮತ್ತು ಸುರಕ್ಷತೆ ಕಾರ್ಯಗಳನ್ನು ಕೂಡಾ ನಡೆಸಲಾಗುತ್ತಿದೆ. ಈ ಹಂತದ ಕೆಲಸವು ಈ ಹಂತದ ಕೆಲಸವನ್ನು ಮುಂದುವರಿಸುತ್ತದೆ."



ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

ಜನ ನೈರಸ್ತಿ ಸಮಾಜ ಸೇವಾ ಸಂಸ್ಥೆಯವರು ಎಲ್ಲಾ ಕಡೆಗೆ ಬಾವಿಗಳನ್ನು ಕೊಡುತ್ತಿದ್ದು ಅದರ ಅರ್ಥವಾಗಿದೆ.

# Report in Pudhari Marathi Daily Picture Showing Debris Removed from well

शहराला १ कोटी ३५ लाख गॅलन पिण्याच्या पाण्याची गरज

## भीषण पाणीटंचाईमुळे अडगळीत पडलेल्या सार्व. विहिरींना भलतेच महत्त्व

बेळगांव शहराची वाढती लोकसंख्या लक्षात घेता शहराला १ कोटी ३५ लाख गॅलन पाण्याची गरज असून लक्ष्मीटेक जलशुद्धीकरण प्रकल्पाची पाणी पुरवण्याची क्षमता ९० लाख गॅलन आहे. बेळगांव महापालिकेने रोटरी व इंड्राल यांच्या सहकार्याने शहरातील जुन्या विहिरी स्वच्छ करून त्या विहिरींचे पाणी नागरिकांना पुरवण्याचा निर्णय घेतल्याने शहरातील भीषण पाणीटंचाई दूर होण्यास मदत झाली असून अडगळीत पडलेल्या सार्व. विहिरींना त्यामुळे भलतेच महत्त्व प्राप्त झाले आहे.

बेळगांव महापालिकेने शहरातील विहिरींच्या पाण्याचे शुद्धीकरण करून ते पाणी नागरिकांना पुरवण्याची

### विशेष वृत्त

महात्वाकांक्षी योजना गेल्या दोन वर्षांपूर्वी हाती घेऊन त्याची कार्यवाही करण्याने शहरातील भीषण पाणीटंचाईवर मात करण्याचा प्रयत्न केला.

राकसकोप जलाशयामधून बेळगांव शहराला पाणीपुरवठा केला जातो. इ.स. १९९५ साली जलाशयाची पाण्याची पातळी एकदम कमी झाली होती. त्यासाठी शहरातील जुन्या विहिरी स्वच्छ करून पाणी पुरवठा करण्याची योजना रचविण्यात आली. सदर योजना रचवून आसपासच्या भागातील लोकांना शुद्ध पाणी पुरविले. कापिलेश्वर आणि मठ गल्ली येथील विहिरी स्वच्छ करून त्या

भागातील लोकांना सन १९९५ सालापासून पाणी पुरवठा करण्यात येत आहे.

सदर योजनेमार्फत या विहिरींवर जलशुद्धीकरण प्रकल्प बसविण्यात आला आहे आणि त्यापासून दररोज ८ कोटींना १० लाख गॅलन पाणीपुरवठा केला जातो. या योजनेपासून जवळपास ३५ हजार लोकांना पाणी पुरवठा होतो. सदर विहिरीतील जलशुद्धीकरण प्रकल्पापुढे पाणी पुरवठा होत असल्याने पुढील १८ जुन्या विहिरींवर जलशुद्धीकरण प्रकल्प बसविण्याची योजना पालिकेने आखली आहे.

कापिलेश्वर विहीर, मठ गल्ली विहीर, वीरभद्रनगर विहीर, शेटी गल्ली विहीर, नाझर कॅम्प विहीर या विहिरींमधील गाळ काढून त्या स्वच्छ करण्यात आल्या व त्यावर जलशुद्धीकरण प्रकल्प बसवून या विहिरींचे पाणी नागरिकांना उपलब्ध करून दिले असून उर्वरित विहिरींचा गाळा काढून ते पाणी नागरिकांना उपलब्ध करून देण्याची योजना आहे. त्या विहिरींची नावे पुढीलप्रमाणे- गुडरोड रोड विहीर, रपत गल्ली विहीर, नवाग्रह देवळा शेजारील विहीर, कोनवाळ गल्ली विहीर, शिंदकाडी सुचाप मार्केट, तेगरीन गल्ली वडगांव, अळवण गल्ली, राहापूर, लिंगराज कॉलेज कॅम्प, शिवाजी उद्यान, सेक्टर नं. १०, महातेज नगर विहीर, गोंधळी गल्ली विहीर, नगर पोलिस कॉलनी विहीर, कॅम्प्रेस रस्ता विहीर अशी आहेत.

यापुढे आणखीन चार विहिरींना जलशुद्धीकरण प्रकल्प बसवण्याचे काम हाती घेतले आहे. १) खडक गल्ली, २) शिवाजीनगर, ३) माळ मार्केट, ४) गुडरोड रोड. उपरोक्त प्रकल्प रोटरी क्लब व इंड्राल



शहरात भीषण पाणीटंचाई जाणवू लागल्याने अडगळीत पडलेल्या सार्व. विहिरींना भलतेच महत्त्व आले असून खडक गल्लीतील अशाच एका विहिरीची साफसफाई करण्यात येत असतानाचे छायाचित्र.

यांच्या सहकार्याने हाती घेण्यात आले असून त्यामुळे सुमारे १५ हजारहून अधिक लोकवस्ती असलेल्या वसाहतींना पाण्याचा लाभ होणार आहे. यासाठी साडे चार लाख रुपये खर्च अपेक्षित आहे. सन १९९६-९७ मध्ये १० विहिरींवर आणि सन १९९७-९८ सलामध्ये ८ विहिरींवर जलशुद्धीकरण प्रकल्प बसविण्याची योजना आखण्यात आली होती.

बेळगांव शहरात एकूण ४७३ कुपनलिका खोदण्यात आल्या आहेत. विस्तारित नागामध्ये अंदाजे ४० कुपनलिका असून त्यापासून ३' ११" इंच पाणी पुरवठा होत असतो. त्यामधून २०

कुपनलिकांना जलशुद्धीकरण प्रकल्प बसविले असून त्यापासून ३५ हजार लोकांना पाणीपुरवठा केला जातो. अंदाजे एक लाख ते एक लाख पन्नास हजार रु. इतके योजनेस खर्च असून एकूण खर्च ३० लाख झाला आहे. राहिलेल्या २० कुपनलिकांना जलशुद्धीकरण प्रकल्प बसवण्याची योजना असून अपेक्षित खर्च ३० लाख येईल. यापासून नवीन वसाहतींना पाणी पुरवठा करण्याचा निर्णय घेण्यात आला आहे.

पाण्याचा वाढता गैरवापर पाण्याचा वाढता गैरवापर होत असल्याने शहरात भीषण पाणीटंचाई निर्माण झाली आहे. शहर व उपनगरात

वाढत्या वसाहती व बांधण्यात येणाऱ्या टोलेजिंग इमारतींच्या बांधकामांसाठी पिण्याच्या पाण्याचा फार मोठ्या प्रमाणात वापर होत असल्याच्या असेंख तक्रारी आहेत. दिवसेंदिवस विहिरींच्या पाण्याचा वापर कमी होत चालला असून महाद्वाररोड, फुलबाग गल्ली, तानाजी गल्ली, कापिलेश्वर रोड, शाखीनगर, भांडुर गल्ली, तारिस्तदार गल्ली आदी शहराच्या सखल भाग असलेल्या भागात पाण्याची टंचाई अधिक जाणवत असून येथील विहिरीत धुयारी नटारातील सोडपाणी शिरल्याने त्या विहिरींच्या उपयोग करणे नागरिकांनी बंद केले आहे. त्याचबरोबर तेथे पाण्याचा पुरेसा दाब नसल्याने पाण्याचा अपुवा पुरवठा होतो

अशी ओरड सतत या भागातील नागरिकांची आहे.

शहराला दररोज सध्या ५० लाख गॅलनचा पाणीपुरवठा होत असून पूर्वी ३ पाण्याचा पुरवठा ७० लाख गॅलन होत राकसकोप जलाशयातील पाण्यावर पातळी कमालीची धटल्याने त्याचबरोबर गेल्या वर्षी पुरेसा पाऊस न झाल्याने परिस्थिती उद्भवली असल्याची माहिती पालिकेचे उप कार्यकारी अधिकारी आम एस. नाईक यांनी दे. पुढारीशी बोलतात दिली.

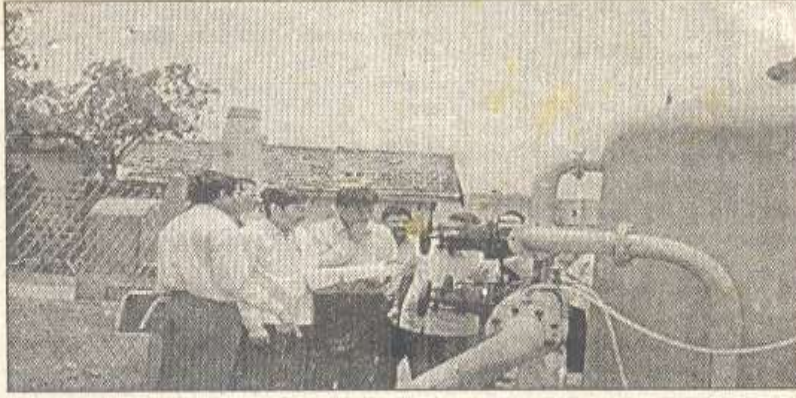
त्याचबरोबर जुने बेळगांव सारखे उपनगरात पाणीटंचाई जाणवू लागले असून येथील नागरिक लगतच मळ्यातील विहिरींचे पाणी वापरत आहेत पाणी लांब अंतरावरून आणले जात

### -प्रशांत बर्डे

आहे. यासाठी काही विणक कामगारांना पाण्यासाठी काम चुकवू राहणे लागत आहे.

तेगरीन गल्ली वडगांव येथील एक सार्व. विहिरीवर पंप बसवून ते पाण नागरिकांसाठी उपलब्ध करून द्यावे अशी मागणी या भागातील नगरसेवक सुरेश किशोर यांनी महापौर गोविंदराव राऊत यां आघुक्त यु. वी. मुदगल यांना एक लेखी निवेदनाद्वारे केली आहे. निवेदनाचा स्वीकार करून लवकर कारवाई करण्याचे आश्वासन महापौर राऊत यांनी दिले.

# Officers from Hubli-Dharwad Corporation Visiting project site.



हुबळी- धारवाड मनपा अधिकारी शिष्टमंडळाला श्री. आर. एस. नाईक कपिलेश्वर पाणीशुध्दीकरण प्रकल्पाविषयी माहिती देत असताना

## हुबळी- धारवाड मनपा अधिकाऱ्यांची लघुपाणी शुध्दीकरण प्रकल्पास भेट

बेळगांव, दि. ८ (प्रतिनिधी)- हुबळी- धारवाड महानगरपालिकेच्या अधिकारीवर्गाच्या एका शिष्टमंडळाने काल रोजी बेळगांव मनपाला भेट दिली आणि बेळगांव मनपाच्यावतीने कपिलेश्वर, मठ गल्ली, शेड्डीगल्ली व विरभद्रनगर येथील सार्वजनिक विहिरीवर बसविण्यात आलेल्या लघुपाणी शुध्दीकरण प्रकल्पांची पाहणी करून त्याविषयीची संपूर्ण तांत्रिक माहिती घेतली.

शुध्दीकरण होऊन आलेल्या पाण्याची गुणवत्ता व चव तपासून पाहिली आणि त्यानी समाधान व्यक्त केले. सध्या हुबळी- धारवाड शहराना तीन दिवसापासून एकदा दर डोई २४ गॅलन इतके पिण्याचे पाणी पुरविले जाते. तरीही तेथील नागरिक या पाणीपुरवठ्यासंदर्भात पूर्णपणे समाधानी असून त्यांची कसलीही तक्रार नाही. मलप्रभा, नीरसागर, गुंडकल या तीन ठिकाणांहून पाणीपुरवठा होतो अशी

बेळगांव मनपाच्यावतीने श्री. एम. गुरुराव व सहाय्यक अभियंते श्री. आर. एस. नाईक यानी हुबळी- धारवाड मनपा अधिकाऱ्यांना हवी असलेली सर्व माहिती सविस्तर दिली.

हुबळी- धारवाड मनपा अधिकारी शिष्टमंडळाने श्री. एम. बी. पय्याप्पोडर सुपर. इंजि. डि. नं. १ चे श्री. एस. एल. खोस्ती, नं. २ चे श्री. एस. बी. कलाल, नं. ३ चे श्री. एन. एच. बेनतूर एक्झि. इंजि. धारवाड विभागाचे श्री. आर. जे. शिवराम मूर्ती, श्री. एस. बी. गुंजाळ, सहाय्यक अभियंते श्री. एस. जी. लोखंडे, श्री. जमादार या अधिकारी वर्गाचा समावेश होता.



De watering work under progress.





# Reports from Tarun Bharat Marathi Daily on Inauguration of Units.

## वीरभद्रनगर जलशुद्धीकरण प्रकल्पाला रोटरी इंटरनॅशनलचे भरीव सहाय्य

बेळगांव दि. १४ (प्रतिनिधी) - वीरभद्रनगर येथील जलशुद्धीकरण प्रकल्पाला रोटरी इंटरनॅशनलने २६,००० डॉलर्सची मदत देऊन येथील रोटरी क्लब बेळगांव साऊथच्या सामाजिक कार्याला चालना दिलेली आहे. शहरातील पाण्याची टंचाई लक्षात घेऊन रोटरी क्लब बेळगांव साऊथने या भागातील नागरिकांना शुद्ध व निर्जंतूक पाणी देण्यासाठी मनपाच्या सहकार्याने ही योजना राबविली हे खरोखरच गौरवार्थक कार्य आहे, असे उद्गार रोटरी क्लबचे पी.डी.जी. श्री. एन. के. कुलकर्णी यांनी बोलताना काढले.

वीरभद्रनगर येथील जलशुद्धीकरण प्रकल्पाचे उद्घाटन लंडनमधील ॲम्बेले रोटरी क्लबचे अध्यक्ष श्री. ग्लेन पॅरी व महापौर सौ. विजयालक्ष्मी चोपडे यांच्या हस्ते आज सकाळी १०.३० वा. करण्यात आले. त्यावेळी श्री. एन. के. कुलकर्णी हे प्रमुख पाहुणे या नात्याने बोलत होते. अध्यक्षस्थानी महापौर सौ. विजयालक्ष्मी चोपडे या होत्या.

प्रारंभी रोटरी क्लब बेळगांव साऊथचे अध्यक्ष श्री. प्रकाश कामत यांनी स्वागत करून पाहुण्यांना पुष्पहार अर्पण केले. मनपा आयुक्त श्री. डी. बी. नायक यांनी पाहुण्यांना पुष्पहार अर्पण करून त्यांचे स्वागत केले.

श्री. बबन देशपांडे आपल्या प्रास्ताविक भाषणात बोलताना म्हणाले, रोटरी इंटरनॅशनलने संपूर्ण जग पोलीओ मुक्त करण्यासाठी पोलीओची लस उपलब्ध करून दिलेली आहे.

लंडन येथील ॲम्बेले रोटरी क्लबचे अध्यक्ष श्री. ग्लेन पॅरी यावेळी बोलताना म्हणाले, रोटरी क्लब बेळगांव साऊथने हा जलशुद्धीकरण प्रकल्प राबवून नागरिकांना शुद्ध पाणी पुरवठा करण्याची योजना आखली. अनेक क्लब शैक्षणिक योजनेवर पैसे खर्च करतात. तर माझ्या क्लबने ही माणुसकीची योजना राबविलेली आहे.

अध्यक्षस्थानावरून बोलताना महापौर सौ. विजयालक्ष्मी चोपडे म्हणाल्या, दरवर्षी उन्हाळ्यामध्ये बेळगांव शहराला पाण्याची टंचाई भासत होती. मनपा आयुक्त श्री. डी. बी. नायक यांनी हे जलशुद्धीकरण प्रकल्प हाती घेऊन पाण्याची टंचाई दूर करण्याचा प्रयत्न केला आहे.

यावेळी उपमहापौर सर्वश्री शिवाजी सुंठकर, मनपा आयुक्त डी. बी. नायक, माजी महापौर मालोजीराव अष्टेकर, संभाजी पाटील, नगरसेवक नारायणसिंग रजपूत, कल्लाम्पा प्रधान व नगरसेविका सौ. लालन प्रभू यांची समयोचित भाषणे झाली.

वीरभद्रनगर येथील या जलशुद्धीकरण प्रकल्पासाठी रोटरीने तीन लाख रु., मनपाने फेन्सिंग पार्सप लाईन कनेक्शन, विहिरीची टंची व प्रिस्स यासाठी एकूण २ लाख १५ हजार रु. खर्च केले आहेत. तर बिल्डींगची रिपेरी पी.डब्ल्यू.डी.ने केलेली आहे. या प्रकल्पामुळे वीरभद्रनगर क्रॉसिंग, पोलीस मुख्यालय, शिवाजीनगर, महंतेशनगर येथील वीस हजार लोकसंख्येला पाणीपुरवठा होणार आहे.

या कार्यक्रमाला नगरसेवक, नगरसेविका व नागरिक मोठ्यासंख्येने उपस्थित होते.



रोटरी गल्ली येथील विहिरीवर बसविण्यात आलेल्या जलशुद्धी प्रकल्पाचे उद्घाटन करित असताना जिल्हाधिकारी श्री. प्रदीपसिंग खरोला, बाजूला उपमहापौर श्री. शिवाजी सुंठकर, श्री. आर. एस. नाईक

## पाणीपुरवठा, स्वच्छता हेच पालिकेचे कार्य : जिल्हाधिकारी

बेळगांव, दि. १४ (प्रतिनिधी) - 'आज सकाळपासून आतापर्यंत अनेक लोकोपयोगी प्रकल्पांचे उद्घाटन करण्याची संधी मला मिळाली. याचे श्रेय मनपाकडे जाते. या प्रकल्पांच्या उभारणीमुळे मनपा या कार्याबद्दल मी समाधानी आहे. मुबलक पाणीपुरवठा व स्वच्छता राखणे ही नगरपालिकांची अत्यावश्यक सेवा होय.

या नगरपालिका या सेवा पुरवणीपणे राबवितात त्याच खात्या उल्फुट नगरपालिका होय, स्वच्छतेची अपेक्षा फक्त मनपाकडूनच करणे चुकीचे आहे. नागरिकांनीही आपापला परिसर स्वच्छ ठेवण्याची जबाबदारी उचलली पाहिजे', असे आवाहन जिल्हाधिकारी प्रदीपसिंग खरोला यांनी केले.

## शुद्धीकरण प्रकल्पाला नचे भरीव सहाय्य

लंडन येथील ॲम्बेले रोटरी क्लबचे अध्यक्ष श्री. ग्लेन पॅरी यावेळी बोलताना म्हणाले, रोटरी क्लब बेळगांव साऊथने हा जलशुद्धीकरण प्रकल्प राबवून नागरिकांना शुद्ध पाणी पुरवठा करण्याची योजना आखली. अनेक क्लब शैक्षणिक योजनेवर पैसे खर्च करतात. तर माझ्या क्लबने ही माणुसकीची योजना राबविलेली आहे.

अध्यक्षस्थानावरून बोलताना महापौर सौ. विजयालक्ष्मी चोपडे म्हणाल्या, दरवर्षी उन्हाळ्यामध्ये बेळगांव शहराला पाण्याची टंचाई भासत होती. मनपा आयुक्त श्री. डी. बी. नायक यांनी हे जलशुद्धीकरण प्रकल्प हाती घेऊन पाण्याची टंचाई दूर करण्याचा प्रयत्न केला आहे.

यावेळी उपमहापौर सर्वश्री शिवाजी सुंठकर, मनपा आयुक्त डी. बी. नायक, माजी महापौर मालोजीराव अष्टेकर, संभाजी पाटील, नगरसेवक नारायणसिंग रजपूत, कल्लाम्पा प्रधान व नगरसेविका सौ. लालन प्रभू यांची समयोचित भाषणे झाली.

रोटरीगल्ली येथील सार्वजनिक विहिरीवर मनपाच्यावतीने जलशुद्धीकरण प्रकल्प उभारण्यात आला आहे. त्याचे उद्घाटन आज दुपारी जिल्हाधिकाऱ्यांच्या हस्ते करण्यात आले. त्याप्रसंगी सडकल गल्ली येथे आयोजित समारंभात ते बोलत होते.

रोटरीगल्ली येथील जलशुद्धीकरण प्रकल्पाची 'कोनशिला' सुध्दा कानडीमध्येच होती. तिचे अनावरण जिल्हाधिकाऱ्यांच्या हस्ते करण्यात आले. त्यावेळी उपस्थितांच्या ध्यानात ही गोष्ट आली. त्यावेळीही मराठी नगरसेवकांनी तीच आक्षेप घेतला. पण तेव्हाही आयुक्तानी लगेचच त्याठिकाणी दुसरी मराठीभीही कोनशिला बसवितो, असे आन्वासून दिल्याबरोबर या सर्व नगरसेवकांचा विरोध हाणत मानवळला. सर्वजण आनंदात निघून गेले.

प्रारंभी विलास यडुकरकर यांनी ईश्वरस्तवन केले व सी. बाप. गोकक यांनी सर्वांचे स्वागत केले.

आजच्या समारंभात नगरसेविका मालन प्रभू, कु. अरमा तारिल, संभाजी पाटील, रमेश कुडची, राजेंद्र, आयुक्त देवेंद्र नायक, उप



रोटरी गल्ली येथील विहिरीवर बसविण्यात आलेल्या जलशुद्धी प्रकल्पाचे उद्घाटन करित असताना जिल्हाधिकारी श्री. प्रदीपसिंग खरोला, बाजूला उपमहापौर श्री. शिवाजी सुंठकर, श्री. आर. एस. नाईक

## पाणीपुरवठा, स्वच्छता हेच पालिकेचे कार्य : जिल्हाधिकारी

बेळगांव, दि. १४ (प्रतिनिधी) - 'आज सकाळपासून आतापर्यंत अनेक लोकोपयोगी प्रकल्पांचे उद्घाटन करण्याची संधी मला मिळाली. याचे श्रेय मनपाकडे जाते. या प्रकल्पांच्या उभारणीमुळे मनपा या कार्याबद्दल मी समाधानी आहे. मुबलक पाणीपुरवठा व स्वच्छता राखणे ही नगरपालिकांची अत्यावश्यक सेवा होय.

या नगरपालिका या सेवा पुरवणीपणे राबवितात त्याच खात्या उल्फुट नगरपालिका होय, स्वच्छतेची अपेक्षा फक्त मनपाकडूनच करणे चुकीचे आहे. नागरिकांनीही आपापला परिसर स्वच्छ ठेवण्याची जबाबदारी उचलली पाहिजे', असे आवाहन जिल्हाधिकारी प्रदीपसिंग खरोला यांनी केले.

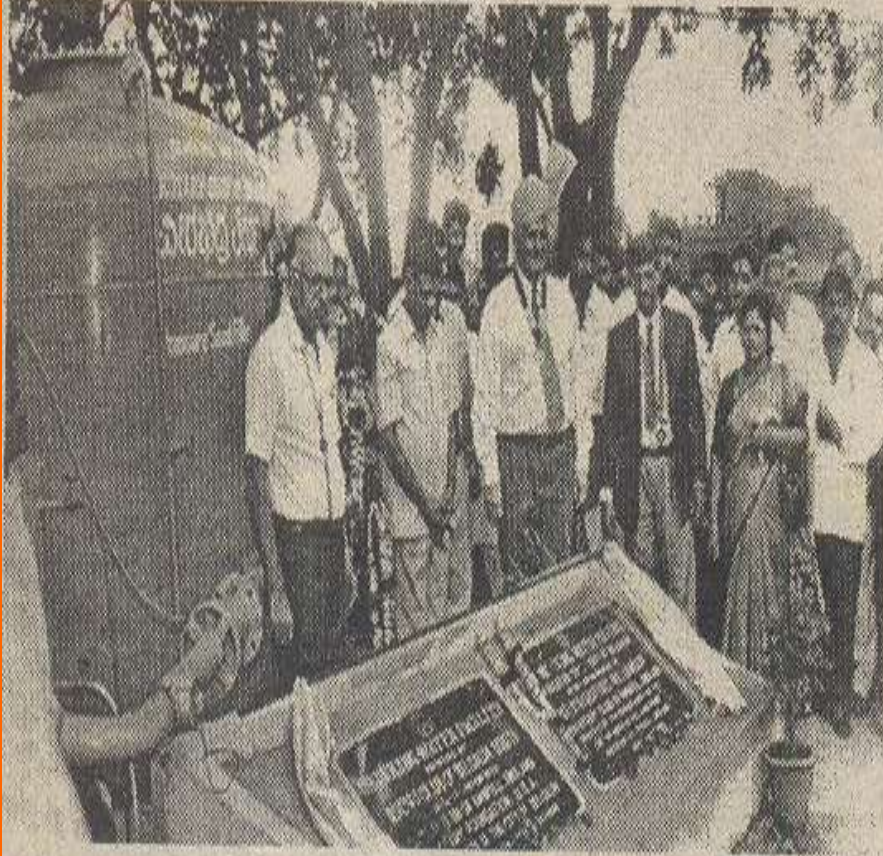
रोटरीगल्ली येथील सार्वजनिक विहिरीवर मनपाच्यावतीने जलशुद्धीकरण प्रकल्प उभारण्यात आला आहे. त्याचे उद्घाटन आज दुपारी जिल्हाधिकाऱ्यांच्या हस्ते करण्यात आले. त्याप्रसंगी सडकल गल्ली येथे आयोजित समारंभात ते बोलत होते.

रोटरीगल्ली येथील जलशुद्धीकरण प्रकल्पाची 'कोनशिला' सुध्दा कानडीमध्येच होती. तिचे अनावरण जिल्हाधिकाऱ्यांच्या हस्ते करण्यात आले. त्यावेळी उपस्थितांच्या ध्यानात ही गोष्ट आली. त्यावेळीही मराठी नगरसेवकांनी तीच आक्षेप घेतला. पण तेव्हाही आयुक्तानी लगेचच त्याठिकाणी दुसरी मराठीभीही कोनशिला बसवितो, असे आन्वासून दिल्याबरोबर या सर्व नगरसेवकांचा विरोध हाणत मानवळला. सर्वजण आनंदात निघून गेले.

प्रारंभी विलास यडुकरकर यांनी ईश्वरस्तवन केले व सी. बाप. गोकक यांनी सर्वांचे स्वागत केले.

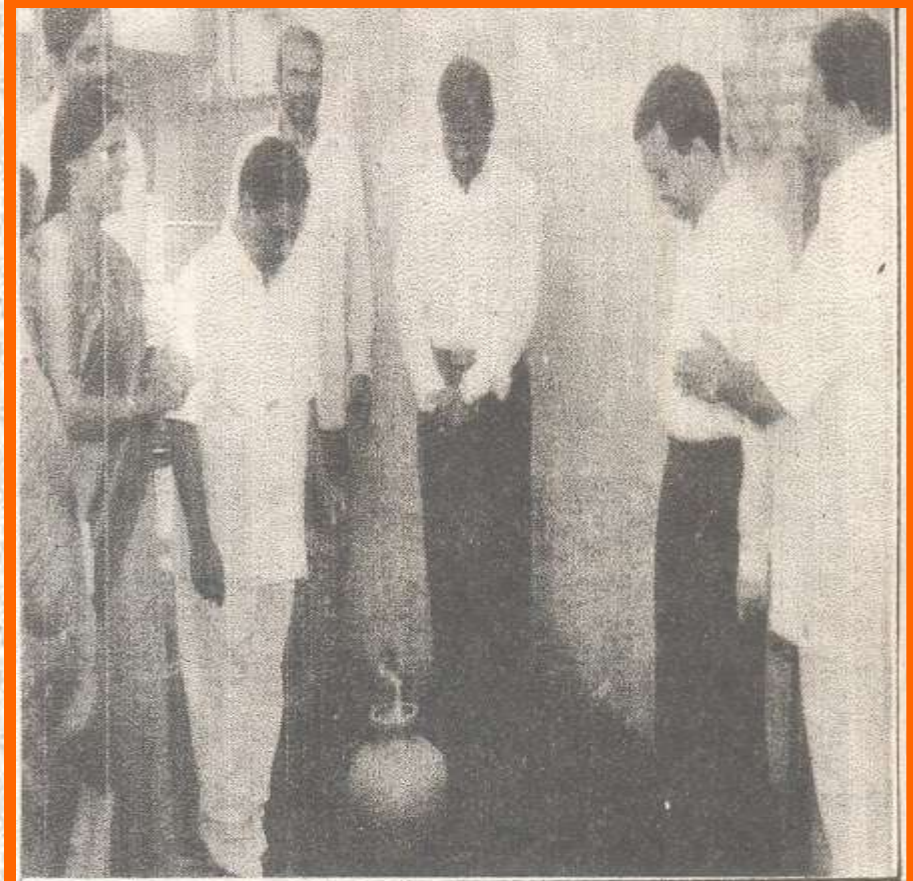
आजच्या समारंभात नगरसेविका मालन प्रभू, कु. अरमा तारिल, संभाजी पाटील, रमेश कुडची, नविंद इंदर, आयुक्त देवेंद्र नायक, उपमहापौर शिवाजी सुंठकर, शुकरीचिा, कल्लाम्पाजी शिंदे यांची समयोचित भाषणे झाली.

Inauguration of Veerbhadra Nagar Unit  
by Rotary Amwell President, Glen Parry.



वीरभद्रनगर येथील जलशुद्धीकरण प्रकल्पाचे उद्घाटन करताना अँमवेल रोटरी  
कबचे अध्यक्ष ग्लेन पॅरी, बाजूला रोटरीचे पी.डी.जी. एन. के. कुलकर्णी,  
प्रकाश कामत व नगरसेवक.

Divisional Comm. and Dy. Comm. inspecting  
water delivery at Kirloskar Road.



बेळगाव किलोस्कर रोडवरील नवग्रह विहिरीवर पालिकेने बसविलेल्या लघु जलशुद्धीकरण प्रकल्पाच्या  
उद्घाटनप्रसंगी महापौर गोविंदराव-राऊत नळ चालू करताना, बाजूला नगरसेविका लालन प्रभू, विभागीय आयुक्त के.  
च्योतिरामलिंगम, जिल्हाधिकारी प्रदीपसिंग खरोल व भाजी महापौर संभाजीराव पाटील (छाया : सोमशंकर)

नवग्रहतीर्थ जलशुद्धीकरण प्रकल्प कार्यान्वित



# Inauguration of Shetty Galli Unit by Dy. Comm.

नागदली मत्त एरुम जल शुद्धीकरण फ़ॉरिस अरुभ  
 डिसेंबर अण्ठ्ये नगर्ये हिसल नीरुः बरुला



बिल्डिंग कार प्रोजेक्टिंग इन्डस्ट्री अचरु कॅम्पेण्डेयरी जल शुद्धीकरण फ़ॉरिस अरुभ. ए संयुक्तद्वारे, प्रियुमि बरुला. शिवजी सुंठकर, श्री. आर. एस. नाईक

बिल्डिंग कार प्रोजेक्टिंग इन्डस्ट्री अचरु कॅम्पेण्डेयरी जल शुद्धीकरण फ़ॉरिस अरुभ. ए संयुक्तद्वारे, प्रियुमि बरुला. शिवजी सुंठकर, श्री. आर. एस. नाईक

बिल्डिंग कार प्रोजेक्टिंग इन्डस्ट्री अचरु कॅम्पेण्डेयरी जल शुद्धीकरण फ़ॉरिस अरुभ. ए संयुक्तद्वारे, प्रियुमि बरुला. शिवजी सुंठकर, श्री. आर. एस. नाईक



शेटी गल्ली येथील विहिरीवर बसविण्यात आलेल्या जलशुध्दी प्रकल्पा उद्घाटन करित असताना जिल्हाधिकारी श्री. प्रदीपसिंग खरोला, बाजू उपमहापौर श्री. शिवाजी सुंठकर, श्री. आर. एस. नाईक

## पाणीपुरवठा, स्वच्छता हेच पालिकेचे कार्य : जिल्हाधिकारी

बेळगांव, दि. १४ (प्रतिनिधी) - 'आज सकाळपासून आतापर्यंत अनेक लोकोपयोगी प्रकल्पांचे उद्घाटन करण्याची संधी मला मिळाली. याचे श्रेय मनपाकडे जाते. या प्रकल्पांच्या उभारणीमुळे मनपा या कार्याबद्दल मी समाधानी आहे. मुबलक पाणीपुरवठा व स्वच्छता राखणे ही नगरपालिकांची अत्यावश्यक सेवा होय.

ज्या नगरपालिका या सेवा यशस्वी राबवितात त्याच खऱ्या उल नगरपालिका होय. स्वच्छतेची अफक्त मनपाकडूनच करणे चुकीचे उ नागरिकांनीही आपापला परिसर स ठेवण्याची जबाबदारी उचलली पाहि असे आवाहन जिल्हाधिकारी प्रदीप खरोला यानी केले.

शेटीगल्ली येथील सार्वजनिक विहि

# Inauguration of Unit at Kirloskar Road by Divisional Comm.

City



Divisional Commissioner K Jyothiramalingam inaugurating a mini-water filter unit at Kirloskar Road in Belgum on Tuesday. Deputy Commissioner Pradeep Singh Kharola, corporator Lalan Prabhu, Commissioner D B Nalk, Assistant Engineer R S Nalk and Mayor Gaxindroa Rust are also seen.



ವಿಭಾಗಾಧಿಕಾರಿ ಜ್ಯೋತಿ ರಾಮ ಲಿಂಗಂ ಮಂಗಳವಾರ ಬೆಳಗಾವಿಯ ಕಿರ್ಲೋಸ್ಕರ್ ರಸ್ತೆಯ ಬಳಿ ಮಹಾನಗರ ಸಭೆ ನಿರ್ಮಿಸಿದ ಜಲ ಶುದ್ಧೀಕರಣದ ಘಟಕವನ್ನು ಉದ್ಘಾಟಿಸಿದರು.

# Ladies Performing Pooja of Well.



From -- garbage dump

to -- pooja site

Belgaum wells have come

a long way indeed.

