CGIAR

RESEARCH PROGRAM ON
Dryland Systems

MARCH 2015

Dryland Systems Risk Management Plan

Food security and better livelihoods
for rural dryland communities

We believe that Risk Management will support the CGIAR Research Program on Dryland Systems in identifying potential problems before they occur, plan risk treatment strategies and invoke activities to treat adverse impacts on achieving the objectives of the program.

(Dryland Systems Program Management Office. Output of the Science and Implementation Workshop, July 2014)

Revision record

Version	Description	Date	Originator	Checked	Approved
1	Risk Management Plan	01-09-2014	Enrico Bonaiuti	Murari Singh, Chandrashekhar Biradar, Raymond Davies , Maarten van Ginkel	Richard Thomas
2	1st review	22-09-2014		Research Management Committee	Richard Thomas
3	2nd review	12-12-2014		Steering Committee	ISC

Contents

Acronyms

Acronym	Definition
ASC	Action Site Coordinator
CC	Center Coordinator
FC	Flagship Coordinator
ISO	International Organization for Standardization
PMU	Project Management Unit
RMC	Research Management Committee
RMP	Risk Management Plan
RPC	Research Program Coordinator

1. Introduction

This plan was developed by the CGIAR Research Program on Dryland Systems Program Management Unit (PMU) in collaboration with Action Site Coordinators (ASC), Flagship Coordinators (FC), and Center Coordinators (CC). While it was prepared in response to a recommendation of the May 2014 audit, the PMU recognizes that risk management is an important factor in strengthening the program processes.

1.1 Purpose

The purpose of this document is to describe how risk management will be performed on the Dryland Systems program. This document describes processes that will be used to identify record, discuss, and respond to program risks, and the roles and responsibilities of the people involved in the processes. The Risk Management Plan (RMP) records decisions about how risk will be managed and establishes clear standards for our actions during the program implementation.

Context: To profile Dryland Systems risk assessment and accountability, by rating the likelihood and possible consequences of risks using a risk matrix.

Control strategy: To make practical recommendations on how to manage, mitigate and eradicate risks.

Reporting: To establish the accountability for risk management in Dryland Systems and to establish commitments to communicate, monitor, and review the control strategies.

1.2 Statement of commitment

Dryland Systems has been going through a period of change management for the past one and a half years and the development of this RMP is further evidence of the commitment to continuous improvement within the PMU. The approach adopted by the PMU to risk management is to build risk identification into “the way we do business”.

The PMU is committed to using the 2014 RMP, which will be used for the duration of the project and further extension, to ensure that the program will effectively mitigate and manage the impact of strategic, financial, operational, reputational, and compliance risks in pursuit of its strategic goals and objectives.

The RMP assists in ensuring the effective delivery of International Public Goods.

The plan will be updated annually as a core part of the Dryland Systems strategic planning and governance process, and will be reported to the Steering Committee. The updating of the RMP will involve a process of consultation with staff.

While all staff have a role in effective management of risk, the Research Management Committee (RMC) has the task of providing an annual report to the Independent Steering Committee on progress in addressing key risks, lessons learned, and any relevant changes needed to the Dryland Systems operating environment (external or internal), including emerging risks and trends.

Workshops/training by an expert risk analyst will be organized for handling the risks of the Dryland Systems program during 2015.

1.3 Risk definition

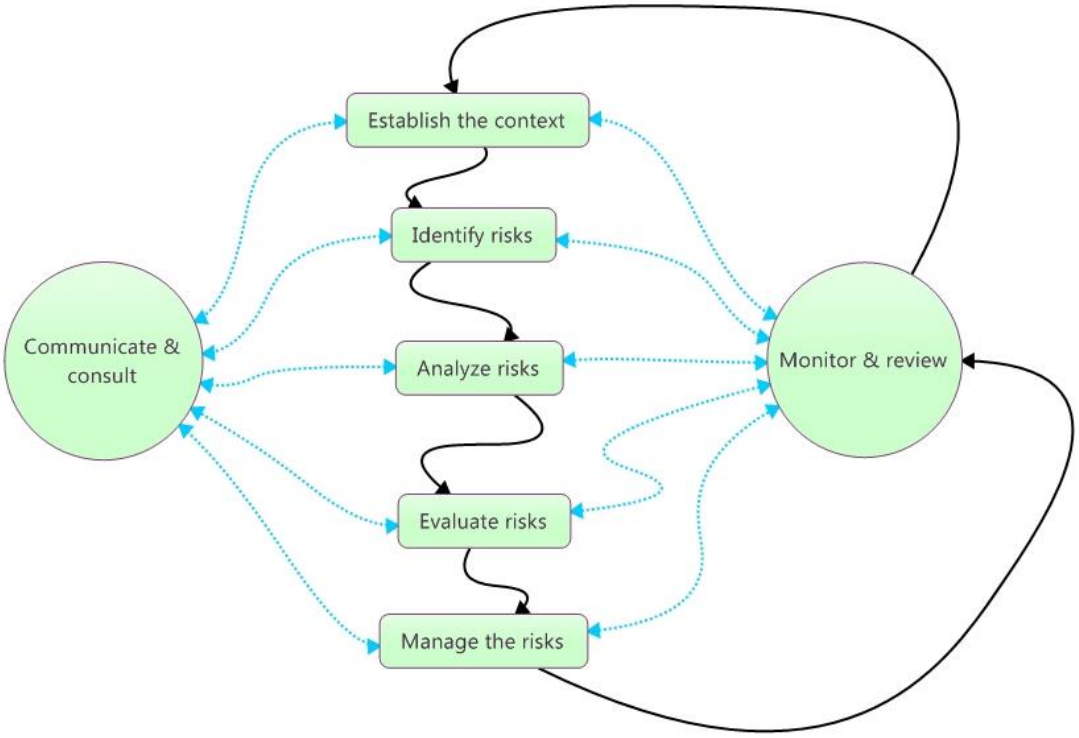
A risk is a possible adverse event or a threat factor in the sense that, if it occurred, it would have a negative impact on the program schedule, scope, resources, quality, outputs, outcomes, and impacts. It could impact the entire program or at least one of its components. We describe risks in the following format:

If < potential event > occurred then < negative impact > would be a consequence.

1.4 Risk management

Risk management is the set of processes concerned with conducting risk management planning, risk identification, risk analysis, response planning, and monitoring and control on the program. The risk planning activities are presented in Appendix A. The approach used by Dryland Systems follows the generic sequence of best practice risk management, summarized in Figure 1 below.

Figure 1



Adapted from ISO 31000, the international standard *Risk management – Principles and guidelines*: http://www.iso.org/iso/home/standards/iso31000.htm

We can describe the process as:

1. Establishing the context and assessing the risks: profiling undesirable outcomes – strategic, financial, operational, compliance, reputational – before they happen
2. Managing the risks: by setting up internal controls to manage the impacts by preventing, minimizing, or accommodating the risks
3. Communicating, monitoring, and reviewing the risk management approach to ensure it remains inclusive, up to date, and a useful part of decision-making.

The objective of risk management is to decrease the likelihood and consequential impact of events that could harm program objectives.

1.5 Responsibility

The Dryland Systems Research Program Coordinator (RPC) is responsible for the creation and maintenance of this document. Team members with questions or suggestions regarding the document should direct them to the RPC.

The Director and RPC are accountable to the SC for the performance of the PMU. This includes accountability for managing risks.

ASCs, FCs, and CCs are accountable to the PMU for both their actions and performance and those of staff who report to them. This includes ensuring their staff is aware of relevant risk management responsibilities, and putting in place controls to ensure compliance.

This RMP will be reviewed and approved by the RMC, Program Director and Independent Steering Committee, and no significant variation from these processes is authorized without the Director's explicit permission.

2. Dryland Systems risk management

This RMP was created as part of initial program management planning for the Dryland Systems program. It describes:

- Processes to identify risks, and then to analyze identified risks, develop risk responses, and record and communicate risk information
- Processes used during the program to monitor and control risks.

Managing program risk begins with identification. Risk identification occurs any time that we become aware of an uncertain event that might adversely impact the program. The Dryland Systems program will also proactively engage in risk identification sessions at least twice per year. The risk identification session that is conducted as part of program planning will be carried out via email before June 2015. Once risks are identified, they are assigned to Dryland Systems program team members for analysis and the development of recommended responses. The RPC and the Director will make the final determination about which responses are implemented.

As the program continues, identified risks are monitored to determine whether new information makes the risk more or less significant to the program. Risk monitoring and control are accomplished in the Dryland Systems program through periodic review of all identified risks that still pose a threat to the program.

2.1 Roles and responsibilities

This RMP identifies four roles in Dryland Systems risk management. Each of these roles is described below.

1. **Anyone associated with Dryland Systems** – this broadly encompasses all program staff, including program consultants, subcontractors, suppliers, and anyone familiar with the program. Anyone associated with the program can participate in risk identification and is encouraged to notify the RPC promptly if he or she becomes aware of a potential event that could threaten program success.

2. **Risk owner** – a risk owner is a member of the Dryland Systems program team designated by the RPC to coordinate the analysis of a specific risk. The risk owner is responsible for assuring that the analysis is performed, documented, and the results are provided to the RPC in a timely manner. While a risk is in active status (being actively monitored, risk has not yet occurred), the risk owner is responsible for monitoring the risk and notifying the RPC if the

risk occurs or if the risk owner believes the likelihood of the risk occurring has changed significantly since the analysis was performed. Risk indicators may be tabulated.

3. **Research Program Coordinator** – the Dryland Systems RPC is responsible for initially receiving all risks identified, ensuring that records of all identified risks are kept, assigning risks to a risk owner for analysis, reviewing the results of that analysis to develop response recommendations, and presenting those recommendations to the Program Director. Once recommendations are agreed upon, the RPC is responsible for coordinating changes to program plans to implement responses. The RPC is also responsible for ensuring that risks are periodically reviewed to identify possible changes in the likelihood or impact of risks, and identification of new or changed responses. Finally, the RPC is responsible for creation and maintenance of the RMP.

4. **Program Director** – the Director is responsible for executive decision-making on the Dryland Systems program. All programs have risks. This risk management process will identify program risks and recommend how resources should be allocated to deal with them. Only the Director has the authority to determine whether the responses planned for identified risks are sufficient. The Director will review and approve all proposed risk responses and any changes in risk responses. The Director will also participate in regular reviews for priority 1 risks. At every SC meeting risk assessment is reported on.

2.2 Budget

Budgeting for risk management shall be undertaken for each risk treatment plan that is created. The PMU will allocate a yearly share of the Windows 1 and Windows 2, not less than 1% for contingency, and provide the funds necessary for each risk treatment plan that is approved; however, proper estimates will be prepared and evaluated.

2.3 Risk identification

Risk identification refers to the process for identifying threats to program success. Risk identification may occur at any time. The starting point for risk identification will be historical information and then discussions with a wide range of stakeholders about historical, current, and evolving challenges. Anyone associated with the program may fill out a risk form (see Appendix B) to identify a program threat and submit it to the RPC for consideration.

The approach used will include a range of techniques that the Dryland Systems staff in all levels will conduct, organize, and facilitate, such as:

- Historical review – to review all relevant documentation including results and reports from previous activities similar to the context, and provide an initial list of risks that could impact on the program
- Team-based brainstorming – the Dryland Systems activity leader will facilitate risk workshops with internal stakeholders to assist in the identification and analysis of program risks. During the workshop, all attendees are encouraged to identify risks that may impact on the successful delivery of the program objectives (bottom-up approach) and these are to be captured (recorded) in a program risk register.

In addition to these techniques, the Dryland Systems activity leader will also identify program risks through the regular monitoring of project performance via weekly meetings.

The identification of risks will be deepened through interviews, root cause analysis, assumption analysis, diagrams techniques, Strengths, Weaknesses, Opportunities and Threats analysis, and expert judgment.

Ideally, each team member should be aware of all the risks associated with the program, however, such an approach is unlikely to be practical. To ensure that, as a minimum, all project team members have access to relevant risk information, the Dryland Systems RPC will maintain a risk register. The risk register will contain summary information, available to all relevant personnel, and information that will be used to fully inform decision-makers and those charged with implementing risk treatment plans.

Formal risk identification sessions will occur at least twice a year. The first session will be conducted via email before June 2015, and subsequent sessions will be included as part of any substantive re-planning effort. The RPC may also convene sessions at any time he or she determines that there may have been a change in program risks or in the program's sensitivity to risk. Risk identification sessions will be organized with the RPC, 13 ASC, 5 FC, 8 CC, PMU staff and other invited subject matter experts. The purpose of these sessions is to brainstorm on risk items that might negatively impact program goals. The outcome of these sessions will be risk forms for each adverse factor that session participants decide to consider after discussion. All completed risk forms will be assigned a unique identifier (risk ID) for tracking purposes and will be recorded and tracked in the program risk register (see Appendix C).

The RPC will categorize the different risks. Risk categories represent a structure that ensures a comprehensive process of systematically identifying risks to a consistent level and value. Table 1 below represents initial categories that may be applied to each risk. Categories will be refined once the initial mapping has been completed.

Table 1

Category	Sub-category
Technical	Scope definition/objectives, requirement definition, implementation, scaling, performance, reputation, outputs, outcomes, impacts
Management	Project management, resources, communication, interdependencies
Organizational	Human resources, business process, finance, information and communication technologies
Contractual	Contractual terms and conditions, suppliers' stability, internal procurement, subcontractors, applicable laws
External	Funding, legislative/regulatory, intellectual property, political, weather, force majeure

While reviewing the program schedule task list, staff should look for:

1. Tasks for which the team has no expertise; the duration and cost estimates for these tasks are more likely to be inaccurate
2. Duration and cost estimates that are overestimated; the RPC will review with the cost estimator how confident the estimate is, especially for critical path tasks
3. Situations where there is a limited number of resources able to carry out particular tasks and where those resources are fully allocated, over allocated, or may become unavailable; a resource can become unavailable when it leaves the organization or because of other commitments within the organization
4. Tasks with several predecessors; the more dependencies a task has, the greater the likelihood of a delay and hence increased risk
5. Tasks with long durations or requiring a lot of resources; the estimates for these large tasks are more likely to be inaccurate.

2.4 Risk register

The risk register is an accumulation of information about identified risks. The following information will be recorded in the risk register for all identified risks:

- Risk ID number
- Date entered into register
- Risk description
- Risk owner
- Risk priority
- Current risk status
- Date of next review.

All risk forms and supplemental material will also be kept in the risk register. The risk register will be kept in the RPC's office.

2.5 Risk status

Risk status will be used to indicate the stage a specific risk is at in the risk management process. All risks in the risk register will be in one of the following status states (see Appendix E for a simple process flow picture).

Open

- **Received pending analysis** – risk form has been received by the RPC but not yet assigned to a risk owner for analysis
- **In analysis** – risk has been assigned to a risk owner for analysis; the analysis has not yet been returned to the RPC
- **RPC review** – the analysis conducted by the risk owner has been submitted and is being reviewed by the RPC
- **Director review** – the RPC has submitted recommendations for the risk to the Director who is reviewing those recommendations

In progress

- **Active** – the risk is being actively monitored; the risk event has not occurred. The Director has reviewed and approved recommended actions; preventive and mitigating actions deemed necessary have been put in place
- **Event occurred** – this risk event has taken place, and the consequences are being actively managed

Closed

- **Closed** – the risk is achieved/filed/retained for audit or history purposes only, but is no longer believed relevant to the program; this status would apply to risks that had been successfully avoided, or were combined with other risks.

No risk will ever be deleted from the risk register. Risks that are created in error, consolidated with other risks, or subsequently determined not to be significant will be retained on the list in closed status to provide an audit trail of these actions.

2.6 Risk analysis

Risk analysis is the process of evaluating risks to determine which factors should receive further attention and what responses are recommended. Qualitative risk analysis in the program involves the consideration of the root causes of the identified risks, the likelihood of the risk events occurring, and the possible consequences or impact if the risk events occur. The likelihood and impact are to be assessed in the context of existing controls and are combined to produce a level of risk. The RPC will incorporate program risk analysis with program risk identification workshops.

The RPC will assign a risk owner to each identified risk. The risk owner will coordinate the analysis effort and present the results to the RPC. During analysis, the risk owner is responsible for identifying and recommending:

- A rating for the likelihood that a risk event will occur (high, medium, low)
- A rating score for the impact that the risk might have on the program should it occur (high, medium, low)
- Warning signs that can be monitored to detect or anticipate risk occurrence
- Possible responses to prevent or mitigate the risk
- Contingent actions that need be considered should the risk occur.

The definitions for likelihood and impact and the likelihood and impact matrix shall be used for qualitative risk assessment on the activity as explained in the section on risk priority (see point 2.8).

Prevention and contingency actions will include costs and timelines.

The accuracy of risk analysis results is commensurate with the techniques used and historical experience with risk analysis gained from the program, institutions (CGIAR Centers) and managers involved in the process. The risk owner should base his or her judgment on a review of archived projects to compare similar tasks from the past and verify the time and cost estimated. The estimated likelihood and impact should be agreed with the other team members; if colleagues are not comfortable with the estimate, there is a high probability that the event will occur.

The RPC is responsible for overseeing the efforts of risk owners and ensuring that analysis is performed promptly and with appropriate detail. The risk owner's analysis will be stored in the risk register using the risk form.

The Director, in consultation with the RMC and SC, will estimate the program tolerance to risk.

2.7 Rating risk likelihood and impact

To support program efforts to prioritize risks, risk owners will subjectively rate each risk on two dimensions: likelihood of occurrence and impact to the program if the risk were to occur. These ratings are used to guide the frequency of re-assessing risks.

Ratings for risk likelihood are:

- **High** – risk is more than 50% likely to occur
- **Medium** – risk is approximately 10%-50% likely to occur
- **Low** – risk is less than 10% likely to occur.

Ratings for risk impact are:

- **High** – risk event will surely and significantly compromise program scope, schedule, quality, resources, outputs, outcomes, impacts, and may lead to program failure
- **Medium** – risk event will seriously impact program scope, schedule, quality, resources, outputs, outcomes, impacts, but is not likely to result in program failure
- **Low** – risk event would be inconvenient and would likely put pressure on program scope, schedule, quality, resources, outputs, outcomes, impacts.

When considering impact ratings for particular risks, this may be done in two phases:

1. Consider the impact in terms of the activity
2. Consider the impact in terms of the program as a whole.

Some risks may have a "high" local impact, but for the purposes of CGIAR Research Program - level analysis the rating may be lower. Alternatively there are risks that may seem to have a "low" impact locally but could have a serious impact on the reputation of the program.

In addition, to help Dryland Systems prioritize risk mitigation activities, a number of Partner Centers have begun categorizing risks, especially those that have been rated as high impact and medium or high likelihood. They assess if significant failure would be in the form of:

- Single events that could have an immediate and broad effect, including business continuity
- Multiple events which individually may not have a broad effect but could, if accumulated in a negative trend (for example, quality deterioration, system availability disruptions), have a broad effect, including reputational or financial impacts.

2.8 Risk priority (likelihood and impact matrix)

Risk priority is a subjective assessment to be assigned by the RPC and Director. The initial assessment of risk priority will default to a combination of the risk ratings assigned for risk likelihood and risk impact.

A qualitative method will be used to rate the risks to determine those that require immediate, urgent attention versus those that may require attention over time. The likelihood and impact matrix will be used to rank the identified risks for the program. It is the combination of likelihood and impact that will determine the risk level and therefore risk treatment priority.

A standard risk priority matrix appears in Table 2 below.

Table 2

	Impact = H (3)	Impact = M (2)	Impact = L (1)
Likelihood = H (3)	(9) Priority = 1	(6) Priority = 2	(3) Priority = 4
Likelihood = M (2)	(6) Priority = 2	(4) Priority = 3	(2) Priority = 5
Likelihood = L (1)	(3) Priority = 4	(2) Priority = 5	(1) Priority = 6

Where: H=High; M=Medium; L= Low.

2.9 Risk response planning

Risk response planning refers to activities that will be performed to identify options and determine how the program team might respond to both the potential threat and the actual threat should it materialize.

Since risk planning can take a lot of time and energy, it is important to plan first for the high-priority risks (see section 2.8). Planning includes:

- Identifying triggers for each risk
- Identifying the plan for each risk.

Identifying triggers refers to finding indicators that a risk has occurred or is about to occur. The best triggers make the program aware in advance that the problem will occur.

The process of identifying triggers starts with brainstorming with program staff to understand what causes the risk and what impact it could have. The initial step begins with a backward approach. We will analyze the status after a risk has occurred, and then consider the status before the risk materializes. The RPC will then understand how the risk will be reflected in the program schedule in terms of time that needs to be spent dealing with the risk or delay. Each risk will have a trigger watch list, and it will be made clear when they are likely to occur, and who should monitor them.

The RPC will complete a subsequent risk evaluation internal stakeholder workshop. The workshop's objective is to determine which risks require treatment, what actions should be taken and to assign a priority. Tolerance for risk varies depending on the level of exposure or uncertainty associated with risks.

Due to limited resources available, risks will be assigned a priority for the development and implementation of risk treatment plans. The program will prioritize risks according to the risk tolerance/level and assign a timeframe for the development of risk treatment plans. Table 3 below shows the risk tolerances according to a risk level banding with three bands: unacceptable risks, potentially acceptable risks and acceptable risks.

Table 3

Risk level	Tolerance	Description
Extreme (1)	Unacceptable risks	Unacceptable risks are risks with adverse consequences that are entirely intolerable and will require mandatory risk treatment strategies/activity independent to cost.
High/ Medium (2–3)	Potentially acceptable risks	Potentially acceptable risks are risks with adverse consequences that may be intolerable or may be tolerable, depending on exposure and circumstance. In this case a cost-benefit analysis is to be conducted to determine benefit value or opportunity versus the impact of the adverse consequence.
Low (4–5–6)	Acceptable risks	Acceptable risks are risks with adverse consequences that have negligible impact, where the rewards from pursuing the opportunity will far outweigh any need for treatment strategies/activity.

The typical timeframes for risk treatment to occur are one month for extreme risks, one to three months for high/medium risks, and six months for low risks.

As a result of their analysis, risk owners may suggest several courses of action (treatment options) to the RPC to respond to a potential threat. These include the following.

- **Accept the risk (retention)** – suggesting that a risk be accepted indicates that the risk owner believes no further action is warranted or possible at this time. This indicates that the risk is extremely unlikely to occur, that the expected impact to the program would be minimal, or that the risk owner could not identify cost-effective preventions, mitigations, or contingencies. Risk owners recommend risk acceptance when they believe the cost or consequence of risk response actions seem out of proportion to the threat, or they cannot identify appropriate responses. This option may also be relevant in situations where a residual risk remains after other treatment options have been put in place. No

further action is taken to treat the risk, however, ongoing monitoring will be performed and plans should be put in place to manage or fund the consequences of the risk should it occur.

- **Preventive actions (avoid)** – preventive actions are changes to the program (new tasks, changes to tasks, changes to staffing, changes to task sequence or schedule) that attempt to decrease the likelihood of a risk event occurring. Risk owners identify preventive actions when they believe the investment in prevention is justified by the reduction in the likelihood of the risk occurring.

- **Mitigating actions (reduce)** – mitigating actions are changes to the program that attempt to decrease adverse impact if the risk does occur. Mitigating actions sometimes include transferring a risk to another party. Risk owners identify mitigating actions when they believe the investment in mitigation is justified by the reduced impact if the risk occurs.

- **Contingent actions** – contingent actions are recommended actions that would be taken only if a risk had occurred or occurrence appears imminent. Contingent actions are implemented when an agreed-upon criterion called a "trigger" is met which signifies that a risk has occurred or occurrence is imminent. Triggers and contingent actions are defined together and represented as:

"If <trigger> then <action>"

Risk owners recommend contingent actions when they believe it would be prudent to anticipate the consequences of a risk occurring and invest the time and energy to have a plan in place for that eventuality.

The RMP can have unexpected ramifications. The RPC should model each risk plan in the program schedule to predict response impact on the program.

All responses recommended by the risk owner will be documented and presented to the RPC.

2.10 Risk monitoring and control

Risks and the effectiveness of risk treatment plans need to be continually monitored to ensure that the treatment or remediation action remains relevant and that any new risks are identified and evaluated. Risk monitoring and control refers to the ongoing processes and activities required to:

- Monitor early warning indicators of identified risks to determine if the likelihood or severity profile of the risk has changed
- Close risks that are no longer applicable (resources should not be wasted on managing considerations that are no longer required)
- Determine whether or not an identified risk has occurred or is imminent
- Monitor the status of mitigation strategies
- Perform periodic re-assessment of risks and identification of new risks.

Risk owners are responsible for monitoring active risks and reporting any perceived change in the likelihood or impact of the risk to the RPC.

All risks in the risk register will be reviewed on a regular basis during the program to determine if the assessments of likelihood or impact should be changed, and to re-assess the adequacy and appropriateness of planned responses. The frequency of review will depend upon the risk status and risk priority, as described in the Table 4 below.

Table 4

Risk status	Criteria/frequency/venue	Purpose
Received pending analysis	Risks in this status for more than three days will be reviewed with the Director during the weekly briefing.	Ensure risks are being assigned promptly
In analysis	Risks in this status will be reviewed weekly with the program team. Risks in this status for more than 30 days will be reviewed with the Director during the weekly briefing.	Ensure appropriate resources and priority are assigned to analysis
RPC review	All risks in this status will be discussed with the Director during the weekly briefing.	Build consensus with Director on recommended actions
Director review	All risks in this status will be discussed with the SC during the periodic briefing.	Gain timely approval to implement recommendations
Active – priority 1 risks	Reviewed with the risk owner and sponsor at an interval determined by the RPC and SC (from 1 to 30 days).	Ensure that priority risks are closely monitored
Active – priority 2 and 3 risks	Reviewed with the risk owner and RPC at an interval specified by the RPC (from 1 to 90 days).	Ensure that all active risks are monitored for changes
Event occurred	Program Director will be notified promptly that the risk event has occurred. Status updates will be provided at least weekly until the risk event is closed.	Ensure prompt communication of risks that have occurred and active management of risk events
Closed	Reviewed as part of program closure.	Identify lessons learned to improve future risk planning

The results of each review will be recorded on the risk review record (see Appendix D) to provide an audit trail of the review and document any changes in status, risk ratings, or recommended risk actions. A software tool would be procured for capture and address risks including an early warning of a potential risk.

2.11 Program Director approval

All recommended risk actions will be reviewed with the Director prior to implementation. Any changes to previously approved risk actions will be reviewed with the Director. Any risk changed from or to priority 1 will be reviewed and approved by the Director.

Appendix A – Risk planning activities

ID	Risk activity
1.0	Risk planning
1.1	Define process, reporting, roles, responsibilities, and tools
1.2	Forecast contingency budget for risk management
1.3	Define risk management deliverables
1.4	Complete RMP
2.0	Risk identification
2.1	Brainstorm risks
2.2	Create baseline risk register
3.0	Risk analysis
3.1	Evaluate risk and determine risk rating and prioritization
3.2	Update the risk register with results of risk analysis
4.0	Risk response planning
4.1	Evaluate risk response alternatives
4.2	Select risk response actions
4.3	Assign responsibilities and schedule risk response actions
4.4	Update the risk register with results of risk response planning
5.0	Risk monitoring and control
5.1	Conduct ongoing risk reviews
5.2	Take corrective action
5.3	Update the risk register

Appendix B – Risk form

Risk ID #	Priority (RPC use): 1 2 3
Risk title/short description:	
Risk description (potential event and likely consequences):	
Source of risk:	
Initially submitted by:	Initial submission date:
Risk owner:	Risk owner assigned date:
Analysis results:	
Likelihood: H M L	Impact (Local): H M L Impact (CRP-DS): H M L
Prevention recommended:	
Mitigation Recommended:	
Contingent actions and triggers recommended:	
Monitoring recommendations (to facilitate early/timely detection):	
Analysis to RPC on (date):	
RPC action recommendation:	
Program Director approval date:	

This document becomes a part of the permanent risk record. Additional information may be attached. When complete, this document should be stored in the risk register.

Appendix C – Risk register

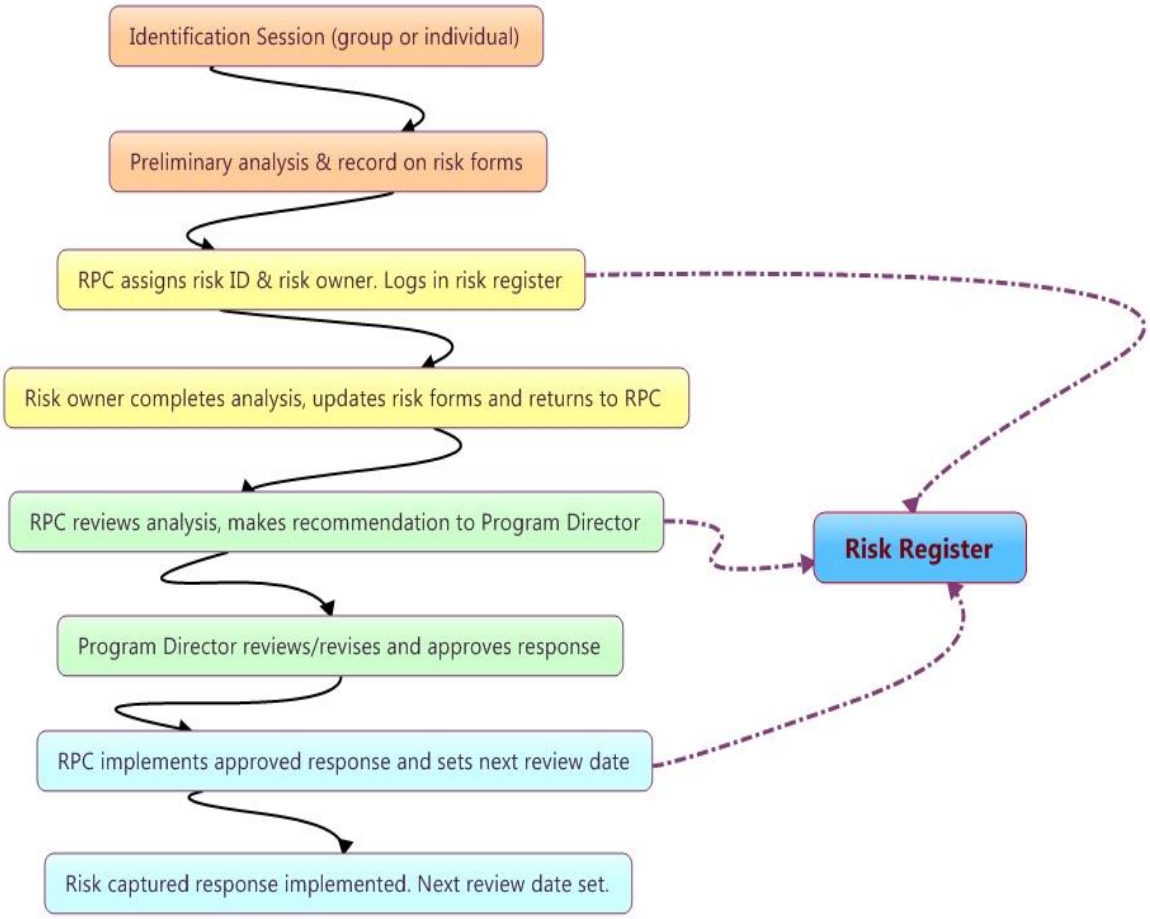
Risk ID	Description	Source	Category	Probability (likelihood)	Impact local	Impact program	Impact gradual/ immediate	Score	Triggers	Risk response	Actions	Status	Owner
Number	"Event, effect" statement	Cause	Technical, management, organizational, Contractual, external	High (3), medium (2), low (1)	High (3), medium (2), low (1)	High (3), medium (2), low (1)		Product of probability x impact	Description and probability	Acceptance, mitigation, prevention, contingency		Open, in progress, closed	Team member
1													
2													

Appendix D – Risk review record

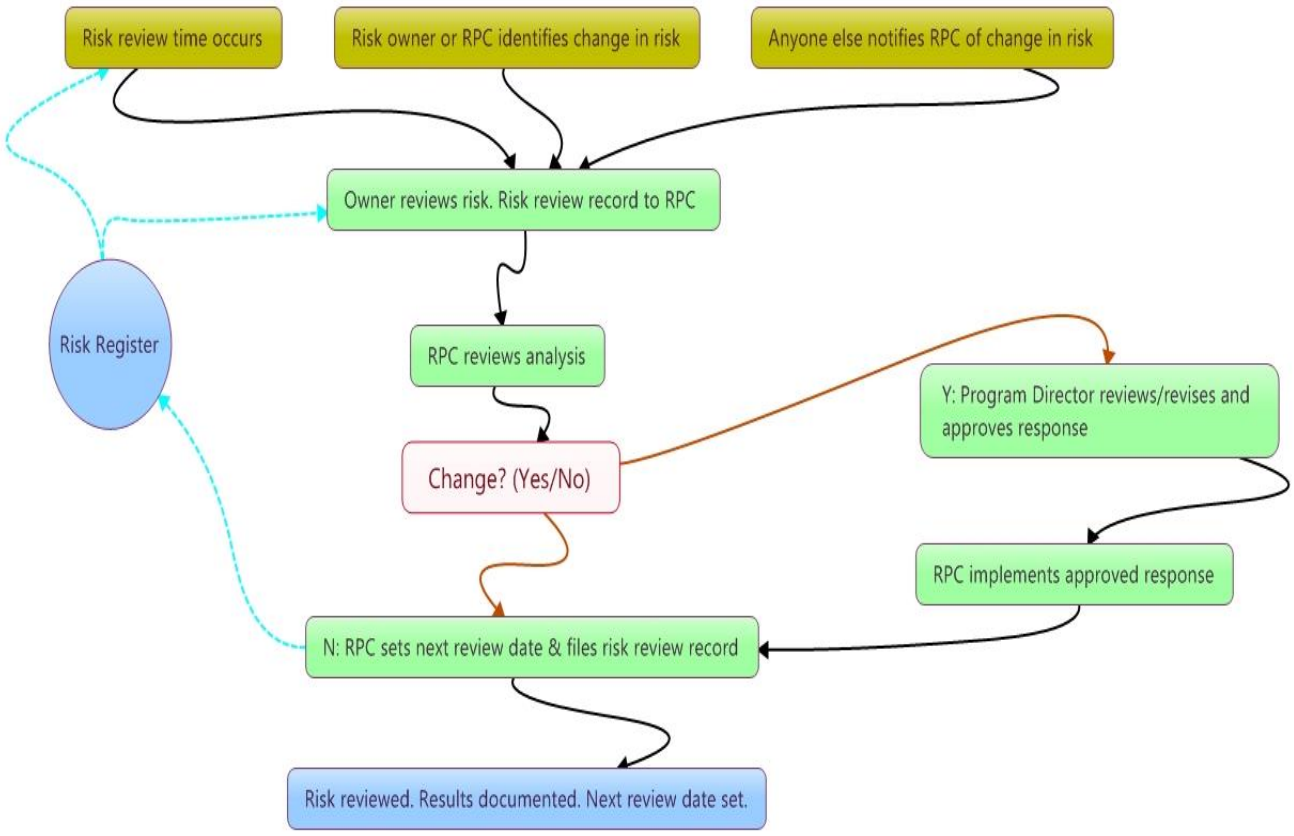
Risk ID #		
Review resulted in change? Y N		Date of status review:
Reviewer:		Scheduled date of next review:
Risk owner:		
Prior review likelihood: H M L	Prior review impact (Local): H M L	Prior review impact(CRP-DS): H M L
This review likelihood: H M L	This review impact (Local): H M L	This review impact(CRP-DS): H M L
Review findings/discussion:		
Changes to prevention recommended:		
Changes to mitigation recommended:		
Changes to contingent actions and/or triggers recommended:		
Changes to monitoring that might facilitate early warning:		
Review to RPC on (date):		
RPC action recommendation:		
RPC approval (date):		
Program Director approval date (if changes):		
Actions Taken: Date:	Description:	

This document becomes a part of the risk register. Additional information may be attached. Program Director approval is required if any changes to risk response actions are proposed.

Appendix E – Risk identification process



Appendix F – Ongoing risk monitoring and control



Appendix G –Dryland Systems risk register

Please see separate Excel sheet and refer to online risk register at:
http://drylandsystems.cgiar.org/mel

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The CGIAR Research Program on Dryland Systems aims to improve the lives of 1.6 billion people and mitigate land and resource degradation in 3 billion hectares covering the world's dry areas.

Dryland Systems engages in integrated agricultural systems research to address key socioeconomic and biophysical constraints that affect food security, equitable and sustainable land and natural resource management, and the livelihoods of poor and marginalized dryland communities. The program unifies eight CGIAR Centers and uses unique partnership platforms to bind together scientific research results with the skills and capacities of national agricultural research systems (NARS), advanced research institutes (ARIs), non-governmental and civil society organizations, the private sector, and other actors to test and develop practical innovative solutions for rural dryland communities.

The program is led by the International Center for Agricultural Research in the Dry Areas (ICARDA), a member of the CGIAR Consortium. CGIAR is a global agriculture research partnership for a food secure future.

For more information, please visit

drylandsystems.cgiar.org

Led by:

ICARDA
Science for Better Livelihoods in Dry Areas

In partnership with:

ICRISAT
Science with a human face

Bioversity International

CIAT

CENTRO INTERNACIONAL DE LA PAPA
CIP

World Agroforestry Centre

ILRI
INTERNATIONAL LIVESTOCK RESEARCH INSTITUTE

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