

OUTPUT-BASED TOILET PROGRAM (SUMMARY)

KARNATAKA INTEGRATED URBAN WATER MANAGEMENT INVESTMENT PROGRAM

1. Background

1. The proposed ADB funded Karnataka Integrated Urban Water Management Investment Program (KIUWMIP) intends to enhance water security and improve river environment through integrated urban water management (IUWM) interventions. KIUWMIP aims to build on water supply and sanitation considerations within an urban settlement by incorporating urban water management within the scope of the entire river basin. Therefore the program focuses on immediate investments in urban water supply and sanitation and also aims to improve access and service delivery amongst the urban poor.

2. Four towns in the upper Tunga Bhadra sub basin, in the central-northern region of Karnataka, have been selected to receive assistance under Tranche 1 of KIUWMIP: namely (i) Davanagere; (ii) Renebennur; (iii) Harihar and (iv) Byadgi for Tranche 1 investments. Typical water and sanitation investments planned for these towns include (i) rehabilitation and construction of new water treatment plants; (ii) replacement and construction of new storage reservoirs; (iii) rehabilitation and construction of transmission and distribution mains; (iv) installation of bulk, district and domestic water meters; (v) construction of new waste water treatment plants; (vi) rehabilitation and expansion of sewer network including individual connections; and (vii) construction of new household, community and mobile toilets.

3. It is proposed that an output based aid (OBA) mechanism will be utilized to increase access to sanitation for the poor and vulnerable populations identified in the four towns. OBA is a results-based financing mechanism where payments of funds or subsidies are linked to the achievement of specified outputs as opposed to traditional inputs. Under the KIUWMIP, OBA will be used for three sanitation components (i) construction and connection to the sewer network of new individual household toilets; and (ii) construction and connection to the sewer network of community and mobile toilets; and (ii) sanitation marketing to promote open defecation free (ODF) communities.

4. The construction and connection of individual household and community toilets will be funded by a grant (USD 1.8 million) that has been secured under KIUWMIP. The sanitation marketing component of the program will be funded under the investment program.

2. Project Rationale

5. The Government of India (GOI) under its National Urban Sanitation Policy has a vision for all towns to become totally sanitized to sustain public health and environmental outcomes for their citizens with a special focus on hygienic and affordable sanitation for the urban poor and women.¹ The main goals of the policy are (i) awareness generation and behavior change; (ii) open defecation free cities; and (iii) integrated city-wide sanitation. To achieve these goals, GOI recognizes the need for state and city level institutions to take initiative as the sanitation situation and constraints of each urban city across India is different. Therefore GOI requires each state and city to develop and implement its own sanitation strategy and city sanitation plan (CSP) respectively to conform to the National Policy.

¹ National Urban Sanitation Policy, Ministry of Urban Development, 2010
(<http://urbanindia.nic.in/programme/uwss/NUSP.pdf>)

6. In the state of Karnataka, regional disparities in toilet access are evident. Whilst recent surveys and 2011 census show that 85% of households in the state have access to toilets within the premises, the inland northern region has the lowest access (66%) than the state average. This region also records highest in open defecation (25%) and direct discharge of wastewater from toilets into open drains. Table 1 provides the distribution of access to sanitation in the four northern region towns targeted for investments under Tranche 1 of the KIUWMIP.

Table 1: Access to Sanitation Facilities in Davanegere, Renebennur, Harihar and Byagdi

Towns	Individual	Shared	Public	None
Davanegere	91%	5%	1%	3%
Renebennur	63%	3%	11%	24%
Harihar	61%	5%	11%	23%
Byagdi	54%	3%	2%	41%

Source: Baseline survey conducted in 2012 by KIUWMIP PPTA team

7. Households that do not have access to sanitation facilities practice open defecation. In Davangere, Renebennur and Harihar low income households that had a monthly per capita expenditure of Rs 0-1,400 did not have access to sanitation facilities. In Byagdi, middle to high income households that had a monthly per capita expenditure of Rs 1,400 to >Rs 2,100 (up to 40% of households surveyed) did not have access to sanitation facilities and preferred to practice open defecation. This was however the view of men, who believed that open defecation was better than having a toilet in/ near the house. This view was however not shared by the women of the same households.

8. Further, access to sewerage system is reported to range between 13% in Harihar, 47% in Ranebennur, 77% in Davangere and none in Byadgi. Lack of house service connections in Ranebennur even in areas where UGD exists and blockages and consequent flooding in Davangere have serious environment and public health implications.

9. Based on the disparity in access to sanitation facilities evident in the four towns, especially amongst the low income households and the need for demand promotion to promote ODF communities, OBA mechanism has been proposed to be used.

10. OBA approaches with their pro-poor targeting have been piloted in several countries and have been shown to improve the targeted and efficient delivery of subsidies to support sanitation services. OBA has typically been used to support services along the sanitation value chain from demand promotion to collection/ access, transport, treatment and disposal/ reuse for poor and vulnerable populations. A major hurdle for the urban poor to obtaining access to sanitation and other basic services is the high initial cost. OBA can reduce this barrier by paying a subsidy to bridge the gap between actual cost and what users are willing to pay. In the case of this project, OBA mechanism has been chosen to increase the access of sanitation to primarily low income households in the four towns through (i) construction and connection to the sewer network of new individual household toilets; (ii) construction, connection to the sewer network and operation of community toilets; and (iii) sanitation marketing to increase demand for toilet construction and use and promote open defecation free (ODF) communities.

3. Other Toilet Programs and Lessons Learned

11. Karnataka Urban Infrastructure Development and Finance Corporation Limited (KUIDFC) has successfully implemented toilet programs in several towns under the ADB funded Karnataka Urban Development and Coastal Environment Management Project (KUDCEMP)

and the World Bank funded Karnataka Municipal Reform Project (KMRP). These programs have been implemented using a similar mechanism to OBA for the construction of low cost individual household toilets amongst the lower income groups in several towns in Karnataka.

12. The joint involvement of Urban Local Bodies (ULBs), non-governmental organisations (NGOs) and community based groups contributed to the success of implementing the toilet programs, especially under KUDCEMP. Further, the willingness of the beneficiaries to contribute their share towards the construction of toilets resulted in achieving sustainable use of the toilets.

13. KUIDFC and ADB under KUDCEMP observed that community toilets constructed in the past (under various other schemes) were either abandoned or not maintained overtime due the lack of dedicated resources available for the on-going operation and maintenance. This in particular was the case in towns where there were no onsite or centralize treatment facilities. The 4 towns under project 1 of KIUWMIP will have investments in centralized sewer networks and treatment systems. Therefore it is proposed that community toilets that have been identified to be constructed under the investment program will be connected to the sewer network. Further, a key eligibility criteria for the construction of community toilets will be the development and submission of operational and management plans by the relevant community groups upfront prior to consideration and commitment for construction.

14. Drawing from these lessons learned, the KIUWMIP OBA toilet program guidelines is drafted below.

4. Guidelines for Design and Implementation Arrangements

15. The aim of the KIUWMIP OBA toilet program is to increase the demand and use of properly designed (pour flush or similar) and constructed household and community toilets connected to the sewer network by providing subsidies to low income households.

16. There are also funds available to urban local bodies (ULBs) through various government schemes and programs. CSPs for the towns are either drafted or are in the process of being drafted and provide information on the number of toilets that are likely to be funded through the various government schemes. Based on this information, gaps were identified and estimation was made on the number of toilets that will be covered under the KIUWMIP Tranche 1 through an OBA mechanism. Table 2 provides the number of individual household and community toilets for each town to be covered under KIUWMIP Tranche 1.²

Table 2: Required No. of Toilets at Town Level

Type of Toilets	Davanagere	Ranebennur	Harihar	Byadgi	Total
Individual HH	3805	1425	752	530	6512
Community*	43	120	80	107	350

*Community toilets correspond to the number of seats required in each town. The standard is 8 households per seat.

² Detailed assessment of individual toilet requirements in the 4 towns is available in, TA 7954-IND Final Report: Annex 6 Social Analysis report dated December 2012.

17. It is estimated that the approximate population to be covered by the OBA toilet is 47,579 (approximately 9,312 households are targeted for toilet coverage) across the 4 tranche 1 towns. For each town it is estimated to be:³

- (i) Davanagere = 19,500 (4,149 households targeted for toilet coverage)
- (ii) Renebennur = 13,356 (2,385 households targeted for toilet coverage)
- (iii) Harihar = 7,516 (1,392 households targeted for toilet coverage)
- (iv) Byadgi = 7,207 (1,386 households targeted for toilet coverage)

18. The cost to construct and connect to the sewer for the various toilets is estimated as follows:

- (i) Individual HH toilets = INR 15,000/ toilet
- (ii) Community Toilets = INR 30,750/ seat (per seat requires an area of approximately 20.5 sqft @ INR 1,500/ sqft)

19. Based on the required number of toilets specified in Table 2 and the cost per toilet construction and connection, it is estimated that the total cost will be INR 10,84,42,500 which is equivalent to USD 2.0 million (based on an exchange rate of USD 1 = INR 54). It is suggested that KIUWMIP will cover 70% of the cost through grant, 20% will be covered through ULB/ Government of Karnataka contribution and 10% will be from beneficiary contribution. A grant of USD 1.8 million has been secured under KIUWMIP for implementing this OBA toilet program.

20. The OBA toilet program will be implemented by the ULBs with assistance from a local NGO and community based groups (newly created or existing). Technical support to the ULBs will be provided by the investment program's project management, design and construction supervision consultants (PMDCSC). Further, the active participation of beneficiaries is critical to the success of the program.

21. ULBs will provide grant subsidies to (i) low income households for construction and connection of individual household toilets to the sewer network; and (ii) low income community groups for the construction and connection of community toilets.

4.1 Roles and Responsibilities of the local NGO

22. The NGO will assist the ULBs to; (i) conduct social surveys and verify existing baseline data to identify OBA beneficiaries in the 4 towns; (ii) facilitate the creation of new community groups (in the absence of existing ones) who will oversee and coordinate the construction of toilets and their connection to the sewer network; and (iii) develop and implement a participatory social sanitation marketing program to increase demand for toilet construction, connection and use and promote open defecation free (ODF) communities through effective hygiene promotion.

23. The NGO will in particular develop and implement social and behavioral change training program on toilet demand creation, social leadership, health, hygiene and sanitation conducted for women and men, including promotion of ODF communities (T: F-50%, M-50%). It is estimated that the NGO will facilitate 100 community based groups, with equal participation of women in each group, formed to promote positive behavior in health, hygiene and sanitation issues (T: Davangere–25, Harihar–25, Ranebennur–25, Byadgi–25)

³ Calculated based on 2011 Census data where household size for Davangere is 4.7, Renebennur is 5.6, Harihar is 5.4 and Byadgi is 5.2.

24. The local NGO will also be responsible for the independent verification of the toilets being constructed for social acceptability during and upon completion of construction and connection to the sewer network.

4.2 Roles and Responsibilities of the Community Based Groups

25. The community based groups will oversee the overall construction and connection of individual household and community toilets with support from the local NGO. The community groups will actively mobilize the toilet program at the community level through active participation in the formulation, design, construction and connection of toilets.

26. The community based groups will be responsible (with support from the NGO) for receiving, assessing and submitting beneficiary applications to the ULBs for final assessment and approval. The community based groups will also monitor progress of construction and connection of toilets under the OBA program.

27. The community based groups will also play a key role as community mobilisers in the sanitation marketing program to be implemented by the NGO.

4.3 Roles and Responsibilities of the PMDCSC

28. The PMDCSCS under the investment program will be responsible for the design of appropriate toilets in liaison with the local NGO and community based groups. The consultants will provide standard certified drawings for toilet construction and connection in accordance to government standards and codes.

29. The consultants will be responsible for the independent verification of the toilets being for technical adequacy during and upon completion of construction and connection to the sewer network. The consultants will also conduct independent verification of the sanitation marketing program that will be implemented by the NGO.

4.4 Roles and Responsibilities of the Regional Project Management Unit (RPMU)

30. The Regional Project Management Unit (RPMU) will engage the local NGO to assist the ULBs to implement the OBA toilet program. The RPMU will also play an overall supervisory role in the implementation of the program.

31. The RPMU will be responsible for the disbursement of grant money to the ULBs (who will make final payment of the grant subsidy to the beneficiaries directly) as OBA targets are achieved.

4.5 Roles and Responsibilities of the Beneficiaries

32. The beneficiaries will be responsible to; (i) participate in household surveys and sanitation marketing program; (ii) apply for OBA subsidy for construction of toilets; (iii) commit to 15% contribution towards the construction of toilets; (iv) commit to the on-going operation and maintenance of toilets; and (v) ensure design and standards of toilets being built are adhered to.

4.6 Implementation of OBA for Individual HH Toilets

33. **Eligibility criteria and application:** The following eligibility criteria applies (i) low income households who have a monthly per capita expenditure of INR 0 to INR 1,400; (ii) the availability of space within or adjacent to the house; and (iii) willingness to bear the 15% beneficiary contribution in terms of labor, materials or cash. The community group and NGO contact the household to confirm OBA eligibility. They discuss the various models and benefits, the cost, grants and ability to pay. The households that are interested apply to the community group for OBA assistance. The community group with support from the NGO assess the applications and submit it to the ULBs for final assessment, selection and confirmation for OBA subsidy. The community group reaches an agreement with the household regarding financing, benefits, and obligations. The household commits to a date by which the substructure of the toilet will be completed. Part of the eligibility agreement includes a requirement for the household to participate in the sanitation marketing program being implemented by the NGO.

34. **Design, Suppliers and Construction:** The construction of individual HH toilets will be the responsibility of the house owner and the water user group will periodically monitor the progress. Individual HH toilets will be full flush toilets. The design of the toilets shall be to GOI standards and technical assistance for quality control will be provided by the KIUWMIP Tranche 1, PMDCSC. The community group issues a stamped voucher for a fixed list of supplies and prices that permits the household to obtain materials and supplies needed from suppliers. The voucher guarantees payment to the supplier within 30 days (payment will be made directly by the ULB to the supplier). Once the substructure of the latrine is completed, the household will send a statement to the water users group regarding completion. The water users group will ask the individual verifier (NGO and the PMDCSC) to verify quality and completion.

35. Alternatively the household can hire a contractor to construct the toilet. In this case the household that receives the certified voucher may provide it to the contractor to procure the supplies and complete the toilets. The household will request an independent verification and upon satisfactory completion the beneficiary is reimbursed from the ULB.

36. **Verification:** Prior to construction, the NGO takes a photograph and provides a brief description of the site to note evidence of current sanitation practices. Independent verification will take place at two instances, once following construction of substructure and after the completion of all construction (superstructure and fittings). After the construction is complete, the household sends a statement to the community group and requests for an independent verification. The PMDCSC inspects the toilet for technical adequacy and the NGO inspects it for social acceptability. The individual verifiers (NGO and PMDCSC) issue a report to the ULB and water users group before any reimbursement is made. 6 months after the completion of the construction the NGO will verify if the toilet is satisfactorily operated and a report will be issued to the ULB and community group.

37. **Payment of OBA Subsidy to the Beneficiary:** The maximum OBA subsidy to be provided for the construction of one household toilet by KIUWMIP is INR 10,500 and by ULB is INR 3,000. The beneficiary will contribute the remainder INR 1,500 either in labor, materials or cash. Following satisfactory construction of the substructure verified by the NGO and PMDCSC, 60% of the OBA subsidy will be provided to the beneficiary. 30% of the OBA subsidy will be released following the satisfactory completion of the superstructure and the balance 10% of the OBA subsidy will be released 6 months after, following independent verification that the toilet is operating satisfactorily. The ULB's with assistance from the NGO and community groups will make direct payment of subsidies at the specified stages to the beneficiaries. Initial disbursement of funds for OBA subsidy for construction and connection of HH toilets will be from the Government. The Government will reimburse expenses from the UFPF grant.

4.7 Implementation of OBA for Community Toilets

38. **Eligibility criteria:** The following eligibility criteria applies (i) low income communities who have a monthly per capita expenditure of INR 0 to INR 1,400; (ii) communities that do not have space for individual household toilets; and (iii) willingness to pay nominal charges (50p/ use or INR 50/ month/ household) towards use and maintenance including submission of operational and maintenance plan. The ULB with support from the NGO contact the community through the community groups to confirm OBA eligibility. They discuss the various models and benefits, the cost, grants and ability to pay nominal charges. The communities that are interested apply to the ULB through the community groups and NGO for OBA assistance. Part of the eligibility agreement includes a requirement for the community to participate in the sanitation marketing program.

39. **Design, Suppliers and Construction:** The ULB will engage a service provider or the community group to construct, operate and maintain the community toilets. The ULBs will periodically monitor the progress. Community toilets will be full flush toilets or similar. The design of the toilets shall be to GOI standards and technical assistance for quality control will be provided by the KIUWMIP Tranche 1, PMDCSC. The ULB will enter into a build and operate contract with a certified service provider or the community group. The ULB issues a stamped voucher for a fixed list of supplies and prices that permits the service provider or the community group to obtain materials and supplies needed from suppliers. The voucher guarantees payment to the supplier within 30 days (payment will be made directly by the ULB to the supplier). Once the substructure of the toilets is completed, the service provider or the community group will send a statement to the ULB regarding completion. The ULB will ask the individual verifier (NGO and the DSC) to verify quality and completion.

40. **Verification:** Prior to construction, the NGO takes a photograph and provides a brief description of the site to note evidence of current sanitation practices. Independent verification will take place at two instances, once following construction of substructure and after completion of all construction (superstructure and fittings). After the construction is complete, the service provider or community group sends a statement to the ULB and requests for an independent verification. The PMDCSC inspects the toilet for technical adequacy. And the NGO inspects it for social acceptability. The individual verifiers (NGO and DSC) issue a report to the ULB before any reimbursement is made. 6 months after the completion of the construction the NGO will verify if the toilets are satisfactorily being operated and maintained and a report will be issued to the ULB.

41. **Payment of OBA Subsidy to Service Provider/ Community Group:** The maximum OBA subsidy to be provided for the construction of community toilets by KIUWMIP is INR 21,525/ seat and by ULB is INR 6,150/ seat. The beneficiaries will contribute the remainder INR 3,075/ seat either in labor, materials or cash. Following satisfactory construction of the substructure verified by the NGO and PMDCSC, 60% of the OBA subsidy will be provided to the service provider or community group. 30% of the OBA subsidy will be released following the satisfactory completion of the superstructure and the balance 10% of the OBA subsidy will be released after 6 months following independent verification that the toilet is operating satisfactorily. The ULB's with assistance from the NGO will make direct payment of subsidies at the specified stages to the service provider/ community group. Initial disbursement of funds for OBA subsidy for construction and connection of community toilets will be from the Government. The Government will reimburse expenses from the UFPF grant.

4.8 Implementation of OBA for Social Sanitation Marketing

42. The local NGO will develop and implement a participatory social sanitation marketing program.

43. **Eligibility:** All toilet-less households in all 4 towns despite socio-economic status will be targeted for this component.

44. **Type of service delivery and outputs:** The ULB will engage the NGO through a performance based contract (lump sum) to implement a participatory community based social sanitation marketing program. The ULB will monitor the progress of the contract periodically.

45. The NGO will need to achieve the following 4 outputs following implementation of the program:

- (i) Output 1 - Conduct social and behavioral change training program on toilet demand creation, social leadership, health, hygiene and sanitation for women and men, including promotion of ODF communities of targeted households (T: F-50%, M-50%).
- (ii) Output 2 - 10% of low income (average monthly income INR 0 – INR 1,400) participants build/ rehabilitate individual household or community toilets following the program.
- (iii) Output 3 - 20% of middle income and high income (average monthly income >INR 1,400) participants build/ rehabilitate individual household or community toilets following the program.
- (iv) Output 4 - 40% of targeted households become ODF at the completion of the program.

46. **Verification:** The PMDCSC will conduct the independent verification. At start up, the consultant will verify the participation level of targeted households. Once target participants build/ rehabilitate individual or community toilets, the NGO will notify the ULB. The PMDCSC will inspect the toilets for technical adequacy and social acceptability. At the end of the program the PMDCSC will independently verify the percentage of participants who become ODF. Independent verification reports will be submitted to the ULB.

47. **Performance based payment:** The RPMU will release payment to the NGO as key outputs are being achieved. The following payment schedule is proposed:

Stage of Release of Payment to NGO	Percentage of Lump Sum Fee to be Released
NGO mobilisation (upfront)	10%
Achievement of Output 1	40%
Achievement of Output 2	20%
Achievement of Output 3	20%
Achievement of Output 4	10%

5. Conclusion

48. These guidelines have been proposed for the OBA mechanism which will be utilized to increase access to sanitation for the poor and vulnerable populations identified in the four towns under KIUWMIP Tranche 1. The guidelines have been developed based on the review of learning from past sanitation programs implemented by KUIDFC and various OBA literature.

Therefore the acceptance of these guidelines is subject to further discussions with the executing agency and relevant stakeholders of the KIUWMIP.