PERBAIKAN KAMPUNG - KAMPUNG IMPROVEMENT

BOGOR - TANGERANG - BEKASI - CIREBON

CASE STUDY MCK

ANNEXES
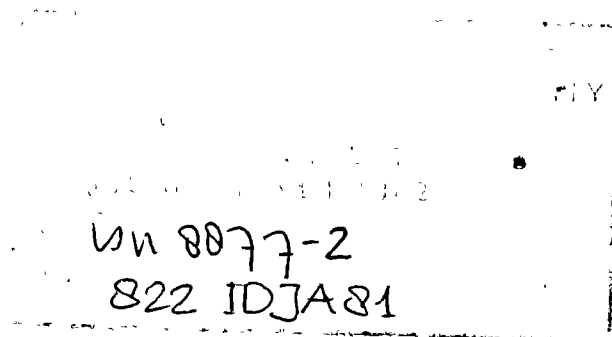
JUDC ———————————————— **CONCARPLAN**

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Annex 1

Tables from observation

Table 1.1. : Total number of people bathing by sex, age and
location
(total of 4 hours observation)

Location	Type of users			
	Adult men	Adult women	Children	Total
I	4	6	5	15
II	3	4	20	27
IV	44	10	6	60
V	8	7	9	24
VI	3	3	1	7
VII	20	69	33	22
VIII	-	5	4	9
Total	82	104	78	264
(percentage)	(31.0)	(39.4)	(29.5)	(100)

Conclusions

More women than men and far more adults than children bath at
the MCKs. Exceptions are locations IV where the majority was
male and location II where the majority was children.
Location VIII is not used by men.
Locations VII and IV are used most intensively for bathing.

Table 1.2 : Total number of people washing by sex, age and
location
(totals of 4 hours of observations)

Location	Type of users			
	Adult men	Adult women	Children	Total
I	-	4	-	4
II	2	9	2	13
IV	2	-	-	2
V	3	7	1	11
VI	-	14	7	21
VII	3	43	13	59
VIII	-	16	6	22
Total	10	93	29	132
(percent-age)	(7.5)	(70.5)	(22.0)	(100)

Conclusions

The vast majority of people washing at the MCK are women.
There were more children than adult men washing at the MCKs.
Location VII was used by far the most intensive and loca-
tions I and IV the least intensive as far as washing in
concerned.

Table 1.3. : Total number of people using toilet by sex, age
        and location
        (4 hours of observation)
        Only locations with public toilet.

Location	Type of users			
	Adult men	Adult women	Children	Total
I	6	6	1	13
II	-	7	1	8
IV	32	14	1	47
V				
VI	2	1	1	4
VII				
VIII				
Total	40	28	4	72
(percent-age)	(55.6)	(38.9)	(5.6)	(100)

Conclusions

Location IV and location I are used most intensively as
toilet.
At the multiple unit MCK the majority of users of the
toilet are men. In general very few children use the MCK-
toilet.

Table 1.4 : Total number of people fetching water by age,
sex and location
(4 hours of observation)

Location	Type of users			
	Adult men	Adult women	Children	Total
I	-	1	-	1
II	-	7	1	8
IV	30	16	-	46
V	2	8	2	12
VI	1	5	-	6
VII	17	36	18	71
VIII	1	8	1	10
Total	51	81	. 22	154
(percentage)	(33.1)	(52.6)	(14.3)	(100)

Conclusions

More than half of the total number of people fetching water
are women, except at location IV, where the clearly   the
majority are men (including water sellers)
Location I is not used publicly that way.

Table 1.5 : Total number of users at peak hour* by location (all functions)

Location	Number of users	Peak hour*
I	13	(2)
II	25	(4)
V	19	(4)
VI	17	(1)
VIII	17	(4)
Average I,II,V,VI,VIII	18.2	
IV	42	(1)
VII	75	(1)

*Observations were made during following hours :

(1) 5 - 6 a.m.
(2) 8 - 9 a.m.
(3) 12 - 1 p.m.
(4) 5 - 6 p.m.

Conclusions

Locations IV, VI and VII were most intensively used early in the morning, locations II, V and VIII in the late afternoon. Location VII (large MC) was used most intensively. The total number of users at its peak hour was 4.1 times the number of users locations I,II,V,VI and VIII at their respective peak hours.

Location IV (multiple unit MCK) was also used intensively but only 2.3 times the peak - intensity at locations I,II,V,VII and VIII (one unit MCKs).

Location I was not used very intensively.

Table 1.6 : Total number of users of all 7 locations by
function and time of observation.

Hours of observation	Function				
	Bathing	Washing	Toilet	Fetching water	Total
(1) 5-6 am	92	25	15	52	184
(2) 8-9 am	39	32	26	34	131
(3)12-1 pm	29	39	19	34	121
(4) 5-6 pm	104	36	109	34	183
Total	264	132	69	154	629 *

$$\chi^2 = 61.29$$
$$df = 9$$
$$p < .005$$
Significant

Conclusions

A clear correlation between time of observation and function
(type of use) was found.
Bathing is most frequent early in the morning and late in the
afternoon;washing is fairly evenly spread over the day; use
of toilet is most frequent in the morning and fetching water
is most frequent very early in the morning.
However, for all these functions, the MCKs are being used
throughout the day.

Table   1.7 : Total number of users location IV by age,
               sex and function.
               (4 hours of observation)

Functions	Type of users				
	Adult men	Adult women	Children	Total	(percent-age)
Bathing	44	10	6	60	(38.7)
Washing	2	-	-	2	(1.3)
Toilet *	32	14	1	47	(30.3)
Fetching water	30	16	-	46	(29.7)
Total	108	40	7	155	(100)
(percentage)	(69.7)	(25.8)	(4.5)	(100)	

* The number of people washing or using toilet while taking
  a bath may have been under estimated.

Conclusions

Location IV (Multiple unit MCK) is mainly used for bathing,
toilet and fetching (PAM-)water. The washing facility is
not used.
The majority of users of location IV are adult men. Very
few children use it.

Table 1.8 : Total number of users location VII by age,
sex and function.
(4 hours of observation)

| Function | Type of users | | | | |
	Adult men	Adult women	Children	Total	(percent-age)
Bathing	20	69	33	122	(48.4)
Washing	3	43	13	59	(23.4)
Toilet					
Fetching water	17	36	18	71	(28.2)
Total	40	148	64	252	(100)
(percentage)	(15.9)	(58.7)	(25.4)	(100)	

Conclusions

Location VII (large public MC without toilet) is most
intensively used for bathing but also for fetching
(spring-) water and washing.
Most of its users are women.

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Table 1.9 : Total number of users location I by age, sex
and function.

(4 hours of observation)

Function	Type of users				
	Adult men	Adult Women	Children	Total	(percentage)
Bathing	4	6	5	15	(45.5)
Washing	-	4	-	4	(12.1)
Toilet	6	6	1	13	(39.4)
Fetching water	-	1	-	1	(3.0)
Total	10	17	6	33	(100)
(percentage)	(30.3)	(51.5)	(18.2)	(100)	

Conclusions

Location I (MCK keluarga) is used mainly for bathing and as
toilet.

Half of the users are women. Only one out of five users is
a child.

Table 1.10: Total number of users location II by age,
sex and function.
(4 hours of observation)

Function	Type of users				
	Adult men	Adult women	Children	Total	(percent-age)
Bathing	3	4	20	27	(48.2)
Washing	2	9	2	13	(23.2)
Toilet	1	7	1	8	(14.3)
Fetching water	-	7	1	8	(14.3)
Total	5	27	24	56	(100)
(percentage)	(8.9)	(48.2)	(42.9)	(100)	

Conclusions

Location II (MCK keluarga) is used for all functions but
mostly for bathing and washing.
Few men were observed using this location.

Table 1.11 :   Total number of users location V by age, sex
and function.
(4 hours of observation)

| Function | Type of users | | | | |
	Adult men	Adult women	Children	Total	(percent-age)
Bathing	8	7	9	24	(50.0)
Washing	3	7	1	11	(22.9)
Toilet	–	1	–	1	(2.1)
Fetching water	2	8	2	12	(25.0)
Total	13	23	12	48	(100)
(percentage)	(27.1)	(47.9)	(25.0)	(100)	

Conclusions

Location V (private sanitary facility of which the well,
washing place and bathing place are publicly used but not
the toilet) is mostly used for bathing but also for washing
and fetching water.
Half of the users are women.

Table 1.12 : Total number of users location VI by age,
           sex and function.
           (4 hours of observation)

Function	Type of users				
	Adult men	Adult women	Children	Total	(percent-age)
Bathing	3	3	1	7	(20.6)
Washing	-	14	7	21	(61.8)
Toilet					
Fetching water	1	5	-	6	(17.6)
Total	4	22	8	34	(100)
(percentage)	(11.8)	(64.7)	(23.5)	(100)	

Conclusions

Location VI (public washing/bathing place without toilet) is
mainly used for washing but also for bathing and fetching
(spring-) water.
Most of its users are women.

Table 1.13 : Total number of users location VIII by age, sex and functions.
(4 hours of observation)

Function	Type of users				
	Adult men	Adult women	Children	Total	(percentage)
Bathing	–	5	4	9	(21.9)
Washing	–	16	6	22	(53.7)
Toilet					
Fetching water	1	8	1	10	(24.4)
Total	1	29	11	41	(100)
(percentage)	(2.4)	(70.7)	(26.8)	(100)	

Conclusions

Location VIII (public MC without toilet) is used for washing bathing and fetching (spring-) water.
It is not used by men. Near this MC is another MC mainly used by men.

Annex 2

Tables from interviews with MCK users

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Introduction

In this annex the tables are presented from the Interviews with MCK users.

Below each table some conclusions from the table have been presented. Most of these conclusions have been incorporated in the main report (chapter 5).

In some cases χ^2-test were done to measure whether the two variables cross-tabulated were correlated. χ^2 is the degree to which the found data differ from the hypothetical figures which should have appeared if there had not been any correlation between the two variables. The probability that the hypothetical figures can be attributed to chance is indicated by the letter p. The lower the value of p, the higher is the probability that the found difference between actual and hypothetical figures reflects an actual correlation between the variables cross-tabulated. This is called significance. If a correlation is significant this means that we may say that (with only very small doubt) the two variables are correlated.

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Table 2.1 :   Use of other sanitary facilities   by   location
N   = 131 (excluding watersellers)

Use of other facility	Location							Total
	I	II	V	V	VI	VII	VIII	
Regularly	14	7	13	8	8	11	11	74
Seldomly/never	2	10	4	10	5	23	5	57
Total	16	17	17	18	13	34	16	131

$$\chi^2 = 24.0$$

$$df = 6$$

$$p < .005$$

Significant

Conclusions

In locations I, IV, VIII and to a lesser extend in
location VI a clear majority of the respondents
also use other sanitary facilities, either private,
semi public, or public.
Locations   II, V and VII were for the majority of
users the only sanitary facility used.

Table 2.2 :   Frequency of use of MCK for bathing by

location   (N = 135)

Frequency of bathing at MCK	Location							
	I	II	V	X	VI	VII	VIII	Total
Regularly	9	17	7	14	12	32	13	104
Rarely/never	7	—	14	4	1	2	3	31
Total	16	17	21	18	13	34	16	135

Conclusions

Most of the users (almost 80%) of the sanitary facilities
regularly take a bath at the location. Only at location
IV two - thirds of the users do not regularly take a
bath at this location. And at location I only a small ma-
jority regularly took a bath.

Table 2.3 : Frequency of use of MCK for washing by MCK
           N = 97 (excluding respondents who don't
           do any washing anywhere)

Frequency washing at MCK	Location							
	I	II	IV	V	VI	VII	VIII	Total
Regularly	2	11	1	8	9	19	8	58
Seldomly/never	8	2	16	5	-	4	4	39
Total	10	13	17	13	9	23	12	97

Conclusions

There are clear differences between the locations in
frequency of using the location for washing. Especially
locations II, VI and VII, but also locations V and VIII
are regularly used for washing by most of the repondents
who wash. Location I is only used by few people in this
way. Location IV is not used for washing except on very
small scale.

Table 2.4 : Frequency of use of toilet by MCK

N = 74 (excluding MCKs without toilet)

Frequency of use of toilet	Location				
	I	II	IV	VI	Total
Regularly	11	24	7	12	54
Seldomly/never	5	–	14	1	20
Total	16	24	21	13	74

Conclusions

At three of the four locations which had a toilet the majority of the users used that toilet.
At location IV only one third of the users stated that they use the toilet of that location.

Tabel 2.5 : Frequency of fetching water at the location
            by location
            N   =   110 (excluding respondents who don't
                         fetch water anywhere)

Frequency of fetching water	Location							
	I	II	IV	V	VI	VII	VIII	Total
Regularly	2	12	11	8	6	29	14	82
Seldomly/never	7	-	10	5	3	2	1	28
Total	9	12	21	13	9	31	15	110

Conclusions

At most locations the majority of the respondents who
fetch water do so at this location. At location IV
only half of the respondents, including 4 water sellers
regularly fetched water here.
At location I only a small minority of the MCK users
fetch water at this MCK.

Table 2.6: Alternative places for bathing by location
N = 120

Alternation place of bathing	Location								
	I	II	IV	V	VI	VII	VIII	Total	(percentage)
Only at location	3	11	1	7	8	25	1	56	(44.4)
At home	8	6	3	9	-	6	1	33	(26.2)
At other(semi) public MC(K)	4	-	6	2	4	2	11	29	(23.0)
River/drain	-	-	2	-	-	-	-	2	(1.6)
Total	15	17	12	18	12	33	13	120	(100)

Conclusions

Nearly half of the total respondents only bath at the location.

However at locations II, VI and VII a clear majority does
so whereas at locations I, IV and VIII only a small minority
use the MCK as their only place of bathing.

Near the looations of the study very few of the MCK users
go to a river for taking a bath.

Tabel 2.7: Alternative place for washing by town

N = 90   (excluding respondents who normally
don't do any washing)

Alternative location	T o w n				
	Bekasi	Cirebon	Bogor	Total	(percentage)
At this location only	14	10	18	42	(46.7)
At home	5	12	5	22	(24.4)
At other (semi-) public MC(K)	3	12	11	26	(28.9)
T o t a l	22	34	34	90	(100)

$$\chi^2 = 9.19$$

$$df = 4$$

$$p < .1$$

Significant (?)

Conclusions

The pattern of alternative place for washing is different
in the 3 cities. Whereas in Bekasi and Bogor more than
half of the respondents only wash at the location, in Ci-
rebon less than one third does so. Other (semi-) public
MCKs are use by about one third of the respondents in Ci-
rebon and Bogor. Of the users of the seven locations no-
body uses a river for doing their washing.

Tabel 2.8 : Place of defecating by location
N = 66 (only locations with public toilet)

Place of defecating	Location				
	I	II	IV	VI	Total
Only at this location	8	17	4	6	35
(also) at other toilet (both public & private)	5	-	7	4	16
(also) river/drain	2	-	10	3	15
Total	15	17	21	13	66

Conclusions

Of the four locations with a (public) toilet only at location II the toilet was used by the respondents as their only toilet. In locations I and VI for about half of the respondents this was the case.
Whereas the toilet at location IV was only for a small minority their only toilet.

Tabel 2.9 : Frequency of bathing at location by distance
of living (N = 135)

| Frequency of bathing | Distance of living | | |
	Same RW	Different RW	Total
Regularly	102	4	106
Seldomly/never	14	15	29
T o t a l	116	19	135

X^2 = 43 28   p < .005

df = 2   significant

Conclusions :

Almost all of the people regularly bathing at the location
come from the same RW/RK.

Tabel 2.10 : Frequency of washing at location by distance
of living   (N = 135)

Frequency of washing at MCK	Distance of living		
	Same RW/RK	Different RW/RK	Total
Regularly	68	–	68
Seldomly/never	48	19	67
Total	116	19	135

χ^2 = 22.44

df = 1

p < .005

Significant

Conclusions

All people regularly using the location for washing
live in the same RW/RK where MCK is located.

Table 2.11: Frequency of using toilet of MCK by distance
of living N = 67 (only locations with public
toilet).

Frequency of using toilet at location	Distance of living		
	Same RW/RK	Different RW/RK	Total
Regularly	42	5	47
Seldomly/never	8	12	20
T o t a l	50	17	67

$$\chi^2 = 18.05$$

$$df = 1$$

$$P < .005$$

Significant

Conclusions

At the locations where a public toilet is, most people
who regularly use it come from the same RW/RK but not
all.

Table 2.12 : Frequency of fetching water by distance of
            living   (N = 110)

Frequency of fetching water	Distance of living		
	Same RW/RK	Different RW/RK	Total
Regularly	74	8	82
Seldomly/never	17	11	28
T o t a l	91	19	110

χ^2 = 12.74

df = 1

$p <$ .005

Significant

Conclusions

Most of the people who regularly fetch water at the MCK
live in the same RW/RK.

Table 2.13: Frequency of use of MCK by sex
N = 97 (excluding children)

Frequency of using MCK	S e x		
	Men	Women	Total
More than 2 times/day	9	36	45
1 or 2 times/day	18	20	38
less than 1 time/day	6	8	14
T o t a l	33	64	97

χ^2 = 6.65

df = 2

p < 05

Significant

Conclusion

Women come more regular to the MCK than   men.

Table 2.14: Distance of other sanitary facility used in
addition to use of the location of interview
by sex. N = 59 (only respondent who also
use other sanitary facility and excluding
children under 15)

Distance of facility	S e x		
	Men	Women	Total
< 50 meters	9	25	34
50 - 100 meters	2	12	14
> 100 meters	7	4	11
T o t a l	18	41	59

$$\chi^2 = 8.80$$

$$df = 2$$

$$p < .025$$

Significant

Conclusions

There is a correlation between distance of alternative/
additional sanitary facility and sex. Of the people also
using a sanitary facility at larger distance the majority
is man and almost all women who also use a second
sanitary facility go to such a facility within a dis-
tance of 100 meters.

Tabel 2.15 : Distribution of preference for roof on MCK by
frequency of using the MCK (N = 135)

Preference	Frequency of using MCK			
	More than 2 times/d.	1 or 2 times/d.	less than 1 time/day	Total
With roof	49	21	10	80
Without roof/ no preference	25	26	4	55
T o t a l	74	47	14	135

χ^2 = 6.48

df = 2

p < .^5

Significant

Conclusion

The majority prefers a roof on top of the MCK.
This is especially the case among people who use the
MCK more than twice a day and among the people who
don't come to the MCK regularly.

Annex 3

Location report MCK II

Location Report MCK II

Results of open interviews and observation MCK II,
Bekasi Kaum, RW o1/RT o3
Respondents : 1. Pk. Marjuki (owner land of MCK)
               2. Pk. Mamat Djaelani (head of RT)
               3. Pk. Wadhali (village head)
               4. Ny. Wadhali (wife of village head)

Bekasi Kaum is divided in three RW's and has a to
tal population of 13.375 people or 2300 families.
RW O1 has the largest number of inhabitants. In RW
O1/RT O3 live 160 families.

In respect of sanitary facilities, the most common
sources of water are shallow wells, followed by
pumps. There are privately owned and privately used
sources, there are privately owned but publicly us
ed sources of water, also there are sources of water
developed by the government. The general system is
a private well which is used also by neighbours
(2 - 5 families). In RT 03 about 30 families (±20%)
don't have a well or pump. Many of the wells func
tion as public bathing places.

MCK II is built on the land of Pk.Marjuki. The pro
cedure of building it started with the instruction
of the government for the contruction of MCKs.
Therefore the head of the RT requested the people
of his RT to be prepared to make land available for
the construction of MCKs. In reply to this public
request the head of the RT got positive responses
from 7 inhabitants. Consequently 2 places were se
lected. The procedure after the above   selection
till the start of the construction lasted   six
months. The construction of the MCK lasted longer

than one month.

The constructed MCK exists of one room for bathing
in which room also the toilet is situated, a   sep
tic tank and a washing place. The well existed   al
ready originally. According to the respondents the
original plan was to have a tap connection, conse-
quently this was changed to a pump, but in fact no
additional source of water supply was constructed.
The funds for the MCK all came from KIP and the con
struction was executed by a contractor.

From observation the MCK is judged not to be   very
neatly built, e.g. the plastering of the walls and
the bak mandi is not very nice. Similarly the wash
ing floor is already cracked. According to   the
respondents the foundation was not good enough.
The depth of the well is $\pm$ 8 meter. When it doesn't
rain for a month the amount of water deminishes or
even the well may become dry. Also the .water   is
less clear.

The MCK is situated nicely in between three houses.
All five families in these three houses use   the
MCK (about 40 people including children). They use
all the functions of the MCK. Apart from these fi-
ve families there are   some   other people espe-
cially men, who also use this MCK, especially   to
bath and to use its toilet.
According to the users the MCK should have   been
built with a roof and a door and should have   been
neater sothat there would have been a larger   in-
centive to up keep the MCK properly. It was observ
ed that they often cleaned the MCK. The local popu
lation feels that good use is made of the newly
built MCK. However they think that more such   MCKs
are needed in their area.

Annex 4

Design case study MCK

In this Annex the 2nd English draft of the design of
the case study is presented together with the English
draft of the checklist.

The final version of the design was written in Indo-
nesian and is attached as Annex 4 to the Indonesian
version of the report on the MCK case study.

Design   2nd <u>draft</u>

Case study MCK

by Huub Gaymans

   1 Juni 1981

Introduction

As part of Kip – Botabek Cirebon which is implemented by
Perumahan and assisted by J.U.D.C. a number of MCK's are
planned to be constructed. The history of MCK's construc
tion shows several difficulties in the sense that both the
type of MCK to be constructed and the procedure of get
ting land and organising its construction and maintenance
have shown mixed results. JUDC has developed a prototype
MCK which is to be used by a small group 5 to 8 households
only. Construction may start in June 1981.

As part of the sociological study of developing proper sa
nitary facilities the present case study is planned   to
look at existing MCK's and to formulate recommendations
for the construction of MCK's in the future. This design
describes the procedures of the case study. Because   at
least one prototype MCK refered to above will be included,
it will also function as an evaluation of that prototype.
Also the sociologist will study problems encountered in
selecting sites and getting the cooperation of the commu-
nity at the time such problems arise in specific kampungs.
That type of problem oriented studies are not covered by
this design. The results of such studies may however be
used to formulate recommendations.

In the survey design MCK is used in the seem of meaning
both private, semi-public and public sanitary facilities.

The rationale behind this case study is that a study   of
existing private and public sanitary facilities will   be
useful for the proper way of constructing public or semi-
public M CK's in the future as part of the kampung impro
vement programme.

General problems

1. In Kip projects it is often difficult to obtain land.

2. No satisfactory solution has been developed to ensure
    proper maintenance of the sanitary facilities.
3. It is not yet know whether the prototype MCK ("MCK
    Keluarga") will be easier erected and better main -
    tained than other types.

Specific problems are :

1. How and by whom are MCK's used ?
2. What type of MC(K) is preferred by the community ?
3. What factors contribute to the proper construction of
    MCK ?
4. What factors facilitate or influence the freeing   of
    land (Pembebasan tanah, prijsgeving) for the purpose
    of constructing MCK's ?
5. What factors facilitate/influence the daily use   of
    MCK's ?
6. What factors facilitate/influence a good system   of
    maintenance

Hypotheses :

1. If the community, especially the Kepala RW and RK, sup
    ported by the informal leaders, feel a need for hav-
    ing (or increasing the number of) MCK's, the   commu
    nity will find a solution to the land problem.
2. The construction of a MCK in reply to expressed   need
    of the population will enhance
    1. the proper use of the MCK
    2. the maintenance of the MCK
    3. the expressed felt needs of people neighbouring
        the area served by that MCK.

3. An _improver construction_ of a MCK will effect nega-
   tively :
   > 1. proper use of the MCK
   > 2. maintenance of the MCK
   > 3. expressed felt need for additional MCK's
4. The community has a preference for a bathing place
   and washing place where more than one person can man-
   di/cuci at the same time.
5. preference for separate cubicles for kakus and sepa
   rate mandi area for men and separate for women.
6. People are ambivalent towards roofs on top of MCK.
7. Proper water supply is the most essential criterium
   for well functioning of an MCK.
8. Because of wide diversity in physical and social en-
   vironment the actual solution formed to the problem
   of sanitary facilities also varies widely.

Approach : An intensive, shorttime case study of several
existing MCK's is the most proper way to study the pro-
blem as outlined above and to be able to give relatively
fast explicit recommendations on MCK's. The intensive ap-
proach includes the following elements :
1. observation of the use of MCK's (only limited number
   of MCK's e.g. 3 or 5)
2. simple (5 minutes) questionnaire (on use) of users
   MCK's only e.g. 100 interviews.
3. open interviews with local informants (kepala RT, ke-
   pala RW, teacher, project staff, **sanitarians**, users
   owners of MCK)

Selection MCK's   Selection criteria are :
1. diversity in ownership (private, semi-private, public)
2. diversity in type of MCK (one unit, multiple unit)
3. diversity in environmental conditions, (density, availa
   bility of water, type of soil etc.)
The number of MCK's to be studied initially will be six.
In a later stage the case study may be repeated for other
MCK's.

Data collection :

1. <u>Observation</u> (during three days) (see observation sheet)
- Counting number of users and type (age,sex) specified M.C.K.
- Type of construction, type of use.
- Type of activities taking place (what activities togeth er, what alone.)

2. <u>Interviews of users</u>

> Very simple, short interviews are planned of a sample of 100 MCK users equally divided over the MCK's includ ed, 50 women, 25 men, 25 children (under 15). No per fect a-select random sample is aimed at, but by spread ing the interviews over the day a fairly representative sample can be obtained.
> The questionnaires are short (see attached draft), the interviewer does not need much training. The question- naires are precoded.

3. <u>Open interviews with key informants</u> :

> The open interviews will be depth interviews without questionnaire but with a list of topics (see below).
> How the questions will be asked will depend on the si tuation. Many questions will have to be open questions. Mainly because in the Indonesian culture people tend to reply favourably to closed questions to please the persons one is talking to. The other reason is that the topics are not clear cut and a wide variety of si tuations may exist in the field. Thirdly the purpose of these interviews is not simply to get a description of the situation but an <u>understanding</u> of how the system works and why the system is as it is.
> The persons to be interviewed should include formal and informal leaders (kepala RK,kepala RT,teacher,kyai etc) and ordinary users and owners of the sanitary facility. No attempt will be made to get a representative sample. In total about 8 interviews per MCK will be sufficient.

Special emphasis will be put on avoiding biased ques-
tioning. Proper recording and analysis will also be
difficult. The problems and hypotheses described above
will be used as main yardsticks in analysing the open
interviews

Tabulation and analysis

a. **Observation sheets** :

The data of observation sheets will be added up in se
veral ways :
1) for each MCK: adding up hours
2) for each hour: adding up MCK's
3) for each MCK/hour: adding up sexes
4) for each use: adding up hours and MCK's etc.
The resulting tabulations will be presented in tables
and graphs. Where possible χ^2 and t - tests will be
done to see significant correlations.
(hours x type of use; sex x type of use etc.)

b. **Interviews.**

Questionnaires are precoded except for date and place.
Using a coding list first the codes on the questionnair
es will be completed (date, place). Then each code will
be converted in a new code :

1 = (-) x	4 = x x	7 = **X** x
2 = (-) **X**	5 = x **X**	8 = **X X**
3 = (-) -	6 = x -	9 = **X** -

Using these codes the data will be transferred to "pre-
punched" (or "edge punched") code cards, which can be
used manually. Both single run tabulations and cross ta
bulations will be made e.g. sex x type of use, age x
place of mandi etc. Tests for significancy (X^2) will
be done.

c. **Open interviews + observations.**

A simple case history of each area and each MCK covered
will be written concentrating on elements which are near

ly always the same and elements which are different for each MCK (e.g. comparison public with private, one unit with multiple unit MCK's, dense and less dense areas etc) and on the questions and hypotheses formulated above.

d. ~~An overall analysis~~ comparing [a)] observation results, [b)] questionnaire results and [c)] open interviews will allow for an overall description and comparison.

e. Based on d, , conclusions and recommendations will be formulated which should concentrate on relevancy for KIP (type of MCK, number of MCK's, way to obtain land, procedure of construction etc.) and should confirm/re fute the hypotheses. This may be complemented by observations of problems faced in erecting MCK's else-, where (see introduction)

Procedure

After further development of design and instruments,after selection of interviewer and site selection (incl. surat izin) a test is planned to include the following.
1. instruction / training interviewer
2. try-out interview, observation, (all data collection methods)
3. try-out of practical arrangements
4. (on second day) try out of tabulation
5. try out of analysis
On the basic of this try-out / training methods will be revised if necessary (incase of major revision a second try-out is required) and final decision will be taken on all matters (form timeschedule to interview tabulation methods to transport arrangements)

Interviewers

The most crucial requirement is the interviewers. Prefer ably these should be one female and one male student,wil ling to spend 4 weeks on the study of which about 5 days

very intensively and who could also understand English(or Dutch). Under my close supervision/guidance they should do the following :

- participate in revising methods of study (after the try - out)
- execute observation at MCK
- execute interviews at MCK
- participate in interviews with key informants
- participate in tabulation and in analysis.

In addition they could collect any other relevant information about the kampung, or the M.C.K. in between observations and interviews (if time is available) through free interviews at the MCK or at nearby warung. If so they should report on this information separately.

time schedule activity	before	1st week	2nd week	3rd week	4th week
finalisation design	▬▬				
selection interviewers	▬▬				
selection site	▬▬				
surat izin	▬▬				
try out (two days)		▬			
revisions (three days)		▬			
data collection (one week)			▬		
tabulation (one week)				▬	
analysis					▬ ····⟩
interviewers (4 weeks)		▬			
typist	▬			▬ ⟶
driver	▬		▬		

Annex 4

The preparations cannot be scheduled nicely : too much de
pends on factors outside the influence of the researcher
possibly 2 - 3 weeks are needed.
Two reports are planned. One report which will be called
"DRAFT" will concentrate on main conclussions and recom
mendations and a second reports will present all data and
conclusions. Additional reports may cover repetition of
case study at pilot sites.

Financial requirements

1. researcher   covered separately

2. driver   (1 week)   covered separately

3. travel costs (1 car during   covered separately
                 1 week)

4. typist   (4 weeks)   covered separately

5. paper photo copies and
   office supplies

6. Interviewers - fieldwork 14 person 14 x Rp 15.000=210.000
                                days
                officework   "   14 x Rp 10.000=140.000
                                                     _____
                                              Rp 350.000

Checklist   (topics to be included in open interviews
              with key informants)

- how many MCK's in this area, what type, owned by whom
  how erected, how land obtained
- Are there sufficient MCK's in the area? why (not)?
- Where people go for M,C and K and for getting (drinking)
  water ?
- who uses / do not uses existing MCK ? why (not)?
- how is the condition of MCK's (private and public?)
  including quality and quantity of water ?
  what improvement would be useful / essential ?
- how is maintenance / repair organized of private /
  public M.C.K's ?
- what type of MC (K) is most convenient/suitable ?
  K separate from MC ? large units ? small units ?
- How is payment (or other contribution) by users
  organised.
- (in)convenience for neighbours.

Lokasi2 dan jadwal kegiatan Studi Kasus MCK

Lokasi*

I.**	Bogor	Kp.Peledang	kamar mandi umum (M, C, dan K)	air ledeng
II.	Bogor	Kp.Peledang	MCK baru	air alam
III.	Bogor	Kp.Gudang	M C	air alam
IV.	Bekasi	Kp.Bekasi Kaum	MCK keluarga	air pompa
V.	Cirebon	Kp.Jagasatru	MCK (20 seats)	air ledeng
VI.	Cirebon	Kp.Jagasatru	kamar mandi umum (M.C.)	air sumur/ pompa
VII.	Cirebon	Kp.Kesambi (M.C.K.)	kamar mandi umum	air pompa

* Kalau satu atau dua lokasi terpilih tidak cocok maka lokasi lain di kota yang sama akan dipilih.

** Lokasi pertama akan digunakan sebagai tempat uji coba.

Jadwal kegiatan

persiapan	s.d 31 Juli	(dilapangan/kantor)
uji - coba	10 - 11 Agustus	(di lapangan)
revisi	12 - 16 Agustus	(di kantor)
berkumpulan data	18 - 28 Agustus	(di lapangan)
tabulasi dsb mulai tgl	31 Agustus	(di kantor)

Annex 5

Data collection instruments

.

LEMBAR OBSERVASI

jam 5-6

tgl:	lelaki	perempuan	anak-2
mandi			
cuci			
kakus			
ambil air			

jam 8-9

tgl:	lelaki	perempuan	anak-2
mandi			
cuci			
kakus			
ambil air			

jam 11-12

tgl:	Lelaki	perempuan	anak-2
mandi			
cuci			
kakus			
ambil air			

jam 17-18

tgl:	lelaki	perempuan	anak-2
mandi			
cuci			
kakus			
ambil air			

Keterangan mengenai MCK

Situasi

keadaan :

kebersihan :

sumber air :

jenis septic : tank

Keterangan lain:

anggal [   ]   MCK [   ]

ota [   ]   RW [   ]   RT [   ]   WAWANCARA TETAP

	2
	3
	4
	5
	6
	7
	8

enis kelamin   :   ① lelaki   ② perempuan   [   ] 11

mur   :   ① <10 thn   ② 10-30 thn   ③ >30thn   [   ] 12

. Tempat tinggal anda di RW mana dan RT mana ?

RW [   ]   RT [   ]

	13
	14
	15
	16

. Berapa kali sehari/seminggu anda memakai tempat MCK ini ?

① 1x sehari   ② 2x sehari   ③ 3x sehari   [   ] 17

④ 1-6x seminggu   ⑤ jarang/hanya hari ini   18

. Apakah anda juga memakai MCK (tempat mandi) lain ?

① Ya, sering   ② Ya, 1-2x seminggu③ tidak/jarang   [   ] 19

I. (kalau "Ya") Berapa jauh tempat itu ?

① < 50 m   ② 50-100 m   ③ >100 m   ④ jauh   [   ] 20

(kalau tidak/jarang:)8 .   21

. Untuk apa anda memakai MCK ini ?

ndi ①Ya, sering   ② Ya 1-2x seminggu③ tidak/jarang   22

ci ①Ya, sering   ② Ya 1-2x seminggu③ tidak/jarang   23

mbuang①Ya, sering   ② ya 1-2x seminggu③ tidak/jarang   24
r bes.

bil a.①Ya, sering   ② Ya 1-2x seminggu③ tidak/jarang   25

. Apakah anda sukai MCK/ amar mandi pakai atap atau tanpa atap ?

① pakai atap   ② tanpa atap   ③ tidak tahu/ sama saja   [   ] 26

. Selain dari pemakaian MCK ini, kemana anda juga pergi ?

untuk mandi	untuk cuci	untuk membuang air besar	untuk ambil air
① tempat ini saja	① tempat ini saja	① tempat ini saja	① tempat 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 beli
⑨	⑨	⑨	⑨ ....
[ ]	[ ]	[ ]	[ ]