

Country Name	<b>Malaria Control Project</b>
Republic of Niger	

**I. Project Outline**

Background	Niger was one of the lowest health situation in the world, as seen in under five mortality rate; 259 per 1,000 live births (2005) and maternal mortality ratio; 1,600 per100,000 live births (2005). The main causes of the under five deaths were malaria, pneumonia, and diarrhea. In particular, falciparum malaria causes high fatality and it was an urgent issue for the Government of Niger. In Boboye District in Dosso Region, the average malaria morbidity rate was 86% (2005), higher than the national and regional average.												
Objectives of the Project	Through capacity development of the health personnel and village committee members and development of the guide on malaria control, the project aimed at establishing an effective community-based malaria control model in the Health District of Boboye, thereby contributing to reduction of malaria morbidity and mortality. Overall Goal: Malaria morbidity and mortality in the Health District of Boboye are reduced. Project Purpose: An effective community-based malaria control model is established to strengthen malaria control in the Health District of Boboye.												
Activities of the Project	<ol style="list-style-type: none"> <li>Project site: Boboye District of Dosso Region</li> <li>Main activities: i) Capacity building of village health committees (COSANs), the Integrated Health Centers (CSIs)/Health Posts (CS) COSANS and DS Boboye regarding operation and management of malaria control measures, ii) training of the health workers on malaria treatment, iii) development of the guides and manuals on malaria control, iv) dissemination of the model to non-pilot areas, etc.</li> <li>Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Niger Side</td> </tr> <tr> <td>1) Experts: 9 persons</td> <td>1) Staff Allocated: 27 persons</td> </tr> <tr> <td>2) Trainees Received: 3 persons</td> <td>2) Operation cost</td> </tr> <tr> <td>3) Equipment: Vehicles, motorcycles, PCs, office equipment, etc.</td> <td></td> </tr> <tr> <td>4) Operation cost</td> <td></td> </tr> </table> </li> </ol>			Japanese Side	Niger Side	1) Experts: 9 persons	1) Staff Allocated: 27 persons	2) Trainees Received: 3 persons	2) Operation cost	3) Equipment: Vehicles, motorcycles, PCs, office equipment, etc.		4) Operation cost	
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Project Period	November 2007 to November 2010	Project Cost	(ex-ante) 260 million yen, (actual) 233 million yen										
Implementing Agency	National Program of Malaria Control (PNLP)												
Cooperation Agency in Japan	None.												

**II. Result of the Evaluation**

< Special perspectives considered in the ex-post evaluation >

- [Definition of the community-based malaria control measures model] The model includes the following elements: community-based activities such as awareness-raising and village cleanup activities implemented with their own initiatives; collaboration with school management committees (COGES) in activity implementation; monitoring and support from CSIs and CS; appropriate malaria treatment provided by the health workers at CSI/CS, etc.

<b>1 Relevance</b>
<p>&lt;Consistency with the Development Policy of Niger at the Time of Ex-ante and Project Completion&gt;</p> <p>The project has been consistent with the development policy of Niger, as the decrease in morbidity and mortality rates of malaria was prioritized in the “Strategic Orientations for the Health Development in the First Decade in the 21<sup>st</sup> Century (2002-2011 and the 4<sup>th</sup> National Health Development Plan” (2005-2010).</p> <p>&lt;Consistency with the Development Needs of Niger at the Time of Ex-ante and Project Completion &gt;</p> <p>Niger had the highest under five and maternal mortality rate in the world and the biggest cause of death was malaria. In Boboye District in Dosso Region, the average malaria morbidity rate was higher than the national average at the time of the ex-ante evaluation. There were still great needs for decreasing the malaria morbidity and mortality rates at the project completion.</p> <p>&lt;Consistency with Japan’s ODA Policy at the Time of Ex-ante Evaluation&gt;</p> <p>It was considered important to provide support in the basic livelihood area in accordance with the implementation process of the Poverty Reduction Strategy paper of Niger. In particular, the priority areas were education, health, water supply and rural development,<sup>1</sup> and these were in accordance with the Japan’s ODA principle for Niger at the time of the ex-ante evaluation.</p> <p>&lt;Evaluation Result&gt;</p> <p>In light of the above, the relevance of the project is high.</p>
<b>2 Effectiveness/Impact</b>
<p>&lt;Status of Achievement for the Project Purpose at the time of Project Completion&gt;</p> <p>The Project Purpose was achieved by the project completion. CSIs, CS and village COSANs were selected as planned (Indicator 1) and community based activities were implemented. The number of the households who participated in the malaria control activities increased (Indicator 2). The guide and modules for the community-based malaria control were developed (Indicator 3). As a result, more households in the pilot area were equipped with long lasting insecticidal nets (LLINs) than those in the non-pilot area (Indicator 4), and more persons visited health facilities on the day when the onset occurred in the pilot areas than those in the non-pilot areas did (Indicator</p>

<sup>1</sup> Ministry of Foreign Affairs of Japan (2007). “ODA Databook 2006”.

5). Thus, it can be said that the effective community-based model was established to strengthen malaria control in the pilot areas of the Health District of Boboye.

<Continuation Status of Project Effects at the time of Ex-post Evaluation>

The project effects have partially continued. CSI, CS, village COSANs and households who participated in the project activities in the target areas have continued the community-based malaria control such as use of LLINs and sanitation and hygiene activities. Though the accurate data were not available, the households both in the pilot areas and non-pilot areas have used LLINs, as they have received support from donors including World Vision, Plan Niger and UNICEF, and LLINs are available at a low price in the market. The community-based malaria control guide including training modules and modules for establishing village COSANs have not been used widely because they were not printed for distribution due the financial constraints of the Regional Direction of Public Health of Dosso (DRSP). Another reason is that some CSI personnel took them away when they left the workplace.

<Status of Achievement for Overall Goal at the time of Ex-post Evaluation>

The Overall Goal has not been achieved. Malaria cases have increased in the District of Boboye. The reason is assumed that mosquitos grew more than before due to the much rainfall. Despite partial continuation of malaria control activities, malaria death cases have been on an increasing trend, too, because it is thought that more people have visited the health facility and therefore more malaria cases and death cases have been detected. However, death rates have not changed much both in the pilot and non-pilot areas.

<Other Impacts at the time of Ex-post Evaluation>

Firstly, some CSIs could benefit from the results-based financing<sup>2</sup> (FBR) program implemented in the Boboye District, as their chief and COGES members improved capacity of planning and financial management from the project activities, according to FBR focal point officer in the district. Secondly, some village have constructed or rehabilitated health centers with donation from the villagers themselves as they were sensitized by awareness raising activities of village COSANs. There was no land acquisition and resettlement in the project. There has been no negative natural or social impact.

<Evaluation Result>

In light of the above, through the project, the Project Purpose was achieved by the project completion, but the effects have partially continued. The Overall Goal has not been achieved, but some other positive impacts have been confirmed. Therefore, the effectiveness/impact of the project is fair.

Achievement of the Project Purpose and Overall Goal

Aim	Indicators	Results																		
(Project Purpose) An effective community-based malaria control model is established to strengthen malaria control in the Health District of Boboye	1. Number of CSI, CS and village COSAN in the target area where the model is introduced increases.	Status of the Achievement: Achieved (Continued) (Project Completion) - The number of CSI, CS and village COSANs in the target areas where the model was introduced increased from 0 to 5 CSIs, 13 CSs and 42 village COSANs, respectively. (Ex-post Evaluation) - All of 5 CSIs, 13 CSs and 42 village COSANs have continued activities such as use of LLINs and sanitation activities.																		
	2. Number of households who participate in malaria control activities increases.	Status of the Achievement: Achieved (Continued) (Project Completion) - The percentage of the households who participated in malaria control activities increased from 0 to 91.2%. (Ex-post Evaluation) - The number of the participating households was not available, but based on the percentages estimated by DS Boboye, it is presumed that the households who participate in malaria control activities increased: 95% (2011), 94% (2012), 96% (2013), 98% (2014) and 99% (2015).																		
	3. The effective and practical community-based malaria control guide is developed.	Status of the Achievement: Achieved (Not continued) (Project Completion) - The community-based malaria control guide including training modules and modules for establishing village COSANs was developed and submitted to the Ministry of Public Health (MSP). (Ex-post Evaluation) - The community-based malaria control guide including training modules and modules for establishing village COSANs have not much been used at CSIs.																		
	4. Number of LLINs per household in the pilot areas exceeds that of the non-pilot areas.	Status of the Achievement: Achieved (Not verified) (Project Completion) - The number of LLINs per household in the pilot areas was 1.75 and it exceeds that of the non-pilot areas (0.97). (Ex-post Evaluation) - It is estimated that the average number of LLINs per household in the pilot areas have been more than that of the non-pilot areas.																		
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<sup>2</sup> It an instrument that links financing to pre-determined results, with payment made only upon verification that the agreed-upon results have actually been delivered. <http://siteresources.worldbank.org/INTAFRICA/Resources/AHF-results-based-financing.pdf>

<p>5. Malaria-like symptoms induced treatment seeking behavior of people in the pilot areas is better than that of the non-pilot areas.</p>	<p>Status of the Achievement: Achieved (Not verified) (Project Completion)</p> <ul style="list-style-type: none"> <li>- The percentage of the children under five who visited a health facility on the day when the onset occurred in the pilot areas was 94.1% and it exceeds that of the non-pilot areas (88.6%).</li> <li>- The consultation cases of malaria increased from 5,185 in 2007 to 10,105 in 2009 (103% compared to 2007) in the pilot areas. The percentage was 56% (28,045 in 2007 to 43,781 in 2009) in the non-pilot areas.</li> </ul> <p>(Ex-post Evaluation)</p> <ul style="list-style-type: none"> <li>- It is estimated that there have not been a big change in the percentage of the children under five who visited a health facility on the day when the onset occurred in the pilot areas.</li> </ul> <table border="1" data-bbox="726 414 1404 560"> <thead> <tr> <th></th> <th>2011</th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td>Pilot area (5 CSIs)</td> <td>105%</td> <td>142%</td> <td>115%</td> <td>99%</td> <td>100%</td> </tr> <tr> <td>Non pilot-area (5 CSIs)</td> <td>96%</td> <td>117%</td> <td>129%</td> <td>152%</td> <td>113%</td> </tr> </tbody> </table> <p>Note: The percentage was calculated by dividing the number of the children under five in the pilot areas who visited the health facility on the day when the onset by the number of the total number of the under five in the pilot areas. Some percentages exceed 100%, from the following reasons: 1) The number of children under five was determined by the District Office based on the projection and estimation, 2) Some patients possibly came from other areas, and 3) Some patients possible visited the facility more than once.</p> <ul style="list-style-type: none"> <li>- It is estimated that the consultation cases of malaria increased by 107% in 2015 from 2011 in the pilot areas. The percentage was 119% in the non-pilot areas. The consultation cases have increased in both areas.</li> </ul> <table border="1" data-bbox="726 851 1404 996"> <thead> <tr> <th></th> <th>2011</th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td>Pilot area (5 CSIs)</td> <td>15,575</td> <td>20,732</td> <td>17,065</td> <td>18,887</td> <td>16,624</td> </tr> <tr> <td>Non pilot-area (5 CSIs)</td> <td>22,050</td> <td>26,581</td> <td>27,834</td> <td>29,222</td> <td>26,299</td> </tr> </tbody> </table> <p>Note: The figures were estimated by DS Boboye.</p>		2011	2012	2013	2014	2015	Pilot area (5 CSIs)	105%	142%	115%	99%	100%	Non pilot-area (5 CSIs)	96%	117%	129%	152%	113%		2011	2012	2013	2014	2015	Pilot area (5 CSIs)	15,575	20,732	17,065	18,887	16,624	Non pilot-area (5 CSIs)	22,050	26,581	27,834	29,222	26,299
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<p>(Overall goal) Malaria morbidity and mortality in the Health District of Boboye are reduced.</p>	<p>1. Malaria cases in the District of Boboye decrease.</p> <p>Status of the Achievement: Not achieved. (Ex-post Evaluation)</p> <ul style="list-style-type: none"> <li>- The malaria cases have increased in the District of Boboye including the pilot area. According to DRSP officer, the increase of the rainfall is one of the factors, and no other concrete reasons could be identified.</li> </ul> <table border="1" data-bbox="726 1176 1404 1332"> <thead> <tr> <th></th> <th>2011</th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td>Boboye District (26 CSIs in total)</td> <td>93,218</td> <td>126,356</td> <td>118,777</td> <td>124,441</td> <td>111,953</td> </tr> <tr> <td>Pilot-area (5 CSIs)</td> <td>15,575</td> <td>20,732</td> <td>17,065</td> <td>18,887</td> <td>16,624</td> </tr> </tbody> </table> <p>Note: Figures of malaria cases are the same as those of malaria consultations, as people visit health facilities when their malaria symptoms worsen.</p>		2011	2012	2013	2014	2015	Boboye District (26 CSIs in total)	93,218	126,356	118,777	124,441	111,953	Pilot-area (5 CSIs)	15,575	20,732	17,065	18,887	16,624
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<p>2. Malaria death in the District of Boboye decreases.</p>	<p>Status of the Achievement: Not achieved. (Ex-post Evaluation)</p> <ul style="list-style-type: none"> <li>- The malaria death cases has been on an increasing trend. The death rates have remained mostly same.</li> </ul> <table border="1" data-bbox="726 1512 1404 1624"> <thead> <tr> <th></th> <th>2011</th> <th>2012</th> <th>2013</th> <th>2014</th> <th>2015</th> </tr> </thead> <tbody> <tr> <td>Death cases</td> <td>67</td> <td>80</td> <td>70</td> <td>65</td> <td>83</td> </tr> <tr> <td>Death rates (malaria case/death case)</td> <td>0.07%</td> <td>0.06%</td> <td>0.06%</td> <td>0.05%</td> <td>0.07%</td> </tr> </tbody> </table>		2011	2012	2013	2014	2015	Death cases	67	80	70	65	83	Death rates (malaria case/death case)	0.07%	0.06%	0.06%	0.05%	0.07%
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Source: Terminal Evaluation Survey Report, interview with DS Boboye, DRSP and village COSAN members.

### 3 Efficiency

Both the project cost and period were within the plan (ratio against the plan: 90% and 100%, respectively). Therefore, the efficiency of the project is high.

### 4 Sustainability

#### <Policy Aspect>

Reduction of malaria morbidity and mortality through the community-based malaria control measures are prioritized in the Health Development Plan (2017-2021) and PNLP which is still effective at the time of the ex-post evaluation. Community participation is emphasized also in the “National Strategy of Community Participation in Health” (2016-2020). Furthermore, MSP issued a decree on capacity development and strengthening of CSI with FBR in 2016

#### <Institutional Aspect>

The health administration structure for implementation and extension of the community-based malaria control activities has been the same as that during the project period: PNLP of MSP is responsible for policy development, seeking funding for research and training, financing research and monitoring. DRSP is in charge of policy implementation and coordination for malaria control activities. Actual activities are implemented at each of DS Boboye, CSIs, CS, and the village levels. At DS Boboye, 2 personnel (communicator and epidemiologist) are assigned in the section related to community-based malaria control, but the number is not sufficient to cover the

whole district, according to DS Boboye. At CSIs, on average, 3 personnel (chief, nurse, midwife, etc.) is assigned at each, and the number is sufficient for fulfilling responsibilities including preparation of the integrated plan of community-based malaria control. On the other hand, only 1 health worker is assigned at each CS, and it is not sufficient. At village COSANs, 4 members (president, vice president, secretary and treasurer) are assigned, but the number is not sufficient to conduct all needed malaria control activities. However, they can somehow operate their activities in collaboration with school COGES.

<Technical Aspect>

The personnel of DS Boboye have sufficient knowledge and skills to give training on the model developed by the project, plan and monitor malaria control activities, because they have continuously received basic training from DRSP and some of them had worked in the project. Also, the health workers of CSIs and CS have sufficient knowledge and skills on malaria treatment, as most of them were trained by the project and still receive on-the-job training at their work place, according to the personnel of DS Boboye, DRSP and village COSAN members. On the other hand, members of village COSANs and COGES do not have sufficient knowledge and skills on planning and implementation of malaria control measures, due to the lack of training follow-up from DS, according to CSI COSAN members. As mentioned earlier, the guide on the community-based malaria control is not used as it was during the project period.

<Financial Aspect>

Financial data of DRSP were not available at the ex-post evaluation, but according to DRSP, the budget for malaria control including distribution of LLINs, domestic spraying and treatment of larval habitats has not been sufficient. No financial data were available from DS Boboye, either. DS Boboye answered that the budget related to the community-based malaria control has not been sufficient. As for CSIs and CS, their budget sources are allocation from DS Boboye, patients' payment for medical charges, and donation from the villagers. Their budget has not been sufficient as they do not earn much medical charges as the antenatal care and care of children under five are free of charge. However, DS Boboye and CSI expect this problem will be solved when FBR is widely introduced. At the village level, village COSANs do not manage their own fund except the cost for preparing meals during the general assembly. Instead, members bring materials such as brooms and rakes to conduct malaria control activities.

<Evaluation Result>

In light of the above, several problems have been observed in terms of the institutional, technical and financial aspects of the implementing agency. Therefore, the sustainability of the effectiveness through the project is fair.

5 Summary of the Evaluation

Through the project activities, the guide and modules for the community-based malaria control were developed, and households were equipped with LLINs and more people in the pilot area came to visit health facilities on the day when the onset occurred than before. Since the project completion, the guide has not been distributed to other areas due to the financial constraints. Although reported cases of malaria morbidity and death increased probably due to the increase of the people who visited health facilities, the malaria death rate has not much changed. Regarding the sustainability, the number of the health personnel and technical level for malaria control are not sufficient, but village COSANs can manage the activities in collaboration with school COGESs.

Considering all of the above points, this project is evaluated to be satisfactory.

### III. Recommendations & Lessons Learned

Recommendations to the implementing agency:

- It is recommended to DRSP to secure budget or financial support from donors to print the malaria control guide which was prepared by the project. While it is difficult to assign additional personnel to DS Boboye and CS, distribution and guidance with use of the guide would be much help for diffusion of the project experience to non-target areas.
- It is recommended to MSP to apply FBR so that financial resources would be allocated to CSIs and CS based on their service improvement. It is expected that this will be a motivation for them to provide quality services for malaria control.

Lessons learned for JICA:

- Community-based malaria control activities have been sustained in the target areas, even though the implementing agency including health facilities has not secured personnel and financial resources since the project completion. This has been realized through the project intervention for awareness raising and malaria control activities with direct participation of the households and village committees, such as contests of songs and dramas, radio programs, training for school committees, etc. In countries where institutional and financial sustainability are not easily expected, it is necessary to conduct direct intervention in the beneficiaries' awareness and behavior changes so that the project effects would be entrenched within them.



Interview with village COSAN members during the ex-post evaluation survey at Yeni Village



Cleaning and sanitation session at Kara Village