## Concept note on Proposed Workshop On Reduction in Water Foot Print of Urban Dweller of Pandharpur

Date - May - June 2018 at Pandharpur


Organized by
Indian Water Works Association Pune Centre
In Association with
M aharashtra Jeevan Pradhikarn
SVERI College of Engineering
The Institution of Engineers (India) Solapur Centre

After independence there is a shift of population from rural to urban area. After 1990 urban population of India is increasing beyond assimilative \& supportive capacity of municipal authorities. The townships \& residential complexes coming in \& around fringe area are demanding water supply, sewerage system \& sewage disposal. The local authorities are not in position to achieve adequacy. Water is most important input for survival \& sustainable growth. As per National Building Code water demand for urban area is 135 LPCD. However the figure varies 135 to 250 LPCD. The way urbanization is growing the demand for water is going to rise. Very soon, Urban India's demand for water is expected to exceed the water available in current water sources. This ultimately puts limit to the growth of Urban area or invite the alternatives to bring water may be from 100 Km away. The inevitable outputs are problem of sewage collection \& disposal, municipal Solid Waste Management etc. Urban people are accustomed to get water all the time from the Tap. Besides Drinking, cooking, washing \& cleaning, water is required for car washing, air cooler, pet washing etc. The question is whether 135 LPCD includes these activities. Therefore to have water for sustainable development there is urgent need of reduction in Water Foot Print. Assigning the bench mark for water demand, optimum usage of water, reduction in water consumption, multiple use of water by reuse \& recycling etc are must to reduce water consumption from 135 to 90 LPCD. The water saved will be available to serve more population \& for irrigation.

Urban population was $17 \%$ in 1951. It had shot up to $31 \%$ by 2011. Demographers predict that by 2025 , 42.5 percent of the country's population will be urban dwellers. Urban India continues to grow in a haphazard fashion without availability of basic amenities like water supply \& sewerage system. There is need to consider water availability \& sewage disposal before sanctioning the new township or residential complex by Local authority or Town planning department. There is a switch over from water store in drum to the flowing water from the taps provided in the urban houses. Water supply for urban area is from ground water, surface water. Agriculture \& Industries also have their claim on these water resources. The water resources are annually recharged with rains. If the rains are scanty the water crisis began. Urban area where water demand exceeds water availability within their geographical boundary has to import water from distant place e.g. Solapur, Hyderabad \& Bangalore. Increasing import of water for ever growing urbanization needs critical evaluation. In calculating total water demand for the defined boundaries of urban area water consumption for biotic life \& evapo-transpiration is to be considered. Water also goes out of boundary as surface run off, evaporation, evapo-transpiration \& moisture in farm produce \& products exported out of the boundary. Total water Input \& Output can be calculated for the given geographical boundary. If Input >output - System is comfortable, Input = output - System is manageable \& Input < output - System is water deficient.

As per National Building Code water demand for urban dweller is 135 LPCD. It account for water required for drinking, cooking, cleaning (personal hygiene), bathing, washing (clothes \& utensils), WC flush. Watering the plants, car and pet washing are additional requirement. Depending on the climatic condition water is also required in summer for Air Coolers. For residential complex water is required for swimming pool \& irrigation of lawn and plant. Water demand is soon going to exceed water available in the designated resources for Urban Area. The Municipal authority is unable to cope up with growing demand of drinking water. In summer water supply reduces to one hour in a day to a day in a week. Residents have to search for ground water or Tanker water. Efforts can be made to reduce water consumption from 135 LPCD to 90 or less than 90 LPCD. This can be easily achieved by reduction in water consumption by using efficient water gadgets, elimination of leakages \& multiple reuse of water. Activity that does not require Drinking water can be identified to replace it with non potable water e.g. use of Recycle water for WC flush. The direct use of rain water will increase Green water footprint \& reduce Blue water footprint. Reuse \& recycle will decrease Blue \& gray water footprint. Therefore to have water for sustainable development there is urgent need of reduction in Water Foot Print.

Pandharpur is a well known pilgrimage town on the banks of Bhimā River in Solāpur district, Maharashtra. According to the 2011 census of India, Pandharpur had a population of 98,000. Devotees visit Pandharpur throughout the year. June-July is attractive with a major festival of Yatra in Pandharpur. The most important dates for Pandharpur pilgrimage is on Aashadi Ekadashi (June- July) and Kartiki / Kartik Ekadashi (November). During these yatras or pilgrimage lakhs of people travel from miles together, barefooted, fasting and chanting His holy name until they get a glimpse of the Lord.

Pandharpur faces acute water shortage during summer. Therefore there is urgent need to manage the water demand within the available water supply. The Workshop is aimed to understand the water demand, reduction in water losses from Source to the tap, optimum usage of water, reduction in water consumption, direct use of rain water, multiple use of water by reuse \& recycling etc. All alternatives will be discussed to have reduction of Water Footprint from 135 to 90 LPCD. This will enable

## Sub Theme

1. Input output analysis for Water
2. Water consumption in urban area facts \& figures
3. Use of Green water by rain water harvesting
4. Reduction in water loss from source to tap.
5. Green Pluming to reduce water Consumption
6. Reduction in Non-revenue water in water Distribution system
7. Multiple usage of Water
8. Segregation of gray \& black water treatment \& reuse
9. Natural Treatment Process for Sewage
10. Decentralization of Sewage Collection \& treatment
11. Success case studies
12. Role of Local Authorities \& Public to do the task.

## Technical sessions

Seminar will provide the Platform to share the Knowledge \& experience to have approach and methodology. The delegates will be from Local authority, Planner for town planning, Non-Government \& Semi Government organizations, Promoters \& Developers, Technology provider, Consultant, Academician \& representatives from Temple \& Wari.
There will be an open forum on "How to reduce Water Foot print?"
Each session will begin with the Theme speech by the eminent person working in the field.

## Proposed Program

09.30
10.30
11.30
12.30
13.30
14.15
15.15
15.30

Inauguration
Technical Session 1 (Current issues of W ater M anagement in Urban areas with reference to Pandharpur)
Technical Session 2 (Reduction by use Water Saving gadgets \& leakage Control)
Technical session 3 (Reuse by multiple application of water)
Lunch
Technical session 4 (Appropriate Sewage Treatment Technology for Reuse \& Recycling)
Health Break
Technical Session 5 (Use of Alternate sources of Water \& Natural Waste Water Treatment)
16.30
17.00
18.00

Group Discussion
Group presentation \& Valedictory Function
High Tea

## Associate Organization

a. National Rural Drinking Water Program (NRDWP)
b. State \& Central Pollution Control Board
c. The M inistry of Drinking Water and Sanitation
d. Pandharpur M unicipal Council
e. Vitthal Rukmini M andir Samiti
f. Dhrmshala, Bhaktaniwas \& Hotles
g. Institution \& Colleges

Exhibition
Exhibition ofGreen Plumbing, Water \& Waste Water Treatment

## Sponsors

Public Health Engineering Department
Universities \& Colleges
Industries M anufacturing the Products, Technology provider
Minimum Expected Participants 200 (Members \& Non M embers)

## Proposed by

Er. Rajendrakumar V. Saraf
FIE, FIWWA,
Editor Journal of ndian Water Works Association
Convener - Environment Engineering Division
Maharashtra State Center
The Institution of Engineers (India)
Er. R. V. Saraf will be available for necessary assistance \& to get the Resource persons.

## REQUEST BY CENTRES FOR FINANCIAL GRANT FOR HOLDING TECHNICAL ACTIVITIES

For use by Headquarters (Programme code):

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :--- | :--- | :--- | :--- | :--- |
| Divn. <br> Board | Financial Year |  | Programme <br> type | Programme <br> No. |  |  |  |



Title: " Integrated Approaches for Reduction in Water Footprint " Objective:

- To understand the importance of efficient use of water
- To demonstrate the developed technologies for optimal use of water
- To demonstrate the existing techniques to recycle and reuse the water
- To demonstrate the different approaches for reduction in water footprints

Theme: Pandharpur is a well known pilgrimage town on the banks of Bhima River in Solapur district, Maharashtra. According to the 2011 census of India, Pandharpur had a population of 98,000 . Devotees visit Pandharpur throughout the year. June-July is attractive with a major festival of Yatra in Pandharpur. The most important dates for Pandharpur pilgrimage is on Aashadi Ekadashi (June- July) and Kartiki / Kartik Ekadashi (November). During these time, lakhs of people pilgrimage travel from miles together, barefooted, fasting and chantin holy name until they get a glimpse of the Lord. Pandharpur faces acute water shortage during summer. Therefore there is urgent need to manage the water demand within the available water supply. The Workshop is aimed to understand the water demand, reduction in water losses from Source to the tap, optimum usage of water, reduction in water consumption, direct use of rain water, multiple use of water by reuse \& recycling etc. All alternatives will be discussed to have reduction of Water Footprint from 135 to 90 LPCD. The theme includes: Input output analysis for Water, Water consumption in urban area facts \& figures, Use of Green water by rain water harvesting, Reduction in water loss from source to tap, Green Pluming to reduce water Consumption, Reduction in Non-revenue water in water Distribution system, Multiple usage of Water, Segregation of gray \& black water treatment \& reuse, Natural Treatment Process for Sewage, Decentralization of Sewage Collection \& treatment, Success case studies, Role of Local Authorities \& Public to do the task.

| For Use by Chairman, Division Board, Chairman, CATE and Headquarters: |  |  |  |
| :--- | :--- | :--- | :--- |
| Put-up to Chairman, <br> Division Board on: | Comments of Chairman, Division <br> Board received on: |  |  |
| Comments of Chairman Div. Board: | Approved / Not Approved / To be Revised |  |  |
| Suggested Revision (if any): |  |  |  |

[^0]
## REQUEST BY CENTRES FOR FINANCIAL GRANT FOR HOLDING TECHNICAL ACTIVITIES

| Put-up to Chairman, <br> CATE on: | Comments of Chairman, CATE <br> received on: |  |  |
| :--- | :--- | :--- | :--- |
| Comments of Chairman, CATE: |  |  | Approved / Not Approved / To be Revised |
| Suggested Revision (if any): |  |  |  |
| Information to Centre about decision or to incorporate suggested revision (if any) on: |  |  |  |



[^1] after receiving of report, recommendation, photographs and Proceedings/Souvenir (hard or soft copy]
(c) One Day Workshop/Seminar: Rs.10,000/- [grant is released based on the report and photograph]
(d) Workshop on Disaster Mitigation \& National Building Code: Rs.20,000/- [grant is released based on the report and photograph]

## कार्यशाळा <br> पंढरपूर शहरातील नागरिकाचे जलपद चिन्हाची कपात करणे <br> तारीख २२ जून २०३८ सकाळी ९.३० ते दुपारी ४.३० <br> सभागृह श्री विठल एजुकेशन रिसर्च इन्स्टिट्रट कालेज ऑफ इंजिनीरिंग, पंढरपूर

| वेळ | कार्यक्रम | नाव | समन्वयक |
| :---: | :---: | :---: | :---: |
| ९.३० | नोंदणी |  | सिवेरी |
| 90.00 | उद्घाटन समारंभ |  |  |
|  | मान्यवराचे आगमन |  |  |
|  | कलश पूजन |  |  |
|  | अभंग गायन (वृक्षवल्ली आम्हा सोयरी) |  |  |
|  | मान्यवरांच्या सत्कार |  |  |
| ¢0.90 | स्वागत आय ई आय सोलापूर व स्वेरी | डॉ बि पि रोंगे |  |
| १०.२० | स्वागत आय डब्लू डब्लू ए पुणे व म जी प्रा पुणे विभाग | श्री सुखदेव गरांडे |  |
| १०.30 | स्वागत श्री विठल रुक्मिणी मंदिर समिती | ह भ प शिवाजी मोरे |  |
| ¢0.80 | कार्याशाळे विषयी | श्री राजेंद्रकुमार सराफ |  |
| 90.90 | मनोगत प्रमुख पाहुण |  |  |
| \$9.09 | धन्यवाद |  |  |
| ११.90 | तांत्रिक सत्र -१ |  |  |
|  | वक्त्याचा परिचय |  |  |
| 39.39 | शहरी नागरिकाचे जल पद चिन्ह व त्याची कपात | श्री राजेंद्रकुमार सराफ |  |
| 39.99 | प्रश्नोत्तरे |  |  |
| १२.०¢ | नील पद चिन्ह कमी करणे. पाणी बचत करणारी उपकरणे व पाण्याच्या गळतीवर नियंत्रण, हरित प्लंबिंगने पाण्याची बचत, चित्रफित | श्री विध्याधर गोखले |  |
| १२.3¢ | प्रश्नोत्तरे |  |  |
| १3.0¢ | भोजन |  |  |
| १З.8¢ | तांत्रिक सत्र - २ |  |  |
| १3.8¢ | राखाडी पद चिन्ह कमी करणे संडासा मधून निघणारे व इतर पाणी त्याचे अलगीकरण प्रक्रिया व पुनर्वापर | डॉ विनायक धूळप |  |
| 38.99 | प्रश्नोत्तरे |  |  |


| वेळ | कार्यक्रम | नाव | समन्वयक |
| :---: | :---: | :---: | :---: |
| १४.२० | तांत्रिक सत्र - 3 |  |  |
|  | सांडपाण्या वर नैसर्गिक प्रक्रिया करुन शुद्ध करणे | मृणाल मेश्राम |  |
| 98.39 | हरित पद चिन्हात वाढ करणे पावसाच्या पाण्याचा वापर व पुनर्भरण | श्री राजेंद्रकुमार सराफ |  |
| १५.O५ | आरोग्य विराम / चहाचा ब्रेक |  |  |
| \$9.3¢ | गट चर्चा - पाण्याची बचत | श्री सराफ व इतर |  |
| १५.४५ | गट प्रमुखाचे सादरीकरण |  |  |
| १६.२० | समारोप | ह भ प शिवाजी मोरे, डॉ बि पि रोंगे |  |

## Thanks Letter

To,
Mr. Sukhdev Garande,
Chairman,
Indian Water Works Association Pune

Respected Sir,

This is to express our sincere gratitude towards you for guiding our participants on $22^{\text {nd }}$ June 2018, one day workshop "Reduction in Water Foot Print of Urban Dweller of Pandharpur. Your valuable thoughts will always keep our participants inspiring and motivated.

I request the same kind of co-operation in future also.
Thanking you,

Yours faithfully,

Dr. P. M. Pawar H.O.D. (Civil Engg.)

# COLLEGE OF ENGINEERING, PANDHARPUR 

P.B.No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, District: Solapur (Maharashtra) Tel.: 7755990201 Toll Free No.: 1800-3000-4131 e-mail.: coe@sveri.ac.in Website.: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur) Accreditated by The Indian Institution of Engineers (India), Kolkata and TCS, Pune. NAAC Accreditated Institute, NBA Accredited All UG Programmes

## Thanks Letter

To,
Mr. Rajendrakumar Saraf, Editor Journal of Indian Water Works Association, Convener - Environment Engineering Division, Maharashtra State Center, The Institution of Engineers (India).

Respected Sir,

This is to express our sincere gratitude towards you for guiding our participants on $22^{\text {nd }}$ June 2018, one day workshop "Reduction in Water Foot Print of Urban Dweller of Pandharpur. Your valuable thoughts will always keep our participants inspiring and motivated.

I request the same kind of co-operation in future also.
Thanking you,

Yours faithfully,



Shri Vithal Education \& Research Institute's
COLLEGE OF ENGINEERING, PANDHARPUR
P.B.No.54, Gopalpur - Ranjani Road, Gopalpur, Pandharpur - 413304, District: Solapur (Maharashtra) Tel.: 7755990201 Toll Free No.: 1800-3000-4131 e-mail.: coe@sveri.ac.in Website.: www.sveri.ac.in (Approved by A.I.C.T.E., New Delhi and Affiliated to Solapur University, Solapur) Accreditated by The Indian Institution of Engineers (India), Kolkata and TCS, Pune. NAAC Accreditated Institute, NBA Accredited All UG Programmes, ISO 9001:2008 Certified Institute

## Thanks Letter

To,
Mr. Vinayak Dhulap,
Professor of School of Earth Science,
Solapur University.
Respected Sir,

This is to express our sincere gratitude towards you for guiding our participants on $22^{\text {nd }}$ June 2018, one day workshop "Reduction in Water Foot Print of Urban Dweller of Pandharpur. Your valuable thoughts will always keep our participants inspiring and motivated.

I request the same kind of co-operation in future also.
Thanking you,


Yours faithfully, Dr. P. M. Pawar
H.O.D. (Civil Engg.)

Shri Vithal Education \& Research Institute's

# COLLEGE OF ENGINEERING, PANDHARPUR <br> Tel.: 7755990201 Toll Frjani Road, Gopalpur, Pandharpur - 413304, District Sola 

(Approved by AICTE No.: 1800-3000-4131 e-mail.: coe@sveriacin Websito (Maharashtra) Accreditated by The Indian New Delhi and Affliated to Solapur University Solapur) NAAC Accr 1SO 9001:2008 Certified ins NBA Accredited All UG Programmes,
Ret:: COEPR/20/8-19/1639 Date: $22 / 6 / 20 / 8$

## Thanks Letter

To,
Mr.Vidhyadhar Gokhale,
Technical Faculty in NGO at Pune
Location Pune, Maharashtra, India Industry

Respected Sir,

This is to express our sincere gratitude towards you for guiding our participants on $22^{\text {nd }}$ June 2018, one day workshop "Reduction in Water Foot Print of Urban Dweller of Pandharpur. Your valuable thoughts will always keep our participants inspiring and motivated.

I request the same kind of co-operation in future also.
Thanking you,
Yours faithfully,

> Dr. F. M. Pawar H.O.D. (Civil Engg.)

Shri Vithal Education \& Research Instlute's

## Thanks Letter

To,
Mr. Shivaji More,
Member of Shree Vithal Rukmini, Temple committee, Pandharpur.

Respected Sir,
This is to express our sincere gratitude towards you for guiding our participants on $22^{\text {nd }}$ June 2018, one day workshop "Reduction in Water Foot Print of Urban Dweller of Pandharpur. Your valuable thoughts will always keep our participants inspiring and motivated.

I request the same kind of co-operation in future also.
Thanking you,


Yours faithfully,

Dr. P. M. Pawar
H.O.D. (Civil Engg.)



COLLEGE OF ENGINEERING, PANDHARPUR.
P.B. No. 54, Gopalpur-Ranjani Road, Gopalpur, Pandharpur-413304, Dist. Solapur (Maharashtra)
Tel.:9503103892. E-mail: coe@sveri.ac.in, Website: www.sveri.ac.in
150 9001:2008

## CIVIL ENGINEERING DEPARTMENT

## WORKSHOP ATTENDANCE SHEET

## Workshop on "Reduction of Water Footprints of Pandharpur City Dwellers" (22 ${ }^{\text {nd }}$ Jun 2018)

Resource Person: Mr. Vidyadhar Gokhale
Date:22/06/2018

| Sr. No. | Name of Student | Sign |
| :---: | :---: | :---: |
| 1. | Miss. Pooja B. Ronge | Phathe. |
| 2. | Parekar Mrunali $B$. | trazeks. |
| 3. | Zende Priya $B$. | Tendel ${ }^{\text {a }}$ |
| 4. | Bhosale Kajal B. | Frajep. |
| 5. | Prajakta 5. Waghmode | WPS |
| 6. | Pranita A. Kate | dokate. |
| 7. | Pooja P. Polas. | Polaspf |
| 8. | Priyadarshoni R Shinde | ShinderR |
| 9. | Sadhand $N$. shikhare | Shibare |
| 10. | Prachi I. Sarvayed | frarrasor |
| 11. | Deshmukn Sushama M. | Deshmulk S.m... |
| 12. | Bhise kiran Kisan | K.K.Ehise |
| 13. | Dabibande Jyoti ce | 2 Y 41 |
| 14. | Masal Aishwarya Nilkanth | frumer. |
| 15. | Pujari Priyanka Tykuram | Riarip.t |
| 16. | Pawar Mrunal Madhukar | M.M.P. |
| 17. | Deshmuleh sneha. S | Werech |
| 18. | Teke madhuri kishor | Tekemk |
| 19. | miss. Sbradcha R. Pawall. | selunus. |



| Sr. <br> No. | Name of Student | Sign |
| :---: | :---: | :---: |
| 52 | Kadam Vicaj M. | anaden. |
| 53 | Shinde Garesh (1)adan | Thike |
| 54 | Soudagare prasad Shivaji | - Paues |
| 55 | Jadhav Vaibhav Devidus | (1)Taelha |
| 56 | Bhatfi Sheinivas Vishny | Shersó |
| 57 | Gawade Ajdel santas. | Avide |
| 58 | Kadam sagae. 7 | Fagas |
| 59 |  | , |
| 60 |  |  |
| 61 |  |  |
| 62 |  |  |
| 63 |  |  |
| 64 |  |  |
| 65 |  |  |
| 66 |  |  |
| 67 |  |  |
| 68 |  |  |
| 69 |  |  |
| 70 |  |  |
| 71 |  |  |
| 72 |  |  |
| 73 |  |  |
| 74 |  |  |
| 75 |  |  |
| 76 |  |  |
| 77 |  |  |
| 78 |  |  |
| 79 |  |  |
| 80 |  |  |

# CIVIL ENGINEERING DEPARTMENT 

## WORKSHOP ATTENDANCE SHEET

## Workshop on "Reduction of Water Footprints of Pandharpur City Dwellers" $\left(22^{\text {nd }}\right.$ Jun 2018)

Resource Person: Mr. Rajendrakumar Saraf
Date:22/06/2018




[^0]:    Proposals to be sent (a) 9 months prior to the proposed dates of National Convention, (b) $\mathbf{3}$ months prior to the proposed dates of All India Seminar and (c) 1 month prior to the proposed dates of One Day Workshop/Seminar.
    Grant available for (a) National Convention:

    | No. of Divn. Board Members | Grant |  |
    | :---: | :---: | :---: |
    | Less than 5 | 1.50 Lakhs | 25\% of grant will be released on receipt of information brochure. $50 \%$ will be released <br> during the convention and $25 \%$ will be earmarked as Chairman's Discretionary Fund |
    | 6 to 10 | 1.75 Lakhs |  |
    | 11 to 15 | 2.00 Lakhs | soft copy) |
    | 16 to 20 | 2.25 Lakhs |  |
    | More than 20 | 3.00 Lakhs |  |

    (b) All India Seminar/Workshop/Conference/National Conference: Max. Rs.30,000/- [Rs.15,000/- after receiving of Information Brochure, remaining after receiving of report, recommendation, photographs and Proceedings/Souvenir (hard or soft copy]
    (c) One Day Workshop/Seminar: Rs.10,000/- [grant is released based on the report and photograph]
    (d) Workshop on Disaster Mitigation \& National Building Code: Rs.20,000/- [grant is released based on the report and photograph]

[^1]:    (b) All India Seminar/Workshop/Conference/National Conference: Max. Rs.30,000/- [Rs.15,000/- after receiving of Information Brochure, remaining

