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Government of Odisha
Housing & Urban Development Department

File No. HUD-TP-SCH-0002-2020 - 9988 Bhubaneswar, dated 2/6/2020

From

Sri G. Mathivathanan, IAS
Principal Secretary to Government,

To

All Collectors,
Vice Chairpersons (All Development Authorities),
Commissioners (All Municipal Corporations),
Executive Officers (All Urban Local Bodies).

Sub: Advisory on implementation of Water Sensitive Urban Design and Planning (WSUDP) in ULBs.

Sir,

An MoU has been entered between the H&UD Department and Centre for Science and Environment (CSE), New Delhi to implement WSUDP in all the ULBs. In this connection an advisory has been prepared by the Department, which is enclosed herewith for your reference.

It has been decided that in the first phase of implementation of this initiative, Rain Water Harvesting Structures (RWHS) shall be constructed in all the parks and open spaces in the urban areas, primarily under Urban Wage Employment Initiative (UWEI). The ULBs will have to complete this task within the time stipulated in the Advisory so that the rainwater received during the ensuing monsoon can be harvested.

You are therefore requested to adhere to the provisions of the Advisory and start implementing the initiative immediately. If there is some critical issue which requires technical consultation with the CSE, it may be communicated to the Department for arranging necessary support. Sri Sushanta Kumar Mishra, Joint Secretary (Planning), H & UD Department (Mob. No-9437224528, e-mail- hudtpda@gmail.com) will be the nodal officer under this initiative.

Yours faithfully,


Principal Secretary to Government

P.F.O.

Memo No. 9989 /HUD,

Date: 2/6/2020


Copy forwarded to DMA & Ex-Officio Addl. Secretary to Govt for information.


Joint Secretary to Government

Memo No. 9990 /HUD,

Date: 2/6/2020

Copy forwarded to Chief Engineer, H & UD Dept/ Addl. Secretary, Sanitation/
Additional Director, SUDA for information.


Joint Secretary to Government

Advisory on Water Sensitive Urban Design and Planning (WSUDP) - Phase I

1. Introduction

H&UD Department has entered into a MoU with Centre for Science & Environment (CSE), New Delhi for collaborating on Water Sensitive Urban Design and Planning (WSUDP) with an objective of mainstreaming Storm Water Management (SWM) and Rain Water Harvesting (RWH) in the towns and cities of Odisha. While the subject has multiple dimensions and demands a very high degree of precision for assessing the need, choosing the models and creating the infrastructure, the outcomes and their impacts are substantial. The process of urbanisation is irreversible and so is the process of diversification of human enterprises but what remains constant and limited is the ability of nature to absorb the pressure on its resources viz. land, water and air. Any urban plan or design would therefore be fraught with the risk of failure to the same proportion in which it would fail to optimise these resources. Historically, the urban planning mechanism is heavily skewed towards spatial planning with very little emphasis on optimisation of the value and use of water. No wonder, water is becoming increasingly scarce in the cities with ground water hitting new lows every year. The pattern of precipitation, on the other hand, has become too erratic and sporadic and the intensity over time has increased leading to frequent floods. Depletion of ground water, increased runoff and overexploitation of surface water have completely destabilised the hydrological cycle which has rendered the climate change inevitable. Thus, the paradox of deficit and deluge of water in urban areas makes the concept of Water sensitive Urban Design and Planning (WSUDP) most relevant in contemporary times.

Odisha is going through one of the toughest times because of the onslaught of a pandemic which is making irreversible changes the lives of people and their modes of living. The NEW NORMAL has brought significant changes in the way we use water. Domestic consumption of water has increased significantly and the trend of reverse migration is only adding to this problem leaving us looking for new and innovative ways of addressing the issue. This has pitched the discourse of water conservation to the fore and necessitated the WSUDP even strongly.



2. Scope And Objectives

The planning and civic authorities and development administration in our towns and cities have been struggling to enforce installation of Roof Top Rain Water Harvesting Structures (RWHS), but with very little success. While the process should continue and incentivisation and penalisation measures should be made more rational to prevent violation, some radical steps have to be initiated and new areas of interventions need to be explored to address the problem comprehensively. Since a major chunk of the urban landscape is covered by Road Networks, Water Bodies, Open Spaces, Parks, Play Grounds and many such landuses, it will be only in the fitness of things that we should think of harvesting rainwater falling on these places. A number of methods can be adopted to achieve this objective. A few such methods are outlined below:

1. Infiltration basins
2. Detention ponds
3. Bio-retention areas
4. Soakways or recharge shafts
5. Infiltration trenches
6. Filter strips
7. Recharging groundwater aquifers
8. Recharging bore wells and dug wells
9. Pervious pavements, etc.

Every one of these measures may yield excellent results depending on the specific requirement of an area. But, in the enthusiasm to implement too many things, it is often observed that the very purpose of the activity is lost. It has therefore been decided that the rain water harvesting measures will be initiated in the towns and cities



of Odisha in a strategic manner with staggered intervention to be integrated with other RWH and SWM measures in due course of time.

To start with, parks and open spaces shall be targeted at the first phase. Subsequently, intervention shall be made at other places like the water bodies, road layouts, storm water networks, open spaces, play grounds, exhibition grounds, vacant spaces inside public institutions, aerodromes, covered spaces, etc. in a well calibrated manner.

The following advisory is hereby issued to help the Development Authorities, Municipal Corporations and the ULBs in implementing RWHS efficiently and systematically in the Parks and open spaces to achieve the Water Sensitive Urban Design and Planning (WSUDP) within a specific time frame.

3. Authority to Execute RWHS in the Parks and Open Spaces

The ULBs are authorised to execute the RWHS projects at all the Parks and open spaces, irrespective of whether the parks and open spaces were created and are maintained by the ULBs or the DAs/ Planning Authorities (PAs). It is contemplated now by the Department that maintenance of all the Parks, irrespective of which agency created it within the municipal area limits, shall be handed over to the respective ULBs shortly and an advisory will be issued for that purpose separately. But, without waiting for such advisory, the ULBs shall proceed to execute the RWHS projects in the parks and open spaces. The DAs/Planning Authorities will supply all the relevant information required for execution of the RWHS projects. The MCs/ULBs shall work in close coordination with the DAs/PAs for smooth execution of the projects.

4. Constitution of the State Level Task Force (SLTF)

The State Level Task Force shall function with the following members:

Sl. No	Designation	Function/ Responsibility
1	Principal Secretary, H&UD Department	Chairperson
2	Representative of CSE	Member
3	Chief Engineer, H&UD Department	Member



4	Director Municipal Administration	Member
5	Addl. Secretary, Sanitation, H&UD Department	Member
6	Joint Secretary (Planning), H&UD Department	Member Convenor
7	Joint Secretary (Municipal Administration), H&UD Department	Member
8	Dy. Secretary & AD, SUDA	Member

The SLTF, in close coordination with the CSE, the Knowledge Partner (KP), will be responsible for formulating the Policies, Regulations, Technical Guidelines, etc. for the ensuring preparation and monitor execution of Water Sensitive Urban Design and Planning (WSUDP) in the ULBs. The SLTF will coordinate with different Departments and various agencies for collection of data, interpretation of data, inter-sectoral convergence, conducting research and studies required for preparation of short term, medium term and long term strategies, arrangement of funds, etc. The SLTF will lend technical support to the DAs and ULBs and will be responsible for overall supervision of the initiative.

5. Constitution of City/ULB Level Core Group

A Core Group at the CITY/ ULB level shall be constituted with the following officials:

Sl. No.	Municipal Corporation		Municipality/ NAC	
	Designation	Responsibility	Designation	Responsibility
1	Commissioner	Chairperson	Collector	Chairperson
2	City Engineer	Member Convenor	PD, DUDA	Member
3	City Planner	Member	Municipal Engineer	Member Convenor
4	Divisional Forest Officer/ Representative of F&E Department	Member	DFO or his Nominee	Member



5	Deputy Commissioner or any Officer conversant with Land matters	Member	Any other officer(s) to be co-opted by the Chairperson	Member
6	Any other officer(s) to be co-opted by the Chairperson and CSE	Member		

The Collectors and Commissioners should constitute the ULB/City Level Core groups preferably on the same date when this advisory is received.

6. Nodal Officer

The Commissioners and Collectors should nominate one of the officers from the Core Group to act as the Nodal Officer to coordinate with the Department and the team of CSE. He should be fairly conversant with the technicalities of RWH and the existing regulations on the subject so that he can act as the point of contact for the SLTF. The Nodal Officer should be nominated by the Collectors or the Commissioners, as the case may be, immediately after this advisory is received and the contact details of such officers should be shared with the Nodal Officer of the SLTF.

7. Preparation of Preliminary Action Plan (PAP)

The Commissioners and Collectors should immediately convene a meeting of their Core Group and take stock of the status of the parks located in different ULBs. They should try to collect some basic information (as much as possible) about the parks such as:

1. No. of parks
2. The locational details (along with geo-coordinates, if possible)
3. Size of the parks (in Sq. Mts.)
4. The soil condition (information on the soil profile, if available)
5. General gradient/slope and orientation of the park
6. The storm water drains existing in or near the parks



7. RWH structures existing in or near the parks
8. Rainfall data of the locality
9. Information on drinking water demand and supply
10. Nature and type of green cover inside the park
11. Nature and extent of land covered by the water bodies, if any, inside the park
12. Data on the aquifers
13. Other technical information required to determine the model of RWHS
14. Utilities commissioned inside the parks and open places


If information on some of the above is not available, it can be ignored and it should not hinder the execution of activities. The PAP should include the following:

1. Parks proposed to be covered
2. Details of sites along with size (Area in Sq. Mts)
3. Model of RWHS proposed to be adopted (park-wise)
4. Mode of execution proposed
5. Timelines of different activities
6. Officers responsible for execution, supervision and monitoring
7. Catchment area likely to be covered
8. Extent of ground water recharge (approx.) to be ensured
9. Proposal for reuse/recycling of rainwater
10. Requirement of funds
11. Maintenance plan

In case it is found that the PAP for the whole City will take some time, the PAPs may be prepared in phases covering specific sectors/areas of the city or town where feasibility of execution is considered to be fairer in terms of time and resources. This process should be completed within the next seven days.

8. Feasibility Study and preparation of Final Action Plan (FAP)

Immediately after the PAP is prepared, the competent technical officer(s) should conduct a feasibility study. The feasibility study will be limited to desk and field verification of information. This has to be completed latest within two days from the date



of referral. Thereafter, the FAP should be prepared project-wise covering all the relevant information as mentioned in the PAP to ensure timely execution of the projects.

9. Execution of the Projects

Immediately after the FAP has been prepared, the detail plan and estimate of the projects shall be prepared by the competent technical officials and the Chairperson of the Core Group will ensure that such plans and estimates receive Administrative Approval and Technical Sanction within two to three days. Thereafter, the execution of projects should begin without any further delay. Ideally, the works should commence within ten days from receipt of this advisory. The projects should therefore be completed as quickly as possible to ensure that the first rainwater is harnessed during the ensuing monsoon. These projects shall be implemented under Urban Wage Employment Initiative (UWEI), where the delay in tendering can be avoided.

10. Monitoring and Supervision

As this is a very important intervention of the Government to protect the environment and make the cities sustainable and resilient, the ULBs will see more of these measures introduced to address the twin issues of urban water deficit and flooding in a comprehensive manner in the next few months. It is therefore advised that the Chairpersons will hold a review meeting on a weekly basis to take stock of the progress and ensure submission of the proceedings to Government regularly. The Nodal Officer will supervise the progress of work on a daily basis and report directly to the Commissioners or Collectors or their nominees, as the case may be. A Whatsapp Group will be created to keep the Department updated on the progress. Similarly, Whatsapp Groups may be formed at the ULB and district level by the Collectors and Commissioners to ensure focussed implementation and monitoring.

11. Allocation of Funds

The funds for this purpose shall be utilised from the funds allocated for execution of projects under Urban Wage Employment Initiative (UWEI) and resources available under various heads e.g. Finance Commission Grant may also be utilised for this purpose.



12. Maintenance of RWHS

The ULBs will take special care to keep the maintenance plan ready to see that the RWHS are maintained for a long time and get integrated with other measures undertaken to conserve water and optimise the use of water.

13. Finalising the Long Term, Medium Term and Short Term Interventions

Once the first phase of the work commences, the ULBs would conduct meetings of their Core Groups and finalise the long term, medium term and short term interventions and consolidate the FAPs for the whole ULB covering each and every park and open space. The process flow for this activity will be similar to the preparation of first phase FAP. The ULBs may consult with the SLTF or CSE, if required.

14. Role of CSE

CSE will act as the Knowledge Partner with the Department and will lend their support in the following areas:

- i. Training & Capacity Building
- ii. Developing Generic Models for different Interventions
- iii. Development of guidelines, SOPs, advisories, etc.
- iv. Research and assessment studies on WSUDP and RWH planning and designing, etc.

15. Timelines

Sl. No.	Activities	Tentative timeline	Responsibility
1	Constitution of SLTF	1 day	H&UD Department
2	Constitution of City/ULB Level Core Group	1 day	Collector/ Commissioner
3	Nomination of Nodal Officer	1 day	Collector/ Commissioner
4	Preparation of PAP	7 days	Nodal Officer



5	Feasibility study and preparation of FAP	10 days	Nodal Officer
6	Commencement of execution	11 days	ULBs
7	Completion of project	30 days	ULBs

This is an evolving programme and the advisories on the other activities shall be issued shortly. Everyone is requested to adhere to this advisory meticulously.


Principal Secretary, H&UD Department

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