

# BASED ON THE SUPPORT OF GTZ SISKES DURING 2006-2009



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List of Desa Siaga villages supported by SISKES in West Nusa Tenggara Province

Flores Sea



Indian Ocean



List of Desa Siaga villages supported by SISKES in East Nusa Tenggara Province



Timor Sea



# 1. EXECUTIVE SUMMARY

#### 1.1 INTRODUCTION

Desa Siaga (DS) is part of the national program of the Ministry of Health (MoH) for the development of the Health Sector in Indonesia. The term "Desa Siaga" describes the concept of community members owning their own resources and capacities for preventing and overcoming their own health problems, health emergencies and disasters based on mutual support and in a spirit of togetherness. It covers many aspects: Improvement of maternal and neonatal health, improvement of people's nutrition, promotion of healthy life styles, improvement of sanitation and promotion of healthy environments, simple epidemiology and support of the community health centre. In order to achieve the objectives of Desa Siaga regarding reducing maternal and neonatal death, the strategy of "Siap Antar Jaga" (Ready to bring and to take care) has been developed and supported by GTZ SISKES during 2006-2009 in Nusa Tengara Barat (NTB) and Nusa Tengara Timor (NTT) provinces. GTZ SISKES facilitates the villages to form their own alert system and networks, which cover notification of pregnant women, provision of transport for medical emergencies, financial support, provision of blood donors and a Family Planning Information post.

Each province uses its own strategy and approach adapted to the local context. 90 villages are established and are functioning in NTB and 50 villages in NTT. As the support of GTZ SISKES III ends at the end of December 2009, there is a need for takeover of the DS implementation strategy and a further roll out by other stakeholders. Furthermore, the national Minimum Service Standards (SPM) state as target a 80% coverage of all villages with active DS, to be achieved by 2015.

#### 1.2 OBJECTIVE

This cost analysis provides additional information for all stakeholders (local government, MoH and its institutions, PHO, DHO, community, external agencies and NGOs) contributing to informed decision making regarding DS implementation and this from an economic perspective. It provides information for appropriate budget allocation for implementation, support, roll out and take over of DS, especially as resources are scarce and funding for DS is available through different sources and stakeholders. This cost analysis offers a tool to assist in planning, budgeting and analysis of the expenditure for DS. It completes the DS toolkit, which is a complete information box containing technical guidelines, case studies, training modules etc to support advocacy and implementation of DS.

## 1.3 METHODOLOGY

To enable the cost analysis, a tool in excel has been developed, which describes all DS activities in six steps and in terms of cost categories. For each cost category, physical unit costs are determined with intervals to cover all variations encountered in the data and to deal with the uncertainty this creates for the results. Breakdowns of the total unit costs for one village for one year are done enabling policy relevant information. First by considering the establishing versus the operational costs, then by step and activity and further by the location where the activity is organized and by cost category. A societal perspective is chosen and the boundaries of the cost analysis are set so that a clear decision could be made on which costs to include or to

exclude for the final unit cost calculation. Only direct cost for the implementation of DS are included, indirect and other costs linked to the development and dissemination of IEC material, the training modules, TOT etc are excluded. All results are expressed in unit cost per village for one year of activity. Some of the results are also expressed per batch of five villages and/or for each activity implemented only once. These estimations, which reflect the situation of sufficiently available resources, can be compared with the situation when resources are scarce. Qualitative advice is given on how to reduce the total unit costs and in the case of NTB a quantitative simulation and calculation of the absolute minimum costs to take into account is done. The costs, which can be excluded or decreased when resources are scarce, can be considered as "influencing factors".

#### 1.4 RESULTS

NTB and NTT implement DS in respectively 90 and 50 villages. The cost for the implementation of DS for one village for one year in NTB is Rp. 53,414,400 (or 4,109 €<sup>1</sup>) and in NTT Rp. 74,615,500 (or 5,740 €). 80% of these costs are for establishing the DS concept in the village and 20% are for operational activities to maintain the functioning of DS. NTB spends more money on activities for establishing the networks in the villages and this at village level, while NTT spends more on the two trainings, organized at district level. It takes 17 separate activities in NTB and 19 in NTT to go through the whole process. NTB has more activities for M&E after establishment of DS while NTT has more separate activities for conducting the self assessment health survey and the establishment of the networks. Around 35% of the total unit cost goes to transport and daily allowances of the people involved, 30%

to the meetings and 20% to the honoraria of resource persons, trainers and moderators. 40% of the costs are for activities at village level, 60% for activities at district and province level, of which NTT focuses almost adaptations can be done entirely on district level.

When resources are scarce, several to decrease the total unit cost. The first adaptation is a decrease of the physical unit costs. Some activities can be done cheaper by using free meeting rooms, by negotiating lower unit costs for food with a catering service or by decreasing the stationary costs. Before the implementation started, an agreement was reached between GTZ and the local partner on the payment of fees, transport costs, daily allowances etc. These rates are lower than what is stipulated in the national and local regulations and differ between both provinces and all districts.

The second adaptation is a decrease on the number of people involved and on the number of separate activities. It is worthwhile to look where and how activities can be combined or included in other events ("piggy back" strategy) and if more villages can be involved at the same time (economy of scale) to go through the whole process together. It will depend on the availability of resources, the creativity of the decision makers and implementers and on their ability and willingness to pay for what is needed. The simulation done for NTB is based on the costs which are absolute necessary for the implementation of DS. The total unit cost for one village would then be Rp.36,579,350 (or 2,814 €).

The maximum and minimum values of the intervals, which are created to deal with the uncertainties regarding variations in the physical unit costs, are used to present two alternative scenarios. One scenario is based on all the maximum values and one is based on all the minimum values to recalculate the total unit costs. Somewhere in between lays the real cost for one village. In NTB, the minimum

<sup>&</sup>lt;sup>1.</sup> Rate: 1 euro=13,000 IDR

total unit cost for one village for one year of operation would be Rp. 35,265,800 (or 2,713  $\in$ ) and the maximum total unit cost would be Rp. 71,145,600 (or 5,473  $\in$ ). While in NTT, the minimum total unit cost would be Rp. 70,356,000 (or 5,412  $\in$ ) and the maximum total unit cost would be Rp. 78,875,000 (or 6,067  $\in$ ). The intervals are broader for NTB, the values of the minima and maxima vary max. 34% around the calculated unit cost. For NTT the intervals are much smaller, the values vary max. 9% around the unit cost.

#### 1.5 INTERPRETATION

Implementation of DS costs time and money. Not only to establish but also to maintain the function. But once DS is established, only 20% of the total unit cost needs to be provided to maintain DS in the village. If this budget is not available, creativity can be used to reduce costs. The results show differences in the total unit costs and in the breakdown of the costs in steps, number, types and place of activities between both provinces. The costs of NTB are lower than the costs of NTT. These differences reflect the particular approach and strategy chosen in each province to implement DS.

NTB believes in a clear distribution of responsibilities and tasks between all stakeholders, linked to their place in the health system, with a coordination role for DHO. This approach of "the right stakeholder for the right activity at the right time" facilitates the implementation and it reduces the costs, confusion and delay of waiting for approval to go ahead with the next activity. While for NTT the involvement and role of DHO is much more prominent and comprehensive as the DHO is involved in all aspects of organization, coordination and implementation of DS. The disadvantages of the "DHO focus" are the higher total unit costs, a longer and more cumbersome process as the DHO have many other tasks and responsibilities and are therefore not always available. The high

turn-over of staff without proper handing over and transfer of knowledge and experiences regarding DS slows down the process. But NTT believes it is worthwhile investing the extra money, energy and time involving the DHO during the whole process as DS is part of the national program of the MoH. This approach is believed to strengthen their role in the coordination and implementation of DS and should have a positive impact on the sustainability of DS.

The longer the process, the more separately organized activities, the more participants per activity and the more activities at district and province level, the higher the costs are. Village activities are the cheapest activities as there are less transport costs, lower rates, cheaper food and meeting packages to be paid. NTT implements the DS concept by two more activities than NTB, spending more money for trainings and organizing most village activities separately for each village. While NTB spends more on activities of the actual establishment of the DS networks in the village, combines more activities and includes more villages into one activity, which all reduce the costs. Not all activities need funding in NTB, eg the selection and recruitment of the Village and District Facilitators. While in some districts in NTT these are organized as separately activities with extra costs. NTT involves more people for its activities which also leads to the higher total unit costs, while in NTB participation in activities is limited to the people really needed according to their responsibility in the DS process.

There are also differences between both provinces in the selection of the villages in which to implement DS with implications on the costs. In NTB the choice is made by DHO and GTZ based on a number of conditions and on the guiding principle of having interventions as well on the provider side as on the demand side at the same time to ensure impact on health indicators. All selected villages are in the catchment area of a PONED PKM, which received also the PKM management training. The villages have an APN trained midwife and a POSKESDES. Some villages are in the same PKM catchment area which enables combining activities, limits DF and VF travel distances and facilitates regular support and follow-up. For NTT, the choice of villages is done by the DHO and this by equal geographic distribution within the district, which means the chosen villages are not around one and the same PKM, very far away from each other and spread out over the district. The PKM are not necessarily involved in other GTZ supported activities. This way of choosing the villages limits the possibility of combining activities for several villages at the same time, except for activities done at district level, eg training, which results in higher total unit costs.

The more villages in one batch, the less frequent activities need to be repeated, the quicker the process and the lower the total unit cost per village will be. NTB organizes its villages into two big groups, the Lombok group (3 batches of 10 villages each) and the Sumbawa group (3 batches of 20 villages each), and organizes the trainings at province level so that more villages can participate at once. Due to the individual district approach in NTT the batches are smaller, only 4 till 6 villages per district and per batch. The results show differences in width of the intervals of the total unit costs between both provinces. NTB has broader intervals than NTT. This means that the degree of uncertainty in terms of "what is now the exact total unit cost for one village?" is higher for the results of NTB and that the estimations of NTT are more certain or "precise". This is because NTB uses data of all 90 villages to calculate the physical unit cost and encountered therefore much more variation in physical unit costs. There are more different geographical distances to be considered and thus differences in local transport rates, food prices and accommodation rates; while NTT uses data of only ten villages out of two

districts which means less variation in physical unit costs. Even though that all unit cost calculations are lower for NTB, the differences in unit costs between NTB and NTT may not be that big in reality as the intervals overlap each other slightly.

# 1.6 CONCLUSION & RECOMMENDATION

Implementing DS is a challenging process which needs a lot of resources in terms of time, money and people involved. Community empowerment is a means and not an end in itself. It is a long process in which people need to change their behavior and mindset, knowledge has to be disseminated, trainings have to been done, and an intense follow up has to be organized. It involves a whole range of different stakeholders, who need to meet and discuss regularly. Decision makers and implementers can choose a specific approach which fits their context the best, with implications on the costs.

Many factors influence the total unit cost for one village and should be taken into account when planning and budgeting for DS implementation. The approach, the physical unit costs and the number of villages in one batch have the highest influence on the total unit cost followed by the numbers of persons involved, the combining of activities and piggy back strategy. Besides the direct costs, there are a number of indirect and other costs which are not included in the total unit cost as presented here. They should be considered too. All resources come almost entirely from GTZ, except for NTT. In NTT, the local government of district Belu contributes up to 10% to the DS activities and there is cofinancing of all DS activities by VSO. The partnership with VSO is based on a grant agreement between GTZ Eschborn and VSO London, made possible through the Dfid cofinancing part of GTZ SISKES project. But it is possible to fund the entire process and all activities with

government funds. It is of tremendous importance to have a strong coordination of all stakeholders to obtain all funding for all activities from all the different funding sources timely to enable an appropriate chronological order in the implementation of the activities. A good collaboration with appropriate planning and budgeting is needed to be able to maintain what is build up and to replicate or roll it out to other villages. The DHO is the most appropriate structure within the health system and Bapeda outside the health system to take up this coordinating role. Not only a strong coordinator but also a strong implementer is needed because of the long and complex process of community empowerment. This can be achieved by working closing together and by distributing clear tasks and responsibilities with an intense follow-up. Not only the establishment of DS and the coverage of more villages are important but also attention is needed for the quality of the functioning of the alert system and networks in order to achieve impact. Decent M&E with impact measurement should be part of the process.

For each specific setting, the total unit cost will be different, depending on the available funds, creativity and the willingness and ability of the stakeholders to pay for what is needed. The roll out to other villages to scale up the coverage of DS in the same district or province will be easier and at a lower unit cost for the new villages as there is no need for orientation meetings at province and district level anymore, DF and VF are already selected, the guidelines and training modules are developed, and the PKM facilitators have the knowledge and experience. Organizing these new villages in large groups or batches will also keep the cost for one village down.

Adding more aspects out of the DS concept, for example the disaster preparedness into the existing framework of DS in the village will go much easier, faster and at a lower cost. Roll out to a new province or district will follow the same base-case scenario as presented here in the cost analysis as all steps and activities will have to be implemented.

The next step is to link these results with the findings of the DS Impact evaluation. Both analyses will enable an economic analysis.

# 2. INTRODUCTION

Desa Siaga (DS) is part of the national program for the development of the Health Sector of the Ministry of Health (MoH) in Indonesia. The term "Desa Siaga" describes the concept of community members owning their own resources and capacities for preventing and overcoming their own health problems, health emergencies and disasters based on mutual support and in spirit of togetherness.<sup>2</sup>

It covers the following aspects:

- Improvement of maternal and neonatal health
- Improvement of people's nutrition
- Promotion of healthy life styles
- Improvement of sanitation and promotion of healthy environments
- Simple epidemiology
- Support of the community health centre<sup>3</sup>

In order to achieve the objectives of Desa Siaga regarding reducing maternal and neonatal death, the strategy of "Siap Antar Jaga" (Ready to bring and to take care) was developed. This strategy focuses on increasing the involvement and alertness of the community and on strengthening them to overcome the problems and to take action in terms of the non clinical aspects of maternal and neonatal emergencies.<sup>4</sup>

During 2006-2009 the GTZ SISKES project supported Nusa Tengara Barat (NTB) and Nusa Tengara Timor (NTT) provinces with the implementation of Siap Antar Jaga, as part of DS. SISKES facilitates the villages to form their own alert system and networks, which cover notification of pregnant women (by using the P4K sticker<sup>5</sup>, flags or other symbols), provision of transport for medical emergencies, financial support, blood donors and a Reproductive Health, including Family planning Information post. Each province uses its own strategy and approach adapted to the local context enabling the communities to manage their emergencies. 90 villages are established and functioning in NTB and 50 villages in NTT.

As the support of GTZ SISKES III ends at the end of December 2009, there is a need for takeover of the DS implementation strategy and a further roll out by the other stakeholders, eg MoH, the local government, NGO, external agencies etc. Furthermore, the national Minimum Service Standards (SPM) state as target to achieve 80% coverage of all villages with active DS by 2015.

This cost analysis provides additional information for decision makers, other external agencies and all stakeholders to enable making informed choices and correct budget allocation for the support of DS, especially as resources are scarce and funding for DS is available through different sources and stakeholders.

Furthermore, the cost analysis can lead to a more in depth economic analysis when it will be linked to an evaluation of the results and impact of DS.

<sup>&</sup>lt;sup>2</sup> More background information regarding the history and terminology can be found in the technical guidelines of NTT and NTB.

<sup>&</sup>lt;sup>3</sup> The community health center in NTB is the Poskesdes, in NTT the pustu.

<sup>&</sup>lt;sup>4</sup> Siap Antar Jaga is not used in NTT but replaced by "DS for the revolusi KIA" which is the MCH program of NTT.

<sup>&</sup>lt;sup>5</sup> P4K: program of MoH. Each pregnant women should put a sticker on her house with info related to her pregnancy (date of delivery, who will bring her to the health facility, etc).

## 3. OBJECTIVE

This cost analysis provides additional information for all stakeholders contributing to informed decision making regarding sustaining existing DS sites and implementing DS in new sites, and this from a financial perspective. More in particular, the analysis enables correct budget allocation for implementation, support, roll out and take over the DS, especially as resources are scarce and funding for DS is available through different sources and stakeholders.

The analysis offers a tool to assist in planning and budgeting for DS implementation. The tool can be used to analyze the expenditure for DS and to compare different settings, here NTB and NTT provinces.

The analysis is part of the "DS Toolkit", which is a complete information box containing technical guidelines, case studies, training modules etc to support advocacy and implementation of DS.

Linked to the results of an impact evaluation, the analysis provides the cost information necessary for an economic analysis.

#### 4. THE DIFFERENT STAKEHOLDERS OF DS

In regard to this analysis, the different stakeholders can be categorized in financing, providing, receiving and benefiting agents.



This schematic overview demonstrates very clearly the principle that DS is a community empowerment project, in which the community takes up its responsibility. It is done by the community for the community in the community!

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<sup>&</sup>lt;sup>6</sup> The beneficiaries of DS are the targeted persons whose circumstances, practices or habits changed.

#### 5. METHODOLOGY

To enable the cost analysis, a tool<sup>7</sup> in excel has been developed, which describes all interventions and activities in terms of cost categories. For each cost item, physical unit cost estimations are made with intervals to cover all variations encountered in the data and to deal with the uncertainties. By determining the perspective and the boundaries of the cost analysis, a clear decision could be made on which costs to include or to exclude for the final unit cost calculation, expressed in unit cost per village for one year of activity. Some additional costs and alternative scenarios are considered too.

# 5.1 DESCRIPTION OF THE INTERVENTIONS

The whole process of implementation of DS takes six steps. The first five steps are for the establishment of DS in the village and need to be done only once. The last step is to maintain the functioning of DS in the village and consists mainly out of M&E activities. These activities need to be repeated on a regular base.

#### 5.1.1 Establishment of DS

For the establishment of DS, 5 necessary steps are considered:

- Step 1: Orientation meeting at Provincial (P), District (D) and Village (V) level
- Step 2: Training I "The concept of Desa Siaga" and the "Participatory learning and Action" approach of DS
- **Step 3:** Conduct of self assessment survey (Health Situation Analysis)
- Step 4: Training II "Community organization on establishment of Siaga

• **Step 5:** Establishment of DS Alert System and networks

All possible cost bearing activities to establish DS in the village are classified in one of these five steps. Each activity is analyzed in terms of "what on which level, for how many persons and how often" and contains all possible cost categories. This enables the comparison between NTB and NTT and the use of the same methodology for other provinces, districts or villages.

#### 5.1.2 Maintaining the functioning of DS

Once DS is established, the functioning needs to be maintained by several kind of activities eg regular M&E meetings at village and district level, contributions of the community to the community fund, the fee for the District Facilitator (DF) in NTT, the transport costs of the network responsibles etc. All these kind of activities are classified in step 6, except for the contributions of the community members to the community fund network. These costs are not included in the total unit cost calculation as there is too much variation between the villages.

• Step 6: Monitor and Evaluation (M&E) at village and D level

A more detailed and technical description of all steps and activities needed for the establishment and maintenance of the functioning of DS is given in the technical guidelines of DS.<sup>8</sup> As NTB and NTT used their own approach in terms of number, types, place, costs and combination of activities and stakeholders to be involved, two separate guidelines were developed.

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 $<sup>^{7}</sup>$  The tool is an excel framework with filter function, used for both provinces and applicable for planning and analysis of expenditure in any other context. See Annex 1

<sup>&</sup>lt;sup>8</sup> See DS toolkit

#### 5.2 COST ESTIMATIONS

# 5.2.1 Identification of intervention & activity costs

A classic distinction between direct, indirect and other costs is used to classify the different steps and all intervention activities of each step. For some interventions the distinction between different players in terms of responsibility and financing agent is made (government, community or external agency). For each activity we use the same input cost categories.

- Direct-indirect-other costs
- -> Steps
- -> Cost categories
- -> Physical unit cost

## 5.2.1.1 Direct Costs

These are the costs for establishing DS and the costs to keep DS operational after establishment (maintaining functioning of DS). All six steps are direct costs. The establishing costs can be seen as a kind of "investment costs" as these are only needed to be made once. The operational costs can be seen as the "recurrent costs" of the program as they need to be repeated on a regular base.

## 5.2.1.2 Indirect Costs

Indirect costs are related to loss of productivity for the volunteers and community

members who dedicate a lot of time into the DS activities without being paid. They lose this time to be productive and make money elsewhere, eg working on the field, in a company etc. This could be calculated but goes beyond the scope of this analysis. Neither the costs, made by the community members when applying for the services of the DS networks are included in the analysis. Not only providing a service costs money, accessing a service may have a cost as well, eg transport or phone costs to reach the DS network.

#### 5.2.1.3 Other Costs

There are some additional costs to be taken into consideration. Most of these only have to be made once. These are costs related to:

- Making of advocacy material<sup>9</sup>
- Development and dissemination of the toolkit
- TOT District and Village facilitators

But also the costs made by donors and external agencies to support and evaluate<sup>10</sup> the impact of DS need to be considered.

These costs, sometimes called "Overhead costs" include salaries of international and national staff (consultants, advisors, and drivers), finance agreements with NGOs, vehicles, fuel, office costs, communication, stationary, participation in international conferences for advocacy etc. In this analysis, the costs made by GTZ aren't considered as it is of no interest for the societal perspective chosen in this analysis (see section 5.3). Of

<sup>&</sup>lt;sup>9.</sup> Posters, film "Siap Antar Jaga", included in toolkit

<sup>&</sup>lt;sup>10</sup> A specific DS evaluation has been done in NTT and NTB, 2009, to evaluate the impact of DS. The evaluation is included in the toolkit.as a form of salary.

course, if another external agency wants to support the implementation of DS, these costs will have to be considered in their budget.

#### 5.2.1.4 Input cost categories of each activity

Each activity is further broken down into the same input cost categories. These are:

- 1. Meeting costs
- Meals (lunch, snacks)
- Rent of meeting room
- Meeting package (meeting room and food)
- Accommodation
- 2. Travel costs
- Transport costs, travel allowance<sup>11</sup>
- Daily allowance, Per diem
- 3. Fees
- Honorarium for facilitator/moderator/resource person (including report writing)
- Honorarium for trainers, the opening ceremony of WS and trainings
- Monthly fee for district facilitator
- 4. Support/material for DS
- White boards, register/recording books for each network
- Printing & binding of the results of Health Situation analysis and the community consensus
- Sign for FP Information post
- Blood check material, stretchers
- Reference books, IEC material<sup>12</sup>
- T-shirt and bag for VF
- 5. Material to support the activities
- Stationary
- Communication
- Report writing (printing, dissemination etc).

A breakdown per cost category will be done to demonstrate the proportion of each of these input cost categories in the total unit cost per village.

# 5.2.2 Quantification of cost items in a physical unit cost

For each input cost category a physical unit cost is given, which is then multiplied with the number of persons (or subvillages) and number of times (days, month). The physical cost unit estimations are based on the existing market prices, internal GTZ regulations, national and local regulations and the agreements made between GTZ and the local counterpart (CP). They are a reflection of the real costs and customs of organizing activities in the health sector.

The physical unit cost, eg a transport fee, can be different for the same activity but taking place in a different district and/or province. This depends on geographical distances, government regulations<sup>13</sup> and agreements between external agencies and local partners<sup>14</sup>. Each province deals with these variations differently when estimating the physical unit cost. The more villages and/or districts are considered in the analysis, the more variation is encountered which influences the degree of certainty on the final physical unit cost (see section 5.2.5).

NTB considers 90 villages out of five districts. The physical unit cost is the average or the most frequent appearing cost of all known physical unit costs.

For the analysis of NTT, as within one district the physical unit costs are fixed, the estimation

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<sup>&</sup>lt;sup>11</sup> Payment of transport costs (or travel allowance) is actually a form of daily allowance (or Per diem), while honoraria are considered as a form of salary.

<sup>&</sup>lt;sup>12</sup> IEC book: "Where women have no doctor". A. Burns, R. Lovich, J. Maxwell, K. Sapiro, 1997.

<sup>&</sup>lt;sup>13</sup> Each local government has its own regulations determining the rates of local transport, daily allowances and honoraria etc. They differ from district to district and in between provinces.

<sup>&</sup>lt;sup>14</sup>. Before the start of the implementation of DS, an agreement between GTZ and the local partner was made regarding the rates of daily and travel allowances, honoraria etc. These are generally lower than the local government regulations. If the local partner wants to establish and maintain DS, they will have to use their own physical cost units based on the rates stipulated in the national and local regulations.

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of the physical unit cost is based on the average of two districts, Kabupaten Kupang and Belu. Including all six districts would have made the physical unit costs more accurate but at the time of the analysis, the other districts are still in the process of establishing DS and thus the real costs are not known yet.

#### 5.2.3 Currency

All costs are expressed in local currency (Indonesian Rupiahs) and Euros<sup>15</sup>. The cost estimations date from the period 2006-2009 and vary over time.

#### 5.2.4 Source of the data

The data used in the analysis come from the financial reports of GTZ which cover all activities for all villages, 90 in NTB and 50 in NTT.

#### 5.2.5 Dealing with "Uncertainty"

Each cost analysis contains uncertainties with implications for the results. The uncertainties need to be considered, identified and quantified through a sensitivity analysis. After identification of these uncertainties, plausible ranges of variation (intervals with upper and/or lower values) will be determined over which the uncertain items may vary. By conducting the sensitivity analysis the impact and variation for the results will become clear and the different results can be presented under "alternative scenarios" using these ranges of distributions. In this way the implications of uncertainty are considered within the results of the analysis and provide the stakeholders a correct idea of the actual degree of uncertainty.

#### 5.2.5.1 Types of uncertainty

There are three types of uncertainty possible, related to the level of analytical methodology, the data and the transfer of the results to another setting.

The first type of uncertainty, related to the analytical methodology, can be ignored in this exercise as it is of more importance when evaluating the impact of DS, not when only the costs are analyzed.

Of importance to this cost analysis is the uncertainty that results from the available data regarding the costs due to lack of information or knowledge. The reasons are:

- Insufficient observations on a cost item that is known to vary. In this exercise only the cost data of a limited amount of districts or villages are considered, 10 villages out of two districts in NTT and 90 villages in NTB, which are all supported for more than 95% by GTZ. Including a bigger amount of villages would have given a more correct cost estimations but broader intervals.
- Inaccuracies in recording systems and missing data: The implementation of DS is quite a complex process, in which the activities are not always done separately and in sequence, some may overlap and vary in different settings, leading to uncertainties in the results. Some costs like the indirect costs are difficult to measure precisely and are therefore excluded from the analysis.
- Instability in values, eg changes in prices over time for example for fuel, transport and honorarium fees. All data in this analysis are from the period 2006-2009 but even within this 4 year period prices changed.
- Uncertainty regarding to the method of measurement or valuation: the physical unit costs are based upon the agreement between GTZ and the local CP and reflect what

<sup>&</sup>lt;sup>15.</sup> Rate: 1 euro=13,000 IDR

GTZ is willing and able to pay to support these activities. The costs reflect more or less the real market prices eg transport fees etc. but are in general lower than the national and local regulation rates. As this analysis has taken a societal perspective (see section 5.3) the uncertainty lies in the willingness and ability of the counterpart (local government, its institutions and community) to foresee/pay as much as what is needed.

The second type of uncertainty important for this analysis is associated with the transfer of results to another setting due to variations in environmental conditions, the socioeconomic context, the local regulations and policies, and the demographic characteristics of the population. As Indonesia is a vast country with many very heterogeneous provinces and districts and a decentralized policy, the results of NTT and NTB may not be valid in another province. The physical unit costs may vary based on the characteristics of the context.

# 5.2.5.2 Quantifying the "Uncertainties" in the cost estimations

As mentioned before, the physical unit costs vary depending on the circumstances and create uncertainty for the final results. To deal with this, intervals are created, which contain all possible variations encountered in the available data. The intervals include the physical unit cost, as the average or as the most frequent observed cost, and are based on the minimum and maximum cost estimations encountered.

The narrower the intervals are, the smaller the degree of uncertainty regarding the result. The broader the intervals are, the higher the degree of uncertainty.

# 5.2.5.3 Sensitivity analysis to create alternative scenarios

When uncertainty occurs in a cost analysis, a sensitivity analysis<sup>16</sup> should be done to quantify the uncertainties and to improve the understanding of the possible variations in and impact on the results. It will reduce the risk of drawing false conclusions.

The type of sensitivity analysis chosen in this exercise is the "changing model assumptions", in which assumptions change the results. The changes are related to changing inclusion/exclusion of costs, based on different perspectives, and/or calculating the unit cost by using the lowest or highest values of the intervals. This leads to different scenarios. For this analysis, two other scenarios are calculated based on the intervals for the physical unit costs. More scenarios are possible but this goes beyond the scope of this analysis<sup>17</sup>.

- Scenario 1: Base-case scenario based on the estimated physical unit costs
- Scenario 2: Considering the lowest values of the intervals
- Scenario 3: Considering the highest values of the intervals

<sup>&</sup>lt;sup>16</sup> There are three kind of sensitivity analysis possible: Varying data inputs over plausible ranges eg. one or multi-way analysis of extreme values; a threshold analysis and the changing model assumptions.

<sup>&</sup>lt;sup>17</sup> Scenario using the ranges and distributions of the biggest uncertainties with the biggest impact on the final result; scenario with variation in the inclusion or exclusion of costs; scenario based on the government regulation rates.

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#### 5.3 PERSPECTIVE OF THE ANALYSIS

The perspective taken in this exercise is a societal viewpoint. This is in essential a combination of different viewpoints, reflecting the most important stakeholders involved, eg the government, its institutions and the community.

The perspective has implications on the costs that will be included in the calculation of the total unit cost of implementing DS in one village<sup>18</sup> and creates the need for policy relevant disaggregation of the data and the results.

#### 5.3.1 Funding sources

In compliance with the societal viewpoint, an overview will be given of the available funding resources that exist to fund each of the activity, in case the local government finances the whole process of implementation.

## 5.4 DEFINING THE BOUNDARIES"

After determining all possible costs, a decision needs to be taken which costs will be included and which costs will be excluded in the analysis. "Boundaries" need to be determined.

The boundaries are set by the choice of the perspective or viewpoint and the objective of this exercise. As we chose a societal perspective, the additional costs (or "Overheads") made by an external agency, here GTZ, to support the implementation DS are not taken into account. The presence of an external agency is not a condition sine qua non for establishing and maintaining the functioning of DS. And these costs will be different for each external agency. Off course the local government and other stakeholders have to consider their own "Overhead costs", but including these here goes beyond the scope of the analysis.

A policy relevant disaggregation of the data and results is necessary, reflecting the costs made at each level and for what, ensuring a full overview or picture of the costs needed for implementing DS done by the different stakeholders. This is necessary as there are several funding possibilities. All stakeholders will have to collaborate, plan and coordinate together if they want to follow the same approach as the one analyzed here.

Taken into account the objective of this cost analysis of informing the MoH, its institutions, local government, the community and policy makers of the costs linked to implementation of DS and of enabling them to make informed decision and appropriate budget allocation for DS, only the direct costs will be considered and some additional costs (toolkit development etc) but not the indirect costs. Besides inaccuracies in estimating these indirect costs there are now 2 good reasons not to include these indirect costs.

## 5.5 EXPRESSION OF THE RESULTS: Unit cost per village

The cost analysis makes it possible to calculate the total unit cost of establishing and maintaining the functioning of DS and this for several "units": for one village, for one batch of villages, for all activities just once implemented or for a period of one year.

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<sup>18.</sup> see below section 5.4 "boundaries"

#### 5.5.1 Influence of "Scale economy"

In reality, some of the steps and activities are taking place for several villages at the same time eg training, M&E meetings and the orientation WS<sup>19</sup>. This fixed group of several villages can be called a "batch" and for the purpose of the analysis five villages are considered per batch for each province. The costs are redistributed amongst these villages, which reflect more accurate the real cost for one village to go through the whole process. Each villages or hamlets, in average 4 to 6 per village. In NTB and NTT all hamlets of a village participate automatically in the DS process of a village<sup>20</sup>.

# 5.5.2 Breakdown of the unit cost in policy relevant parts

Different breakdowns of the total unit cost are possible using the filter function in the excel framework: establishing versus operational costs, per step and/or activity, by level of organizing the activities (province, district and community). Each breakdown provides policy relevant information for each of the stakeholders and these data can be used to plan and budget for DS implementation. Decisions to reduce the costs when resources are scare can be supported by this kind of information.

# 5.5.3 Minimum budget needed when resources are scarce

The institutional context, the availability of resources will influence whether some activities

will or will not take place or at a lower cost and will influence the presence, quantity or absence of the different cost items. Qualitative advice is given and in the case of NTB a quantitative simulation and calculation of the absolute minimum<sup>21</sup> costs to take into account is done. This estimation can be compared with the results of this analysis, which reflects the situation of sufficiently available resources. The costs excluded or changed when resources are scare can be considered as "influencing factors".

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<sup>&</sup>lt;sup>19</sup> Example: the fee for the training facilitator is fixed no matter how many villages participate. The fee can be redistributed over the participating villages instead of 1 village paying the entire fee.

<sup>&</sup>lt;sup>20</sup> Exception: the district Kota Kupang has in some case up to 10 hamlets per villages. Not all hamlets participate then in the process, an average of 4 hamlets will.

<sup>&</sup>lt;sup>21</sup> Examples: who will participate in the trainings, how many persons of each institution present at meeting, the cost of the meeting room versus using a free room. The willingness and ability to pay for certain items like meeting room, are considered as influencing factors and will influence the results.

#### 6.1 UNIT COSTS

As stated earlier, the reflection of the real costs is more accurate when a batch of five villages is considered first and when these costs are redistributed to one village. All further presented unit costs for one village will be based on this redistribution. The results of the unit costs, when activities are only implemented once, are purely informative. The unit costs expressed on a one year base, reflect more the reality as the activities related to maintaining the function of DS (operational costs) occur on a regular basis, each with their own specific frequency, and the costs should be conform with the normal planning and budgeting cycles of the government, namely on a one year base.

#### • NTB:

The total unit cost for one batch of five villages, all activities implemented only once, would be Rp. 217,409,500 (or  $16,724 \in$ ) and Rp. 267,072,000 (or  $20,544 \in$ ) for one year of operation.

If this total unit cost is redistributed to each of the five villages, the cost for one village would be Rp. 43,481,900 (or 3,345 €) for all activities once and Rp. 53,414,400 (or 4,109 €) for one year of implementation.

#### • NTT:

The total unit cost for one batch of five villages, all activities only once, would be Rp. 308,907,500 (or 23,762 €) and Rp. 373,077,500 (or 28,698 €) for one year of operation.

OVERVIEW TOTAL UNIT COST					
NTB NTT					
	UNIT COST (IDR - EURO <sup>22</sup> )	UNIT COST (IDR - EURO)			
1 BATCH	217.409.500	308.907.500			
ALL STEPS ONCE	(16.724 €)	(23.762 €)			
1 BATCH	267.072.000	373.077.500			
ALL STEPS FOR 1 YEAR	(20.544 €)	(28.698€)			
REDISTRIBUTION FOR 1 VILLAGE	43.481.900	61.781.500			
ALL STEPS ONCE	(3.345€)	(4.752 €)			
REDISTRIBUTION FOR 1 VILLAGE FOR 1 YEAR	53.414.400 (4.109€)	74.615.500 (5.740 €)			

#### Table 1 shows the overview of all unit costs for both provinces.

<sup>22</sup> Rate: 1 euro=13,000 IDR

If this total unit cost is redistributed to each of the five villages, the cost for one village would be Rp. 61,781,500 (or 4,752 €) for all activities once and Rp. 74,615,500 (or 5,740 €) for one year of implementation.

The same data are presented in graph 1 facilitating the comparison between both provinces.



NTB versus NTT:

All unit cost calculations are lower for NTB. The difference for one village to go through the whole process is Rp. 21,201,100 (or 1,631 €) less for NTB.

## 6.2 BREAK DOWN OF THE COSTS: For 1 village, all activities for 1 year

A breakdown of the unit cost for one village for one year provides policy relevant information.

First by considering the establishing versus the operational costs, then by step and activity and further by the location where the activity is organized and by cost category.

# 6.2.1 Establishing versus operational costs

The first breakdown of the unit costs can be done according to establishing DS (establishing costs) and to maintaining the function (operational costs), see Table 2.

Table 2. The breakdown of costs for 1 village						
Breakdown of costs for 1 village						
	NTB NTT					
	Cost (IDR - Euro) % C		Cost (IDR - Euro)	%		
1 village for 1 year	53.414.400 (4.109 €)	100	74.615.500 ( 5.740 €)	100		
Establishing costs	43.184.400 (3.322 €) 81		59.067.500 (4.544 €)	79		
Operational cost only 2.975.000 (229 €) -		-	2.714.000 (209 €)	-		
Operation costs for 1 year 10.230.00 (787 €) 19 15.548.000 (1.196		21				

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#### • NTB:

The cost of establishing DS in one village is Rp. 43,184,400 (or 3,322 €). The cost of all operational activities, only once, is only Rp. 2,975,000 (or 229 €) but for one year, these costs increase till Rp. 10,236,000 (or 788 €). This amount will have to be considered for each year of the follow up of the village. The proportion of the operational costs for one year is 19% of the total unit cost for one village versus 81 % for the establishing costs.

#### • NTT:

Establishing DS in one village cost Rp. 59,067,500 (or 4,544 €). All operational costs only once cost Rp. 2,714,000 (or 209 €) but taken all operational costs on a one year timeframe, these costs increase till Rp. 15,548,000 (or 1,196 €). This amount will have to be considered each year. The proportion of the operational costs for one year is 21% of the total unit cost for one village versus 79% for the establishing costs.

#### • NTB versus NTT:

Both provinces have a similar distribution. The establishing costs are around 80 % of the total unit costs and around 20% is for the operational costs. In absolute numbers the costs of NTT are higher than the costs of NTB.

#### 6.2.2 Per step

Table 3 presents a further breakdown of the costs according to all steps of the process for one village and for both provinces. As mentioned earlier, the first five steps need to be taken into account only once (establishing costs).

Step 6 reflects the maintaining of the functioning of DS and these costs are recurrent costs, considered here on a one year base.

	All steps for one village, 1 year					
		NTB		NTT		
	Steps	Cost (IDR-Euro)	%	Cost (IDR-	%	
	Step 1: Orientation meeting	4.046.000	8	9.172.500	12	
osts	Step 2: Training 1	7.843.600	15	10.504.000	14	
ablishing c	Step 3: Conduct self- assessment survey	3.300.000	6	9.434.000	13	
Esti						
	Step 5: Establishment of DS system	22.572.000	42	19.262.50 0	26	
Operational costs	Step 6: M&E at village/D level	10.230.000	19	15.548.00 0	21	
	Total unit cost	53.414.400 (4.109 €)		74.615.500 (5.740 €)	100	

— $\bigcirc$  Table 3. Breakdown of costs according to all steps of the process for 1 village and for both provinces.  $\cdot$ 

<sup>23</sup> Networks of DS: notification of pregnant women, transport of pregnant women and sick children to health facility, the blood donation network, the community fund, and FP information Post and RH team.

#### • NTB:

The cost of step 5 is the highest of all steps, with 42 % of the overall total cost. This step contains all activities linked to the actual establishment of all networks of the DS systemin the village, as well as all material needed for these networks (eg board, register books, IEC material, FP Post Info sign) and fee for DF. These costs are the double of the operational costs for one year, which represent 19%. Both trainings together are good for 25% of the total unit cost.

## • NTT:

The costs for implementation of the activities of step 5 are the highest of all 6 steps, with 26% of the overall total cost. But both trainings (step 2 and step 4) together represent 28% of the total unit cost and this is more than step 5. The operational costs take 21% of the overall total.

#### • NTB versus NTT:

Both provinces use most of the budget for actually establishing the networks of the DS system, 42% for NTB and 26% for NTT of the total unit cost. The focus of NTT is on training (step 2 and 4), and the costs therefore are almost the double compared with NTB (Rp. 21,198,000 versus Rp. 13,266,400), while the focus of NTB is on the actual establishment of all networks of the DS system. In absolute numbers, the costs of step 5 are not that different for both provinces (Rp. 22,572,000 for NTB and 19,262,500 for NTT).

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# 6.2.3 Per activity

It takes 17 activities in NTB and 19 in NTT for one village to go through the whole process of establishing and maintaining the function of DS.

Table 4 shows an overview of all activities in NTB and NTT, with the cost of each activity, the number of participants, the time and the level on which the activity takes place.

All steps and activities for 1 village, 1 year						
N	тв	N	Π			
Activity	Cost (IDR)	Activity	Cost (IDR)			
Step	1: Orientation meetin	g at Provincial, District and village	e level			
Activity 1: Provincial Orientation WS for all districts, independent of number of villages.17-29 persons, 1d WS	2,497,000	Activity 1: Orientation WS at Province level. Socialization concept DS. 2d WS. 30 participants.	5,400,000			
Activity 2: Orientation WS at district level, once for each batch of 5 villages. 37-42 participants, 1d WS	1,549,000	Activity 2: Orientation WS at district level. 40-60 participants, 1d WS.	1,137,500			
Activity 3: Selection of VF based on the consensus of District orientation meeting. Without any special activity and cost. At village level.		Activity 3: Socialization and orientation of DS in the village. Selection of Village Facilitator (VF). Participants: 50 persons per village.	2,505,000			
Activity 4: Recruitment of DF, without extra costs. At district level.		Activity 4: Recruitment of the District Facilitator (DF) done by DHO at village level. Participatory selection process.	130,000			

for

N	ТВ	N	π
Activity Cost (IDD)			
		rounty	
	St	ep 2: Training II	
Activity 5: Training of the concept of DS and PLA approach, 12-13 persons per batch of 5 villages, 6 days. At Province level.	7,843,600	Activity 5: Training "Participatory learning and Action". Total 35 persons. 6 days. At district level.	10,504,000
	Step 3: Cond	uct self assessment survey	
Activity 6: Secondary data collection, self survey and FGD. 2 persons, 23 topics, involving 20-30 participants, covering all subvillages, 2-3 weeks.	1,120,000	Activity 6: Collection of secondary data. 2 persons per village, max 3 days.	955,000
		Activity 7: Self assessment survey. FGD with pregnant women, BF women, community, religious leader, done at hamlet level. 2 days per village.	2,780,000
Activity 7: Village meeting to discuss the results of self assessment, 39-42 persons.	2,180,000	Activity 8: Village meeting to discuss results and developing roadmap, 40-50 persons per village.	2,652,500
		Activity 9: WS at D level to discuss results with presentation to all stakeholders. Total 74 persons.	3,047,000

All steps and activities for 1 village, 1 year					
NTB NTT					
Activity	Cost (IDR)	Activity	Cost (IDR)		
	Step 4: 1	raining II			
Activity 8: Training II: organizing the community for establishment of DS System, 12-13 persons per batch of 5 villages, 4 days. At province level.	5,422,800	Activity 10: Training II for the establishment and organization of DS. Same participants as for training I. 6 days. At district level.	10,694,000		
	Step 5: Establishmen	t of Desa Siaga system			
	1,120,000	Activity 11: Establishment of the 5 DS networks at sub- village level with consensus. 3 meetings of ½-1 day.	4,437,500		
		Activity 12: Establishment of the 5 DS networks at village level with consensus. Review of the processes in the hamlets. 2 d WS. Max. 60 persons.	2,250,000		
Activity 9: Establishment of blood donor system, at village level, 40-50 persons with identification potential blood donors. 1 meeting per village.	2,380,000	Act. 13: Blood donor network. 400 persons per village are tested. Followed by Health info meeting with villagers. Done by PKM.	2,700,000		
Activity 10: Training caders on FP to establish the FP Information Post, 20- 30 persons, 3 days.	4,182,000	Act. 14: Establishment of a FP network in subvillage by exchanging info over 4 meetings.	2,300,000		

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All steps and activities for 1 village, 1 year						
N	тв	NTT				
Activity Cost (IDR)		Activity	Cost (IDR)			
Step 5: Es	stablishment of Desa Siaga s	system (continued from prev	ious page)			
Activity 11: Establishment of Notification + Transportation System at subvillage level. 40-50 persons, 1 meeting per subvillage.	3,330,000	Act. 15: Establishment of the Notification network in subvillage by 5 meetings. Provision of reporting material.	6,575,000			
Activity 12: Establishment of the community Fund, 40- 50 persons, 1 meeting per subvillage.	3,330,000	Act. 16: Establishment of the community fund by 5 meetings.	1,000,000			
Provision of support for the functioning of DS ( Blood check material, recording books, white board, etc)	3,590,000					
Provision of technical assistance by DF (fee), only during establishment of DS, 1 year.	5,760,000					
Step 6: M&E at village/D level, for 1 year						
Activity 13: M&E visit by DHO, 1-2 persons, 2x/year, at village level.	300,000	Activity 17: M&E meeting of the District Core team (10 persons). 3-4x/year, 1 day.	640,000			
Activity 14: District M&E/advocacy meeting, 40-45 participants. 2 x/year. At district level.	1,890,000	Activity 18: M&E WS at district level with all stakeholders. Advocacy. 2x/year, 1 day. 30 participants	3,008,000			

All steps and activities for 1 village, 1 year					
N	ГВ	NTT			
Activity	Cost (IDR)	Activity	Cost (IDR)		
Step 6: I	N&E at village/D level, for 1	year (continued from previo	ous page)		
Activity 15: Village M& E meeting, 40-50 persons, 3x/year.	3,615,000	Activity 19: Meeting at village level. Max 60 persons. 1x/month, 6- 10x/year	3,500,000		
		Operational Cost: Monthly salary for technical assistance by DF (3 years in total).	8,200,000		
Activity 16: Puskesmas M&E visit to villages, 1-2 person, 4x /year.	825,000				
Activity 17: Monthly recording & reporting on the function of networks at village level.	3,600,000				

#### • NTB

Training is the most costly activity (Rp. 7,843,600 and Rp. 5,422,800), followed by the monthly fee to be paid to the DF for the provision of technical assistance (Rp. 5,760,000 for one year) and the village monthly recording and reporting and M&E meetings (RP. 3,600,000).

All other activities are between Rp. 300,000 and Rp. 3,300,000.

#### • NTT

Training (Rp. 10,504,000 and Rp. 10,694,000), the DF monthly fee (RP. 8,200,000 for one year), the establishment of the notification network including the material (Rp. 6,575,000) are the most costly activities, followed by the provincial orientation WS (Rp. 5,400,000).

All other activities vary between Rp. 130,000 and Rp. 4,437,500.

#### NTB versus NTT:

NTT has only 2 activities more than NTB. NTB has more activities under step 6 (M&E), while NTT has more activities under step 3 (Conduct self assessment survey) and step 5 (Establishment of the DS system).

Not all activities in NTB need to be organized as separate activity costing money, eg the selection of the VF and the DF. For both provinces the trainings and the DF fee are the most costly activities. In general, the costs of the activities of NTT are higher than in NTB. The trainings in NTT include more people and more days and are therefore more expensive.

A difference in classification of the activities is the cost related to the salary or monthly fee paid to the DF. In NTB these costs are considered as establishing costs, because a DF is only needed in the beginning to build up the DS system and to be the link between the DHO, the community and GTZ. Once DS is established, the community is responsible themselves for maintaining the functioning of DS. While in NTT, these costs are considered as needed for the first three years of implementation of DS in the village to ensure the sustainability.

#### 6.2.4 Location of activities

The activities take place at province, district or village level. The table 5 above indicates for each activity where it takes place and at which level it is organized. The following graphs 2 and 3 show the overview of NTB and NTT.

NTB:

Most activities (10) take place at village level representing 39% of the total unit cost. The remaining 61% of the costs are for activities at district level (4) and province level (3), respectively 32% and 29%.



# Total Rp. 53.414.000

Graph 2: Breakdown of costs per level in NTB

## NTT:

Even though most activities (12) take place at village level, the costs only represent 43% of the total unit cost. The costs of the activities at District and Province, together 7 activities, are higher than costs of the village level activities.



#### • NTB versus NTT:

For both provinces, most activities take place at village level, with a distribution of around 40% of the total unit cost for these activities. While 60% goes to activities at district and province level. NTT only has only the orientation meeting at province level, while NTB organizes its trainings at province level too.

#### 6.2.5 Per cost category

Section 5.2.1.4 describes all five cost categories. For most of these items fixed unit costs are used when implementing DS, based on the agreement between GTZ and the local government before starting the implementation of DS.

Graphs 4 and 5 present the breakdown of the total unit cost according to these cost categories for both provinces.

#### • NTB:

The cost of transportation, including daily allowances, is the biggest part of the total unit cost with 37%, followed by the costs of the meeting packages (food, rent of the room and accommodation) with 30% and the costs of honorarium/fee for facilitators, trainers and resource persons with 21% of the total unit cost.





#### • NTT:

The cost of the transport of the participants, including the daily allowances, is the biggest part of the total unit cost with 34%, followed by the cost of the meeting packages with 33% and the honoraria and fees with 18%.

#### • NTB versus NTT:

Both provinces have more or less the same distribution regarding the cost categories, around 35% for transport and daily allowances, 30% for meetings and 20% for honoraria.

#### 6.3 ALTERNATIVE SCENARIOS

Many variations are encountered in the physical unit costs. Depending on the specific geographic context within or between districts different transport costs occur but also difference in prices of accommodation, food etc. This creates uncertainty towards the final unit cost for one village. To deal with these uncertainties, intervals are created, which include all possible physical unit costs. The results can be presented as two alternative scenarios, one scenario using all the maxima and one using all the minima to recalculate the total unit cost. Somewhere in between lays the real cost for one village. This is presented in the table 5 on the following page.

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Table 5 : Overview of the unit costs (IDR)						
Overview of unit cost (IDR)						
	NTB NTT					
	Min	Unit cost	Max	Min	Unit cost	Мах
1 batch, All steps for 1 year	176,329,000 (13,564€)	267,072,000 (20,544 €)	355,728,000 (27,364 €)	351,780,000 (27,060 €)	373,077,500 (28,698 €)	394,375,000 (30,337 €)
Redistribution for 1 village, for 1 year	35,265,800 (2,713€)	53,414,400 (4,109 €)	71,145,600 (5,473€)	70,356,000 (5,412 €)	74,615,500 (5,740 €)	78,875,000 (6,067 €)

#### • NTB:

The total unit cost for one batch, taken all minimum physical unit costs, is Rp. 176,329,000 (or  $13,564 \in$ ) whereas all maximum physical costs are considered; the total unit cost for one batch of five villages is Rp. 355,728,000 (or  $27,364 \in$ ).

When the costs are redistributed for one village, the minimum total unit cost is Rp. 35,265,800 (or 2,713 €) and the maximum total unit cost would be Rp. 71,145,600 (or 5,473 €).

#### • NTT:

The total unit cost for one batch, taken all minimum physical unit costs, is Rp. 351,780,000 (or  $27,060 \in$ ) whereas all maximum physical costs are considered; the total unit cost for one batch of five villages is Rp. 394,375,000 (or  $30,337 \in$ ).

When the costs are redistributed for one village, the minimum total unit cost is Rp. 70,356,000 (or 5,412 €) and the maximum total unit cost would be Rp. 78,875,000 (or 6,067 €).

• NTB versus NTT:

The intervals are broader for NTB, the values of the minima and maxima vary max. 34% around the calculated unit cost. For NTT the intervals are much smaller, the values vary max. 9% around the unit cost.

This means that the degree of uncertainty in terms of "what is now the exact total unit cost for one village?" is higher for the results of NTB and that the estimations of NTT are more certain or "precise".

All unit cost calculations are lower for NTB and the difference for one village to go through the whole process is Rp. 21,201,100 is (or 1,631 €).

The following table 6 (next page) shows an overview of the breakdown of the costs according to establishing and operational costs with the uncertainty intervals. For NTT these minima and maxima values vary max. 8% around the unit cost. While for NTB they may vary to 30-50% around the unit cost.

#### Table 6: Breakdown of costs

Breakdown of costs for one village (IDR)						
	NTB			NTT		
	Min	Unit cost	Мах	Min	Unit cost	Max
Cost for 1 village, 1 year	35,265,800 (2,713 €)	53,414,400 (4,109 €)	71,145,600 (5,473€)	70,356,000 (5,412 €)	74,615,500 (5,740 €)	78,875,000 6,067 €)
Establishing costs	30,198,400 (2,323 €)	43,184,400 (3,322 €)	57,000,700 (4,385€)	54,236,000 (4,172 €)	59,067,500 (4,544 €)	63,899,000 (4,915€)
Operational costs, only once	1,696,200 (130 €)	2,975,000 (229 €)	3,833,700 (295 €)	2,630,000 (202 €)	2,714,000 (209 €)	2,798,000 (215€)
Operational costs, one year	5.067.400 (390 €)	10.230.000 (787 €)	14.144.900 (1.088 €)	14.976.000 (1.152 €)	15.548.000 (1.196 €)	16.120.000 (1240 €)

The same distribution, namely around 80% for establishing costs and 20 % for operational costs occurs in these two scenarios.

# 6.4 OTHER COSTS

There are some other costs to be taken into account to support the implementation of DS. Most of these costs need to be made only once. Examples are advocacy material such as posters and films, training modules and technical guidelines. All these products and tools can be combined in one toolkit. Once most of these items are available, only the replication costs like printing need to be reconsidered in the costs. The table 7 presents examples of other costs for both provinces.

Province	Activities	Total amount (IDR)
NTB	Toolkit development (10 meetings + transport + ½d WS + printing of 150 toolkits)	91.185.000 (7.014 €)
NTB	Film (travel costs, material, fee)	41.000.000 (3154 €)
NTT	TOT for DF and VF to ensure the sustainability and roll out (6 days training, 3 districts, accomodation, food, fee trainer and transport.	59.800.000 (4600 €)

• Table 7: Examples of other costs

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#### 6.5 SOURCES OF FUNDING FOR DS

#### 6.5.1 Current situation

The way DS is implemented in NTB and NTT, as described here and in the technical guidelines, is not done yet with national and local resources. All activities are for 90-95% support by GTZ, Exception is the district Belu in NTT which has own funds to contribute to the implementation, and also for the roll out and replication of the concept of DS to other villages. In NTT, GTZ has also a grant agreement with VSO, made possible through the Dfid cofinancing part of GTZ SISKES project. VSO volunteers support DS in their placement and most DS activities are cofinanced by VSO in NTT.

#### 6.5.2 From a societal viewpoint

Imagine there is no additional financial support of external agencies or donors and that the province, districts and villages are keen to establish and maintain the function of DS in their villages following the same process. The first remark that has to be made is that never the village itself will have to cover all costs of implementing DS.

There are many different funding sources available to cover all the costs. Ensuring a comprehensive financing of all activities is difficult and complex and will need a strong coordination to get all budgets planned, approved and available in time. This should be done by the DHO and/or PHO, who can bring all stakeholders together and who can ensure a follow up of the implementation of all activities.

An overview of the several sources of funding available for each of the provinces is given in table 8.

For each source is very clearly stipulated for what it can be used, eg a fixed amount of days for training, transport fees for who and how much per person, only for village activities or only for socialization and so on. There is no flexibility to shift funds around or to change the destiny

Source	Level of activities	NTB	NTT
APBN <sup>24</sup> (MoH-MoHA / decon budget)	P-D-V	X	X
APBD 1 <sup>25</sup> (DAU-DAK)	P-D-V	Х	
APBD II <sup>26</sup> (DAU)	D-V	Х	Х
APBDES <sup>27</sup>	V	Х	Х
P2DTK	V	-	X
DHS2	P-D-V	Х	Х

#### Table 8: Overview of funding sources

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<sup>&</sup>lt;sup>24</sup> APBN: National budget, of which part goes to health to fund activities at Province and district level (=decon budget). Can be used for specific activities of DS regarding socialization and training.

<sup>&</sup>lt;sup>25</sup> APBD I: Province budget, of which a part is allocated to PHO and further to Health promotion, which can use it to fund DS activities: DAU or DAK

<sup>&</sup>lt;sup>26</sup> APBD II: District budget, allocated for DS through DHO, BPMD and ADD. ADD is the village fund allocation of which a part can be used for activities of DS at village level

<sup>&</sup>lt;sup>27.</sup> ABPDES: village budget of which part can be used to fund DS activities.

Annex 11.4 lists in a more detailed way all activities with the source of funding that can be applied for to finance the activity. 2 additional national programs exists, DHS2 and P2DTK, which can be used to fund DS activities, not mentioned in this table. DHS2 funding from the ADB can be requested by the village and is channeled through the DHO. P2DTK is national budget to fund specific programs for isolated areas (deconcentration budget from State Ministry for acceleration of development of isolated areas, coordinated by the Ministry of Social welfare). It can be used for DS activities (training and implementation) through Bapeda & DHO.

#### 6.5.3 When resources are scarce

The first adaptation that could be done is a decrease of the physical unit costs. Some activities can be done cheaper by using free meeting rooms in the province and district health offices. A lower unit cost for meals and snacks with a catering service can be negotiated, and all stationary costs can be decreased. Before the implementation started, an agreement was reached between GTZ and the local partner on the payment of fees, transport costs, daily allowances etc. to keep the total unit costs as low as possible. These rates are lower than what is stipulated in the national and local regulations & differ between both provinces, see table 11.

Iable 9: Physical Unit Cost							
	NTB						
Physical costs units (IDR) <sup>28</sup>							
Cost category Agreement with local GTZ Local regulations							
			APBN	APBD II			
Local Transport	10.000 - 350.000	10.000- 350.000*	100.000 - 200.000	60.000- 350.000			
Daily allowance with accommodation	191.000 - 366.000	600.000	263.000 - 597.500	250.000 - 650.000			
Honorarium	30.000 - 400.000	604.000 - 3.228.000	100.000 - 500.000	240.000 - 600.000			
		NTT					
	Physical	costs units (IDF	2)				
Cost category	Agreement with local partner in NTT	GTZ regulations	Local regulations				
			APBN	APBD II			
Local Transport	50.000 - 400.000	Real cost	100.000 - 200.000	120.000- 300.000			
Daily allowance with accommodation	150.000 - 600.000	600.000	263.000 - 597.500	400.000 - 550.000			
Honorarium	250.000 - 500.000 / day	604.000 - 3.228.000	100.000 - 500.000	125.000 / hr			

<sup>28.</sup> Many variations occur depending on distances and local district regulations.

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The second adaptation that can be done is on the number of people included in the activities and to look where and how activities can be combined and can include more villages at the same time (economy of scale). It is worthwhile to see whether the DS activities can be done during other events, eg including the M&E visit of the PKM staff into another M&E visit to the village, or include the M&E meeting of the village into another village meeting, or organizing the district advocacy WS as part of another WS with the same participants ("piggy back" strategy).

It will depend on the availability of resources, the creativity of the decision makers and implementers and on the ability and the willingness of the CP to pay what and how much for certain items.

# 6.5.3.1 NTB simulation

NTB has made a simulation for one batch and one village to go through the whole process when resources are scarce. The costs in this simulation are reduced to an absolute minimum: The physical unit costs for the meeting packages are lower, free meetings rooms are used and no provision of the IEC book, T-shirts and bag for VF. The rates for transport, daily allowances and honoraria are the lowest rates out of the APBD I regulations. Less people are invited for the orientation WS and meetings at village level.

All trainings are organized at Bapelkes<sup>29</sup> which provides the cheapest option in terms of accommodation, catering and training facilities. There is no difference in training duration, number of meetings and the rates for communication.

The total unit cost for one batch of five villages would be Rp. 182,896,750 (or 14,069 €) and for 1 village Rp. 36,579,350 (or 2,814 €).

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ALERT VILLAGE TOOLKIT

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<sup>&</sup>lt;sup>29.</sup> Bapelkes: health training centre

# 7. INTERPRETATION

#### 7.1 WHAT DO THE RESULTS MEAN?

Implementation of DS costs time and money. Not only to establish but also to maintain the function. But once DS is established, only 20% of the total unit cost needs to be provided to maintain DS in the village. If this budget is not available, creativity can be used to reduce costs eg reducing the physical unit costs, combining activities or including activities on other activities ("piggy back" strategy).

# 7.2 DIFFERENCES BETWEEN NTB & NTT REFLECTED IN THE COSTS

The results show differences in the total unit costs and in the breakdown of the costs in steps, number, types and place of activities between both provinces. The costs of NTB are lower than the costs of NTT. The differences in costs reflect the chosen strategy of the way DS is implemented in each of the province.

• Way of involvement of the stakeholders

NTB established a clear distribution of the roles, tasks and responsibilities for each of the stakeholders before starting the implementation of DS. An agreement was made on which activities will take place at which level and organized by whom. This approach of "the right stakeholder for the right activity at the right time" facilitated the implementation and reduced the costs, confusion and delay of waiting for approval to go ahead with the next activity.

The PHO and DHO are the main coordinators and are responsible for activities taking place at province and district level. NGOs play a prominent role in linking all stakeholders with each other and providing technical support in the village during the establishment of DS. They function as the extension of GTZ for administrative matters and facilitate all activities (catalyst role). The role of NGOs is temporary, as after establishing DS is owned by the community and the health system. For village activities the PKM facilitator and VF are the most important as the PKM is the responsible structure within the health system for village activities. The PKM staff, responsible for community empowerment, is strengthened in his role as DS facilitator. This will ensure sustainability and ownership of the concept but also the roll out as they are "close" to the community and DS activities can be combined with other outpatient services and activities of the PKM.

NTT choose to work directly through and with DHO for the whole process. The DHO coordinates and organizes all activities, even the ones at village level, and this in close collaboration with the DF from a NGO and other institutions eg district BKKBN and BPMD. This approach is chosen to improve the ownership and the sustainability of DS. Another reason to focus so strongly on the DHO is that the DHO should take up the role of main coordinator in assembling all stakeholders to plan, budget and implement all DS related activities. By working "DHO focused" each process enables a district specific process, which best fits the district conditions and preferences. Some DS activities will be rather combined or even unnecessary to do. For example, Kabupaten Kupang was the last district in NTT to start with the implementation of DS, so the orientation WS at D level was not necessary as they already knew the concept through other provincial activities. There was no need to select DF as they were already identified for other village activities. Socialization of DS, election of VF and collection secondary data can be done in 3 separate activities or can be combined depending on the choice of the district.

The disadvantages of the "DHO focus" are the higher total unit costs; a longer and more cumbersome process as the DHO staff have many other tasks and responsibilities and are therefore not always available. Another disadvantage is the high turn-over of staff without proper handing over and transfer of knowledge of existing programs. But strong coordination for DS is needed, so NTT believes it is worthwhile investing the extra money, energy and time involving the DHO during the whole process and strengthening their role in the implementation of DS. NTB believes in a clear distribution of responsibilities and tasks between all stakeholders, linked to their place in the health system, with a coordination role for DHO, while in NTT the involvement and role of DHO is much more prominent and comprehensive as they are involved in all aspects of organization (preparation, financial coordination etc) and implementation of DS.

• Implementation of the activities

The longer the process, the more separately organized activities, the more participants per activity and the more activities at district and province level, the higher the costs are. Village activities are the cheapest activities as there are less transport costs, lower rates to be paid, cheaper food and meeting packages. NTT implements the DS concept by two more activities than NTB, focusing more on the trainings and organizing most village activities separately for each village. While NTB focuses more on activities of the actual establishment of the DS networks in the village, combines more activities and includes more villages into one activity, which all reduce the costs. Not all activities need funding in NTB, eg the selection and recruitment of the VF and DF.

While in some district in NTT these are organized as separately activities with extra costs. NTT involves more people for its activities which lead also to the higher unit costs, while in NTB participation in activities is limited to the people really needed according to their responsibility in the DS process.

There are also differences between both provinces in the selection of the villages in which to implement DS. In NTB the choice is made by DHO and GTZ based on a number of conditions and on the guiding principle of having interventions as well on the provider side as on the demand side to ensure impact on health indicators. All selected villages are in the catchment area of a PONED PKM<sup>30</sup>, which received also the PKM management training.

The villages have an APN<sup>31</sup> trained midwife and a POSKESDES<sup>32</sup>. Some villages are in the same PKM catchment area which enables combining activities, limits DF and VF travel distances and facilitates regular support. For NTT, the choice of villages is done by the DHO and this by equal geographic distribution in the district, which means the chosen villages are very far away from each other, spread out over the district and not around one and the same PKM. The PKM are not necessarily involved in other GTZ supported activities. This way of selecting the villages limits the possibility of combining activities and regular support. Only activities done at district level, eg training can be organized for all villages together. Most other activities have to be organized separately for each village, which make the costs higher.

• Economy of scale

The more villages in one batch, the less frequent activities need to be repeated, the quicker the process and the lower the total unit cost per village will be. NTB organized its villages into

<sup>&</sup>lt;sup>30</sup> PONED PKM: a health center that is capable to handle basic obstetric and neonatal emergencies

<sup>&</sup>lt;sup>31.</sup> APN training: enables the midwife to do normal delivery care

<sup>&</sup>lt;sup>32</sup> POSKESDES: health post in the village, providing basic health care. Women can go to deliver there.

<sup>&</sup>lt;sup>33</sup> NTB province exists out of 2 big islands, Lombok and Sumbawa. Each island grouped all the selected villages in 2 batches.

two big groups, the Lombok group (3 batches of 10 villages each) and the Sumbawa group<sup>33</sup> (3 batches of 20 villages each), and organized the trainings at province level so that more villages could participate at once.

In this way NTB realized to implement DS in 90 villages in the period 2006-2008. Due to the individual district approach in NTT the batches are smaller, only 4 to 6 villages per district and per batch. During the period 2006-2009 NTT realized the DS concept in 50 villages.

Differences in physical unit costs

NTB uses lower physical unit costs for almost all cost categories in comparison with NTT because the costs for food, meeting rooms, transport and stationary are lower in NTB than in NTT. This results in the lower total unit cost for NTB.

#### 7.3 QUALITY OF THE RESULTS

The total unit costs are estimations of what is needed for one village, because the physical unit costs vary within and between districts and provinces depending on the geographical context, the prices of food, accommodation and transport. Intervals are created to include all these variations and to provide an idea of the degree of uncertainty in terms of "what is now the exact total unit cost for one village?" Somewhere in between the maximum and minimum value of the interval lays the real cost for one village to go through the whole process. The intervals of NTT are narrower; the minimum and maximum values vary max. 10% around the physical unit cost. If more districts were included, the intervals might have been broader. The intervals of NTB are broader, the minimum and maximum values vary up to 50% in some cases around the unit cost, this is because all 90 villages are

considered in the analysis and thus more variation in physical unit costs is encountered.

There are more different geographical distances to be considered and thus more differences in local transport rates, food prices and accommodation rates; while NTT uses data of only ten villages out of two districts which means less variation in physical unit costs. Earlier was stated that all unit cost calculations are lower for NTB and that the difference for one village to go through the whole process is Rp. 21,201,100 is (or 1,631 €). But, when taking the intervals into account, the maximum values of NTB are higher than the minimum values of NTT, which means that all intervals overlap with each other. Therefore, the differences in unit costs between NTB and NTT may not be that big in reality.

All data itself are from the financial reports of GTZ and are evaluated as reliable.

The results are based on the specific condition of having sufficient resources to implement DS as an external agency, here GTZ<sup>34</sup>, supports all implementation activities for 90-95%, with exception of district Belu in NTT. Therefore, the physical unit costs are based on rates agreed upon between GTZ and the local government and its institutions. These are lower than the local regulations and using the local government regulation rates will increase the costs. This means that in another setting, be it in another province or with or without support from another external agency or donor, the physical unit costs will be different and the total unit cost will vary accordingly.

Adaptations in number of persons involved, cheaper catering services, free meeting rooms and combining several activities and including more villages will then again decrease the costs. It all depends on what the decision makers and implementers are able and willing to pay.

<sup>&</sup>lt;sup>34</sup> In NTT GTZ has a grant agreement with VSO, made possible by the Dfid cofinancing part of GTZ SISKES project.

# 8. CONCLUSIONS AND RECOMMENDATIONS

Implementing DS is a challenging process which needs a lot of resources in terms of time, money and people involved. Community empowerment is a means and not an end in itself. It is a long process in which people need to change their behavior and mindset, knowledge has to be disseminated, trainings have to been done, and an intense follow up has to be organized. It involves a whole range of different stakeholders, who need to meet and discuss regularly. Decision makers and implementers can choose a specific approach which fits their context the best, with implications on the costs.

Many factors influence the total unit cost for one village and should be taken into account when planning and budgeting for DS implementation. The approach, the physical unit costs and the number of villages in one batch have the highest influence on the total unit cost followed by the numbers of persons involved, the combining of activities and piggy back strategy. Besides the direct costs, there are a number of indirect and other costs which are not included in the total unit cost as presented here. They should be considered too.

All resources come almost entirely from GTZ, except for NTT. In NTT, the local government of district Belu contributes up to 10% to the DS activities and there is cofinancing of all DS activities by VSO. But it is possible to fund the entire process and all activities with government funds. It is of tremendous importance to have a strong coordination of all stakeholders to be able to maintain what is build up and to replicate or roll it out to other villages. A good collaboration with appropriate planning and budgeting is needed to obtain all funding for all activities from all the different funding sources timely to enable an appropriate chronological order in the implementation of the activities. The DHO is the most appropriate structure within the health system and Bapeda<sup>35</sup> outside the health system to take up this coordinating role. Not only a strong coordinator but also a strong implementer is needed because of the long and complex process of community empowerment, which needs change in behavior and mindset. This can be achieved by working closing together and by distributing clear tasks and responsibilities with an intense follow-up. Not only the establishment of DS and the coverage of more villages is important but also attention is needed for the quality of operation in order to achieve impact. Decent M&E with impact measurement should be part of the process.

The roll out to other villages to scale up the coverage of DS in the same district or province will be easier and at a lower unit cost for the new villages as there is no need for orientation meetings at province and district level anymore, DF and VF are already selected, the guidelines and training modules are developed, the PKM facilitators have the knowledge and experience. Organizing these new villages in large groups or batches will also keep the cost for one village down. Adding more aspects out of the DS concept, for example the disaster preparedness into the existing framework of DS in the village will go much easier, faster and at a lower cost. Roll out to a new province or district will follow the same base-case scenario as presented here in the cost analysis as all steps and activities will have to be implemented.

<sup>&</sup>lt;sup>35.</sup> Bapeda: board of planning and budgeting. They can influence budget allocations for DS.

This analysis is part of the DS toolkit<sup>36</sup> and offers a tool to assist in planning, budgeting and analysis of the expenditure for DS. The analysis hopes to contribute in the decision making process of the local government and villages to implement DS by providing financial information. It provides information to all stakeholders, including external agencies, NGOs, enabling them to make appropriate budget allocation for implementation, support, roll out and take over the DS. For each specific setting, the total unit cost will be different, depending on the available funds, creativity and the willingness and ability of the stakeholders to pay for what is needed.

The next step is to link these results with the findings of the DS Impact evaluation. Both analyses will enable an economic analysis.

<sup>&</sup>lt;sup>36.</sup> Toolkit DS: is a complete information box containing technical guidelines, case studies, training modules etc to support advocacy and implementation of DS

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# 9. ACRONYMS

ADD	Village fund allocation (Allokasi Dana Desa)
APBD I	Provincial Development Budget (Anggaran Pembangunan dan Belanja Daerah I)
APBD II	District Development Budget (Anggaran Pembangunan dan Belanja Daerah II)
APBDES	Village Development Budget (Anggaran Pembangunan dan Belanja Desa)
APN	Normal Delivery Care (Asuhan Persalinan Normal)
Bapeda	Development Planning board (Badan Perencaaan Pembangunan Daerah)
BKKBN/ BPPKB	Women empowerment and Family Planning institutions (Badan Koordinasi Keluarga Berencana/ replaced by BPPKB: Badan Pemberdayaan Perempuan dan keluarga Berencana)
BPMD	Community Empowerment Institution (Badan Pembedayaan Masyarakat Desa)
D	District (Kabupaten)
DAK	Special Budget Allocation (Dana Alokasi Khusus)
DAU	General Allocation Budget (Dana Alokasi Umum)
Decon	Deconcentration Budget (Dana Dekonstrasi)
DF	District facilitator (Fasilitator Kabupaten)
DHO	District Health Office (Dinas Kesehatan Kabupaten/Kota)
DHS2	Decentralization Health System Support (Proyek Dukungan Desentralisasi Sistem Kesehatan)
DS	(Alert Village Model/Approach) Desa Siaga
IEC	Information Education and Communication (Komunikasi, Informasi dan Edukasi)
M&E	Monitor and Evaluation (monitoring dan evaluasi)
MoH	Ministery of Health (Departemen Kesehatan)
MoHA	Ministry of Home Affairs (Departemen Dalam Negeri)
MSP	Minimal Service Standards (Standar Pelayanan Minimum)
NTB	West Nusa Tenggara Province (Provinsi Nusa Tengara Barat)

## **10. BIBLIOGRAPHY**

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#### 11. ANNEXES

11.1 COST ANALYSIS TOOL

11.2 ILLUSTRATION NTB

# 11.3 ILLUSTRATION NTT: BELU AND KABUPATEN KUPANG

#### 11.4 SOURCES OF FUNDING

The table below lists in a more detailed way all activities with the source of funding that can be applied for to finance the activity.

All steps and activities for 1 village, 1 year						
NTI	3	NTT				
Activity Fund resources		Activity	Fund resources			
St	ep 1: Orientation mee	ting at P, D and village level				
Activity 1: Provincial Orientation meeting	APBD I (PHO-BPMD)	Activity 1: Orientation WS at Province level.	APBN (MoH)			
Activity 2: Orientation meeting at district level.	APBD II (DHO)	Activity 2: Orientation WS at district level.	APBN (MoH) APBD I (DAU) APBD II (DHO-BPMD)			
Activity 3: Selection of VF based on the consensus of District orientation meeting.	/	Activity 3: Socialization and orientation of DS in the village. Selection of Village Facilitator (VF).	APBD I (DAU) APBD II (DHO-BPMD)			
Activity 4: Recruitment of DF.	/	Activity 4: Recruitment of the District Facilitator (DF) done by DHO at village level.	APBD I (DAU) APBD II (DHO-BPMD)			
Step 2: Training I						
Activity 5: Training of the concept of DS and PLA approach.	APBN (MoH-MoHA) ABPD I (PHO-BPMD)	Activity 5: Training on DS concept and the "Participatory learning and Action" approach.	APBN (MoH-MoHA) APBD I (DAU) APBD II (DHO-BPMD)			

Step 3: Conduct self assessment survey						
Activity 6: Secondary data collection, self survey and FGD.	APBD I and II (PPMD)	Activity 6: Collection of secondary data.	APBD I (DAU-DAK) APBD II (DHO-BPMD)			
		Activity 7: Self assessment survey.	APBN (MoH-MoHA) APBD I (DAU-DAK) APBD II (DHO-BPMD)			
Activity 7: Village meeting to discuss results of self assessment	APBD I and II (PPMD)	Activity 8: Village meeting to discuss results and developing roadmap	APBD I (DAU-DAK) APBD II (DHO-BPMD) ADD			
		Activity 9: WS at D level to discuss results with presentation to all stakeholders.	APBD I (DAU-DAK) APBD II (DHO-BPMD)			
	Step 4:	Training II				
Activity 8: Training II: community organizing for establishment of Siaga System.	APBN (MoH-MoHA) ABPD I (PHO)	Activity 10: Training II for the establishment and organization of DS.	APBN (MoH-MoHA) APBD I (DAU-DAK) APBD II (DHO-BPMD)			
Step 5: Establishment of Desa Siaga system.						
		Activity 11: Establishment of the 5 DS networks at subvillage level with consensus.	APBD I (DAU-DAK) APBD II (DHO-BPMD) ADD			
		Activity 12: Establishment of the 5 DS networks at village level with consensus.	APBD I (DAU) -DAK APBD II (DHO-BPMD) ADD			
Activity 9: Establishment of blood donor system.	APBD II (DHO)	Act. 13: establishing of the Blood donor network.	APBD I (DAU-DAK) APBD II (DHO-BPMD- PMI-UTD)			
Activity 10: Training caders on FP to establish the FP Information Post.	APBD I and II (P and D FP institution)	Act. 14: Establishment of a FP network in subvillage.	APBD I (DAU-DAK) APBD II (DHO-BPMD-FP office)			
Activity 11: Establishment of Notification + Transportation System.	APBD I (BPMD) APBD II (BPMD- DHO)	Act. 15: Establishment of the Notification network.	APBD I (DAU-DAK) APBD II (DHO-BPMD-FP office)			

Step 6: M&E at village/D level						
Activity 13: DHO M&E visit at village level.	APBD II (BPMD- DHO)	Activity 17: M&E meeting of the District Core team.	APBD I (DAU-DAK) APBD II (DHO-BPMD-FP office)			
Activity 14: District M&E/ advocacy meeting	APBD II (BPMD- DHO-FP)	Activity 18: M&E WS at district level with all stakeholders. Advocacy.	APBD I (DAU-DAK) APBD II (DHO-BPMD)			
Activity 15: Village M& E meeting.	APBDES	Activity 19: M&E meeting at village level.	APBD I (DAU-DAK) APBD II (DHO-BPMD) APBDES			
		Operational Cost: Monthly salary for technical assistance by DF, 3 years	APBD I (DAU-DAK) APBD II (DHO-BPMD)			
Activity 16: Puskesmas M&E visit to villages.	APBD II (PKM)					
Activity 17: Monthly recording & reporting on the function of networks at village level.	APBDES APBD II (DHO- BPMD)					

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