Statement by the Hon'ble Chief Minister on the occasion of World Water Day 2017

History of World Water Day

World Water Day is celebrated every year on 22nd of March by the people all across the world. It was first officially added in the schedule 21 of the year 1992 "United Nations Conference on Environment and Development" in the Rio de Janeiro, Brazil. The celebration was started from the year 1993 as an annual event by the decision of the United Nations General Assembly to increase the awareness among the people about the importance, need and conservation of water and to motivate the general public.

Why World Water Day is celebrated

This campaign is specially promoted by one of the UN agencies every year which involves encouraging the people to listen and understand about the water issues as well as coordinating with the international activities for the World Water Day. Since the beginning of this event celebration, the UN-Water has been responsible for the selection of World Water Day theme, distribution of global messages as well as leading the UN agencies for celebrating the World Day for Water. Along with the UN member states and agencies, various NGOs also become involved in the promotion of clean water conservation, focusing the public attention over all the critical issues of water.

How World Water Day is celebrated

It is celebrated by organizing variety of events and activities such as excursions to the local ponds, lakes, rivers and reservoirs, symposium at various levels over water management and safety, distributing messages

through TV and radio channels or internet, educational events based on the importance of clean water and conservative measures, competitions and so many activities.

World Water Day Themes

- 1993 - "Water for Cities".
- 1994 - "Caring for our Water Resources is Everybody's Business".
- 1995 - "Women and Water".
- 1996 - "Water for Thirsty Cities".
- 1997 - "The World's Water: Is there enough".
- 1998 - "Groundwater – The Invisible Resource".
- 1999 - "Everyone Lives Downstream".
- 2000 - "Water for the 21st century".
- 2001 - "Water for Health".
- 2002 - "Water for Development".
- 2003 - "Water for Future".
- 2004 - "Water and Disasters".
- 2005 - "Water for Life 2005–2015".
- 2006 - "Water and Culture".
- 2007 - "Coping with Water Scarcity".
- 2008 - "Sanitation".
- 2009 - "Trans Waters".
- 2010 - "Clean Water for a Healthy World".
- 2011 - "Water for cities: responding to the urban challenge".
- 2012 - "Water and Food Security".
- 2013 - "Water Cooperation".
- 2014 - "Water and Energy".
- 2015 - "Water and Sustainable Development".
- 2016- "Water and Jobs".
- **The theme for this year ie, 2017 is "Water & Waste Water"**

Theme for 2017 - "Water & Waste Water":

Water has to be carefully managed during every part of the water cycle: from fresh water abstraction, pre-treatment, distribution, use, collection and post-treatment, to the use of treated waste water and its ultimate return to the environment, ready to be abstracted to start the cycle again.

Due to population growth, accelerated urbanisation and economic development, the quantity of waste water generated and its overall pollution load are increasing globally. However, waste water management is being seriously neglected, and waste water is grossly undervalued as a potentially affordable and sustainable source of water, energy, nutrients and other recoverable materials. It therefore needs to be seen as a resource, rather than a burden to be disposed of. There are many treatment processes and operational systems that will allow us to use waste water to meet the growing water demand in growing cities, support sustainable agriculture, and enhance energy production and industrial development.

Waste Water and Cities

By 2030, global demand for water is expected to grow by 50%. Most of this demand will be in cities and will require new approaches to waste water collection and management. Indeed, reused waste water may help address other challenges including food production and industrial development.

Waste Water and Industries

Societal and environmental pressures over recent years have led to a growing movement for industry to reduce its waste water and to treat it before discharge.

Waste water is now seen as a potential resource and its use, or recycling after suitable treatment, can provide economic and financial benefits. Waste water can be used within the business itself or between several businesses through 'industrial symbiosis'. Industrial water consumption is responsible for 22% of global water use (UN-Water, 2012). In 2009 in Europe and North America, water consumption by industries

was 50% as compared to 4-12% in developing countries. (WWAP, 2009). It is expected that in rapidly industrialising countries, this proportion could increase by a factor of five in the next 10-20 years. Therefore, there is a strong incentive to use waste water in-house and locally, based on cost savings alone. Businesses can directly use some waste water, providing it is fit for purpose. For instance, using process water for cooling or heating or rainwater from roof collection or concrete aprons for toilet flushing, irrigation or vehicle washing.

Waste Water in Agriculture

Partly to help maximise yields to meet demand, usage of chemical fertilizers and pesticides has increased in recent years, both in industrial and small farming, making agriculture a potential source of environmental pollution. Pollution of ground water and surface water by agricultural use of untreated or inadequately treated waste water is a major issue in many developing countries where such irrigation is practised. Farmers are increasingly looking into non-conventional water resources, mainly waste water, whether due to its high nutrient content or lack of conventional water resources. If applied safely, waste water is a valuable source of both water and nutrients, contributing to water and food security and livelihood improvements. Improved waste water management can improve the health of workers, especially in agriculture, by reducing the risk of pathogen exposure. It can also create direct and indirect jobs in water-dependent sectors and beyond.

Initiatives of Government of Andhra Pradesh in Water Sector:

The Government of Andhra Pradesh have taken number of initiatives in the water sector to make the State Drought Proof.

Vision of the Government:

The vision of the Government is to make the State Drought Proof and provide water security to all its citizens for drinking water, irrigation and industrial needs. Water conservation mission is a sub-mission under Primary Sector Mission, which is one of the seven missions constituted for invigorating the growth engines of the State.

Water Resources in A.P.:

Andhra Pradesh State is covered by different Hydro-Meteorological conditions. The rainfall In the State varies from 496.6 MM in Anantapuramu to more than 1217 MM in North Coastal districts with average annual rainfall of 966 MM. Rainfall is erratic and not uniformly distributed. Drought is a recurring phenomena in the state alongside frequent episodes of floods and cyclones.

Present status of irrigation in Andhra Pradesh

Total Geographical area	:	402.70 Lakh Acres
Total Culturable Area	:	199.04 Lakh Acres
Irrigation Potential Created	:	103.56 Lakh Acres.
Balance Culturable Area	:	95.48 Lakh Acres
New ayacut to be created with ongoing Projects	:	26.05 Lakh Acres.

Andhra Pradesh is blessed with 40 Major, Medium and Minor Rivers, out of which Godavari, Krishna and Penna are prominent Rivers. Out of 40 rivers, 15 rivers are inter-state rivers with catchments spread in other States. In Rayalaseema and other parts of the State, frequent droughts occur with depleting soil moisture, ground water level decline and tanks not receiving water due to deficit rains etc., at the same time surplus water is going into the sea from River Godavari. The average annual flow into the sea from Godavari River is about 2916 TMC.

Prioritised Projects:

During 2004-09, a large number of Projects were started with huge outlay at the same time creating huge burden on the Government exchequer. As the funds are thinly spread, the desired results could not be achieved. The cost of the Projects in 2004 is Rs.20,982 Crores which rose to Rs.81,195 Cr. in 2014. Thus, the increase in cost of the Projects is Rs.60,213 Crores.

The present Government reviewed the status of the ongoing projects and decided to complete them in a phased manner. 10 projects are prioritized for completing them in time bound manner to reap early benefits.

The prioritised projects are:

1) BRR Vamsadhara Project (Stage II- Phase II)
2) Thotapalli Barrage project
3) Polavaram Irrigation Project
4) Pattiseema Lift Scheme
5) Poola subbaiah Veligonda Project
6) KOR Gundlakamma Reservoir
7) GNSS Phase I & Phase II
8) HNSS Phase I & Phase II
9) PuroshataPatnam Lift Irrigation Scheme
10) Chintalapudi Lift Irrigation Scheme.

Water Management in 2016-17:

This year, we have witnessed 26.70% less than normal rainfall. However, by achieving significant progress in completion of prioritized projects and by adopting better water management practices, the drought situation could be successfully tackled. An ayacut of 101.53 Lakh Ac. received irrigation water in khariff and rabi seasons.

CBIP AWARD:

During rabi 2015-16 in Godavari Delta System 8,69,141 acres of ayacut was irrigated utilising only 69 TMC of water and achieved good yield of 42 to 45 bags of paddy per acre whereas usually it requires 100 TMC of water for irrigating this ayacut. For this achievement, the **Government of India conferred CBIP Award 2017 to Water Resources Department, Government of Andhra Pradesh for "optimum and efficient utilization of water resources" .**

BRR Vamsadhara Project (Stage II- Phase II)

Government sanctioned Rs.421.00 crores for the R&R package of Hiramandalam Reservoir and solved the long pending problem which paved the way for starting of Spillway work. The work on Package No.87 & 88 is resumed. The work on side weir of Flood Flow Canal is started. The project is proposed to be completed by December, 2017.

Thotapalli Project:

The project is completed creating new ayacut of 1 Lakh Ac. and stabilizing 64,000 Ac. About 444 Minor irrigation tanks were filled irrigating an ayacut of 12,215 Ac.

Polavaram Irrigation Project:

The Right Main Canal is completed with the initiative taken by the Government in overcoming the long pending land acquisition problem. There is good progress in the work of Left Main Canal. With the initiatives taken by us, 7 Mandals of Telangana, which are under submergence, were transferred to Andhra Pradesh.

I am personally monitoring the progress of the project every Monday with virtual inspections and site inspections alternatively. Reputed companies like Bauer of Germany are involved for expeditious completion of the project. Spillway concreting is started on 30-12-2016. Diaphragm wall construction and fabrication of gates are also commenced. With consistent efforts significant progress is achieved.

All efforts are being made to supply water by gravity into Right and Left Canals by 2018.

Pattiseema Lift Scheme:

The long cherished dream of interlinking of rivers Godavari and Krishna became reality with the commissioning of Pattiseema Lift Scheme in a record time of one year and the water is released through all pumps and motors in March, 2016.

This year 55.62 TMC of Godavari water is diverted to Krishna river and khariff crop in 13.08 lakh acres in Krishna Delta could be supplemented with this water.

Poola subbaiah Veligonda Project:

The Reservoir work is completed. The work on canals is also nearing completion. There is good progress on the work of two tunnels. Action is initiated to take up the work of tunnels from the other side also so as to complete them early. It is programmed to complete the work of one tunnel by khariff 2018 and the entire project by December, 2018.

Gundlakamma Project:

The project is partially completed and an ayacut of 60,000 Ac. is already created in the drought prone Prakasam District. The remaining work of distributory network is programmed to be completed by khariff 2018. An additional ayacut of 20,000 acres will be created.

GNSS Phase-I & II

GNSS Phase-I is substantially completed. For the first time, 3.30 TMC of water has been stored in Gorakallu Reservoir. To strengthen the bund and to store full capacity in the reservoir, the work of loading berm is started and it is programmed to be completed by June, 2017. 1.88 TMC of Water is stored in Owk reservoir. Owk bypass tunnel is completed with a capacity of 5000 cusecs. We are determined to carry atleast 15,000 cusecs from Owk Tunnel to Gandikota Reservoir in the coming season. Government released Rs.479 crores for payment to the displaced families of Gandikota Reservoir and about 7.00 TMC of water was supplied from Owk reservoir to Gandikota Dam. The work of Kadapa-Tadipatri diversion road which is pending for long time is resumed and it is programmed to be completed during this season.

Gandikota-Paidipalem LI Scheme and Gandikota–CBR Lift schemes are commissioned and water is supplied to Mylavaram Reservoir, Paidipalem Reservoir and Vamikonda reservoir. 0.34 TMC of water is supplied to Pulivendula Branch canal and Sweet Lime (cheeni) and Banana gardens in 18,000 Ac could be saved with a crop yield of Rs.354.00 Crores.

HNSS Phase-I & II:

With the efforts of the present Government, all the pumps and motors in HNSS Phase-1 are completed. Record quantity of 37.32 TMC of Water is lifted from HNSS. Water is supplied to 30,000 Ac. direct ayacut and supplementation to 35,000 Ac. Ayacut under TBP HLC system. Water is supplemented to 2,00,000 Ac under Minor Irrigation tanks, apart from recharging 36,000 bore wells. 5.255 TMC of water is supplemented to KC Canal. Water is released from Jeedipalli reservoir to Gollapalli reservoir and supplied to 33 MI tanks.

Mutchumarri lift scheme is commissioned and 0.95 TMC of water is lifted and supplied to KC Canal ayacut.

It is proposed to taking widening of HNSS main canal upto Jeedipllli reservoir to carry full discharge of 3800 Cusecs.

Purusothapatnam Lift Irrigation Scheme

The Scheme is for lifting Godavari Water into Polavaram Left Main Canal and to Yeleru Reservoir on similar lines of Pattiseema Lift Irrigation Scheme to reap early benefits of Polavaram Left Canal besides Supplementing existing ayacut of Yeleru Irrigation System and also meeting the irrigation, Drinking water and Industrial needs of Visakhapatnam District. The works are in brisk progress and programmed to be completed within nine months.

Chintalapudi Lift Irrigation Scheme

The ongoing Chintalapudi Lift Irrigation Scheme is modified to irrigate a total ayacut of 4.80 lakh Acres in the upland areas of West Godavari and Krishna Districts. It is Programmed to Complete the Project by June, 2018.

Modernization of Deltas and Nagarjuna Sagar Canal System

The works pertaining to Modernization of Godavari, Krishna and Pennar deltas and also Nagarjuna Sagar Canal System are reviewed and prioritized to improve the water use efficiency of the existing canal system.

Expenditure

An expenditure of Rs. 21,632.73 Crores has been incurred during the last three years under various projects of the Department.

Water releases from Pothireddipadu:

This year, record quantity of 67.43 TMC of water was released from Pothireddipadu regulator.

Out of this water,
36.096 TMC is supplied to TGP
10.615 TMC is suppled to KC Canal
20.720 TMC is suppled to SRBC / GNSS

Water releases in TGP:

This year, record quantity of 16.20 TMC of Water is filled in Velugodu reservoir and 96,961 Ac irrigated under TGP in Kurnool District. Under SPVBrahmam Sagar Reservoir in Kadapa District, 32,200 Ac is irrigated. Under SR-1 reservoir, 18,000 Ac and under SR- 2 reservoir 12,500 Acres Ayacut irrigated.

K.C.Canal:

This year 2,90,379 Ac is irrigated under KC Canal utilising 28.25 TMC of water. Out of this, 10.615 TMC is supplied from Pothireddipadu Head Regulator, 3.168 TMC from TB DAM as river assistance, 8.262 TMC from Sunkesula Barrage, 5.255 TMC through HNSS and 0.95 TMC from Mutchumarri Lift.

Tungabadhra System:

This year, only 70 TMC of water is received in Tungabadhra Dam against the total capacity of 212 TMC. As per prorata allocation, 10.731 TMC is allocated to HLC, 7.925 TMC to LLC and 3.3 TMC to K.C.Canal. About 35,000 acres ayacut is irrigated under HLC and 25,000 Ac is irrigated under TBP LLC System.

Inter linking of rivers:

Over all the state is a water surplus state but availability of water is not uniform. In this background, Government is taking up inter and intra linking of rivers to transfer surplus water to deficit areas as a major drought proofing measure. The initiative in this direction was already taken with the linking of Godavari and Krishna through Pattiseema.

It is proposed to utilize at least 300 to 400 TMC of water through interlinking of major rivers in the state to create new ayacut as well as stabilization of existing ayacut in the water deficit areas. Proposals are being formulated to link Godavari and Pennar Rivers. The work of preparation of DPR is entrusted to consultant M/s WAPCOS and the survey work is in advanced stage.

It is also proposed to link rivers Vamsadhara-Nagavali and Nagavali-Champavathi. The proposals are under formulation.

Water Conservation Measures:
Neeru-Chettu / Neeru Pragathi:

Government have taken up a prestigious programme of Neeru-Chettu to drought proof the state through water conservation measures and efficient water management using innovative technology and practices.

The main activities are:

- Desilting of tanks
- Development of Cascades of tanks

- Strengthening of tank bunds
- Repairs and reconstruction of weirs and sluices
- Repairs and replacement of shutters
- Construction of check dams and percolation tanks
- Constructions of farm ponds

Achievements so far:

Quantity of de-silting	:	46.44 crore cum
Strengthening of Tank Bund	:	3.12 crore cum
Shutters repair	:	447 Nos
Cascades developed	:	1110 Nos
No of checkdams completed	:	1147 Nos
Quantity of water impounded additionally:		16.40 TMC
Ayacut stabilizing due to desilting	:	1,68,925 Ac
No of Farm ponds constructed	:	2,84,134 Nos
Restoration of M.I.Tanks	:	25,498 Nos

Measures taken for improvement of Ground Water:

- Installed 1254 Automatic Piezometers Sensors for Real Time Monitoring of ground water levels.
- First state in the country to geo-tag all 15 lakh bore wells.
- Under NTR Jalasiri, 13,256 borewells are drilled in the command area in the State.
- It is absolutely important to improve ground water levels in over exploited areas of the state through various measures and to keep ground water levels in the safe range of 3 – 8 Mts in the state to avoid environmental imbalance and also to save energy for pumping ground water.

Other water conservation measures:

1. **Under Haritha programme**, sensors are installed on pilot basis in Krishna Delta, Godavari Delta and Tungabadhra Low Level Canal to have real time monitoring of water levels to ensure effective water Management. Action is initiated to install sensors in all major and medium projects.

2. **Integrated Water Management and Water Audit:**

   For the first time in the state, action is initiated for taking up water audit in a comprehensive manner taking into account surface water, ground water and also soil moisture. This will be helpful for better and efficient water management reducing wastage of water. The work is being carried out through M/s Vassar Labs.

3. **Rain Guns**: To mitigate dry spells, rain guns are used for saving crop.

4. **Mobile lifts**: It is proposed to use mobile lifts to supply water to one or two wettings when the source of supply is not at one place.

5. Government is promoting **Micro Irrigation techniques like drip and sprinkler irrigation** for optimum utilization of water. This year 3.12 lakh acres ayacut is brought under Micro Irrigation taking the total to 19.85 lakh acres.

6. Immersive Tele presence conferencing facility has been established in the department for monitoring the progress of projects with Drones and reviewing with Engineers at District Level.

A.P.S.I.D.C. Lift Schemes:

A.P.S.I.D.C. commissioned 82 new LI Schemes creating a new ayacut 1,15,837 acres. 292 L.I.Schemes are revived stabilizing an ayacut of 2,17,404 acres. The total expenditure incurred is Rs.839.81 crores.

Memorandum of Understanding with NRSC/ISRO:

Government of Andhra Pradesh entered into MOU with NRSC/ISRO to utilize their expertise and technologies in extending integrated water management system into a fulfledged **"Andhra Pradesh Water Resources Information and Management System".** This system is going to integrate the water resources visibility and decision support system developed as part of integrated water management with geo-spatial data and data from satellite based products and hydrological models from NRSC. This will be helpful in water balance studies, water audit and better flood forecasting.

NARA CHANDRA BABU NAIDU
CHIEF MINISTER