

Country Name	The Project for Increasing the Capacity of Integrated Management in Irrigated Agriculture in Dry Zone
The Democratic Socialist Republic of Sri Lanka	

I. Project Outline

Background	<p>The dry zone in Sri Lanka covers about 70% of the total land area and contributes to about 80% of the national rice production. In the area, many small- and medium-scale farmers remained at low income level, had very limited employment and income opportunities in non-agriculture sector. Their livelihood depended largely on irrigated paddy cultivation; however, they faced problems such as low rice productivity, poor operation and maintenance of irrigation facilities, and inefficient water management.</p> <p>In order to address these problems, it was necessary to introduce an integrated improvement approach that combined measures for (i) reducing production cost, (ii) increasing land productivity by improving water use efficiency, (iii) diversifying agricultural production by introducing non-rice crops, and (iv) increasing crop productivity by strengthening farmers organizations (FOs) including regimentation of FOs, collectivization of land use, and cooperative marketing.</p> <p>Under these circumstances, JICA carried out “the Study on Increasing the Capacity of Integrated Management in Irrigation Sector” from 2005 to 2006 in Anuradhapura, Kurunegala and Puttalam districts, which identified major problems and countermeasures for irrigation, agronomy and marketing and processing in the area, and recommended a plan of action to increase the capacity of government officials and FOs for the integrated management in irrigated agriculture. In order to put the plan in practice, the Government of Sri Lanka requested to the Government of Japan to carry out a new technical cooperation project.</p>												
Objectives of the Project	<ol style="list-style-type: none"> Overall Goal: Agricultural income of the farm families in the target area is increased. Project Purpose: An integrated mechanism ^(Note 1) is established to improve agricultural productivity through capacity building of government officers and FOs ^(Note 2) <p>(Note 1) An integrated mechanism means “A participatory process through which the officers and the institutes trained by the project shall disseminate training/facilitation skills to the other officers and institutes for capacity building of FOs in order to achieve the overall project purpose”.</p> <p>(Note 2) Farmers and farmer organizations (FOs) are the final beneficiaries of this project and each FO of the three model sites has formed four sub-committees including (i) paddy sub-committee, (ii) irrigation and water management subcommittee, (iii) livestock sub-committee and (iv) homestead sub-committee. FOs receive the technical support from the government officers on various method/technologies, skills and knowledge of four component of irrigation agriculture introduced by the project.</p>												
Activities of the project	<ol style="list-style-type: none"> Project site: Anuradhapura District and Kurunegala District Model site: (i) Kadurgasdamana Medium Irrigation Scheme (Anuradhapura District), (ii) Rajanganaya Major Irrigation Scheme (mainly in Anuradhapura District) and (iii) Kimbulwanaoya Major Irrigation Scheme (Kurunegala District) Main activities: training of government officers of Ministry of Irrigation and Water Resources Management (MIWRM), other related government agencies and farmers on management of farmers organizations (FOs), irrigation facilities and water management, agricultural production, marketing and processing. Establishing a mechanism to disseminate improved training/facilitation skills developed in the model sites to other irrigation sites through formulated manual/guidelines. Inputs (to carry out above activities) <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;">Japanese Side</td> <td style="width: 50%;">Sri Lankan Side</td> </tr> <tr> <td>(1) Experts: 4 persons</td> <td>(1) Staff allocated: 129 persons</td> </tr> <tr> <td>(2) Trainees received: 17 persons</td> <td>(2) Land and facilities: project office. ancillary facility</td> </tr> <tr> <td>(3) Equipment: vehicles, survey equipment, office equipment</td> <td>(3) Local cost: salaries to counterpart personnel, travel cost</td> </tr> </table> 					Japanese Side	Sri Lankan Side	(1) Experts: 4 persons	(1) Staff allocated: 129 persons	(2) Trainees received: 17 persons	(2) Land and facilities: project office. ancillary facility	(3) Equipment: vehicles, survey equipment, office equipment	(3) Local cost: salaries to counterpart personnel, travel cost
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Ex-Ante Evaluation	2007	Project Period	June 2007 – May 2011	Project Cost	Ex-ante: 350 million yen Actual: 252 million yen								
Implementing Agency	Ministry of Irrigation and Water Resources Management (MIWRM)												
Cooperation Agency in Japan	Ministry of Agriculture, Forestry and Fisheries												

II. Result of the Evaluation

<Issues to be considered at ex-post evaluation>

- Understanding of the project purpose: Just before the project completion, the project proposed the “ICIM Project Dissemination Framework” as an output of Outcome 5 “A mechanism is proposed for the government officers and training institutes to disseminate the improved training/facilitation skills developed in the model sites, to other officers and institutes”. Therefore, it should be understood that the project expected to extend the project outcomes to other irrigation schemes in the two target districts through ICIM Project Dissemination Framework.
- Modification of indicators for the overall goal: The original indicators for overall goal set at the ex-ante evaluation were modified at the mid-term review considering its causal relationship between the indicators and the scope of the project.
- Understanding of methodology to verify the achievement of overall goal:

- In order to clarify the direct contribution of the project to dissemination of knowledge and skills of irrigation agriculture of the project outside of the 3 model sites, this ex-post evaluation defines the criteria to satisfy “Establishment of the system to increase the agricultural income of the farm families and agricultural productivity in the target area” as below:
 - whether knowledge and skills of irrigation agriculture introduced by the project are disseminated to the target area;
 - whether one or more components of the knowledge and skills of irrigation agriculture of the project are implemented/practiced or tried out by the farmers in the target area; and
 - whether increase in agricultural income and productivity in the target area is observed to some extent.
- “The target area” is primarily six (6) irrigation sites (i.e. 2 sites at Nachachaduwa scheme, 2 sites at Rajangana scheme, 1 site at Periyakulama scheme and 1 site at Maha Nanneriya scheme) that were identified for dissemination of knowledge and skills of irrigation agriculture of the project at the time of project completion.
- Since it is difficult to determine contribution and attribution of the project to increase in agricultural income and productivity because they are often influenced by the external factors such as inflation and price fluctuation of agricultural products in the market, this ex-post evaluation will not put an importance on the figure of 25%.

1 Relevance

<Consistency with Development Policy of Sri Lankan Government at the time of ex-ante evaluation and the project completion>

This project was consistent with Sri Lankan development policy of achievement of economic prosperity and poverty alleviation through agricultural development as set forth in the policy documents including the 10-Year Development Plan (Mahinda Chintana) (2006-2016).

<Consistency with Development Needs of Sri Lanka at the time of ex-ante evaluation and the project completion>

This project met the development needs of Sri Lanka to improve agricultural productivity and irrigation water use efficiency through capacity development of farmers’ organizations.

<Consistency with Japan’s ODA Policy for Sri Lanka at the time of ex-ante evaluation>

The project was consistent with Japan’s Country Assistance Program for Sri Lanka (prepared in April 2004) to prioritize to support assistance plan based on the medium- and long-term development vision including development of agriculture and fisheries, and participatory development emphasizing on poverty alleviation.

<Evaluation Results>

In the light of above, the relevance of this project is high.

2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the time of project completion>

The project purpose was achieved by the project completion. Regarding the satisfaction level on the training by the project, it was 99% for the trained officers and 100% for the trained farmers in the model sites, which fully met their target values. The results of the capacity assessment of the FOs in the model sites conducted at the terminal evaluation indicated a considerable degree of improvement at each model site, and they fully met their target value. For dissemination of the integrated mechanism developed by the project, ICIM Project Dissemination Framework¹ was formulated by the project. In this framework, the function of the Training Advisory Committee (TAC) was identified. In April 2011, the National Joint Coordination Committee (NJCC) revised the constitution of TAC in order that TAC would functions continuously after project completion. As a result, an integrated mechanism was established for capacity building of FOs in the model sites.

<Continuation Status of the Project Effect at the time of ex-post evaluation>

After the project completion, FOs and farmers of the model sites have been utilizing the knowledge and skills of the four components of irrigation agriculture introduced by the project such as (i) management of FOs, (ii) irrigation facility and water management, (iii) agricultural production, and (iv) marketing and processing.

FOs in the model sites have been managed by respective office bearers effectively in both financial and general management aspects. All the financial and other records of FOs are well maintained and available with them. FO meetings and executive committee meetings are conducted in a frequent manner to solve their issues pertaining to farming. The annual general meetings have been conducted with 85% attendance in Kimbulwanaoya and Rajanganaya. Membership is maintained at the same level except in Kadurgasdamana with small reduction in number of members. Kimbulwanaoya maintained 165 original members, while Kadurgasdamana reduced its members from 80 to 63. The farmers in the model sites have practiced appropriate techniques introduced by the project such as parachute method of paddy cultivation, which supported to increase crop productivity especially in paddy in one of three model sites. The crop diversification took place in the model sites from paddy to other field crops (OFC) in order to reduce the income risk caused by natural disasters as well as to create value-added agricultural products, and upland vegetables, ginger and fruit crops such as banana, papaya, lime and orange were produced. Skills and knowledge on efficient water management introduced by the project contributed to increase the cropping period overcoming water shortage during dry season. The knowledge gained through the project helped and encouraged dairy farmers to increase productivity and increase number of milking cows accordingly. In Rajanganaya, the average milk productivity increased from 4.5 liters/day in 2007 to 6.0 liters/day in 2014. In Kadurgasdamana, it increased from 3.5 liters/day in 2007 to 4.0 liters/day in 2014. In Kimbulwanaoya, number of cows increased from 20 to 85 in 2015. Increase of lactating length and drastic decrease of calving interval in Kimbulwanaoya is a good example to show utilization and continuation of the given skills fully in livestock development. In Kimbulwanaoya, the lactating period increased from 180 days in 2011 to 220 days in 2014, and calving intervals decreased from 18 months in 2011 to 14 months in 2014. Regarding the marketing, the milk collecting system introduced by the project has been functioning, while the paddy farmers sell their agricultural products directly to private traders without processing.

The government field officers are providing continuous facilitation and technical guidance to the farmer community in all three model sites based on the requirements of the famers. Strong relationship with the government officers and farmers is continued and services are

¹ In ICIM Project Dissemination Framework, a project coordinator, deputy project coordinators, and supporting staff are assigned to support activities and training at irrigation schemes/sites and to coordinate with related government agencies. ICIM Project Dissemination Framework is supported by Advisory and Monitoring Committee (AMC) and Training Advisory Committee (TAC). The ICIM dissemination coordination office was to be located at the Irrigation Training Institute (ITI). AMC monitors and supervises the activities in ICIM Project Dissemination Framework, while TAC mainly supports and monitors the training programs organized by ITI. Now the functions of AMC and TAC were absorbed in to Productivity Enhancement Division of Department of Irrigation based in Colombo.

provided whenever necessary. The government line agencies who took part in the integrated mechanism are allocating their own budget to implement relevant trainings.

<Status of Achievement of the Overall Goal at the time of ex-post evaluation>

The overall goal was partially achieved. JICA Sri Lanka Office employed four national experts of the project continuously for two years after project completion from 2011 to 2013 to support the activities of the project coordinator of ICIM Dissemination Framework for its coordination works to disseminate the integrated mechanism to other six (6) irrigation sites in Anuradhapura and Kurunegala districts in addition to the three model sites. As a result, capacities of FOs were strengthened in the other six dissemination sites and they have introduced and/or tried to implement one of the four components of irrigation agriculture introduced by the project with the knowledge and skills provided by the trained extension officers. Department of Irrigation (DOI) has been further disseminating the four components of irrigation agriculture of this project to another seven (7) irrigation sites called as expansion sites in the two districts.

Regarding the agricultural productivity and incomes in the three model sites, farmers in Kadurugasdamana model site increased the paddy productivity, while other model sites maintained a same level of agricultural productivity as in 2011. Income came through paddy cultivation and dairy farming has been significantly increased in all three model sites. While it was difficult to verify changes in the agricultural productivity and incomes in additional six irrigation sites due to lack of information. According to the interview with farmers, farmer leaders and extension officers, they perceived that dissemination of four component of irrigation agriculture of the project contributed to increase farmer's production, productivity and income.

It is considered that the above positive results were attributed not only to the continuous efforts of the implementing agency but also to the several external factors such as (i) increase in the guaranteed prices of the government for paddy and fresh milk, (ii) improvement and upgrading of rice mills and establishment of OFC grinding mills and private sector owned milk collection networks and chilling centers in the target area, and (iii) the on-going government agriculture development programme such as "Divi Neguma²".

As mentioned above, (i) it was confirmed that knowledge and skills of irrigation agriculture introduced by the project were disseminated to other six (6) irrigation sites in the two districts, (ii) it was confirmed that at least one component of the knowledge and skills of irrigation agriculture of the project were introduced and/or tried to implement by the farmers in the other six (6) irrigation sites, and (iii) one of three models site increased its paddy productivity and others remained same, and all three model sites increased the agricultural income though there were contributions by external factors. Based on the above finding, it could be concluded that a system to increase the agricultural productivity and income of the farm families was established at least in the three model sites. However, it would take longer time to spread this outcome to entire areas of the target two districts.

<Other Positive and Negative Impacts>

The project has positive impact on financial status of FOs in the model sites. By the support and guidance from the extension officers, the financial positions of FOs became stable as they improved the financial management capacity and generated a stable revenue source from the membership fees, "Salaris"³, loan interests of revolving funds and commissions received from "outside" contracts including community contracting system (CCS) introduced by the project.

<Evaluation Results>

The project purpose was achieved, the project effects have been continued, the overall goal was partially achieved, and no negative impact was observed. Therefore, effectiveness/impact of the project is fair.

Achievement of project purpose and overall goal

Aim	Indicators	Results																
(Project Purpose) An integrated mechanism is established to improve agricultural productivity through capacity building of government officers and farmer organizations (FOs).	(Indicator 1) Degree of satisfaction among the trained officers is at least 50%.	<u>Status of achievement: achieved</u> (Terminal evaluation) • As for the trained government officers, their degree of satisfaction on the training was 99%.																
	(Indicator 2) Degree of satisfaction among the trained farmers in the model sites with the trainings and extension services is at least 50%	<u>Status of achievement: achieved</u> (Terminal evaluation) • As for the trained farmers, their degree of satisfaction on the training was 100%.																
	(Indicator 3) Results of the Capacity Assessment of the FOs in the model sites is improved at least by 25%	<u>Status of achievement: achieved</u> (Terminal evaluation) • The results of the Capacity Assessment of the FOs (Note 3) in the model sites have shown a considerable degree of improvement.																
	(Indicator 4) Training Advisory Committee (TAC) functions continuously with the assistance of the	<u>Status of achievement: achieved</u> (Project completion) • The function of TAC was identified in ICIM Project Dissemination Framework. • The composition of TAC was revised by the National Joint Coordination																
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² The objective of this programme is to improve the people's living standards by strengthening household economy and minimizing the dependency on the market for their day to day requirements for consumption through agriculture, livestock, fisheries and enterprise development.

³ Salaris is a one-time payment at the end of [after] each cropping season collected for Operation and Maintenance (O&M) activities of the irrigation facilities. It collects per person based on their cultivated land extent. According to the area it is collected either in kind or in money.

	Working Committees.	Committee (NJCC) organized on April 27, 2011 in order that TAC would functions continuously after project completion. (Ex-post evaluation) • AMC was terminated and its function was succeeded to Productivity Enhancement Division of DOI.																																					
(Overall goal) Agricultural income of the farm families in the target area is increased	(Indicator 1) A system is established to increase the agricultural income of the farm families in the target area at least by 25%.	<u>Status of achievement: partially achieved</u> <u>(Ex-post evaluation)</u> (1) Dissemination of the project outcome to other irrigation sites <table border="1" data-bbox="683 338 1513 618"> <thead> <tr> <th>District</th> <th>Irrigation scheme</th> <th>No. of irrigation site where ICIM was introduced</th> </tr> </thead> <tbody> <tr> <td rowspan="3">Anuradhapura</td> <td>Rajanganaya major irrigation scheme</td> <td>2 sites</td> </tr> <tr> <td>Periyakulama medium irrigation scheme</td> <td>1 site</td> </tr> <tr> <td>Nachchaduwa major irrigation scheme</td> <td>2 sites</td> </tr> <tr> <td>Kurunegala</td> <td>Mahananneriya medium irrigation scheme</td> <td>1 site</td> </tr> </tbody> </table> (2) Agricultural income and productivity in the three model sites < Changes in farmer income between 2011 and 2014> <table border="1" data-bbox="689 712 1513 943"> <thead> <tr> <th>Irrigation scheme</th> <th>Income from paddy</th> <th>Income from dairy</th> </tr> </thead> <tbody> <tr> <td>Kimbulwanaoaya</td> <td>Increased by 5% in Maha season (Sep.-Feb.)</td> <td>Average income from milk increased by 135.7%</td> </tr> <tr> <td>Rajanganaya</td> <td>Increased or decreased depending on the cases</td> <td>Average income from milk increased by 116%.</td> </tr> <tr> <td>Kadurgasdamana</td> <td>Increased by 22% in Maha season (Sep.-Feb.)</td> <td>Average income from milk increased by 85%.</td> </tr> </tbody> </table> < Changes in agriculture productivity between 2011 and 2014> <table border="1" data-bbox="689 1003 1513 1173"> <thead> <tr> <th>Irrigation scheme</th> <th>Paddy productivity</th> <th>Dairy productivity</th> </tr> </thead> <tbody> <tr> <td>Kimbulwanaoaya</td> <td>No change</td> <td>No change</td> </tr> <tr> <td>Rajanganaya</td> <td>No change</td> <td>No change</td> </tr> <tr> <td>Kadurgasdamana</td> <td>Increased by 10% in Maha season (Sep.-Feb.)</td> <td>No change</td> </tr> </tbody> </table> (3) Agricultural productivity and incomes in other irrigation sites <ul style="list-style-type: none"> Detailed quantitative information about the productivity and income in six dissemination sites are not available. According to the interview with farmers, farmer leaders and extension officers, they perceived that dissemination of four component of irrigation agriculture of the ICIM project contributed to increase their production, productivity and income. 	District	Irrigation scheme	No. of irrigation site where ICIM was introduced	Anuradhapura	Rajanganaya major irrigation scheme	2 sites	Periyakulama medium irrigation scheme	1 site	Nachchaduwa major irrigation scheme	2 sites	Kurunegala	Mahananneriya medium irrigation scheme	1 site	Irrigation scheme	Income from paddy	Income from dairy	Kimbulwanaoaya	Increased by 5% in Maha season (Sep.-Feb.)	Average income from milk increased by 135.7%	Rajanganaya	Increased or decreased depending on the cases	Average income from milk increased by 116%.	Kadurgasdamana	Increased by 22% in Maha season (Sep.-Feb.)	Average income from milk increased by 85%.	Irrigation scheme	Paddy productivity	Dairy productivity	Kimbulwanaoaya	No change	No change	Rajanganaya	No change	No change	Kadurgasdamana	Increased by 10% in Maha season (Sep.-Feb.)	No change
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Source: Terminal evaluation report, project completion report, interviews with counterparts and FOs.

Note 3: The capacity assessment of the FOs was conducted by using 10 indicators such as “number of general meeting per year”, “O&M fee/salalis collection ratio”, “support for collective cultivation”, and “management and transparency of accountant”, etc. Each indicator was given 1-5 points according to the performance of each indicator, and the total maximum points were 50 (10 indicators x 5 points = 50 points).

3 Efficiency

Both the project cost and project period were within the plan (72% and 100%), therefore, efficiency of the project is high.

4 Sustainability

<Policy Aspect>

The Sri Lankan government has maintained to prioritize agricultural development for achieving economic prosperity and poverty alleviation as mentioned in the 10-Year Development Plan (Mahinda Chintana) (2006-2016). MIWRM and concerned government organizations as well as Anuradhapura and Kurunegala districts are supportive to promote the capacity development of government officers and FOs and disseminate the four components of irrigation agriculture introduced by the project all over the country. Farmers and all line agencies involved with the project have been recognized the concept of ICIM and DOI has taken initiatives to replicate the ICIM concept in more than 60 medium irrigation schemes under their purview.

<Institutional Aspect>

The ICIM Project Dissemination Framework is an institutional set up for dissemination of the capacity development system on irrigation agriculture for the government officers and FOs. In the initial concept of this framework, the Irrigation Training Institute (ITI) under MIWRM provides the training on techniques/method, skills and knowledge of four component of irrigation agriculture including strengthening of FOs for extension officers working for irrigation sites in the target two districts who belong to not only DOI but also other related provincial and central government agencies such as Department of Agriculture (DOA), Provincial Department of Agriculture, Department of Agrarian Development (DAD), and Department of Animal Production and Health (DAPH). Then the extension officers support the farmers in necessary skills and knowledge for improving their irrigation agriculture. ICIM dissemination coordination office

plays a leading role to coordinate the above process through Director of ITI as ICIM dissemination coordinator. However, the organizational structure of ICIM Project Dissemination Framework was revised to meet the practical situation and the new position of the Deputy Director of Irrigation Productivity Enhancement Division who plays a role of ICIM dissemination coordinator was set up after the project completion⁴. The training branch of DOI based on the Head Office in Colombo now performs the role of Training Advisory Committee (TAC) to mainly support and monitor the training activities provided by ITI. While, the Advisory and Monitoring Committee (AMC) was terminated and its function was succeeded to Productivity Enhancement Division of DOI. As mentioned above, ICIM Project Dissemination Framework was integrated into the DOI's organizational structure and DOI has been more directly involved in this dissemination process. Productivity Enhancement Division of DOI is coordinating and facilitating disseminate knowledge and skills of four component of irrigation agriculture of ICIM project not only to DOI extension officers but also to the extension officers of other line agencies (DOA, DAD, DAPH) through training programmes.

There is a shortage of experienced staff with knowledge and skills introduced by the project to some extent since some trained extension officers have either been transferred to other sections or have left the organization. However, DOI has taken measures to recruit new staff and train them to fill the required human resources. Generally, the revised institutional set up for dissemination of the integrated mechanism has been maintained as expected.

<Technical Aspect>

ITI has been providing training for extension officers, and ITI has already conducted 10 capacity development programmes for more than 450 government officers on relevant topics of the four component of irrigation agriculture introduced by the project. The training materials such as hand books and manuals developed by project have been utilized by the related government officers. The DOI officers who were trained by the project and the post-project follow up activities by the national experts have been involved in the staff training as trainers/resource persons even though some trained extension officers have either been transferred to other areas/sections or have left the organization. In addition, based on the interview results with extension officers and FOs, it is observed that the conceptual knowledge and practical approaches/ methodologies introduced by the project have not been fully transferred from the former government officers to the newly assigned government officers (extension officers) at field level.

<Financial Aspect>

DOI has taken action to allocate more budgets to disseminate ICIM activities starting from year 2013. DOI has allocated 75 million LKR in 2015 for essential rehabilitation of major and medium scale irrigation facility in the area covering the entire country and priority is given to the ICIM dissemination proposed expansion sites. The above 75 million LKR includes 7 million LKR for Anuradhapura district and 6.5 million LKR for Kurunegala district. According to DOI, the current O&M budget is limited to cover the necessary expenses for promote the capacity development of government officers and FOs. While other related government line agencies such as DOA, DAD, DAPH have their own budgets for dissemination activities and training program, which supplement the budget shortage of DOI to some extent.

<Evaluation Results>

From these findings, it is considered that the project has some problems in technical and financial aspects of the implementing agency; therefore, sustainability of the project is fair.

5 Summary of the Evaluation

This project has achieved the project purpose and partially achieved the overall goal. The project successfully established the integrated mechanism for the capacity development of government officers and FOs, and disseminated the four components of irrigation agriculture introduced in the model sites to other six (6) irrigation sites in Anuradhapura and Kurunegala districts in addition to the three model sites. It is further being expanded to another seven (7) irrigation sites in both districts. The farmers in Kadurgasdamana model sites increased the paddy productivity, while other model sites maintained a same level of agricultural productivity as in 2011. Income came through paddy cultivation and dairy farming has been significantly increased in the three model sites. The above positive results were attributed not only to the continuous efforts of the implementing agency but also to the several external factors.

As for sustainability, there are problems in terms of technical and financial aspects. Newly assigned extension officers have limited technical capacity due to limitation of budget available at DOI for training purpose.

In the light of above, this project is evaluated to be satisfactory.

III. Recommendations & Lessons Learned

Recommendations for Implementing agency:

- It is highly recommended for DOI to institutionalize the developed training programmes into human resource development programme at DOI. Thus, the knowledge and skills developed through ICIM project will be fully transferred to the newly appointed extension officers. This is to ensure the sustainability of the implementation of four component of irrigation agriculture introduced by the ICIM project.

Lessons learned for JICA

- The project established the ICIM Project Dissemination Framework to expand the project outcomes to other irrigation sites in the target two districts. However, this framework was created just before the project completion and the project could not have a chance to examine whether this institutional set up would function as expected during the project implementation period. After the project completion, DOI modified and integrated this framework into organizational structure and the new framework has been working without major problems so far. When any institutional framework is set up in order to maintain the sustainability of the project, such framework should be established during the project period and its feasibility need to be verified with necessary modification by the termination of the project from a strategical viewpoint. When doing so, it should be considered to streamline the framework by internalizing the framework into the exiting organizational structure of the implementing agencies in order to avoid duplication of works and conflict of line of command among the stakeholders.

⁴ Specially trained officers who worked for ICIM project were transferred or promoted to new positions. Then most of them became senior officers in Department of Irrigation based in Colombo. Therefore ICIM project dissemination framework was revised in order to manage dissemination works effectively from Colombo to entire country by Productivity Enhancement Division of Department of Irrigation. Training of newly recruited staff is also handled by Colombo office through regional training centres.



Successfully grown paddy field using Parachute method



Constructed water controller and canals in model site