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USAID Mekong Adaptation and Resilience to
Climate Change (USAID Mekong ARCC)

Annual Report

Year Four – October 1, 2014 to September 30, 2015

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USAID Mekong Adaptation and Resilience to Climate Change (USAID Mekong ARCC)

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(USAID Mekong ARCC)

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Contract Number: AID-486-C-11-00004

Contractor: DAI

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World Resources Institute (WRI)
International Union for Conservation of Nature (IUCN)
Asian Management and Development Institute (AMDI)
World Food Programme Cambodia (WFP)

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I. PROGRAM OVERVIEW

Program Name	USAID Mekong Adaptation and Resilience to Climate Change (Mekong ARCC)
Activity Start Date And End Date	September 26, 2011 through September 25, 2016
Name of Prime Implementing Partner	DAI
Contract Number	AID-486-C-11-00004
Name of Subcontractors/Subawardees	International Centre for Environmental Management (ICEM) World Resources Institute (WRI) International Union for Conservation of Nature (IUCN) Asian Management and Development Institute (AMDI) World Food Programme Cambodia
Geographic Coverage	Cambodia, Lao PDR, Thailand, and Vietnam
Reporting Period	October 1, 2014 – September 30, 2015

The USAID Mekong ARCC project is a five-year program (2011-2016) funded by the USAID Regional Development Mission for Asia (RDMA) in Bangkok and implemented by DAI in partnership with the International Centre for Environmental Management (ICEM), World Resources Institute (WRI), International Union for Conservation of Nature (IUCN), Asian Management and Development Institute (AMDI) and World Food Programme (WFP) Cambodia. The project focuses on identifying the environmental, economic and social effects of climate change in the Lower Mekong Basin (LMB), and assisting highly exposed and vulnerable rural populations in ecologically sensitive areas to strengthen their capacity to adapt to projected climate change impacts on water resources, agricultural and aquatic systems, livestock, and ecosystems. The USAID Mekong ARCC is headquartered in Bangkok and supports climate change research and adaptation initiatives in Cambodia, Lao PDR, Thailand, and Vietnam.

Flowing from the upper watersheds of Lao to the delta in Vietnam, the LMB connects and provides ecosystem services critical to livelihoods, food security and welfare of the Basin's 60 million inhabitants. Yet the connectivity of the basin also links Lao PDR, Thailand, Cambodia and Vietnam to transboundary climate and development threats. USAID Mekong ARCC works in each of the four LMB countries in recognition that each has its own national climate policies and economic and development priorities, and that communities are structured and function differently in each as a reflection of the respective nations' unique laws, histories and cultures. Lessons and experiences drawn from the national and community level will ultimately feed up to regional actors working at the transboundary level to help ensure they are shared across the Basin.

The impetus for USAID Mekong ARCC stems from the launch of the Lower Mekong Initiative (LMI). Announced by the U.S. Secretary of State and foreign ministers from each of the LMB countries in 2009, the LMI emphasizes close cooperation between the United States and the governments of Cambodia, Lao PDR, Thailand, and Vietnam to support regionally sustainable and environmentally responsible growth.

The primary goal of USAID Mekong ARCC is to *increase adaptation capacity and resilience of communities to the negative impacts of climate change*. It has four principal objectives that will be achieved through the implementation of activities under five general tasks. The table below reflects how the different tasks support the achievement of the objectives. **Note: the size of the check marks indicate relative importance of the task to the objective.**

Table 1: USAID Mekong ARCC Objectives and Tasks

Objective/Task	Task 1 - Regional Platform Partner and Knowledge Center	Task 2 - Climate Change Impact and Adaptation Study	Task 3 - Ecosystem and Community-based Adaptation Initiatives	Task 4 – Valuing Ecosystem Services in Econ. Planning for the LMB	Task 5 - Scaling-Up Successful Approaches
Obj. 1 - Increase human and institutional capacity to develop and implement climate change adaptation plans and strategies	√	√	√	√	√
Obj. 2 - Strengthen policies, tools, methodologies and practices for ecosystem services valuation and climate resiliency	√		√	√	
Obj. 3 - Demonstrate and scale-up model actions for integrated approaches to climate change adaptation			√		√
Obj. 4 - Support and sustain regional learning networks to share and replicate best practices	√	√	√		√

2. ACTIVITY IMPLEMENTATION PROGRESS

2.1 Progress Narrative

USAID Mekong ARCC has strived to develop practical methods and use participatory approaches to engage local community knowledge and support community members to take actions today that will strengthen their resilience and protect their livelihoods from anticipated climate change impacts in the future. In practice, this means not only sharing scientific projections about how increasing temperatures may reduce crop yields for rural farmers across the Lower Mekong Basin, but also involving community members directly in deliberating and selecting smart adaptation decisions. When communities begin integrating projected climate impacts into their customary decision making processes, they are better equipped to pursue longer term adaptation.

In Year 4, the project made significant advances in several objectives. This year, the project and its partners developed and launched community-based adaptation initiatives across five community clusters in Cambodia, Lao PDR, Thailand and Vietnam, based on the participatory adaptation decision-making process carried out in these communities last year. The project team began gathering lessons learned in how each of the five communities approached the analysis of climate vulnerabilities, prioritized threats and options, and undertook initial adaptation actions. These lessons are being shared with national governments and other donors through national and regional conferences and workshops and the USAID Mekong ARCC website (www.mekongarcc.net). The team also developed and produced an array of knowledge products aimed at building local capacity and influencing planning and decision-making by diverse stakeholders from local farmers to national government officials. Finally, the team began to lay the foundation for facilitating the scaling up of proven approaches by communities, local and national governments and NGOs. Each of these is discussed in further detail below, followed by more in-depth descriptions of activities and accomplishments under each of the five USAID Mekong ARCC tasks.

Supporting community-based adaptation approaches. The project is supporting adaptation activities in five community clusters in Cambodia, Lao PDR, Thailand and Vietnam. These activities are based on what communities prioritized following their completion of climate vulnerability analyses, along with expert review to ensure that sound development and climate resilience goals are likely to be met. While the adaptation approaches taken by each community vary widely, they all reflect measures to protect important sources of livelihood and food security. For example, the coastal communities of Kien Giang province in Vietnam are addressing the threat of greater saltwater intrusion on the productivity of their rice-shrimp cultivation systems while communities in the highlands of Chiang Rai province in Thailand are focusing on diversified agro-forestry, water management, the introduction of more heat-tolerant pigs and chickens and improved animal husbandry practices. While these adaptation measures may not appear particularly radical, they do reflect the willingness of villagers who have few resources to take risks and test crop and livestock varieties, and different cultivation and animal husbandry techniques that deviate from traditional practices, in order to strengthen their livelihood resilience to projected changes in local climates. By actively engaging communities in identifying climate threats, selecting and carrying out actions to strengthen their resilience, and providing them with tools they can use to monitor results and make further adaptations, the USAID Mekong ARCC project is helping improve local awareness and empower local communities in planning, implementing and measuring adjustments that support their livelihoods and food security.

Creating Tools and Knowledge Products that Support National Adaptation Efforts. USAID Mekong ARCC continued to expand its array of resources that national governments, development practitioners, and local stakeholders can use to plan, advocate and carry out actions that will strengthen national and local resilience to climate change. In Year 4, the project published several knowledge products including detailed projections of climate change impacts on specific sectors, extension guides designed to help small-scale farmers improve their production of shrimp and pigs under changing climate conditions, and economic analyses that provide national policy makers with the means for applying a climate lens to national and local economic development priorities. For example, the Vietnam Red Cross printed the Rice-Shrimp and Pig Production Standard Operating Procedures (SoP) to support participating villagers in Thuan Hoa Commune.

Furthermore, the project targeted regional level institutions through sharing of an array of knowledge products, facilitation and participation on regional workshops and direct partnerships with regional institutions such as ASEAN, the United Nations World Food Programme and Asian Development Bank. One of the most significant of these products was the ASEAN Regional Guidelines for Promoting Climate Smart Agriculture (CSA) Practices that was fully endorsed by the 10 member states of ASEAN at a Special Senior Officials Meeting of the 36th ASEAN Ministers on Agriculture and Forestry held in the Philippines in September. The project contributed to these 'Technical Guidelines for Good Practice' by working with the International Rice Research Institute (IRRI) to prepare the section on Alternate Wetting and Drying of Rice Crops. The full report can be downloaded through this [link](#).

Building the foundation for scaling up. While this year's efforts focused mostly on the implementation of adaptation activities by communities in the four LMB countries, the USAID Mekong ARCC program also began building linkages and laying the foundation for replicating and scaling up proven approaches. The strategies for scaling up, as with the community adaptation actions, are very context- and country specific. For example, in Vietnam, the project has strong support from the national Directorate of Fisheries (D-Fish) to scale up tested practices to increase rice-shrimp production systems' resilience to changing weather patterns. This support from a national government agency is instrumental in facilitating large-scale scaling up of this modified production system. In Thailand, the project is taking a more bottom-up approach by engaging local/regional agriculture research centers and government extension staff in community adaptation activities and identifying ways to mainstream lessons learned into district- and provincial-level development plans and budgets. Scaling up efforts in Cambodia and Lao PDR remain the least defined due to the recent initiation of activities in Cambodia and challenges faced by our local partner in Lao PDR. In both countries, we are exploring opportunities to work with the more established World Food Programme to scale up lessons learned beyond the targeted project sites.

2.2 Implementation Status

In Year 4, the USAID Mekong ARCC project focused efforts on developing and sharing knowledge products, supporting community-based adaptation initiatives, developing the background analysis and estimation tools for ecosystem services valuation and understanding of how these services contribute to climate resilience, and laying the foundation for scaling up successful adaptation activities. The following sections describe in greater detail the activities and results achieved under each task.

Task 1 – Regional Platform Partner and Knowledge Center

USAID Mekong ARCC has primarily employed a broad-based strategy to disseminate lessons learned and knowledge products to a variety of national and regional platforms. In Year 4, the project continued releasing a wide array of communications and knowledge products to inform international, national and local stakeholders of progress being made to assist communities and governments in tackling the challenges of climate change. These reports and studies, housed on the USAID Mekong ARCC project [website](#), were shared through national and regional workshops and conferences, regional web platforms and through the use of the project's Twitter and

Facebook social media. The list below provides brief descriptions of the various products developed and published in Year 4.

Reports, Studies and Journal Papers:

- Six theme reports (Agriculture, Fisheries, Livestock, Non-timber Forest Products and Crop Wild Relatives, Protected Areas, and Socio-Economic Assessment) providing detailed summaries of the climate challenges each sector or area faces across the LMB.
- Water supply assessments and detailed engineering studies of water supply options for targeted villages in Lao PDR and Thailand. These assessments and studies contributed to planning adaptation actions designed to improve water supplies in the targeted villages.
- Report titled “Lessons on Integrating Scientific and Community Knowledge of Climate Change to Develop Adaptation Plans in Lower Mekong Basin” by Moushumi Chaudrey from WRI. This report captures lessons learned from the process that USAID Mekong ARCC and its implementing partners used in working with local communities to carry out vulnerability assessments and devise adaptation plans.
- Four country ecosystem service valuation guides are aimed at providing policy and decision makers with an introduction in valuing environmental services. Many of these services are at risk because of national development initiatives such as hydropower dams, land conversion of natural forest to rubber and cassava plantations, and the clearing of mangroves for coastal development. These guides draw on in-country research to estimate the values of different ecosystem services and show how policy makers and planners can use these values to estimate the costs/benefits of various development actions.
- An [Ecosystem Services Valuation tool](#) that policymakers or practitioners can use to estimate the annual economic value of ecosystem services provided by different ecosystems. This tool draws on more than 500 previous research studies and provides policy makers and planners an easy way to obtain an initial estimate of the annual economic values generated by different ecosystems on a per hectare basis.
- Economic Values at Risk study that identifies the risks posed by climate change to key economic assets in the Lower Mekong Basin. The study used the climate change projections developed by the USAID Mekong ARCC project in Year 1 to estimate potential economic losses caused by the impacts of climate change on infrastructure services, worker productivity, agricultural output, hydro-electric power and ecosystem services. In total, the study estimates that countries in the LMB risk losing US\$16 billion per year in economic value if they continue business as usual, with no actions to mitigate climate threats.
- Gap Analysis conducted on rice-shrimp culture in Vietnam by USAID Mekong ARCC Aquaculture Expert Dr. Jesper Clausen. This gap analysis report has helped inform the adaptation strategy for rice-shrimp production systems in the Thuan Hoa Commune of Vietnam.
- Scientific paper titled “*Adaptation Planning in the Lower Mekong Basin: Merging Scientific Data with Local Perspectives to Improve Community Resilience to Climate Change*” written by Shelley Gustafson (lead author), Paul Hartman and Angela Johel-Cadena and submitted to the journal of *Climate and Development*. This paper describes the vulnerability analysis and adaptation decision making process, using the Huai Kang Pla village in Chiang Rai as a case study.

Standard Operating Procedures:

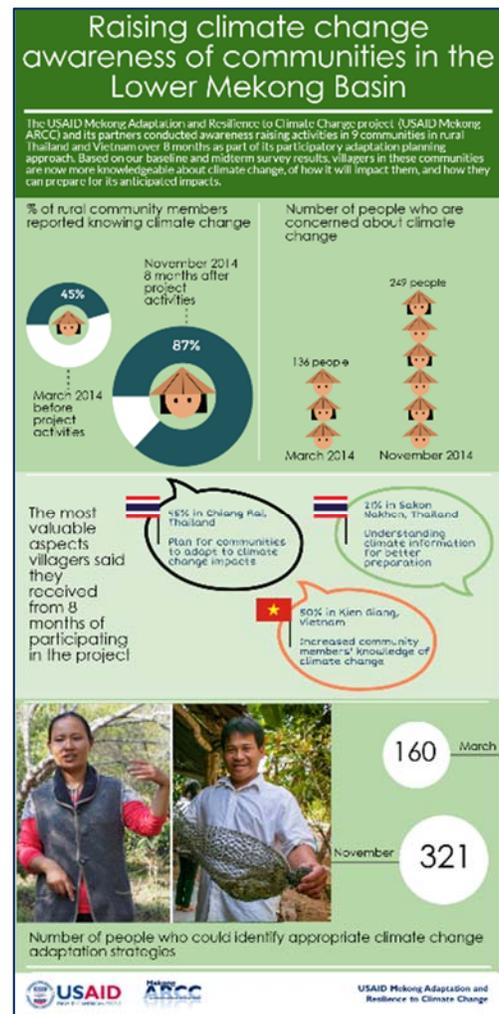
These small booklets in English and Vietnamese provide farmers with easy to follow guidelines and tables to facilitate improved management of shrimp aquaculture and pig rearing. These are being distributed by partner AMDI and the Vietnam Red Cross to farmers in Thuan Hoa Commune in Vietnam’s Kien Giang province.



Partner IUCN/Thailand has developed leaflets on raising pigs and poultry (layer chickens and black boned chicken) that they are distributing to farming communities in Chiang Rai, Thailand. These leaflets include information on regional specialists that farmers can contact when problems arise. These booklets are now being used by farmers to track production practices as well as environmental conditions so they can understand what practices deliver results under changing climate conditions and make further adjustments.

Infographics:

- Raising climate change awareness
- Improving women’s awareness of climate change



News Updates and Blogs:

During the course of the year, team and partner staff produced a number of blog postings related to the work being carried out in the target communities by the USAID Mekong ARCC project. These are all available through the project’s website and include:

- [“Strengthening Community Resilience in Thailand by Linking Science with Local Knowledge”](#)
- [“Crop Diversification Bolsters Climate Change Resilience for Chiang Rai Hill Tribes”](#) -
- [“Cool Pig Pads Help Prepare Northern Thailand Communities for Climate Change Impacts”](#)
- [“Northern Thailand Hill Tribes See Increased Resilience to Climate Change Flowing from Better Water Management”](#)
- [“Cow Spotting and Addressing Climate Change Deep in the Heart of Cambodia”](#)
- [“Climate Change Education Key to Encouraging Mekong Delta Farmers to Adapt Farming Practices”](#)
- [“More Than a Pipe-Dream: Women of Khammouan Villages Eagerly Await Water Security and Management Improvements”](#)
- [“Values at Risk from Climate Change in the Lower Mekong Basin: Interview with WRI Senior Economist and VAR Report Author”](#)
- [“Encounters with Lizard Soup, Blessing Ceremonies, and Community Resolve to Adapt to Climate Change in Rural Lao”](#)
- [“Employing Ecosystems Service Valuation Guidelines to Solve Metaphysical Riddles and Make a Case for Conservation”](#)
- [“Bridging Cultures, Merging Science and Local Knowledge for Climate Change Adaptation Planning – Part 1 and Part 2”](#)
- [“Kok Klang Community Members Pitch in to Preserve Valuable Community Forest”](#)
- [“Placing Pigs in a Piggy Bank as a Community Livelihood Resilience Strategy in the Lower Mekong Basin”](#)
- [“Small-scale Farmers in the Mekong Delta on the Front Line of Actions to Adapt to Climate Change”](#)

Sharing Information through Regional Partner Platforms.

COP Paul Hartman, DCOP Shannon Dugan and USAID Mekong ARCC M&E Specialist, Pakprim Oranop na Ayuthaya attended a number of regional and national events to share information about the USAID Mekong ARCC program and its knowledge products. These include:

- *ASEAN Climate Resilience Network Workshop in the Philippines:* At this ASEAN Technical Working Group on Agriculture Research and Development (ATWGARD) workshop, COP Paul Hartman gave a presentation on crop suitability in the face of climate change and good climate adaptation practices being developed with USAID Mekong ARCC support. ATWGARD prioritized for scaling several approaches to climate smart agriculture presented at this meeting, including a system for Alternate Wetting and Drying in rice cultivation (AWD). The Project collaborated with the International Rice Research Institute (IRRI) in developing Technical Guidelines for Good Practice on CSA that summarize knowledge and experiences in AWD rice cultivation and provided recommendations and guidelines to promote the scaling up and replication across the ASEAN region. The ATWGARD workshop process ultimately resulted in the development of the “*ASEAN Regional Guidelines for Promoting Climate Smart Agriculture (CSA) Practices,*” that was fully endorsed by the 10 member states of ASEAN at a Special Senior Officials Meeting of the 36th ASEAN Ministers on Agriculture and Forestry held in the

Philippines in September. The guidelines contain USAID Mekong ARCC and IRRI's technical section on AWD, and acknowledge USAID Mekong ARCC's contribution to the development of the guidelines as a regional partner. The full report can be downloaded through this [link](#).

- *Greater Mekong Sub-region Environment Ministers' Meeting:* The USAID Mekong ARCC program supported the establishment of a jointly led ADB-USAID Climate Adaptation Roundtable to share information, coordinate actions and leverage resources among several key donors and partners including the US Forest Service, United Nations Environment Program, IUCN, Stockholm Environment Institute's Sustainable Mekong Research Network (SUMERNET), and the Mekong Research Futures Institute (MERFI). For example, through this Roundtable, the USAID Mekong ARCC team provided inputs drawn from the project's Climate Study and Values at Risk research into several ADB-led reports, studies and presentations under its Greater Mekong Subregion (GMS) development initiatives that reach a larger set of stakeholders and government counterparts. Key among these was its contribution – along with other Roundtable partners – into the development of the knowledge product '*Investing in Natural Capital for a Sustainable Future in the Greater Mekong Subregion*,' that was presented at the 4th GMS Environment Ministers' Meeting (EMM4) in Nay Pyi Taw, Myanmar. At the close EMM4 environment ministers from the six GMS countries agreed that natural capital assets, such as forests and farmlands, are the basis for sustainable development in the region, They also called for timely and effective investment in the protection and enhancement of these assets. The knowledge product presented at this meeting can be downloaded through this [link](#):
- *4th Asia Pacific Climate Change Adaptation Forum in Malaysia:* The AMDI Project Manager joined the Mekong ARCC COP to present different aspects of the project at separate sessions. The COP's session focused on policy and governance needs to support reducing vulnerability to droughts and floods in the Lower Mekong, and his presentation can be through this [link](#). The AMDI Project Manager presented the project's adaptation initiatives in Kien Giang, Vietnam in a session on community adaptation, aquaculture and fisheries and can be found [here](#).
- *Regional Forum for Climate Change 2015:* In his presentation, COP Paul Hartman highlighted important differences in how scientists and local communities perceive future challenges related to climate change impacts that were revealed through the process of merging top-down climate science with bottom-up community perspectives. Monitoring and Evaluation Specialist, Pakprim Oranop na Ayuthaya, also shared key results of surveys designed to measure local communities' understanding about climate change impacts and adaptation strategies.
- *Asia-Pacific Cities Conference:* As part of a USAID booth poster session, Mekong ARCC disseminated materials and information at this Bangkok event.

Task 2 – Climate Change Impact and Adaptation Study

This year, the team produced professionally designed and bound copies of the six detailed sector assessment reports developed as part of the *Climate Impact and Adaptation Assessment for the Lower*

Mekong Basin. These and other knowledge products continued to be disseminated through the USAID Mekong ARCC website. USAID Mekong ARCC also shared the study’s data with the Stockholm Environment Institute and the World Food Programme which incorporated it into their Consolidated Livelihood Evaluation for Resilience (CLEAR) analysis for Lao PDR. In addition, the ADB has made the USAID Mekong ARCC Climate Change Impact report and data available through their website.

As mentioned in Task 1 above, a scientific paper drawing results from the study as well as the community adaptation planning process entitled “*Adaptation Planning in the Lower Mekong Basin: Merging Science and Community-led Adaptation Planning Processes in the Lower Mekong Basin*” was prepared with USAID Mekong ARCC Science Writer and Editor, Shelley Gustafson, as lead author, and submitted to the peer-reviewed scientific journal *Climate and Development*. A decision from Climate and Development on whether they will accept the article and publish it in their journal hasn’t yet been forthcoming.

Task 3 – Integrated Community and Ecosystem-based Adaptation Activities

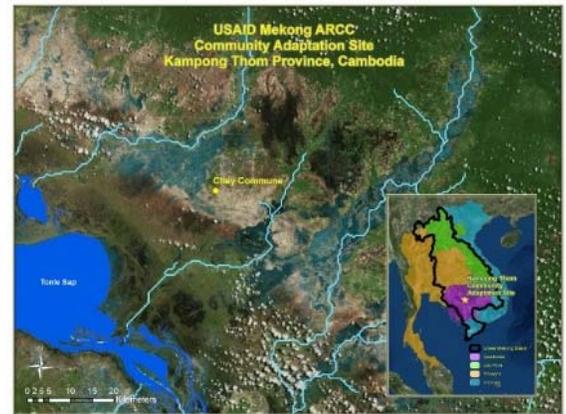
Supporting and tracking the implementation of community and ecosystem based adaptation activities in the five community areas dominated much of USAID Mekong ARCC’s efforts this past year. Project implementing partners – IUCN in Thailand and Lao PDR, AMDI and the VNRC in Vietnam, and the World Food Programme in Cambodia - all completed the adaptation decision-making processes with participating communities and launched adaptation activities. In November 2014, the USAID Mekong ARCC team hosted the second annual implementing partners meeting in Bangkok during which project partners discussed their work with communities to identify climate risks and develop specific plans for adaptation work. The Mekong ARCC team invited a range of technical experts consulting on the project to provide feedback on the technical and social soundness of the proposed adaptation activities. The table below summarizes the climate threats and adaptation strategies identified by different communities across the LMB organized by livelihoods and resources.

Table 2: Summary of Community Adaptation Strategies

Country	Livelihood/Resource	Principal Threats	Adaptation Strategy
Vietnam, Thailand	Livestock/Animal Husbandry	Increasing temperature impacting livestock productivity and health	<ul style="list-style-type: none"> ▪ Introduce more heat resistant breeds of pigs and chickens (i.e. black pigs and black-boned chickens) ▪ Introduce production techniques such as bio-mattresses for pigs that improve productivity, provide nutrient rich mulch and reduce pollution
Vietnam, Lao PDR	Aquaculture/Fisheries	Increasing temperatures and changes in water quality impacting fisheries productivity	<ul style="list-style-type: none"> ▪ Introduce better shrimp production techniques in rice-shrimp systems ▪ Diversification of livelihoods through frog and fish ponds
Vietnam, Thailand, Lao PDR	Agriculture	Temperatures and changing water availability (particularly drought) impacting crop productivity	<ul style="list-style-type: none"> ▪ Test more drought and heat resilient varieties of rice and fruits ▪ Diversify cropping pattern such as beans/maize, and intercrop rice/vegetables with rubber and coconuts
Lao PDR, Thailand and Vietnam	Water quantities and quality for household use and livelihoods	Changing rainfall patterns and increasing duration and severity of dry seasons	<ul style="list-style-type: none"> ▪ Improve local knowledge of weather patterns and water resources ▪ Improve water security through increased storage and source protection ▪ Negotiate/arbitrate between diverse water demands
Thailand, Lao PDR and Vietnam	Forest protection and land management	Increase in forest fires and loss of species; Increased erosion during intense rainstorms	<ul style="list-style-type: none"> ▪ Create firebreaks to protect forests ▪ Reforest degraded forestlands and mangroves ▪ Improve land management and cultivation practices to reduce erosion

Cambodia

USAID Mekong ARCC has partnered with the World Food Programme (WFP)/Cambodia to support community adaptation efforts in six villages of Chey Commune in Kampong Thom Province. Activities began with a baseline awareness survey for each village. Similar to other sites in the LMB, these communities highlighted drought as a significant challenge that impacts not only their vital rice crops, but also the health of the community and their livestock. With match funding leveraged from WFP’s Food for Assets program, two dykes and one canal were constructed to improve water management in Chey Commune.



Highlights of activities carried out by WFP in 2015 include:

- Engaged villagers from Chey commune in a participatory, science-based decision making process that combined the community’s bottom-up perspective on changing weather with USAID Mekong ARCC’s downscaled climate change analysis for Kampong Thom province, and its likely impacts on traditional livelihoods. The joint Mekong ARCC-WFP team assisted villagers and commune leaders with a scenario planning exercise to help them identify and prioritize actions they can take now to improve their resilience to climate shifts. The commune leaders incorporated the outcomes of this planning activity into their yearly commune development plans.
- Supported a WFP-led Consolidated Livelihood Exercise for Analyzing Resilience (CLEAR) analysis to assess the impact of various factors (including climatic and weather changes) on livelihood resilience. According to the analysis, paddy, cassava and maize production in these six communities are highly vulnerable to drought. WFP assisted the communities to assess their vulnerability combining the community perceptions of climate risks with those highlighted by climate science. Based on this exercise, most villages identified water resources as their main priority area for agricultural, human and animal consumption use. This corresponds to the devastating effects these weather events potentially have on crops and livestock which most households depend on for consumption and income.
- WFP assisted the communities to develop an adaptation plan with elements that WFP could support. WFP’s assistance is principally through food-for-work (Food for Assets). As a result, the activities that they can support within the overall community adaptation plan include the construction of two dykes and a canal to reduce flood risks and improve water storage.
- Adaptation priorities were incorporated into the commune development plan which, in turn, was endorsed by the district government.

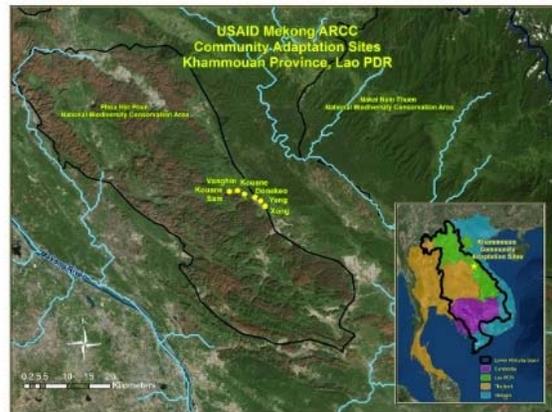
- Through its Food for Asset program, WFP constructed two dykes and one canal to improve water management in Chey. Furthermore, they subcontracted a local NGO to implement integrated farming training through ‘farmer field school training’. This is an intensive hands-on training that encourages learning-by-example through a model farmer methodology. The NGO is also working to improve the community’s awareness of climate change through a series of workshops.

700 meter canal constructed by Chey community members to improve water management especially during the dry season months.



Lao PDR

Work with the six targeted Lao communities in Nakai district progressed slowly this year due to multiple challenges. USAID Mekong ARCC implementing partner, IUCN Lao PDR, faced significant challenges with staff retention leading to delays and loss of momentum in activity implementation. Additionally, comparatively low education levels within the targeted communities (more than 50% have received no schooling) made it challenging to discuss how changes in weather patterns reflect longer term climate trends, resulting in less willingness to take and sustain actions that strengthen resilience. Lastly, it was difficult to maintain consistent presence and follow-up due to lower accessibility to the communities during the wet season. Further discussion on how USAID Mekong ARCC addressed these challenges follows below under “Implementation Challenges”.



Highlights for this year include:

- Mekong ARCC and IUCN team members completed a midterm awareness survey followed by more focused training on climate change for 247 villagers. Twelve village volunteers were specifically trained to lead subsequent discussions on climate change in their respective villages.
- Completed a water resources analysis for each village which spurred discussions among villagers on how they could better manage water in a changing climate, decisions on adaptation priorities focused on expanding water storage, upgrading piping to reduce leaks, and protecting water sources. Villages formed water management steering committees to oversee water-related adaptation actions.
- Completed the construction of fish and frog ponds in the village of Ban Kouanesam which villagers prioritized to improve food security. Two representatives from the Lao

Department of Agricultural Extension Cooperation assisted in constructing the ponds and training villagers in species care and husbandry.

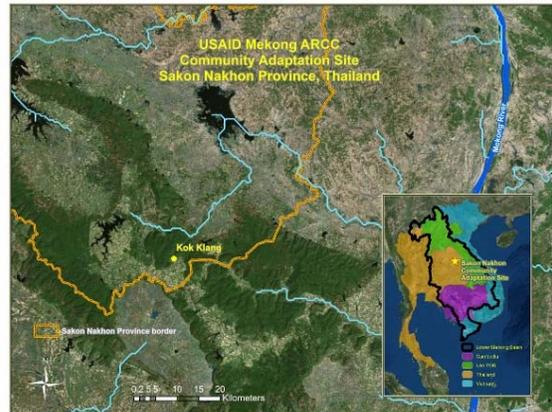
- Completed a water infrastructure construction plan identifying suitable storage and supply options for each village and laying out steps to meet USAID regulatory requirements and a schedule for construction completion.

Thailand

IUCN/Thailand made significant progress supporting the implementation of adaptation activities by communities in Sakon Nakhon and Chiang Rai. IUCN also completed the midterm awareness survey for each targeted village, finalized and submitted adaptation plans for all four villages in Chiang Rai and Sakon Nakhon, and supported villagers in carrying out specific adaptation activities. The following sections highlight some of the work and achievements this year.



IUCN organized three trips for villagers from the target communities to visit agriculture research/extension centers in both Sakon Nakhon and Chiang Mai. In total, 60 villagers from Kok Klang village in Sakon Nakhon and from Huai Kang Pla village in Chiang Rai participated in these visits. Kok Klang villagers learned about crop and livestock diversification opportunities and techniques for more sustainable, integrated agriculture. Villagers from Huai Kang Pla learned about improved fertilizer management and use, mushroom cultivation, agroforestry, vegetable cultivation and livestock raising, including black pigs, chicken, frogs, and insects. Following these trips, participants shared the information they learned with other villagers and discussed testing some of the new techniques through field trials.



The villagers in both areas prioritized three areas of work: improving water supplies and quality, diversifying farming and improving forest management.

- Improving water supplies and quality. Engineers from Advanced Engineering Consultants carried out a detailed water assessment for Kok Klang village. In Chiang Rai province, the project supplied water filter tanks to three sub-villages of Huai Kang Pla that suffered from poor water quality in the dry season.
- Diversifying agriculture. Villagers in both Huai Kang Pla and Kok Klang are testing the introduction of more heat resistant pigs and chickens. Several villagers in each location volunteered to receive and integrate black pigs and black-boned chickens into their production systems and serve as demonstrations for other villagers. Villagers also agreed to implement the *muu lum* or pig bio-mattress production system which offers several

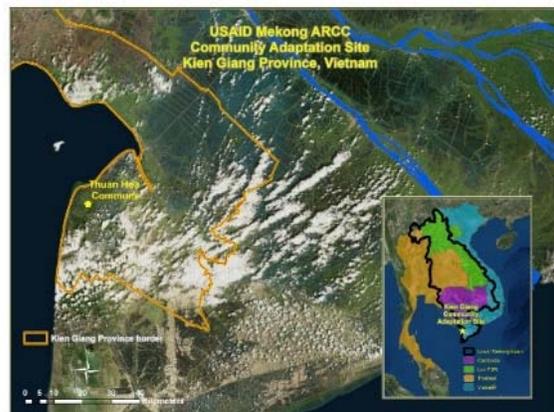
advantages including reduced odor and pollution and produces organic fertilizer that farmers can use in their integrated mixed farming systems. Villagers received technical support and training from Ministry of Agriculture extension officers, specialists from nearby Royal Study Centers and from the Highland Research and Development Institute in ways to improve livestock management along with monitoring sheets to record progress of the livestock under the improved management techniques

- Improving forest management. IUCN organized a forest ceremony to initiate forest management activities in Kok Klang in January. IUCN followed this by assisting the villagers to establish a forest management committee, draft forest management regulations, and organize a reforestation day program where approximately 200 community members planted 5,000 tree seedlings in their community forest.

IUCN also established community monitoring committees for each activity in all sites and collected data from the village M&E leads. Finally, IUCN shared USAID Mekong ARCC approaches, activities and results with the new USAID Global Resilience Partnership project which aims to enhance resilience in 11 Mekong Ramsar sites.

Vietnam

The targeted communities in Thuan Hoa commune also made significant progress this year in the implementation of their adaptation strategies with the assistance of USAID Mekong ARCC partners, AMDI and the Vietnam Red Cross. USAID Mekong ARCC hired an aquaculture consultant who worked with AMDI technical specialists and carried out an aquaculture gap analysis for members of the Thuan Hoa commune. The analysis team interviewed local commune officers and experienced farmers, and measured water and soil conditions at different sites in the commune. This gap analysis provided information that commune members used in developing their adaptation plan.



The final adaptation plan prioritizes:

- Improving the shrimp-rice farming system;
- Establishing a water quality monitoring system;
- Expanding pig raising using bio-mattress technology;
- Reforesting degraded/former mangrove forest to improve coastal shore protection; and
- Improved sharing of weather information, farming conditions, water quality and salinity readings to commune members through the installation of a loud speaker system.

Following this, AMDI trained local officials and members from community women’s organizations on streamlining climate change adaptation into commune development planning. In addition, AMDI supported villagers in undertaking the following adaptation activities:

- Improve Rice-Shrimp production. USAID Mekong ARCC supported the development and publication of standard operating procedure (SOPs) booklets for shrimp production, provided training in its use for farmers who are implementing this adaptation initiative,

and organized a handover ceremony where they distributed shrimp post larvae to a number of farmers to test the new production approaches outlined in the SOP booklet. They conducted follow-up visits to inspect newly constructed shrimp nurseries.

- Establishing Water Quality Monitoring. AMDI delivered water quality monitoring equipment and provided training to commune staff in its use. AMDI also supported the installation of a village loudspeaker system with the main transmission station located at the Commune Office and 10 receiving stations located in the most populated areas across all villages of the commune. Commune staff use this system to broadcast daily information on water quality and salinity to village members.
- Expand Pig Production Using Bio-Mattress Technology. USAID Mekong ARCC supported AMDI in creating a SOP booklet on pig production using bio-mattress technology which they distributed to farmers interested in implementing this adaptation initiative. AMDI distributed piglets to farmers who are participating in the program to demonstrate the use of the bio-mattress technology to others in the commune. In addition, AMDI experts conducted an analysis of the market for pigs, and provided training in the construction of bio-mattresses and followed up with villagers to address any questions/issues they had in implementing this method.
- Awareness raising on the importance of Coastal Mangroves. AMDI conducted mangrove education workshops to raise the awareness of community members on the importance of healthy mangroves for climate change adaptation and resilient livelihoods. A total of 80 participants from two coastal villages in Thuan Hoa Commune attended.

Finally, in conducting the midterm awareness survey, AMDI and VNRC staff interviewed more than 300 households to collect information on their knowledge about climate change, adaptation strategies and their opinion about the project activities in 2014. Preliminary results, presented by AMDI/VNRC staff, indicated that villagers have a significantly greater appreciation for climate change threats now compared to when the project began.

Key Lessons Learned from Ongoing Adaptation Efforts by Local Communities

1. Education levels and exposure to climate change messages strongly influence how well local communities:
 - Understand and connect future climate projections with the weather shifts that community members are already witnessing;
 - Understand the threats that climate change poses to current livelihoods, and identify actions they can take to strengthen resilience to these climate shifts; and
 - Take actions now that will help protect livelihoods and food security in a changing climate.
2. Process is often as important as outcome. The climate adaptation actions prioritized by communities rarely reflect significantly dramatic changes in agriculture, livestock or other livelihood activities. Rather, the actions communities take demonstrate small shifts in farming, water management and forest management practices that offer greater protection from climate shifts while leaving open options for additional adaptation actions in the future. While current adaptation actions reflect small shifts in community and household practices, how villagers assessed their vulnerabilities, identified possible

adaptation options and prioritized actions reflect a significant change in community understanding of climate risks and what they can do to protect current and future livelihoods.

3. Adaptation options need to take into account the local economic context and either preserve or improve livelihoods and food security in order to generate the best chance to achieve wide-scale adoption and support.

Task 4 – Valuing Ecosystem Services in Economic Planning for the Lower Mekong River Basin

Under Task 4, the USAID Mekong ARCC program supported the development of two key sets of reports and an estimation tool aimed at helping planners and policy makers better integrate ecosystem services into short- and long-term development strategies and plans.

The project published a report developed by economists from the World Resources Institute titled, *Climate Change in the Lower Mekong Basin: An Analysis of Economic Values at Risk*. This values at risk (VAR) analysis considers five key economic assets in the Lower Mekong Basin likely to be affected by climate change impacts– built infrastructure goods and services, worker productivity, agricultural output, hydroelectric power, and ecosystem services. Using the projected climate change impacts on the region from the Climate Study, the VAR analysis estimated the minimum annual values at risk from climate change in the LMB to be about US\$16 billion per year if governments continue business as usual instead of taking significant action to strengthen the resilience of their infrastructure, people and ecosystems to climate change. Worker productivity ranked as the most significant value at risk, accounting for more than half of the total. If built infrastructure is included in the valuation, an additional US\$18 billion could be at risk per year - a significant portion of rural GDP in these LMB countries. To capture highlights from the report and provide additional insight into the VAR analysis approach, USAID Mekong ARCC interviewed the author for the project website blog and prepared press releases. Since its publication, this report has been downloaded 217 times and received media coverage regionally and internationally.

The project also published four Ecosystem Services Valuation reports tailored to each of the LMB countries. These reports draw on the extensive body of research from the region and use case studies to show planners and policy makers the importance of ecosystem services in sustaining agriculture, delivering clean water supplies and protecting communities and cities from extreme weather events. Each guide provides an overview of how to approach estimating the value of these services to local and national economies. The project has complemented these reports by developing an [Ecosystems Services Valuation tool](#) that organizes services by broad ecosystem category and, drawing on past research, provides users with a range of values for services that these ecosystems supply (see photo below).

In developing this tool, the team:

- Conducted a detailed literature review of all research of existing values of key ecosystems in the LMB;
- Drew on networks such as the Economics of Ecosystem and Biodiversity Project to identify additional data and information that could be integrated into the tool;
- Compiled a database of maximum and minimum values for each major ecosystem;
- Developed, tested and refined user interface based on simplified approach;

- Finalized the application and developed a user guide.

Ecosystem Value Estimation

This tool calculates value ranges for [ecosystems and their services](#) based on 508 assessments conducted in the Lower Mekong Basin. Further details are described in this [technical document](#). To conduct a site specific ecosystem services valuation in the Lower Mekong Subregion, please see attached [guidelines](#).

Please fill in the boxes for Area (ha) and hit the tab key:
How many hectares of each ecosystem does your case study include?

Ecosystem	Area (ha)	Min Value (US\$)	Mean (US\$)	Max Value (US\$)	Data Points
Evergreen Forest	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	209
Deciduous Forest	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	51
Wetlands	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	86
Mangroves	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	105
Coasts/Islands with Coral Reefs	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	57
Total economic value range (25 years):		<input type="text"/>	<input type="text"/>	<input type="text"/>	
Annual total economic value range:		<input type="text"/>	<input type="text"/>	<input type="text"/>	
Provisioning Services (annual)		<input type="text"/>	<input type="text"/>	<input type="text"/>	
Regulatory Services (annual)		<input type="text"/>	<input type="text"/>	<input type="text"/>	
of which: Carbon storage		<input type="text"/>	<input type="text"/>	<input type="text"/>	
Cultural Services (annual)		<input type="text"/>	<input type="text"/>	<input type="text"/>	

This tool will be officially released early next fiscal year to assist decision makers and practitioners when estimating the value of specific areas and/or developing cost/benefit estimates for proposed development options that will impact identified ecosystems. USAID Mekong ARCC will integrate the release of the tool with a workshop targeted to government decision makers to provide hands-on training in the tool’s use.

Task 5 – Scaling-Up Successful Approaches

In Year 4, the USAID Mekong ARCC project continued to build the foundation for scaling up tested adaptation methods and lessons learned across the LMB. The project team recognizes that successfully scaling up tested approaches and lessons learned under the USAID Mekong ARCC project will require diverse strategies and partnerships that are country and context specific.

Based on this understanding, the project team has pursued a three-part strategy this past year that includes the following elements.

1. **Sharing approaches and lessons through the project website and in regional and national conferences and workshops.** As discussed under Task I, the project has become a significant source of information, ideas and tools for development practitioners engaged in working with governments and communities on climate adaptation. Over the past year, we have seen a 20 – 100% increase in visits to the USAID Mekong ARCC website by users from Cambodia, Lao PDR, Thailand and Vietnam. We also have seen considerable downloading of studies, analyses and SOPs. The project’s engagement with regional organizations such as the ASEAN Technical Working Group on Agriculture Research and Development (ATWGARD), the ADB Roundtable for Environment Ministers, and the Climate Adaptation Roundtable also provided opportunities to share lessons learned and approaches that others can adopt, adapt and apply to their own context. While indirect in nature and difficult to measure, the increased website traffic and interest in presentations by the USAID Mekong ARCC team at regional and national events implies the project is providing information that practitioners find meaningful and useful.
2. **Teaming with national government partners.** Teaming with national governments offer another key approach for wide scaling up of climate adaptation approaches. They have far greater financial resources than the global climate funds that can be directed towards adaptation work and have a direct stake in addressing the socio-economic, environmental and health risks associated with climate change. In Year 4, the USAID Mekong ARCC team has explored opportunities for teaming with national government agencies to support the scaling up of climate adaptation approaches. For example:
 - In **Vietnam**, the Government of Vietnam (GoV) has embraced the lessons being generated by the USAID Mekong ARCC project and its partners AMDI and VNRC in helping farmers adapt their rice-shrimp production practices to changing rainfall patterns. The project is now teaming with the GoV’s Directorate of Fisheries (D-FISH) to carry out a joint assessment of the rice-shrimp production system management across the Mekong Delta in Vietnam. Based on preliminary results from the pilot, D-FISH wants to use the assessment to determine how these and other approaches being carried out in the Delta can be scaled up to other suitable areas across the five delta provinces where these systems are most common, potentially impacting up to 300,00 hectares of rice-shrimp systems. To forge this partnership, the USAID Mekong ARCC team met with D-FISH officials to learn more about their concerns and priorities. Subsequently, the Project organized:
 - A presentation on a data-driven upscaling methodology that the project developed to identify provinces most likely to benefit from community initiatives.
 - A field tour for staff from D-FISH and the Institute of Meteorology, Hydrology and Environment (IMHEN) to review the aquaculture activities being supported by USAID Mekong ARCC and, through interviews with participating farmers, better understand what changes were being made in the rice-shrimp culture system.
 - Follow-up meetings with D-FISH in Hanoi to discuss scaling of the rice-shrimp system adaptation initiatives throughout the Mekong Delta in Vietnam.

- A workshop in Can Tho co-organized with D-FISH and targeting provincial government aquaculture staff, research institutions and practitioners to gain insight into challenges and approaches to improve the management of rice-shrimp systems in the face of climate change threats.
- In **Thailand**, the USAID Mekong ARCC team has sought guidance from the National Economic and Social Development Board (National Planning Agency) on how to link project efforts to national government strategies. The NESDB recommended connecting with district and provincial level staff from the Ministries of Agriculture and Natural Resources and Environment, as they have the direct mandate and resources to support scaling up of climate adaptation efforts that support the national Climate Change Master Plan.

3. Teaming with international donors and practitioners. In both Lao PDR and Cambodia, USAID Mekong ARCC is exploring scaling up its partnership with the World Food Programme (WFP). In both countries, WFP has employed the USAID Mekong ARCC climate data in carrying out its Consolidated Livelihood Exercise for Analyzing Resilience (CLEAR) analysis to assess the impact of various factors (including climatic and weather changes) on livelihood resilience. In Lao PDR, WFP is working with the Lao Government’s Department for Disaster Management and Climate Change to carry out this analysis nationwide. In Cambodia, WFP has used this analysis along with the climate science and community climate story to help communities identify and prioritize pilot adaptation actions in central Cambodia. As a result of this analysis, WFP in both countries is changing their strategy to incorporate climate change and projected impacts on food security into its development program.

In addition, the team has:

- Met with the World Bank’s Environment Sector Coordinator in Hanoi to discuss pathways for collaboration on rice-shrimp systems in the Vietnam Mekong Delta;
- Met the Australian Centre for International Agricultural Research (ACIAR) Vietnam’s Country Manager in Hanoi to exchange information on rice-shrimp projects in Vietnam; and,
- Partnered with the ADB’s Greater Mekong Subregion – Environmental Operations Center (EOC) to jointly support presentations at the GMS-EOC’s annual climate adaptation stocktaking roundtable meeting. These have proven excellent venues for sharing studies, analyses and other information developed by the project, and for engaging with diverse donors and stakeholders on adaptation challenges, priorities and approaches being tested by the USAID Mekong ARCC project.

Implementation Challenges

As discussed in Task 3 above, the project has faced implementation challenges in Lao PDR, particularly with IUCN Lao staff retention issues and resultant delays. The USAID Mekong ARCC management team discussed options with Senior IUCN regional and Laos Country Office management and developed a plan that tasks new IUCN staff to the project and engages the Mekong ARCC team more directly in implementation. The Mekong ARCC DCOP, Shannon Dugan, is taking a lead in coordinating field activities with counterparts at IUCN Laos, and in ensuring that project objectives and outcomes are met in accordance with USAID requirements.

This new arrangement has so far been productive and the implementation schedule, while delayed as compared to other project sites, is now moving apace.

2.3 PMP Update

Key M&E activities in FY2015 were focused on the midterm data collection of the climate change awareness survey, continuing capacity development to the field implementing partners and establishment of community-specific indicators.

Incorporation of Cambodia Findings in the Baseline Climate Change Awareness Report

WFP began implementation under USAID Mekong ARCC late last year and submitted their community climate change awareness baseline findings in Quarter 3 of FY2015. WFP collected data with 173 community members of six villages in Chey Commune, Kampong Thom Province. Similar to the other sites, the majority of Chey respondents have relatively low education level and come from poor farming households. The majority noticed major changes in weather in their lifetime (69%), but only 42% have heard about climate change. The most recognized climate change effects on their communities are drought, heat and floods. Two fifths of respondents who knew climate change reported that they were very concerned about it, yet close to half did not know how to respond when they were asked how prepared they were to deal with the most worrying climate effect. WFP is currently implementing adaptation strategies in these villages and the endline survey will take place in the first quarter of the next fiscal year. Its baseline findings have been incorporated into the Socio-Economic and Climate Change Awareness Baseline Report, which was updated and sent to USAID in May.

Midterm Climate Change Awareness Survey

The awareness survey aims to understand the target communities' knowledge, attitudes and practices around climate change and to assess baselines and progress for indicator 2.3, *number of people aware of climate-resilient livelihoods strategies*. Following the baseline data collection in early FY2014, the project managed data collection of the midterm round in November – December 2014. The project employed the panel study method, in which the same respondents are interviewed overtime. The midterm findings of Chiang Rai, Sakon Nakhon and Kien Giang are summarized in the table below. The total baseline sample size of the three sites is 580, but we could follow up with 524 out of the 580 respondents. In Table 3, we present only the data of the same 524 individuals interviewed at both rounds.

Table 3: Summary Findings of Climate Change Awareness Surveys (Chiang Rai, Sakon Nakhon and Kien Giang only)

	Baseline (N=524)	Midterm (N=524)	Significance of paired t-Test
Knowledge of climate change	n=524	n=524	
Know 'climate change' (CC)	47.5%	87.2%	
Understanding of CC	n=249	n=457	*** (p<0.001)
Somewhat understand CC	188 persons	359 persons	
Understand CC	22 persons	59 persons	
Most recognized CC effects on their community	n=229	n=443	
	1. Heat (57.6%) 2. Drought (49.8%)	1. Heat (74.3%) 2. Drought (56.7%)	

	Baseline (N=524)	Midterm (N=524)	Significance of paired t-Test
	3. More disasters (21%)	3. Pests/diseases (40.9%)	
CC knowledge test scores	(not included at baseline)	n=457	
High scores (6-8/8 scores)	N/A	38.7%	
Medium scores (4-5/8 scores)	N/A	35.7%	
No-low scores (0-3/8 scores)	N/A	25.6%	
Level of concern about CC	n=249	n=457	
Concerned about CC	35.7%	39.0%	
Very concerned about CC	18.9%	15.5%	
Belief in the possibility of CC preparedness	n=249	n=457	
Believe it is possible to prepare for CC	177 persons	354 persons	
Level of preparedness to deal with the most worrying CC effect	n=224	n=437	*** (p<0.001)
Somewhat prepared	104 persons	285 persons	
Very prepared	26 persons	48 persons	
Know at least one adaptation strategy	n=177 160 persons	n=354 321 persons	
Use weather information	n=518 327 persons	n=521 430 persons	

The results above demonstrate that the project’s adaptation decision-making process yielded positive changes in community climate change knowledge and attitudes. Respondents did well on the climate change knowledge test, about 65% earning medium to high scores. Still, more work needs to be done to generate correct basic concepts of the issue and ongoing community climate change education should be reinforced in parallel to adaptation activities.

To foster learning and use of the midterm survey findings, we produced related knowledge products and used them on several occasions. We presented results to the field partners to demonstrate gaps in community climate change awareness for program improvement planning. The partners then presented the results back to the communities to praise them on the progress they have made and encourage application of the findings. The USAID Mekong ARCC Chief of Party also presented the findings during his trip to scale up the project’s adaptation approach in Vietnam in March. Additionally, two infographics (see above) and a blog featuring the results were released to wider audience. In July, we delivered an oral presentation on the findings at the Regional Forum on Climate Change hosted by the Asian Institute of Technology in Bangkok.

Adjusting Data Collection Methods for Khammouan

Baseline awareness survey data of Khammouan were deemed invalid due to enumerator recruitment and training issues. Community members in Khammouan are the least educated and most isolated among all USAID Mekong ARCC sites. They are in need of more frequent interaction with the development partner on climate change education and simplified data collection methods that they can understand. Learning from the situation, we adjusted the plans for Khammouan and took the following actions:

1. DAI led the second round awareness survey in November, though technically ‘midterm’ these findings are treated as baseline after deeming the original baseline data invalid.
2. With IUCN Laos, DAI conducted refresher courses on climate change and climate projections with the communities.
3. We developed a simplified questionnaire to monitor community knowledge of climate change. The data was collected in May.

The simplified questionnaire shared selected key questions with the full awareness survey questionnaire, so that we could still compare it with the previous results and report Indicator 2.3, *number of people aware of climate-resilient livelihoods strategies*. We have summarized the knowledge survey findings in the table below. The total sample size from November 2014 is 74, but we could follow up with 70 out of the 74 respondents. In the table below, we present only the data of the same 70 individuals interviewed at both rounds.

Table 4: Summary findings of Khammouan climate change knowledge survey in comparison with the previous round

	Full Survey (November 2014)	Simplified Survey (May 2015)
Knowledge of climate change (self-perceived)	(n=70)	(n=70)
Know climate change	34.3%	95.7%
Understanding of climate change (self-perceived)	(n=24)	(n=67)
Somewhat understand climate change	16 persons	39 persons
Understand climate change	4 persons	26 persons
Scores on the knowledge test on climate change and its impacts		(n=67)
Full scores (11/11 points)	N/A	35.80%
High scores (9-10/11 points)	N/A	50.70%
Ability to identify at least one adaptation strategy	4 persons	63 persons

Top three adaptation strategies identified at the simplified survey round are 1) change crop or livestock varieties (63.5%), 2) change or increase business or occupations (49.2%), and 3) change cropping calendar (46.0%). The results show that program adjustments we have made in Khammouan have brought about improvements in community knowledge on climate change.

Capacity Development to Field Implementing Partners

We continued to provide M&E capacity development and technical assistance (TA) to the IPs throughout the fiscal year through various modes including formal trainings, field visits, meetings, email and phone calls. The TA addressed several M&E and reporting areas, the main ones being the community-based M&E system and data quality management.

To increase community adaptive capacity, it is essential that they are equipped with the ability to monitor and evaluate their own actions so that they can learn and adjust as they adapt to uncertainties around climate change. The project developed a training curriculum on how the IPs can help the communities set up and manage their own M&E systems. The training was conducted with relevant staff members of IUCN Thailand, IUCN Laos and AMDI from November 2014 to January 2015. After the training, the IPs then conducted a participatory process with target

communities to develop community M&E plans. As of this reporting period, the communities have started to monitor their own adaptation activities and used their analysis to adjust actions.

In April, key M&E personnel of the project participated in the USAID REO M&E workshop focusing on how to develop a results framework and prepare for a data quality assessment (DQA). Subsequent to the workshop, we summarized the key content of the DQA section and informed the IPs of it. Based on the USAID DQA tool, we conducted an internal DQA with the IPs in August-September and worked closely with them afterwards to improve data quality according to the DQA results.

Generating Site-Specific Indicators

In addition to the project’s standard indicators, field indicators are important to capture results in different community contexts. To ensure these indicators can fit within and support the overall project framework, the project developed a field indicator guide to assist the IPs in identifying suitable indicators. In this reporting period, IUCN Thailand and AMDI in consultation with USAID Mekong ARCC developed field-level indicators, which are presented in the table below:

Table 5: Site-Specific Indicators of Chiang Rai, Sakon Nakhon and Kien Giang

Chiang Rai	Sakon Nakhon	Kien Giang
<ol style="list-style-type: none"> 1. # of households (HH) with less time raising pigs to finished size 2. # of HH that have diversified their income sources and demonstrate potential to continue the new income source beyond the project’s end 3. # of HH with access to safe drinking water 4. # of management committees set up with sustainable institutional structure 	<ol style="list-style-type: none"> 1. # of HH with less time raising pigs to finished size 2. # of HH that have diversified their income sources and demonstrate potential to continue the new income source beyond the project’s end 3. # of management committees set up with sustainable institutional structure 	<ol style="list-style-type: none"> 1. # of HH with increased income as a result of implementing CCA options 2. # of HH with less water and labor use in pig raising as a result of implementing bio-matress adaptation 3. # of HH with higher shrimp survival rate as a result of implementing shrimp adaptation 4. # of HH with higher rice yield as a result of implementing shrimp-rice adaptation 5. # of community and/or government plans that incorporate climate change adaptation actions 6. # of new farmers willing to adopt new techniques after learning from the pilot results

3. INTEGRATION OF CROSSCUTTING ISSUES AND USAID FORWARD PRIORITIES

3.1 Gender Equality and Female Empowerment –

Gender equality is a primary consideration under the project’s Task 3 activities. Studies have indicated that climate change will affect men and women differently—especially in rural settings where gender can define livelihood activities. In Thuan Hoa Commune, AMDI received a verbal request from commune leaders to strengthen the Women’s Union and provide additional training in climate change adaptation and awareness raising. AMDI then engaged the Women’s Union to support the delivery of a mangrove workshop for the community on the importance of preserving mangrove systems.

3.2 Sustainability Mechanisms –

Sustainability mechanisms have varied throughout the LMB countries. Sustainability of adaptation options can be established through national, subnational or community involvement. Sustainability of the USAID Mekong ARCC process can also be sustained through uptake by implementing partners.

As discussed in Task 5, the GoV has enthusiastically taken the opportunity to incorporate the shrimp-rice farming techniques piloted by the project into their comprehensive rice-shrimp review of the Vietnam Mekong Delta and include aspects in the future government policy to increase shrimp rice productivity.

In Thailand, the project has partnered with the Royal Project Development Centers, other local agricultural networks and subnational government stakeholders to ensure that proper connections are in place for information sharing, with reach beyond the immediate project beneficiaries. The project will also support inter-village exchanges to foster learning between communities.

Environmental Compliance –

As per USAID requirements for the undertaking of all adaptation field activities, USAID Mekong ARCC submitted Environmental Documentation Forms (EDFs) for COR approval. Most initiatives have little if any environmental impact and consist of adjustments to existing systems. All activities in Vietnam and Thailand have been cleared by USAID with clearance of Lao PDR activities expected next fiscal year. Costs associated with implementation of adaptation options developed in Cambodia were covered by WFP match funding and, as no USAID funds were utilized, an EDF was determined not to be required.

- 3.3 Global Climate Change – N/A
- 3.4 Policy and Governance Support – N/A
- 3.5 Local Capacity Development – N/A
- 3.6 Public Private Partnership (PPP) and Global Development Alliance (GDA) Impacts – N/A
- 3.7 Science, Technology, and Innovation Impacts

4. STAKEHOLDER PARTICIPATION AND INVOLVEMENT

Coordinate with USAID, USG partners and Donor community on opportunities to promote Mekong ARCC best practices and lessons learned

USAID Mekong ARCC has established itself as lead partner amongst the donor community in climate change adaptation. Particularly through the ADB Roundtable, the project has contributed to the coordination of key regional climate adaptation implementers. In FY15, the project collaborated through the ADB Round table to complete a knowledge product on Natural Capital as mentioned above. The project is currently working in collaboration with the ADB partners on a best practices guideline for conducting vulnerability assessments.

5. MANAGEMENT AND ADMINISTRATIVE ISSUES

Staffing and Recruitment

In October 2014, the Mekong ARCC administrative assistant resigned for personal reasons. In December, the project hired Kansiripak Muangnoycharoen (Anne) who has been a great asset to the team.

Short Term Technical Assistance in the Fourth Quarter

In quarter four, Del McCluskey, Project Management and Climate Financing Specialist, conducted a three-week STTA to assist the Mekong ARCC team in writing the annual report and prefeasibility financing report under Task 5. Additionally, he provided management support while the COP was on Home Leave.

6. LESSONS LEARNED

Further to the efforts identified in Task 5 above on scaling community adaptation activities at the site level in Vietnam to other areas of the Delta, the following lessons were learned and determined to be critical:

- Starting government outreach early and leaving enough time for follow-up within the time line of th project, as opposed to waiting to all results are in and presenting them near the end of the project;
- Exploring potential “entry points” for mainstreaming results government planning, and understanding that taking action according to national and subregional schedules is much more important than project timelines;
- Promoting broader stakeholder dialogue and incorporating local and expert knowledge;
- Maintaining transparency on costs, benefits and challenges of proposed measures;
- Recognizing that the goal is to *influence* policy and as such there may be a need to compromise on a vision of full uptake of activities in their entirety to one where they are complimented by other approaches and interests of the government; and
- Recognizing that good preparation sometimes allows for good luck, as in this case efforts to scale corresponded to an increased government focus on the management and productivity of these systems.

7. PLANNED ACTIVITIES FOR NEXT YEAR

Task One

- Document field implementation of adaptation activities, challenges and successes through website blog, success stories, newsletter, etc.
- Document field implementation process of all sites into one product
- Customize and disseminate products from the Ecosystem Service Valuation Estimator

Task Two

- Submit scientific journal an additional article focused on the Mekong ARCC cross-site comparison

Task Three

- USAID Mekong ARCC hosts annual meeting with IPs to discuss lessons learned from the field in Year Four and prepare for Task 3 activity wrap up
- IPs and communities finish implementing and monitoring adaptation strategies
- Conduct end line knowledge, attitude and practice surveys in all sites
- Conduct expert assessment and scale up activities in Thailand
- Conduct joint assessment of adaptation decision making process and results with WFP Cambodia

- Convene Task 3 Final Workshop with IPs, government partners and regional practitioners.

Task Four

- Conduct training on ecosystem services valuation methods and tools for government officials and other decision makers.

Task Five

- Strategize scale up options with regional and national counterparts
- Conduct comprehensive rice-shrimp assessment in Vietnam
- Implement Thailand regional scale up activities
- Complete Pre-feasibility Assessment on Financing Community Based Adaptation
- Complete lessons learned from implementation of adaptation options (WRI)
- Conduct Scaling Workshop with government partners and regional implementers

8. ADDRESSING COR COMMENTS FROM THE LAST QUARTERLY REPORT

There were no comments from the last progress report.

ANNEX A: PMP PROGRESS SUMMARY

Achieved progress versus planned for the period disaggregated by gender, geographic area and other relevant factors (per table below).

Table 1(a): PMP Indicator progress - USAID Standard Indicators and Project Custom Indicators

SO4: Improved Response to Environmental Challenges in Asia											
Indicator	Data Source	Baseline Data		FY2015		FY2015 Quarterly Status				Annual Performance Achieved to Date (in %)	Comment(s)
		Year	Value	Annual Cumulative Planned Target	Annual Cumulative Actual	Q1	Q2	Q3	Q4		
Intermediate Result (IR): Enabling conditions improved											
Number of laws, policies, strategies, plans, agreements, or regulations addressing climate change (mitigation or adaptation) and/or biodiversity conservation officially proposed, adopted, or implemented as a result of USG assistance (STD: 4.8.2-28)	IPs, Mekong ARCC	N/A	N/A	14	25	4	1	6	14	178.6%	Q1 & Q2: 4 + 1 Community plans to implement adaptation strategies including: <ul style="list-style-type: none"> - 1 for Sakon Nakhon (Q1) - 3 for Chiang Rai (Q1) - 1 for Kien Giang (Q2) Q3: 6 <ul style="list-style-type: none"> - 4 community M&E plans including 3 for Chiang Rai and 1 for Sakon Nakhon - 1 community adaptation plan for Kouanesam Village, Khammouan - 1 set of regulations about frog and fish culture for Khammouan Q4: 14 (1 regional & 13 community level) <ul style="list-style-type: none"> - 1 Alternate Wetting-Drying Technical Guidelines for Rice Production produced for ASEAN. (<i>regional level</i>) - 1 Thuan Hoa Commune M&E plan, Vietnam - 2 sets of regulations for Kok Klang, Sakon Nakhon: 1) Community forest committee and regulations AND 2)

											<p>community waste management committee and regulations</p> <ul style="list-style-type: none"> - 1 set of regulations for Hae Ko community forest and fish conservation zone - 6 Chey Commune adaptation strategies for 6 villages - 1 Che Commune adaptation plan, Cambodia - 2 community adaptation plans for Khouane and Vanghin villages, Lao PDR
Intermediate Result (IR): Human and institutional capacity strengthened											
Number of stakeholders with increased capacity to adapt to the impacts of climate variability and change as a result of USG assistance (STD: 4.8.2-26)	IPs	N/A	N/A	280	325	0	0	39	325	116%	<p>Q3: 39 community members</p> <ul style="list-style-type: none"> - 29 implementing M&E systems (by site: 5 Kien Giang, 14 Chiang Rai, 10 Sakon Nakhon) (by sex: 16 men, 13 women) - 10 men implementing adaptation activities in Khammouan <p>Q4: 325 community members</p> <ul style="list-style-type: none"> - <u>The number also includes those reported in Q3</u> - 325 community members implementing adaptation strategies, M&E of adaptation activities and climate monitoring (185 Chiang Rai, 82 Sakon Nakhon, 48 Kien Giang, 10 Khammouan)
Number of adaptation activities or strategies designed and implemented by communities to reduce gender-specific vulnerability to climate change (CUSTOM)	IPs	N/A	N/A	6	5	0	1	4	0	83.3%	<p>Q2 & Q3: 1 + 4 activities proposed by and benefiting women</p> <ul style="list-style-type: none"> - 1 bio-matress pig-raising activity in Kien Giang - 4 livestock husbandry activities per adaptation plan, i.e. by site: 3 in Chiang Rai and 1 in Sakon Nakhon
Number of people aware of climate-resilient livelihood strategies (CUSTOM)	Community members, IPs	2014	179*	346	293	233	0	60	0	84.7%	<p>Q1: 233 community members</p> <ul style="list-style-type: none"> - 127 community members in Vietnam, 28 in Sakon Nakhon, 78 in Chiang Rai have increased awareness of climate-resilient livelihood strategies from

											<p>baseline. The midterm survey was conducted in October-November 2014. (117 men, 116 women)</p> <p>Q3: 60 community members</p> <ul style="list-style-type: none"> - 60 community members in Khammouan have increased awareness of climate-resilient livelihood strategies from baseline. The follow-up survey was conducted in May 2015. (29 men, 31 women)
Intermediate Result (IR): Model actions demonstrated											
Number of climate change adaptation tools, technologies, and methodologies developed, tested, and/or adopted as a result of USG assistance (STD: REO)	Mekong ARCC, IPs	N/A	N/A	3	13	2	2	2	7	433%	<p>Q1: 2 tools</p> <ul style="list-style-type: none"> - 2 Scientific Climate Story tools developed and tested for Khammouan, Lao PDR and Kien Giang, Vietnam <p>Q2: 2 tools</p> <ul style="list-style-type: none"> - 1 standard operating procedure on raising shrimp with nursery for Kien Giang (Q2) <p>Q3: 2 tools</p> <ul style="list-style-type: none"> - 1 weather monitoring tool used in Chiang Rai and Sakon Nakhon - 1 water quality monitoring tool used in Kien Giang <p>Q4: 7 (2 regional, 5 country level)</p> <ul style="list-style-type: none"> - 1 The Consolidated Livelihoods Exercises for Analyzing Resilience (CLEAR) created with WFP, a planning tool for understanding CC impacts on livelihoods. (<i>regional level</i>) - 1 Ecosystem Value Estimator and its usage guidelines (<i>regional level</i>) - 4 Country specific guidelines for ecosystem services valuation for Cambodia, Lao PDR, Thailand and Vietnam (<i>country level</i>) - 1 Bio-matress pig standard operating procedure for Vietnam (<i>country level</i>)

Number of hectares of biological significance and/or natural resources under improved natural resource management as a result of USG assistance (STD: 4.8.1-26)	Community members, IPs	N/A	N/A	805	92.4	0	0	92.1	0.3	11.5%	<p>Q3: 92.1 ha</p> <ul style="list-style-type: none"> - 33.4 ha of sustainable agriculture and fisheries in Chiang Rai (integrated cropping and fish conservation areas) - 2.2 ha of sustainable agriculture in Sakon Nakhon (native rice planting) - 56.5 ha of sustainable agriculture and aquaculture in Kien Giang (shrimp-rice areas) <p>Q4: 0.32 ha</p> <ul style="list-style-type: none"> - Additional 0.32 ha (2 rai) of native rice planting in Sakon Nakhon <p>Additional community forest areas in Thailand will be reported in the next quarter.</p>
Intermediate Result (IR): Regional networks and institutions strengthened to replicate and sustain innovation											
Number of regional platforms created or strengthened (STD: REO)	Mekong ARCC	N/A	N/A	1	1	0	0*	0	1	100%	<p>Q4: 1 platform</p> <ul style="list-style-type: none"> - 1) The ASEAN Technical Working Group on Agriculture and Research Development (ATWGARD): The Project took part in developing Alternate Wetting-Drying Technical Guidelines for Rice Production for ATWGARD as a part of the ASEAN Guidelines for Scaling-Up Climate Smart Agriculture Practices. The ATWGARD guidelines were approved by the Special Senior Officials Meeting of the 36th ASEAN Ministers on Agriculture and Forestry (AMAF) meeting, Nay Pyi Taw, Myanmar, on 12–14 August 2015.

*The project didn't report any platform strengthened in Q2, but accidentally entered number 1 in the Q2 column in the Q3 indicator reporting table. Thus, the number of platform strengthened in Q2 remains '0'. We apologize for this.

ANNEX B: DISSEMINATION OF KNOWLEDGE PRODUCTS VIA ONLINE CHANNELS

Web Analytics on <http://mekongarcc.net> (October 1, 2014 – September 30, 2015)

***Key definitions:**

Sessions: A session is the period of time a user is actively engaged with your website. All usage data and all pages viewed per a user IP address are associated with a session.

Pageviews: Pageviews is the total number of pages viewed. Repeated views of a single page are counted. If the user refreshes the page in the browser, this counts as a new pageview.

Unique pageviews: With unique pageviews, you eliminate the factor of multiple views of the same page within a single session.

Over the past year, 5,974 people visited the site, generating 20,393 pageviews and 9,772 sessions on our site. (Figure 1)

WHO WERE THESE VISITORS? (Figure 2-3)

- Website visitors came from 160 countries.
- 27.26% came from Thailand (top in Asia); 17.60% came from the United States; and 10.25% came from Vietnam.
- 60.3% (5,894 new users) were first-time visitors.
- 8.61% of visitors (or 841 sessions) came to the site on a mobile device.

WHERE DID THEY COME FROM? (Figure 4)

- 13.81% (1,350 sessions) came from a social media source like Facebook (968), Twitter (377), and LinkedIn (2).
- 19.62% (1,917 sessions) came as a referral from another website. Of the referral traffic, the well-known sources—EVIDENCEONDEMAND.info (57), DAI.com (49) and LOWERMEKONG.org (45)—sent the most traffic to our site.
- 30.58% (2,988 sessions) came from web search engines like Google, Bing or Yahoo.
- 34.56% (3,377 sessions) came directly to the site by typing in MEKONGARCC.net or visiting a bookmarked page.

WHAT DID THEY DO ON OUR SITE? (Figure 5)

- The average visitor looked at 2.09 pages/session and stayed almost 3 minutes a session.
- Based on the landing pages, events that drew high numbers of visitors to the site included REPORTS and BLOG POSTS, leading to longer than average viewing time for each page.
- With 60.28% bounce rate, those visitors left right from that page without downloading the report or going on to another page.

HOW DID PEOPLE SPEND THEIR TIME ON OUR SITE? (Figure 6)

- There are over 1,200 viewed pages in total on the site.

- The homepage was the most viewed page on the site, with over 4,631 pageviews (or 22.71%) of all pageviews.

SO WHAT DID THEY DO WITH THIS DATA? (Figure 7-9)

- We have worked to increase the visibility of our web content on social media platforms, by linking to the website and by adding sharing functions on the webpage.
- We have been increasing use of visuals, including photos and infographics.
- Most downloaded PDF is the VAR Report (198), followed by ESV Guideline reports of Cambodia (169), Vietnam (105), Lao PDR (98), and Thailand (93), respectively.

Figure 1: Audience Overview

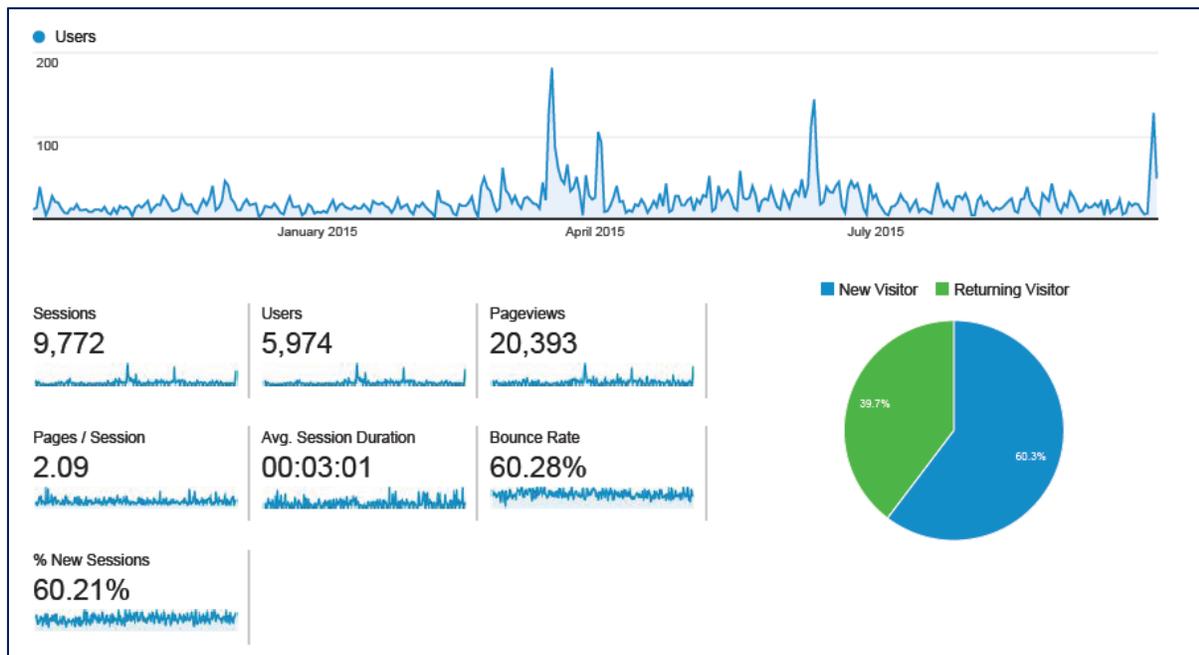


Figure 2: Audience Overview by Country

Country	Sessions	% Sessions
1. Thailand	2,664	27.26%
2. United States	1,720	17.60%
3. Vietnam	1,002	10.25%
4. Laos	442	4.52%
5. Cambodia	319	3.26%

Figure 3: Sessions by Mobile Devices

	841 % of Total: 8.61% (9,772)	841 % of Total: 8.61% (9,772)
1.  iOS	523	62.19%
2.  Android	290	34.48%
3.  Windows	10	1.19%
4.  (not set)	9	1.07%
5.  BlackBerry	6	0.71%
6.  Series40	1	0.12%
7.  SymbianOS	1	0.12%
8.  Windows Phone	1	0.12%

Figure 4: Acquisition by Top Five Channels

Default Channel Grouping	Acquisition			Behavior		
	Sessions	% New Sessions	New Users	Bounce Rate	Pages / Session	Avg. Session Duration
	9,772 % of Total: 100.00% (9,772)	60.32% Avg for View: 60.21% (0.17%)	5,894 % of Total: 100.17% (5,884)	60.28% Avg for View: 60.28% (0.00%)	2.09 Avg for View: 2.09 (0.00%)	00:03:01 Avg for View: 00:03:01 (0.00%)
1. Direct	3,377 (34.56%)	59.46%	2,008 (34.07%)	57.89%	1.97	00:03:06
2. Organic Search	2,988 (30.58%)	63.65%	1,902 (32.27%)	57.83%	2.24	00:02:46
3. Referral	1,917 (19.62%)	82.00%	1,572 (26.67%)	71.21%	1.72	00:01:46
4. Social	1,350 (13.81%)	26.59%	359 (6.09%)	57.48%	2.54	00:04:58
5. Email	140 (1.43%)	37.86%	53 (0.90%)	47.86%	2.29	00:05:24

Figure 5: Landing Pages

Page	Sessions	Entrances / Pageviews	Bounce Rate	Avg. Time on Page
	9,772 % of Total: 100.00% (9,772)	46.81% Avg for View: 48.81% (0.00%)	60.28% Avg for View: 60.28% (0.00%)	00:02:42 Avg for View: 00:02:42 (0.00%)
1. /	3,703 (37.89%)	85.08%	64.57%	00:02:34
2. /resource/report-climate-change-lower-mekong-basin-analysis-economic-values-risk	573 (5.86%)	79.83%	51.48%	00:06:19
3. /resource/ppt-climate-change-impact-and-adaptation-study-natural-and-agricultural-systems?resource_search=1	470 (4.81%)	89.87%	88.94%	00:04:35
4. /resource/reports-valuing-ecosystem-services-lower-mekong-basin	392 (4.01%)	69.74%	37.24%	00:07:13
5. /blog/employing-ecosystems-service-valuation-guidelines-solve-metaphysical-riddles-and-make-case-cons	229 (2.34%)	58.90%	61.14%	00:04:52
6. /blog/interview-john-talberth-wri-senior-economist-values-risk-report-climate-impacts-lower-mekong-ba	183 (1.87%)	59.41%	65.03%	00:04:21
7. /news/usaid-mekong-arcc-gis-data-available-download-ADB-web-platform	177 (1.81%)	78.67%	79.66%	00:08:19
8. /resource	152 (1.56%)	19.32%	26.97%	00:00:58
9. /blog/more-pipe-dream-women-khammouan-villages-eagerly-await-water-security-and-management-improvement	134 (1.37%)	72.13%	77.61%	00:07:35
10. /home	128 (1.31%)	34.46%	68.75%	00:02:31

Figure 6: Total Pageviews, Homepage views, and Key Pages

Page	Pageviews	Unique Pageviews	Avg. Time on Page	Entrances	Bounce Rate	% Exit	Page Value
	20,393 % of Total: 100.00% (20,393)	16,914 % of Total: 100.00% (16,914)	00:02:42 Avg for View: 00:02:42 (0.00%)	9,546 % of Total: 100.00% (9,546)	60.28% Avg for View: 60.28% (0.00%)	46.81% Avg for View: 46.81% (0.00%)	\$0.00 % of Total: 0.00% (\$0.00)
1. /	4,248 (20.83%)	3,826 (22.62%)	00:02:34	3,614 (37.86%)	64.57%	63.79%	\$0.00 (0.00%)
2. /resource	818 (4.01%)	596 (3.52%)	00:00:58	158 (1.66%)	26.97%	14.30%	\$0.00 (0.00%)
3. /resource/report-climate-change-lower-mekong-basin-analysis-economic-values-risk	689 (3.38%)	630 (3.72%)	00:06:19	550 (5.76%)	51.48%	74.46%	\$0.00 (0.00%)
4. /ourwork/our-work	617 (3.03%)	504 (2.98%)	00:01:48	100 (1.05%)	58.65%	38.41%	\$0.00 (0.00%)
5. /blogs	557 (2.73%)	387 (2.29%)	00:01:15	100 (1.05%)	34.00%	17.24%	\$0.00 (0.00%)
6. /news	535 (2.62%)	354 (2.09%)	00:01:05	72 (0.75%)	20.83%	8.97%	\$0.00 (0.00%)
7. /resource/reports-valuing-ecosystem-services-lower-mekong-basin	532 (2.61%)	446 (2.64%)	00:07:13	371 (3.89%)	37.24%	64.47%	\$0.00 (0.00%)
8. /resource/ppt-climate-change-impact-and-adaptation-study-natural-and-agricultural-systems?resource_search=1	523 (2.56%)	473 (2.80%)	00:04:35	470 (4.92%)	88.94%	87.95%	\$0.00 (0.00%)
9. /communities	488 (2.39%)	340 (2.01%)	00:01:38	114 (1.19%)	39.64%	22.13%	\$0.00 (0.00%)
10. /home	383 (1.88%)	278 (1.64%)	00:02:31	132 (1.38%)	68.75%	39.16%	\$0.00 (0.00%)

Rows 1 - 10 of 1257

Figure 7: Top Events

Event Category	Total Events	Unique Events
	3,744 % of Total: 100.00% (3,744)	2,330 % of Total: 23.84% (9,772)
1. Downloads	2,501 (66.80%)	1,459 (62.62%)
2. Outbound links	1,067 (28.50%)	713 (30.60%)
3. to use this feature visit: EVENT-TRACKING.COM	88 (2.35%)	88 (3.78%)
4. ShareThis	69 (1.84%)	52 (2.23%)
5. Mails	19 (0.51%)	18 (0.77%)

Figure 8: Top Events: Downloads Type: PDF

Event Label	Total Events	Unique Events
	1,666 % of Total: 44.50% (3,744)	935 % of Total: 9.57% (9,772)
1. /sites/default/files/usaids_marcc_values_at_risk_report_with_exesum-revised.pdf	198 (11.88%)	183 (12.36%)
2. /sites/default/files/cambodia_esv_guidelines-press.pdf	169 (10.14%)	147 (9.93%)
3. /sites/default/files/vietnam_esv_guidelines-press.pdf	105 (6.30%)	90 (6.08%)
4. /sites/default/files/laos_esv_guidelines-press.pdf	98 (5.88%)	88 (5.94%)
5. /sites/default/files/thailand_esv_guidelines-press.pdf	93 (5.58%)	80 (5.40%)
6. /sites/default/files/overview_of_var_report-press.pdf	77 (4.62%)	76 (5.13%)
7. /sites/default/files/mekong_arcc_main_report_printed_-_final.pdf	68 (4.08%)	62 (4.19%)
8. /sites/default/files/mekong_arcc_climate_study_summary-press.pdf	58 (3.48%)	54 (3.65%)
9. /sites/default/files/lessons_on_merging_scs_ccs_final-2015.04.16-press.pdf	39 (2.34%)	34 (2.30%)
10. /sites/default/files/lao_pdr_eng_may2014-press-small_2.pdf	27 (1.62%)	27 (1.82%)

Figure 9: Break-down by country for PDF downloads as the first event

Category: Downloads/Action: PDF/Label: /sites/default/files/usaidth_marc_values_at_risk_report_with_exesum-revised.pdf		
149 Actions		117 Final event
Traffic break-down ▾		
Country	Actions	% of traffic
Vietnam	23	15.4%
Thailand	16	10.7%
United States	15	10.1%
Cambodia	5	3.36%
Laos	3	2.01%
...	87	58.4%

Category: Downloads/Action: PDF/Label: /sites/default/files/cambodia_esv_guidelines-press.pdf		
129 Actions		72 Final event
Traffic break-down ▾		
Country	Actions	% of traffic
Cambodia	16	12.4%
United States	13	10.1%
Thailand	9	6.98%
Laos	3	2.33%
Vietnam	3	2.33%
...	85	65.9%

Facebook Performance (from October 1, 2014 to September 30, 2015)

Since launched in 2012, the USAID Mekong ARCC Facebook page has doubled its page likes (from 258 to 520 page likes) over the past year. Among total page likes, 43% are women and 54% are men, from Thailand (144), Vietnam (89), Cambodia (59), the United States (50), and Myanmar (32), respectively. (Figure 10 and 11)

All Facebook posts are organic, without payment for promoting the page. The post on May 21, 2015 reaching nearly 400 people, shared the link of the VAR Report on weAdapt.org (<http://bit.ly/1SfRU1f>). However, the top five latest posts that engaged visitors are the U.S. Embassy to Thailand Charge d’Affaires’ visit to the project site in Sakon Nakhon, news updates, an article in *Vientiane Times* on sustainable catfish and frog breeding training conducted by the project in Khammouan, and lastly, photos shared from the U.S. Embassy regarding the Charge d’Affaires’ visit. (Figure 12 and 13)

Figure 10: Total Page Likes



Figure 11: People who like the Page

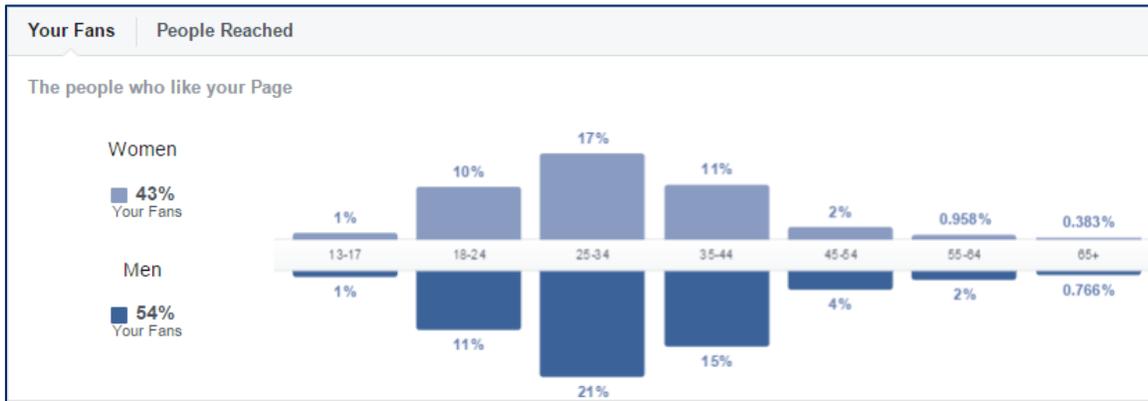


Figure 12: Post Reach Record

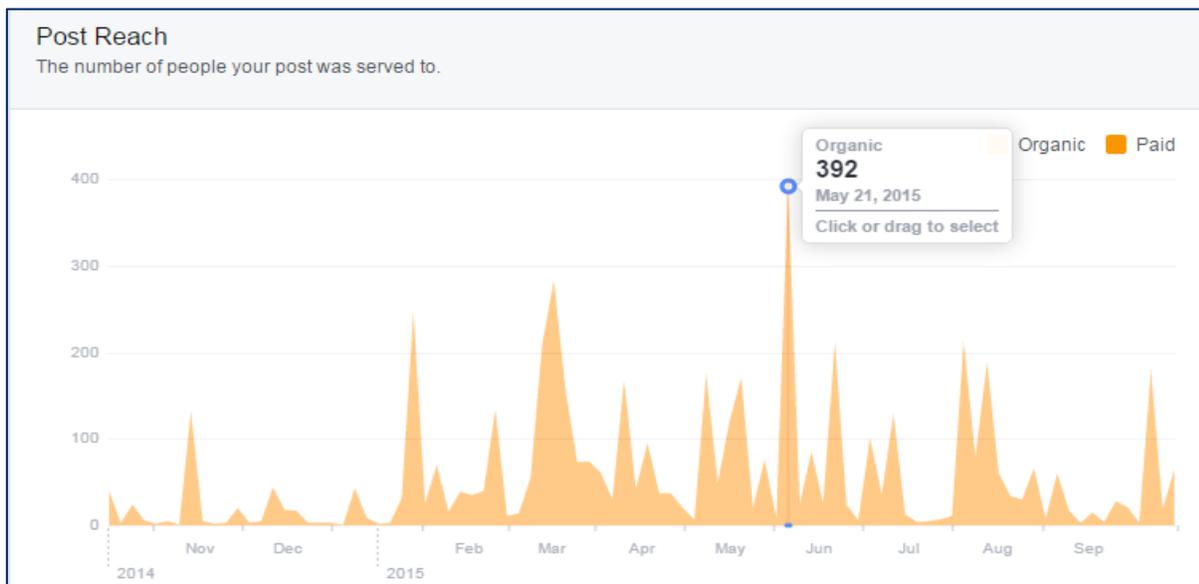


Figure 13: Top Five Posts

Published	Post	Type	Targeting	Reach	Engagement	Promote
08/07/2015 6:05 pm	 On August 5, Chargé d’Affaires of the U.S. Embassy Thailand, W. Patrick Murphy, visited Kok Klang Vi			611	37 12	
09/08/2015 4:03 pm	 #Cambodia is found as a hotspot of tree cover loss in the #Mekong basin.			359	23 10	
10/05/2015 12:50 pm	Climate change targets aim high			256	8 5	
07/31/2015 8:33 pm	 IN THE NEWS: The Vientiane Times (28.07.2015) highlights sustainable catfish and frog breeding trai			251	12 11	
08/07/2015 11:00 am	 USAID Mekong ARCC Project shared U.S. Embassy Bangkok’s album.			237	24 6	

Twitter Performance (from 01.10.2014 to 30.09.2015)

The @MekongARCC Twitter has been consistently used to draw traffic to the website, with 302 followers as of September 30, 2015. We gained 109 new followers over the last year while we have a total of 275 public tweets that have generated approximately 34,084 impressions (i.e. the delivery of a tweet to various Twitter streams that actually generates interaction or replies from others). (Figure 14-15)

Figure 14: Overview of Twitter Followers

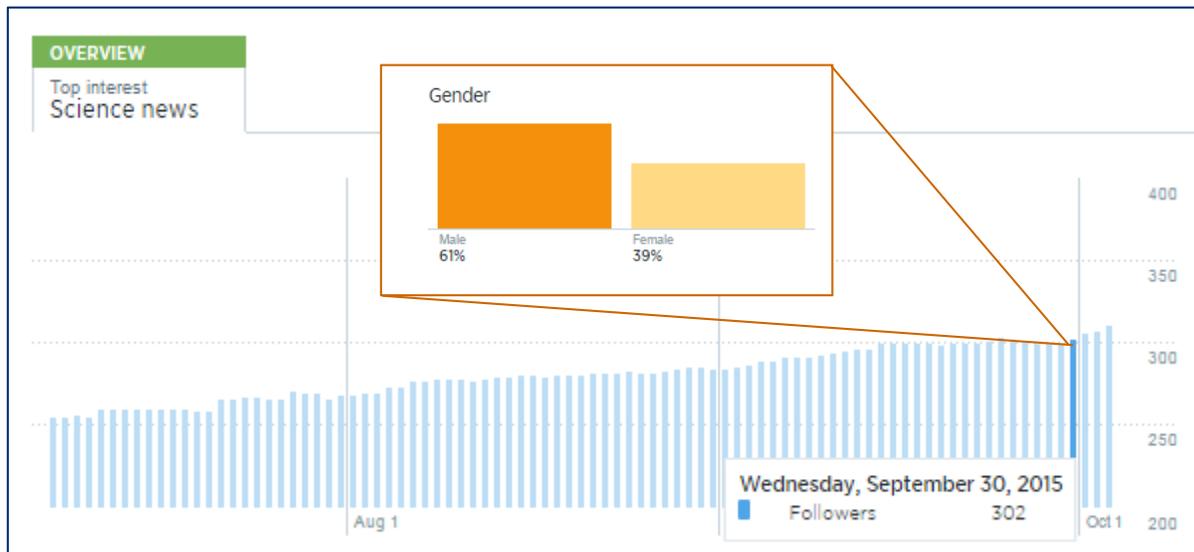


Figure 15: The @MekongARCC Twitter Analysis for FY2015

MONTH	OCT' 14	NOV' 14	DEC' 14	JAN' 15	FEB' 15	MAR' 15	APR' 15	MAY' 15	JUN' 15	JUL' 15	AUG' 15	SEP' 15
Tweets	6	13	18	21	46	32	25	20	22	23	23	26
Profile visits	69	34	44	165	422	393	213	128	148	187	396	316
Mentions	9	8	8	24	39	34	24	10	23	30	27	12
New followers	0	0	3	4	27	11	5	10	0	15	16	18
Tweet Impressions	1,195	1,591	1,411	2,978	3,985	4,840	2,983	3,577	2,901	1,755	3,196	3,672

