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Report No: RES18411

RESTRUCTURING PAPER

ON A

PROPOSED PROJECT RESTRUCTURING  
OF THE

**INDONESIA**  
**SUSTAINABLE MANAGEMENT OF AGRICULTURAL RESEARCH AND**  
**TECHNOLOGY DISSEMINATION PROJECT**

IBRD LOAN 81880  
APPROVED AUGUST 2, 2012

TO THE  
REPUBLIC OF INDONESIA

June 3, 2016

AGRICULTURE GLOBAL PRACTICE  
EAST ASIA AND PACIFIC REGION

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## ABBREVIATIONS AND ACRONYMS

AIAT	Assessment Institute for Agricultural Technology
BB BioGen	Balai Besar Penelitian dan Pengembangan Bioteknologi dan Sumberdaya Genetik Pertanian ( <i>Indonesia Center for Agricultural Biotechnology and Genetic Resource Research and Development – ICABIOGRD</i> )
CD	Country Director
CPF	Country Partnership Framework
EA	Environmental Assessment
IAARD	Indonesian Agency for Agricultural Research and Development
IBRD	International Bank for Reconstruction and Development
IDR	Indonesian Rupiah
IP	Implementation Progress
IRCVS	Indonesian Research Center for Veterinary Science
ISO/IEC	International Organization for Standardization/ International Electro-technical Commission
KKP3I	Kerjasama Kemitraan Penelitian dan Pengembangan Pertanian International ( <i>International Agricultural Research and Development Partnership</i> )
KKP3N	Kerjasama Kemitraan Penelitian dan Pengembangan Pertanian National ( <i>National Agricultural Research and Development Partnership</i> )
KKP3SL	Kerjasama Kemitraan Penelitian dan Pengembangan Pertanian Spesifik Lokasi ( <i>Local Specific Agricultural Research and Development Partnership</i> )
Ln/Cr/TF	Loan/ Credit/ Trust Fund
M&E	Monitoring and Evaluation
MIS	Management Information System
MSc	Master of Science degree
MP3MI	Multi-channel Pengembangan Pertanian Perdesaan Model berbasis Inovasi ( <i>Multi-channel Research, Development and Innovation Model</i> )
MTR	Mid-Term Review
PDO	Project Development Objective
PhD	Doctor of Philosophy degree
SMARTD	Sustainable Management of Agricultural Research and Technology Dissemination
US\$	United States Dollar

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**INDONESIA**  
**SUSTAINABLE MANAGEMENT OF AGRICULTURAL RESEARCH AND  
TECHNOLOGY DISSEMINATION**

**CONTENTS**

A.	SUMMARY	5
B.	PROJECT STATUS	5
C.	PROPOSED CHANGES	7
	Annex Table 1. Revised Disbursement Projections	10
	Annex Table 2. Revised Results Framework Targets	11

**DATA SHEET***Indonesia**Sustainable Management of Agricultural Research and Technology Dissemination (SMARTD)  
(P117243)**EAST ASIA AND PACIFIC**Agriculture*

Report No: RES18411

<b>Basic Information</b>									
Project ID:	P117243			Lending Instrument:	Specific Investment Loan				
Regional Vice President:	Victoria Kwakwa			Original EA Category:	Partial Assessment (B)				
Country Director:	Rodrigo A. Chaves			Current EA Category:	Partial Assessment (B)				
Senior Global Practice Director:	Juergen Voegelé			Original Approval Date:	02-Aug-2012				
Practice Manager/Manager:	Nathan M. Belete			Current Closing Date:	30-Sep-2017				
Team Leader(s):	Indira Janaki Ekanayake								
Borrower:	REPUBLIC OF INDONESIA								
Responsible Agency:	Indonesian Agency for Agricultural Research and Development (IAARD)								
<b>Restructuring Type</b>									
Form Type:	Short Form			Decision Authority:	CD Decision				
Restructuring Level:	Level 2								
<b>Financing ( as of 26-Apr-2016 )</b>									
<b>Key Dates</b>									
Project	Ln/Cr/TF	Status	Approval Date	Signing Date	Effectiveness Date	Original Closing Date	Revised Closing Date		
P117243	IBRD-81880	Effective	02-Aug-2012	12-Sep-2012	25-Oct-2012	30-Sep-2017	30-Sep-2017		
<b>Disbursements (in Millions)</b>									
Project	Ln/Cr/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P117243	IBRD-81880	Effective	USD	80.00	80.00	0.00	30.94	49.06	39

<b>Policy Waivers</b>		
Does the project depart from the CAS/CPF in content or in other significant respects?	Yes [ ]	No [ X ]
Does the project require any policy waiver(s)?	Yes [ ]	No [ X ]

**A. Summary of Proposed Changes**

The proposed changes are: (a) Extension of the Project closing date by 21 months until June 30, 2019; and (b) Budget neutral reallocation of the loan proceeds among Disbursement Categories - modifications of some budget allocations and output targets of each project Component without affecting the contribution to the Project Development Objective (PDO) but modifying some of the types of activities which include: (i) Component A - Development and Management of Human resources: modification of the distribution of Post graduate degree training at Master of Science (MSc) level (S2) and Doctor of Philosophy (PhD) level (S3) and allocations of studentships, as well as the fund allocation between Scientific exchanges, Conferences and Workshop attendance; (ii) Component B - Improvement in Infrastructure and Facilities: savings on construction costs due to modest design changes are to be reallocated for the renovation and improvement of newly elected Indonesian Agency for Agricultural Research and Development (IAARD) laboratories and IAARD field stations; (iii) Component C - Research management and Policy Support: Intensification of new international and strategic collaborative research programs; and (iv) Component D - Project Management and Monitoring and Evaluation: additional budget allocation for management costs that would be required for the additional 21 months within the extension period.

**B. Project Status**

The Project Development Objective (PDO) is to improve the institutional capacity and performance of the Indonesian Agency for Agricultural Research and Development (IAARD) to develop and disseminate relevant and demand-driven innovative technologies, meeting the needs of producers and of the agri-food system. The project is a US\$100 million investment (US\$80 million IBRD loan, 8188-ID and US\$20 million from the national budget) to be implemented over 5-years. It became effective on October 25, 2012. The mid-term review was held from March 16 to 28, 2015 and recommended restructuring to address the initial disbursement delay, continuing slow disbursement and implementation lags.

Currently the Project is rated as moderately satisfactory for both contribution to the Project Development Objective (PDO) and Implementation progress (IP). The Project had an initial slow start and slower than expected rate of implementation and was rated as moderately unsatisfactory (a problem project) for about 10 months. After addressing procurement and monitoring and evaluation issues as well as (M&E) and positively responding to issues identified in an Action Plan the project was recently upgraded. Project safeguards ratings are moderately satisfactory. There is no outstanding audit report and financial audit report for the project. This is the first restructuring and the first extension of closing date for this Project.

The proposed Project restructuring addresses the agreed modifications of the project activities, during the Mid-term Review (MTR) and subsequent implementation support missions, which

include the addition of IAARD laboratories and field stations in new locations and budget allocations to enhance implementation effectiveness and efficiency gains. Proposed changes will also ensure that the PDO is achieved during the 21-month extended implementation period. Furthermore, the proposed modifications are in line with the changes in the Government Policy directions and priorities since the project was designed in 2011 and that of the World Bank's Indonesia Country Partnership Framework (CPF) for 2015 to 2018/19 period addressing the agriculture sector investments.

The specific Project progress milestones to date are: (i) Overall Progress - the completed contracts of the Project up to the end of 2015 period are valued at USD20.1 million and the physical contracts signed and committed up to April 30, 2016 are valued at USD8.23 million; (ii) the Project implementation is moderately satisfactory; and (iii) Component Level activity progresses include the following:

Component A. Development and Management of Human resources - Since the beginning of the project in October 2012, and after overcoming some initial challenges, 59 MSc (11 researchers, 4 men and 7 women have completed in 2015 and returned to their offices) and 39 PhD candidates are studying abroad; 5 students on sandwich programs; 194 scientists have participated in Post-Doctoral, Scientific exchanges and/ or Visiting scientist activities; 73 IAARD staff have attended a seminar, conference or workshop; 220 attended either a management or professional/ technical training and 80 young scientists have participated in the Staff Mobility System ('detaching' program) under the tutelage of 18 mentors; a consultant firm was recruited and mobilized to formulate higher learning contacts with respected universities abroad; and IAARD has linked strategic staffing needs as spelled out in the Grand design on Human resource Development and IAARD's projected needs for the 2019/20 period. To date, 85 peer reviewed scientific articles have been published;

(b) Component B. Improvement in Infrastructure and Facilities - All the construction contracts from the Annual Work Plan 2013 were completed; with the exception of completion of the construction work of Gene Bank at Indonesia Center for Agricultural Biotechnology and Genetic Resource Research and Development – ICABIOGRD (BB BioGen) related to electro mechanical work that was re-tendered in 2015 and expected to be completed this year. The IAARD Working Group on Infrastructure and Facilities has drafted a Grand Design which will also be used for SMARTD project activities. The Grand design proposes establishment of 4 geographical zones to facilitate coordination and improved efficiency of laboratory use in the Indonesian research and innovation system. Of the 146 laboratories, 40 of which meeting requirements for accreditation of their management system following International Organization for Standardization/ International Electro-technical Commission (ISO/IEC) 17025. During the period of 2015-2018, 17 IAARD laboratories are expected to be processed for accreditation; between 2015 -2016, six additional laboratories were accredited or were certified for accreditation and those include (i) AIAT West Java and (ii) AIAT Central Java laboratories accredited as testing laboratory for ISO 17025, (iii) IAARD lab Indonesian Research Center for Veterinary Science (IRCVS) accredited as a reference laboratory for proficiency test services under ISO 17043; plus three laboratories approved by the Technical Committee for ISO 17025 accreditation by April 18, 2016, which are Indonesian Palma Research Institute, AIAT of Riau and the Soils Research Institute;

(c) Component C. Research management and Policy Support - Excellent progress has been made with the establishment of 330 and 215 collaborative research projects with 43 partner institutions including international research institutes that are either on-going or are finalized under the two competitive research grant funds, National Agricultural Research and Development Partnership (KKP3N) and Local Specific Agricultural Research and Development Partnership (KKP3SL), respectively. Numerous outputs from KKP3N and KKP3SL programs included varieties, prototypes, patents and publications. The guidelines for the international collaboration fund of the International Agricultural Research and Development Partnership (KKP3I) have been finalized and more than 20 collaborative activities have been established. The total number of research and dissemination collaborations established in 2016 are 117. The Multi-channel Research, Development and Innovation Model (MP3MI) dissemination schemes covering 13 areas in 2015 have included 7,073 hectares of technology adoption, in good collaboration between IAARD institutions and farmers. In order to address weak adoption of this system by the local governments a new system was proposed to begin in April 2016. Lastly, 29 licensed technologies and royalties of up to 894 million rupiahs were reported under the commercialization of the products of research; and

(d) Project Management and Monitoring and Evaluation - Project staffing is adequate and project management unit members have a good understanding of SMARTD concepts. A single operative system for monitoring of the Project and IAARD monitoring and evaluation / Management Information System (M&E/MIS) systems have been established and their full implementation is in progress.

### **C. Proposed Changes**

#### **Financing**

##### **Change in Loan Closing Date(s):**

##### Explanation

The proposed changes across activities under all four components as described in the reallocation section below are possible without an increase in the overall project budget given the following reasons: (a) The Indonesian Agency for Agricultural Research and Development (IAARD)'s decision to have more modest designs for rehabilitation or new construction of buildings and facilities provide an important cost saving on the construction costs under the Component B (Infrastructure development); (b) Increasing the number of potential MSc candidates is possible as the number of PhD candidates are reduced since the period and cost for MSc studies is much less than that for PhD studies. It also gives due consideration that PhD studies require at least three but on average 4 years of study meaning that insufficient time is available to send many candidates to allow them to finish before loan closing date; (c) Changing Policy Environment and IAARD Strategy especially with the focus of the new Government on all aspects related to priority commodities, which include rice, corn, soybean, sugarcane and beef; and (d) The currency appreciation of the US Dollar against Indonesian Rupiah (1 US\$ = 9,000 IDR in 2012 versus 1 US\$ = 12,000 IDR in 2015 and 13,100 in 2016, which provided important savings across the Components and activities of the project.

Ln/Cr/TF	Status	Original Closing Date	Current Closing Date	Proposed Closing Date	Previous Closing Date(s)
IBRD-81880	Effective	30-Sep-2017	30-Sep-2017	30-Jun-2019	
<b>Reallocations</b>					
<p>Explanation</p> <p>The proposed changes to the Disbursement Categories I, II, and III are given below.</p> <p>1. Disbursement Category I on "Training Scholarships and Training Awards for the Project (Parts A.1(a) and (b))" :</p> <p>The initial allocation of Category I, which was USD 39.53 million, is proposed to be reduced to USD 22.81 million. This budget reduction is due reductions in the proposed number of participants for the PhD programs and the number of workshops/seminars. The PhD program participants are reduced due to the limited number of qualified participants ready to pursue overseas PhD programs. In addition the new PhD students not currently enrolled in a graduate program under this component will no longer be supported through the project, given that such students will not likely be able to complete the degree programs before the revised closing date of the project. The reduction of the number of workshops/seminar participants is due to the current government policies on reduction of overseas traveling costs associated with such participation. The unused proceeds of the loan proceeds under Category I is proposed to be reallocated to Category II and III as described below.</p> <p>2. Category II "Goods, works, non-consulting services, and Training for Part B of the Project":</p> <p>The initial allocation for Category II is USD 34.03 million, which is proposed to be increased to USD 43.71 million. This increase in the Category allocation is proposed to improve 28 additional IAARD laboratories (buildings and equipment) and 18 additional IAARD's field experimental stations, which were not included in the initial plan. This change to include additional laboratories and sites are in accordance with the changes of the Government policy on priority crops and station responsibilities under the new mandates and national coverage.</p> <p>3. Category III "Research Funds for the Project (Part C.2 of the Project)":</p> <p>Initial allocation of the Category III was USD 5.6 million, which is proposed to be increased to USD 12.63 million. The category III funded activities of the project component 3 are the most advanced in implementation with successful outcomes. This category has also demonstrated that it has the necessary mechanisms in place to scale up its activities. The proposed increase is intended to: (a) intensify the existing research collaborations, and (b) develop new research networking within the country and outside the countries under the revised policies of the Government and IAARD mandate.</p>					
Ln/Cr/TF	Currency	Current Category of Expenditure	Allocation	Disbursement % (Type Total)	

			<b>Current</b>	<b>Proposed</b>	<b>Current</b>	<b>Proposed</b>
IBRD-81880	USD	8188-TR.A1a&b,Non-CS,TR.A NOT A3b&c	39,525,000.00	<b>22,810,000.00</b>	100.00	100.00
		IBRD81880 - GDS,WO,NON-CS & TR PT.B	34,025,000.00	<b>43,710,000.00</b>	100.00	100.00
		IBRD81880 - RESEARCH FUNDS PT.C2	5,600,000.00	<b>12,630,000.00</b>	100.00	100.00
		IBRD81880 - CONSERV for Part D.2	850,000.00	850,000.00	100.00	100.00
		Designated Account	0.00	0.00	0.00	0.00
		<b>Total:</b>	80,000,000.00	80,000,000.00		

<b>Other Changes</b>
Explanation

Given the expanded project implementation period from September 2017 to June 2019, the proposed disbursement projections and the milestone targets of the Results Framework have been updated accordingly. The revised disbursement schedule and the revised Results Framework are indicated in Annex Table 1 and 2 respectively.

**Annex Table 1. Revised Disbursement Projections**

Category	Cost Tab	Actual Expenditures up to March 08, 2016	Remaining Loan	Projected Expenditures 2016-2019 *)	Projected Expenditures			
					2016	2017	2018	2019
<i>I. Training Scholarships and Training Awards for the Project (Parts A.1 (a) and (b) of the Project respectively) and non-consulting services and training for Part A of the Project except for Parts A.3</i>	39,53	6.98	32.55	15.83	3.76	4.55	4.22	3.30
<i>II. Goods, works, non-consulting services, and Training for Part B of the Project</i>	34,02	13.97	20.06	29.74	16.09	6.93	6.72	-
<i>III. Research Funds for the Project (Part C.2 of the Project)</i>	5,60	3.63	1.97	9.0	1.36	3.69	3.95	-
<i>IV. Consultants service for Part D.2 of the Project</i>	0,85	0.11	0.74	0.74	0.10	0.27	0.30	0.07
<b>Total</b>	<b>80</b>	<b>24.69</b>	<b>55.31</b>	<b>55.31</b>	<b>21.31</b>	<b>15.44</b>	<b>15.19</b>	<b>3.37</b>

Remark: \*) based on new allocation.

Category I. refer for Part A of the Project Except for Parts A.3(b) and (c) of the Project

**Annex Table 2. Revised Results Framework Targets**

Project Development Objective (PDO): To improve IAARD's institutional capacity and performance in developing and disseminating innovative, demand-driven and relevant technologies, meeting the needs of producers and agri-food industries.													
PDO Level Results Indicators*	Unit of Measure	Base-line	Cumulative Target Values**							Data Source/ Method.		Responsibility for Data Collection	Definition and Standard
			Y1 2013	Y2 2014	Y3 2015	Y4 2016	Y5 2017	Y6 2018	Y7 2019	Freq.			
P1: Percent of farmers that have adopted IAARD research results, disaggregated by gender.	Percentage	30	30	35	40	45	47	48	50	Baseline, Endline	Field Survey	ICATAD and PMU	1. The survey will cover technologies disseminated under mP3MI activities financed by SMARTD using a census method; 2. Respondent ( Farmers / adopters ) : a. farmers who implement technology in the target area of each mP3MI consisting of : (a) farmers directly involved in mP3MI (received direct guidance and production inputs from AIAT's researchers/ extension staff) or called " farmer co-operators" who represent Farmer Group (s) in the target area of mP3MI; (b) other members of Farmer Group (s) who do not receive direct guidance and production inputs from AIAT's researchers/ extension staff. They received their knowledge and skills from " farmer co-operators". The total population is number of farmers having the same interest with "farmer co-operators" joined in a group; b. farmers located outside the target area of mP3MI (spill over). <i>Note: To calculate percentage of the total adopters :</i>  $\frac{\# \text{ adopters in targeted area } * 100}{\text{Total pop in targeted area}}$ Remark: adopters in spill over is noted as additional information
a. men	90	27	27	31.5	36	40.5	42.3	43.2	45				
b. Women	10	3	3	3.5	4	4.5	4.7	4.8	5				
P2: Number of technologies developed and/or refined and that are disseminated to users.	Number	32	32	42	52	60	64	68	72	Annual	IAARD MIS	IAARD Planning Department & PMU	1. Technology disseminated will be generated when conducted a survey to measure P 1; 2. Technology disseminated by AIATs will be recorded in a system annually

P3: Number of publications in internationally peer-reviewed journals on agricultural R&D results developed by the IAARD system.	Number	9	9	17	25	30	35	38	41	Annual	IAARD MIS	IAARD Planning Department & PMU	<ol style="list-style-type: none"> <li>1. Definition of peer-reviewed journals : an article which is reviewed by reviewers from at least from 3 countries;</li> <li>2. Scope : articles produced by KKP3N, KKP3I, KKP3SL, participants of overseas degree training, post-doctoral program, Scientific Exchange</li> <li>3. Source of data : Division of Cooperation Affair, IAARD</li> </ol>
P4: Percentage of external funding in IAARD research budget.	Percentage of IAARD's research budget	3.8	3.8	5.0	7.5	8.5	10.0	11.0	12.5	Annual	IAARD MIS	IAARD MIS & PMU	This will be limited to extra funding included in the budget document of IAARD (DIPA) received from outsider. External funding consisted of PNB, grand, APBD, dan APBN non IAARD
<b>INTERMEDIATE RESULTS</b>													
<b>Component A: Intermediate Outcome Indicators</b>													
A1: Percent of IAARD staff that are researchers.	Percentage of staff	25.23	27.00	28.5	30.0	31.5	32.0	32.5	33.0	Semi-annual	IAARD MIS	PMU	Researchers are defined as researchers and engineers. Source of data : Personnel Division, IAARD
A2: Number of IAARD researchers trained in MSc and PhD programs.	Number	1474	1497	1514	1597	1605	1610	1615	1624	Semi-Annual	IAARD MIS	PMU	Researchers (defined as above) who completed tertiary and post-graduate studies at a recognized institution either domestically or internationally. Source : Personnel Division, IAARD
<b>Component B: Intermediate Outcome Indicators</b>													
B1: Number of laboratories supported under SMARTD accredited and/or certified nationally and internationally.	Number of laboratories	15.0	17.0	17.0	17.0	18.0	19.0	20.0	21.0	Semi-Annual	IAARD MIS	PMU	Laboratories are accredited with ISO 17025
B2: Number of experimental stations supported under SMARTD certified nationally and internationally.	Number of experimental stations	0	0	0	3	4	5	6	8	Semi-Annual	IAARD MIS	PMU	Experimental stations that are certified for management called ISO 9001
B3: Number of laboratories supported under SMARTD involved in international research networking.	Number of laboratories	0	0	0	6	7	8	9	10	Semi-Annual	IAARD MIS	PMU	Laboratories that receive formal funding from internationally recognized research institutions under a formal MoU. However, budget might not be included in P4 if it is not included in DIPA. Networking is not necessary to provide fund directly to IAARD

Component C: Intermediate Outcome Indicators													
C1: Number of national and international research collaborations.	Number (Use RENSTRA)	181	181	264	339	534	560	600	668	Semi-Annual	IAARD MIS	PMU	Formal collaborations that are recognized by both SMARTD and the partner institutions and that have formalized MoU's/contracts in place (KKP3I, KKP3N)
C2: Number of inventions that have IPR patented or are licensed to industries.	Number of patents (Use Renstra)	29	29	31	33	34	35	36	37	Semi-Annual	IAARD MIS	PMU	only include IPR
C3: IAARD Annual Program takes into account the results of the program and budget priority setting developed under SMARTD.	Dichotomous (Yes/No)	No	No	No	No	No	Yes	Yes	Yes	Annual	IAARD MIS	PMU	It will be applied at selected SATKERS and gradually increase in number of SATKERS within IAARD
C4: Number of dissemination areas under the Multi-Channel Dissemination Program.	Number	A	A+0	A+10 %	A+27%	A+30%	A+33%	A+35%	A+40%	Semi-annual	ICATAD MIS	ICATAD & PMU	This will only include number of target areas of mP3MI It will be measured during survey for indicators F1 and F2

Note: A3 (Percent of IAARD budget dedicated to research) should not be included (omitted) because all funds in IAARD used to support the activities of research funding