

Summary of Terminal Evaluation

1. Project Overview	
<u>Country</u> : Republic of Indonesia	<u>Project Title</u> : The Program of Community Development of Fires Control in Peat Land Area
<u>Issue/Sector</u> : Forestry and Nature Conservation	<u>Cooperation scheme</u> : Technical Cooperation
<u>Division in Charge</u> : Forestry and Nature Conservation Group, Global Environment Department	<u>Total cost</u> (as of January 2015): 417 million JPY
<u>Cooperation period</u> : (R/D):12 July 2010 to 11 July 2015 (5 years)	<u>Partner Country's Implementing Organization</u> : General Directorate of Forest Protection and Nature Conservation (PHKA), Ministry of Forestry and Environment
	<u>Supporting Organization in Japan</u> : Forestry Agency
	<u>Related Cooperation</u> : N.A.
1-1. Background of the Project	
<p>Tropical rainforests in Indonesia have been deforested and degraded every year due to forest fires, illegal logging, and etc. In recent years, forest and land fires in Indonesia are recognized as an international issue since haze resulting from forest and land fires reaches the neighboring countries such as Malaysia and Singapore, and causes serious problems to air traffic, human health, and so on. In the context, fires in peat land around the forest areas are urgent issues to be tackled, as they are difficult to extinguish, and generate large amount of CO₂ emission while spreading.</p> <p>In Indonesia, forest fire control policy is under the authority of the Directorate General of Forest Protection and Nature Conservation (PHKA), Ministry of Forestry¹. At the provincial level, Natural Resources Conservation Centers (BKSDA), the local agency of PHKA, supervises the Office of Forest Fire Fighting (DAOPS) and its Forest Fire Control Brigade [(Manggala Agni (MA)²] to control fires in the conservation forests and their buffer zones. At the community level, Anti-fire Community Group (MPA) are organized and expected to contribute to fire prevention outside conservation forests and buffer zones. However, despite frequent occurrence of forest and land fires, the awareness of local communities on fire prevention remains low level even in fire prone areas, since fires, in many cases, do not wreak direct damages on their properties or loss of lives.</p> <p>Meanwhile, Japan International Cooperation Agency (JICA) implemented technical cooperation projects with Ministry of Forestry of Indonesia in the field of forest fire countermeasures during the past 20 years. Through these schemes, various achievement were made: strengthening policy framework through issuance of ministerial and provincial decrees, technical transfer such as development of early detection system utilizing the satellite images, preventing fire from spreading in the national parks, development of fire prevention system, and etc. From 2006 to 2009, "Forest Fire Protection Project by Initiative of People in Buffer Zone (FFPP)", was implemented aiming at supporting the preparation of a forest and land fire control guideline and also strengthening the capacity of villagers for fire control in one site in Riau Province.</p> <p>Although it is widely perceived that preventive measures are effective for peat land fires as they are difficult to extinguish once they occur, it was found out that preventive measures through formation of MPA did not function as expected based on experiences from previous projects.</p> <p>In the wake of these previous project experiences, "The Program of Community Development of Fires Control in Peat Land Area (the Project)" commenced in July 2010 with cooperation period of five years, on the purpose of developing the capacity of organizations and people relevant to fire prevention at peat land. The Project aims the decrease of forest fire (hotspots' number and burning area) in Riau and West Kalimantan Province, through restraining the burning activity in the targeted villages by facilitation activities at the community - level.</p> <p>In January 2015, six months prior to the termination of the cooperation period, Terminal Evaluation was jointly conducted by both Indonesia and Japanese sides to evaluate the Project against five evaluation criteria. The Evaluation also aimed to provide recommendations on the actions to be taken during the remaining cooperation period to secure the sustainability of the Project, as well as drawing lessons useful for technical cooperation schemes in general.</p>	
1-2 Project Overview	
(1) <u>Overall Goal of the Project</u> : "The number of fires and burned area at peat land decreases in the targeted province (West Kalimantan Province and Riau Province)"	
(2) <u>Project Purpose</u> : "Capacity of organization and people concerned to prevent fire occurred at peat land of the Project area is	

¹ Ministry of Forestry and Ministry of Environment were merged into the Ministry of Environment and Forestry in October 2014, and the Presidential Instruction No.16/2015, stipulated that the Directorate General of Climate Change Control would manage forest and land fires within in the Ministry of Environment and Forestry.

² Forest Fire Control Brigade, BKSDA

developed.”

(3) Outputs

- 1) “Methodology for fire prevention collaborating with community within Forest Conservation area and their buffer zones is developed.”
- 2) “Mechanism for fire prevention focusing on community involvement within non-Forest Conservation areas is developed.”
- 3) “Fire control policies focusing on prevention including capacity development plan of DAOPS are improved.”

(4) Inputs (as of Terminal Evaluation (as of Decemver 2014)

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| <p>1) Inputs provided by the Japanese side</p> <ul style="list-style-type: none"> • The inputs of 5 long-term experts (151.5 person-month) • Provision of equipment in the amount of 12.15 million JPY. • Local activity cost in the amount of 146.7 million JPY. |
| <p>2) Inputs provided by the Indonesian side</p> <ul style="list-style-type: none"> • Total 9 Counterpart (C/P) staff • Office space in Ministry of Forestry (MoF) (Jakarta) and in BKSDA (West Kalimantan) • C/P budget in the amount of 18.3 million JPY. |

2. Evaluation Team

Members of Evaluation Team	The Japanese side:	
	<ol style="list-style-type: none"> (1) Mr. Hiroyuki HATORI (Leader) Senior Advisor (Forest Environment), JICA (2) Mr. Mikihiro INOUE (Forest Fire Prevention) Senior Policy Analyst for Overseas Forestry, Forestry Agency, Ministry of Agriculture, Forestry and Fisheries (3) Mr. Yuki OKADA (Planning and Management) Natural Environment Team 1, Global Environment Department, JICA (4) Dr. Hideaki HIGASHINO (Evaluation Analysis) Senior Consultant, RECS International Inc. 	
	The Indonesian side:	
	<ol style="list-style-type: none"> (1) Dr. Lailan Syaufina (Leader) Department of Silviculture, Faculty of Forestry, Bogor Agricultural University (IPB) (2) Mr. Harjanto Wahyu Sukotjo (Member) Former staff of PKH, Ministry of Forestry (3) Ms. Ima Yudin Rayaningtyas (Member) International Cooperation Division, Ministry of Environment and Forestry 	
Period of Evaluation	19 th of January to 6 th of February, 2015 (18 Days)	Type of Evaluation: Terminal Evaluation

3. Results of Evaluation

3-1 Project Performance

Project Purpose: Capacity of organizations and people concerned to prevent fire occurred at peat land of the Project area is developed.

<Indicator 1> The number of villagers who conduct burning in the targeted villages is decreased.

Indicator 1 was achieved. As shown in the table below, the rate of villagers who conduct burning in the target villages reduced from 71.1% to 12.8% in Bengkayan district and from 70.9% to 32.5% in Kubu Raya district.

<Indicator 2> The number of hotspots in the targeted villages decreased.

Indicator 2 was achieved. The average number of hotspots from 2011 to 2014 in the target villages decreased, as compared with the average from 2006 to 2009.

Output 1: Methodology for fire prevention collaborating with community within Forest Conservation area and their buffer zones is developed (Riau Province).

<Indicator 1-1> Number of trained MA facilitators is 180.

Indicator 1-1 has been achieved. During the past four and a half years, the total number of Manggala Agni trainees who participated in at least one of the facilitation trainings reached 654.

<Indicator 1-2> Materials of training and extension activities for forest fire prevention to MA.

Indicator 1-2 has been achieved. The materials of training and extension activities for forest fire prevention were prepared.

<Indicator 1-3> Plans of village fire prevention are authorized in the targeted villages.

Indicator 1-3 was achieved. The three target villages (Dayun, Sungai Rawa and Mengkapan) in Riau Province authorized the village fire prevention plan (map).

<Indicator 1-4> Materials and standards for forest fire preparedness phase (reporting of indication/ outbreaks of fires, information of water sources/ ponds etc.) in the targeted villages.

Indicator 1-4 was achieved. In June 2014, 200 copies of Guideline for Siskamling Forest and Land Fire Control were prepared and distributed to relevant offices in Riau Province under the name of the BKSDA head. In the two target villages mentioned above in Siak District, signboards on fire prevention and water sources were installed by MPA in the areas with frequent occurrence of fire.

<Indicator 1-5> Manuals for MA village activities.

Indicator 1-5 is expected to achieve until termination of the Project. A draft manual for MA village activities, "Joint Patrol Manual for MA and Community for Forest Fire Prevention" was prepared.

<Indicator 1-6> Fire Prevention Action Plan by the targeted BKSDA.

Indicator 1-6 has not been achieved at the time of Terminal Evaluation. In the West Kalimantan Province, the provincial BKSDA held a meeting to formulate an action plan for fire prevention; however, the action was not yet finalized. BKSDA will have another meeting in March 2015.

Meanwhile, preparation of the action plan by the Riau Provincial BKSDA has been suspended as they are waiting for the instructions related to the new Ministry of Environment and Forestry (MoEF) structure.

Output 2: Mechanism for fire prevention focusing on community involvement within non-Forest Conservation areas is developed (West Kalimantan Province).

<Indicator 2-1> Technical guide of village-based fire prevention.

Indicator 2-1 was achieved. The first edition of "Village-based Fire Prevention Handbook (nine volumes)" was prepared in July 2013. The popular edition of the Handbook was printed after revision in March 2014. The Handbook was registered in the National Library of Indonesia with ISBN.

<Indicator 2-2> TPD³ manual with review report.

Indicator 2-2 was almost achieved at the time of the Terminal Evaluation. A draft of "Community-based Village Facilitation Manual for Land and Forest Fire Prevention (draft-2)" is being prepared.

<Indicator 2-3> Number of Villages conducted TPD activities (Maximum 21 Villages).

Indicator 2-3 was achieved at the time of Terminal Evaluation. TPD activities were conducted in the 16 target villages in West Kalimantan Province (6 villages in Bengkayang, and 10 villages in Kubu Raya District).

<Indicator 2-4> TPD manual with review report.

Indicator 2-2 was almost achieved at the time of the Terminal Evaluation. A draft of "Community-based Village Facilitation Manual for Land and Forest Fire Prevention (draft-2)" is being prepared.

<Indicator 2-5> The number of farmers who cultivate with burning in the targeted villages is decreased.

It is considered that the Indicator 2-5 has been achieved. The rate of the farmers who cultivated with burning in target villages decreased from 48.9 % to 15.7% in Bengkayang District and from 62.6% to 30.6% in Kubu Raya District.

<Indicator 2-6> The number and area of fires in the targeted villages are decreased.

At the time of the Terminal Evaluation, data to evaluate the Indicator 2-6 was not available (According to the hearings from stakeholders such as TPD members, they consider that the number of fires in the targeted villages has apparently decreased).

<Indicator 2-7> District fire prevention action plan is adopted.

The status of adoption of district fire prevention action plan could not be verified at the time of the Terminal Evaluation.

Output 3: Fire control policies focusing on prevention including capacity development plan of DAOPS are improved.

<Indicator 3-1> Number of workshops, seminars and meeting at central and provincial levels.

Indicator 3-1 was almost achieved at the time of the Terminal Evaluation. Workshops, seminars, and meetings at the central level were held 39 times.

<Indicator 3-2> Policies on fire controls focusing on fire prevention are stipulated as one of priority area in Mid-term Development Plan/RPJMD of targeted provinces and districts.

Indicator 3-2 has been partly achieved. In the Medium Term Development Plan (RPJMD) of the West Kalimantan and Riau Province, forest and land fire control is regarded as priority issues. In addition, it was confirmed that forest fire control was considered in the Medium Term Development Plan of Kuburaya and Bengkayang District.

<Indicator 3-3> Organization development plan of MA/DAOPS.

Indicator 3-3 was achieved. MA/DAOPS Organization Development Report and database system were prepared.

3-2 Evaluation Results

(1) Relevance: *High*

The Project ensures the consistency with the Indonesian Government Policy, the Japanese Aid Policy/ Strategy and relevance as a means.

(2) Effectiveness: *Relatively High*

The Project Purpose "Development of capacity of organizations and people concerned to prevent fire in peat land in

³ Tim Pendamping Desa (Village Facilitation Team)

the Project area” has been reasonably achieved since TPD activities utilizing the facilitation ability of Manggara Agni is considered to decrease of number of burning practices. Meanwhile, it was confirmed that some indicators of Outputs have not been achieved yet. This fact slightly lowered the evaluation grade of Effectiveness.

(3) Efficiency: *Relatively High*

It was confirmed that both the Japanese and Indonesian sides made appropriate Inputs as a whole, and Outputs were generated reasonably, too. However, the implementing set-up of the Project was not in accordance with the existing situation of forest and land fire incidents in the rural areas of Indonesia. As a result, much time was spent on coordination among the central, provincial and district officials.

(4) Impact:

A number of positive Impacts were observed as described in the subsequent sections. The curriculum and syllabus of the Training of Trainers (TOT) training for Manggala Agni were endorsed by Pusat Pendidikan dan Pelatihan (PUSDIKLAT)⁴. In addition, there is a possibility to adopt the training material prepared by the Project for student’s Community Service (KKN) in Riau university. It is difficult to quantitatively evaluate the prospect of Overall Goal achievements at the time of the Terminal Evaluation.

(5) Sustainability: *Relatively High*

The new Directorate General for Climate Change Control Under MoEF would deal with the forest fires and land fires integrally. It is also expected that the central government will take continuous effort to strengthen the government bodies including DAOPS and the local governments will utilize the Project’s Activities and Outputs.

3-3 Factors that contributed to achievements of goals

(1) Factors relating to Project Design: NA

(2) Factors relating to Implementation Process

- 1) The Japanese Government implemented a series of technical cooperation projects for forest fire management prior to the Project. As a result, in addition to the officially assigned Indonesian C/Ps, many stakeholders in relevant organizations were familiar with the concept of the JICA’s Project and assisted the Project activities implementation.
- 2) Facilitation Training of Manggala Agni was conducted by Forestry Education and Training Office (BDK) and PUSDIKLAT. Both institutes have experienced lecturers and standardized curriculum of the trainings.
- 3) During the implementation of the Project, supporting regulations, such as Presidential Instruction No.16 of 2011 on Enhancement of Forest and Land Fire Control and the Decree of Director General (DG) PHKA No.3 of 2014 on Manggala Agni Organization and Operational Area of Forest Fire Control were issued and contributed to the Project implementation. The Minister of Agriculture also issued the decree No.47 of 2014 on the brigade and guidelines for land and forest fire prevention and control. At local level, Law No. 6 of 2014 on Village was issued for allocation of specific funds for village development, including obligation of local government to develop facilitation team.

3-4 Issues/factors that caused the issues

(1) Factors relating to Project Design

Forest fire control policy is under the authority of DG of PHKA, MoF. However, in reality, most of the forest and land fires occur outside the jurisdiction of MoF, within the jurisdiction of the district government.

Meanwhile, the Project was designed with the central government being as the primary executing agency, and the district governments being the target of the Project activities. The role of central and district government was discussed and understood by the target district governments. However, during the Project implementation, there were changes in the C/P in the target districts, and the duty handover process was not comprehensive.

Under the circumstances, the Project had difficulty with encouraging the district governments to be proactive in the Project activities in order to introduce a practical and effective fire prevention model in the target districts.

(2) Factors relating to Implementation Process

- 1) In districts, budget allocation needs approval by the people’s legislative council (DPRD). This process usually takes time. As such, budget for the Project activities in the target districts could not be obtained in due time, and as a result, affected the progress of the Project.
- 2) The C/Ps in BKSDA were intentionally reshuffled every year/Project phase to allow more BKSDA staff to increase their experience and capacity. However, this practice somewhat hampered the smoothness of the Project operation, as a result.

3-5 Conclusion

As a result of the Terminal Evaluation by the Joint Evaluation Team, the Project was evaluated as highly relevant with Indonesian development policy, Japan’s aid policy and strategy, at the time of Terminal Evaluation. In addition, the other

⁴ Central Education and Training Agency

criteria (Effectiveness, Efficiency and Sustainability) were also relatively high.

The Project Purpose has been reasonably achieved at the time of the Terminal Evaluation. Although some of the indicators were not achieved, it is sufficiently possible to achieve those indicators until the termination of the Project. Based on the results of the evaluation, the Evaluation Team concludes that it is appropriate to terminate the Project as described in the Record of Discussions (R/D), as the Project will fulfill its purpose by the end of the cooperation period.

4. Recommendations

4-1 Recommendations to the Project

(1) Dissemination of the Project's outputs at the Central and Provincial level workshop

The Central and Provincial level workshops will be held until the termination of the Project. The project shall make efforts to disseminate the activities and outputs of the Project to the stakeholders (Both Provincial governments, District offices of Provinces, other Provinces, academics, private sectors and communities) and examine the way of utilization of the outputs after the termination of the Project.

(2) Encouragement of completion of Fire Prevention Action Plan

Fire Prevention Action Plan by B (B) KSDA has not finalized yet both in Riau and West Kalimantan Province. The Project shall continuously encourage to complete the Action Plan until the Project's termination through the discussion with both B (B) KSDA on the perspective of the sustainability of the Project's activities.

(3) Utilization and dissemination of the Result of 5th Social Economic Survey

The 5th social economic survey to find out more appropriate approach of TPD is currently under way. Based on the result of the survey, the Project shall reflect the result to "Village Facilitation Manual for Community-based Land and Forest Fire Prevention" and disseminate to relevant authorities at the Central-level Workshop.

(4) Collaboration with IJ-REDD+⁵ Project

At most seven targeted villages of the Project in Kubu Raya District would be included as the model site of IJ-REDD+ Project. Since the TPD approach contributes to reduce the carbon emission from peat land in the aspect of forest fire prevention, the Project shall collaborate with IJ-REDD+ project on the community development activities (i.e. promoting agroforestry).

(5) Clarification of the target area on Overall Goal

It is recommended to revise the Narrative summary of the Overall Goal to clarify the target area of the Project.

4-2 Recommendations to MoEF

(1) Incorporate the community-based fire prevention approach to the forest and land fire prevention policy

- When considering implementation of the forest and land fire prevention policies by the new organizational structure, the government shall continue to utilize the community-based fire prevention approach of the Project outputs and enhance the community capacity awareness for forest and land fire prevention.

(2) Implementation of training course to Manggala Agni

The facilitation training course for fire prevention to Manggala Agni by the Project had approved as the official curriculum of PUSDIKLAT in 2013. Also BKSDA in other Provinces shall implement the training course.

(3) Completion of Fire Prevention Action Plan

Under the new organizational structure, it is recommended to facilitate the completion of Fire Prevention Action Plan.

(4) Private Sector Partnership

Cooperation mechanism shall be developed for private sector interested in the forest fire prevention activities as part of their Corporate Social Responsibility (CSR) activities in reference to the Minister of Forestry Regulation No. P.85/Menhut-II/2014 on the procedure for cooperation in nature reserves and conservation areas.

4-3 Recommendations to the Governments of the three target Districts

(1) Sharing the experience on forest and land fire prevention

The Districts shall share the experience, activities, and outputs of the Project with other villages in each District that prone to forest and land fire. The Districts could utilize the outputs of the Project in preventing the forest and land fire.

(2) Resource mobilization

The Districts shall enhance the efforts to involve the private sector, NGOs and academic institution to promote the

⁵ Japan - Indonesia Project for Development of REDD+ Implementation Mechanism.

forest and land fire prevention activities.

(3) Securing the budget for TPD approach

Some of the targeted villages continue the TPD activities after the supporting period by the Project (i.e. Sungai Jaga A village in Bengkayang District). To secure the sustainability of the Project's activities, District offices shall secure the necessary budget for the continuation of TPD activities as village facilitation programs by referring to the law of each targeted villages, even after the Project's termination.

4-4 Lessons learned

(1) Importance of the improvement of facilitator's ability

Based on the exercises under past projects, the Project focused more on the community-based approach and improvement of the facilitation ability of Manggala Agni to tackle with forest fire prevention. In addition, Approach by TPD which is composed of Manggala Agni, extension officer of District authorities and village member functioned effectively to decrease the number of burning behaviors in targeted villages. If it is difficult to restrain villager's activity directly, improvement of facilitator's ability is one of the effective measures to change villager's behavior.

(2) Flexible reconsideration of project design

The project design should be flexibly amended in accordance with necessity from the perspective of the implementation of the project under more appropriate framework. For example, MPA was the major target in the initial design of the Project but the Project recognized, in the early stage, that MPA was not the most suitable target actor for forest fire prevention. However, Project Design Matrix (PDM) was not revised until the Mid-term review on February 2013.