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PERBAIKAN KAMPUNG - KAMPUNG IMPROVEMENT
BOGOR - TANGERANG - BEKASI - CIREBON

CASE STUDY MCK II

FINAL REPORT

MARCH 1982

JUDC

CONCARPLAN
SANGKURIANG

JOINT URBAN DEVELOPMENT CONSULTANTS OFFICE: JL MERAK 27 BOGOR

FOREWORD

In August 1981 JUDC carried out a sociological case study on MCKs and other sanitary facilities in Bogor, Bekasi and Cirebon. The report on that study* recommended among others that the Kampung Improvement Programme in Bogor, Tangerang, Bekasi and Cirebon (KIP BOTABEK - Cirebon) continues the construction of semi public sanitary facilities ("MCK - keluarga").

In January 1982 the first 19 MCKs built in accordance with the newly developed design for such MCK Keluarga were completed. In order to see how these MCKs function a second case study on MCKs was carried out in February 1982. The study used the same approach and the same data collection and tabulation instruments as the first study. Frequent references will also be made to the report on the first case study and its annexes.

* Case study MCK, Final Report JUDC October 1981.
References to the study will be made as "MCK - I"

Conclusions and recommendations

The second case study on MCK has been succesfull in obtaining sufficient data to formulate relevant conclusions and recommendations on the construction of MCKs. Most of the conclusions of the first case study can be supported. Some need to be revised. Similarly most of the recommendation formulated before are repeated below. Some recommendations of the first case study have been revised.

1. The previous case study recommended continuation of the MCK Keluarga programme as part of KIP. The outcomeof the second case study has confirmed that the MCK Keluarga suits very well the local culture,conditions and wishes. It has been JUDC's experience that the request for the construction of MCK Keluarga increase rapidly the more people realize what the difference is between a MCK Keluarga and other MCKs. Also in kampungs Poncol and Pulo Kecil this has been the case. More MCKs are requested in these two kampungs, now the population have seen and experienced these MCK Keluarga. This may be considered as a strong additional indication that the MCK Keluarga is liked.
   Therefore it is strongly recommended to continue the construction of (semi - private) MCK Keluarga.

2. As we have seen in the first case study, we have to conclude again that the local situation and in particular the existing needs for sanitary facilities varies from kampung to kampung. In the two kampungs studied a specific need for toilets existed, but also a need exists for the other functions of the MCK. The rapid population increase in these two kampungs will only increase these needs. Because of the differences between kampungs we have to be careful when making generalisations.

3. The approach in planning the MCKs in kampung Poncol and Pulo Kecil has been successful. Especially the early involvement of the inhabitants has contributed to the success of the MCK programme.
   It is recommended to increase the active involvement of the local population, especially before the actual construction of the MCKs.
   The provision of detailed information on type of MCK planned, total number of MCKs that can be constructed should be given before any plans are finalised.
   Because many misunderstanding existed about the septic tanks and the filters not all MCKs are optimally used yet. An explanation of the working of septic tanks should be included in the information given to the local population before the implementation.
   In addition to information provided (top -down) to the local population, the local population should be asked to participate actively (bottom-up) especially in the detailed selection of locations for MCKs. Such an active participation may forestall most problems on the provision of land for the construction of MCKs.

4. To judge the various technical aspects we should differentiate between the MCK as they were designed and the MCKs as they were built.
   The system of waste water disposal of the MCK was not satisfactory according to the inhabitants of Poncol and Pulo Kecil. To a large extend this is based on facts such as septic tanks which were not yet completed,partly it may be based on misunderstandings about the difference between a septic tank and a soakaway or pit privy. The fear that the pump water is infected by the septic tank may be a major reason why several MCKs were underused.
   The MCKs were considered too small, especially in kampung Poncol. Because the MCKs in Pulo Kecil,which were built slightly bigger than the design indicated, were

used more intensively, we may conclude that the MCK is considered to be designed too small, at least for such (still) sparsely populated kampungs Poncol and Pulo Kecil. It is recommended to adapt the design in such away that at least the space for bathing and the space for washing are somewhat bigger.

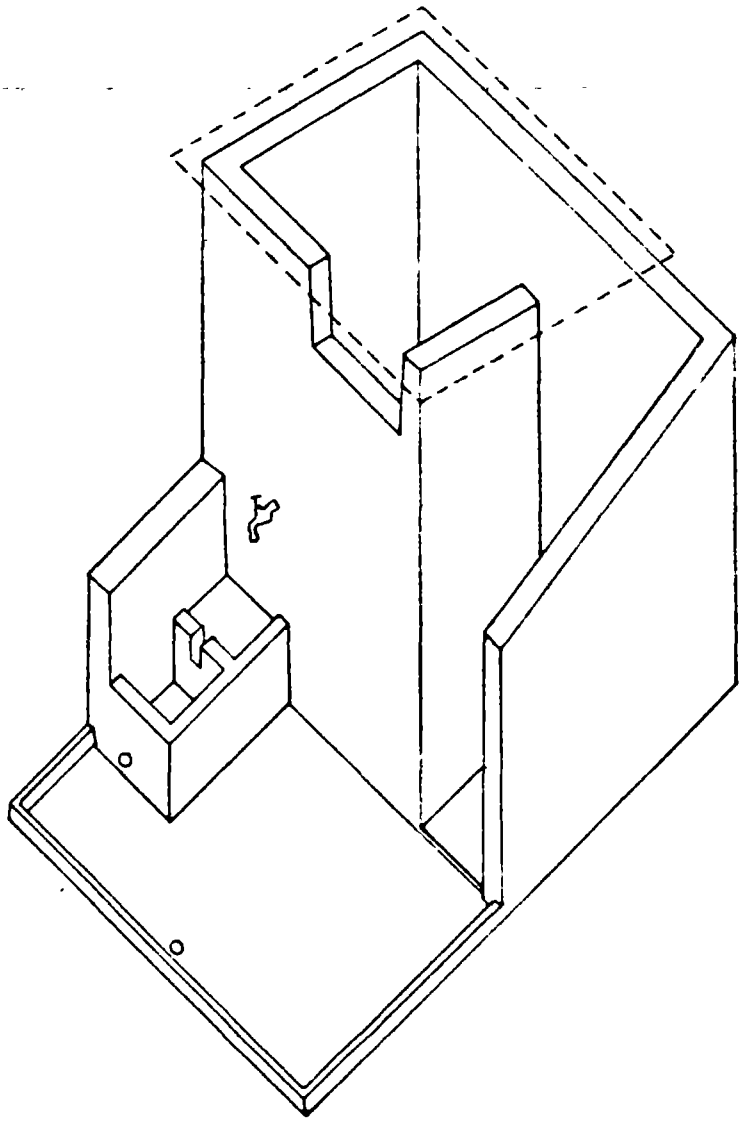
It seems that most people would prefer to have a door on the MCK. It is recommended to develop a design of a MCK Keluarga with a door.

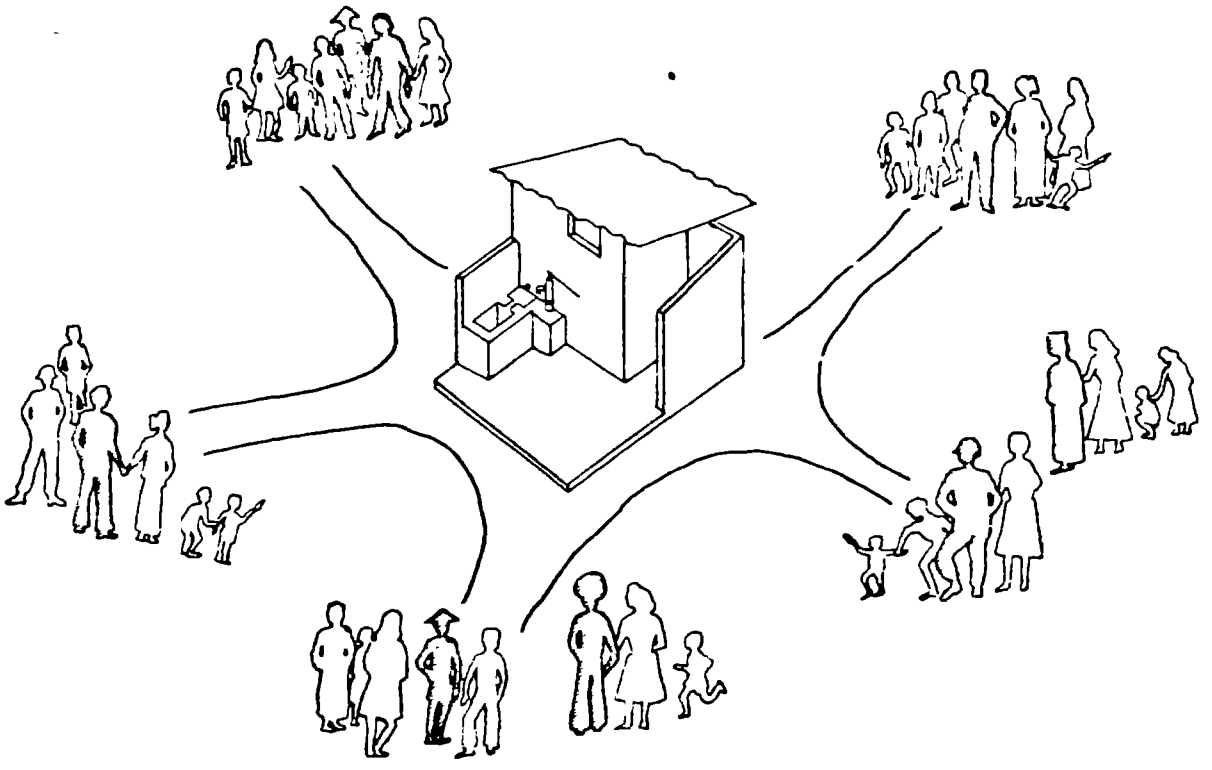
Possibly the MCKs will no longer be used as a toilet after the septic tanks will be full. Therefore the recommendation formulated in the report on the first case study is repeated : Efforts should be undertaken to ensure that the septic tanks of the MCKs will be emptied at regular intervals.

Table of contents

1. INTRODUCTION

This report describes the main results from the second sociological study on MCKs carried out by JUDC.
Afterdescriptions of the location of the study and the MCKs, the data themselves are presented in chapters 6 to 8 followed by an analysis in chapter 10.
The results are fairly clear and show interesting correlations. The reader may however ask what the value is of these data and what can be done with them. The data were collected in two kampungs only, at a particular time (rainy season) and with a fairly small number of respondents only.
In February 1982 only 19 MCKs had been constructed more or less according to the design developed by JUDC, all of them in two kampungs in Bekasi.
A study carried out in another kampung in another town would yield different results. Each kampung is different. This is one reason why these studies are called case studies and not surveys. The outcome of these studies can not give a description of"the average kampung". To attempt that could be compared with trying give a description of the average Indonesian.
What such case study can do, and even better than quantitative surveys, is to evaluate in a formative way the various elements of the kampung improvement programme and to suggest improvements.
The present report is not a manual. It is only the presentation of the outcome of a study, including various recommendations. These recommendations could however be a valuable input for a manual on MCKs.





MCK KELUARGA

2. Objectives

2.0 Three major objectives were formulated in the design for this second case study on MCK:

2.1 The second MCK case study should try to confirm the conclusions reached after the first case study.

2.2 The study should find out to what extend the MCK Keluarga are used as intended. Especially relevant is the number of people making use of the MCK, as well as the system of maintenance.

2.3 The study should find out whether there are important shortages in either approach or design.

3. Methods of data collection and tabulation

3.1. Data collection

3.1.0 Out of the 19 MCK Keluarga built in kampungs Poncol and Pulo Kecil, Bekasi, a sample of 7 MCKs was randomly chosen.
At each of the 7 locations four types of data collection were executed : *

3.1.1 Observation, using identical observation methods and instruments as in MCK I before. Observation took place four times one hour at each MCK i.e at 5 - 6 a.m, 8 - 9 a.m., 11-12 a.m. and 5 - 6 p.m.

3.1.2 Interviews with users of MCK, using same questionnaire as before with however one addition: the respondent was asked to which household (s) he belongs.

3.1.3 Open interviews were held with 20 people including :
- 4 heads of RT
- 7 heads of household on whose land MCK is built.
- 7 heads of neighbouring households
- 2 contractors.

These interviews asked in a more open way how the MCK functions. The checklist used in MCK I was used again with some revisions.

3.1.4 Evaluation interviews were carried out with the 20 respondents of the open interviews. Ten technical aspects such as various sizes of the MCK were to be evaluated as good, reasonable or bad. This questionnaire proved to give a large amount of useful information.

* The data collection instruments are presented in Annex 2.

3.2. Tabulation

Edge punched code card, successfully applied in MCK I as well as in the garbage collection case study were used again. Because coding lists had been prepared before the execution of the fieldwork, coding and tabulation, including more than 125 crosstabulations could be completed within one week after the completion of the fieldwork.

4 Description of locations

4.1 Kampung Pulo Kecil and Kampung Poncol were until a few years ago sparsely populated fishermen villages surrounded by swamps. Almost all inhabitants earned their living by fishing.

Now both kampungs are surrounded (Pulo Kecil on all sides and Poncol so far only on 3 sides) by Perumnas housing schemes. Nobody can live of fishing anymore. Many, probably most, families shifted to trade as their main source of income. They mainly sell to the inhabitants of the Perumnas areas. In addition many families have built cheap houses which they rent out. Probably the total population in each of the two vilages has more than doubled in 2 years time and many houses are still under construction.

The people used to defecate in the swamps at the edge of the villages or in the fish ponds. Since neither of these exist anymore a strongly felt need for toilet facilities existed.

Some families had already started to dig simple pit privies. The need for toilets as well as for bathing and washing facilities and for water sources has increased even more as a result of the population increase. Sharing wells and other sanitary facilities among several families is a very common phenomenon in both kampungs.

4.2 When the Kampung Improvement Programme moved to Pulo Kecil and Poncol, MCKs were clearly to be included in the package provided. Through the local leaders the community was fairly well informed beforehand that MCKs could be provided and the community were asked to select locations for the MCKs. It is also likely that the inhabitants knew about the success of the MCKs built in other kampung, such as locations I and II of

the first case study. It was also made clear to them that the MCKs were meant for use by a limited number of families only. The musyawarah organized by the KIP Unit of Bekasi proved to be successful. Contrary to other kampungs improved previously, the kampung population gladly made land available for the construction of the MCKs.

4.3 The MCKs included in the sample are fairly evenly spread over the two villages. Four MCKs (in this report number 1, 2, 3 and 4) were selected in Kp Poncol and three MCKs (numbered 5, 6 and 7) in Kp Pulo Kecil. Location 4 was not yet in use properly because the construction of the septic tank was not yet completed.

5. Description of MCK Keluarga

5.1 In figure 1 a drawing is presented of the MCK Keluarga as it should have been constructed. See also illustrations 1, 2, 3 and 4. As can be seen from table 1* the actual sizes of the MCKs in Poncol are smaller than the design whereas in Pulo Kecil they are bigger.

5.2 The MCK Keluarga was designed to provide sufficient toilet, bathing, and washing facilities for about 5-7 families or 40 people. Because only a limited number of families (at least according to the plan) share the use of the MCK it may called semi-private (or semi-public). To indicate this the term MCK Keluarga is used to differentiate them from MCKs which are strictly public.

5.3 The MCKs in the sample were all designed with a septic tank.
After passing through the septic tank the waste water should either be discharge in a soakaway at a distance of at least 10 meter from the nearest pump or well, or after leaving the septic tank it should pass through a filter before it is discharged in a drain.

* The tables are presented in Annex 1.

Illustration 1 At MCK 1 few people mandi inside. The users have changed the washing floor in a bathing and washing place. They don't use the pump water as drinking water because the septic tank is close to the pump.

Illustration 2 In general children don't bath inside , but on the washing floor. Some of the users regretted that at this MCK (location 6) no PVC pipe was used but an iron pipe.

Illustration 3 Many respondents prefer to have a door. At this MCK in Pulo Kecil the inhabitants made a door themselves, also to avoid that the MCK is used by too many people. See how they solved the problem that the pump was installed too low to place a bucket under it.

Illustration 4 Many children use the MCK on this photograph. They are playing in the wash basin. At the background are the already half drained swamps and ricefields which previously surrounded Poncol on all sides.

6. Results from observation

		Reference
6.1	The MCKs are more often used by women than by men, not only for washing clothes and dishes, and for fetching water but also for using the the toilet.	table 2
6.2	The number of users varied considerably.MCK 4 is not yet in use (septic tank was not yet finalized). In general the MCKs in Kp Pulo Kecil (MCK 5, 6, 7) are used far more intensively than the MCKs in Kp Poncol.	table 3
6.3	The MCKs studied are used in the first place as toilet. Some of them are also used fairly intensively for bathing and for washing. Contrary to the MCKs of the first study, the MCKs in Kp Pulo Kecil and Kp Poncol generally don't function as a source of water for use at home.	table 4
6.4	The peak hours for use of the MCKs was observed to be late in the afternoon.	table 5
6.5	Contrary to the results of "MCK I" a fairly large number of children was observed to use the toilet at the MCKs.	table 8

Several of the above observations can be linked to the design and construction of the MCK and to the specific need of the kampungs concerned. These will be analysed in some detail in chapter 10.

Note :
The observations (as well as the interviews) were carried out by male students.It was noted several times that kampung inhabitants did not use the MCKs to avoid to be interviewed or waited till the observers/interviewers left the place. Part of the observations (in Kp Poncol) were carried out during

rainy weather. This may also have resulted in observation scores which are lower than the actual use. Contrary to the first case study, this study was carried out at the rainy season. Since many of the wells in the two kampungs concerned are reported to run dry in the dry season, we may expect that the number of users of the MCKs for bathing, washing and fetching water will be higher in the dry season.

7. Results from interviews with MCK users

Reference

7.0. At nearly all MCKs, many users also have access to other (private) sources of water (especially in the rainy season) and facilities for washing and bathing. Especially in Pulo Kecil for many respondents the MCK was their only or main facility for bathing, washing or fetching water. For a much larger percentage of the users the MCKs is the only place which they use as a toilet. — table 10

7.1. Only at part of the MCKs a large percentage of respondents bath at the MCK. This is at all MCKs in Pulo Kecil and one MCK in Poncol. At the latter MCK bathing does not take place in the bathroom but outside, on the washing floor. This was also observed at another MCK Keluarga (not included in the sample) in Poncol. — table 11

7.2. Even if we exclude those respondents who don't do any washing of dishes and/or clothes regularly, fairly few respondents stated to use the MCK regularly for washing. In Pulo Kecil a higher percentage of respondent wash at the MCK than in Poncol. — table 12

7.3. At 6 of the 7 MCKs the toilet was used by almost all respondents. MCK 4 was an exception because the septic tank was not yet completed. — table 13

7.4. Even if we exclude those respondents who normally don't fetch water (such as large part of the children and the men) a remarkable low number of respondents fetch water regularly at the MCKs for use at home (especially for drinking and cooking). Only at MCK ' (Pulo Kecil) the MCK seems to function as a source water for use at — table 14

home in the same way as most MCKs of MCK I.

7.5 In general a clear correspondence was found between facility used for bathing, facility used for washing, facility used as source of water and facility used as toilet. Not at all people who use the toilet at the MCK, also bath and wash there, but people who bath or wash at the MCK also use the MCK as their toilet. tables 15, 16, 17, 18

7.6. Most of the respondents live close to the MCK they are using (within 100 meter). Not always the owners of the land on which the MCK was erected used the MCK most regularly. At some locations this was the case. At other locations the "owner" family continued to use private facilities available to them.

7.7 Almost all respondents (89.3%) prefered a roof on top of the MCK. Those who stated to have no preference were either children or people seldomly using the MCK.

8. Results from open interviews

8.0. Twenty open interviews were held. These interviews confirmed in general the results of the observation and of the other interviews. In particular useful is that they gave some reasons why the various MCKs were used in a different way. For instance these interviews con firmed that the MCKs in Poncol and Pulo Kecil are especially important as toilets. table 19

8.1 According to the interviews the daily cleaning of the MCKs is done generally by the users, although in some cases one of the users take special care in cleaning the MCK daily. Accord ing to our own observation all MCKs were indeed kept clean, although the area around the MCKs some times was muddy.

8.2 Only a small part of the respondents indicated that cost of repairs would be shared among the users. Others would refer the matter to the RT, or had not yet thought about a solution. It seems likely that solutions for such problems will be solved on a ad hoc basis, with or with out the involvement of the RT.

9 Results from evaluation questionnaire

9.0. Each of the 20 respondents of the open interviews also were asked to give their evaluation of 10 technical aspects of the MCK. In table 20 a score is given for these 10 aspects. In addition in same table the number of times an aspects was considered to be the worst has been presented.

9.1 It is clear that waste water disposal and entrance have by far the most negative score. Although the entrance has been scored negatively by the largest number of people, the respondents considered the waste water disposal the most serious weakness of the MCKs.

9.2 The complaints about the waste water disposal system were various. Some complained about the smell, some about muddyness caused by insufficiently drained wash and bath water, but a signifficant number either considered that the system was incomplete or that the septic tank was too close to the pump. Large part of these complaints are related to actual deficiencies such as the septic tank at MCK-4 which was not yet closed, filters which were not constructed properly or had no proper outlets
Partly they may be founded on a misunderstanding of the functioning of a septic tank. Some respondents (including one of the contractors) said that the septic tanks were already "full". It seems that many people don't realize that a properly constructed septic tank (with water tight walls and floor) which discharges at a safe distance of 10-12 meter or more does not seriously affect the quality of the pump water.

Even if the septic tank is only a few meters or less from the pump.

9.3. The entrance of the MCKs was not liked by many of the respondents, mainly because they prefer a door or have not yet developed another system to avoid that people enter the MCK while somebody is using the toilet. Others complained about the entrance being too narrow.

9.4. Most of the other negative remarks were about the sizes being too small. Several differencies were found between the replies from Poncol and those from Pulo Kecil. Not all diffirence can be considered significant. Clearest was the difference in opinion about the size of the bathroom. The MCKs in Pulo Kecil rated more favourable than those in Poncol. table 21

It is perhaps noteworthy that some respondents had to be explained what was meant with bath room and bak mandi. They considered the room only a toilet. One respondent even requested the interviewers and researcher whether it was allowed to use "the WC" (meaning the MCK) also for bathing and washing.

9.5 The "Bandung pumps" in general were liked very much by the respondents. Where applicable positive remarks were also made on the PVC pipes used.

10 Analysis

10.0 In this chapter we will try to analyse the various results of the case study presented in the previous chapters. Three factors clearly stand out as important for the use of MCKs provided. These are :

1. The local situation, especially the need for sanitary facilities.
2. The approach in planning the provision of MCKs especially the involvement of the local inhabitants at this stage and the provision of information to them.
3. The number of MCKs provided.
4. The design and construction of the MCKs.

10.1 We have seen in chapter 4 that the need for additional sanitary facilities especially toilets was high in both kampungs studied. This need will have facilitated the provision of land for the construction of MCKs.
From the observations and the interviews it also became clear that the MCKs are seen and used as toilets in the first place. According to the interviews at least six but at some MCKs even about 15 - 20 families use the toilet of the MCK regularly. The number of families using the MCK for any of the other functions is clearly less. That number may however increase because of new houses being constructed and especially in the dry season when other sources of water in the kampungs run dry.

10.2 The approach applied in planning the MCKs, introducing the idea to the local inhabitants and the provision of information largely have been successful.
In addition to the need as described above the involvement of the inhabitants will certainly have contributed to the success of the MCKs. However the involvement could have been even more intensive.
Not always the MCKs were plotted where the plotowner

wanted or even agreed to have the MCK. It also seemed that at the selection of locations the plotowners did not yet realize that in addition to space for the MCK also space would be required for the septic tank, for the filter and for the soakaway (at a distance of a least 12 meter from the pump). In several cases the direct family of the plotowner is not using the MCK or only as a toilet. In these cases the MCKs are used by people living in houses owned by owner of the MCK plot, or by his relatives.

The functioning of the septic tanks was not correct because of construction errors, which probably is a major reason why many people don't use the pump water for drinking and/or cooking. It is feared by the inhabitants (in some cases maybe correctly) that the septic tank discharges into the ground below it and polutes the water of the pump.

10.3 The number of MCKs provided in the two kampung don't cover as yet the need for sanitary facilities.
Less MCKs were constructed than were originally planned. One of the reasons quoted by several informants outside the kampung is that not more plots were made available.
Presently more MCKs are wanted by the inhabitants.
Probably a more intensive process of musyawarah would have yielded a larger harvest of possible locations at the planning stage. Possibly the experience of the inhabitants with the MCKs that have been built is more favourable than their original expectations.
Certain is that several inhabitants indicated during the study the need for additional MCKs, including people requesting that an MCK be built on their land.

10.4. We have stated in chapter 5 that not always the MCKs

have been constructed in accordance with the original design, as far as sizes are concerned.

10.4.1 In pulo Kecil where the MCKs were constructed somewhat more spacious, the MCK were used more often for bathing and washing than the MCKs in Poncol. At one MCK in Poncol that was also intensively used for bathing, bathing occured outside the bathing room. In general the MCKs in Poncol are called "WC" and are also considered in the first place to be toilets. Although other factors may also have contributed to the differences in use, it seems likely that these differences in use are caused in the first place by the differences in sizes. Also in Poncol more negative remarks were made about the sizes being too small.

10.4.2 In addition to the sizes of the MCK the type of entrance received many negative comments. A strong preference exists for a door rather than a "bayonet entrance". The type of human waste treatment received even more complaints. Although at some MCKs serious construction errors seem to have been made, it may be that insufficient understanding of the differences between a septic tank and a pit privy or soakaway have contributed to the existing dissatisfaction with the septic tanks. This dissatisfaction may also be a major reason why the MCKs are not optimally used for bathing and washing and only exceptionally used as source of water for drinking and cooking.

10.4.3 Otherwise the design of the MCKs seems to have been satisfactory. A one unit MCK, like in the first case study, seemed to fit nicely in the living pattern of the kampung inhabitants. The Bandung pumps are clearly successful in spite of some installation errors.

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CASE STUDY MCK II

ANNEXES

1 TABLES

2 INSTRUMENTS

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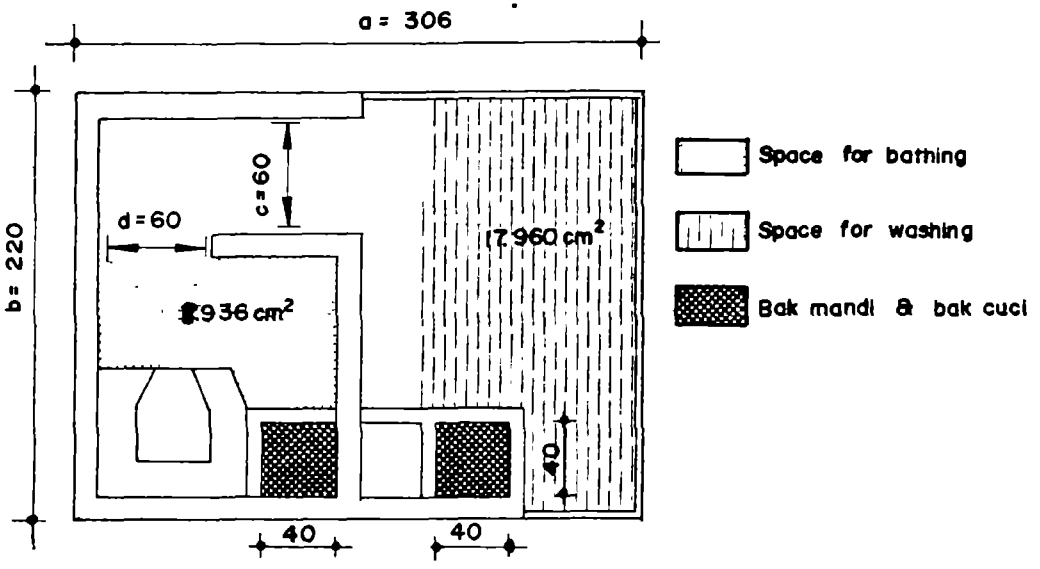

Annex 1
Table 1

	Total size (a x b)	Entrance (c)	(d)	Effective bathing space	Effective washing space	Surface bak mandi	Surface bak cuci
	cm2	cm	cm	cm2	cm2	cm2	cm2
Original design	67.950	60	60	8.936	17.960	1.600	1.600
M.C.K. 1	61.812	56	52	4.902	14.024	2.925	2.250
M.C.K. 2	66.144	52	51	6.966	16.236	2.400	2.250
M.C.K. 3	63.343	52	52	8.375	13.812	2.025	3.300
M.C.K. 4	62.712	52	58	7.590	17.397	3.025	2.200
M.C.K. 5	72.696	58	60	10.792	17.876	3.250	2.250
M.C.K. 6	72.696	60	58	11.644	18.766	3.300	1.600
M.C.K. 7	72.924	55	60	9.380	20.228	3.250	1.600
Average 1,2,3,4	63.503	53	53	6.958	14.690	2.594	2.500
Average 5,6,7	72.772	57,7	59,3	10.605	18.956	3.267	1.817

Number users of the 7 MCKs according to their age/sex, correlated with type of use.
Result of 4 hours observation at each MCK.*

Number of users	Age/sex of users * *				
	men	Women	children	total	%
Bathing	24	14	60	98	42.4
Washing	2	26	2	30	13.0
Toilet	29	34	26	89	38.5
Fetching water	2	10	2	14	6.0
Total ***	46 (57)	69 (69)	85 (90)	200 (231)	100
%	23,0 (24,7)	34,5 (36,4)	42,5 (59,0)	100 (100)	

Notes :

* Observations at the MCK were held :

5.00 - 6.00 a.m.
8.00 - 9.00 a.m.
11.00 - 12.00 a.m.
17.00 - 18.00 p.m.

** Men and women above 15 years, children up to 15 years old.

*** In this table and following tables two totals appear : without brackets are the total number of people observed to use the MCK.
In between brackets are the total number of times the MCK was used. If e.g. somebody was seen to and bath and wash at about the same time that person enters twice in the bracketed total.

Number of users according to their age/sex at the seven MCKs

Result of 4 hours observations at each MCK *

Location	MCK - Users							
	men		women		children		total	
MCK 1	1	(1)	9	(10)	21	(23)	31	(34)
MCK 2	3	(3)	8	(8)	7	(7)	18	(18)
MCK 3	7	(7)	5	(5)	4	(4)	16	(16)
MCK 4	2	(2)	-		-		2	(2)
NCK 5	11	(13)	15	(20)	30	(33)	56	(66)
MCK 6	12	(17)	8	(9)	12	(12)	32	(38)
MCK 7	10	(14)	24	(32)	11	(11)	45	(57)
Total	46	(57)	69	(84)	85	(90)	200	(231)
%	23,0	(24,7)	34,5	(36,4)	42,5	(39,0)	100	(100)
Average 1, 2, 3	3,7	(3,7)	7,3	(7,7)	10,7	(11,3)	21,7	(22,7)
Average 5, 6, 7	11,0	(14,7)	15,7	(20,3)	17,7	(18,7)	44,3	(53,7)

* see notes under table 2

MCKs 5, 6, 7, and MCK 1 are fairly intensively used. Generally more women then men use the MCKs. Nearly half of the users are children under 15 years old.

Type of use at the 7 MCKs

Result of 4 hours observation at each MCK *

Location	Type of use				
	bathing	washing	toilet	fetching water	total
MCK 1	19	5	10	-	31 (34)
MCK 2	4	-	14	-	18 (18)
MCK 3	4	-	12	-	16 (16)
MCK 4	_	_	1	1	2 (2)
MCK 5	35	5	20	6	56 (66)
MCK 6	21	3	12	2	32 (38)
MCK 7	15	17	20	5	45 (57)
Total	98	30	89	14	200 (231)
%	42,4	13,0	38,5	6,1	100
Average 1, 2, 3**	9,0	1,7	12,0	0,0	21,7(22,7)
Average 5, 6, 7	23,7	8,3	17,3	4,3	44,3(53,7)

* see notes under table 2

** MCK 4 has been excluded from the averages because for technical reasons it is not yet in use.

Total number of users at peak hour at all seven locations.

Result of observation during one hour *

Location	Number of users at peak hour *		peak hour	
M C K 1	11	(12)	4	(afternoon)
M C K 2	7	(7)	4	(afternoon)
M C K 3	6	(6)	4	(afternoon)
M C K 4	1	(1)	3	(midday)
M C K 5	16	(20)	4	(afternoon)
M C K 6	12	(14)	1	(early morning)
M C K 7	14	(20)	4	(afternoon)
T o t a l	67	(80)		
Average 1, 2 , 3 (Kp Poncol)	8	(8,3)		
Average 5, 6 , 7 (Kp Pulo Kecil)	14	(18,0)		

* see notes under tables 2 and 4

Conclusions :

Total number of users at peak hour (for all 4 purposes) is fairly low in Poncol. In Pulo Kecil it was about the same as comparable observations during the first case study on M C K .

Number of people who bathed at MCKs according to their age/sex.

Result of 4 hours observation at each MCK *

Location	Bathing			
	Men	Women	Children	Total
MCK 1	-	3	16	19
MCK 2	-	-	4	4
MCK 3	1	-	3	4
MCK 4	-	-	-	-
MCK 5	8	4	23	35
MCK 6	9	3	9	21
MCK 7	6	4	5	15
Total	24	14	60	98
%	24,5	14,2	61,2	100
Average 1, 2, 3 (Kp Poncol)	0,3	1,0	7,7	9,0
Average 5, 6, 7 (Kp Pulo Kecil)	7,7	3,7	12,3	23,7

* see notes under tables 2 and 4

Clearly the MCKs in Pulo Kecil were used more regularly for bathing than the MCKs in Poncol.

Number of perople who washed at the MCKs according to their age/sex.

Result of 4 hours observation *

Location	Washing			
	Men	Women	Children	Total
MCK 1	-	4	1	5
MCK 2	-	-	-	-
MCK 3	-	-	-	-
MCK 4	-	-	-	-
MCK 5	-	5	-	5
MCK 6	1	2	-	3
MCK 7	1	15	1	17
Total	2	26	2	30
Average 1, 2, 3 (Kp Poncol)	0,0	1,3	0,3	1,7
Average 5, 6, 7 (Kp Pulo Kecil)	0,7	7,3	0,3	8,3

* see notes under tables 2 and 4.

- Washing at the MCKs is almost exclusively done by the women.
  MCKs 2, 3, and 4 are hardly used or not at all for washing.

Number of users of the toilet at the MCKs according to their age/sex.

Result of observation during 4 hours *

Location	Users toilet			
	Men	Women	Children	Total
MCK 1	1	3	6	10
MCK 2	3	8	3	14
MCK 3	6	5	1	12
MCK 4	1	-	-	1
MCK 5	5	6	9	20
MCK 6	7	3	2	12
MCK 7	6	9	5	20
Total	29	34	26	89
%	(32,6)	(38,2)	(29,2)	(100)
Average 1, 2, 3 (Kp Poncol)	3,3	5,3	3,3	13,0
Average 5, 6, 7 (Kp Pulo Kecil)	6,0	6,0	5,3	17,3

* see notes under tables 2 and 4

Except MCK 4, all MCKs are fairly intensively used as toilets. Even for use of toilet the number of users observed is higher in Poncol than in Pulo Kecil. A fairly large number of children uses the MCK-toilet.

Number of people fetching water at the MCKs according to their age/sex.

Result of observation during 4 hours.

Location	Users fetching water			
	Men	Women	Children	Total
MCK 1	-	-	-	-
MCK 2	-	-	-	-
MCK 3	-	-	-	-
MCK 4	1	-	-	1
MCK 5	-	5	1	6
MCK 6	-	1	1	2
MCK 7	1	4	-	5
Total	2	10	2	14
Average 1, 2, 3 (Kp Poncol)	0,0	0,0	0,0	0,0
Average 5, 6, 7 (Kp Pulo Kecil)	0,3	3,3	0,7	4,3

* see notes tables 2 and 4

In general the MCK's are not used intensively as source of water for use at home. MCKs 1, 2 and 3 don't seem to be used at all in that way.

Frequency of use of the various functions of the MCK.

Result of interviews with MCK users.

Frequency of use	bathing 1)	(%)	washing 2)	(%)	toilet 3)	(%)	fetching water 4)	(%)
Often 5)	43	(51,2)	33	(54,1)	61	(84,7)	20	(41,2)
Sometimes/never	41	(48,8)	28	(45,9)	11	(15,3)	44	(68,8)
T o t a l	84	(100)	61	(100)	72	(100)	64	(100)

1) All respondents
2) Excluding respondents who rarely if ever do any washing
3) Excluding respondents at MCK 4
4) Excluding respondents who rarely or never fetch water
5) "Often" in meaning of "at least once a day" for bathing, toilet and fetching water and in meaning of "at least once a week" for washing.

Conclusion :

The frequency of using the toilet at MCK is clearly higher that the other frequencies, fetching water the lowest. These data are clearly different from the outcome of the first case study. Then the percentages of people frequently washing and bathing were higher, percentages of people fetching water much higher, but frequency of using toilet clearly was lower than present data.

Frequency of bathing at MCK related with kampung.
N = 84 *

Frequency of bathing	Kampung		
	Poncol	Pulo Kecil	Total
at least once a day	17	26	43
sometimes / never	31	10	41
T o t a l	48	36	84

χ^2 = 11,15

df = 1

P < 0,005

∴ significant correlation

* All respondents

Conclusion

In pulo Kecil far more users stated to bath frequently at the MCK than MCK users in Poncol.

Frequency of washing at MCK related with kampung.
N = 61 *

Frequency of washing at MCK	Kampung		
	Poncol	Pulo Kecil	Total
at least once a week	12	21	33
sometimes / never	24	4	28
T o t a l	36	25	61

$\chi^2 = 15,25$

df = 1

$p < 0,005$

$\therefore$ significant correlation

* Excluding respondents who normally don't wash.

Conclusion :

Clear difference between the two kampungs exist : In Poncol only a minority of the MCK users wash at the MCK. In Pulo Kecil almost all do their washing at the MCK.

Table 13

Frequency of using toilet at MCK related with kampung.
N = 72 *

Frequency of using MCK toilet	Kampung		
	Poncol	Pulo Kecil	Total
at least once a day	30	31	61
sometimes / never	6	5	11
T o t a l	36	36	72

∴ no correlation

* Excluding respondents at MCK 4.

Conclusion :

Both at Poncol and at Pulo Kecil a clear majority of the users use the MCK daily as their toilet.
The others are almost all people who also use the MCK only rarely or never for any other purpose such as bathing or fetching water.

Frequency of fetching water at MCK correlated with kampung.
N = 64 *

Frequency of fetching water	Kampung		
	Poncol	Pulo Kecil	Total
at least once a day	7	13	20
sometimes / never	30	14	44
T o t a l	37	27	64

$\chi^2 = 6,21$
df = 1
$p < 0,025$
$\therefore$ significant correlation

Conclusion :

In Pulo Kecil more people fetch water at the MCK than in Poncol.

Table 15

Use of MCK as only place for bathing related with use of MCK as only place for washing. (N = 61*)

Washing	Bathing		
	Only at MCK	(also) elsewhere	Total
only at MCK	14	4	18
(also) elsewhere	2	41	43
Total	16	45	61

$\chi^2 = 35,07$

df = 1

$p < 0,005$

$\therefore$ significant correlation

* Excluding respondents who normally don't wash.

Conclusion :

Those who bath only at MCK are almost the same people as those who do their washing only at the MCK.

Use of MCK as only place for washing related with use of MCK as only source of water.
N = 59 *

Fetching water	Washing		
	only at MCK	(also) elsewhere	Total
only at MCK	10	-	10
(also) elsewhere	7	42	49
Total	17	42	59

$\chi^2 = 29,75$
df = 1
$p < 0,005$
$\therefore$ significant correlation

* Excluding respondents who either don't wash or don't fetch water.

Conclusion :

There are more people who wash only at MCK than people who fetch water at the MCK only. All people who fetch water at MCK only also wash at MCK only.

Use of MCK as only toilet related with use of MCK as only source of water N = 64 *

Fetching water	Toilet		
	only at MCK	(also) elsewhere	Total
only at MCK	10	32	42
(also) elsewhere	-	22	22
Total	10	54	64

$\chi^2 = 6,21$
df = 1
$p < 0,025$
$\therefore$ significant correlation

* Excluding respondents who normally don't fetch water and respondents from MCK 4.

Conclusion :

Clearly more respondents use MCK as their only toilet than use it as their only source of water. All repondents who use MCK as their only source of water also use MCK as their only toilet.

Use of MCK as only place for bathing related with use of MCK as only source of water. N = 52 *

Fetching water	Bathing		
	only at MCK	(also) elsewhere	Total
only at MCK	10	-	10
(also) elsewhere	6	36	42
Total	16	36	52

$\chi^2 = 27,86$
df = 1
$p < 0,005$
$\therefore$ significant correlation

* Excluding MCK 4 and excluding those who don't fetch water regularly.

Conclusion :

More people use the MCK as their only facility for taking a bath than use the MCK as their only source of water.
All people who use the MCK as their only source of water also use it as their only place for bathing.

Type of facility used for/as bathing, washing, toilet, water source.
Result of open interviews.
N = 20

	Bathing	Washing	Toilet	Source of water
Most people go elsewhere	14	16	7	17
Most people use MCK	3 *	3 *	12	1 *
Other/don't know	3	1	1	2
Total respondents	20	20	20	20

* Respondents indicating that most people use MCK for bathing, for washing and as source of water all are from Pulo Kecil.

Conclusion :

Most respondents of the open interviews indicated that most people use the MCKs as their toilet but not as their bathroom, washing place and source of water.

Table 20

Evaluation of MCKs by 20 respondents

Physical aspect evaluated	(a) Positive (+)	(b) Fair (0)	(c) Negative (-)	(a) - (c) Weighted score	(d) Number of highest ranking
Waste water disposal	3	1	16	-13	12
Entrance	2	1	17	-15	6
Size of washing floor	6	4	10	- 4	-
Size of bak mandi	5	7	8	- 3	-
Size of bathroom	6	8	6	0	-
Size of bak cuci	7	9	4	+ 3	-
Pump	15	2	3	+12	-
Place of the toilet	16	3	1	+15	1
Place of the MCK	18	1	1	+16	1

* In column (d) the total times a physical aspect was rated to be the worst has been recorded. E.g. 12 people considered the waste water disposal worse than any of the other aspects.

Opinion on size of bathroom correlated with kampung
N = 20

Opinion on size bathroom	Kampung		
	Poncol	Pulo Kecil	Total
Good	1	5	6
Fair	6	2	8
Too small	4	2	6
Total	11	9	20

Conclusion :

The respondents in Poncol are clearly more negative on the bathroom than respondents in Pulo Kecil.

LEMBAR OBSERVASI CASE STUDY MCK KE-2

MCK Nomor	
Tanggal	
Pengamat	

jam 5-6

Tgl.	lelaki	perempuan	anak-anak	Jumlah
mandi				
cuci				
kakus				
ambil air				

jam 8-9

tgl:	lelaki	perempuan	anak-anak	Jumlah
mandi				
cuci				
kakus				
ambil air				

jam 11-12

tgl:	lelaki	prempuan	anak-anak	Jumlah
mandi				
cuci				
kakus				
ambil air				

jam 5-6

tgl:	lelaki	perempuan	anak-anak	Jumlah
mandi				
cuci				
kakus				
ambil air				

Jumlah	lelaki	perempuan	anak-anak	Jumlah
mandi				
cuci				
kakus				
ambil air				
JUMLAH				

WAWANCARA TETAP CASE STUDY MCK KE-2

Nomor

Check

, Kp. | RW | RT | RT | MCK | 1 2 3

, Jenis kelamin (1) lelaki (2) perempuan | 4

, Umur (1) < 10 thn (2) 10-30 thn (3) >30 thn | 5

, Nama Keluarga: (1) keluarga yg (dulu) memilik tanah MCK (2) tetangga (3) rumahnya 100 meter lebih dari MCK | 6

, Berapa kali sehari/seminggu anda memakai MCK ini ?

(1) 1x sehari (2) 2x sehari (3) 3x sehari (atau lebih) | 7

(4) 1-6 x seminggu (5) jarang / hanya hari ini | 8

, Apakah anda juga memakai tempat mandi atau kakus lain ?

(1) Ya, sering (2) Ya, 1-2x seminggu (3) tidak / jarang | 9

, (Kalau 'Ya':) Berapa jauh tempat itu?

(1) < 50 meter (2) 50-100 meter (3) >100 m. (4) jauh | 10 11

; (Kalau 'tidak/jarang' kode (8))

, Untuk apa anda memakai MCK ini ?

tuk mandi:	(1) Ya, sering	(2) Ya, 1-2x seminggu	(3) Tidak / jarang	12
ncuci :	(1) Ya, sering	(2) Ya, 1-2x seminggu	(3) Tidak / jarang	13
mbuang air:	(1) Ya, sering	(2) Ya, 1-2x seminggu	(3) Tidak / jarang	14
bil air :	(1) Ya, sering	(2) Ya, 1-2x seminggu	(3) Tidak / jarang	15

Apakah anda lebih sukai MCK pakai/tanpa atap ?

(1) pakai atap (2) tanpa atap (3) tidak tahu / sama saja | 16

Selain dari pemakaian MCK ini, kemana anda juga pergi ?

untuk mandi:	untuk cuci:	untuk membuang air besar	untuk ambil air
(1) MCK ini saja	(1) MCK ini saja	(1) MCK ini saja	(1) MCK ini saja
(2) rumah sendiri	(2) rumah sendiri	(2) rumah sendiri	(2) rumah sendiri
(3) rumah lain	(3) rumah lain	(3) rumah lain	(3) rumah lain
(4) kali/saluran	(4) kali/saluran	(4) kali/saluran	(4) kali/saluran
(5) MCK lain	(5) MCK lain	(5) MCK lain	(5) MCK lain
	(6) tidak cuci		(6) tidak ambil air
(7) jauh	(7) jauh	(7) jauh	(7) jauh
(8)	(8)	(8)	(8) .....
(9)	(9)	(9)	(9) .....
17 18	19 20	21 22	23 24 25 26 27 28 29

CHECKLIST WAWANCARA TERBUKA RT/RK/PEMILIK/TETANGGA

MCK No. :	
RESPONDEN :	

1. Cara mendapat tanah untuk MCK ini. Kapan ?

2. Kurang atau cukupan jumlah MCK. Sebab2nya?

3. Tempat apa yang digunakan di RT(/RK) :
   a) untuk mandi
   b) untuk cuci
   c) untuk membuang air besar
   d) sebagai sumber air minum

4. Siapa yang memakai MCK ini (berapa keluarga/ orang)

		KK	orang
a)	untuk mandi		
b)	untuk cuci		
c)	untuk membuang air besar		
d)	sebagai sumber air minum		

5. Bagaimana keadaan MCK (menurut responden?). Kenapa begitu ?

6. Apakah ada kekurangan dalam disain MCK yang dibangun (ukuran,atap, sumber air dlsb)

7. Siapa yang membersihkan MCK ?

8. Umpamanya bulan depan pompa rusak. Bagaimana cara mengatasinya ?

9. Menurut responden siapa yang memilik MCK ?

10. Apakah cara musyawarah sebelum MCK dibangun cukup atau kurang. Bagaimana lebih baik ?

11. Apakah tempat MCK cocok menurut responden ?

EVALUASI KEADAAN MCK (sekarang!)

MCK: [ ] 1 2 3 4

Responden : [ ]

Interviewer: [ ]

	baik	cukup	kurang*		
1. Tempatnya MCK	1	2	3	[ ]	11
2. Ukuran kamar mandi	1	2	3	[ ]	12
3. Ukuran bak mandi	1	2	3	[ ]	13
4. Masuk MCK	1	2	3	[ ]	14
5. Tempatnya kakus	1	2	3	[ ]	15
6. Ukuran lantai cuci	1	2	3	[ ]	16
7. pompa air	1	2	3	[ ]	17
8. Ukuran bak cuci	1	2	3	[ ]	18
9. Pembuangan air kotor	1	2	3	[ ]	19

Keterangan mengenai kekurangan diatas:

Kekurangan yang paling penting menurut responden: → [ ] 20 21

Keterangan lain mengenai keadaan MCK :

[ ] 22
[ ] 23
[ ] 24
[ ] 25
[ ] 26
[ ] 27
[ ] 28
[ ] A'