Improving Project Management in International Development: A Thorough Evaluation of the IAD 203

***Project Planning and Evaluation* Core Course**

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Introduction:

Graduate programs in international development studies aim to prepare students to tackle the global challenges surrounding poverty, inequality, injustice and food security. The development sector however, ranges from extremely rural to urban, from children to geriatrics, from soil science to public health. The challenge of these graduate programs is to provide a curriculum that can prepare a student body with varied backgrounds and career goals for a job market as diverse as the world itself. What, therefore, are the unique set of tools and skills international development graduate students should be expected to know upon completion of their programs? For these programs to be attractive for both domestic and fee paying international students, these programs needs to offer their students training that will set them apart and give their international focus a competitive edge over more traditional graduate degrees. Moreover, students choosing this discipline for their careers "will be responsible for helping make, manage, and enforce decisions that are likely to have a significant and immediate impact on the welfare of the poor" (Woolcock et al, 2006), a calling which often unites them in their pursuit of further training. Furthermore, according to Woolcock et al., all development Masters' students, regardless of their career objectives or backgrounds, should be expected to be competent in three core skills: being detectives, translators, and diplomats (2006).

Through being a detective, Woolcock argues that Masters students should obtain the skills necessary to collect, analyze and interpret data. Regardless of whether this is applied to better understanding adoption of certain farming practices in a rural community or in managing an NGO, being able to ask the right questions of the right people and piece this information into action oriented

solutions is key. Practitioners thereby improve their interventions to better meet the actual needs of

their primary beneficiaries, limit rework, and mitigate donor frustration. As translators, Masters'

students should be able to interpret ideas and concepts and reframe them for different stakeholder

groups. This requires proper training in how to communicate with policy makers, researchers, business

people, and agriculturalists across cultural and linguistic boundaries to achieve the desired results of a

given project. By understanding how to distill relevant information and communicate it back in the

format most useful for these different groups, the development practitioner can improve

communication streams and bring the poor into streams they are currently excluded from. Finally, as

diplomats, Masters' students in international development must be adept negotiators within multiple

spheres of influence. This role as negotiator requires development practitioners to understand the

power of interpersonal skills, the art of compromise, and the patience needed in relationship building. It

is also essential for them as students to be trained in what contextual information will make building

these relationships and influencing people most effective in leveraging the marginalized and poor into

positions that give them more agency while keeping interventions cost effective for policy

implementers.

At the core of all these skills is the discipline of good project management. The effective

management of projects in the international development sector however, shows high variability and a

lack of a standardized knowledge base. Organizations need their projects to be designed, implemented

and evaluated in a professional and replicable manner that remains within scope, on schedule and

within budget. Whether this can be achieved depends on the processes used and the people involved

(Kopečkova et al. 2016). Project management in international development, requires special

consideration to be paid to social, economic, power and linguistic dynamics between practitioners and

beneficiaries in ways that are particular to this industry. To overcome these challenges specific project

management tools and processes can be utilized to better meet stakeholder expectations and achieve

greater project success. How effective a project manager is at applying these tools and processes to execute a successful project will come down to how well prepared they are to analyze, communicate, and negotiate between stakeholder groups. Whether graduate students in development are competent in Woolcock's fundamental skills will also depend on how strong of an emphasis is placed on the instruction and analysis of applied project management in their graduate programs.

The UC Davis International Agriculture Development (IAD) graduate group is one such graduate program that has been addressing the food security knowledge gap in the international development community for the past 50 years. As a part of the core curriculum, a *Project Planning and Evaluation* course is required, demonstrating a recognition by the program the indispensable knowledge and skills project management training can have in preparing graduates for successful careers in development. As a graduate student in this program I took the *Project Planning and Evaluation* core course in 2016 prior to my Research and Innovation Fellowship for Agriculture (RIFA) fellowship in Nepal. The stated goals of the course at that time was the following: *"To introduce researchers and practitioners to the fundamental tools essential for designing, evaluating and managing development projects"* and *"each student in the class will take the responsibility of designing a project intended to effect change from a current condition toward a set of positive consequences as determined by interested stakeholders. Its impact and effectiveness will be measurable"* (Syllabus, IAD 203, 2016). Having no exposure to the principles, procedures, practices and protocols codified into project management prior to this course, I found that these goals were not achieved beyond an elementary level. In consequence, I was not adequately prepared to manage the expected projects I was tasked with managing while in Nepal and was forced to seek expertise through other platforms. Using the case study of my fellowship in Nepal as the evidence of IAD's need to improve its project planning core curriculum I will assess the preparation the IAD 203 core course had on the projects' outcomes. As a part of my analysis I will then evaluate and

present one possible model for this core curriculum to meet the sectors diverse needs as well as better approach student expectations.

Case Study Analysis – Nepal

Between September and December of 2016, I collaborated with Aythos on the implementation of several agricultural projects in rural Nepal. Part one of this case study describes the project background, including the Nepal context in 2016, the work of Aythos, the organizational climate, and the current level of project management skills applied in project implementation by Aythos. Part two presents the methodologies used to promote staff and farmer ownership of their learnings as well as reduce reliance on Western aid throughout the design, implementation and evaluation phases of a harvest/post-harvest farmer training and a compost/soil science farmer training. Part three includes descriptions of both farmer trainings. Part four evaluates the role of the IAD 203 core course in preparing my management and facilitation of these projects. Lastly, based on the findings of part 4 and on my experience assisting with teaching IAD 203 in the Winter of 2017, I will discuss the necessary changes to the IAD 203 curriculum that should be addressed to prepare future graduate students to design and implement successful projects and manage programs.

Part 1 - Background

Aythos, is a non-profit remotely run by a U.S. based CEO, with all day to day responsibilities left to three Nepali staff. The three Nepali staff included one individual who had been with the organization for approximately two years at the time of my arrival and two who had been with the organization for one year. In addition to these three staff members there was one part time high school intern. Two of the four staff members were from villages that Aythos has been working in for several years and maintained strong connections with these communities. The other two came from Kathmandu (KTM). None of the employees had any formal training in community development, management, or agriculture.

The organization operates on a project by project basis. Projects are based on their funding source, funding amounts, the interests of donors as well as the expressed needs of Aythos' primary beneficiaries. While all staff members have different job titles, power dynamics amongst the staff were evident and a lack of clearly defined roles and responsibilities created an inefficient work environment. According to my field notes during my preliminary investigations the following (see Table 1) reflects one of the challenges and solutions that was identified (for further background on initial information gathering see *Appendix 1*):

Table 1: Excerpt from field notes about work environment	
Challenge identified	**Recommendations/Opportunities**
Office tension exists between male supervisor and female project managers	Holding a group meeting after important weekly events and writing everyone's opinions on the white board is a new strategy that everyone likes. This skill is slowly being encouraged and transferred to different staff members.

One day after arriving in KTM two Aythos workers, myself and another RIFA fellow from UC Davis took a 5-hour bus ride and 3-hours hike into the communities of VDC Helambu. The purpose of this initial visit was for two of the Aythos staff, Shanti and Muna, to evaluate the growth of the kiwi plants distributed by Aythos in 2013, 2014, and 2015 as well as conduct informal interviews with farmers about their perception of kiwis and their plans for getting kiwis to market. My role in the process was to understand the context where Aythos worked, where the kiwis were coming from and who they were grown by.

Households in the community of Gangyul had 3-year kiwi vines that were successfully bearing fruit in the Fall of 2016, but little care had been taken to train the vines for years of productive growth. The poorly crafted trellis structures were barely able support the heavy crop load, a result of no thinning management in the Spring and no pruning in the Winter. This also led to the vine spreading out its fruit making energy which produced kiwis that were too small to be of any off farm marketable value. A challenge farmers identified for us during this visit was the presence of rats which can climb the vines and

destroy fruit. Farmers in the community of Seramathang demonstrated more obvious behavioral barriers to project success, rather than simply a lack of vine management training. Many appeared apathetic or discouraged about their kiwis as some were not growing well and others were completely abandoned after initial crop establishment due to the 2015 Earthquakes. The farmers of the community of Tahongsa had established kiwis that were only 1 year old and vine management was not yet a challenge. This community was identified as having the most potential for good crop yields in the coming years if proper trellising, pruning, and thinning were adopted.

Additionally, it was clear from the outset that the organizations staff were accustomed to foreigners coming to work with them, and had come to rely on their knowledge and skills to get work done. Having come to depend on outsiders as agricultural experts, the staff had never taken the initiative to teach themselves anything about kiwi management and relegated their strengths to building local relationships, cooking during trainings, and translating for foreigners.

Based on this initial evaluation of the context of both the communities and the staff attitudes I prioritized the following tasks for my time:

1.) Plan and implement a harvest training by the end of October to maximize optimal kiwifruit maturity as well as to prepare farmers for better management in 2017

2.) Transfer leadership and decision making power back to the local staff

3.) Empower Aythos staff with additional trainings so that they feel empowered to do their work more effectively

Because harvesting kiwis is not as intuitive as other crops farmers in the VDC of Helambu are accustomed to growing (i.e. potatoes, radishes and apples), harvesting kiwis at optimal maturity requires special training. Kiwi is a climacteric fruit, that in commercial settings will never be at a consumable ripeness directly off the vine. Instead, it can take a minimum of 2 weeks after harvest to reach marketable ripeness, but up to 4 to 6 months if stored properly. Furthermore, farmers needed an introduction into

proper post-harvest handling practices to extend the transportability, food safety and overall longevity of their fruit if they wanted to enter the kiwifruit value chain in the future. With the optimal kiwi harvest window weeks away from this initial field visit, a training on proper harvesting techniques became the most urgent project the Aythos staff would work on. To address the more deep seeded challenge of equipping the local staff to function independent of foreign assistance several capacity building trainings were identified to equip the staff with new management tools and knowledge to confidently execute projects on their own.

Part 2 – Methods

All training design, implementation and evaluation for Aythos were done with a participatory approach in mind, valuing local knowledge through one on one interviews, small focus groups, and community evaluations. All stakeholders who had a significant impact on the project outcomes were included, this meant farmers, trainers and the Aythos staff were consulted at every step in the process. Special considerations to create equitable learning environments for all household members (male and female adults) were also prioritized when necessary. Written and informal evaluations were conducted before and after each project was implemented. Several methods of evaluation were presented to the Aythos staff who selected written evaluations as appropriate for themselves and the trainers while oral evaluations as appropriate for the farmers.

Part 3 – Description of farmer training days

Harvest Training Description

For the harvest training, I took on a project manager role, modeling and leading the team through a process of steps I learned from the *Project Management Body of Knowledge* (PMBOK) manual and Berkeley coursework for designing, planning and implementing a successful project. This included such information as defining the problem, developing team ground rules, launching the project, creating a Work Breakdown Structure (WBS), designing a schedule, identifying all stakeholder expectations, and

running effective meetings. Through modeling each process and including the Aythos staff in each step I hoped to also be equipping them to take on more management of upcoming projects.

We prioritized the design of the harvest training in the following order:

- Identify the problem and solution

- Prioritize local knowledge and communication with farmers when planning

- Develop measurable objective, activities and outcomes that respond to the problem

- Build a project schedule (using a Gantt chart)

- Select roles and responsibilities for all tasks in WBS

    One of the first tasks of the WBS was the creation of a "train the trainer" curriculum manual.

Using a model from the FAO on Farmer Field School Methodology (Mweri, B.A.M. and Khisa, S. Godrick, 2001) I developed the first iteration of this curriculum. One component of this was the development of the Aythos teams core values (see Table 2):

Table 2: Excerpt from harvest training curriculum
Values:
i. *Investment* - We believe in investing in people. Over time project materials deteriorate and need replacement, but knowledge spreads, is built upon, and spawns fresh ideas. ii. *Sustainability* - We support projects that are economically and environmentally sustainable. iii. *Equality* - We insist on our projects be accessible to all who would like to participate, regardless of perceived or actual differences between community members. *Leadership* - Aythos values local leaders looking to better themselves and serve their communities

Through explicitly stating the value of local leaders I was prioritizing that farmers learn from other Nepali's whenever appropriate to build stronger networks and encourage trust of local experts.

Appendix 2 highlights further excerpts from this manual including the project objectives and a sample of activities and outcomes.

The harvest training was conducted in the village of Gangyul where 35 households were invited to attend. The three-day event consisted of two travel days to and from Gangyul and a one 8-hour harvest training day. The first half of the training was frustrating and challenging as the trainer did not follow the curriculum or expectations that the Aythos staff had clearly discussed with him ahead of time. However, the staff, having ownership over their training day and being experts in the curriculum, could identify this and were able to confidently intervene. At lunch the Aythos staff confronted the trainer and the afternoon resulted in a very collaborative event that closely followed the curriculum.

Written evaluations were created to be filled out by the trainer and the Aythos staff and an informal evaluation that was presented in a discussion format with the farmers, without the trainer present. These were used to assess their overall experience of the training at the end of the day. Farmer participation was incentivized by conducting a "Lucky Draw" and handing out kiwi value added products as prizes to attendees This improved the quantity of feedback, as well as the participation of female voices in the evaluation. Key insights and accomplishments of the training were identified by the following staff and farmer quotes (see Table 3):

Table 3: Key insights into harvest training "day of"	
Insight	**Observation**
Confidence	"The Aythos team…needs to be strong enough to talk to the trainer and correct him if he goes off the curriculum instantly." - Shanti
Timeliness	"Good timing." -local farmer
Engaging	"humor, good lecture, questionings*" and "field visit using refractometer" *"questionings" was in reference to interactive learning modules where farmers were asked to work in small groups and present their answers
Marketing	"Grading" and "packaging"
Engaging	- Harvesting - Farmers accurately identified the following as signs of kiwi maturity: 8 months after thinning, early fall, black seeds, birds and rats attack the fruit - Post-Harvest – Farmers stated that during harvest this year they would keep kiwifruit clean and handle gently

	• Marketing – Farmers stated that they would grade their own fruit and package it to receive a higher farmgate price

In addition, we invited a kiwi entrepreneur from a nearby community to speak, network and motivate farmers through stories of his success through proper vine management.

Compost and Soil Testing Training Description

With the project planning and evaluation tools in place from the harvest training the Aythos staff took a leading role in designing and implementing a compost training with greater efficiency and success. Throughout this process, I took the role of facilitator, rather than lead project manager, serving to answer questions, encourage individual agency and planning specific capacity building trainings the staff requested knowledge in. The staff chose to use the following project management processes in the planning, design, and implementation of the composting training:

- Gantt chart to create the WBS and divide roles and responsibilities

- Creation of measurable project objectives (see Appendix 3)

- Decision by vote among staff members to decide on which outside trainer to hire

The staff wanted to include specialized training in the use of the Rapitest Soil Test Kit, a low-cost soil testing kit that measures Nitrogen, Phosphorous, Potassium and pH. The Aythos staff had received requests for some time from local communities about soil tests as most testing needs to go through a time consuming and not readily accessible laboratory in Kathmandu. The Aythos team was interested in learning more about this option and piloting the use of the test kit with its farmers and requested that I teach this component of the training as an "invited expert". Concerns I expressed in bringing in this new technology were the following:

- The Rapitest Soil Test Kit is not currently available for purchase in Nepal

- The N, P, and K tests are not always useful in making management decisions

- Dependence on technology that is not locally available could lead to disappointment

- Local staff needed to know and understand how the test kits functioned if they were going to recommend them to their stakeholders

Valuing local knowledge over reliance on outside technology I agreed to pilot the lesson in addition to teaching farmers how to diagnose soil problems without the test. Prior to the training, we met with the trainer and I taught the staff how to test soil for texture using the ribbon and texture by feel tests as a way for them to help farmers link potential drainage problems to soil texture. Additionally, I had them pilot picture instructions for the pH, N, P, K test which were developed by Matthew McCue of the IAD program, for illiterate farmers, to test their usability. This also served as an opportunity to prepare the staff and trainers to understand basics of soil science and soil testing to be able to play a more active role during the training thereby.

The training was held for approximately 40 farmers with 25% of the turnout being women. The training was primarily activities based and relied on local materials for the entire compost pit creation. The community worked together to create two demonstration compost pits over the course of two days. During the soil testing activity groups, were created based on gender to ensure active female participation. Groups then demonstrated and explained their results to the group and how they might use this information for the future management of their kiwis. Key insights and accomplishments from the training included (see Table 4):

Table 4: Key insights into compost training "day of"	
Insights	**Observations**
Flow	The trainer followed the objectives closely
Use of local resources	- Local materials were used with minimal outside material needed - Farmer knowledge was validated throughout the training
Participation	Active female participation when placed on all female teams
Aythos Autonomy	Aythos staff took the leading role in organizing and implementing the day of training

At the end of the training a post course evaluation was conducted with the trainer. The Aythos staff led a group discussion to obtain best learnings and areas of improvement with the farmers. The "Lucky Draw" was a success in the first training, so was brought back with more value-added kiwi products to give away to attendees.

Part 4 – Evaluation of the IAD 203 course in preparing my management of development projects

The successes and failures of the Aythos trainings can all be attributed, in some way, to either effective or poor project management. While the basic underpinnings for the tools and knowledge used to design and implement these two trainings was first introduced to me in IAD 203, I was left primarily with a series of templates and manuals to reference rather than feeling that the course had honed my skills as detective, translator, and diplomat in preparation for this project. Only through enrolling in the UC Berkeley Extension certificate program in Project Management did I begin to learn in-depth, the standard processes of effective project management, which allowed me to bring new management skills to the Nepali context and to these specific trainings.

Although I expected to engage in soil science work upon first receiving the RIFA fellowship, project management ended up at the forefront of my fieldwork, due to the project management shortcomings of Aythos and the counterproductive workplace culture. The Aythos staff, having no local oversight and lacking the necessary training to think critically, be self-starters, and evaluate their interventions, resulted in an office culture of inefficiency, lack of communication, and boredom. Together with the Aythos team, through one-on-one meetings, we identified topics that could be taught in training sessions during the work week to equip them to better manage future projects and address current workplace problems (see Table 5).

Table 5: Capacity building trainings conducted for Aythos staff		
Project Management	Office Skills	Agriculture Knowledge and Skills

• Understanding Workplace Culture in a Multicultural Context • Building a High Performing Team – including team building activities • The Power of Scheduling • Success Starts with Understanding Stakeholder Expectations • Being a Self-Starter and Taking Learning into Your Own Hands • How Do We Improve? – Monitoring and Evaluation • Having the Courage to Lead	• Writing Professional Reports and Email Updates • PowerPoint • How to Run a Purposeful Meeting •	• Composting • Basic Plant Physiology • Soil Science • Apple and Kiwi Pruning

Although I was initially brought to Nepal to address the agricultural needs of Helambu farmers, the greater potential for lasting impact seemed to lie in addressing Aythos' gaps in project management skills further highlighting my lack of proper training before arrival. Therefore, the majority of my time and focus in Nepal shifted to learn the skills in order to and address these needs.

Discussion – The Role of Project Management Training at UC Davis: Teaching Graduate Students to Design and Implement Successful Projects

I want to use these insights from this case study in Nepal to improve the IAD core curriculum to rigorously prepare IAD students through practical application of project management tools. Through my experience I was able to identify the problem, take corrective action on my own to fix it and then upon returning to UC Davis collaborated on beginning to make the necessary changes to adapt the 203 curricula to be relevant to what students need to know and have marketable skills which make them adaptable in managing projects across any sector.

Through one on one interviews with past graduates and current students of the IAD program asking them about the usefulness of the IAD 203 course the same responses continually recur. These responses generally refer to the class with phrases like, "a waste of time,", "a joke," or "I could have

learned everything in a day." Paradoxically, students and graduates who have gone into the field after taking the course will say things like, "this is the class I refer to the most." In the latter conversations people often reference specific scheduling, budgeting, and pathway tools introduced in the 203 class as helping them manage people and projects more effectively. These comments and my own anecdotal experience have led me to conclude that standardized project management knowledge and skills is incredibly useful to the professions IAD graduates pursue, but there is something very wrong with the current model of instruction that is not leaving students prepared or satisfied to apply this knowledge in the field.

Since 2014 the course has tried to align itself with the *Research and Innovation Fellowship for Agriculture* (RIFA) to give students actual projects to work towards throughout the quarter. Unfortunately, several risks have been identified that make this current model not ideal in driving the course curriculum forward. These include the following:

- Timing of RIFA awards does not always coincide with the class

- Departure dates of students for fellowship vary over the course of 10 months

- Remote communication with stakeholders abroad is difficult to time with course deliverables that rely on their input

- Students make things up to satisfy specific deliverables

- Students who did not receive a RIFA fellowship must quickly scramble to find a real project or resort to making one up entirely

- Minimal learning is going on inside the classroom regarding project management making outside learning, in the field, much more challenging.

The purpose of this collaboration was to provide the dual objective of teaching students project planning tools and allowing them to write their RIFA implementation plan based on the tools learned in class. From multiple sources including current students, past students who remain in Davis and my

personal experience, the most learning occurred from initial exposure to these tools and the resources/manuals (Appendix 4) given on the online learning platforms accompanying the course, rather than the application of the tools to real projects. Many students felt that, "everything could have been learned in a day" based on this teaching model because the classroom learning focused on specific tools rather than problem solving or stakeholder management cases. The outline below is the course content covered over the past two years (see Table 6):

Table 6: 2016-2017 IAD 203 Course Topics
Situating a project into a program
Problem and solution statements
Problem and solution trees
Stakeholder analysis
Risk assessment
Logical Frameworks
Gantt charts/Scheduling tools
Budgets

Through student evaluations of the 203 course changes were made in Winter of 2017 to the pedagogy and curriculum, however not enough has changed to make this core course a truly valuable asset to those leaving the IAD program and entering the development sector. In our increasingly projectized world development practitioners are left to pay for curriculum intended for a business, tech, or domestic audiences if they want to learn these skills or attain further accreditation. These programs often fail to consider the unique constraints of project managers in the world's poorest and most unstable places which could include dealing with risks such as war, civil unrest, corrupt governance, poor infrastructure, no internet, and the use of local material. The price point of these extension programs serves as an additional barrier, and is not feasible for most graduate students while also in school, ($2,500-$3,000 in addition to exam fees). The content for these curriculum is public knowledge and if the UC Davis IAD program is currently offering a course titled *Project Planning for Development* it seems imperative

that it align its curriculum with the same structure and material of this vetted project management programs, albeit with accommodations made for agriculture in the developing country context.

One way this can be achieved is by preparing students to obtain an accredited certificate in project management designed for development practitioners. In the remaining part of this discussion I will outline one possible model the curriculum could follow to begin to make these improvements.

Sample curriculum model:

In 2011 Project Management for NGO's (PM4NGO's) came out with. a curriculum based on existing recognized project management standards with an emphasis on the development sector. APMG-International, an award winning certifying body founded in the UK, along with PM4NGO's, created this new benchmark standard for the development industry. The curriculum, examination and certification process is designed with NGO's in mind, but anyone working in the industry of international development doing project based work would find their material applicable. Their course content and certification process are unique from domestic certifying bodies in the following ways (PMD Pro Certification):

- Confers a similar professional status as other world-class certifications in other sectors

- Is accessible to professionals irrespective of their geographical location [and profession]

- Recognizes the additional roles which project managers in the international development, relief and conservation sectors are expected to fulfill, and is relevant to the projects they manage

- Takes into consideration the financial constraints faced by those who will benefit from the product

- Certificate holders will have access to other internationally-recognized certifications and take advantage of their wide range of learning opportunities and resources, including peer-to-peer learning, webinars, etc. to support their own learning and professional development.

Currently two multiple choice examinations to validate foundational skills (level 1) and application knowledge (level 2), respectively (see Appendix 5). The PMD Pro Guide put out by PM4NGOs

and online video modules by Life Learning Lab are also available under a Creative Commons License. A third certification process is being developed that would be accredited by APMG and internationally recognized at the same level as other certificates such as the Project Management Institute (PMI). As stated above, the two exams take "into consideration the financial constraints faced by those who will benefit from the product." The cost breakdown for each exam, in comparison to comparable courses and certifications is minimal, and shown as follows (PMD Pro 2 Pricing):

- $22 – Staff of local NGOs working in the developing world/Students in the developing world

- $60 – Staff of international NGOs working in the developing world/Staff of government ministries

- $145 – Others (including, but not limited to, HQ-based staff of international NGOs, staff of multi-lateral and bi-lateral agencies, consultants)

If using the video modules to accompany the material, each module will take between 30min-1hour. However, the modules are not necessary to understand and interact with the course content and should only be considered supplemental to the guide and class time. The exams require the proctoring of a verified guide, therefore if students chose to receive the accreditation and pay the exam fee this exam could be easily schedule during the typical final exam time assigned to the course. For any students who do not want to take the exam or opt out of this certification process the professor will need to make an alternative exam for them.

The first certification provides baseline knowledge about project management and could easily be integrated into the first 4-5 weeks of the course outline. This way, the exam for PM 1 can be taken as a midterm and leave the 2nd level certification, the current highest level for PM's in the development sector as the final exam.

According to the program website, "IAD prepares students for careers in global agriculture and rural development. This interdisciplinary program is designed to provide students with knowledge and

skills that enable them to implement, facilitate and manage programs that enhance agricultural development and rural life." Honest evaluation of the key academic building blocks to achieving this goal--IAD 203-- has shown that the program is failing to reach its potential and equip students with skills and useful qualifications they need for future success. The current set of tools the IAD 203 course focuses on are too basic and do not distinguish IAD students as qualified project managers among their peers in the development sector. To help address this, PM4NGOs curriculum can serve as a complement to many of the tools currently being taught in the course by adding industry supported standards for management, all accomplished through a development lens. This curriculum can easily be assigned for students to complete outside of class time, leaving instructor-student time to cover analysis of case studies and project proposal writing. As important as they are, foundational principles, introductory tools, and common terminology within project management discipline should be easily learned and understood by students outside of classroom time, while valuable instructor and student-to-student interactions should focus on confronting the nuances and gray areas of project management, where dialogue and discussion reveal no right answer, but rather many possible solutions to designing, implementing, and evaluating projects.

This mode of dialogue, for a project management course, is one of the most effective ways to educate adult learners (Vella, 2002). The expectation associated with this claim is that adults have life experiences that allow them to discourse with a teacher on wide range of topics. Therefore, any new knowledge gained will best relating it to life experiences (Knowles, 1970). Therefore, it is essential to understand this fundamental need of adult learners to use their life experience and relate their learning to actual experience to model effective project management thereby also equipping the learners with the skills to engage their stakeholders in a similar dialogue. This methodology, in academia, is not uncommon, and became widespread particularly after Paolo Freire's extensive work in pedagogical reforms. Business schools today, call it learning by the *case study method*, and use it to present their

students with application of various business principles and allow students to learn best through case study evaluation. It is this *case study method* that challenges the detective, the translator, and the diplomat in each student to get to the bottom of a problem, convey their recommendations to others, and reconcile differences within the microcosm of the classroom. In so doing the stakeholders that work with IAD graduates will benefit from the projects they eventually manage in ways beyond their technical agricultural expertise.

Conclusion

After taking the IAD project management course, applying it in the field, experiencing the courses shortcomings, and teaching this same course one year later I believe in the potential this material has to become one of the most useful courses in the IAD curriculum. Woolcock's fundamental skills are not exclusive of any industry making the processes of good project management training essential for the project based and highly constrained industry of international development. The content and pedagogical approach to the IAD 203 *Project Planning and Evaluation* course, as a core part of the graduate curriculum, needs to be reconsidered if this is going to happen. Students need to be prepared to manage complex projects using effective tools and analytical processes offered in this class to feel satisfied with their learnings and bring management benefits to the sector. By including the option of certification in the course graduates are set apart from others competing in the same job market. Moreover, while we need to acknowledge and accept some the constraints of working in development, as a program we must also recognize that students currently are not receiving the best preparation a competitive program like IAD should be giving them. The approach laid out above offers several changes that could address these challenges in creative ways. Ultimately the IAD program needs consolidated leadership, a consistent core staff, and a cooperative link between all its core curriculum to enhance the program as a whole, here I offer just recommendation for the 203 class.
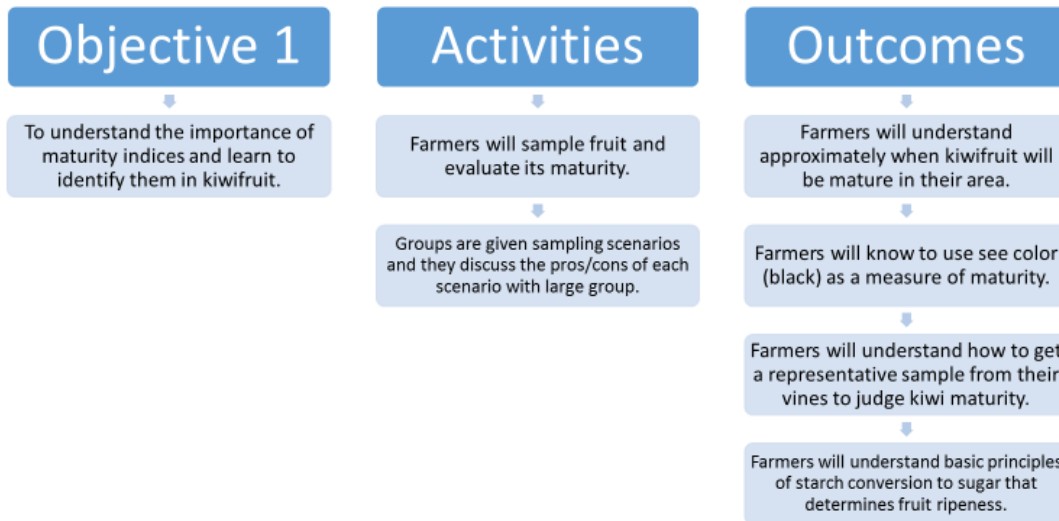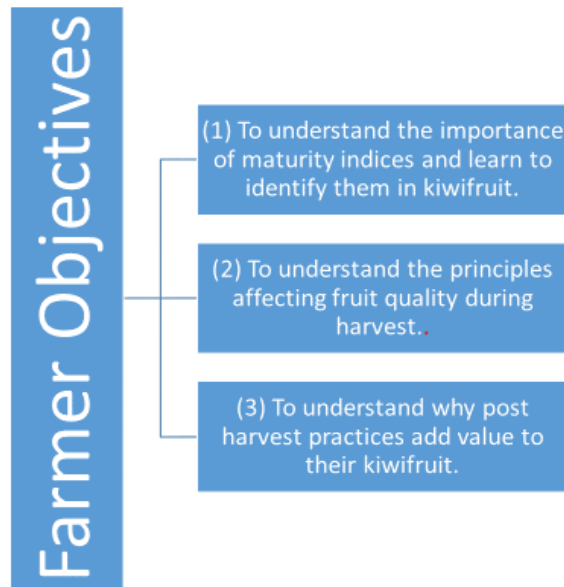
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Appendix 1 – *Excerpt from Field Report After First Few Weeks in Nepal*

Challenge identified	Recommendations/Opportunities
Office tension exists between male supervisor and female project managers	Holding a group meeting after important weekly events and writing everyone's opinions on the white board is a new strategy that everyone likes. This skill is slowly being encouraged and transferred to different staff members.
Aythos staff has come to rely on Western "staff" to drive efficiency in the office	Aythos staff does not take initiative to work on projects without Skyping their U.S. boss or if a western worker says to do something. I am dedicating a lot of time into better understanding how they view their roles within Aythos and how to show them their own assets rather than just work on the projects.
There is not enough work to do and yet plenty of work that could be done	The role I came here to fill has turned out to be very small. The scope of my role has quickly expanded to many other fields which has resulted in many valuable learning opportunities. I am trying to stay within the topics of kiwis and the market for the most part. Many days I can find myself working on projects while the Aythos staff is on Facebook or knitting and I wonder at why they are not doing the work I am doing. For me to truly be useful here and not "do all the work" I am trying to hold progress report meetings with each staff member to discuss their jobs and how they need to be better supported in their job and how they think I can best be utilized by Aythos.

Appendix 2 – *Excerpt from Farmer Harvest Training Curriculum (Sample Project Objective, Activities and Outcomes)*

Farmer Objectives

(1) To understand the importance of maturity indices and learn to identify them in kiwifruit.

(2) To understand the principles affecting fruit quality during harvest..

(3) To understand why post harvest practices add value to their kiwifruit.

Objective 1	Activities	Outcomes
To understand the importance of maturity indices and learn to identify them in kiwifruit.	Farmers will sample fruit and evaluate its maturity.	Farmers will understand approximately when kiwifruit will be mature in their area.
	Groups are given sampling scenarios and they discuss the pros/cons of each scenario with large group.	Farmers will know to use see color (black) as a measure of maturity.
		Farmers will understand how to get a representative sample from their vines to judge kiwi maturity.
		Farmers will understand basic principles of starch conversion to sugar that determines fruit ripeness.

Appendix 3 – *Composting and Soil Testing Training Outline Created by Dorje Wangchuck*

Objective 1: To learn about nutrient cycle, its importance in farming and how composting can help maintain a healthy nutrient cycle on the farm.

Activities:

-"What is nutrient cycle?", the trainer can ask and trainer can explain it to the class (if nobody knows).
-The class can be divided into different groups and discuss on "how people, plant and animals can negatively affect the nutrient cycle on a farm".
-What are the problems that farmers are having related to manure?

Outcomes:

-The farmers would understand about nutrient cycle and how people, plant and animals can negatively affect the cycle on a farm.
-The farmers would understand how composting can fix the nutrient cycle if the cycle is broken.
-The farmers would understand what are they currently giving to the soil.

Objective 2: To learn local way of compost preparation and possible alternatives for livestock manures and chemical fertilizers.

Activities:

-Give task to the group (leaves collection, digging holes, mixing liquids).

Outcomes:

-The farmers would identify the locally available materials that can be used for compost preparation and how to put them together.
-The farmers would understand complete process for compost preparation.
-The farmers would understand that why composts not only can replace livestock manures and chemical fertilizers but can also add organic matters in the soil bringing many other benefits (water holding capacity, less compaction, better rain infiltration).

Objective 3: To learn how to test soils using a soil test kit and how to use the test results to inform and improve farm management.

Activities:

-The trainer/facilitator would explain the complete process of soil test using the Aythos Soil Test Kit.
-The group would go and find sample soil and test them.
-The result of each group would be presented to the big group.
-A discussion would be held on each result, including ways to improve the result would be discussed.

Outcomes:

-The farmers would understand how to test their soil using Aythos soil test kits.
-The farmers would understand what the soil test result means to them.
-The farmers would learn how to improve farm management using test results.

Appendix 4 – *IAD 203 Tools and Templates Resource Page Developed for 2017*

Listed here are several Project Planning and Evaluation resources that will be of use for International Agricultural Development.

1. COMMUNITY TOOLBOX: Created by Kansas University, this site houses resources and tools to help practitioners take action in community health. Clicking the "Learn a Skill" tab will give you access to the most practical and useful material. The material is text heavy, divided into 46 *chapters* in total, but with an incredibly rich amount of detail and all of it is highly applicable. Each chapter is divided into sub sections with their own Toolkits, checklist and PowerPoint presentations. It is also available in Spanish and Arabic.

LINK: *http://ctb.ku.edu/en*

These Toolkits cover some of the most relevant steps to Project Planning and Evaluations:

1. Creating and Maintaining Partnerships http://ctb.ku.edu/en/creating-and-maintaining-partnerships
2. Chapter 3: Assessing Community Needs and Resources
3. Chapter 8: Developing Strategic and Action Plans
4. Chapter 17: Analyzing Problems and
5. Chapter 18: Deciding where to start
6. Chapter 19: Choosing and Adapting Community Interventions
7. Chapter 36: Introduction to Evaluation

2. THE EVALUATION TOOLBOX: This site is dedicated strictly to monitoring and evaluation techniques and tools. It has downloadable PowerPoint presentations on all their topics as well as downloadable manuals. The site is a bit disorganized, but nearly everything can be clicked and take you to a landing page where you can learn more about that tool.

LINK: *http://evaluationtoolbox.net.au/*

3. TOOLS FOR DEVELOPMENT: This site provided templates and how to guides for development practitioners as well as reviews on when specific are better suited than others. Clicking the *Resources* tab at top of the screen will take you all the how to guides, templates and reviews. Just a note: most of the postings here are from 2014 or earlier.

LINK: *http://www.tools4dev.org/*

Helpful links for Project Management includes:

1. How to Guides: *http://www.tools4dev.org/category/resources/how-to-guides/*
2. Templates: *http://www.tools4dev.org/category/resources/templates/*

4. USAID LEARNING LAB: If you are ever applying for a USAID grant this site will be an essential tool for your success in meeting their standards. This library of resources offers hundreds of pdfs.

LINK: *https://usaidlearninglab.org/library*

1. Evaluation Toolkit: A 5 step guide to USAID's standards of M&E
2. Performance Management Toolkit
3. Log Frame Technical Note

5. UNITED NATIONS DEVELOPMENT PROGRAM: The UNDP resources page offers a thorough library of publications on specific development interventions in 170 countries. All publications aim to address the

Sustainable Development Goals (SDG's) in some way. It takes some digging to find something useful, but having a real-world example can be a useful resource in planning all phases of your own project.

LINK: *https://usaidlearninglab.org/library*

6. GATES FOUNDATION GUIDE TO ACTIONABLE MEASUREMENT: This guide outlines the Gates Foundations' monitoring and evaluation guide. Their M&E is broken into intense planning, reflecting, and action oriented phases.

LINK: *https://docs.gatesfoundation.org/documents/guide-to-actionable-measurement.pdf*

7. FAO E-LEARNING CENTER: These free online courses typically require about 3-5 hours of time. Registration requires that you create a username and password. Topics related to Project Management include: Monitoring and Evaluation, Information Management and Knowledge Sharing and Communication.

LINK: *http://www.fao.org/elearning/#/elc/en/courseCategories*

8. THE ACTION CATALOG: While visually appealing, and highly adaptable to your needs, this site can feel over saturated with information and terms unfamiliar to the user. By using the left-hand check boxes you can filter "inclusive research" tools by your objective, the level of stakeholder involvement, geographical scope, participants and/or types of skills needed. This site can be used by practitioners, policy makers and researchers alike.

Click on a bubble and you can get a full description of that inclusive activity, what type of information it is best at helping you discern and when to use it.

LINK: *http://actioncatalogue.eu/search*

9. TOOLS FOR KNOWLEDGE AND LEARNING: This manual provides detailed descriptions of tools for the following 5 topics (a.k.a. *The Five Competencies Framework*) in project development: Strategy development (p. 4), Management techniques (p. 5), Collaboration mechanisms (p. 6), Knowledge sharing and learning (p. 6), Knowledge capture and storage (p. 7).

LINK: *https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/188.pdf*

10. OTHER:

    1. Human-centered Design: *http://www.designkit.org/resources*
    2. Log Frame and Problem Tree Video**:** *https://www.youtube.com/watch?v=Y9yxUvwovX0*
    3**.** Landscapes for people, food and nature: *http://peoplefoodandnature.org/learning-network/find-tools/*

Appendix 5 – *Foundational Knowledge of PM4NGO's certification process*

Portfolio Assessment
Independently Managed
PM4NGOs
(under development)

PMD Pro 3
Experience

Multiple Choice Exam
Independently Managed
APMG

PMD Pro 2
Application Knowledge

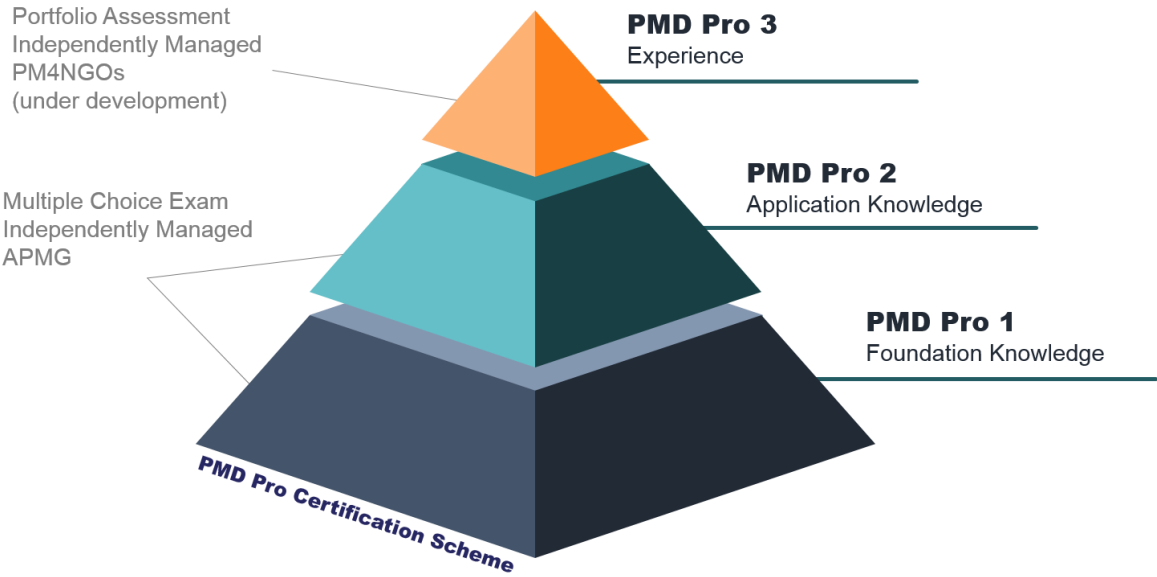**PMD Pro 1**
Foundation Knowledge

PMD Pro Certification Scheme

Image source: "PMD Pro guide - PM4NGOs." PM4NGOs, 2011.