

HOW TO PREPARE A BUSINESS FOR MONSOON SEASON

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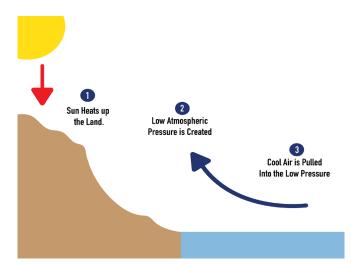
Introduction Many people think of a monsoon as a season of heavy rain. But a monsoon actually is a seasonal change in the prevailing winds, and it can bring either extremely wet or dry weather with it. While the largest monsoon regions are located in South Asia and West Africa, they also affect the Southwest of the United States. The states that border the Gulf of Mexico—Arizona, California, and New Mexico—experience what we call a summer monsoon and benefit from plentiful rain. Sometimes southern Colorado, Nevada, and Utah are also affected. In these states, the wet monsoon season begins June 15 and lasts through September. While monsoon season brings with it benefits, such as relief from the summer heat and nourishing rain for crops, it also poses risks to businesses, with high winds, sandstorms, hailstorms, and heavy rain that results in extreme flooding. Fortunately, we can predict monsoon season and its potential for devastating effects on businesses. In this whitepaper, we walk through the risks that monsoon season poses for businesses and how to address them.

What Is Monsoon Season?

Monsoon season is a period when the direction of prevailing winds changes due to the interaction of temperature and atmospheric pressure systems.

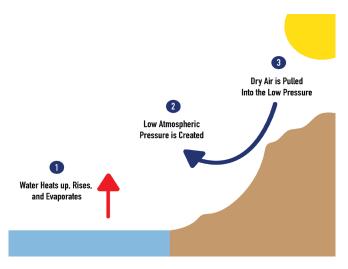
Summer Monsoons

In the summer, monsoons are driven by the sun heating the water and land at different rates. As the land heats up, it causes the air above it to warm and rise, creating an area of low atmospheric pressure that pulls in cooler, moist air.



Winter Monsoons

In a winter monsoon, it is the reverse: water off the shore of a land mass heats up, evaporates, and rises into the atmosphere, creating an area of low pressure that pulls in dry air from over the land mass toward the water.



Typically, most people associate the word "monsoon" with the summer variety, where winds blow from the coast and bring with them heavy, long-lasting rain, thunderstorms, and high humidity. In the United States, monsoons have a diurnal cycle, meaning that mornings are typically dry and humidity builds throughout the day, culminating in storms and rainfall in the afternoon and evening.

The increased precipitation that a summer monsoon brings is essential for encouraging crops to grow, replenishing water sources, reducing wildfire risks, and supporting ecosystems. However, monsoons can also lead to various challenges, including flooding, landslides, waterlogging, and disruptions to transportation and infrastructure.



What Are the Key Risks of Monsoon Season?

Monsoon season poses numerous risks to business facilities, which can vary depending on the geographic location and intensity of the monsoon. Here are some common risks associated with monsoon season:

Flooding



Heavy rainfall during monsoon season can lead to widespread flooding, especially in low-lying areas and regions with inadequate drainage systems. Flooding can cause significant damage to infrastructure, buildings, and property, leading to disruptions in business operations and financial losses.

Water Damage



Excessive rainfall can result in water seepage, leaks, and moisture-related issues in buildings, leading to structural damage, mold growth, and damage to equipment, inventory, and supplies. Water damage can be costly to repair and may require extensive downtime for remediation.

Landslides



Steep slopes and hilly regions are particularly prone to landslides during monsoon season. Landslides can damage infrastructure, disrupt transportation routes, and pose a threat to employee safety.

Power Outages



Heavy rainfall and strong winds can lead to power outages, especially in areas with overhead power lines. Businesses may face interruptions in their operations, loss of productivity, and damage to electrical equipment due to power fluctuations or surges.

Safety Hazards



Slippery surfaces and poor visibility during heavy rains can lead to accidents and injuries.

Supply Chain Disruption



Monsoon-related disruptions, such as road closures, damaged infrastructure, and disrupted transportation networks, can lead to delays, shortages, and increased costs.

Disrupted Connectivity



Severe weather conditions during monsoon season can disrupt communication networks, including mobile and internet services. This can hinder business operations, customer communications, and access to critical information.

Environmental Impact



Monsoon season can lead to soil erosion, water pollution from runoff, and ecological disruptions. Businesses that rely on natural resources or operate in sensitive ecosystems may face regulatory challenges and increased scrutiny.

Understanding these risks allows businesses to develop appropriate risk management strategies and implement mitigation measures.

Interesting Facts About Monsoons

The term "monsoon"

originates from the Arabic word mausim, meaning season

Source: NIDIS

A monsoon is a weather phenomenon, not a storm; and can be wet or dry



Scientists first noted the Southwest's seasonal rainfall patterns in the **early 1900s.**

Source: Climate.gov

The average rainfall that the U.S. monsoon season brings is **4.82 inches**, based on data from 1950 to 2017.

Source: Fox Weather

Summer 2021 ranked among the 10 wettest monsoon seasons

on record for many locations in the Southwest

Tucson had its third wettest season with

12.79 inches of precipitation

Source: NIDIS

Phoenix had almost double thier average precipitation



Monsoon weather hazards can include:



Downburst Winds



Dust Storms



Thunderstorms



Extreme Heat



Flash Floods



Earth Fissures

Source: Arizona Emergency Information Network



40% to 75%

of Arizona and New Mexico's annual rainfall comes during monsoon season.

Source: NIDIS

In Arizona, it is not uncommon to see a wall of dust that reaches hundreds of feet in the air during monsoon season.

How Businesses Can Prepare for Monsoon Season

By taking the proactive measures described below, companies can minimize the risks associated with monsoon season and ensure that they are prepared to respond effectively if heavy rainfall triggers other disasters, such as flooding or landslides.

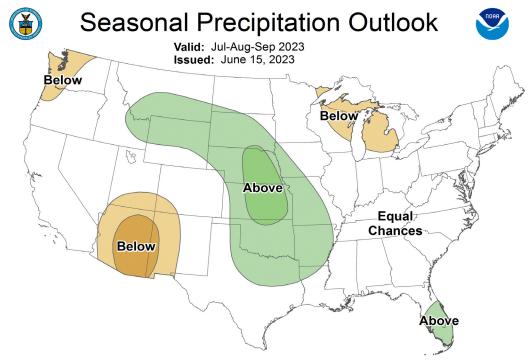
1. DEVELOP AN EMERGENCY PLAN

The first step a company should take is to develop a comprehensive emergency plan to protect employees, assets, and property. The emergency plan should accomplish the following goals:

- **Establish evacuation procedures:** The plan should include clear, concise directions that help employees understand where to go and what to do in the event of a flood or landslide. It should include multiple exit routes from the building in case one is blocked. The plan should also designate meeting places for employees to gather after evacuating the premises and list alternative travel routes in case main roads are shut down.
- **Secure emergency supplies:** Gather flashlights, a battery-operated radio, spare batteries, nonperishable foods, bottled water, respirators, and a first-aid kit.
- **Develop a business continuity plan:** Review and back up all data regularly and keep critical business information accessible but safe online in the cloud. Take a video of the property to record potential losses and make it easier to plan for restoration services.

2. STAY INFORMED ABOUT THE WEATHER

Companies located in areas affected by monsoon season should work with local authorities, emergency management services, and disaster recovery providers to access timely weather updates and receive alerts. Among other things, businesses should monitor weather reports and follow local news channels and emergency management departments on social media.



3. ANTICIPATE AND MITIGATE THE POTENTIAL RISKS

Companies should perform a risk assessment and take reasonable measures to reduce the risks of damage from flooding and waterlogging. Identify weak structural points and areas that require immediate attention. **Consider taking the following steps:**

Improve Drainage Systems

Ensure that your property has effective ways to manage heavy rainfall. Clear clogged drains and gutters regularly, and consider installing additional drainage channels if needed. Properly designed and maintained drainage systems can help prevent water accumulation and reduce the risk of flooding.

Waterproofing Measures

Apply waterproof coatings, sealants, and membranes to vulnerable areas, such as walls and roofs, to prevent water infiltration. This can help reduce the risk of water damage to the property and its contents.

Install Flood Barriers and Water Diversion Systems

Consider installing flood barriers, such as sandbags or floodgates, around vulnerable entry points to prevent water from entering the premises. Water diversion systems, such as ditches or channels, can redirect excess water away from critical areas.

Elevate Critical Equipment and Utilities

Raise critical machinery, electrical systems, and utility installations above potential flood levels. This can help protect essential equipment and minimize damage to vital infrastructure.

Secure Important Documents and Data

Safeguard important documents, records, and digital data by storing them in waterproof containers or using cloud-based backup systems.

Conduct Regular Maintenance Inspections

Conduct routine maintenance checks to identify and address any potential issues before they escalate. Inspect roofs, windows, doors, and other vulnerable areas for leaks, cracks, or weak spots. Prompt repairs and maintenance can prevent further damage during monsoon season.



4. TRAIN EMPLOYEES ON THE RISKS

Companies should train employees on the risks associated with monsoon season and emergency protocols. Here are some ways to prepare employees to respond appropriately in the event of monsoon-related events:

- Document and share evacuation procedures and other emergency protocols. Encourage employees to stay indoors during severe weather, avoid flooded areas, and use caution when walking on slippery surfaces.
- Create a plan for what to do in case there is not enough time for employees to evacuate in the event of a flood or other monsoon-related disaster.
- Identify and train a team of employees as emergency response coordinators. These individuals can serve as the point of contact during emergencies, guide employees during evacuations, and ensure the implementation of safety protocols.
- If necessary, supply employees with appropriate personal protective equipment (PPE), such as rain gear, non-slip footwear, and safety helmets, to protect them from the risks associated with monsoon-related conditions.
- Establish a communications strategy that ensures that all employees are aware of an emergency and can respond appropriately. The strategy should be designed to reach employees both on-site and off-site, including employees working remotely.

5. REVIEW INSURANCE COVERAGE

Companies should review their insurance policy to ensure that it covers monsoon-related losses, reviewing any exclusions or limitations. Insurance policies should include provisions that cover flood damage, business interruption, and property restoration.

6. TEST THE EMERGENCY PLAN

Safety leaders should regularly test the emergency plan to ensure that it is effective and that employees are prepared to respond appropriately in the event of a flood or other monsoon-related event. This can help identify any weaknesses in the plan and ensure that the company is adequately prepared.

Drills can help ensure that employees are familiar with the procedures. If a drill reveals any gaps or weaknesses, the safety team should make the revisions necessary to optimize the plan's effectiveness.

7. PARTNER IN ADVANCE WITH A DISASTER RECOVERY FIRM

Monsoon-related emergencies may require an urgent response to remediate flooding and roof damage. A provider with national coverage and 24/7 catastrophe response services can mobilize quickly and deliver the materials and human resources needed to expedite recovery. The fastest possible response happens when a business works with a disaster recovery firm that offers an **emergency response agreement (ERA)**. An ERA ensures that businesses can return to operation as soon as possible, eliminating the delays of planning for a response and setting predetermined prices to avoid surprise expenses.

How to Clean Up After Monsoon Damage

Even with a proactive approach to monsoon season, damage from rainwaters and winds is unavoidable. In these circumstances, a professional restoration services provider can step in to accelerate recovery.

Look for a provider that can handle the following services to resolve hazardous conditions and rebuild affected buildings to their original condition:

Water Extraction

Water extraction services help remove water intrusion and reduce drying time, lessening the chances of structural problems and mold growth. Options for expedited water removal include sump pumps and truck-mounted vacuum units.

Dehumidification

A provider should use professional-grade dehumidifiers, air movers, and monitoring equipment to restore normal moisture levels and prevent secondary damage.

Moisture Detection and Mold Remediation

Moisture can linger even after the visible water is removed, leading to potential mold growth. A reputable provider should use specialized equipment to detect hidden moisture, assess the risk of mold, and implement appropriate mold remediation techniques to ensure a safe and healthy environment.

Reconstruction and Recovery

The steps necessary to recover will depend on the level of damage, but performing emergency services, such as placing roof tarps to prevent further damage, is typically the first step before resolving structural damage. From there, comprehensive remediation, cleaning, and reconstruction will follow. A reputable provider will document the affected areas, evaluate the severity of the damage, and provide a comprehensive report for insurance claims and restoration planning before beginning to restore the property to its original condition.

Contents Cleaning and Restoration

An experienced disaster recovery provider with specialized equipment can help salvage waterlogged documents, electronics, collectibles, artwork, area rugs, furniture, and much more.

Conclusion

By understanding the potential impact of monsoon season, implementing risk management strategies, and proactively engaging the services of a disaster recovery services firm, businesses in monsoon-affected regions can ensure operational continuity and protect their assets.





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