



**FINAL REPORT
EVALUATION OF INFRASTRUCTURE QUALITY
KDP CYCLE IV**



**NATIONAL MANAGEMENT CONSULTANTS AND
KECAMATAN DEVELOPMENT PROGRAM SECRETARIAT**

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Results of the KDP Cycle IV Infrastructure Evaluation

A study evaluating the quality of infrastructure was undertaken in early 2005 on a sample of villages that had completed building infrastructure in KDP Cycle IV infrastructure, the first year of the Kecamatan Development Program Phase II. The evaluation used standard forms issued by the National Management Consultants and the KDP Secretariat in PMD, and it was implemented by technical consultants at the kabupaten level, each of whom evaluated another kabupaten in the same region. Topics of the evaluation included technical quality, but it also included other performance indicators, including project management, the role of the community, maintenance, and the opinions of the community about KDP.

Location of the Sample

The evaluation was planned for all kabupaten that received KDP Cycle IV, or a total of 191 kabupatens. In each kabupaten one kecamatan was randomly selected, from which two villages were randomly selected, a total of 382 villages. The actual evaluation at the end was conducted on 288 villages (75,4% of the potential sample). Data were received regarding 375 separate pieces of village infrastructure. One hundred fifty of the villages were found on Java (52,1% of the sample), with the rest outside of Java.

Data about the source of funding are shown in the table below, measured either as cost per subproject or as cost per KDP village (villages could undertake more than one activity in one cycle).

Source of Funding	Per subproject (Rp)	Per KDP village (Rp)
KDP Funds	70.510.033	90.830.633
Community Contributions	12.711.086	16.153.672
Total Funds	83.221.119	106.984.305

The percentage of funds contributed by local communities was 15,1% of the overall funds, consistent with previous evaluations of KDP and the program database.

Beneficiaries and Opportunities for Employment

The number of people reported receiving benefits from the sample villages was 507.618 persons, or 1762,6 persons per evaluated village.

Labor is measured in KDP making use of two variables. First there is a calculation of the number of person-days of labor were received by the community. One person-day is the work done by one person for a standard time period, usually six hours. In the locations evaluated there were 512.229 person-days of labor, or 1778,6 person-days per village.

The second variable used in calculating work opportunities was the size of the work force. The work force comprised anyone who had ever worked on the KDP activity, even if only for a short period of time. This also showed the involvement of women during the construction of the infrastructure.

Type of Worker	Number of Workers (persons)	Per Village (persons)
Total Work Force	71.001	246,5
Female workers	8.510	29,5
Male workers	62.491	217,0

The number of women involved as workers was only 11,99% of the total work force. From the detailed data it can be shown that the low number of women involved was due to a total lack of women in many places (57,3%), which was especially true on certain types of infrastructure. In the villages where women actually did work, there was an average of 56,7 women working on the project.

Construction Time Period

The infrastructure built required an average of 3,75 months to complete after construction started. Only 11,2% required six or more months to complete work.

The infrastructure that was evaluated was constructed during Cycle IV (the first year of the second phase of KDP), so that at the time of evaluation many locations had already been completed a long time. On the average, sample villages were completed 8,77 months at the time of evaluation. A total of 22,87% had been completed at least one year by the time of evaluation.

Technical Management

There were many aspects of implementation that could have been selected as indicators of the quality of technical management in the field. For example, there are several kinds of documents that must always be present in the village. The evaluator checked whether they existed in the village, but sometimes the villagers were unable to produce them. Perhaps the documents existed, but they were not in the hands of the persons who should have them. The eight selected indicators of the quality of technical management are described below.

1. Technical Drawings and Planned Budget

The first indicator investigated was about the availability of technical drawings and the project budget in the village. Drawings and budgets belong to the village as their guidelines for construction and as a record of what was planned. If the village did not have these, implementation was considered to be not transparent. Therefore, for this indicator the important thing was that the items were found in the village – without resorting to asking for them from the facilitator or a kecamatan official.

Position of technical drawings and budget	Number	Percentage
Available in the village	315	83,78
Not available in the village	61	16,22

2. Location of Technical Drawings and Budget

For locations that possessed technical drawings and budgets, the position of the documents was also important. They should have at first been in the hands of the village management team as managers and implementers of the activity, but at the time of completion the documents should have been stored in a place easily accessed by the public, such as the village offices, so that community members would not be required to approach the facilitators or management team in order to see project documents. It can be seen from the table below that the village management team still controlled the location of the drawings and budgets. Only a small number were stored in a public place.

Location of drawings and budgets	Percentage
Found with the management team	62,54
Found with the village facilitators	6,19
Found at the village office	19,47
Found in other places	11,80

3. Inspection of Design Report

According to the rules of KDP-2, the plans including the design and budget for every piece of infrastructure must be inspected beforehand by the technical management consultant at the kabupaten by a standard form, Form IV.10. This form should be attached to the design to form an integral part of the grant agreement package signed by the kecamatan officials and the village. The evaluator inspected whether this document was found in the village, and it can be seen that nearly two-thirds did not have an attached form.

Inspection of Design Report Form	Percentage
Found in the village	35,10
Not found in the village	64,90

4. Change Order

If during implementation there were a significant change from the original drawings or budget, the village management team, the technical facilitator, and the kecamatan official in charge must agree on the required changes, with the proviso that any changes would not change the overall budget required. Changes could include changes in specifications, prices of certain parts of the infrastructure (an increase in one part of the design would have to be offset by a reduction in another part).

Change Orders	Percentage
Found	29,17
Required, but not found	15,83
Not needed	55,00

From the above table, it can be seen that about 70% of the needed change orders were found in the village and were inspected at the time of the evaluation. However, according to the table more than half of the locations did not require a change order. This meant that the infrastructure was completed just like it was found in the design, something that is inconsistent with previous expert observations in the field.

5. Environmental Impact

There is a fear that infrastructure construction in the village could damage the surrounding environment. According to the evaluations by the management consultants, the environmental damage only consisted of minor damage (that could be easily handled). The largest portion of responses was that there were no meaningful negative effects, consistent with previous observations of experts. Interestingly there were many sites where the evaluation found positive environmental impacts from building infrastructure.

Environmental Effects	Percentage
Did not harm the environment	84,20
There was light damage	5,99
There was significant damage	0,00
There were positive impacts	9,81

6. Acquisition of Land or Other Assets

To prevent losses to community members, KDP established detailed procedures for recording the commitments made to ensure that land or others assets were not taken without compensation. There are procedures for donating land needed for infrastructure, for example for widening a road right-of-way or a public hydrant. A donation following procedure meant that community members were informed about their rights to compensation and they filled in the required forms about their contribution.

Land Required by Infrastructure	Percentage
No land required	56,37
Donated in accordance with procedure	38,75
Donated not in accordance with procedure	4,61
Experienced serious compensation conflicts	0,27

Fortunately only a very small proportion of sites experienced serious conflicts about land or asset compensation. According to the data, more than 50% of sites did not require any members' land to be used for infrastructure. For example infrastructure was entirely built over existing infrastructure so that no new acquisition of land was required. Or perhaps the infrastructure was built entirely on communally owned land. Unfortunately, previous observations have shown that a majority sites require some land acquisition, usually voluntary and uncompensated.

7. As-Built Drawings

According to the standard technical management procedures, at the time that completion documents are prepared they must include as-built drawings and the actual budget used. The requirements for drawings and budgets are similar to the requirements at the planning stage, only they would be based on actual results in the field. These drawings represent the ultimate transparency effort, and they are potentially quite helpful in the future.

As-Built Drawings and Budgets	Percentage
Found and complete	51,23
Found, but not complete	21,25
Not found in the village	27,52

According to the above evaluation data, a large number of locations were not found to be in accordance with rules on as-built drawings. A significant portion was found to have incomplete as-built drawings (21,25%). More seriously, a larger group (27,52%) was found unable to produce as-built drawings when asked. Perhaps the documents existed in the kecamatan office or the facilitator's post, but they were not stored in the village.

8. Turnover of Works to the Community

Completion documents should have been prepared at the end of construction to support the turning over of the works by the village management team to the community.

Completion Documentation	Percentage
Found and complete	66,30
Found but incomplete	17,68
Not found in the village	16,02

About 70% of locations possessed all the documents that were needed to turn over the works back to the communities. Half of the remainder did not produce any documents at all when asked for them.

Infrastructure Function and Benefits

Besides looking at the physical quality of infrastructure and the quality of management, the evaluators inspected how well the infrastructure functioned and what level of benefits were occurring. This was separate from an evaluation by village respondents, because in this case the inspection was performed by an outside technical person.

1. Functioning of Infrastructure

The most important aspect for the community is whether there are benefits from the infrastructure that was built, and one prerequisite for benefits is the functioning of the infrastructure. In this regard, nearly all evaluators reported that the infrastructure was functioning fully at the time of the evaluation. Of the

remainder, most functioned only partially. There were also some sites that had functioned at one time but then had been damaged and ceased to function. Extremely rare were sites that had never functioned.

Level of Functioning	Percentage
Function completely	92,37
Does not function in parts	5,45
Had functioned, but now damaged	1,63
Never functioned	0,54

2. Benefits from Infrastructure

Besides function, the evaluator determined whether the infrastructure gave benefits in accordance to the hopes of the community. Nearly all infrastructure gave as many benefits as had been hoped for, and there were even 13,35% where the received benefits were more than had been hoped for.

Level of Benefits	Percentage
Benefits more than had been hoped for	13,35
Benefits as hoped for	83,65
Benefits less than hoped for	2,18
No benefits at time of evaluation	0,82

Maintenance

The next part of the evaluation describes the maintenance activities that have occurred. The evaluation was limited to the single most costly piece of infrastructure built in each village. Observations included aspects of organization, maintenance activities, the role of the community, and the determination of maintenance needs by routine monitoring.

1. Maintenance Organizations

Maintenance Organization	Percentage
Formed and active	37,99
Formed but less active	59,50
Never formed	2,51

Each village should have formed an organization to maintain and operate whatever infrastructure had been built. From the above data, only a few sites had never formed an organization, but most had organizations that were insufficiently active. Villages with active organizations were only 38% of the KDP villages.

2. Maintenance Activities

Villages were asked how many person-days of labor were mobilized on average each month. A monthly figure was utilized to minimize the effects of seasonal work. Only 42,79% of villages reported any person-days of labor for maintenance,

with a total of 4.103 person-days per month. It would be misleading to produce an average per village, since the numbers varied greatly – on the average very small but in some cases hundreds of person-days per month.

3. Maintenance Plans

One of the main duties of the maintenance organization was to produce plans for maintenance activities, put into a written document that was agreed to by the community (if there were a community meeting). In this evaluation the village was asked for the written maintenance plan by the evaluator. Fewer villages had maintenance plans than did not have a written maintenance plan.

Maintenance Plan	Percentage
There was a written maintenance plan	41,94
No written maintenance plan found	58,06

4. Maintenance Meetings

The maintenance organization should hold a routine meeting to discuss the needs for maintenance, the work plan, the organization of the work, funding, and other topics. The data show that 57,41% of the villages undertook a meeting, but very few of them recorded the minutes or saved documents. Most of the rest never met.

Maintenance Meeting	Percentage
Meeting held, incl. attendance and minutes	4,44
Meeting held, but records incomplete	52,96
No meeting held	42,59

5. Determination of Maintenance Needs

A key activity during the process of maintenance was the determination of which infrastructure would be maintained and what were the priorities. There were many alternative ways that could be used for this.

Who determined needs?	Percentage
Determined by a small team	68,30
Determined by village officials	21,89
Determined by other persons	3,40
Determination not in accordance with needs	6,42

In order to handle maintenance activities, there must be a decision about just what needs to be repaired. According to advice found in the KDP guidelines, this determination should be made by the maintenance organization, which formed a small team, and this model was followed by most villages. There were a significant number of villages where the maintenance needs were determined by local officials (21,89%), which would not be in accordance with the guidelines. The other ten percent of sites were determined by other persons and many were not determined in accordance with needs.

6. Monitoring of Maintenance

This intent of this indicator was to observe who had undertaken monitoring of maintenance. The evaluator could only name one person from the given list – if there were two sources of monitoring, then the higher-listed person was selected. The results were as follows:

Who performed monitoring?	Percentage
Monitored by kabupaten officials	4,40
Monitored by kecamatan officials	7,33
Monitored by kabupaten consultant	4,76
Monitored by kecamatan facilitator	19,78
Monitored internally by the village	54,58
Never monitored	9,16

It turned out that 11,72% were monitored by officials from higher levels of government (demonstrating their concern about long-term quality) and another 24,54% were monitored by consultants. Most locations were only monitored internally by the village itself. A small portion was not monitored at all.

Construction Quality

For every unit of infrastructure, the evaluator inspected the quality of the works in the field and completed the relevant standard detailed inspection checklist. Below can be found the results according to the evaluators for each major type of infrastructure constructed. The ratings of the infrastructure quality were entered into one of five categories, as follows:

Excellent:	Not more than 2 minor problems per each 10 rated items
Good:	Not more than 4 minor problems per each 10 rated items
Sufficient:	Not more than 1 minor problem and 1 serious problem per each 10 rated items
Fair:	Less than 2 serious problems per each 10 items
Poor:	At least 2 serious problems per 10 items

Evaluated items were those listed on the standard inspection reports found in the book of revised KDP-2 forms, with some small errors corrected. For purposes of this evaluation, all the kabupaten consultants were given corrected forms and guidelines.

In the field, the evaluator entered a checkmark ✓ for each relevant item in one of three categories: sufficient (in accordance with specifications), somewhat below standard (not meeting the specifications, or perhaps damaged in particular spots only), or poor (far below specifications, or seriously damaged so that function and benefits were threatened). The number of items evaluated depended on the type of infrastructure and the configuration of works in the field, but most forms contained dozens of items.

The results from the field about physical quality were as follows:

Physical quality	Percentage
Excellent	32,68
Good	21,69
Sufficient	15,21
Fair	15,49
Poor	14,93

According to this evaluation, 69,58% of infrastructure was built with at least sufficient quality. The largest category single was “Excellent.”

Respondent Opinions

For each village selected for the evaluation sample for physical quality, interviews were performed with a number of respondents from the community. Each village was represented by ten persons: one village official, one nonformal leader, two housewives, two youths, and four heads of households who worked on KDP (any position except housewife could be filled by either a man or a woman). A total of 2885 persons were interviewed.

The raw data results from the interviews are attached to this report. Each respondent was asked to respond to twenty-five statements, with the response indicating agreement, disagreement, a middle ground between agreement and disagreement, or unable to answer because of lack relevance or other reason. The evaluator interpreted responses by marking one of the four categories, while maintaining a conversational tone with the respondent – the respondent was not asked questions like in an examination.

In the second table below the raw data, the data are given in percentages to allow easier comparison making. The data are presented in several categories: all respondents, respondents on-Java and off-Java (because their answers might differ), and for the five types of respondents explained above.

On the next page in the attachments there is a table showing the data processed to highlight variations. On this table, only one number was calculated for each category of respondent for each question; the number was calculated by comparing the “Agree” and the total that either “Agree or Do Not Agree,” or in other words discarding the in-betweeners and undecided or irrelevant. Several interesting conclusions can be made based on these data:

1. Overall Results

Overall, 79,3% gave positive responses, but several of the twenty-five statements were rated relatively higher than the others. Those receiving a very high rating (more than 95% positive) included the items below:

Felt that the KDP infrastructure was beneficial to the community	98,4%
Would want to get another project with KDP-like rules	97,3
Satisfied with the quality of works built	96,0
KDP proceeded without serious problems	95,4
There was no malfeasance during implementation of KDP	95,2

There were several items where the responses were much less positive, with the following three items showing less than 60% positive. The relatively negative responses included:

Paid a fee or made a donation for maintenance	35,5
Participated in maintenance activities in the field	53,4
Participated in the process of planning for maintenance	55,4

One can observe that the most negative items all were related to maintenance. Perhaps this is because many locations were not completed long enough to demonstrate maintenance in the field, or perhaps it was a sign of trouble.

2. Comparing Results On-Java with Off-Java

The results from respondents on-Java and off-Java were not significantly different. For most things, the respondents on-Java on the average gave slightly more positive answers. For two items were the differences extremely higher:

Participated in maintenance activities (27,7 % higher)
Paid a fee or made a donation for maintenance (14,9%)

For a few items, the differences reached 10 to 15 percent, including:

Satisfied with the wages received (for those working and being paid)
Felt there was an increase in skills
Participated in accountability meetings

There were a few things for which the off-Java respondents were slightly more positive than the respondents on-Java.

Could name the village management team
Women received the same work opportunity and wage as men
Satisfied with the quality
Would like to get another program with KDP-like rules

3. Comparisons Among and Between Respondent Categories

The responses from the **village officials** and the **nonformal leaders** were predictably higher on the average than the others. For some items, the officials were nearly unanimous: there was no malfeasance, there were no serious problems, the management team was transparent, another program was desired, and they were satisfied with whatever was built. Most of them did not work during KDP implementation. Nonformal leaders were nearly as positive as the officials. Both sets of leaders were also involved in nearly every activity (planning, accountability, maintenance, etc).

In contrast, the respondents representing **youth** gave responses that were less positive than other respondents (at least 10% lower) towards some of the items, such as the following:

Did not work and receive a wage (16%)
Did not participate in maintenance planning (15%)
Not satisfied with the size of the wage received (14%)
Did not follow the accountability process (12%)
Did not participate in maintenance activities (12%)
Did not participate in the selection of infrastructure (10%)

Housewives were very different on many items, and all these differences were more negative than other groups. The most strikingly different included the items shown below:

Less likely to work in KDP (37% lower)
If working, more likely to be unsatisfied with wages received (31%)
Did not participate in maintenance activities (23%)
Did not feel there was an increase in skills from following KDP (21%)
Did not participate in planning for maintenance (19%)
Was not satisfied with the given opportunities for work (18%)
Did not make a contribution during implementation (14%)
Did not know the total construction budget (14%)
Did not read the project information board (14%)
Did not attend the accountability meetings (10%)

Respondents who were **heads of households who worked on KDP** were not very different from the overall averages, perhaps because they represented 40% of the whole sample. Most of their answers were supportive and positive, and in the following cases even higher than others:

More likely to have worked
More likely to have made a contribution during implementation
More satisfied with the given opportunity to work
Felt there was an increase in skills
Participated in maintenance activities

But there were several responses that were interesting because their responses were relatively less positive than the others:

Less likely to know the total construction budget
Felt that women did not get the same opportunities as men
Less likely to have read the information board
Less likely to have contributed during maintenance

Based on the responses of the respondents, three general conclusions can be drawn:

1. Local officials and nonformal leaders were the most involved and most informed about KDP.
2. Housewives and youth were both less involved, more lacking in knowledge, and more unsatisfied.
3. Most workers were relatively satisfied and worked more, but there were many things they did not know.

Evaluation Results for Each Type of Infrastructure

In the database of the quality evaluation of infrastructure there are data from 375 items of infrastructure built during Cycle IV. Besides being able to answer queries such as those described above, the database was reorganized to search for conclusions about each type of infrastructure.

There were nineteen types of infrastructure entered into the two-page table *Summary of Infrastructure Quality Evaluations for KDP Cycle IV*, which is attached to this report. The types of infrastructure included water supply, roads, and bridges, which were subdivided into more specific types to see if there were significant differences between asphalt roads, earth roads, concrete slab roads, Telford roads or gravel roads. Included these subtypes, there were data from thirty kinds of infrastructure. Fourteen other types of infrastructure were combined into a miscellaneous category because of their infrequency and lack of supporting data.

In the evaluation table can be seen the number of villages that selected each type of infrastructure. The most popular type of infrastructure was the road (160 villages, or 42,67% of the sample), bridges (16,80% of the sample), and water supply (12,00% of the sample). Others found in large numbers include sanitary facilities, markets, and pre-schools. Educational facilities all together were found in 16 villages. Health facilities included village clinics, sanitary facilities, waste disposal, and mother and child health centers were found in 27 villages. Economic activities included markets, fish auctions, rice drying floors, and electricity generation (13 villages). Irrigation and drainage were selected by 23 villages.

- For water supply, the most common construction was pipe distribution of water (which frequently were supplemented by spring protection and public hydrants).
- For roads, the most common type was Telford roads (an ordered rock surface covered with a gravel running surface), which comprised nearly half of the roads built, followed by gravel roads and asphaltting. One quarter of the asphalted roads were newly constructed, which should not have been recommended for KDP due to the technical limitations of new roads .
- For bridges, the far most common type was concrete bridges, followed distantly by steel-girdered bridges or wooden bridges. None of the concrete bridges exceeded the limit of six meters in length.

It was seen whether different types of infrastructure were more commonly found off-Java than on Java. Those types of infrastructure demonstrating a higher likelihood to be found in one place or the other include the following types (of the whole sample, 53% were found on Java):

Off Java (more than 70%):
Dug wells, rainfall collectors, buildings, gravel roads, suspension bridges, wooden bridges, electricity generation, jetties, rice drying floor, markets, fish auctions, waste disposal, mother and child health centers.

On-Java:
Schools, irrigation, culverts, Telford roads, asphalted roads, retaining walls, concrete slab roads, concrete bridges, steel-girdered bridges, arch bridges, village clinics.

One could also look from the point of view of type of intervention – was the work new construction, an improvement on existing infrastructure, or repairs? From these data some interesting conclusions can be made:

- Almost all water projects are new systems; less than twenty percent were upgrades of existing systems.
- Many irrigation and drainage projects were upgrades of an existing system (40%).
- For roads, many were upgrades. Asphalted roads were 74% upgrades (although the rules called for 100%), but most others were about 40% upgrades. Earth roads and Telford roads most often were found to be new construction (63%), but earth roads also were the most common to be repairs of existing roads.
- Many bridges were replacements of existing bridges or their repair. Sixty percent of wooden bridges were repairs to existing structures.
- The largest portion of schools, clinics, markets, and pre-schools were repairs to existing infrastructure.
- Jetties, retaining walls, fish auctions, electricity generation, rice drying floors, suspension bridges, rainfall collectors, and dug wells were 100% newly built.

The average dimensions of any infrastructure were studied, for those locations for which an unambiguous dimension was given. Some sites could not be included because they were found to have multiple standards of measurement, such as units and meters. Some interesting conclusions from these data include the following:

- Piped water on the average attained four kilometers in length, due to the presence of several extremely long systems.
- Irrigation canals undertaken were on the average only one kilometer in length.
- Almost all types of roads had the same average length, about 1½ kilometer. Except that concrete slabs were only about ½ kilometer.
- The average for bridges was affected by the inclusion of suspension bridges, which were over 40 meters on average. All concrete bridges were at most six meters in length. Steel-girdered bridges were used for spans 15,7 meters long on average, while wooden bridges averaged only 10 meters.
- Markets were on the average built with dimensions about 15 meters by 25 meters.
- Pre-school structures were on the average about 9 meters by 10 meters. Other schools were reported in number of units, not by their area.

The unit costs of the various types of infrastructure are especially interesting to stakeholders in KDP. The data were fairly consistent within each category, so that the results could be used to estimate the funding requirements. The data and conclusions that were most interesting and useful included the following:

- The cost of the average road was 83 million rupiah per kilometer. Concrete slabs were the most expensive, at about 118 million per kilometer. Asphalted roads used only about 70 million per kilometer. Oddly, gravel roads on the average were more costly than Telford roads, but from the data it was seen that this was entirely due to four locations that were very expensive (perhaps due to additional construction that raised the overall cost). Gravel overall was 90 million per kilometer, but with the four outliers removed the average cost dropped to a believable 62 million.

- For bridges, the most expensive was the concrete bridge (8,4 million per running meter), followed by steel-girdered bridges (5,3), suspension bridges (4,6), arch bridges (3,4), and wooden bridges (2,5). These prices were significantly different, although the foundation work for most of them would be similar. In part the higher cost of concrete bridges could be due to having two abutments for a span of only six meters, whereas a steel bridge might have the same foundation without a middle pier for a twelve-meter span.
- It was difficult to compare buildings because they came in such a variety of sizes, and many were only reported in units and not in square meters, but as a working estimate one could say that buildings cost from 50 to 60 million rupiah per unit. Mother and child health centers were cheaper, only 36 million per unit. Markets and general use buildings were cheaper than pre-schools; markets were only half the price per square meter (Rp 343.000 per square meter).
- The cheapest infrastructure was the distribution of water by pipe, with a cost of only Rp 33.000 per running meter. This figure depends mainly on the cost of pipe.
- Electricity generation was reported per kilowatt, but the price varied greatly depending on the length of the distribution network. On the average, the cost was 6 million per kilowatt.

The quality of infrastructure is very important. Quality data were not sent for sixteen of the sample villages. In order to determine the categories of excellent, good, sufficient, fair, and poor, the evaluators used the standard checklists found in the KDP guidelines appendices. Each item on the checklist rated satisfactory on the forms was given a value of one point. Each item with a minor problem received a score of minus one, while items with serious problems were given a score of minus five. The total score was compared to the maximum attainable score for those items, as if all had been found satisfactory. The score was based on the percentage of the maximum. For infrastructure to be considered excellent, the score had to be above 80% of the maximum. For infrastructure to be considered good, the score had to fall between 60% and 80%. A sufficient score was one from 40% to 60% of the maximum. A fair score was positive but below 40%. Any negative scores were put into the category of poor. This rating system could also be seen from the point of view of the number of problems per each ten items evaluated:

- Excellent allowed no more than 2 minor problems per 10 items checked
- Good allowed a maximum of 4 minor problems
- Sufficient allowed one minor problem and one serious problem, or six minor problems
- Fair was the rating when there were fewer than two serious problems per ten items checked.
- Poor was the rating when there were more than two serious problems.

These categories and methods have been used previously in both in the evaluation of KDP-1 and in the evaluation of the Village Infrastructure Project, as a method of showing the relative quality of different types of infrastructure.

The conclusions about the quality of infrastructure includes information about which type of infrastructure were built with the highest quality, as below:

- Clinics, drainage, arch bridges, fish auctions, and waste disposal always received the highest category for all sites. For drainage, the format did not, however,

evaluate the capacity of the drainage canal to dry farmers' land or hamlets, only the quality of whatever was constructed.

- The types of infrastructure where more than half the sites were excellent or good included pipe distribution, dug wells, buildings, concrete slab roads, all bridges except wooden ones, electricity generation, sanitary facilities, mother and child health centers, schools, pre-schools, and retaining walls. 48% of Telford roads were rated excellent or good.
- The types of infrastructure with the largest portion of poor sites included water structures, rainfall collectors, jetties, and retaining walls (there were two good ones and one poor one).
- All types of roads had a significant portion of sites with fair or poor results, including a majority of gravel roads and half of earthen roads. Telford, concrete slab, and asphalted roads all had at least 25% fair or poor sites.
- All the bridges were better except for wooden bridges, of which 70% were only fair or poor. The steel-girdered bridges had 27% fair or poor (9% poor).
- On water projects, the pipe distribution networks had a poor or fair rating on 28% of the sites. As mentioned above, rainfall collectors and public hydrants were poor.

Two indicators that determine the usefulness of the constructed infrastructure are its function and benefits. Data on these were recorded for each item of infrastructure.

Almost all infrastructure were reported to be functional at the time of the evaluation visit. Only water supply projects and sanitary facilities had many sites that did not function. In contrast, only 3 of the 154 roads did not function fully.

Interesting also, there were three sites of pipe distribution that never functioned. Aside from these three, there were only three other sites that had never functioned: one electricity generation project, one Telford road, and one steel-girdered bridge.

These data were also interesting when compared with the reported benefits:

- There were many bridges and roads that gave benefits more than hoped for.
- There were data inconsistent with the reported functionality, such as a site that never functioned nonetheless delivered all the expected benefits. One electricity-generating site never functioned, but somehow it gave benefits. One pipe distribution network never functioned but delivered all the expected benefits. There was a bridge that never functioned but gave all the expected benefits. The road that did not function was evaluated as delivering fewer benefits than hoped for, but not "did not have any benefits."

In the database there were more than 35 pieces of information for each location of infrastructure, so that the data presented here did not include all the variables collected. For those that are interested, there many hypotheses that could be tested (example: Was the quality better when drawings were found in the village?). Because the analysis of these would require much time, not all were included in this report. It would be easy for an interested party to check other relationships. The data were entered into just two primary files (the general evaluation form, and data about interview responses) and one secondary file (data specific to each type of infrastructure). The files and original forms will be stored at the office of the National Management Consultants.

Conclusions and Recommendations

There are many benefits to conducting an evaluation such as this one. Evaluating should be a part of routine assignments, because it combines comparative study and feedback. The management consultants were fairly honest about their answers, as can be seen because many of their answers reflected negatively on their friends. There is another possibility for this: the evaluator did not know the difference between a positive and a negative response.

It should be reported that the implementation of this evaluation was quite delayed from the original plan, so that the results could not be reported during 2004 and could not be included as a topic in pre-service training conducted even in September 2005. Many sites could not be evaluated until Jakarta agreed to order the administrators to release travel funds for the evaluators to go to other kabupatens. Also, without the “gong” from Jakarta the evaluators were afraid to undertake this kind of assignment, because of a fear of having their salaries cut if they were found outside their assigned kabupatens. In the end, data were sent until the end of July 2005, not January 2005, as planned.

Data were entered and checked at the offices of Cipta Sarana Mandiri, as an experienced and disciplined computer operator was loaned for this activity.

Technical Quality

It can be seen from the data about types of infrastructure that some types have more problems with technical quality, such as earthen roads and wooden bridges, water tanks, and rainfall collectors. Some types that are very common, such as water distribution pipe and Telford roads, still are too often found with a disappointing level of quality.

All the inspection forms from the evaluation should be examined to see item per item which parts of the infrastructure were rated poor.

The correlation between quality and other variables can be calculated, especially to test various hypotheses.

The results about maintenance were not as hoped for. The maintenance organizations were often absent, written plans were not available, meetings were in disarray, officials often decided priorities, and the results were important only to the village. Some of these problems require a different handling, such as the seven-step program in new approach to maintenance proposed for KDP.

Technical Management Process

The evaluation of the technical management process showed that there were still many problems in the field. Most aspects were below expectations, except for environmental impact, which was in line with evaluations performed by independent individuals. Other aspects had problems that require attention from the National Management Consultants:

- Sixteen percent of villages did not have design drawings in the village
- Inspection forms from the kabupaten engineers were rarely attached to the designs as they should have been.

- Drawings were not found in the public village office, but only found with the individuals who were on the village management team or the facilitators, even though the sites were finished long ago.
- As-built drawings were frequently absent.
- The turnover process to the community was not performed the way it was supposed to be.

For several items, the reported process was fine, only it was too difficult to believe. According to the evaluators, most villages did not require a change order, as the physical results were the same as the original plan. This would be wonderful if it were true – but in other projects and in previous experience with KDP it is more likely that there were changes. Also according to the evaluators, the process of land or asset acquisition was not performed because no land or other assets were taken by the project. However, nearly every road requires widening and many other projects require land. The data were not convincing that the process of land acquisition was always followed.

There should be a review of the understanding of the kabupaten consultants and kecamatan facilitators about aspects of land and asset acquisition and change orders.

For all aspects not yet mastered, kabupaten consultants should be given mandatory in-service training, and from them training given to the kecamatan facilitators.

For the items of function and benefits, the answers given sometimes were not internally consistent. According to the answer about functioning, a location had never functioned, but according to the question on benefits there was no problem.

It should be considered whether feedback should be given in detail about the entire evaluation, but this would require much time and energy. Feedback has not yet been given to management consultants.

For some of the other data items, there was a lack of clarity in the field. How could the labor force be larger than the number of person-days of labor? In many locations these data make routine field reports very confusing, not just the evaluation.

There needs to be yet another special in-service training session about the definitions of work force and person-days of labor, as many people are still confused by them.

Unit Costs

The calculation of unit costs from the data yielded data that were immediately useful for the NMC and the donors. The data were consistent and gave numbers that made sense. They also reconfirmed that KDP activities are cheaper than other projects.

Interviews with Respondents

The interviews with respondents gave encouraging information, because on the average the respondents were quite positive about KDP and the processes that they experienced. The data

were believable, in part because there were negative responses scattered throughout the data and especially in places where a negative response made logical sense.

The NMC should develop additional methods to increase the involvement of women and youth in the program. For many items their responses were more negative than other respondents.

Methodology

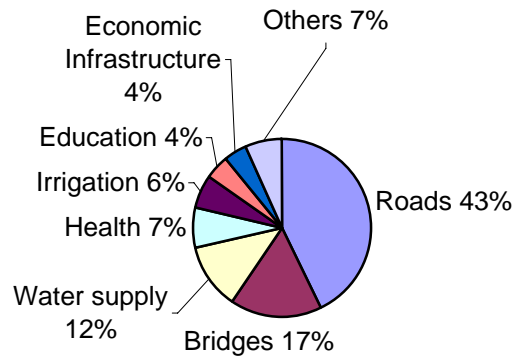
There are many potential benefits if this activity or something similar is repeated in the field. One important reason is to change the opinion of stakeholders about evaluations in general. Whatever is important to do should be evaluated to see if it was accomplished.

Evaluation results should be verified in the field. If an NMC or RMU member goes to the field, they can observe whether the evaluation accurately reflected conditions in the field.

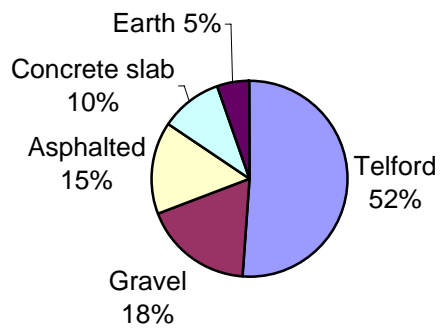
The NMC, the RMUs, or even outsiders could propose hypotheses that could be checked through this data. For example, one could check a hypothesis about the relationship between the quality of the management and the quality of physical works. Is there a high correlation between results and management?

If there is a desire to repeat this activity, the questionnaires can be improved as well as their instructions so that the process can be completed quickly and more accurately.

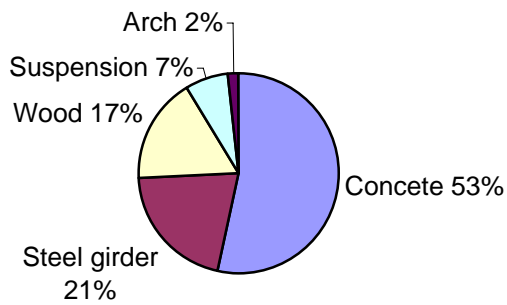
Percentage According to Category of Infrastructure



Portion of Roads



Portion of Bridges



Opinions of Respondents by Type of Respondent
Infrastructure Quality Evaluation KDP Cycle IV

Number of Respondents

Statement about KDP	All				Java only				Outside Java only				Village Official				Youth				Housewife				Nonformal Leader				Worker Head of HH			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1 Participated in the selection of KDP infrastructure	2088	164	437	195	1203	67	212	107	885	97	225	88	273	11	7	2	343	37	130	74	396	40	96	49	266	10	9	4	810	66	195	66
2 Feel that KDP infrastructure gives benefits to the community	2726	100	44	15	1514	50	16	9	1212	50	28	6	283	5	4	1	541	25	9	9	545	21	11	5	283	5	1	0	1074	44	19	0
3 KDP infrastructure is especially beneficial for the poor	2309	417	129	30	1319	209	47	14	990	208	82	16	234	43	15	1	444	100	27	13	454	88	29	10	247	32	10	0	929	154	48	6
4 The respondent personally benefitted	2428	225	176	56	1360	109	87	33	1068	116	89	33	249	22	14	8	468	50	42	24	475	49	42	16	250	20	16	3	986	84	62	5
5 The selected instructure was the most beneficial	2402	264	149	69	1355	116	83	35	1047	148	66	34	256	20	14	3	461	61	34	28	468	58	32	23	261	21	5	2	955	104	64	13
6 Can name at least one kecamatan facilitator	1693	423	386	383	954	242	177	216	739	181	209	167	251	16	13	13	311	75	102	96	333	82	87	80	210	32	23	24	588	218	161	170
7 Can name the head of the village management team	2324	206	180	175	1291	109	102	87	1033	97	78	88	277	7	5	4	431	46	50	57	421	59	49	52	261	9	13	6	933	85	63	56
8 Can name at least one of the village facilitators	2162	254	257	212	1228	119	140	102	934	135	117	110	272	11	5	5	417	48	58	61	414	61	57	50	248	14	14	13	811	120	123	83
9 Knows the approximate cost of KDP construction	1249	511	544	581	753	287	274	275	496	224	270	306	209	41	21	22	214	96	133	141	162	113	132	174	199	37	25	28	465	224	233	215
10 Worked and received wages from KDP	1488	164	685	548	828	95	331	335	660	69	354	213	96	19	94	84	215	25	200	144	108	27	241	206	117	21	90	61	952	72	60	53
11 If "yes", satisfied with the size of the wages received	1314	222	516	833	745	115	229	500	569	107	287	333	92	14	70	117	190	37	141	216	106	24	158	293	110	18	58	103	816	129	89	103
12 Women have the same chance to work and the same wage	1214	371	662	638	626	202	355	406	588	169	307	232	139	33	61	60	233	70	143	138	234	63	148	137	139	38	52	60	469	167	258	243
13 Donated labor, materials, or land to KDP implementation	1559	335	697	294	905	174	354	156	654	161	343	138	167	37	59	30	264	66	177	77	227	71	184	99	172	36	59	22	729	125	218	65
14 Village management team transparent on process, progress, adm	1939	407	254	284	1163	182	124	119	776	225	130	165	239	32	14	8	336	95	69	84	335	98	67	82	225	35	16	13	804	147	88	97
15 Have read the KDP Information Board	1383	508	661	333	777	283	370	159	606	225	291	174	224	32	27	10	289	90	131	74	196	123	170	92	187	40	45	17	487	223	288	139
16 KDP was undertaken without serious problems	2448	242	119	76	1394	107	62	26	1054	135	57	50	266	22	4	1	479	48	29	28	472	60	24	26	253	25	8	3	978	87	54	18
17 There was no malfeasance in KDP implementation	2299	234	115	237	1328	86	51	124	971	148	64	113	259	19	4	11	436	54	31	63	443	44	29	65	249	24	7	9	911	93	44	89
18 Satisfied with the quality of works	2309	431	95	50	1260	248	58	23	1049	183	37	27	242	49	1	1	438	106	20	44	98	23	19	245	31	11	2	942	147	40	8	
19 Satisfied with the opportunity to work	1792	297	297	499	1008	132	143	306	784	165	154	193	165	30	29	69	283	66	86	149	221	61	109	190	184	24	23	58	939	116	50	32
20 Feel there was an increase in skills or knowledge from KDP	1489	475	461	460	901	231	223	234	238	244	238	226	183	38	35	27	259	81	114	130	169	103	136	174	172	46	32	39	706	207	144	80
21 Attended the accountability meetings	1486	240	744	415	866	116	375	232	620	124	369	183	245	17	25	6	229	46	193	116	246	46	187	102	214	23	33	19	552	108	306	171
22 Involved in planning for maintenance	1171	282	942	489	698	156	480	254	473	126	462	235	209	31	36	17	163	49	237	135	140	62	244	135	183	26	46	34	476	114	379	168
23 Have made a donation for maintenance or paid a fee	709	245	1291	639	474	156	656	302	235	89	635	337	86	29	123	55	121	48	277	138	142	57	251	130	88	27	117	57	271	84	523	259
24 Actively participated in maintenance activities	1127	235	985	536	790	130	454	213	337	105	531	323	147	28	74	44	171	50	238	125	117	49	267	147	145	27	76	41	547	81	330	179
25 Would like to participate in a project with KDP rules	2584	174	73	52	1404	108	41	34	1180	66	32	18	283	9	1	0	519	34	15	16	495	43	24	17	269	10	7	3	1017	78	26	16

1 = Agree 2 = Between agree and disagree 3 = Disagree 4 = Not relevant; cannot be answered

Percentage of Respondents

Statement about KDP	All				Java only				Outside Java only				Village Official				Youth				Housewife				Nonformal Leader				Worker Head of HH			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1 Participated in the selection of KDP infrastructure	72.4	5.7	15.2	6.8	75.7	4.2	13.3	6.7	68.3	7.5	17.4	6.8	93.2	3.8	2.4	0.7	58.7	6.3	22.3	12.7	68.2	6.9	16.5	8.4	92.0	3.5	3.1	1.4	71.2	5.8	17.2	5.8
2 Feel that KDP infrastructure gives benefits to the community	94.5	3.5	1.5	0.5	95.3	3.1	1.0	0.6	93.5	3.9	2.2	0.5	96.6	1.7	1.4	0.3	92.6	4.3	1.5	1.5	93.6	3.6	1.9	0.9	97.9	1.7	0.3	0.0	94.5	3.9	1.7	0.0
3 KDP infrastructure is especially beneficial for the poor	80.0	14.5	4.5	1.0	83.0	13.2	3.0	0.9	76.4	16.0	6.3	1.2	79.9	14.7	5.1	0.3	76.0	17.1	4.6	2.2	78.1	15.1	5.0	1.7	85.5	11.1	3.5	0.7	87.7	13.5	4.2	0.5
4 The respondent personally benefitted	84.2	7.8	6.1	1.9	85.6	6.9	5.5	2.1	82.4	9.0	6.9	1.8	85.0	7.5	4.8	2.7	80.1	8.6	7.2	4.1	81.6	8.4	7.2	2.7	86.5	6.9	5.5	1.0	86.7	7.4	5.5	0.4
5 The selected instructure was the most beneficial	83.3	9.2	5.2	2.4	85.3	7.3	5.2	2.2	80.8	11.4	5.1	2.6	87.4	6.8	4.8	1.0	78.9	10.4	5.8	4.8	80.6	10.0	5.5	4.0	90.3	7.3	1.7	0.7	84.1	9.2	5.6	1.1
6 Can name at least one kecamatan facilitator	58.7	14.7	13.4	13.3	60.0	15.2	11.1	13.6	57.0	14.0	16.1	12.9	85.7	5.5	4.4	4.4	53.3	12.8	17.5	16.4	57.2	14.1	14.9	13.7	72.7	11.1	8.0	8.3	71.8	11.3	12.2	14.2
7 Can name the head of the village management team	80.6	7.1	6.2	6.1	81.2	6.9	6.4	5.5	79.7	7.5	6.0	6.8	94.5	2.4	1.7	1.4	73.8	7.9	8.6	9.8	72.5	10.2	8.4	9.0	90.3	3.1	4.5	2.1	82.1	7.5	5.5	4.9
8 Can name at least one of the village facilitators	74.9	8.8	8.9	7.3	77.3	7.5	8.8	6.4	72.1	10.4	9.0	8.5	92.8	3.8	1.7	1.7	71.4	8.2	9.9	10.4	71.1	10.5	9.8	8.6	85.8	4.8	4.8	4.5	71.3	10.6	10.8	7.3
9 Knows the approximate cost of KDP construction	43.3	17.7	18.9	20.1	47.4	18.1	17.2	17.3	38.3	17.3	20.8	23.6	71.3	14.0	7.2	7.5	36.6	16.4	22.8	24.1	27.9	19.4	22.7	29.9	68.9	12.8	8.7	9.7	40.9	19.7	20.5	18.9
10 Worked and received wages from KDP	51.6	5.7	23.7	19.0	52.1	6.0	20.8	21.1	50.9	5.3	27.3	16.4	32.8	6.5	32.1	28.7	36.8	4.3	34.2	24.7	18.6	4.6	41.4	35.4	40.5	7.3	31.1	21.1	83.7	6.3	5.3	4.7
11 If "yes", satisfied with the size of the wages received	45.5	7.7	17.9	28.9	46.9	7.2	14.4	31.5	43.9	8.3	22.1	25.7	31.4	4.8	23.9	39.9	32.5	6.3	24.1	37.0	18.2	4.1	27.2	50.4	38.1	6.2	20.1	35.6	71.8	11.3	7.8	9.1
12 Women have the same chance to work and the same wage	42.1	12.9	22.9	22.1	39.4	12.7	22.3	25.6	45.4	13.0	23.7	17.9	47.4	11.3	20.8	20.5	39.9	12.0	24.5	23.6	40.2	10.8	25.4	23.5	48.1	13.1	18.0	20.8	41.2	14.7	22.7	21.4
13 Donated labor, materials, or land to KDP implementation	54.0	11.6	24.2	10.2	57.0	11.0	22.3	9.8	50.5	12.4	26.5	10.6	57.0	12.6	20.1	10.2	45.2	11.3	30.3	13.2	39.1	12.2	31.7	17.0	59.5	12.5	20.4	7.6	64.1	11.0	19.2	5.7
14 Village management team transparent on process, progress, adm	67.2	14.1	8.8	9.8	73.2	11.5	7.8	7.5	59.9	17.4	10.0	12.7	81.6	10.9	4.8	2.7	57.5	16.3	11.8	14.4	57.6	16.8	11.5	14.1	77.9	12.1	5.5	4.5	70.8	12.9	7.7	12.2
15 Have read the KDP Information Board	47.9	16.6	22.9	11.5	48.9	17.8	23.3	10.0	46.8	17.4	22.5	13.4	76.5	10.9	9.2	3.4	49.5	15.4	22.4	12.7	33.7	21.2	29.3	15.8	64.7	13.8	48.2	19.6	25.3	7.7	8.5	

Comparison Between Those Respondents Who Agreed with Those Who Disagreed

Percentage of Respondents that Agreed

Statements about KDP	All	Java only	Outside Java only	Village Official	Youth	Housewife	Nonformal leader	Worker Head of HH
	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)	(Agree)/(Agree+Disagree)
1 Participated in the selection of KDP infrastructure	82,7	85,0	79,7	97,5	72,5	80,5	96,7	80,6
2 Feel that KDP infrastructure gives benefits to the community	98,4	99,0	97,7	98,6	98,4	98,0	99,6	98,3
3 KDP infrastructure is especially beneficial for the poor	94,7	96,6	92,4	94,0	94,3	94,0	96,1	95,1
4 The respondent personally benefitted	93,2	94,0	92,3	94,7	91,8	91,9	94,0	94,1
5 The selected instructure was the most beneficial	94,2	94,2	94,1	94,8	93,1	93,6	98,1	93,7
6 Can name at least one kecamatan facilitator	81,4	84,4	78,0	95,1	75,3	79,3	90,1	78,5
7 Can name the head of the village management team	92,8	92,7	93,0	98,2	89,6	89,6	95,3	93,7
8 Can name at least one of the village facilitators	89,4	89,8	88,9	98,2	87,8	87,9	94,7	86,8
9 Knows the approximate cost of KDP construction	69,7	73,3	64,8	90,9	61,7	55,1	88,8	66,6
10 Workded and received wages from KDP	68,5	71,4	65,1	50,5	51,8	30,9	56,5	94,1
11 If "yes", satisfied with the size of the wages received	71,8	76,5	66,5	56,8	57,4	40,2	65,5	90,2
12 Women have the same chance to work and the same wage	64,7	63,8	65,7	69,5	62,0	61,3	72,8	64,5
13 Donated labor, materials, or land to KDP implementation	69,1	71,9	65,6	73,9	59,9	55,2	74,5	77,0
14 Village management team transparent on process, progress, adm	88,4	90,4	85,7	94,5	83,0	83,3	93,4	90,1
15 Have read the KDP Information Board	67,7	67,7	67,6	89,2	68,8	53,6	80,6	62,8
16 KDP was undertaken without serious problems	95,4	95,7	94,9	98,5	94,3	95,2	96,9	94,8
17 There was no malfeasance in KDP implementation	95,2	96,3	93,8	98,5	93,4	93,9	97,3	95,4
18 Satisfied with the quality of works	96,0	95,6	96,6	99,6	95,6	95,1	95,7	95,9
19 Satisfisfield with the opportunity to work	85,8	87,6	83,6	85,1	76,7	67,0	88,9	94,9
20 Feel there was an increase in skills or knowledge from KDP	76,4	80,2	71,2	83,9	69,4	55,4	84,3	83,1
21 Attended the accountability meetings	66,6	69,8	62,7	90,7	54,3	56,8	86,6	64,3
22 Involved in planning for maintenance	55,4	59,3	50,6	85,3	40,8	36,5	79,9	55,7
23 Have made a donation for maintenance or paid a fee	35,5	41,9	27,0	41,1	30,4	36,1	42,9	34,1
24 Actively participated in maintenance activities	53,4	63,5	38,8	66,5	41,8	30,5	65,6	62,4
25 Would like to participate in a project with KDP rules	97,3	97,2	97,4	99,6	97,2	95,4	97,5	97,5

Summary of Infrastructure Quality Evaluations for KDP Cycle IV

Page One

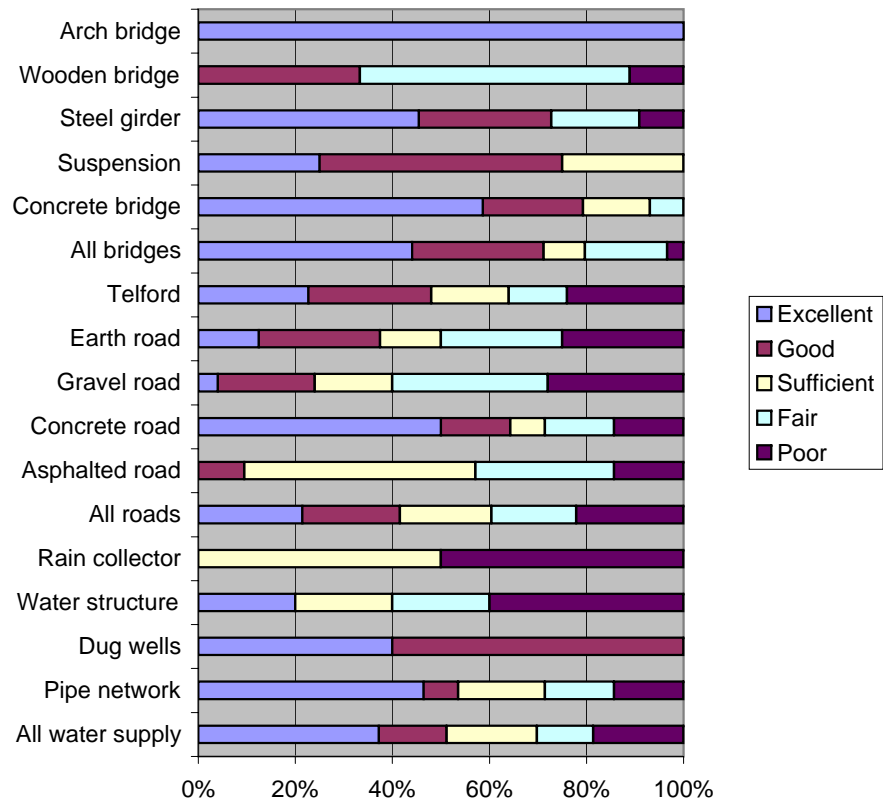
Kind of Infrastructure	Specific Type	Number of Villages Building This Kind or Type	% of Villages Building This	% of These Villages on Java	Type of Implementation			Average Dimension Undertaken	Unit Cost (Rupiah)
					% of Villages Constructing New	% of Villages Doing an Upgrade	% of Villages Doing Repairs		
Water Supply	All	45	12,00	38	84	13	2		
	Pipe Network	28		39	79	18	4	4185,2 meters	33.243
	Dug Well	5		20	100	0	0	8,3 units	6.449.543
	Hydrants/Boxes	7		57	86	14	0	10,4 units	4.331.724
	Rainfall Collectors	2		0	100	0	0	4,5 units	11.937.700
Drainage	All	5	1,33	40	60	40	0	950,4 meters	114.398
Buildings	All	4	1,07	25	50	0	50	168,8 sq.meter	526.710
Culverts	All	3	0,80	67	33	33	0	4,5 units	3.308.480
Irrigation	All	18	4,80	72	61	39	0	1067,3 meters	202.064
Roads	All	160	42,67	68	54	39	6	1462,8 meters	83.266
	Asphalting	23		78	26	74	0	1659,4 meters	70.432
	Concrete slab	15		73	40	47	0	519,7 meters	118.227
	Gravel	27		30	44	48	7	1824,6 meters	90.850
	Earth	8		63	63	25	13	1347,8 meters	63.041
	Telford	76		83	63	30	7	1387,5 meters	82.872
Bridges	All	63	16,80	51	68	10	21	10,7 meters	6.196.644
	Concrete	31		65	77	10	10	5,5 meters	8.415.953
	Suspension	4		0	100	0	0	43,7 meters	4.614.041
	Steel girder	12		75	75	8	17	15,7 meters	5.346.768
	Wood	10		0	20	10	60	10,7 meters	2.492.011
	Arch	1		100	0	100	0	19,0 meters	3.363.479
Rice Drying Floor	All	1	0,27	0	100	0	0	128,0 sq.meter	247.361
Electricity generating	All	3	0,80	0	100	0	0	28,3 Kw	6.009.540
Latrines	All	16	4,27	25	100	0	0	4,8 units	14.067.921
Village clinic	All	3	0,80	67	67	0	33	1,0 units	59.938.611
Mother-child clinic	All	7	1,87	14	86	0	14	1,3 units	36.298.000
Market	All	9	2,40	11	44	33	22	384,7 sq.meter	343.940
School	All	7	1,87	57	57	0	43	1,86 units	54.359.214
Jetty	All	2	0,53	0	100	0	0	232,5 meters	516.162
Pre-School	All	9	2,40	44	67	11	22	89,6 sq.meter	668.771
Fish Auction	All	1	0,27	0	100	0	0	1,0 units	116.375.804
Waste Disposal	All	1	0,27	0	0	100	0	18,0 units	3.814.203
Retaining Wall	All	4	1,07	75	100	0	0	386,5 meters	186.469
Others		14	3,73						

Summary of Infrastructure Quality Evaluations for KDP Cycle IV

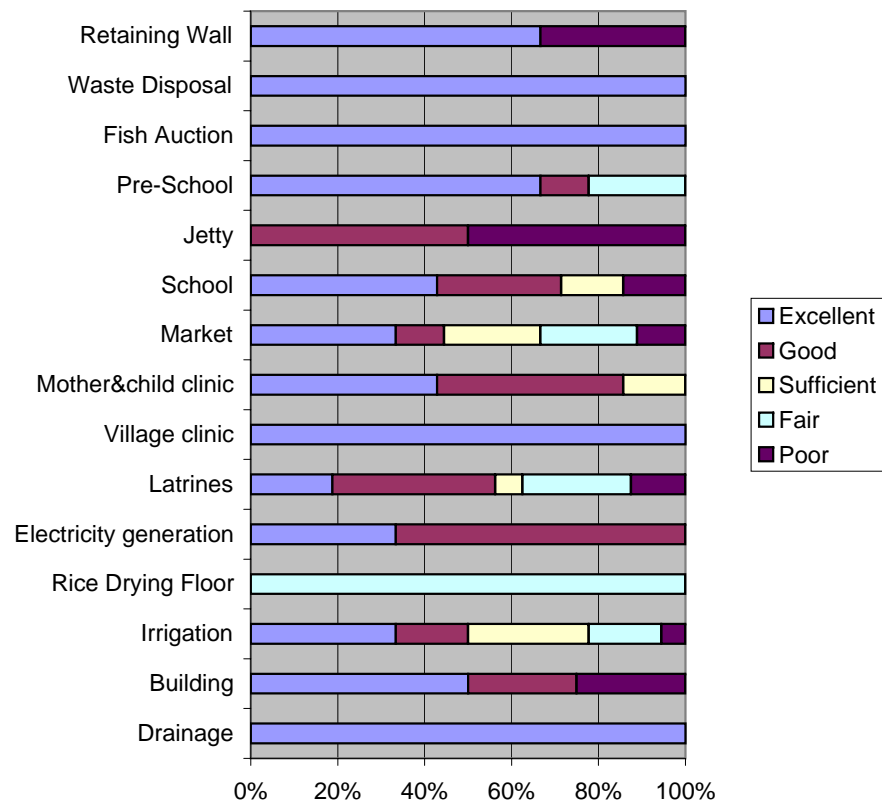
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Kind of Infrastructure	Specific Type	Current Infrastructure Quality						% Infrastructure by Quality Level					Number of Villages Acc to Function			Number of Villages Acc to Benefits			
		Excellent	Good	Sufficient	Fair	Poor	Not Rated	Excellent	Good	Sufficient	Fair	Poor	Function Fully	Already Damaged	Never Functioned	More than Hoped for	In Line with Expectations	Below Expectations	No Benefits Accrued Yet
Water Supply	All	16	6	8	5	8	2	37,2	14,0	18,6	11,6	18,6	34	8	3	5	35	4	1
	Pipe Network	13	2	5	4	4	0	46,4	7,1	17,9	14,3	14,3	21	4	3	4	22	1	1
	Dug Well	2	3	0	0	0	0	40,0	60,0	0,0	0,0	0,0	5	0	0	0	5	0	0
	Hydrants/Boxes	1	0	1	1	2	2	20,0	0,0	20,0	20,0	40,0	5	2	0	0	5	2	0
	Rainfall Collectors	0	0	1	0	1	0	0,0	0,0	50,0	0,0	50,0	1	1	0	0	1	1	0
Drainage	All	5	0	0	0	0	0	100,0	0,0	0,0	0,0	0,0	5	0	0	1	4	0	0
Buildings	All	2	1	0	0	1	0	50,0	25,0	0,0	0,0	25,0	3	1	0	1	2	1	0
Culverts	All	0	0	0	0	0	3						2	0	0	0	2	0	0
Irrigation	All	6	3	5	3	1	0	33,3	16,7	27,8	16,7	5,6	18	0	0	5	13	0	0
Roads	All	33	31	29	27	34	6	21,4	20,1	18,8	17,5	22,1	151	3	1	20	134	1	0
	Asphalting	0	2	10	6	3	2	0,0	9,5	47,6	28,6	14,3	1	1	0	4	18	0	0
	Concrete slab	7	2	1	2	2	1	50,0	14,3	7,1	14,3	14,3	21	0	0	3	11	0	0
	Gravel	1	5	4	8	7	2	4,0	20,0	16,0	32,0	28,0	25	1	0	2	24	0	0
	Earth	1	2	1	2	2	0	12,5	25,0	12,5	25,0	25,0	8	0	0	1	7	0	0
	Telford	17	19	12	9	18	1	22,7	25,3	16,0	12,0	24,0	72	1	1	7	66	1	0
Bridges	All	26	16	5	10	2	4	44,1	27,1	8,5	16,9	3,4	57	3	1	8	53	0	0
	Concrete	17	6	4	2	0	2	58,6	20,7	13,8	6,9	0,0	29	1	0	2	28	0	0
	Suspension	1	2	1	0	0	0	25,0	50,0	25,0	0,0	0,0	4	0	0	0	4	0	0
	Steel girder	5	3	0	2	1	1	45,5	27,3	0,0	18,2	9,1	11	0	1	3	9	0	0
	Wood	0	3	0	5	1	1	0,0	33,3	0,0	55,6	11,1	7	2	0	2	7	0	0
	Arch	1	0	0	0	0	0	100,0	0,0	0,0	0,0	0,0	1	0	0	0	1	0	0
Rice Drying Floor	All	0	0	0	1	0	0	0,0	0,0	0,0	100,0	0,0	1	0	0	0	1	0	0
Electricity generating	All	1	2	0	0	0	0	33,3	66,7	0,0	0,0	0,0	2	0	1	1	2	0	0
Latrines	All	3	6	1	4	2	0	18,8	37,5	6,3	25,0	12,5	12	4	0	2	12	1	1
Village clinic	All	3	0	0	0	0	0	100,0	0,0	0,0	0,0	0,0	3	0	0	0	3	0	0
Mother-child clinic	All	3	3	1	0	0	0	42,9	42,9	14,3	0,0	0,0	7	0	0	0	7	0	0
Market	All	3	1	2	2	1	0	33,3	11,1	22,2	22,2	11,1	8	0	0	0	8	0	1
School	All	3	2	1	0	1	0	42,9	28,6	14,3	0,0	14,3	7	0	0	2	5	0	0
Jetty	All	0	1	0	0	1	0	0,0	50,0	0,0	0,0	50,0	2	0	0	1	1	0	0
Pre-School	All	6	1	0	2	0	0	66,7	11,1	0,0	22,2	0,0	9	0	0	2	7	0	0
Fish Auction	All	1	0	0	0	0	0	100,0	0,0	0,0	0,0	0,0	1	0	0	0	1	0	0
Waste Disposal	All	1	0	0	0	0	0	100,0	0,0	0,0	0,0	0,0	1	0	0	0	1	0	0
Retaining Wall	All	2	0	0	0	1	1	66,7	0,0	0,0	0,0	33,3	4	0	0	1	3	0	0
Others																			

Quality Evaluations by Type of Infrastructure



Quality Evaluations by Type of Infrastructure



Location of KDP Infrastructure Evaluation Activities

Province	Kabupaten	Kecamatan	Funding Source	Villages
North Sumatera	Nias	Tuhemberua	Loan - 1000	Onozitoli Sawo, Banua Gea
	Tapanuli Utara	Pollung	Loan - 750	Sipitu Huta, Pandumaan
	Mandaling Natal	Muara Batang Gadis	Loan - 500	Tabuyung, Manuncang
	Toba Samosir	Onan Runggu Timur	Loan - 750	Tambun Sungkean, Sitamiang
	Deli Serdang	Pantai Cermin	Loan - 1000	Pantai Cermin Kiri, Pematang Kasih
West Sumatera	Tapanuli Tengah	Kolang	MG - 750	Untemungkur III, Untemungkur IV
	Pesisir Selatan	Basa IV Balai Tapan	Loan - 750	Koto Pulai, Kampung Tengah
	Solok	X Koto Diatas	MG - 750	Bukit Kanduang, Kuncir
South Sumatera	Pasaman	Kinali	Loan - 1000	Bangun Rejo, Sumber Agung
	Sawahlunto/Sijunjung	P. Punjung	Loan - 1000	Tebing Tinggi, Kampung Surau
Lampung	Ogan Komering Ilir	Tanjung Batu	Loan - 1000	Tanjung Lalang, Pajar Bulan
	Lahat	Jarai	Loan - 1000	Pagar Dewa, Muara Gelumpai
	Musi Banyuasin	Babat Toman	Loan - 1000	Ulok Taberau, Ulok Paceh
	Ogan Komering Ulu	Buay Madang	Loan - 1000	Karang Tengah, Rawasari
	Musi Rawas	Jaya Loka	Loan - 750	Sidodadi, Sukowono
Banten	Lampung Tengah	Terusan Nunyai	Loan - 1000	Gunung Agung, Gunung Batin Udik
	Lampung Utara	Kotabumi Selatan	MG - 400	Karang Agung, Taman Jaya
	Tulang Bawang	Menggala	Loan - 1000	Ujung Gunung, Lingai
West Java	Lampung Timur	Raman Utara	MG - 1000	Raman Endra, Rama Puja
	Way Kanan	Way Tuba	MG - 500	Way Mencar, Beringin Jaya
	Pandeglang	Bojong	Loan - 1000	Mekarsari, Manggung Jaya
	Lebak	Bojongmanik	Loan - 750	Cimayang, Mekarmanik
	Serang	Kasemen	Loan - 1000	Kilasa, Terumbu
Central Java	Tangerang	Panongan	Loan - 1000	Mekarjaya, Ciakar
	Sukabumi	Jampang Kulon	Loan - 1000	Nagrak Sari, Cikarang
	Cianjur	Sukaesmi	Loan - 1000	Ciwalen, Cikanyere
	Bandung	Cipeundeuy	Loan - 1000	Margalaksana, Jatimekar
	Garut	Bungbulang	Loan - 1000	Bojong, Cihikeu
	Tasikmalaya	Taraju	Loan - 750	Cikubang, Taraju
	Ciamis	Kalipucang	Loan - 750	Cibuluh, Ciparakan
	Kuningan	Ciwaru	Loan - 750	Ciwaru, Baok
	Cirebon	Kapetakan	Loan - 1000	Suranenggala Kidul, Keraton
	Majalengka	Ligung	Loan - 1000	Buntu, Kodasari
	Sumedang	Darmaraja	Loan - 750	Neglasari, Darmaraja
	Indramayu	Widasari	Loan - 1000	Rancasari, Wanasari
	Subang	Tanjungsiang	Loan - 750	Gandasuli, Sirap
	Purwakarta	Plered	Loan - 1000	Cibogo Hilir, Anjun
	Karawang	Rengasdengklok	Loan - 1000	Amansari, Kertasari
	Bogor	Sukamakmur	Loan - 1000	Sukamulya, Sukawangi
	Bekasi	Kedungwaringin	Loan - 1000	Karangmekar, Mekarjaya
Central Java	Cilacap	Cipari	Loan - 1000	Mekarsari, Kutasari
	Banyumas	Banyumas	Loan - 750	Kedung Gede, Binangun
	Banjarnegara	Banjarmangu	Loan - 750	Sijenggun, Banjarkulon
	Kebumen	Buayan	Loan - 1000	Adiwarno, Geblug
	Wonosobo	Kertek	Loan - 1000	Damar Kasiyan, Reco
	Boyolali	Nogosari	Loan - 1000	Ketiitang, Potronayan
	Sukoharjo	Bendosari	Loan - 1000	Bendosari, Sidorejo
	Wonogiri	Kismantoro	Loan - 750	Plosorejo, Lemahbang
	Grobogan	Pulokulon	Loan - 1000	Randurejo, Sembunharjo
	Rembang	Sumber	Loan - 750	Pelemsari, Logung
	Pati	Gunungwungkal	Loan - 750	Sumberejo, Jembul Wunut
	Demak	Dempet	Loan - 1000	Karangrejo, Brakas
	Batang	Warungasem	Loan - 1000	Menguneng, Sawahjoho
	Pemalang	Ampelgading	Loan - 1000	Karang Talok, Banglarangan
	Tegal	Dukuhwaru	Loan - 1000	Selapura, Pedagangan
	Brebes	Bantarkawung	Loan - 1000	Pengarasan, Cinanas
	Klaten	Jatinom	Loan - 1000	Bengking, Krajan
	Purbalingga	Karangreja	Loan - 1000	Gondang, Tlahap Lor
	Purworejo	Gebang	Loan - 750	Gintungan, Rendeng
	Magelang	Kaliangkrik	Loan - 1000	Banjarejo, Temanggung
	Kendal	Pageruyung	Loan - 750	Pageruyung, Gondoharum
	Blora	Tunjungan	Loan - 750	Kedungringin, Kalangan
	Sragen	Sumberlawang	Loan - 750	Tlogotirto, Mojopuro
	Temanggung	Kandangan	Loan - 1000	Tlogopucung, Margolelo
	Karanganyar	Kebakkramat	Loan - 1000	Malanggaten, Alastuwo
	Semarang	Bringin	Loan - 1000	Rembes, Sendang

Location of KDP Infrastructure Evaluation Activities

Province	Kabupaten	Kecamatan	Funding Source	Villages
D.I. Yogyakarta	Kulon Progo	Nanggulan	Loan - 750	Jatisarone, Banyuroto
	Gunung Kidul	Ponjong	Loan - 1000	Ponjong, Sawahan
East Java	Ponorogo	Slahung	Loan - 1000	Broto, Ngilo - ilo
	Malang	Kalipare	Loan - 1000	Sumberpetung, Kaliasri
	Lumajang	Klakah	Loan - 750	Sumber Ringin, Sruni
	Probolinggo	Tiris	Loan - 1000	Andung Biru, Tiris
	Mojokerto	Kutorejo	Loan - 1000	Kertosari, Sampang Agung
	Bojonegoro	Malo	Loan - 750	Banaran, Kemiri
	Tuban	Montong	Loan - 1000	Talun, Pucangan
	Lamongan	Sambeng	Loan - 750	Jatipandak, Kreteranggon
	Bangkalan	Sepuluh	Loan - 750	Gangseyan, Tanagurah Barat
	Sampang	Torjun	Loan - 1000	Dulang, Bringin Nonggal
	Pamekasan	Larangan	Loan - 750	Larangan Dalam, Taraban
	Sumenep	Ambunten	Loan - 750	Tamba Agung Timur, Sogian
	Tulungagung	Kalidawir	Loan - 1000	Pakisaji, Karang talam
	Situbondo	Kapongan	Loan - 750	Gebangan, Sletreng
	Pasuruan	Lumbang	Loan - 750	Pancur, Karang Jati
	Blitar	Garum	MG - 500	Bence, Tingal
	Trenggalek	Dongko	Loan - 1000	Petung, Pringapus
	Jember	Sukowono	Loan - 1000	Pocangan, Balet Baru
	Bondowoso	Tlogosari	Loan - 750	Tlogosari, Pakisan
	Ngawi	Kendal	Loan - 750	Karang Rejo, Gayam
	Nganjuk	Lengkong	Loan - 750	Banggle, Sumber kepuh
	Pacitan	Punung	Loan - 750	Mendolo Kidul, Ploso
	Magetan	Panekan	Loan - 1000	Cepoko, Panekan
	Jombang	Wonosalam	Loan - 750	Panglungan, Wonosalam
	Gresik	Balompanggung	Loan - 1000	Ganggang, Doho Agung
	Kediri	Mojo	Loan - 1000	Jugo, Kedawung
	Madiun	Balerejo	Loan - 750	Gading, Kuwu
Bali	Jembrana	Melaya	Loan - 1000	Melaya, Candi Kusuma
	Tabanan	Kediri	Loan - 1000	Abian Tuwung, Pejaten
	Badung	Mengwi	Loan - 1000	Kapal, Penarungan
	Gianyar	Sukawati	Loan - 1000	Singapadu Kaler, Batuan Kaler
	Klungkung	Dawan	Loan - 1000	Dawan Kaler, Kusamba
	Bangli	Kintamani	Loan - 1000	Banua, Abuan
	Karangasem	Manggis	Loan - 1000	Ulakan, Selumbang
	Buleleng	Sawan	Loan - 1000	Sinabun, Suwug
West Nusa Tenggara	Lombok Barat	Narmada	Loan - 1000	Badrain, Nyurlembang
	Dompu	Hu'u	Loan - 750	Rasabou, Daha
East Nusa Tenggara	Sumba Barat	Wewewa Barat	Loan - 1000	Watu Kawula, Weerena
	Sumba Timur	Tabundung	Loan - 750	Wuri Pandak, Tapil
	Kupang	Rote Barat Daya	Loan - 750	Lekik, Batu Tua
	Timor Tengah Selatan	Kie	Loan - 1000	Oenay, Fatu Ulan
	Timor Tengah Utara	Biboki Selatan	Loan - 750	Oekopa, T'eba
	Belu	Kota Atambua	Loan - 1000	Manumutin, Fatukbot
	Alor	Alor Barat Daya	Loan - 1000	Wolwal, Lakatuli
	Flores Timur	Larantuka	Loan - 1000	Lamika, Watotika Ile
	Ngada	Mauponggo	Loan - 1000	Lodaola, Bela
	Manggarai	Cibal	Loan - 1000	Gololanak, Waerenca
	Lembata	Ile Ape	Loan - 750	Eulesa, Kolipadan
West Kalimantan	Sanggau	Bonti	Loan - 750	Empodis, Tunggul Boyok
Central Kalimantan	Kotawaringin Timur	Mentawa Baru Ketapang	Loan - 1000	Mentawa Baru Hilir, Ketapang
South Kalimantan	Kota Baru	Pulau Laut Timur	Loan - 500	Berangas, Sungai Limau
	Barito Kuala	Alalak	Loan - 1000	Beringin, Berangas Timur
	Balangan	Batumandi	Loan - 500	Lok Batu, Gunung Manau
	Tapin	Tapin Utara	Loan - 750	Perintis Raya, Banua Halat Kiri
East Kalimantan	Berau	Talisayan	Loan - 750	Biatan Ilir, Bumi Jaya
	Bulungan	Sesayap	Loan - 500	Sedulun, Sebidai
Gorontalo	Bono Belango	Bone Pantai	Loan - 1000	Tombulilato, Molotabu
	Boalemo	Mananggu	Loan - 1000	Kaaruyan, Salilama, Mananggu
	Pohuwato	Paguat	Loan - 1000	Karangetang
Central Sulawesi	Banggai	Balantak	Loan - 500	Ondoliang, Balantak
	Poso	Ampana Tete	Loan - 750	Sabo, Mantangisi
	Donggala	Rio Pakava	MG - 750	Lalundu, Panca Mukti
	Toli-Toli	Toli-Toli Utara	Loan - 750	Pinjan, Diule
	Banggai Kepulauan	Liang	Loan - 500	Tangkop, Tomboniki

Location of KDP Infrastructure Evaluation Activities

Province	Kabupaten	Kecamatan	Funding Source	Villages
Southeast Sulawesi	Morowali	Bungku Tengah	Loan - 750	Nambo, Ululere
	Luwu	Bua	Loan - 1000	Karang-karangan, Posi
	Tana Toraja	Mengkendek	Loan - 1000	Randanan, Mangasi
	Polaweli Mamasa	Pana	Loan - 1000	Minanga Timur, Siwi
	Luwu Utara	Sabbang	Loan - 1000	Pararra, Pompaniki
	Selayar	Bontosikuyu	MG - 500	Low, Binanga Sombaiya
	Maros	Camba	Loan - 1000	Pattiro Deceng, Patanyamang
	Pangkajene Kepulauan	Labakkang	Loan - 1000	Manakku, Kassioe
	Bantaeng	Bantaeng	Loan - 1000	Karatuang, Kayu Loe/ Onto
	Buton	Mawasangka	Loan - 500	Matara, Morikana
	Muna	Parigi	Loan - 1000	Parigi, La Bulu - bulu
	Kolaka	Tanggetada	MG - 500	Lamedai, Rahanggada