Environmental and Social Management System Implementation Handbook

CROP PRODUCTION

IFC | International Finance Corporation
WORLD BANK GROUP

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Welcome & How to Use This Handbook

Environmental and social responsibility is becoming more and more important in today's global economy. There are thousands of environmental and social codes and standards in the world today. The codes and standards define the rules and the objectives. But the challenge is in the implementation. An environmental and social management system (ESMS) helps companies to integrate the rules and objectives into core business operations, through a set of clearly defined, repeatable processes.

This Handbook is intended to be a practical guide to help companies in the crop production industry develop and implement an environmental and social management system, which should help to improve overall operations.

In the current economic climate, companies are under pressure to perform or even just survive. New initiatives are often met with resistance as people struggle to keep up with their day-to-day responsibilities. Some people think that an environmental and social management system must be big, complicated and expensive. But that is not really true. To be effective, a management system needs to be scaled to the nature and size of the company.

If a company has existing management systems for quality or health and safety, this Handbook will help to expand them to include environmental and social performance. Our hope is that this Handbook will accelerate a company's journey of continual improvement, for its own benefit and that of its employees and stakeholders.

Quick Reference for Using this Handbook	
Sections I – II	These sections provide background on environmental and social management systems (ESMS) in the crop production industry.
Section III	This section provides step-by-step instructions on how to develop and implement an ESMS. If you see a Toolkit icon, it means that there is an accompanying tool in the ESMS Toolkit.
ESMS Toolkit and Case Studies	Section I of this companion publication gives tools, including forms, templates, checklists, and other useful documents, to help you develop and implement the systems described in the Handbook. We suggest that you adapt each tool for your company. Section II includes case studies presenting two companies in the crop production industry that implemented an ESMS. These hypothetical cases illustrate how to develop and implement an ESMS appropriate to the size and nature of your company. • ABC Company – a US-based fruit company that has just acquired a pineapple plantation. • XYZ Company – a large sugar mill in Nicaragua looking to expand its export market.
ESMS Self-Assessment and Improvement Guide	This companion publication contains a questionnaire, maturity matrix, and improvement tips to help you measure the maturity of your ESMS and develop a plan for improvement.

Acknowledgements

Benefits of an Environmental and Social Management System in the Crop Production Industry

Benefits of an Environmental and Social Management System in the Crop Production Industry

Today, crop production companies are confronted with a number of significant environmental and social challenges. None of the challenges is insurmountable, but if not effectively addressed and managed, they will hurt your core business operations and profitability.

Among these challenges are increasing energy and agricultural inputs costs, the growing power and influence of environmental and labor regulatory agencies, and rapidly evolving consumer awareness and concerns about environmental and social issues. These risks are in addition to the primary risk of failing to manage food safety while building brand and consumer confidence. All of these risks ultimately can have financial consequences. Moreover, export is vital to the success of many crop production businesses; but exporting brings even more demands from international legislation, voluntary standards and consumer requirements – increasingly related to environmental and social practices. All of these risks, requirements and pressures that your business faces are forces that encourage you to implement a management system.

"Our agro-forestry and plantation departments have been recognized by the local administration for their reforestation programs and sustainable practices. Our employees see this as an exciting challenge, and take pride in meeting them."

General Manager
Asia based supplier to a multi-national brand.

There are direct business benefits from implementing an environmental and social management system. Conserving and using energy and materials efficiently helps to reduce production costs. Reducing waste and discharges can minimize the cost of increasingly expensive, regulated discharges to the environment (such as greenhouse gases and wastewater). In the crop production industry, there can be financial benefits from waste management. Instead of merely capturing and treating process wastes with no benefit, you can convert organic wastes to biogas for boiler fuel or generate electric power, or organic fertilizer and soil amendments to strengthen crop production sustainability. A management system can elucidate where expenditures exceed industry benchmarks and identify potential production cost savings.

The same tangible benefits can be realized on the social side. Clear, transparent human resource policies and procedures improve communication between workers and managers. This helps to anticipate and avoid labor problems. Effective occupational health and safety management procedures work toward the identification of workplace and process hazards, then seek to eliminate or reduce

them through engineering and administrative controls, and employee training on how to avoid job site risks. This serves not only to reduce incidents, accidents and fatalities, but also contributes to reducing insurance premiums for worker compensation.

Management systems are widely used by crop production companies in quality control and food safety. An environmental and social management system simply extends that approach to managing the impact your business has on the environment and the working conditions on your farm or plantation.

Ultimately, your management systems should be integrated and centralized, instead of having one system for quality, one for food safety, and one for environmental and social. Integrated management systems are the goal, but the focus of this Handbook is on helping you implement an ESMS that is appropriate for the size and nature of your company.

II

Understanding an Environmental and Social Management System

Understanding an Environmental and Social Management System

OVERVIEW

A management system is a set of processes and practices to consistently implement your company's policies to meet your business objectives. The goal is to make sure that you have the appropriate policies and procedures in place and that people consistently follow them. The management system helps to assess and control your risks and is the key to lasting improvement. A key feature is the idea of continual improvement – an ongoing process of reviewing, correcting and improving your system. The most common method is the Plan-Do-Check-Act cycle (PDCA), described below.

Identifying and analyzing the risks and objectives

What is important for you as an organization and what are you going to do about it?

Developing and implementing a potential solution

What actions will you take? Who, what, where, when and how?

Implementing the improved solution

What will you change if results are not what you expected?

Measuring how effective the solution was, and analyzing whether it could be improved

Did you see the change you expected after implementing the actions?

PLAN DO ACT CHECK

In the workplace, an effective management system is comprised of trained, committed people routinely following procedures.

ELEMENTS OF AN ENVIRONMENTAL AND SOCIAL MANAGEMENT SYSTEM (ESMS)

A solid, functioning environmental and social management system (ESMS) is made up of interrelated parts. Take a look at the nine elements of an effective ESMS. Each of these elements is important, because they help you to assess, control and continually improve your environmental and social performance, as part of the Plan-Do-Check-Act cycle. The following section presents step-by-step instructions on how to develop and implement a system using these elements.
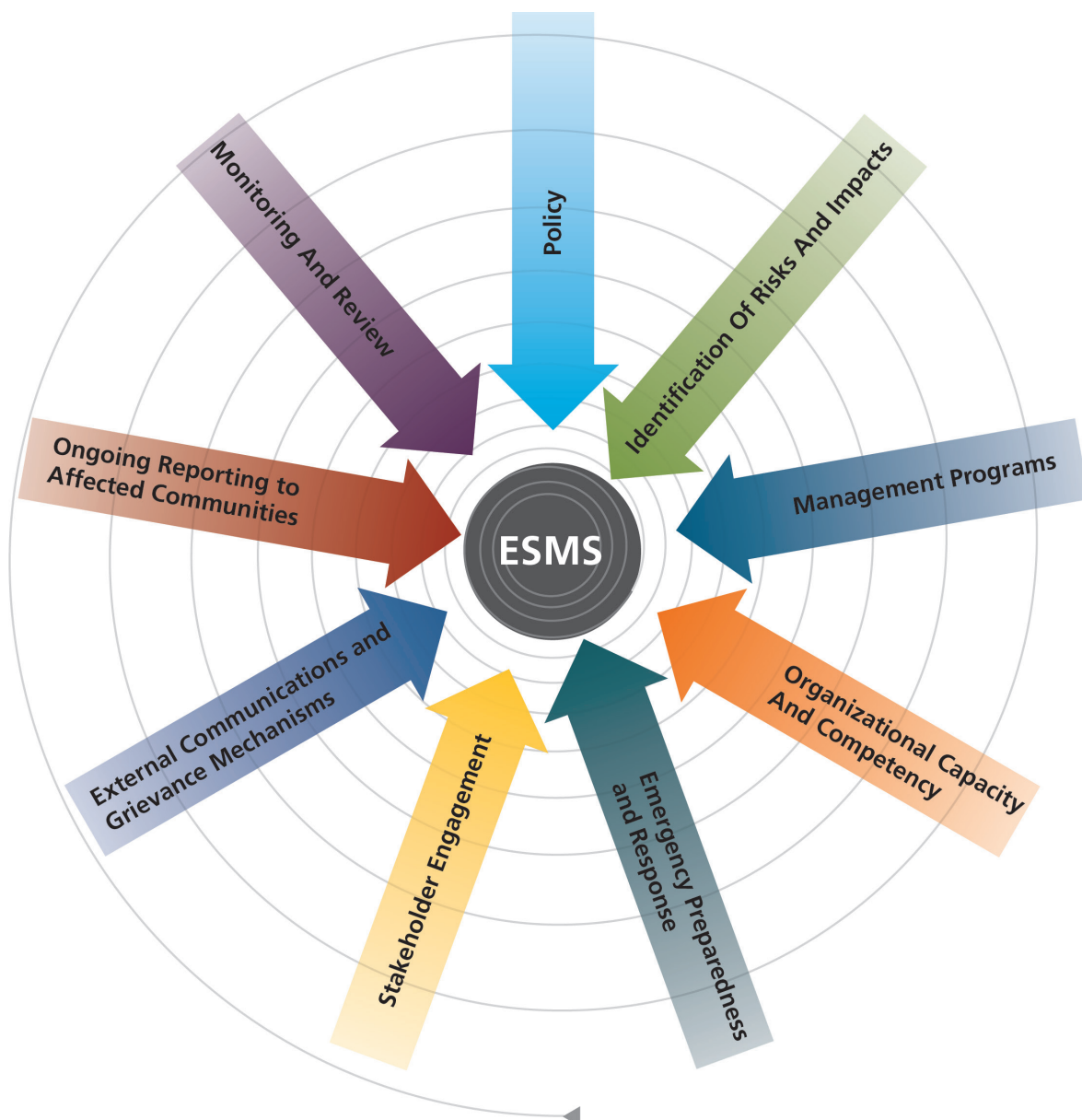
MEASURING AND IMPROVING

You can't improve what you don't measure.

A lot of companies in the crop production industry already have management systems for quality or food safety. If so, you may already have elements of an ESMS, and there is no need to replace what you already have. In this Handbook's companion publication, ESMS Self-Assessment and Improvement Guide, we provide a self-assessment rating for each of the ESMS elements. The self-assessment will allow you to measure your current level of system development and implementation. You will answer a series of questions and get your score for each element in the ESMS on a scale of 0 to 5 (5 is highest). The score measures the maturity of your system. Once you understand the maturity of your system, it is easier to target specific steps you can take to improve it.

THE SYSTEM MATURITY LEVELS (5 = HIGHEST)	
Level 5	Mature system implemented internally and with key supply chain partners – continual improvement embedded in operations
Level 4	Systems well developed and implemented internally – routine improvement projects
Level 3	Systems approach adopted, but development and implementation is inconsistent – improvement sporadic
Level 2	Limited system development with sporadic implementation – primarily reactive
Level 1	Little systems awareness or repeatable processes
Level 0	No systems awareness or repeatable processes

Policy

Identification Of Risks And Impacts

Management Programs

Organizational Capacity And Competency

Emergency Preparedness and Response

Stakeholder Engagement

External Communications and Grievance Mechanisms

Ongoing Reporting to Affected Communities

Monitoring And Review

Levels of System Development & Implementaion (5 = highest)
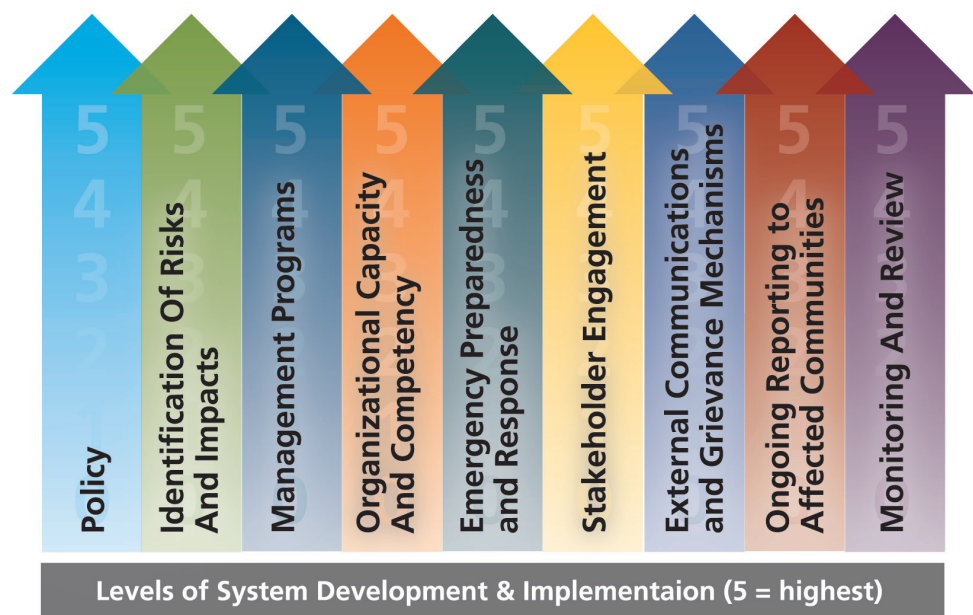
REMEMBER

A carefully developed, detailed ESMS is only valuable if it is well-implemented.

SYSTEM DEVELOPMENT AND SYSTEM IMPLEMENTATION

One of the most important things to understand about a management system is the difference between system development and system implementation. A management system is comprised of trained, committed people routinely following procedures. If you break this statement down, you see that it talks about "procedures." Procedures are the step-by-step way that people follow your policies. Procedures are the heart of effective system development.

Now let's look at the other part of the statement – "trained, committed people routinely following procedures." This is the implementation. There is a lot that goes into making it happen. Of course, some training is important to make sure that people are aware of the procedures and understand what they are supposed to do on a routine basis. But you also need to find a way to get their commitment.

One common observation is that large companies tend to be better at system development. But they often have difficulty getting people in different locations or departments to consistently implement the procedures, despite having well-documented systems. Small companies tend to be better at system implementation – if they have effective leadership. However, they are often weak at developing the documentation needed to ensure continuity when people in the organization change.

The approach of this Handbook and its companion publications, Toolkit and Case Studies and Self-Assessment and Improvement Guide, balances system development and system implementation in each of the ESMS elements.

DEFINITIONS	
System Development	The documented policies and procedures.
System Implementation	Trained, committed people routinely following the procedures.

An ESMS does not need to be complicated, but it does need to be documented and then put into practice. Some people mistakenly think a management system is just documents. But that is only a part of it. Management systems are about implementation and continual improvement.

USING THE HANDBOOK AND COMPANION PUBLICATIONS TO DEVELOP AND IMPLEMENT YOUR ESMS

The Handbook and companion publications are designed to help you measure and improve the maturity rating of your ESMS. The flowchart below shows how you can use these three publications in a cycle of continual improvement.

- Use tools to implement improvement plan
- Learn how other companies scaled the ESMS to their size and complexity

- Understand the benefits of an ESMS
- Learn the nine fundamental elements of an ESMS

- Measure the maturity of your ESMS
- Prioritize elements and develop an overall ESMS improvement plan

III
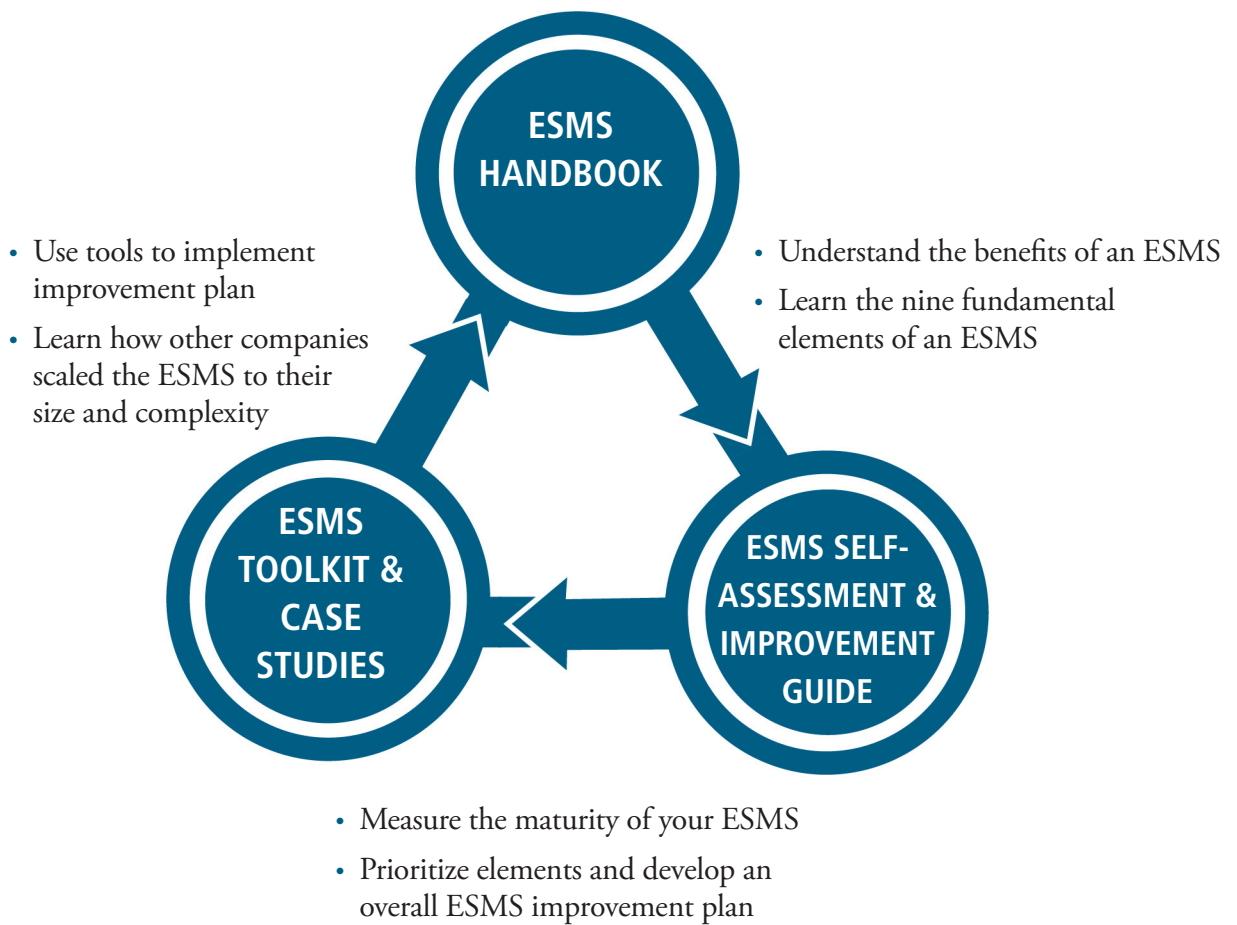
Practical Guidelines for Developing and Implementing Your Environmental and Social Management System

This section provides step-by-step instructions on how to develop and implement an ESMS.

For each element of the ESMS, we offer a quick way to measure where you are now.

When you find a toolkit icon, it means there is a tool in the companion publication *Toolkit and Case Studies* to make it easier to get started.

Policy

5 E&S policies and procedures clearly communicated internally and externally. Senior management commitment to continual improvement.

4 Full set of E&S policies, procedures and records, centrally maintained and routinely reviewed. Wide awareness in company.

3 Policies and procedures in place meeting selected E&S standards. Sporadic communication, implementation and review.

2 Policies in place meeting selected E&S standards. Sporadic, conflicting or confusing procedures.

1 Limited E&S policies in place.

0 No E&S standards adopted. No related policies and procedures.

The cornerstone of your ESMS is your set of policies. Your policies summarize the commitment that your company has made to managing environmental and social risks and impacts. They establish the expectations for conduct in all related aspects of your business.

PURPOSE OF AN EFFECTIVE POLICY

Simply put, the policies are the rules. They tell everyone what is allowed and what is not allowed when it comes to social and environmental issues such as labor and working conditions, resource efficiency and pollution prevention, and community health, safety and security.

A good practice for writing the policies and making them understood is a Policy Statement. The Policy Statement communicates your company's policies to your management, staff, board, suppliers, contractors, customers and all other stakeholders. It is important for everyone to have a common understanding of the core values of the company, how you expect people to behave and how external stakeholders can expect you to operate.

MODIFYING YOUR EXISTING POLICY STATEMENT OR CREATING A NEW ONE

The Policy Statement should be clear and simple – it does not need to be long and technical like a legal document. Many companies already have a corporate code of conduct that serves as a Policy Statement and includes issues such as ethics. You can expand your existing code to align with internationally recognized environmental and social standards for issues relevant to your business, such as the IFC Performance Standards for Environmental and Social Sustainability.

It is important to think through the creation of the Policy Statement and tailor it to your company operations. In developing your Policy Statement, be aware of the specific risks you face in the crop production industry.
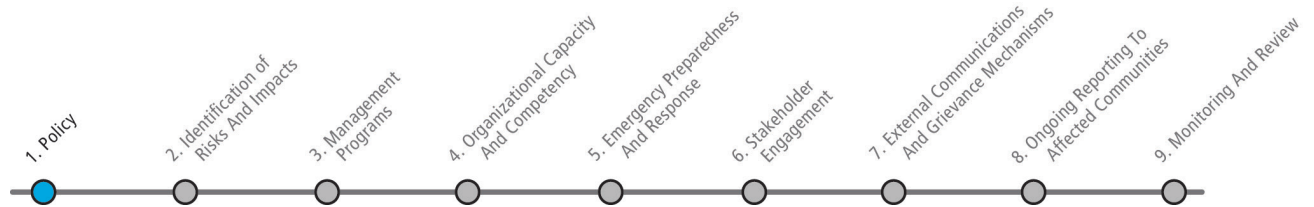
GAINING SENIOR MANAGEMENT AND COMPANY COMMITMENT

Modifying or adopting your Policy Statement will require senior management support. In some companies, it may require approval from the Board of Directors. A high level of senior management support is critical for integrating environmental and social commitment throughout all levels of your company.

Committing to environmental and social policies probably requires some change in the behavior of your company, workers, contractors and suppliers. This can be challenging. There are different strategies and different techniques for changing organizational behavior, but experts agree that to create lasting change, senior management must be committed to the effort.

The first step is building awareness. There are many issues that occupy your employees' attention day-to-day. As just a written document, your Policy Statement may not get their attention or seem relevant to their daily activities. Senior management needs to make this Policy Statement come alive.

To do so, they need to communicate the importance of environmental and social issues, by making them an ongoing part of high-level Board and management discussions, public speeches, and messages to employees.

Once people are aware of the Policy Statement, the next step is building commitment – also known as "buy-in." You will probably meet resistance: "Why do we need to do this? It is too much work. I've already got enough to do. How does this help our bottom-line?" Senior management needs to effectively shape and communicate the message internally and externally. They need to send a clear message that this is a long-term commitment by the company.

> Use the Toolkit item **Checklist for Developing a Company Policy Statement** to get ideas of what you could include in your policy.

The key message is that this will contribute to the company's success and that each person will benefit - but that they will also be held accountable.

Once you have convinced people that they need to do something, senior management needs to drive implementation. They do not need to lead the effort on a day-to-day operational level, but they do need to adopt the policy and oversee the implementation plan. Resources will be necessary in order to communicate the policy internally and externally, integrate new procedures and train all relevant staff and suppliers.

Crafting the initial messages can be a good time to talk through the above stages with your senior management. Consider accompanying the Policy Statements with a message from the CEO.

> Use the Toolkit item **CEO Letter Announcing the ESMS - Internal** to get started.

For any change initiative, think of three critical stages: Awareness; Commitment; and Implementation.

Your senior management can help you to accelerate all three stages.

Identification of Risks and Impacts

The primary objective of a risk assessment is to identify the potential negative environmental and social impacts so that you can develop the appropriate strategies to address them. In the following pages, we present the key issues that come up in the crop production industry.

5 Mature system, routinely reviewed and updated as part of continual improvement plan. Internal and external inputs. Procedures extended to contractors, subcontractors, third parties and supply chain as relevant.

4 Systematic, documented identification and prioritization of E&S risks and impacts. Routinely reviewed and updated across existing, new and changing activities. Wide awareness and engagement in company.

3 Awareness and engagement of staff in identification and prioritization of E&S risks and impacts. External experts involved as required.

2 Procedures in place for identification of E&S risks and impacts across all key activities.

1 Basic identification and assessment of E&S risks and impacts, but limited to a few activities.

0 No identification or assessment of E&S risks and impacts.

KEY RISKS IN THE CROP PRODUCTION INDUSTRY

1. **Environmental: Pollution Prevention and Resource Efficiency**

    *   Inefficient use of water resulting in strains on supply
    *   Use of poorly designed, operated and managed irrigation schemes
    *   Processes leading to degradation of soil quality, impermeability or extreme pH through nutrient loading
    *   Agricultural runoff containing high concentrations of organic material and toxic substances such as pesticides, chemical fertilizers and other agricultural inputs
    *   Mismanagement of agricultural inputs (pesticides, fertilizers) in their storage, mixing, application and disposal
    *   Overuse of pesticides that undermine stable ecosystems and risk harming non-target or beneficial species
    *   Production of large amounts of crop waste
    *   Risks from crop burning including particulate emissions and loss of control of combustion
    *   Use of unsuitable or low production areas such as wetlands for agriculture
    *   Monocultures (single-crop production cycles) leading to weakening of local ecosystems
    *   Unplanned conversion of forested areas leading to deforestation and desertification

2. Occupational Health and Safety

- Excessive exposure to hazardous substances including pesticides, chemical fertilizers and other agricultural inputs and failure to provide adequate training and PPE
- Injuries related to the operation of machinery and vehicles, such as tractors and harvesting machinery
- Injuries related to falls, cuts, and strains from carrying heavy loads and repetitive work
- Exposure to extreme temperature conditions during work, increasing risk of dehydration, heat stroke, and kidney disease
- Exposure to unsafe levels of noise from operating machines, such as harvesters, trucks and tractors
- Exposure to organic dust particles from grain, fungi and bacteria during the threshing, handling and storage of grain
- Risk of explosion in grain handling and storage facilities due to concentrations of dusts at or above the lower explosive limit (LEL) and presence of ignition source
- Use of harvesting machinery and creation of flying debris and stones
- Unsafe transportation conditions for farm workers

3. Labor

- Inadequate protections for migrant/temporary workers
- Potential for forced labor situations arising out of migrant workers' indebtedness
- Abusive terms of employment by recruitment agencies/contractors
- Endemic use of child labor in harvesting and weeding
- Excessive and/or uncompensated overtime due to unrealistic individual production quotas
- Failure to pay minimum or living wage
- Limited or restricted freedom of association
- Inadequate worker housing and sanitation

4. Community Health, Safety and Security

- Strain on local water supply
- Exposure to agrochemicals due to spray drift, agricultural runoff, and improper disposal of agrochemicals packaging and containers
- Exposure to air emissions from open burning of crop waste or burning prior to harvest (e.g. sugar)
- Exposure to odors from the use of manure
- Increased vehicle traffic due to transport of raw materials and finished products to/from the plantation or farm
- Exposure of consumers to pathogens that could be transmitted from the use of animal manure or the use of domestic wastewater for irrigation
- Exposure of consumers to harmful concentrations of pesticides in postharvest products

Top 3 risks and opportunities in the Crop Production

1 Intensive crop-growing may put a strain on the local water supply. Crop-growing often requires large amounts of fresh water for irrigation. A reliable supply of fresh water is essential for ensuring continuity of production. Potential actions for preventing shortages and reducing conflicts with other users of the same water resources include storing water during wet seasons through rainwater harvesting, groundawater recharge streams, and drip irrigation.

2 Runoff from agricultural fields can lead to environmental pollution. Intensive crop-growing may use chemical fertilizers and pesticides, resulting in the contamination of rivers, lakes and groundwater. Conflicts with other users may result. The application of pesticides, chemical fertilizers and other agricultural inputs must be managed carefully in order to mitigate risks to human health and the environment.

3 Agribusinesses may employ migrant workers for seasonal work In order to lower costs or when labor supply falls short. These employers sometimes confiscate passports and force migrant laborers to work excessive hours. They often fail to provide employees with written contracts or regular wages, and even withhold wages in some instances.

There are different ways to conduct a risk assessment. One common method is to map your facility and production processes – this can highlight OHS and environmental risks. A common method for labor risks is to use a checklist of risk factors , such as employee demographics, regional labor laws, contracting arrangements, etc.

The following are key considerations for a robust risk assessment system:

- Cover environmental, OHS, labor and community risks;
- Conduct at regular intervals – at least once a year;
- Conduct any time there are significant changes to operations;
- Conduct any time there are external changes such as new laws or regulations;
- Include input from all levels of workers and managers;
- Include input from affected communities and other external stakeholders;
- Use external consultants and experts if your staff does not have the capability;
- Assess and prioritize risks according to both the severity and probability of negative impacts;
- Consider risks in your supply chain in addition to those in your company; and
- Scale as appropriate to the size and complexity of your business.

Now that you have an understanding of the typical risks in the crop production industry, you can first use the **Risk Identification Worksheet** to identify your potential risks and negative impacts based on your operations and operating environment. Then you can use the **Process Mapping** or the **Physical Mapping** tools to identify in more detail where problems are likely to arise within your production process.

Often it is not possible or practical for you to deal with every single environmental and social impact that your company could possibly have. You can use the **Risk Assessment Form** to prioritize which risks should be addressed first.

For more information on environmental, OHS and community risks and impacts in your industry, consult the *WBG EHS Guidelines* at www.ifc.org/sustainability.

Management Programs

Management Programs are centered on Action Plans and improved procedures to avoid, minimize or compensate for the risks and impacts that were identified.

For example, if you have a policy commitment to avoid discrimination in the workplace and you have identified this as a risk factor based on the lack of a system for employees to express their complaints, you may implement a complaint procedure as a way to minimize the risk of discrimination. Or, if one of your policy objectives is the reduction of solid waste and you have identified this as a risk factor because of the high percentage of organic waste produced in your operations, you may take action by building a composting facility to avoid sending organic waste to the landfill.

Verified progress against objectives and targets; significant improvements in E&S performance. Demonstrated commitment to continual improvement using annual improvement plans.

5

Routine, consistent implementation of actions/activities to proactively manage E&S risks and impacts. Measurable company-wide objectives and targets. Periodic review and update.

4

Actions/activities in place to manage E&S risks and impacts, following the mitigation hierarchy – avoid, minimize, offset/compensate. Proactive approach to managing issues.

3

Procedures and assigned responsibilities to address and mitigate E&S risks and impacts across all key activities. Primarily reactive.

2

A few informal programs or activities to mitigate E&S impacts. No systems awareness or repeatable processes.

1

No process for mitigating E&S risks and impacts.

0

1. Policy 2. Identification of Risks And Impacts 3. Management Programs 4. Organizational Capacity And Competency 5. Emergency Preparedness And Response 6. Stakeholder Engagement 7. External Communications And Grievance Mechanisms 8. Ongoing Reporting To Affected Communities 9. Monitoring And Review
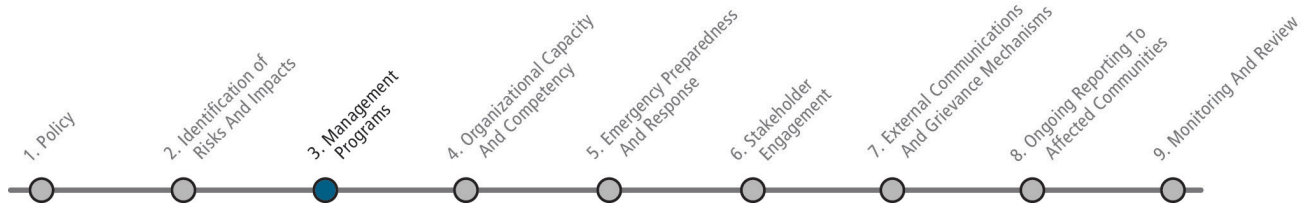
IDENTIFYING PREVENTIVE AND CORRECTIVE ACTIONS

It is good practice to emphasize preventive and proactive actions: (1) try to avoid causing social or environmental damage; (2) if not possible, then minimize the impact; (3) if not possible, then compensate or offset the damage.

First, attempt to take actions to avoid or prevent the negative impacts. For example, suppose you are expanding operations and have identified potable water as a key risk. You might change your new facility location or design it differently, so that you avoid contamination of groundwater close to homeowners and communities. Or, suppose you have identified a certain cultivation process that exposes workers to toxic chemicals and pollutes the local river system. You might design your product mix to avoid this process or find alternate cultivation methods or chemicals.

MITIGATION HIERACHY

Prioritizing Your Actions

AVOID
▼
MINIMIZE
▼
COMPENSATE/OFFSET

In many cases, complete avoidance is not possible – you may not be able to relocate or find alternative processes or materials. In these cases, you should try to minimize the impact. For example, suppose that you are located in an area where women are traditionally given lower status and less access to education, and in the workplace they are often mistreated by male co-workers and supervisors. The local cultural context and the need to hire both men and women is unavoidable. It is important to pay attention to your recruitment, hiring and training procedures, to make sure that women are hired on equitable terms and given equal access to training and promotion opportunities. You can also develop non-discrimination procedures to ensure that rules for recruitment, hiring and training are clear for everyone to follow. Additionally, you can conduct training to make sure that everyone is aware of and follows the procedures.

In some cases, it may not be possible to completely avoid or minimize certain negative impacts. Then you should find ways to offset them with comparable positive impacts or provide compensation to those impacted. For example, suppose your operation uses a large amount of water. Despite taking action to minimize water consumption, there are still periods of the year when water becomes scarce in the local community. You might collaborate with community leaders to dig new wells or provide alternate sources of drinking water.

SHORT CASES

Here we present several short cases that illustrate some of the actions that companies can take to avoid, minimize or offset/compensate common environmental and social key risks in the crop production industry. Action Plans can be scaled to the size of your company and the nature of the risks you face.

Rice cultivation farm
RISK: Excessive groundwater consumption

Specialty Crop (S Crop) is a family owned agricultural company located in the southeastern part of Hubei province, People's Republic of China. S Crop produces export quality rice, mostly for Europe and the Americas. The company owns over 800 hectares of land and relies on groundwater for crop production. In the last few years, the local farmers in the region have made several complaints to the District Administration that the groundwater table in the region has fallen below the reach of many wells due to indiscriminate water use by S Crop. Irrigation water demand for S Crop rice paddies is extremely high and the company has not developed guidelines or procedures specifying the frequency or quantity of water required for cultivation. The company's groundwater wells are much deeper than others in the region and this has further accelerated the depression of ground water tables in the area and thus reduced the availability of water resources.

IMPACT

- Depression of groundwater tables in the region
- Reduced availability of water resources adversely impacts the livelihoods of local farmers

AVOID

- Convert to water-efficient and drought-tolerant rice cultivars
- Level rice fields to remove land depressions that hinder water movement
- Implement Alternate Wetting and Drying (AWD) technology
- Install water-depth and water-circulation regulating systems
- Conduct soil puddling in clay soils or soil compaction to reduce percolation and seepage

MINIMIZE

- Introduce pipeline conveyance systems for irrigation water transport
- Minimize the use of open canals to reduce water losses through seepage and evaporation
- Develop alternative water supplies and sources including rivers, Ranney wells, canals and rain water harvesting
- Explore opportunities for replacing seedling transplanting by direct seeding
- Explore use of alternatives to flooding, such as use of overhead sprinklers, furrows and drip irrigation
- Work with local water authorities and farmers to optimize distribution of permits and cooperative use of groundwater wells in the area
- Work with local regulators and NGOs to enforce groundwater well permitting requirements, including monitoring and reporting of extraction rates by permitted wells in the region

OFFSET

- Subsidize deepening of most severely affected wells
- Transfer water conservation technology and/or subsidize alternatives to flooding irrigation to local farmers
- Materially and financially support local communities in construction of rain water harvesting systems for groundwater recharge and irrigation

Fruit and vegetable farm
RISK: Depletion of groundwater supplies

A rapidly growing South American vegetable and fruit grower located in an arid coastal area, is expanding. All agricultural production uses groundwater for irrigation and fertilization (fertigation). The farm has lucrative contracts with the US and Europe. Many farmers have moved into the area and established new farms, drilling unpermitted wells that have put significantly more pressure on the limited local aquifer. In fact, groundwater levels for several municipalities and other farming operations have fallen. The company has used its extensive capital to deepen the wells and continue high rates of groundwater extraction. A group of local farmers have enlisted non-governmental organizations to highlight the environmental and social injustices and impacts. The company believes that these efforts are politically inspired, and says that locals have no voice in their operations. Recently one US supplier notified the company that it will no longer purchase fruit and vegetables if the current impasse is not resolved.

IMPACT

- Use of large amounts of potable water resulting in strains on water supply for agriculture and domestic purposes

AVOID

- Develop and use alternative sources of water including any nearby rivers during high flow periods through installation of riverbank wells
- Collect and store water from rivers in a purpose built reservoir for groundwater recharge, irrigation and storage for irrigation during high flow periods
- Reuse wastewater from packinghouse facility for irrigation
- Investigate potential for treatment and reuse of wastewater from local municipality for irrigation

MINIMIZE

- Convert all irrigation to drip irrigation systems
- Modify irrigation timing to evening and night application to reduce evapotranspiration
- Install soil moisture detectors to control irrigation and eliminate over watering
- Monitor well systems and water levels to facilitate balanced view of aquifer and to reduce stress on specific areas
- Collaborate with other stakeholders and local authorities to review well permits, issue licenses for drilling, enforce existing permit conditions
- Collaborate with other stakeholders including farming operations and municipalities to advocate for water use monitoring and reporting of extraction rates and volumes for all registered and permitted wells

OFFSET

- Investigate and identify farms and municipalities most heavily affected by reduced water availability of water
- Transfer and/or subsidize drip irrigation technology to other local farmers
- Subsidize well reconstruction and other water access and saving activities
- Organize a local farmers' cooperative to jointly promote and conduct field trials of proposed solutions for improved resource use, identification and development of alternative sources, and reduce water shortages

Poultry and horticulture producer
RISK: Soil degradation due to wind erosion and low organic soil carbon content

The Kenyan government offered arable lands to agribusinesses at very attractive prices provided the lands were planted and managed to increase food production. One of the companies taking advantage of this offer was a poultry producer in Eastern Kenya. The company immediately purchased large areas because poultry farms require physical separation among farms to ensure adequate biosecurity and prevention of disease vector propagation. The company then embarked on extensive farming operations for the vacant lands situated between poultry farms. Over time its farming activity has increased significantly and now includes diverse crops such as vegetables and table grapes. It now processes and packages agricultural products.

There is abundant ground water, but the organic content of sandy soils is limited thus compromising local productive capacity. Periodic high winds have eroded topsoil in unprotected areas and soil erosion is a continuing problem that detracts from productive capacity of local farms. The company is increasingly aware that to enhance and expand production, more organic material for the sandy soils is required. Experiments in direct use of poultry rearing waste were unsatisfactory. Purchasing organic materials from other regions to enhance soil carbon was an alternative but purchase and transport costs were prohibitive. A technical adviser suggested composting all organic materials in the region to produce soil humus and organic fertilizer.

IMPACT
• Limits on soil productivity and reduction of farming capacity

AVOID
• Develop large scale composting program utilizing organic waste from poultry production (including mortality), vegetable processing and grape orchard trimmings
• Raise awareness among farmers and other organic waste producers - within feasible/economically viable transport distances - to avoid combusting organic waste; make arrangements for collection of organic waste as additional raw materials for composting
• Inventory organic waste production from other sectors/industries such as animal rearing, dairy cattle operations, beef cattle operations, and experiment with these materials for compost manufacture
• Test composed organic waster for safety as fertilizer/soil enhancer and apply in productive areas (e.g. new plantings, existing fields and replanting) to enhance soil carbon, increase productive capacity, and increase moisture retention

MINIMIZE
• Replace inefficient irrigation technologies with subsurface drip irrigation and fertilization systems to prevent soil desiccation and wind erosion of organic topsoil
• Install and maintain physical or vegetative drift fences (plants, hedges low shrubs and bushes) to capture and stabilize soils eroded by periodic high winds

OFFSET
• Contribute to the development and implementation of a training program to inform farmers of feasible techniques to maintain/enhance soil carbon and to prevent wind erosion of existing soils
• Barter delivered raw organic waste for organic compost and fertilizer
• Offer compost at reasonable or subsidized price to regional crop producers
• Develop seedling and nursery rearing for planting of vegetative drift fences; offer plants at reasonable or subsidized price to regional crop producers

Sugar cane farming
RISK: PM10 and smaller particulate discharges to downwind areas due to large scale cane field burning prior to harvest in non-mechanized areas

Sugar cane Group Inc. (SGI) located in Sao Paulo State has undergone rapid expansion in last five years. It is a medium sized company and has grown sugar cane for many years. All of the sugar cane produced by SGI is supplied to the Ethanol producers in the region. Although the company has mechanical harvesting, it still carries out manual harvesting in some areas, which requires application of chemicals to stop cane growth followed by cane burning prior to harvest. Local community groups are concerned about continuing deterioration in air quality as a result. The Secretary of Environment of Sao Paulo State signed an agro-environmental protocol in 2007 with the ethanol agro-industry sector, which mandates gradual elimination of burning practices by 2014 for mechanized areas and by 2017 for non-mechanized areas.

IMPACT

- Human respiratory distress and illness associated with particulate inhalation
- Increased susceptibility to communicable and other respiratory diseases
- Public health impacts on local communities, and financial stress for medical interventions

AVOID

- Accelerate field revisions (i.e. grading, leveling, and removal of obstacles) to transition to green cane mechanical harvesting
- Transition to green cane harvesting and 'trash blanket' practices (i.e., eliminate pre-harvest cane burning and deposit leaves, tops and other organic residues on the ground)
- Prevent the spread of accidental and malicious fires through the construction of fire-breaks, deployment of fire watchmen and training/equipping fire suppression brigades

MINIMIZE

- Obtain agricultural field burn permit from the relevant authority each time the company intends to burn sugar cane fields
- Employ data from air monitoring/meteorological stations and model combustion products' distribution and drift to water resources, housing and other areas; employ these data to determine optimal weather conditions for field burning

OFFSET

- Engage with affected communities to identify areas affected by high particulate deposition
- Conduct morbidity and mortality studies and identify early warning symptoms of pathology related to ambient air particulate exposures
- Support community health clinics to diagnose and treat local people affected by upper respiratory infections attributable to sugar cane burning emissions

Mango Plantation
RISK: Workers and community exposure to pesticides

Located in Jalisco province Northern Mexico, Mango Fruits owns four mango plantations in the region. The average plantation size is 170 acres and provides significant job opportunities to the local population as the economic activity in this tropical region revolves almost exclusively around mango production and export. The company has been denounced by a local environmental NGO for its low-flying planes routinely dusting the mango plantations with fungicides. These aerial spraying operations are carried out around 25 times a year. The NGO claims that in these spraying cycles, workers and the neighboring communities are exposed to toxic chemicals and the crops of the neighboring community, their schools, homes, domestic animals and the water stored for domestic use are contaminated. Laboratory analysis of water and soil samples from nearby farmland revealed Carbendazim residues. Carbendazim is a WHO Class la (Extremely Hazardous) fungicide banned in the United States due to health and safety concerns.

IMPACT
• Negative health impacts on workers and local community due to exposure to fungicides

AVOID
• Implement integrated pest management programs (IPM) to identify infestations, determine if they are economically significant, and apply all feasible non-chemical techniques for fungus control
• Eliminate usage of banned agrochemicals and those classified by WHO as extremely hazardous (Class Ia), highly hazardous (Ib), and if feasible, Class II (moderately hazardous)
• Implement all cultural, crop timing, fertilization, rain water management and other techniques known in this sector to be effective against fungi
• Replace chemical controls with biological controls
• Purchase and plant fungus-resistant tree species

MINIMIZE
• Employ data from air monitoring/meteorological stations to define optimum conditions for chemical control applications to: enhance effectiveness on target species, reduce/eliminate impacts to non-target species, and reduce drift to non-target areas (e.g. surface water, other crops and human settlements)
• Demarcate buffer zones for surface waters, neighboring farms and community infrastructure, and eliminate chemical control applications in/on all buffer zones
• Establish and communicate the aerial spray schedule in advance to minimize workers' and community exposure
• Implement appropriate procedures for safe storage, handling, application and disposal of agrochemicals

OFFSET
• Conduct morbidity and mortality studies and identify early warning symptoms of pathology related to exposure of pesticides
• Provide medical and financial assistance for rehabilitation of affected people

Cocoa export company
RISK: Improper use of equipment and PPE

The African Future Cocoa Company was established in 1988 in Ghana to produce cocoa for the local market and to create the basis for a future export industry. The company's most recent audit by a social/environmental organization reported that the use of machetes, axes, harvesting hooks, pruners, ladders and chain saws are posing hazards to farm workers. Most farming tools are designed for men and do not meet the physical needs of women and young people. The most common injuries sustained by farm workers include: cuts when weeding, harvesting and breaking pods; broken bones and other bodily injuries when falling from ladders.   In addition, common complaints from cocoa farmers include general body and back physical distress and discomfort caused by frequent contorting, twisting, bending and carrying heavy loads. When injured, farm workers often have limited access to first aid or lack money for medical care.

IMPACT

- Bodily injuries including abrasions, strains, wounds and bone fractures sustained by farm workers

AVOID

- Regularly purchase and distribute appropriately sized farming tools to male, female and young workers
- Define ergonomically correct use of cocoa farming tools; train farmers in these methods
- Define, issue and train workers in correct use and maintenance of personal protective equipment (PPE)
- Participate in industry sector initiatives to design equipment and tools that reduce hazards of cocoa farming activities

MINIMIZE

- Mandate adequate rest periods
- Restrict working hours to the legal limit to avoid workers' fatigue and likelihood of accidents
- Conduct frequent tool box training (orientation to specific assignment and equipment) before work shifts to refresh workers' knowledge of hazards and accident avoidance
- Train farm workers in the identification of hazards and procedures to control them: e.g., handling of sharp tools, lifting heavy loads, use of chainsaws only by trained operators, zero tolerance of alcohol and prescription and non-prescription narcotics
- Put in place a team of experienced farm workers responsible to do refresh OHS training to all workers and monitor accident rate

OFFSET

- Retroactively identify injured workers and provide injury-related health care and rehabilitation
- Work with local authorities to expand coverage of the local health center to adequately treat workers who experience occupational injuries

Pineapple plantation
RISK: Farm workers exposure to heat and sun

Ripe Pineapple Company (RPC) is a small pineapple plantation company with most of its planta-tions in the northern region of Costa Rica at San Carlos. The workers at RPC normally earn slightly higher wages than the national minimum but usually they work for 70-80 hours a week to earn this basic wage. In the field, workers are directly exposed to very hot sun and heavy rains, often with no shelter even during breaks or lunch. Every week, at least one worker collapses due to heat stress.

IMPACT
• Farm workers' heat related illnesses

AVOID
• Conduct heat stress awareness training and encourage workers to consume potable water and electrolytes to avoid heat stress
• Provide potable water and containers in locations readily accessible to all farm workers
• Provide electrolytic supplements for potable water
• Implement adequate paid breaks to allow people to reduce body heat and to rehydrate
• Construct shelters to protect workers from hot sun during lunch and other breaks

MINIMIZE
• Train farm workers to:
◦ identify risk factors for heat-related stress
◦ identify symptoms of heat-related stress (e.g. dehydration, heat exhaustion, heat stroke)
◦ provide first aid for victims of heat-related stress
• Record, report and investigate all OHS heat stress related incidents and illnesses

OFFSET
• Assist all affected workers with timely treatment for heat-related illnesses
• Compensate for wages lost during injury or ill-health treatment

Rubber tree plantations
RISK: Unrealistic daily-production quotas

The Flexible Tire Company in Philadelphia has acquired one of the world's largest rubber plantations in Liberia and has decided to ensure that the plantations are operating in compliance with labor local laws and international conventions. For workers at the plantation there is a daily quota of 650 rubber trees that must be tapped. Workers that fail to tap all 650 trees "agree," by signing a form, to have their daily wages cut in half to $1.59. The work is arduous and debilitating. The company has received confirmed reports that children are working in the plantation as they are often called into the fields by parents in order to meet the quota. Rubber latex causes permanent eye damage, even blindness. It appears that the workers, including children, are not provided with safety materials such as gloves or glasses. Additionally, toxic pesticides are used and applied to the trees. Children apply these pesticides with their bare hands.

IMPACT
• Use of child labor by parents to meet unrealistic production quotas
• Children subject to worst forms of child labor

AVOID
• Develop company's policy on prohibition of child labor and forced labor and communicate policy to workers, supervisors and managers; do not allow workers to bring children below the legal minimum age for work into the plantation
• Calculate realistic daily-production quota based on an eight-hour working day; workers that meet the daily-production quota must be paid at least the minimum wage
• Modify contracts to reflect the new daily-production quota and lawful levels of deductions when not-meeting the daily-production quota
• Inform workers of their compensation and how is calculated in a language and terms they understand

MINIMIZE
• Regularly purchase and distribute new rubber tapping tools to increase worker's efficiency
• Define, issue and train workers in correct use and maintenance of personal protective equipment (PPE)
• Implement appropriate procedures for safe storage, handling, application and disposal of agrochemicals
• Do not allow any person in the plantation under the age of 18 to undertake hazardous work, including handling toxic chemicals, carrying heavy loads, working at heights, and using dangerous tools.

OFFSET
• Provide stipends (as income compensation) to former child workers
• Enroll former child workers in school or vocational skill training programs

Tomato farm
RISK: Use of contract/migrant labor

Green Valley is a tomato farm in Florida that relies on temporary migrant workers managed by farm labor contractors. Contractors are responsible for recruiting, hiring, transporting and managing workers on site. Last year a group of workers sued Green Valley accusing it of forced labor. Green Valley was surprised to discover that one of its contractors retained four months of workers' compensation to reimburse excessive recruitment fees and transportation costs. The lack of reimbursement by Green Valley for recruitment fees and travel costs contributed to workers' vulnerability to debt bondage and involuntary servitude. Workers typically are isolated from populated areas, do not speak English, and cannot access public transportation. As many workers are undocumented or have temporary immigration status, they are unlikely to seek assistance. Many federal and state laws have exemptions and exclusions for farmworker protection thus contributing to the susceptibility of farmworkers to trafficking.

IMPACT
• Forced labor due to debt bondage

AVOID
• Establish, communicate and implement adequately defined hiring and remuneration policies and terms of employment for contract/migrant workers
• Ensure organizational policies on social and labor issues are understood and implemented by the recruitment agency
• Periodically monitor and audit the recruitment agency's social and labor performance as per the organization's own policies and procedures and local law
• Reimburse contractors directly for workers' recruitment fees and transportation costs

MINIMIZE
• Make sure that contract/migrant workers are informed (in all applicable languages) on their rights including wages, benefits and deductions
• Agree with the recruitment agency on reasonable deductions for housing, transport and other services provided to contract/migrant workers
• Make sure contract/migrant workers receive contracts and periodic clear records of pay calculations in their native language
• Periodically interview contract/migrant workers about complaints and opportunities
• Establish a grievance mechanism accessible to contract/migrant workers

OFFSET
• Reimburse workers for illegal deductions made by contractors

WRITING AN EFFECTIVE ACTION PLAN

Whatever actions you decide to take, think of them as a continual improvement process - you will need to set targets, set deadlines, measure the results, and adjust the plans if necessary. You need to assign responsibilities and start to involve the right internal people and departments.

As you develop your Action Plans, these are the key questions that you need to think about:

- **What** – environmental and social risks you want to address
- **How** – related actions and procedures to be implemented to address the risk
- **Why** – reasons (objectives) for the actions and procedures, and the expected results (targets)
- **When** – timeframe and deadlines
- **Who** – responsible people

Use the Toolkit item **Action Plan Chart** to get started.

The above examples address some of the risks highlighted in the industry. These are just some of the actions that might be taken. You can adapt them to your situation and add as needed – be flexible to meet your company's specific situation. As you tailor your action plans, consult with your workers and managers, experts and external stakeholders, including your suppliers and community. They can offer insight into important issues and effective actions. They can also help you obtain commitment for plans you are trying to implement, and provide candid feedback about how well the plans are working. This will be critical to the continual improvement of your systems.

For recommendations on how to address environmental, OHS and community risks and impacts in your industry, consult the *WBG EHS Guidelines* at www.ifc.org/sustainability.

WRITING AN EFFECTIVE PROCEDURE

Procedures serve as step-by-step instructions for workers, supervisors and managers. They allow for everyone to have a common understanding of how to behave. They enable the rules to be followed even when there is staff turn-over. Clear, detailed procedures help to embed your social and environmental policies into your daily operations.

It is a good practice to document your procedures. The key is to make your procedures as clear and as brief as possible. You can use text, checklists, flow-charts, or simple illustrations. The format for your procedure can vary depending on the audience. A written procedure may be more appropriate for managers and supervisors, while work instructions through illustrations may be useful when dealing with less literate or immigrant workers. Keep your procedure as short and simple as possible.

> Use the Toolkit item **Outline of Procedure** and the **Sample Procedure Flowchart** to get started.

Simply documenting a procedure is not enough. Effective implementation is the ultimate goal. Most importantly, employees need to be aware that a new procedure exists and understand why it is important to follow. They need the skills and knowledge to be able to implement it. This is achieved through routine communication and effective training. You will learn more about this in the next chapter, Organizational Capacity and Competency.

Finally, you must ensure that your employees have access to the current version of each procedure. Out-of-date documentation should be removed or clearly marked as outdated to ensure that no one unintentionally follows the old procedure.

Organizational Capacity and Competency

A well-implemented ESMS is ultimately about trained, committed people. How do you make that happen?

ROLES, RESPONSIBILITIES AND AUTHORITIES TO IMPLEMENT THE ESMS

First, you need senior management commitment. Senior management commitment starts with adopting the ESMS policies, but it must go beyond that. Senior management support is critical to implementing a sustainable ESMS. It is the responsibility of senior management to lead the effort. They don't have to lead the effort on a day-to-day basis, but they do need to send a clear message, to all employees at all levels, that this is a long-term commitment by your company.

Beyond senior management commitment, you need a team that takes responsibility for the ESMS. This does not need to be a full-time job for anyone, but senior management needs to ensure realignment of reporting duties, and allocation of appropriate time and authority to carry out the work involved.

A well-balanced ESMS Team is a prerequisite for a meaningful engagement with your peers and colleagues. It should include knowledgeable professionals from environment, health and safety, operations or production, contracts and purchasing, human resources, for example.

In fact, the success of a management system depends on departments that have traditionally been seen as beyond the reach of environmental and social issues, such as human resources, production, procurement and maintenance. For example, human resources manages training needs related to the labor aspects, production focuses on the more efficient use of resources and the reduction of waste, procurement manages the qualifications and performance of suppliers and contractors, and maintenance ensures that the equipment runs efficiently and that spills, leaks and other emergency situations are minimized.

The ESMS Team should not work in isolation when identifying risks and impacts, developing improved procedures, designing actions plans, etc. To be truly effective, the ESMS Team needs to consult with people from all levels of the company, including workers, supervisors and managers.

5
All levels of the company are trained and engaged – multiple units and workers as well as managers. E&S staff has implementation authority. Management commitment is reflected in resources devoted to E&S management and training.

4
Multiple units have E&S responsibilities, and senior management is involved. E&S is managed as an integrated system. New staff receives some E&S management guidance.

3
All levels of the company are involved in awareness training. E&S roles and responsibilities are assigned and part of daily operations. E&S staff is trained and competent.

2
E&S roles are defined and assigned. Each issues is handled only by one functional area. Some awareness training is provided at orientation and additional training is provided for EHS staff.

1
No assigned staff with E&S management responsibilities. Some limited awareness and E&S roles and responsibilities starting to get defined. No systems awareness or repeatable processes.

0
No internal awareness and no formally assigned responsibility for E&S.
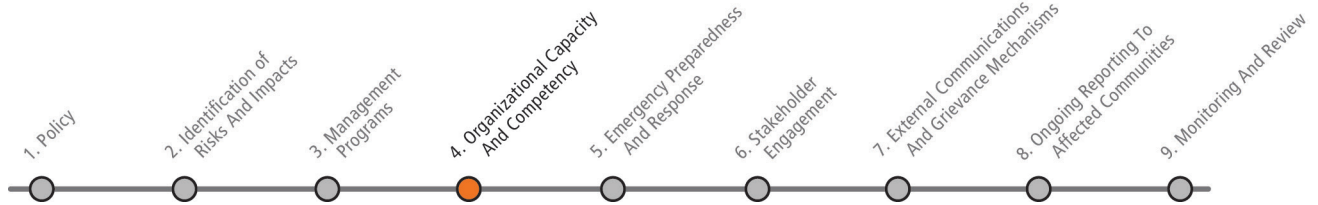
As with the overall management system, the team should be scaled to the size and complexity of your company. Your organization might not have multiple departments with distinct roles; maybe a few people cover several functions. The key is to involve people across the range of functions. If a team already exists in your company (e.g. fire safety team, health and safety committee) consider building your ESMS Team upon it.

Once the ESMS Team is selected, they need to select a team leader. This is an important role, especially in the beginning. The team leader needs to set the tone for the group and keep people motivated. All new initiatives in a company face hurdles, and developing and implementing an ESMS is no exception. The team leader needs to help the team overcome the inevitable hurdles, and should have direct access to senior management.

> Take a look at the Toolkit item **Roadmap and Time Estimate for Developing and Implementing an ESMS** in the Toolkit and Case Studies for a list and sequencing of activities to develop and implement an ESMS.

When selecting a team leader, look for someone who has the following qualities:

- communicator;
- problem-solver;
- project manager;
- pragmatic; and
- respectful to all.

EXAMPLE OF AN ESMS TEAM

Human resources

Quality control

Production

Environmental health & safety

Select a team leader

Worker Representatives

Procurement/ Sourcing

COMMUNICATION AND TRAINING

Now that you have identified the actions to be taken and updated your procedures, you need trained, committed people who follow the ESMS procedures. This is the end goal of communication and training.

There are three key steps that build on each other:

1. They need to be aware of the ESMS.
   - What is it?
   - What are its goals?
   - What do I need to do?

2. They need to understand that the ESMS is necessary and will improve the company.
   - How does this help our company?
   - How does it help my department?
   - What will change?
   - What is in it for me?

3. They need to obtain the skills and knowledge to be effective in their roles.
   - What are the new policies and procedures?
   - What exactly do I need to do?
   - How do I do that?
   - What will happen if I don't do it?

Effective Communication and Training

Ask yourself if the goal of this specific communication or training module is to build awareness, to gain commitment and/or give people the knowledge and skills needed to implement.

Your ESMS Team needs detailed training so they can develop the necessary knowledge and skills. They will need to understand the basics of the Plan-Do-Check-Act cycle and know the nine elements of an ESMS. This Handbook provides the information they will need, but additional help may be necessary. In addition to the detailed training of the team, everyone will need to receive awareness training so there is a shared understanding of the goals of the ESMS.

The chapters in this Handbook provide an easy way to structure efficient general training. You can give everybody an overview about what you have learned here about developing and implementing an ESMS.

You may also need to provide training that is specifically related to your Action Plan and new operating procedures.

Examine the specific actions and who is going to be involved. This is a quick way to determine what training will be needed by the various departments and people in your company. Ask yourself what knowledge and skills do people need to effectively implement new procedures, carry out allocated responsibilities and complete the action plan.

Use the Toolkit item **Training Plan Worksheet** as template and tie it to your Action Plans and improved procedures.

AWARENESS　　　**COMMITMENT**　　　**IMPLEMENTATION**

Emergency Preparedness and Response

5 Regular engagement with local community and government for onsite and offsite emergency plan. Formal resource-sharing agreements with neighboring companies.

4 Senior management and all units and shifts, including contract and temporary workers, participate in emergency risk assessment, preparedness planning and mock drills. Continual improvement.

3 All onsite and off-site emergency issues have been identified and an effective preparedness plan is in place. The plan meets the local regulatory requirements and the local industry best practices.

2 The emergency preparedness plan is in place, but there is no evidence of consistent implementation. Some trainings are provided to the workers on emergency requirements.

1 Emergency management planning is not effective, as all emergency risks have not been identified. Occasional trainings are provided to workers.

0 Very limited emergency control and personal protective equipment. No formal plan in place.

Even when you have considered all the risks and put the appropriate management programs in place, accidents and emergency situations can happen.

Your business is a dynamic operation, and many things change from day to day – people go in and out of your workforce, materials and suppliers enter and exit your supply chain, facilities and equipment are added to and removed from your production line. A management system will help to maintain continuity and consistency throughout these changes. However, there may be a momentary lapse or gaps in the system (e.g. someone not properly trained, someone not following the procedures, a machine breakdown), or an external force (e.g. natural disaster) that can lead to an accident or emergency situation at your facility. While it is not always possible to prevent such situations, you can be prepared to respond effectively to prevent and mitigate any harm to your workers, community and the environment.
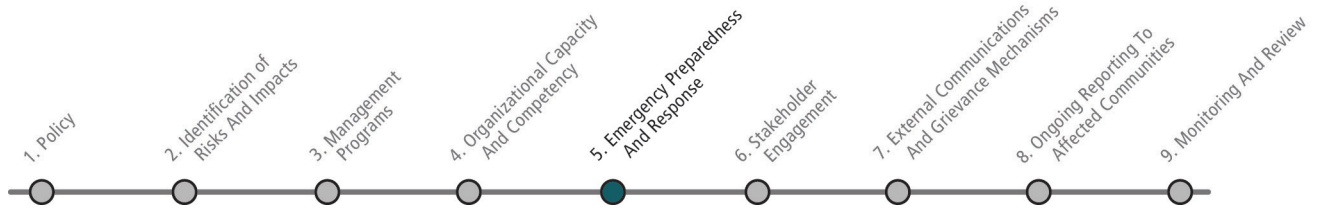
The promotion of occupational health and safety (OHS) and improvement in working conditions not only helps you ensure the well-being of workers; it also contributes to productivity. Agriculture work is associated with a variety of OHS hazards and potential emergencies. Because of the remote location of most operations, an effective OHS management system and emergency preparedness plan are crucial to your operations.

The nature and severity of your OHS hazards or emergency risks will vary depending on the nature of your operations: type of crops or plantation; geographical and climatic conditions; agricultural machinery and tools used; and the agrochemicals used in cultivation. A good OHS management system will help you identify and control the specific hazards on an ongoing basis to protect the health and safety of your workers, managers and the local community. Proper implementation of your emergency response plan will not only protect the health, safety and lives of people at or near work sites; it will also minimize business losses.

The key to effective response is effective preparation. The following steps will help you to anticipate the possible scenarios and prepare accordingly:

- Identify the areas where accidents and emergency situations may occur, and communities and individuals that may be impacted. This should begin during your overall risk and impact assessment, through your process analysis, physical mapping and consultations with workers, experts and the community. This should be reviewed and updated regularly.

- Develop response procedures for each identified emergency situation that clearly explain what actions need to be taken. These need to be detailed clearly for everyone in your company to understand what he or she needs to do.

- Provide the necessary equipment and resources to effectively implement the response plans. A stockpile of fire extinguishers does not put out fires, unless people can effectively find and use them when needed. Think about equipment that is easy for people to use and is located where it can be immediately accessed during accidents and emergencies.

- Assign responsibilities so that each activity has people responsible for carrying it out. Also designate people who will routinely analyze how well the system is working and update the risk assessment and plans.

- Communicate so that everyone in your company understands the importance of the emergency preparedness and response system and is encouraged to help monitor and improve its effectiveness. Also include people in the community who may be affected.

- Provide periodic training so that everyone in your company has an overview of the system, and knows the response plans. Don't just lecture about what to do – ask for input on what needs to be addressed and what can be improved. Even with the most detailed procedures and plans, people will need to exercise individual judgment and adapt to quickly changing situations. This is more likely to happen if you engage people in all aspects of the system beforehand.

- Work with government agencies and community groups to identify areas where you can collaborate to respond effectively to internal and external situations.

- Conduct periodic checks and drills to see how well the system is working and to re-assess the risks to reflect changing conditions. Incorporate your findings to continually improve your system.

- Remember, it is essential that the emergency response plan be site specific. Even if you have similar operations at two different sites, it does not mean that the same emergency plan would be effective at both locations. An emergency response plan at each site should be independently reviewed for its suitability and effectiveness.

Look at the **Sample Typhoon Response and Procedure** and **Sample Pesticide Leakage Preparedness and Response Procedure** Flowchart for examples.

An Emergency Preparedness and Response Plan should include:

- identification of potential emergencies based on hazard assessment;

- procedures to respond to the identified emergency situations;

- procedures to shut down equipment;

- procedures to contain and limit pollution;

- procedures for decontamination;

- procedures for rescue and evacuation, including a designated meeting place outside the facility;

- location of alarms and schedule of maintenance;

- list and location of equipment and facilities for employees responsible for responding to the emergency (fire-fighting equipment, spill response equipment, personal protection equipment for the emergency response teams, first aid kits and stations);

- protocols for the use of the emergency equipment and facilities;

- schedule for periodic inspection, testing and maintenance of emergency equipment;

- clear identification of evacuation routes and meeting points;

- schedule of trainings (drills), including with local emergency response services (fire fighters);

- procedures for emergency drills;

- emergency contacts and communication protocols, including with affected communities when necessary, and procedures for interaction with the government authorities;

- procedures for periodic review and update of emergency response plans.

Common OHS Hazards and Emergency Situations in Crop Production

Common OHS Hazards/ Emergency Situations in Crop Production	Potential Causes
Physical injuries including back injuries, strains and sprains, contusions, and fractures	• Inadequate identification of OHS hazards, absence or poor implementation of safe working procedures, inadequate worker training and understanding, absence or poor implementation of appropriate PPE • Slippery surfaces from rain, mud, ice or snow build-up and from spilled produce • Falls due to stumbling over plantation stumps (e.g. sugar cane) resulting in cuts and tetanus infections • Falls from storage structures (like grain lofts) and due to unguarded roofs, floor openings, stairways, lofts and shafts, climbing ladders without non-slip safety treads, and unprotected (absence of guardrail) elevated workplaces like operators' platforms • Being struck by falling objects or objects thrown up from vehicle wheels • Tripping over boxes, electrical cords, equipment, or other items that are left in aisles and walkways in the grain/harvest storage areas • Climbing on or off and driving transportation units (wagons, tractors, carts, trucks)
Cuts and lacerations	• Poorly designed/maintained hand tools, such as sickle, hand hoe, knife and scissors (e.g. awkward grip and/or hand position) • Inadequate PPE (e.g. ill-fitting gloves, cut-resistant gloves are not cut-proof) • Unsafe cutting and slicing operation during harvesting of crops • Cuts or puncture injuries due to sharp crop/plantation (e.g. sugar cane, pineapple, roses) • Cut or puncture injuries due to tools, trellis or the supporting structure • Distractions at work place (e.g. excessive noise, interruptions from supervisors/coworkers, etc.) • Inadequate lighting during night operations • Poorly planned incentive schemes and below minimum or living wage production-quota system that impacts safety considerations

Common OHS Hazards/ Emergency Situations in Crop Production	Potential Causes
Musculoskeletal injuries and physical/ muscular strains and sprains	• Repetitive work (e.g. using clipping shears), poor posture and inadequate rest periods while lifting and carrying heavy loads associated with harvesting of crops • Vibrations from hand tools, machinery and tractors
Accidents and injuries due to "struck by", "struck against", and "caught in" agricultural machinery. Examples may include: • Soil tillage machines (e.g. ploughs, tillers, sub-soilers, harrows, rollers, levellers, graders, etc.) • Planting machines (e.g. planters, drills, broadcast seeders, etc.) • Cultivating machines (e.g. rotary hoes, cultivators, weeders, etc.) • Forage harvesting machines (e.g. mowers, choppers, balers, etc.) • Grain and fibre harvesting machines (e.g. reapers, binders, corn pickers, combines, threshers, etc.) • Fruit, nut and vegetable harvesting machines • Transport and elevating machines • Agricultural chemical applicators • Sorting and packing machines	• Inadequate identification and controls on shear point, pull in point, crush point, wrap point, pinch point and entanglement on agricultural machines • Lack of machinery guards • Removal of machine guards by workers in order to increase production rates (especially common where there are production based incentives) • Failure to follow safety practices for forklifts, trucks, and storage (such as safe shelving) • Machinery entanglement or tractor rollover • Injury due to long hair (around rotating machinery), jewelry (around moving parts) and loose clothing or gloves being caught in moving parts of machinery • Lack of lockout/tagout procedures or poor implementation of existing procedures

Common OHS Hazards/ Emergency Situations in Crop Production	Potential Causes
Accidents and injury during transportation of workers	• Poor implementation or absence of safe transportation procedures • Overcrowding/overloading of vehicles • Unsafe rural roads • Violation of traffic rules and regulations
Emergency situations arising due to fire and explosion hazards resulting from: • Ignition/explosion in silos (for grain storage) • Ignition in ruptured fuel lines (diesel or natural gas for portable power generation units) • Spills from fuel storage tanks • Fuel spills during supply or unloading (e.g. diesel tankers) • Faulty electrical wiring • Overload on electrical infrastructure	• High concentrations of air-borne dust (at grain/oilseed storage areas) combined with flammable conditions caused by over-heated bearings, belt friction against a housing component, electrical short-circuits, faulty wiring, and poor maintenance of equipment and fuel lines • Improper handling/storage of crops that are required to be dried to less than 15% moisture thereby creating a potentially explosive situation • Unsafe handling, storage and clean-up of fuel, flammable chemicals, waste and other materials • Inadequate procedures for the maintenance and cleaning of equipment • Operating electrical equipment over the normal "sanctioned load" thereby creating a potentially flammable situation • Poor insulation of electrical wiring or poor grounding of the equipment • No de-energizing and locking out electric equipment before inspecting or making repairs
Emergency or other chemical hazards due to spillage and leakage/exposure caused by: • Chemicals used for disinfection and fumigation • Agrochemicals such as fertilizers and pesticides • Ammonia (anhydrous) used in mechanical refrigeration systems	• Inadequate housekeeping procedures and training of workforce on storage, transportation, application and disposal of agrochemicals • Lack of training or understanding on hazards and emergency procedures • Excessive use of chemicals • Dermal exposure and inhalation during preparation of chemicals • Dermal exposure and inhalation during application of agrochemicals • Exposure to pesticides during aerial applications, pruning or harvesting activities • Eating or drinking in contaminated environments

Common OHS Hazards/ Emergency Situations in Crop Production	Potential Causes
Entrapment, engulfment, and hazardous atmospheric conditions in confined space. Examples of confined space may include: • Silos • Tanks • Packing areas • Refrigeration units and gas storage areas	• Improper identification and evaluation of confined spaces and associated hazards • Inadequate testing for atmospheric hazards: oxygen, carbon dioxide, combustible gases or vapors, and toxic gases or vapors in the identified confined spaces • Poor controls to prevent unauthorized entry • Engulfment either in flowing grain or collapsing grain surfaces and collection of carbon dioxide (CO_2) above grain surface resulting in displacement of oxygen
Pulmonary diseases/ exposure to respiratory hazards	• Exposure to fine dust and particulate emissions during harvest, storage and transportation of grains, oilseeds and other harvested products • Exposure to organic dust, spores, mycotoxins and endotoxins • Irritation and/or allergic, inflammatory or infectious responses in lungs due to biologically active dust • Exposure to pesticides, dust, ammonia and fumes • Exposure to mouldy hay and compost • Exposure to decomposition gases including ammonia, hydrogen sulphide, carbon monoxide and methane
Noise induced hearing loss	• Absence or poor implementation of safe work procedures and lack of use of appropriate PPEs in high noise area • Exposure to noise (i) from large machinery and equipment used in crop production such as tractors, combine harvesters and conveying equipment, (ii) from grain movement through gravity spout, and (iii) from operation of axial-vane fans used for forcing heated air for grain drying
Injury from biological agents	• Presence of venomous snakes and insects in plantation groves • Bee stings during harvesting/hand plucking (e.g. grapes) • Bites/stings from spiders, mosquitoes and other vectors
Heat stress	• Exposure to excessive solar radiation, inadequate rest periods and inadequate drinking of water/fluids in hot climates • Use of alcohol or excessive caffeine

Stakeholder Engagement

5 Stakeholder engagement is part of regular activities. Awareness and engagement at senior levels. Fluent and inclusive communication and consultation process with stakeholders.

4 Multiple and ongoing public consultation and participation in a culturally appropriate manner. Stakeholder feedback is actively considered. Reporting to communities and effective grievance mechanism is evidenced by formal records.

3 Stakeholders have been identified and engaged in several events with effective dialogue. Some procedures and assigned responsibility for engaging with stakeholders.

2 Some public events, limited ongoing engagement process. Sporadic and selective responses when approached by stakeholders.

1 Limited channels in place. A few meetings and discussions, but not an ongoing process yet.

0 Little or no transparency with stakeholders.

Your company may have an impact on the lives of many people and organizations. All of these people and organizations are your stakeholders - they have a stake in your company's financial, environmental and social performance.

Look at the diagram below and think about how your company interacts with each group. Your relationship with each group varies considerably, and you need to adapt the way you engage with each of them to mitigate risks to your business.

Systematically engaging with affected communities in the identification and management of the impacts that negatively affect them contributes to building trust, credibility and local support. Engaging with them also provides the opportunity to highlight the positive aspects of the company's presence. This lowers the risk of anti-company sentiments that could lead to costly litigation or disruption of company operations.

Other stakeholders such as activists and NGOs may not be directly affected by your operations but may have an interest in what you do. Keeping these groups informed and maintaining an open communication channel may lower the risk of negative campaigns that could affect your company's reputation.

MAPPING YOUR STAKEHOLDERS

The first step in building a relationship with your stakeholders is to identify them. To start, look back at your risk assessment and the areas of potential negative impacts and identify who would be directly or indirectly impacted.

Once you have identified your stakeholders, you should prioritize the different groups based on the nature and severity of the impacts, and the ability of these groups to influence your business. Engagement should be stronger and more frequent with those groups that are more severely affected, as well as with those that have a greater ability to influence your business.

Also, as you identify your stakeholders and the issues that may affect or interest them, you can tailor your communication material and methods to effectively engage with each of them.

INTERNAL AND EXTERNAL STAKEHOLDERS

Workers are an important internal stakeholder group. They also need to be involved in the identification of risks that affect them and be consulted when developing action plans and procedures. However, the methods of engagement with them will differ from those used for external stakeholders.

Use the Toolkit item **Stakeholder Map** and **Impact Zoning Tool for Affected Communities** to get started.

For effective consultation with affected communities :

- Start early;

- Disclose meaningful and accurate information;

- Use culturally appropriate means to reach them;

- Provide opportunities for two-way dialogue ;

- Document to keep track of issues raised; and

- Report back on how their input has been considered

DEVELOPING A STAKEHOLDER ENGAGEMENT PLAN

After mapping your stakeholders, the next step is to develop a plan for how to engage with the groups that you have identified. Your stakeholder engagement plan can be simple. But it is important to be proactive and to address key environmental and social concerns.

At a minimum, even if your company does not have adverse impacts on communities or other stakeholders, you should always implement a procedure to receive communications from the public and accordingly adjust your management program (see Element 7, External Communication).

If it is determined that there are affected communities, you need to implement a Grievance Mechanism (see Element 7, Grievance Mechanism) and actively engage them in consultation, regularly disclosing clear and meaningful information on both your impacts and potential benefits, and providing communities with opportunities to express their concerns and suggestions.

In the case of potentially significant adverse impacts to individuals and communities, you should engage them in a process of Informed Consultation and Participation (ICP). Compared to a consultation process, an ICP should ensure a more in-depth exchange of information and a higher level of participation from affected stakeholders in decision-making, so that their proposed mitigation measures are incorporated into the company's action plan.

Finally, you should periodically report to affected stakeholders on the actions your company is putting in place to address the issues identified through the engagement process (see Element 8, Ongoing Reporting to Affected Communities).

Regular communication with the various stakeholder groups is an excellent way for you to understand how company operations affect them and to get early warnings of potential problems. In all your efforts to reach out to stakeholders, ensure that you do so early on – relationship-building takes time. Don't wait until a crisis arises to act, as it will be more difficult without those relationships in place to manage the problem.

> Use the Toolkit item **Stakeholder Engagement Plan Worksheet** to record how you will engage with the important stakeholder groups.

Effective Stakeholder Engagement

- Be strategic and prioritize which stakeholders to approach – you may not have the resources to engage them all at once.

- Update your stakeholder map regularly and in the case of significant events (e.g., changes to your business, government elections, natural disasters, etc.).

- Be aware of what issues are important to each group.

- If you are dealing with a representative for the group, make sure that he/she legitimately represents the interests of the affected groups and communities.

- Engage with stakeholders in their own communities and places where they feel comfortable.

- Reach out to vulnerable and marginalized groups.

- Keep a record of questions, comments and suggestions. Records provide important information that should be used to adapt your Action Plans and improve your ESMS.

- Recognize that your employees are a good link to stakeholders in the "outside world."

- Be prepared to respond to stakeholders, and do not generate expectations that cannot or will not be fulfilled.

DEFINITIONS	
Stakeholder	Any person or organization that has an interest in or is affected by your company
Affected Communitites	People or communities who are subject to company-related adverse impacts on their environment, infrastructure, way of life, personal safety, health or livelihood.

For more information on how to develop and implement a Stakeholder Engagement Plan, refer to the Good Practice Handbook "*Stakeholder Engagement,*" IFC (2007).

External Communications and Grievance Mechanisms

5 Proactive and responsive external communication and grievance mechanism. Stakeholders are consulted on ESMS effectiveness and are part of the regular review process.

4 Effective grievance mechanism is evidenced by formal records. There is routine review of the records and the effectiveness of the program.

3 Grievance mechanism is fully implemented; however, there is not enough evidence of its effectiveness. No tracking of internal or external awareness; limited tracking of cases.

2 Procedures and assigned responsibilities for receiving and handling complaints. Awareness is limited to those directly handling the complaints.

1 Some basic procedures for receiving complaints. Responsibility limited to one person or unit.

0 No mechanism in place.

If your company has social and environmental impacts in the community, inquiries, concerns and complaints are bound to arise. How you respond to and manage these issues will have significant implications for how your business is perceived and, possibly, whether or not it succeeds.

EXTERNAL COMMUNICATIONS

Even if affected communities per se are not identified, you should always establish and maintain a publicly available and easily accessible channel for stakeholders to contact you (e.g. phone number, website, email address, etc.).

External stakeholders can provide valuable information, such as suggestions on product improvement, advance warning in critical situations, feedback on interactions with your employees, and/or comments from regulators, NGOs and individuals regarding your company's environmental and social performance.

The procedure for external communication should include methods to (i) receive, register and validate external communications and requests for information from the public; (ii) screen and assess the importance of the issue raised and determine how to address it; (iii) provide, track, document and publish responses; and (iv) adjust the management program when appropriate.

GRIEVANCE MECHANISMS

The purpose of a grievance mechanism is to establish a way for individuals, groups or communities affected by your business to contact you if they have an inquiry, a concern or a formal complaint.

1. Policy

2. Identification of Risks And Impacts

3. Management Programs

4. Organizational Capacity And Competency

5. Emergency Preparedness And Response

6. Stakeholder Engagement

7. External Communications And Grievance Mechanisms

8. Ongoing Reporting To Affected Communities

9. Monitoring And Review
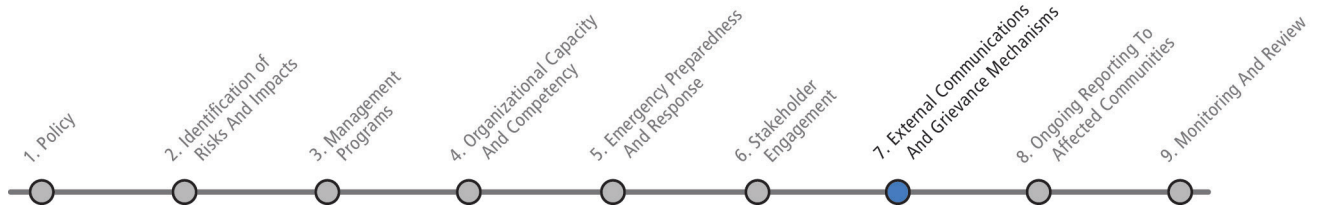
In practice, a grievance mechanism should:

- Establish a way for people to contact you – openly or anonymously – to pose their questions, to express concerns or to file a complaint. Examples are suggestion boxes, a toll-free telephone hotline, an email address, and regular meetings arranged to discuss particular problem areas.

- Assign a person or team in your company who is responsible for receiving, registering and processing all grievances.

- Establish procedures to register, screen, categorize, investigate and determine resolution and redress options.

- Establish a system to communicate decisions taken and progress on pending actions. It is important that people know when they can expect a response.

Not all complaints can be resolved in the same way. Simpler issues, such as a company truck running over chickens in the road, might be dealt with by the same team responsible for registering the complaint. More complex problems, such as allegations of widespread groundwater contamination, might require immediate intervention by senior managers and more dedicated resources for investigating, documenting and reporting. For complex and recurring problems, consider reaching out to third-party facilitators that can act as independent mediators.

TIP

Implementing a Grievance Mechanism

- Scale it to fit the level and complexity of social and environmental risks and impacts identified in your company.

- Design the process to be easily understandable, accessible, trusted and culturally appropriate.

- Publicize the availability of the grievance procedure so people know where to go and whom to approach.

- Commit to a response time and keep to it as this will increase transparency and a sense of "fair process."

- Keep records of each step to create a "paper trail."

The more serious the claim is, the more independent the mechanism should be to determine the resolution and options for redress.

The most important thing is to make sure the grievance mechanism is accessible and trusted. Tailor it for the local community so that it is easy for them to raise concerns. This requirement mandates having the right people leading this effort inside your company. The grievance mechanism must be accessible at no cost and without retribution to the party that originated the complaint and should not impede access to judicial or administrative remedies.

Don't underestimate the value of a well-implemented grievance mechanism. The information you receive can act as an early-warning system before the problem becomes too costly and time-consuming to address.

Look at the Toolkit items Checklist for an Effective Grievance Mechanism and Grievances Log to get started.
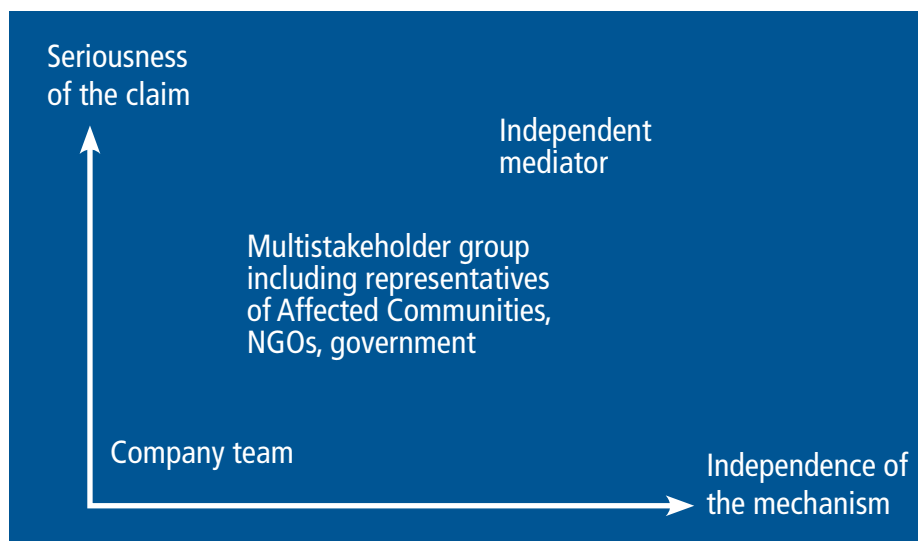
TIP

A Grievance Mechanism is

UNDERSTANDABLE AND TRUSTED when:

- affected communities understand the procedure to handle a complaint;

- people are aware of the expected response time; and

- confidentiality of the person raising the complaint is protected.

CULTURALLY APPROPRIATE AND ACCESSIBLE when:

- claims can be presented in the local language;

- technology required to present a claim is commonly used (e.g. paper, text messaging, internet); and

- illiterate persons can present verbal complaints.

AT NO COST when:

- people don't need to travel long distances to present a claim; and

- the company covers the costs of third party facilitation.

For more information on how to develop and implement a Grievance Mechanism, refer to the Good Practice Note "*Addressing Grievances from Project-Affected Communities,*" IFC (2009), and the Advisory Note *"A Guide to Designing and Implementing Grievance Mechanisms for Development Projects,"* CAO (2008).

1. Policy • 2. Identification of Risks And Impacts • 3. Management Programs • 4. Organizational Capacity And Competency • 5. Emergency Preparedness And Response • 6. Stakeholder Engagement • 7. External Communications And Grievance Mechanisms • 8. Ongoing Reporting To Affected Communities • 9. Monitoring And Review
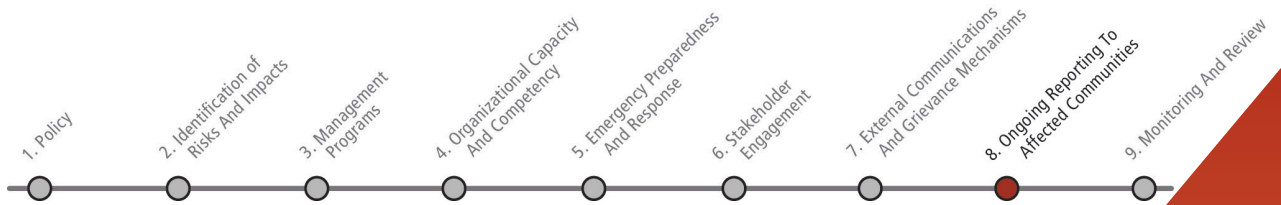
Ongoing Reporting to Affected Communities

Affected communities will want to know what actions your company has put in place to resolve the issues identified when engaging with them.

Keeping affected communities informed of what you are doing is a critical element for building and maintaining a good relationship. If people know when to expect an update, it helps to build trust. It can also reduce the amount of time you spend responding to questions.

The frequency of this communication will be proportional to the scale of stakeholders' concerns, but it should be at least annually. If your company's activities change or new environmental and social risks emerge, you do need to contact stakeholders outside of the regular schedule to discuss these changes.

You can also decide to report back to the wider public on your progress in meeting your commitments to avoid, reduce and mitigate any negative environmental or social impacts from your company's activities. Sustainability reporting initiatives, guidelines, including sector-specific guidelines, and good practices are also rapidly emerging in this area. The most notable is the Global Reporting Initiative (GRI).

TIP

Ongoing Communication

- Provide an immediate update if new environmental or social risks emerge.
- Report progress on implementation of your commitments.
- Report monitoring results on issues that interest the community.
- Use the opportunity to communicate the benefits generated by your company.
- Translate information into local languages and easily understandable formats.
- Try to maintain continuity in who deals with the community.
- Involve your employees as communication links to the community.
- Consider conducting a stakeholder survey to learn how your company is perceived.

Look at the Toolkit item **Reporting to Affected Communities** for examples of formats and venues you can use.

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5 — Affected communities' issues and concerns are proactively addressed. There is ongoing communication to avoid risks and impacts before new projects as well as to address existing issues.

4 — Reporting to affected communities is regularly implemented and evidenced in documentation. Key units are involved in the review of the key issues.

3 — When applicable, consultation processes have been implemented. External consultants are involved as required. No ongoing review.

2 — Procedures in place for reporting, usually assigned to E&S staff. Primarily reactive.

1 — Some basic communications with affected communities, mostly limited to meetings.

0 — No reporting.

Monitoring and Review

5 Robust system of continual learning and improvement. Senior management receives periodic reports about E&S performance and progress toward E&S objectives and targets. All key project decisions consider E&S.

4 Monitoring, supervising and auditing activities are integrated and included in management review. Includes consultation with workers, customers and suppliers. E&S objectives and targets are included in job descriptions and performance reviews.

3 Routine review of monitoring and supervision activities, including participation of workers. Corrective actions routinely implemented. An E&S internal audit plan is in place.

2 Key E&S monitoring plans in place, with inspection and supervision activities. Primarily reactive and guided by external experts, customers and investors.

1 Few monitoring plans to satisfy regulatory requirements. No formal review activities. No systems awareness or repeatable processes
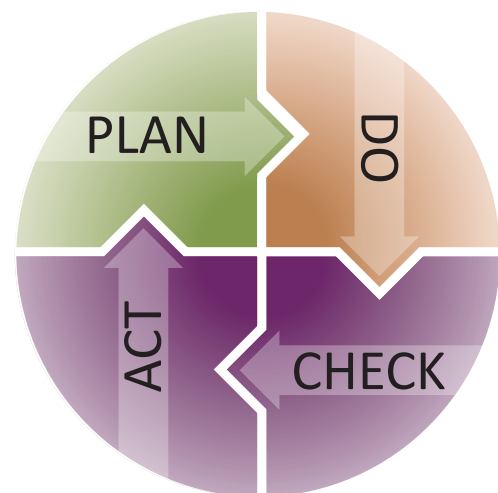
0 No monitoring of E&S performance.

We've talked about the relationship between your ESMS and the Plan-Do-Check-Act cycle of continual improvement. Monitoring and review are critical, because this is how you check and adjust the system.

So far, you've formed or assigned a team to lead the effort. You have developed your ESMS and started to implement your action plans in response to the risks and impacts you identified. You've started to train people. The next step is to monitor the effectiveness of your ESMS and your action plans and make the necessary adjustments.

Monitoring is the **CHECK** step of the PDCA cycle

Review is the **ACT** step of the PDCA cycle

1. Policy
2. Identification of Risks And Impacts
3. Management Programs
4. Organizational Capacity And Competency
5. Emergency Preparedness And Response
6. Stakeholder Engagement
7. External Communications And Grievance Mechanisms
8. Ongoing Reporting To Affected Communities
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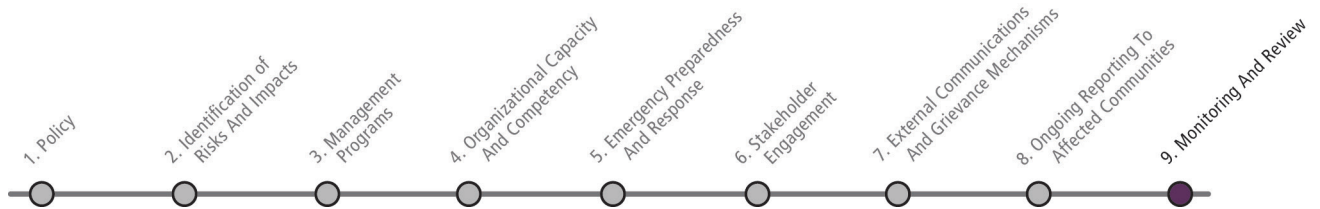
TIP

Monitoring measures intent, implementation and effectiveness

Intent:

  1. Are the nine elements of the ESMS in place?

Implementation:

  2. Are the action plans being carried out?

  3. Are procedures being followed?

Effectiveness:

  4. Are you in compliance with laws and regulations?

  5. Are you making progress toward your overall objectives and targets?

  6. How is the environmental and social performance of the company in general?

INDICATORS

A key aspect of monitoring is defining relevant indicators. These are quantitative or qualitative measures of progress against set goals. Some indicators might focus on **performance**, evaluated against the criteria defined in your environmental and social policy.

Some examples of key performance indicators could be:

- water consumption;
- energy consumption;
- agrochemicals consumption;
- volume of solid waste disposal;
- liquid effluents discharge;
- raw water quality;
- emissions to air;
- accidents (injuries, ill-health, property damage), incidents and near misses;
- lost time injury frequency, incidence, and severity rates;
- emergency response incidents;
- average working hours and wages paid;
- wages levels;
- incidences of child labor;
- incidences of disciplinary complaints; and
- employee demographics matching access to training, jobs, and wages.

Measuring and Improving

Remember, you can't improve what you don't measure.

Other indicators can look at the **processes or inputs** that you use to try to achieve performance.

For example, in your action plan, you might have included worker training as a necessary step to raise awareness among workers about OHS, so that they can help to identify and address key risks and hazards. In this case, you might evaluate your progress against the action plan by tracking the percentage of workers who have been trained, or the percentage of workers who can correctly describe the risk analysis procedure.

Some examples of process indicators include:

- procedures in place for chemical, fuel and hazardous waste handling, storage, and disposal;
- processes analyzing water and energy conservation;
- percentage of workers who can explain the grievance mechanism;
- percentage of workers who can explain the health and safety procedures;
- percentage of workers trained on labor standards requirements; and
- communications from stakeholders.

It is helpful to have a mix of performance and process indicators, to get a deeper understanding of whether you are measuring the appropriate things and whether you are taking the appropriate actions. For example, a performance indicator such as "zero incidences of child labor" does not tell the full story: Was this the result of effective procedures and training or was the system inadequate in identifying and recording incidences?

For environmental and OHS performance indicators and benchmarks relevant to your industry, consult the *WBG EHS Guidelines* at www.ifc.org/sustainability.

Look at the **Monitoring Plans** in the Toolkit and Case Studies for more examples of key indicators common in the crop production industry.

THE BASICS OF MONITORING

Visual observation

physical walk-throughs of your farm or plantation. Examples of what you might observe: waste disposal, road conditions, storage and application of agrochemicals, housekeeping, surface water flows, worker and manager actions related to water use, crop production processes, hygiene, worker and manager body language and interactions.

Interviews

consultations with workers, managers and external stake-holders. Examples of topics you might discuss: Do workers and managers understand the policies and procedures? How are they impacted? Are there ideas for improvement? Do workers feel comfortable filing complaints? How are external stakeholders impacted by the company? Are there ideas for improvement? Do external stakeholders feel comfortable filing complaints?

Measuring and testing

checking through calibrated equipment. Examples of what you might check: ground and surface water levels, water quality, soil quality, water and energy consumption, air emissions, noise decibel levels, ambient temperature, chemical levels in blood samples.

Document review

looking through documents and records. Examples of what you might review: water meter logs, water and energy bills, inspection records, complaint logs, wage slips, time cards, policies and procedures, training records.

Look at the Toolkit item **Auditing Guidance** for guidelines on how to conduct an audit.

Monitoring and **auditing** are words that are often used interchangeably, which can be confusing. Auditing is a formal, on-site evaluation against a specific set of criteria. Audits can be conducted internally by your own staff or by outside parties. Monitoring is an umbrella term that includes various methods for evaluating performance. These may include: visual observation, measuring and testing, questionnaires, surveys, interviews with employees and external stakeholders, and document review. It is important to design your monitoring program to obtain qualitative and quantitative information. It is also important that workers and managers are monitoring the workplace on an on going basis.

MEASURING AND IMPROVING YOUR ESMS

While your Action Plan monitoring looks at whether corrective actions are being implemented and are achieving the intended results, your ESMS monitoring is looking at the maturity of your system development and implementation. The Action Plan lists new actions you are taking to address risks. But for the new actions to be sustainable, you also need to improve your ESMS. The two need to be linked.

This Handbook's companion publication ESMS Self-Assessment and Improvement Guide provides you with a practical tool to monitor the maturity of your ESMS. For each of the nine ESMS elements, we provide self-assessment questions that show you the level of your ESMS development and implementation on a scale of 0 to 5 (5 is the highest). Conducting the ESMS self-assessment is an important first step that enables you to see where you stand now. The results form the basis of your ESMS Improvement Plan. The ESMS self-assessment responses should be based on Visual Observation, Measuring or Testing, Document Review and Interviewing People.

Let's take another look at the nine elements of the ESMS and maturity ratings.

Purpose of Action Plan and ESMS Improvement Plan

Action Plan: specific actions to correct environmental, labor and community problems and remediate negative impacts

ESMS Improvement Plan: steps targeted to continually improve the management system to support activities in the Action Plan

	Policy	Identification of Risks and Impacts	Management Programs	Organizational Capacity and Competency	Emergency Preparedness and Response	Stakeholder Engagement	External Communications and Grievance Mechanisms	Ongoing Reporting to Affected Communities	Monitoring and Review
5	Mature system implemented internally and with key supply chain partners – continual improvement embedded in operations								
4	Systems well-developed and implemented internally – routine improvement projects								
3	Systems approach adopted, but development and implementation is inconsistent - improvement sporadic								
2	Limited system development with sporadic implementation – primarily reactive								
1	Little systems awareness or repeatable processes								
0	No systems awareness or repeatable processes								

LINKING YOUR ACTION PLAN AND ESMS IMPROVEMENT PLAN

It is important to understand the link between the Action Plan and the ESMS Improvement Plan. The Action Plan lists specific projects and activities. The ESMS Improvement Plan is about making system improvements needed to support the activities and to make the necessary changes in how the company operates.

Improving environmental and social performance and integrating it into your routine business operations takes time. The improvement plan for your ESMS needs to be practical. It needs to be designed with the understanding that people have their core operating responsibilities in your company. You cannot improve everything at once. The ESMS Team plays the critical role of leading the improvement effort. Prioritizing what to work on first is an important job for the team in coordination with senior management. The ESMS Self-Assessment and Improvement Guide will help you to get started.

CONDUCTING AN EFFECTIVE MANAGEMENT REVIEW

The purpose of the management review is to routinely involve senior management in evaluating the development and implementation of the ESMS. The management review is led by the ESMS Team. In the beginning, we recommend conducting a management review every three to six months. Once the ESMS is well-established, once a year is usually fine. It is important to keep a written record (called minutes) during the meeting of the key topics discussed and the decisions made. The minutes should be kept in a central log.

For the ESMS Team, the management review is an important opportunity to keep senior management involved. Remember, the sustainability of the program requires ongoing commitment from senior management.

Typical Agenda for a Management Review:

- Review progress on Action Plan

- Review progress on ESMS Improvement Plan

- Review compliance with environmental and labor laws and regulations

- Review progress on environmental and social performance

- Discuss possible adjustments in risk assessment

- Prioritize activities for next three, six and twelve months

- Review and approve needed resources by senior management

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