This document is a chapter from the Conservation Action Planning Handbook. The complete Handbook is available online at http://conserveonline.org/workspaces/cbdgateway/cap/practices.

The CAP Handbook is intended as a guidance resource to support the implementation of The Nature Conservancy's Conservation Action Planning (CAP) Process - a powerful instrument for helping practitioners get to effective conservation results. The CAP process is a key analytical method that supports Conservation by Design, the Conservancy's strategic framework for mission success.

Suggested citation: TNC, 2007. Guidance for Step 1: Identify People Involved in Your Project in Conservation Action Planning Handbook. The Nature Conservancy, Arlington, VA.

Citation for complete document: TNC, 2007. Conservation Action Planning Handbook: Developing Strategies, Taking Action and Measuring Success at Any Scale. The Nature Conservancy, Arlington, VA.

This is a living document that will adapt and change as new information becomes available and as we hear from you about how to improve it. The most recent version will always be available at: http://conserveonline.org/workspaces/cbdgateway/cap/practices

For more information on Conservation Action Planning visit www.conservationgateway.org/cap.

Conservation Action Planning

Step 8: Develop Work Plan for Actions and Measures

As summarized in TNC's CAP Overview of Basic Practices:

This step asks you to take your strategic actions and measures and develop specific plans for doing this work as your project goes forward. Specific questions that this step answers include:

"What do we specifically need to do?"
"Who will be responsible for each task?"
"What resources do we need?"

Expected outputs:

- Lists of major action steps and monitoring tasks, especially those needing to take place in the near future.
- Assignments for specific individual(s) and a rough implementation timeline.
- A rough project budget.
- A brief summary of project capacity (the project resources scorecard in the CAP Excel workbook is one tool to help with this summary).
- If needed, objectives and strategic actions for enhancing project resources.

The Importance of Developing a Workplan

A well developed workplan provides clear and specific guidance pertaining to the staffing, timeline and costs associated with the implementation of conservation actions. A workplan identifies the specific tasks that need to be completed, or in TNC parlance the strategic actions and action steps, associated with a conservation action plan. Additionally it defines the what, who, when and how of each of these actions. Finally, a good work plan lays out the monitoring tasks necessary for the project. The process of completing a workplan will also help a team identify gaps in the availability of critical resources and capacity necessary to achieve objectives.

Detailing the work involved to achieve stated objectives of a conservation action plan has many benefits. The workplan helps the project team to:

- Ensure all the essential tasks in the project are planned and reduces the chance of overlooking an essential step in completing the project
- Allocate tasks efficiently to individuals without duplication of effort
- Establish short-term priorities and individual performance expectations
- Establish a project schedule that can be tracked and monitored
- Set expectations for project progress and establish accountability
- Analyze problem areas more effectively
- Develop a more accurate budget

You developed the framework for your work plan in *Step 6: Develop Strategies* of the CAP process when you wrote objectives and strategic action statements. Planning at the strategic action level often describes a general course of action over several years. The more detailed work planning

covered in this chapter is typically done for a shorter period of time, often annually, when you know who is available to do the work and have a better idea of what needs to be done.

Elements of a Workplan

After articulating conservation objectives and the strategic actions necessary to achieve those objectives, action steps and monitoring tasks are the next level of detail in planning for implementation.

Action steps are the specific tasks required to advance and make progress toward a strategic action. The workplan lays out the details of how a team along with partners, if applicable, will begin to implement these actions in the short-term.

> If you are using the CAP Workbook, this information will be recorded in the Strategies Worksheet.

Terms at a Glance

Strategic Actions - Interventions undertaken by project staff and/or partners designed to reach the project's objectives. A good action meets the criteria of being: linked (to threat abatement or target restoration), focused, strategic, feasible, and appropriate.

Action Steps - Specific tasks required to advance and make progress toward a strategic action.

Monitoring Tasks - Specific activities required to measure each indicator.

Monitoring tasks are the specific activities required to measure each indicator the team identified to track progress toward reaching conservation objectives.

> If you are using the CAP Workbook, this information will be recorded in the Monitoring Worksheet.

For action steps and monitoring tasks, a workplan will contain:

- List of action steps needed to accomplish a strategic action
- List of monitoring tasks needed to implement measures
- Start and end date for each action step and frequency, timing and location for each monitoring task
- Description of the method to be used to accomplish each action step or monitoring task
- Current status of the step/task
- Identification of person(s) responsible
- Estimate of labor and other costs associated with the action step, monitoring task or strategic action

A sophisticated workplan is only as good as the resources available to the project. If you have not done so already it is important to assess project resources and develop ways to address unmet critical needs (see *Step 6: Develop Strategies* and *Step 9: Implement Plan* for additional details). Elements of your project's capacity include project leadership and staff availability, funding, community support, an enabling legal framework, and other resources such as partner capacity and buy in from leaders. As you develop your workplan, it is important to consider how the current capacity in the project area matches up with the resources required to achieve this plan. If there is a rough balance, then you are okay. However, if you have greater needs than your current capacity, you may have to invest in developing new resources and/or scale back your plans.

Depending on your project team's preference, workplans can be developed at different levels of specificity, ranging from a broad summary of action steps and monitoring tasks for the whole

project team for a year or quarter-year to specific detailed descriptions of work for specific individuals on the team for a given week or even day. No matter what time scale you use, your workplan will be more detailed for the immediate future (typically the coming two to four quarters) and then more general for out-years. Workplans are dynamic and should be revisited and refined frequently. Setting a revision schedule to review and enhance workplans at regular intervals will help ensure that implementation of conservation actions are being carried out in the most effective and efficient manner. A typical review interval might range from quarterly to annually.

Completed workplans are not meant to sit on a shelf. Adherence to the workplan requires consulting the plans frequently. Workplans also inform the project budgeting and monitoring processes and can be a useful reference for individuals' performance assessments.

Commonly Used Methods

Workplans

A workplan can be completed a number of ways. Workplans are typically developed by the project core team and partners, if partners will have implementation responsibilities. Outputs may include a written report, a spreadsheet associating persons, cost and time estimations for each task, and/or a Gantt chart showing tasks along a time line (Box 1).

> If you are using the CAP Workbook, the Action Steps Wizard will walk your team through the process of creating a workplan.

The following five steps are typically carried out during the process of developing a useful workplan:

1. Identify specific action steps that need to be done
2. Define “who” will be responsible for each action step
3. Determine when each action step will take place
4. Estimate resources required for each action step
5. Revisit and revise the workplan on a regular basis

Here each of these points is described in more detail.

1. Identify specific action steps that need to be done

Developing a workplan starts by reviewing the various activities that you identified while developing strategies and measures and determining which of these need to be implemented over the current planning period. These can be compiled in a table- the list of your objectives, strategic actions, and monitoring needs. You then need to take each activity and think about breaking it down into specific action steps or monitoring tasks that will need to be completed to accomplish the activity. Action steps should capture a discrete package of work that is assigned to specific individuals to complete over a relatively short time frame.

Each action step should be defined such that:
- It has clearly identified beginning and end points,
- The time and cost needs can easily be estimated,
- Its progress and completion can be easily assessed,
- It is distinct from other action steps.

In many cases, breaking down a strategic action into its component pieces is a relatively straightforward process and the full suite of necessary action steps can be identified. In some cases, however, where the work is more complex or new to the group, only the first few action steps to launch the work may be apparent. In this case, you may want to brainstorm a range of possible action steps, evaluate these possibilities to see which make most sense, and then, once implemented, frequently assess the effectiveness of the action steps to identify additional action steps that may be needed to fully implement the strategic action. In addition, if you find that an action step is difficult to define as outlined above, you may have to break it down into smaller pieces. It is often helpful to show the linkages or dependencies between strategic actions and between action steps - a dependent action is one that cannot start until a previous action has been completed.

The art of this process involves breaking down strategic actions into separate action steps, but not going too far. For example, an action step could be:

1. Hold a community meeting.

Or that action step could be broken-down into more specific sub-steps:

1a. Develop agenda for meeting
1b. Select and invite participants for the meeting
1c. Set up folding chairs for meeting
1d. Prepare the refreshments for the meeting
etc…

Most of the sub-steps in the above list could be broken down still further. It is up to the project team to determine the appropriate level of detail for their planning needs.

2. Define "who" will be responsible for each action step
As you develop your action steps, it is also important to define who will be responsible for it across your project team members, consultants, and partners. The following factors should be considered when defining responsibilities for a task:

- Skills and knowledge required for the action step
- Availability of individual - does the person have the time to do the work?
- Individual's interest in the action step
- Organizational structure foreseen for the whole project
- Level of authority or positional power required for the action step
- Natural groupings of action steps

In addition to defining who is responsible for completing an action step, some planners also like to decide who is accountable for overseeing that the step is completed, who must be consulted in undertaking the step, and who must be informed about the results. One additional benefit of defining who is responsible for each action step is that doing the overall project workplan also then helps set up individual performance assessments.

3. Determine when each action step will take place
As noted above, for each action step you should estimate either, a start date and end date, and/or the total number of days required to complete the step. The accuracy of a step's time estimate

usually depends on whether you have done similar work in the past. Where this experience is lacking, sometimes you just need to accept this uncertainty and get on with the step. It is important to make the project schedule realistic and take into account everything from dependencies between action steps to holidays to other activities that project staff have to do.

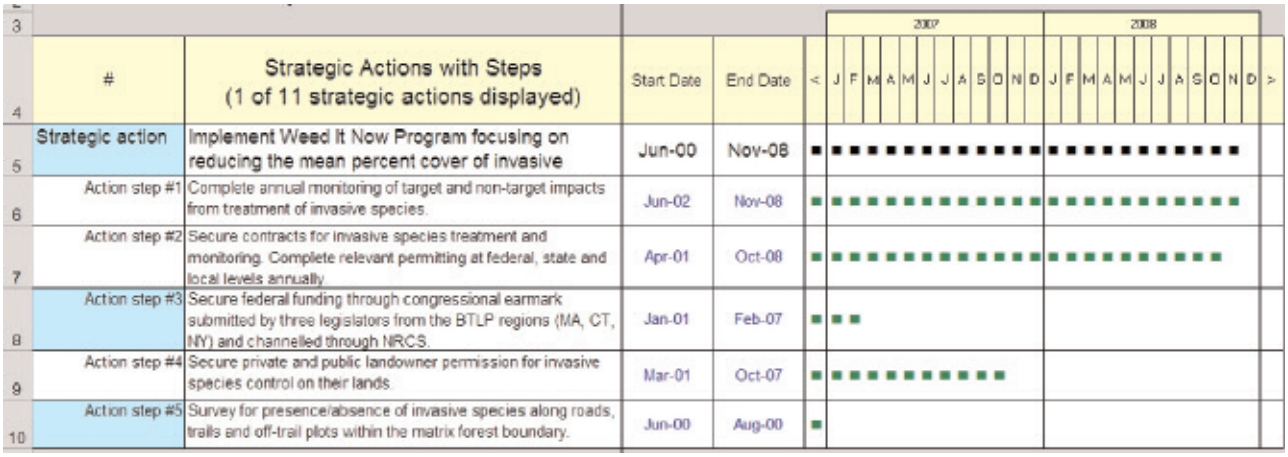
Box 1: The CAP Workbook Outputs.

The workbook produces types of workplan outputs displaying (1) Objectives, Strategic Actions and Action Steps; (2) Gantt Chart by Strategic Action and Action Step; and (3) Action Step Detail.

Strategies

Berkshire Taconic Landscape

#	Objectives, Strategic Actions and Action Steps (1 of 8 objectives displayed)
Objective	**By 2008, improve the condition of the Northern Hardwood Matrix forest target by reducing the mean percent cover of invasive species to less than 5% across at**
Strategic action	Implement Weed It Now Program focusing on reducing the mean percent cover of invasive species in the matrix forest to less than 5% by 2008.
Action step #1	Complete annual monitoring of target and non-target impacts from treatment of invasive species.
Action step #2	Secure contracts for invasive species treatment and monitoring. Complete relevant permitting at federal, state and local levels annually.
Action step #3	Secure federal funding through congressional earmark submitted by three legislators from the BTLP regions (MA, CT, NY) and channelled through NRCS.
Action step #4	Secure private and public landowner permission for invasive species control on their lands.
Action step #5	Survey for presence/absence of invasive species along roads, trails and off-trail plots within the matrix forest boundary.



#	Strategic Actions with Steps (1 of 11 strategic actions displayed)	Start Date	End Date
Strategic action	Implement Weed It Now Program focusing on reducing the mean percent cover of invasive	Jun-00	Nov-08
Action step #1	Complete annual monitoring of target and non-target impacts from treatment of invasive species.	Jun-02	Nov-08
Action step #2	Secure contracts for invasive species treatment and monitoring. Complete relevant permitting at federal, state and local levels annually.	Apr-01	Oct-08
Action step #3	Secure federal funding through congressional earmark submitted by three legislators from the BTLP regions (MA, CT, NY) and channelled through NRCS.	Jan-01	Feb-07
Action step #4	Secure private and public landowner permission for invasive species control on their lands.	Mar-01	Oct-07
Action step #5	Survey for presence/absence of invasive species along roads, trails and off-trail plots within the matrix forest boundary.	Jun-00	Aug-00

#	Strategic Actions with Steps (1 of 11 strategic actions displayed)	Person Responsible	Start Date	End Date
Strategic action	Implement Weed It Now Program focusing on reducing the mean percent cover of invasive species in the matrix forest to	Jess Murray, Ecological Restoration Coordinator	Jun-00	Nov-08
Action step #1	Complete annual monitoring of target and non-target impacts from treatment of invasive species.	Contractor	Jun-02	Nov-08
Action step #2	Secure contracts for invasive species treatment and monitoring. Complete relevant permitting at federal, state and local levels annually.	Jess Murray, Ecological Restoration Coordinator	Apr-01	Oct-08
Action step #3	Secure federal funding through congressional earmark submitted by three legislators from the BTLP regions (MA, CT, NY) and channelled through NRCS.	Jess Murray, Loring Schwarz, Willie Janeway, Linda Orel, David Sunderland	Jan-01	Feb-07
Action step #4	Secure private and public landowner permission for invasive species control on their lands.	Jess Murray, Ecological Restoration Coordinator	Mar-01	Oct-07
Action step #5	Survey for presence/absence of invasive species along roads, trails and off-trail plots within the matrix forest boundary.	Kay Sadighi	Jun-00	Aug-00

4. Estimate resources required for each action step
As you develop each action step, you should also estimate the monetary cost of completing the step as well as describe any other resources that will be required. There are essentially four major types of costs associated with any activity:

- Labor
- Materials
- Other direct costs (travel, telephone etc.)
- Indirect costs (i.e. overheads - office rental, utilities, administrative costs)

For most action steps in conservation projects, the largest expense will be labor -staff, consultants or partners - which is why it is important to identify who is responsible and estimate how long each activity will take before estimating the financial cost. You need to judge on a per project basis how accurately you need to identify and allocate costs at the action step level. Usually it is useful to have reasonable estimates in place to help you produce budgets, but don't make it a long exercise. Within the CAP workplan, project teams can either estimate costs at the level of strategic actions or at the scale of action steps. If cost estimates are entered for action steps, you have the choice of having the CAP Workbook tool automatically add these costs to report on overall cost of each strategic action.

5. Revisit and revise the workplan on a regular basis
As stated above, if a workplan is truly being used to guide a project's activities, then the project staff should be consulting regularly. It is also good practice, however, to make time to formally review and revise your workplan at least annually and perhaps quarterly. Workplans must be followed, updated and maintained to reflect an accurate picture of current status. In a multi-year project, you should produce a new workplan as part of your annual planning cycle.

Monitoring Plans
In *Step 7: Establish Measures*, you developed the basic elements of a monitoring plan by selecting strategy effectiveness indicators, status assessment indicators, a brief description of the monitoring methods, and assigned a priority rank to each indicator in a draft monitoring table. You should have also already linked all monitoring indicators to objectives, targets, key ecological attributes, and threats. In this step, you will complete more details in the monitoring table to set the stage for implementing the monitoring plan. This includes determining:

1. When- time and frequency of data collection
2. Where - location of data collection
3. Who - people responsible for data collection data management and analysis
4. Cost- of monitoring the indicator
5. Source of funding
6. Current status of indicators - measurement value and date
7. Completion of the monitoring plan - reference and date
8. Summary report - reference and date
9. Implementation status

Each of these steps are explained in further detail below. Table 1 below shows an excerpt of the monitoring table from the Condor Bioreserve Project in Ecuador.

1. When (timeframe & frequency of data collection)
You should define how frequently the monitoring indicators will be measured and the appropriate time of year to collect the monitoring information. Consider the following factors:

- **Time period to effect change.** Some desired results will occur more rapidly (e.g., many changes related to threat abatement) and require more frequent monitoring intervals whereas other desired results (e.g., those involving changes in key ecological attributes) will often take longer to achieve. Specify a monitoring interval that fits logically with anticipated changes.
- **Natural variability of the phenomenon to be monitored**. For example, if you are working to restore the natural flow regime of a river system, you will likely need measurements collected throughout the year to capture high flow and low flow conditions.
- **Seasonality issues in terms of data availability and variation**. For example, measures of vegetation cover will vary significantly through the growing season. It is import to time monitoring visits to a consistent time of the growing season so that data will be comparable over time.
- **Project life cycle**. It may make sense to collect and review data in advance of key project reviews, planning or reporting timings

2. Where (location of data collection)
Describe briefly the specific physical location or community where the monitoring will be carried out. As noted above, in many cases, secondary data can be downloaded or obtained from other sources.

3. Who (people responsible for data collection, data management, and analysis)
Monitoring can require extensive resources, especially commitments of project team members' time. It is important to ensure that the appropriate person(s) with the right skills are designated to handle these functions. Whilst multiple staff may be responsible for collecting and recording data, it is also important to have a single driving force and 'owner' of the overall monitoring process. You should state the name of the individual or the organization responsible for measuring each indicator and the name of the person in the project team responsible for getting the information (where this is not the same person). It is also important to systematically check, clean and code raw data as soon as you get it; store and backup your data, and then analyze and discuss your data to check if you are on track. If the person responsible for data management and analysis is not the same person responsible for data collection, you should also list these additional individuals and identify their responsibilities.

4. Cost (of monitoring this indicator)
For your own management purposes it is important to assess the resources required to do the monitoring. You should state the approximate financial cost and/or the amount of staff time that will be needed to monitor the indicator by the stated method. Within the CAP Workbook, there is a cost calculator that can facilitate estimating annual monitoring costs based on personnel and other fixed costs.

5. Funding source
Identify the source of funding for the monitoring of each indicator. Specify whether costs are covered by partners, grants, or as part of core operating budgets.

6. Current indicator status (measurement value and date)
If the current indicator status is known, this should be specified in the monitoring plan. The first measurements of indicators are often referred to as baseline data. Collection of baseline data is the first step in the actual use of the monitoring plan. It is critical that baseline data is collected early in order to inform the project design, and because all subsequent data gathered over the life of the project will be measured against the baseline.

The use of already existing data for a baseline is strongly encouraged, provided it is of acceptable quality and its source is adequately acknowledged. In some cases data may be available backwards through time (e.g. remote sensing or human population data). In this case it is will be possible to compare trends before and after the start date for the project.

In the monitoring plan you should provide the current status of the indicator and the applicable date (the date when the measurement was made). Within the CAP Workbook, current indicator status for viability indicators can be entered in either the viability worksheet or the monitoring worksheet. Current indicator status for threat-based or other indicators is entered in the monitoring worksheet.

7. Complete monitoring plan (reference and date)
The information listed above can be captured in table format, like the one available within the CAP Workbook (Table 1). However, this information provides only a brief summary of the monitoring approach. A more thorough description of the monitoring methods should be captured within a separate monitoring plan that includes sufficiently detailed descriptions and maps so that someone unfamiliar with the monitoring protocol could successfully gather an iteration of the monitoring data. The title and date of this monitoring plan should be included in the monitoring table along with a web link if the monitoring plan is available on the internet.

8. Summary report (reference and date)
The table format described above and shown below includes a field for the most recent monitoring data but it is important to regularly convert the monitoring data into information used to guide conservation management decisions. Summary reports should be prepared in a format and style appropriate to key audiences. The title and date of the most recent reports should be included in the summary table along with a web link if the monitoring plan is available on the internet. These reports should include short summaries that convey the main messages to guide managers and other key decision makers to appropriate management actions.

9. Implementation status
When the monitoring plan is initially developed, ongoing data collection may already exist for some indicators whereas data collection for other indicators may not have started yet. Within the CAP Workbook, each indicator can be assigned a “planned” or “ongoing” status and this will convey to any reviewers the current implementation status for the monitoring plan. Update the status at least annually to demonstrate progress implementing the monitoring plan.

Table 1. Condor Biosphere Reserve - Ecuador

Objectives and Indicator	Target, Category and Key Attribute References	Threat References	Methods	Priority	Status	Frequency and Timing	Location	Who monitors	Annual Cost	Funding Source*
Obj. By September 30, 2007 10,000 hectares are conserved in three critical area park in the buffer zones, maintaining vegetation cover and reducing the loss of natural vegetation.										
Number of hectares of natural vegetation cover in key areas outside P.A.	Low montane forest - - Size: area of available habitat	Expansion of agriculture frontier	Satellite image interpretation and field work	High	Ongoing	Every 3years	All CBR	EcoCiencia	$2,000	USAID - TNC Parks in Peril Project
Deforestation rate outside protected areas	Low montane forest - - Size: area of available habitat	Expansion of agriculture frontier	Multi-temporal studies: satellite image interpretation and field work	High	Ongiong	Every 3 years	All CBR	EcoCiencia	$2,000	USAID - TNC Parks in Peril Project
Number of hectares of available habitat	Andean Tapir -Size: Area of available habitat Andean Bear -Size: Area of available habitat	Expansion of agriculture frontier	Development of habitat availability models for target species: Andean Bear-Andean Tapir	High	Ongoing	Every 3 years	All CBR	EcoCiencia	$5,000	

Objectives and Indicator	Target, Category and Key Attribute References	Threat References	Methods	Priority	Status	Frequency and Timing	Location	Who monitors	Annual Cost	Funding Source*
0.5 By September 30 2007, 50% of andean bear conflict hunting has been reduced in three critical sites of the CBR: Oyacachi, Cosanga and Cuyuja.										
Number of Andean Bears killed by conflict hunting	Andean Bear -Size: Population density	Hunting	Interviews and field visits	High	Ongoing	Annually	Critical sites for conflict: Oyacachi, Cosanga	Parkguards and EcoCiencia	$3,000	USAID - TNC Parks in Peril Project
Relative abundance	Andean Bear -(Size): Population density from 1 site in CBR)	Hunting	Under development: combination of indirect records with genetic analysis, using spatial data	Medium	Planned	TBD	Oyacachi	EcoCiencia	$0	
Viability Status Assessment Indicators										
H-W index	Andean Bear -Condition: Genetic variability		Hair traps, genetic analysis	Medium	Planned	TBD	Oyacachi	EcoCiencia	$0	TBD

Objectives and Indicator	Target, Category and Key Attribute Reference	Threat References	Methods	Priority	Status	Frequency and Timing	Location	Who monitors	Annual Cost	Funding Source
Capacity 1. By 30 September 2007, key stakeholders, such as the Ministry of Environment and other institutions, and partners will increase their capacity to implement conservation strategies.										
Institutional strengthening			Institutional self-assessment tool: interviews with partners	High	Ongoing	Annually	Partners office	TNC		USAID - TNC Parks in Peril Project
# communities participating in management on P.A.			Multi-temporal studies: satellite image interpretation and field work	High	Planned	Annually	All CBR	TBD		
# partners and stakeholders using socio-environmental database			Development of habitat availability models for target species: Andean Bear-Andean Tapir	High	Planned	Annually		TBD		
Capacity 2. By September 30, 2007, legislation and policy on biodiversity and infrastructure projects are strengthened by developing two national proposals.										
Number of new biodiversity law proposals or laws approved				High	Planned	Annually		TBD		

Opportunities for Innovation

- **Adapting Project Planning Software to Conservation Needs** - The business world has developed sophisticated software programs for planning and managing projects - perhaps the best known is Microsoft Project. These powerful tools allow a project manager to list out tasks in a hierarchical format, assign resources, display the data in Gantt Charts and project calendars, and conduct critical path analysis to see where the rate limiting steps might be. They are designed, however, primarily for large complex projects in which there are many interchangeable parts. For example, if you are building a bridge, then you might be able to speed up your completion date if you add 4 more welders to the crew. Most conservation projects, however, have a different format - they tend to have many different tasks being implemented by the same small set of people. As a result, it is often hard to use these software programs to describe conservation projects. It would be useful to adapt this software to meet the specific needs of conservation projects.

Resources and Tools

Basic guidance and examples of developing workplans can be found in the following sources:

CIDA. 1999. Planning and Reporting for Results. Strategic Planning and Policy Division, Canadian International Development Agency (CIDA) Asia Branch.
http://www.universalia.com/files/rbmbook.pdf

Washington State Dept. of Information Services. Project Management Framework Guidelines.
http://isb.wa.gov/tools/pmframework/index.aspx

European Commission. 2002. Project Cycle Management Handbook. EuropeAid Evaluation Unit.
http://ec.europa.eu/comm/europeaid/reports/pcm_guidelines_2004_en.pdf