

PROTOTYPE - FACT SHEET

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WORKING GROUP: 1 – ADAPTATION
ORGANIZATION: ANDHRA PRADESH INDUSTRIAL
INFRASTRUCTURE CORPORATION

TITLE:

**Recycling effluent from highly polluting industries (Pharmaceutical)
in Andhra Pradesh**

Mission statement

To recycle effluent from water intensive pharmaceutical industries to address drought and heat waves.

Briefly describe your prototype idea

Kondapally is situated in the near coastal Andhra Pradesh, which is prone to Heat Waves and Drought in the region, where temperature crosses 48°C in the peak summer. These industrial parks were formed in the late 90s and are now prone to extreme events of drought and heat waves.

Considering the impacts of industries and importance of water shortage in near future, APIIC along with local industrial association (Kondapally Industrial Associate - KIA) took an initiative to implement common effluent treatment plant to address the pollution and recycling of effluents.

Kondapally Industries Association has promoted a Special Purpose Vehicle “Kondapally Envirotech Pvt Ltd. (KEPL)” for establishment of Common Effluent Treatment Plant (CETP) with a sole purpose of providing treatment facilities for the effluents generated by the member industries in IDA Kondapally. The main activity of the member industries is to manufacture the pharmaceuticals, drugs and drug intermediates.

It is beginning of April, 2016 and already entire region is suffering from heat waves (43° C plus) and temperatures near Industrial area is generally more than the surroundings. The

industrial park uses ground water for processing water. With the increasing drought and heat waves, in the region and ensure sustainable industrial development. KEPL and APIIC has initiated to develop effluent treatment plan with the zero liquid discharge, further recycling the treated wastewater into water for processing. This will further reduce stress in the groundwater extraction.

The proposed project is designed as Zero Liquid Discharge basis, the entire treated water will be reused, party within the CETP and rest will be sent back to member industries for use as cooling water makeup, etc. The proposed project will reduce dependence on the fresh water requirement and also takes care of proper treatment and disposal of the effluents generated in the member industries.

The treated water is also to be used for greenery development in CETP area as well as in Industry premises which will enable greenery development and there by reduction in heat waves.

Target group

The main beneficiaries are industries and nearby community.

Potential partner(s) for implementation

1. APIIC (Andhra Pradesh Industrial Infrastructure Corporation)
2. Kondapally Envirotech Private Limited
3. Kondapally Industrial Association
4. Andhra Pradesh Pollution Control Board (APPCB)
5. Government of India

Key challenges and opportunities

Challenges:

1. High CAPEX and OPEX Andhra Pradesh Pollution Control Board (APPCB)
2. Variation in effluent quality from unit to unit and complex effluent treatment
3. For a new park identification of members and formation of SPV
4. Being SME's raising capital cost for treatment has been very challenging and time consuming with government procedures. More clarity and transparency is required in the existing grant guidelines
5. Long process of getting approvals
6. Few successful models for technical and management solutions for addressing high TDS
7. Variation in effluent quality from unit to unit and complex effluent treatment for a new park identification of members and formation SPV

Opportunities:

1. Government of India support in form of grant for CETP's
2. State Government support in the form of grant for CETP's
3. Reuse/sale of recycled water which generate income to the SPV Company
4. Instead of number of ETP's one each by every unit, a common ETP for 11 industries have reduced requirement of land, water and chemicals, cost of operation (man power), and bulk water, etc. About 400 kilo liters of water will be treated and recycled for industrial purposes.

Next steps