TEKNOSA

2024

WATER RISK REPORT

Contents

1. Purpose and Scope

This report has been prepared as part of Teknosa's 2024 Water Risk Analysis. Its purpose is to identify the existing and potential risks associated with the company's interaction with water resources and to assess the operational and environmental impacts of these risks. The analysis aims to support the sustainable management of water in terms of both quantity and quality, thereby enhancing resilience against potential threats such as water stress, droughts, and floods driven by climate change. Furthermore, this study contributes to strengthening sustainability strategies, planning risk mitigation measures, and improving transparent reporting processes for stakeholders.

In the water risk assessment, Teknosa Head Office building, Logistics Center, İklimsa Regional Directorates in Antalya, İzmir, Adana and Ankara, and all locations operating throughout Türkiye as of the end of 2024 were included in the evaluation. This comprehensive approach made it possible to address water-related risks holistically in all locations where the company operates and to comparatively analyze the effects of different geographical conditions on water resources.

2. Method

The current analysis was carried out using the WRI Aqueduct Water Risk Atlas tool developed by the World Resources Institute (WRI). This tool evaluates water risks on a global scale by using indicators such as water stress, drought, flood, and seasonal and annual water variability. The Aqueduct platform quantitatively reveals regional water risks by integrating different data sets such as hydrological models, climate data, population density, and water use statistics.

Within the scope of the study, projections for the years 2030 and 2050 were evaluated together with the current situation data; water stress, water depletion, seasonal and annual variability, groundwater decline, flood, and drought risks were analyzed separately. The results obtained were interpreted to determine the water risk levels in Teknosa's areas of operation and to integrate these findings into the company's climate risk management strategies.

3. Water Risks

Water Stress Risk

Baseline water stress is a measure that expresses the ratio of total water demand in a region to the available renewable surface and groundwater resources. Water demand covers areas of use such as domestic, industrial, agricultural, and livestock, while renewable water resources consist of rivers, lakes, and groundwater reservoirs. In addition, the impact of upstream users (such as dams and other water consumers) on the amount of downstream water is also included in the calculation of these resources. Baseline water stress indicates the pressure on water resources in a region; high stress values indicate that resources are insufficient and that there is more competition among users. This situation requires urgent actions to ensure the sustainable management and use of water.

Water Depletion Risk

Baseline water depletion is a measure that expresses the ratio of total water consumption in a region to the available renewable water resources. Water consumption covers areas of use such as domestic, industrial, agricultural irrigation, and livestock. The available renewable water resources also include the impacts of upstream water users and large dams on the amount of downstream water. Baseline water depletion is an important indicator for evaluating the sustainable use of water resources. High values indicate serious pressures on local water supply and reduced water availability for downstream users. Similar to baseline water stress, this concept measures the load on water resources but considers only the rate of water consumption and excludes total water demand (consumption plus non-consumption).

Interannual Variability Risk

Interannual variability is a measure that expresses the average change in the amount of available water, including renewable surface and groundwater resources, within a year. This concept aims to evaluate the fluctuations of water resources in annual cycles and their impacts on sustainable water management. Higher interannual variability values indicate that water resources show greater variations throughout the year, and this situation may create challenges in water access and management. This measure plays a critical role in understanding the seasonal and annual stability of water resources.

Seasonal Variability Risk

Seasonal variability is a measure that expresses the average fluctuations in the amount of available water, including renewable surface and groundwater resources, within a year. This concept aims to evaluate how water resources respond to seasonal differences throughout the year and the impacts of these variabilities on water management. Higher seasonal variability values indicate that water resources show greater variations within a year, and this situation may create additional challenges in water access and management. This measure is an important guide for the development of seasonal water management strategies.

Groundwater Table Decline Risk

Groundwater table decline is a measure that expresses the average annual change in groundwater level during a specific period (1990–2014). This value is expressed in centimeters per year (cm/year) and is used to evaluate the sustainability of groundwater resources. Higher decline values indicate that groundwater extraction is at unsustainable levels and that this situation creates serious pressures on water resources. This measure is a critical indicator for groundwater management and long-term water security planning.

River Flood Risk

River flood risk is a measure that expresses the percentage of the population expected to be affected by river floods within a year, taking into account the existing flood protection standards. This risk is evaluated based on three main components: hazard (flooding caused by river floods), exposure (population living in the flood zone), and vulnerability (the population's sensitivity to floods). The existing level of flood protection is also taken into account in the risk calculation. This indicator represents the average annual impact of floods rather than the possible maximum impact. The "expected annual affected population" is calculated by combining the effects of rare extreme flood years with those of more frequent but less noticeable floods. Higher values indicate that a larger portion of the population is more likely to be affected by river floods.

Coastal Flood Risk

Coastal flood risk is a measure that expresses the percentage of the population expected to be affected by coastal floods within a year, taking into account the existing flood protection standards. This risk is evaluated based on three main elements: hazard (flooding caused by storm surges), exposure (population living in flood-prone areas), and vulnerability (the population's sensitivity to floods). The existing level of flood protection is also taken into account in the calculation. The indicator represents the average annual impact of floods rather than the possible maximum impact. The "expected annual affected population" is calculated by combining the effects of rare extreme floods with the effects of more frequent, lower-intensity floods. Higher values indicate that a larger portion of the population in coastal areas is, on average, more likely to be affected by coastal floods.

Drought Risk

Drought risk is an indicator that expresses the measurement of the population and assets that may be affected by these events in regions where the likelihood of drought occurrence is high. The risk evaluates the frequency and severity of droughts, the size of the population and assets exposed to these conditions, and the sensitivity of this population and these assets to adverse impacts. Higher drought risk values indicate that the adverse effects caused by drought events in a region will be more severe and that management measures are more urgent.

Water Supply

Available blue water is a measure that expresses the total amount of renewable freshwater in a sub-basin with the effects of upstream consumption removed. This includes surface runoff, interflow, and groundwater recharge. Available blue water is expressed as a flow rate in cm/year and is used to evaluate the renewable capacity of freshwater resources in a region.

Water Demand

Gross demand expresses the maximum potential amount of water required to meet the needs of different sectors. This demand covers sectoral water needs such as domestic, industrial, agricultural irrigation, and livestock. Gross demand is expressed as a flow rate in cm/year and is used to evaluate the magnitude of the total water demand in a region.

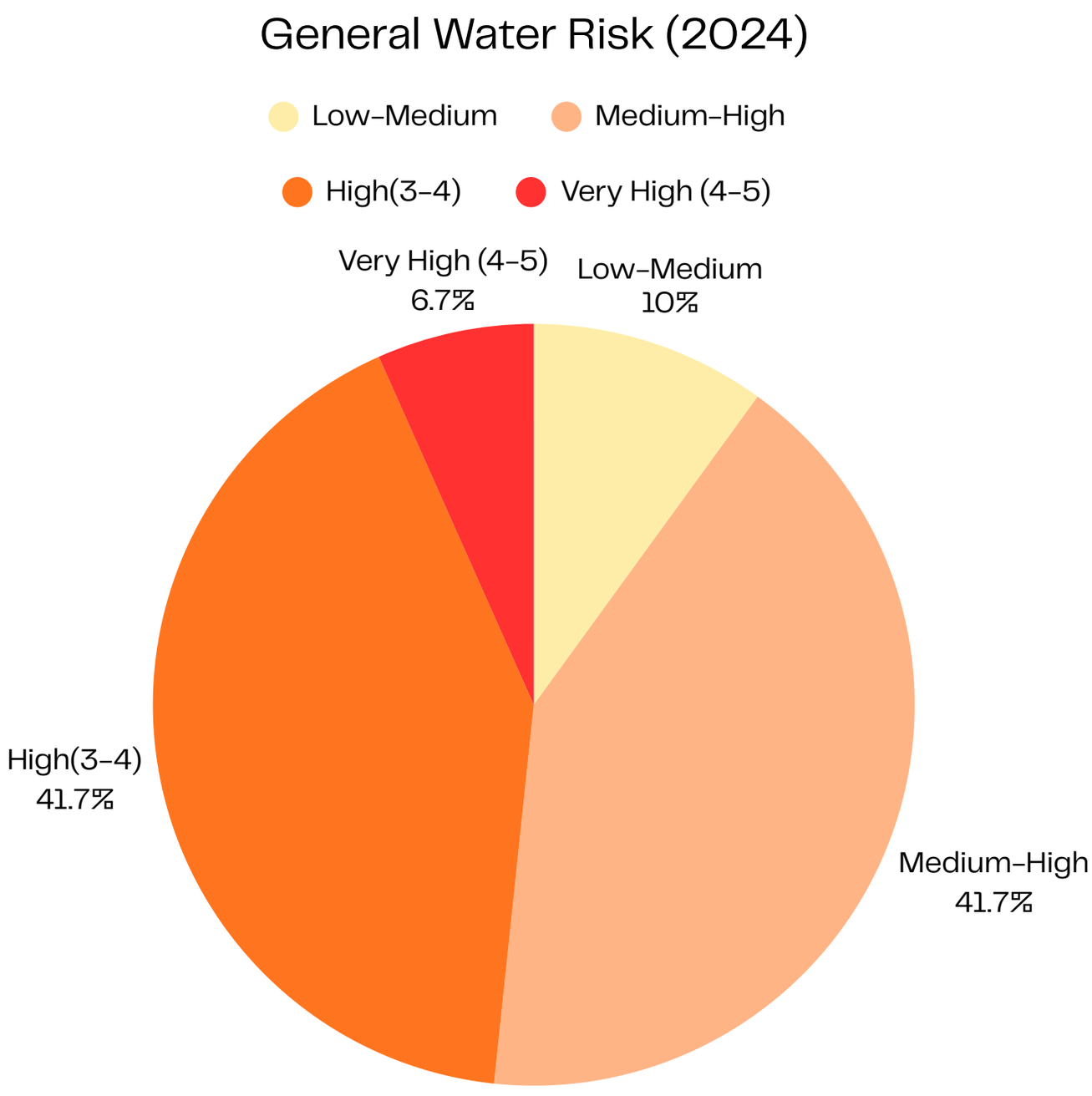
4. Analysis Findings

As a result of the water risk analysis conducted with the WRI Aqueduct tool, both the current situation and the projections for the years 2030 and 2050 were evaluated for Teknosa's activity points across Türkiye. The analysis revealed the changes in the quantity, renewability, and accessibility of water resources in different geographical regions. In this context, indicators such as water stress, water depletion, drought, flood, and changes in groundwater levels were examined separately, and the potential impact of each indicator on Teknosa locations was determined. The findings indicate that the pressure on water resources may increase in some regions due to climate change. Below are the detailed evaluation results related to the water risk indicators.

General Water Risk

According to the analysis results, a significant portion of Teknosa locations are in the high-risk category within the scope of the overall water risk indicator. In the analysis where a total of 180 locations were evaluated, **12 locations were found to be at a very high risk level, and 75 locations were found to be at a high risk level.** This situation indicates increasing pressures in certain regions, especially in terms of the accessibility and sustainable management of water resources.

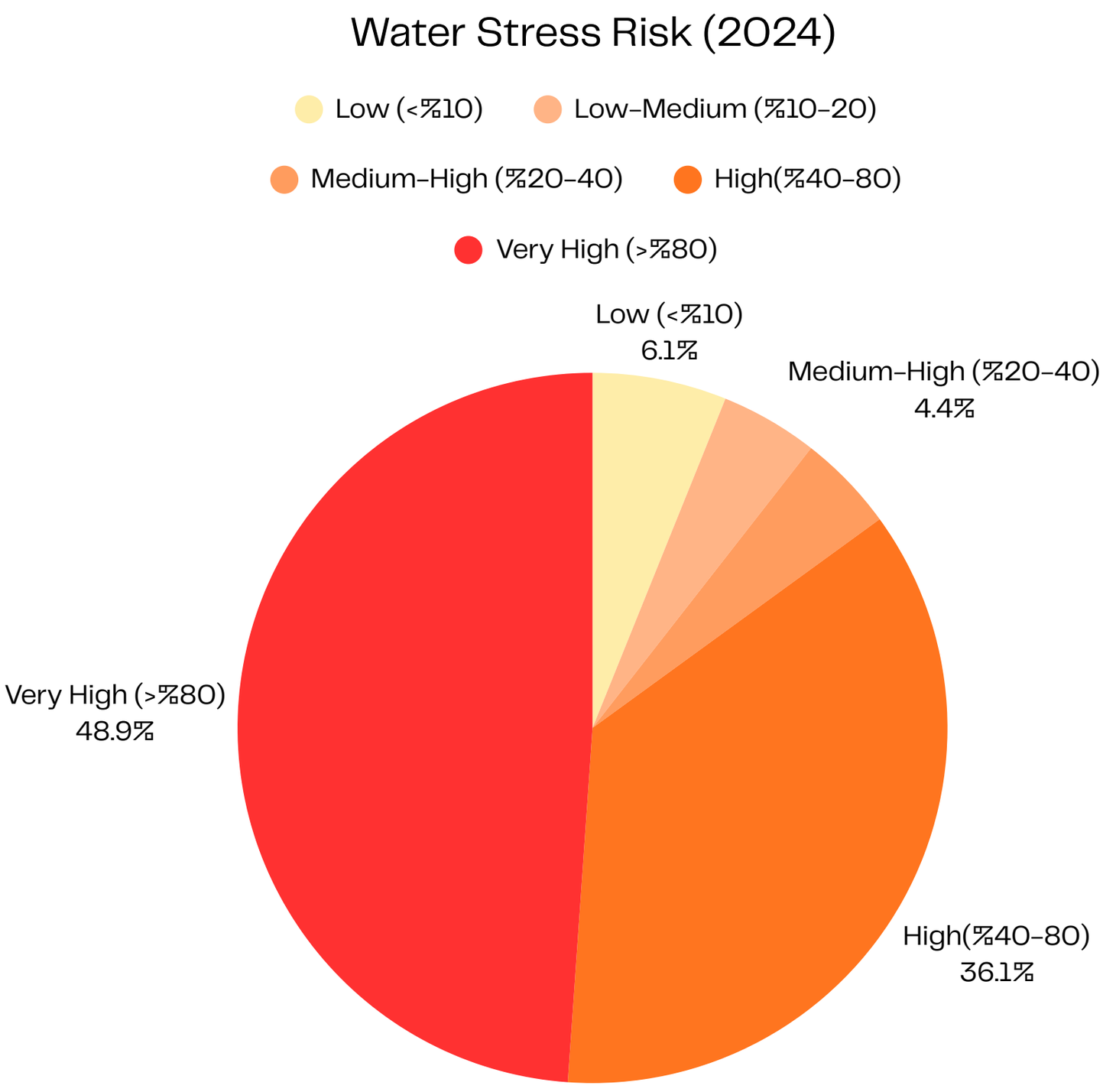
General Water Risk Table	Number/Rate of Locations with Value	
Value	Base Year (2024)	
Low-Medium (1-2)	18	10.0%
Medium-High (2-3)	75	41.7%
High (3-4)	75	41.7%
Very High (4-5)	12	6.7%



Water Stress

According to the analysis results, the majority of Teknosa locations are in the high and very high-risk categories in terms of water stress. Of the 180 locations evaluated in t**he base year, 36.1% (65 locations) were found to be at a high risk level, while 48.9% (88 locations)** were found to be at a very high-risk level. Although these ratios remain constant in the 2030 projection, the number of locations in **the very high-risk group is expected to increase to 123 (approximately 68.3%)** in the 2050 scenario.

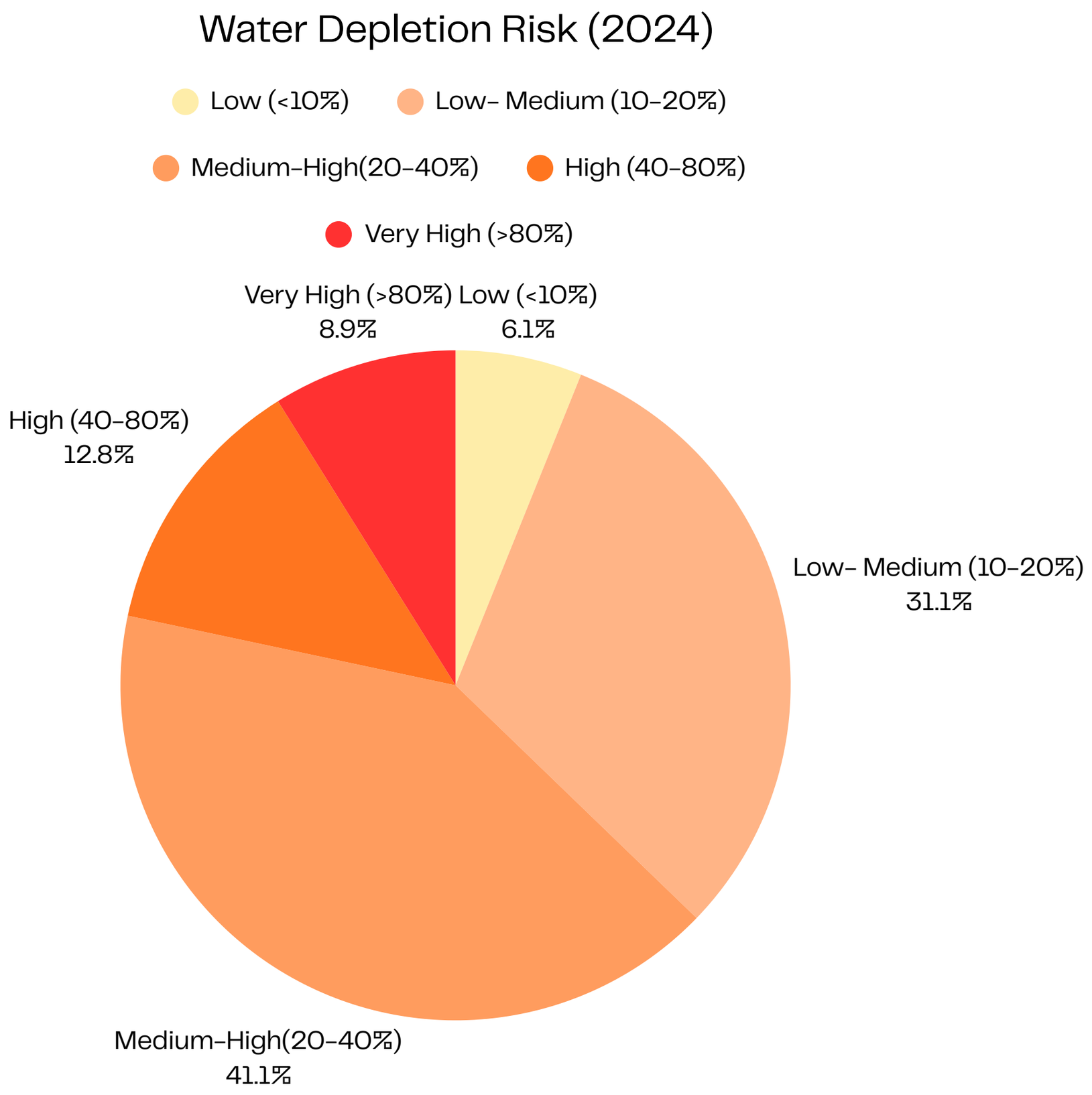
Water Stress Table	Number/Rate of Locations with Value					
Value	Base Year (2024)		2030		2050	
Low (<10%)	11	6.1%	7	3.9%	6	3.3%
Low- Medium (10-20%)	8	4.4%	12	6.7%	3	1.7%
Medium-High(20-40%)	8	4.4%	8	4.4%	14	7.8%
High (40-80%)	65	36.1%	65	36.1%	34	18.9%
Very High (>80%)	88	48.9%	88	48.9%	123	68.3%



Water Depletion

According to the analysis results, a significant portion of Teknosa locations are at medium-high and high-risk levels in terms of water depletion. Of the 180 locations evaluated in the base year, **41.1% (74 locations)** were in the medium-high, **12.8% (23 locations)** were in the high, and **8.9% (16 locations)** were in the very high-risk category. In the **2030** projection, the proportion of locations at the high-risk level increases to **28.3% (51 locations)**, while in **2050**, the number of locations at the very high-risk level is expected to rise to **63 (35.0%)**.

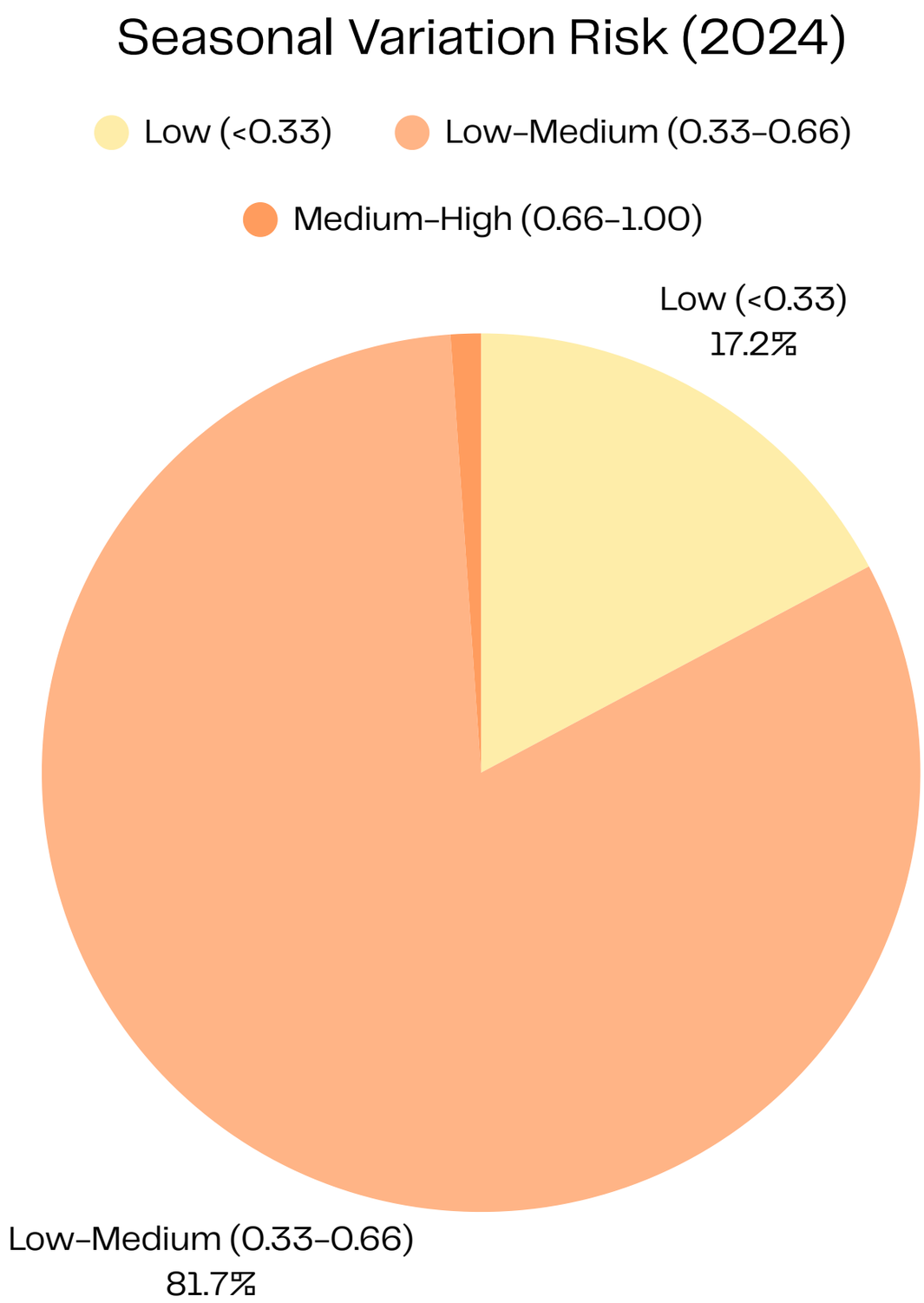
Water Depletion Table	Number/Rate of Locations with Value					
Value	Base Year (2024)		2030		2050	
Low (<10%)	11	6.1%	8	4.4%	6	3.3%
Low- Medium (10-20%)	56	31.1%	31	17.2%	20	11.1%
Medium-High(20-40%)	74	41.1%	76	42.2%	65	36.1%
High (40-80%)	23	12.8%	51	28.3%	26	14.4%
Very High (>80%)	16	8.9%	14	7.8%	63	35.0%



Seasonal Variation

According to the analysis results, the majority of Teknosa locations are currently in the low-risk category in terms of seasonal variability. In the base year, **81.7% (147 locations)** of the locations were at a low-medium risk level, and **17.2% (31 locations)** were at a low-risk level. However, according to the **2050** projection, the number of locations at the medium-high risk level is expected to increase to **41 (22.8%)**.

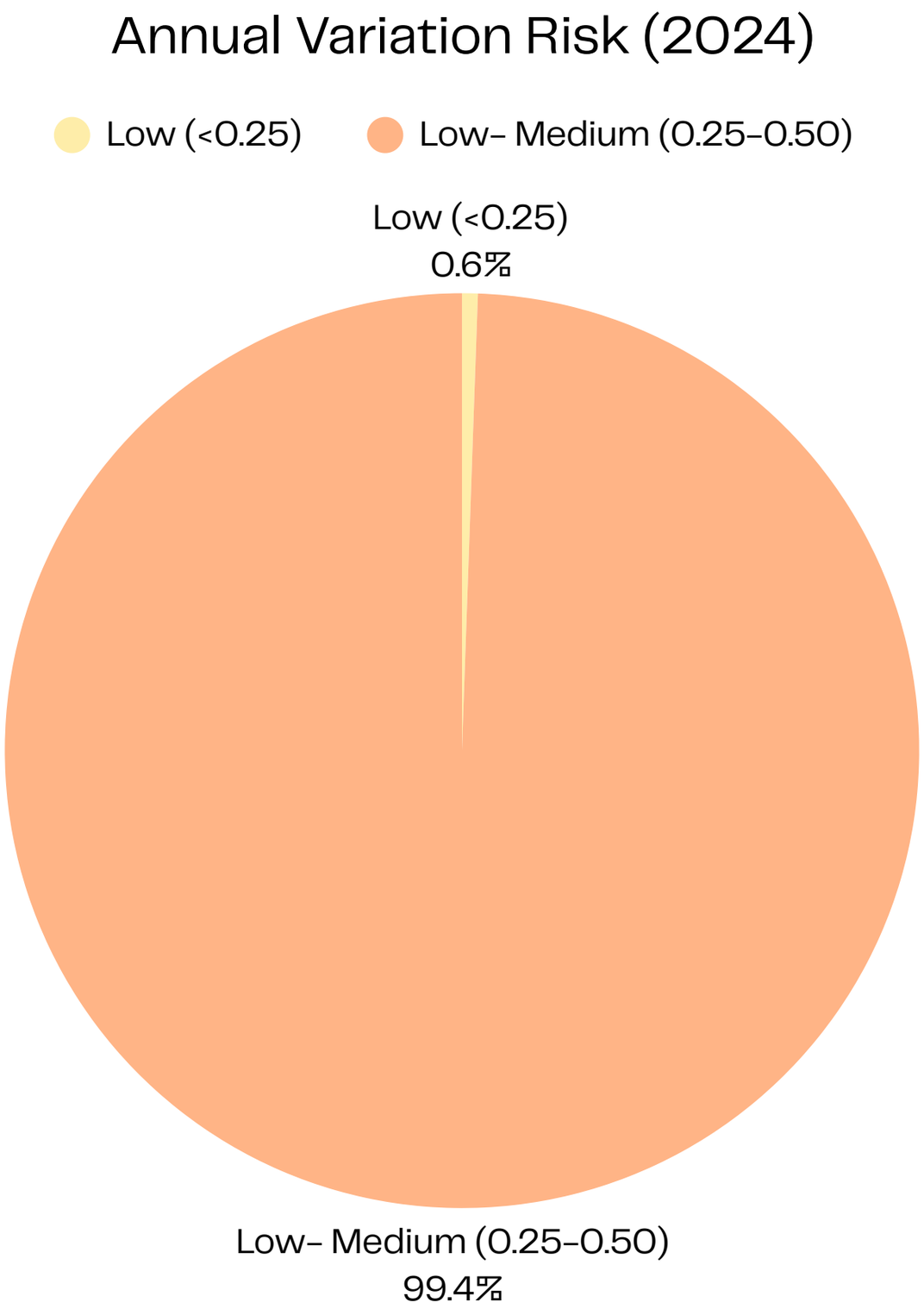
Seasonal Variation Table	Number/Rate of Locations with Value					
Value	Base Year (2024)		2030		2050	
Low (<0.33)	31	17.2%	31	17.2%	12	6.7%
Low-Medium (0.33-0.66)	147	81.7 %	146	81.1 %	127	70.6 %
Medium-High (0.66-1.00)	2	1.1%	3	1.7%	41	22.8 %



Annual Variation

According to the analysis results, almost all Teknosa locations are at a low-risk level in terms of interannual water variability. In the base year, **99.4% (179 locations)** of the locations are in the low-medium risk category, and it is observed that this situation is largely maintained in the 2030 and 2050 projections. Only a limited number of locations are expected to shift to the medium-high risk level (**3.3% in 2030** and **1.1% in 2050)**.

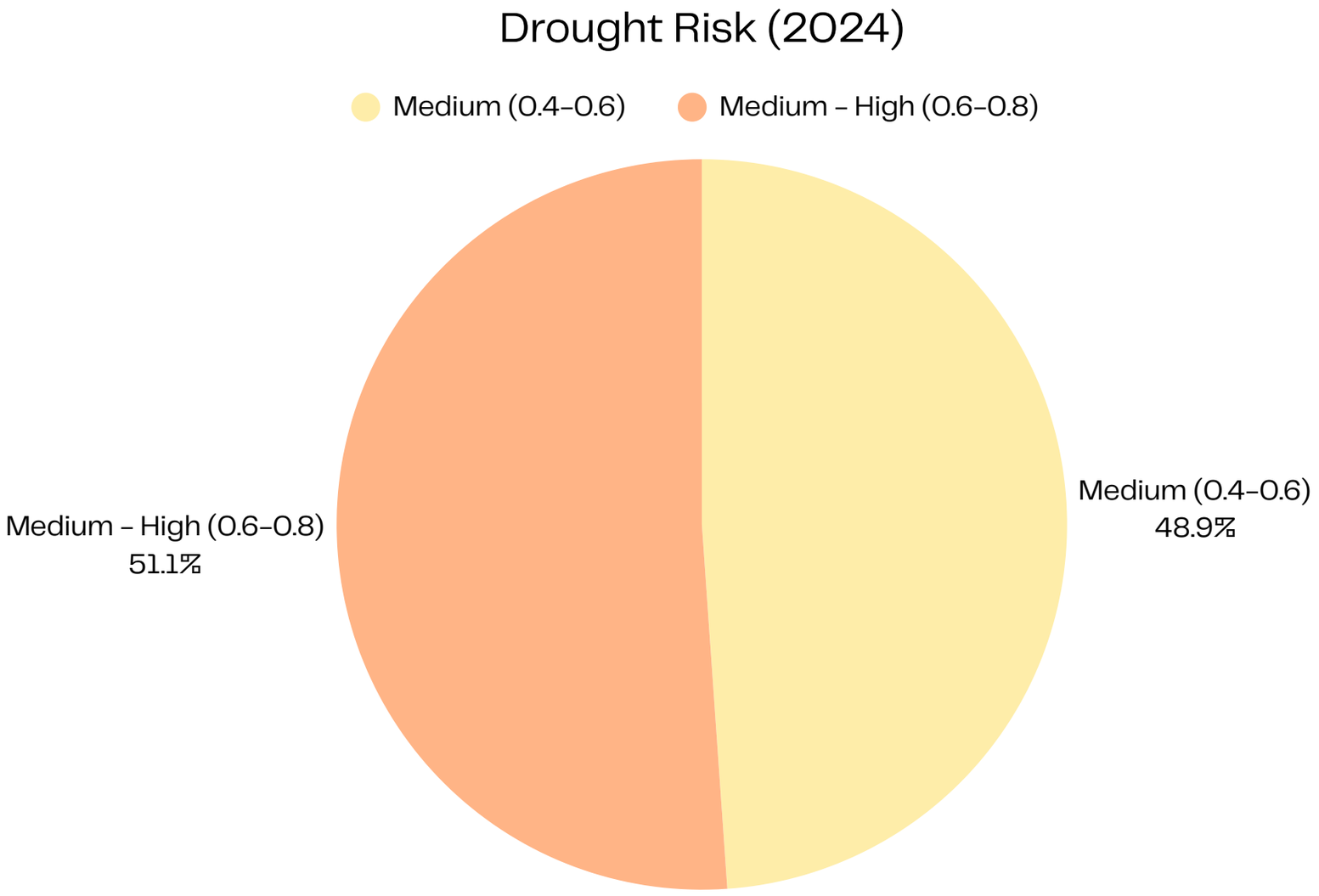
Annual Variation Table	Number/Rate of Locations with Value					
Value	Base Year (2024)		2030		2050	
Low (<0.25)	1	0.6%	0	0.0%	0	0.0%
Low- Medium (0.25-0.50)	179	99.4%	174	96.7%	178	98.9%
Medium- High (0.50-0.75)	0	0.0%	6	3.3%	2	1.1%



Drought Risk

According to the analysis results, almost all Teknosa locations are classified at medium and medium-high levels in terms of drought risk. In the base year, **48.9% (88 locations)** of the locations are in the medium-risk category, and **51.1% (92 locations)** are in the medium-high risk category.

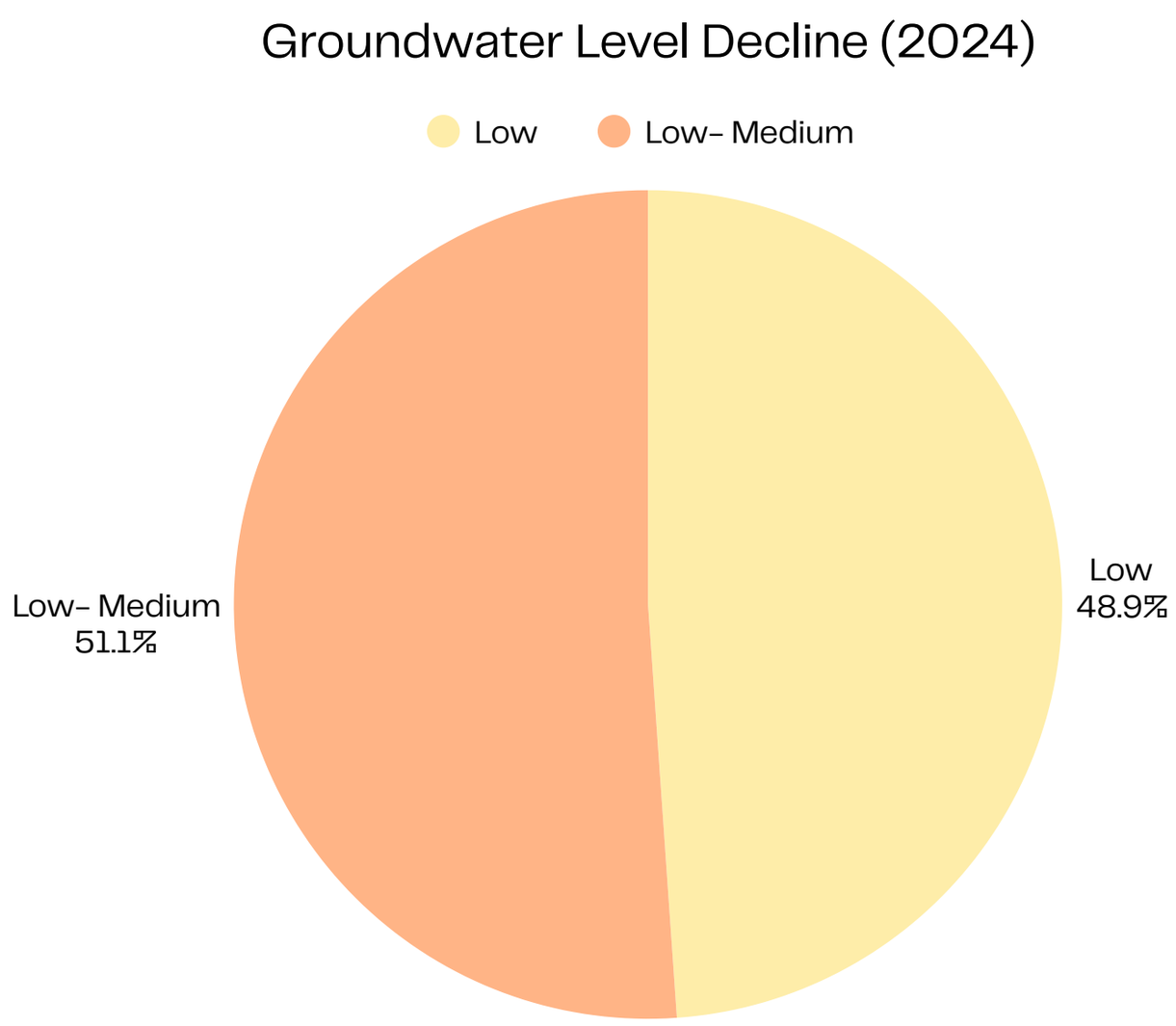
Drought Risk Table	Number/Rate of Locations with Value	
Value	Base Year (2024)	
Medium (0.4-0.6)	88	48.9%
Medium - High (0.6-0.8)	92	51.1%



Groundwater Level Decline

According to the analysis results, all Teknosa locations are at a low-risk level in terms of groundwater levels. In the baseline period, **48.9%** of the stores (**88 locations**) are classified in the “insignificant trend” category, while **51.1% (92 locations)** fall within the “low–medium (0–1 cm/year)” range.

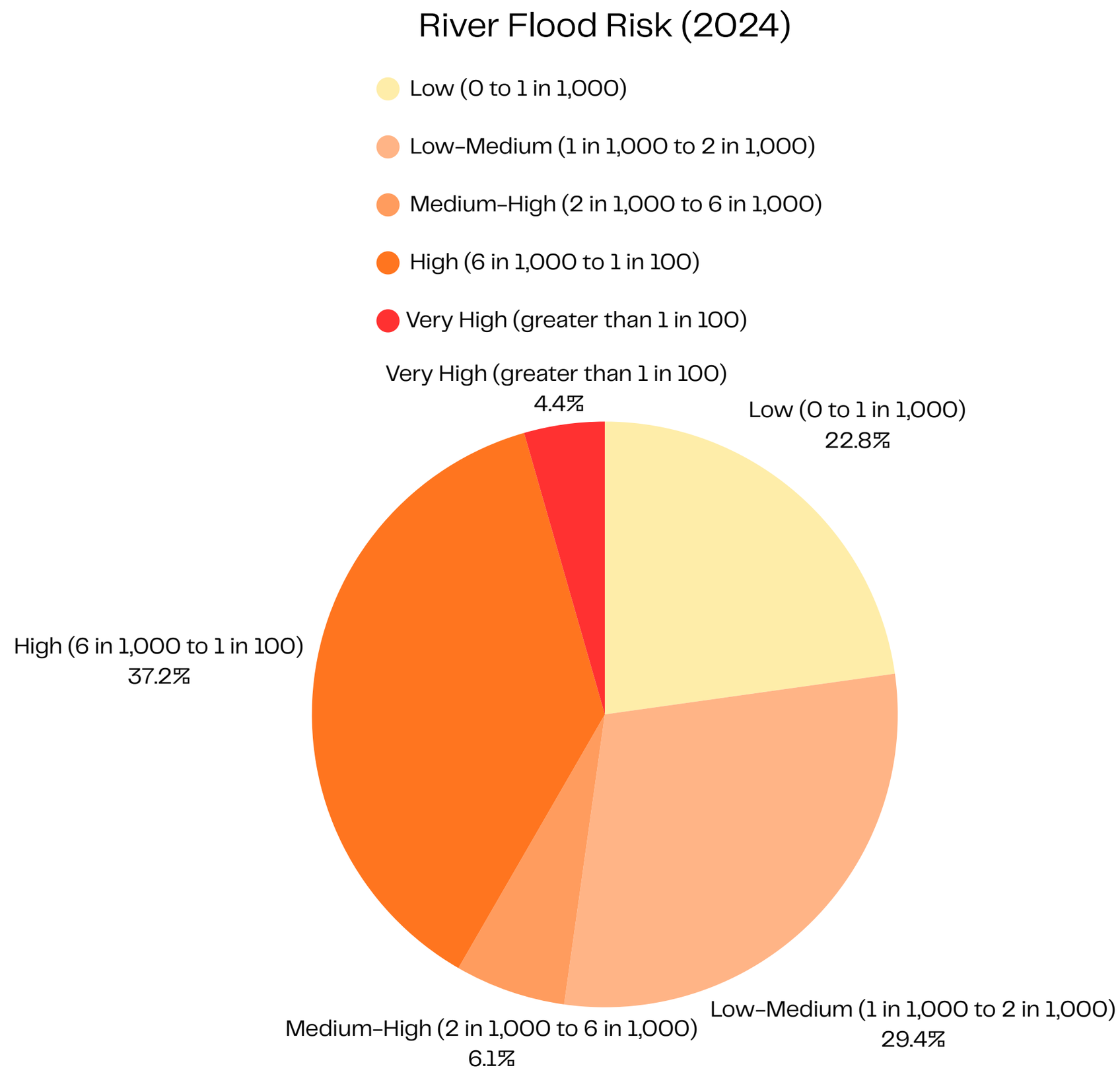
Groundwater Level Decline Table	Number/Rate of Locations with Value	
Value	Base Year (2024)	
Insignificant Trend	88	48.9%
Low-Medium (0-1 cm/y)	92	51.1%



River Flood

According to the analysis results, a significant portion of Teknosa locations are at medium-high and high levels of risk in terms of river flood risk. In the base year, **37.2% (67 locations**) of the locations are in the high-risk category, **6.1% (11 locations)** are in the medium-high, and **4.4% (8 locations)** are in the very high-risk category. On the other hand, **29.4% (53 locations)** are in the low-medium, and **22.8% (41 locations)** are in the low-risk group.

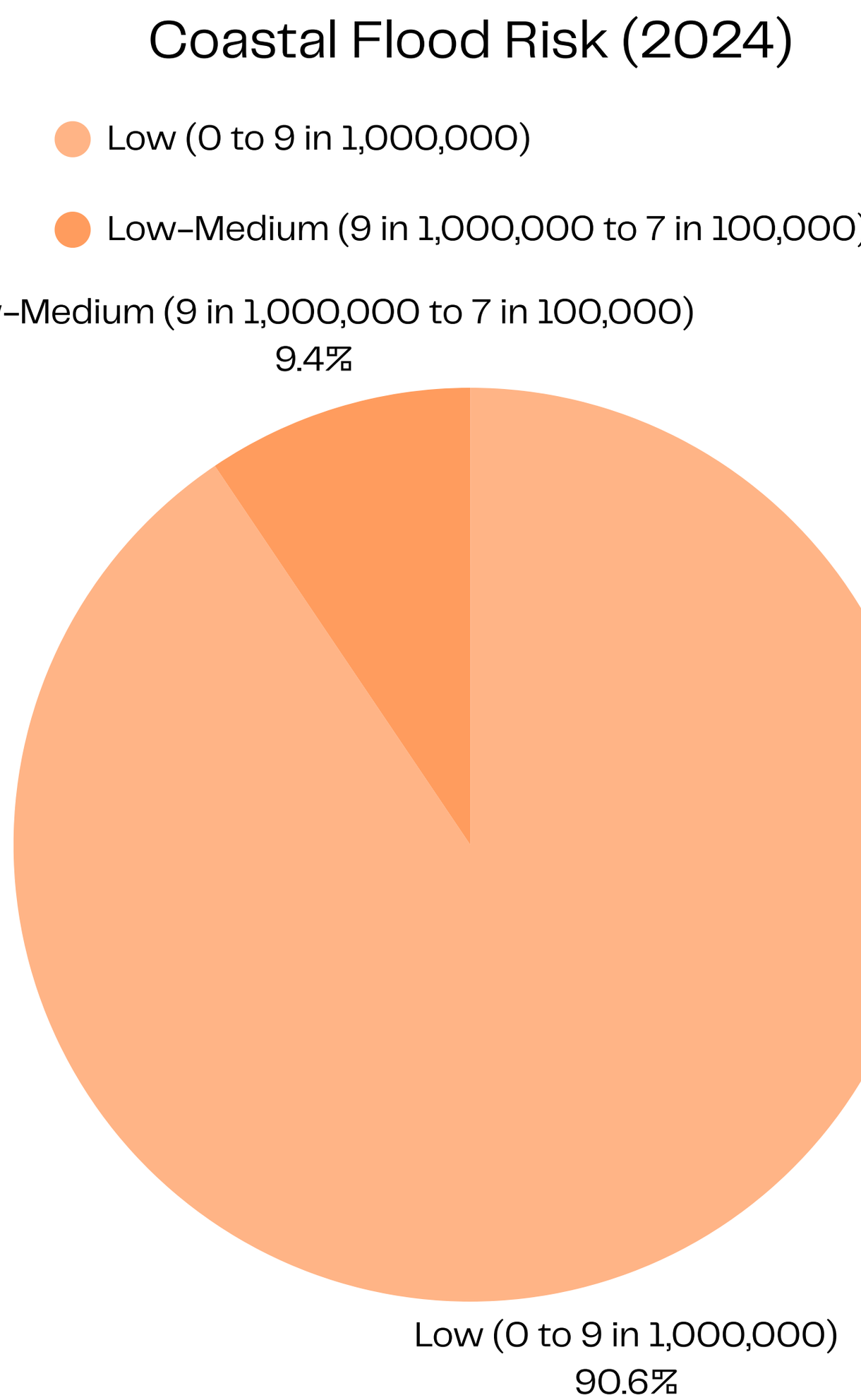
River Flood Table	Number/Rate of Locations with Value	
Value	Base Year (2024)	
Low (0 to 1 in 1,000)	41	22.8%
Low-Medium (1 in 1,000 to 2 in 1,000)	53	29.4%
Medium-High (2 in 1,000 to 6 in 1,000)	11	6.1%
High (6 in 1,000 to 1 in 100)	67	37.2%
Very High (greater than 1 in 100)	8	4.4%



Coastal Flood

According to the analysis results, the majority of Teknosa locations are in the low-risk category in terms of coastal flood risk. In the base year, **90.6% (163 locations) of the locations are at a low-risk leve**l, and **9.4% (17 locations) are at a low-medium risk level.**

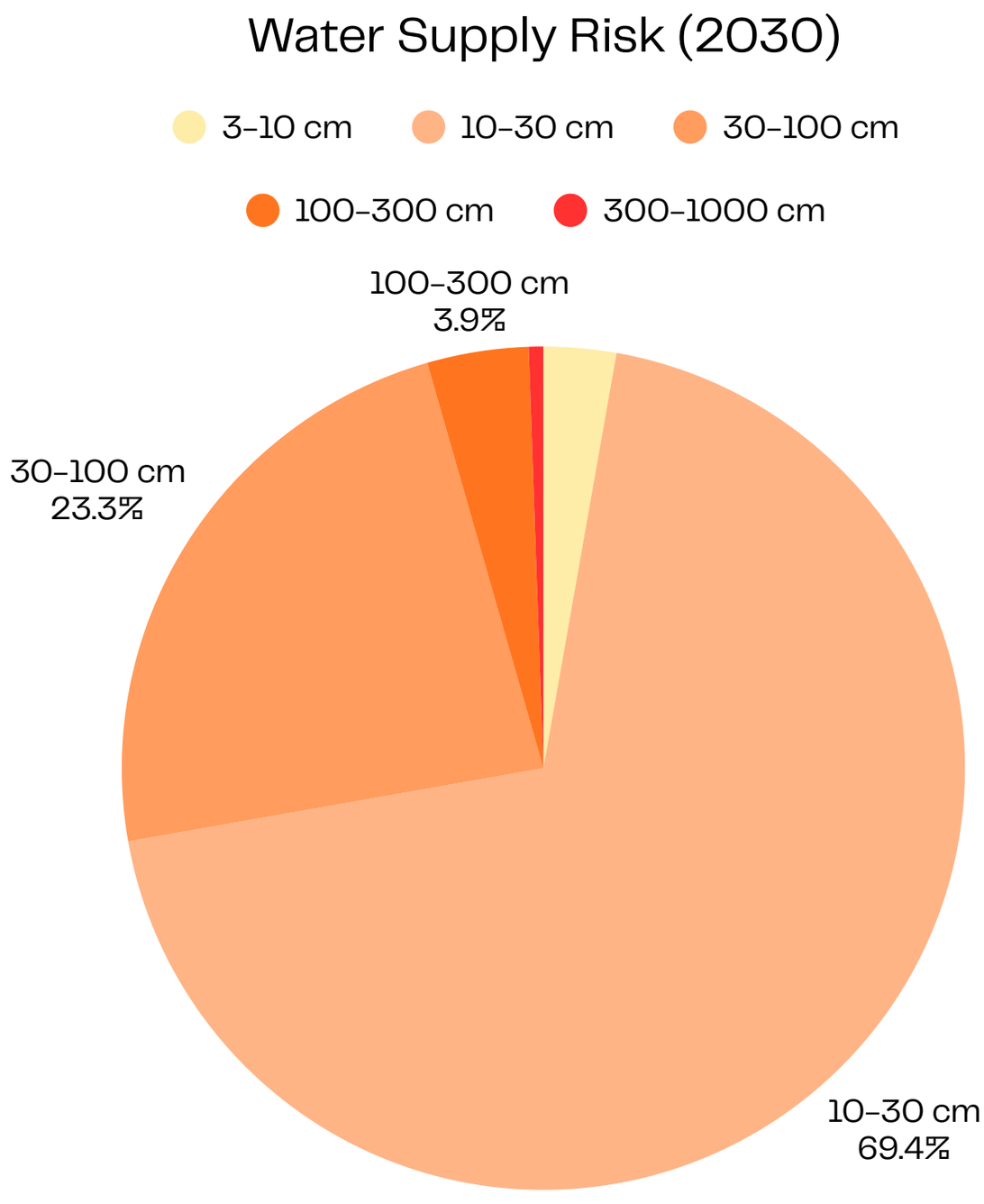
Coastal Flood Table	Number/Rate of Locations with Value	
Value	Base Year (2024)	
Low (0 to 9 in 1,000,000)	163	90.6%
Low-Medium (9 in 1,000,000 to 7 in 100,000)	17	9.4%



Water Supply

According to the analysis results, the majority of Teknosa locations are situated in regions with a medium level of renewable freshwater capacity in terms of water supply. In the **2030** projection, **69.4% (125 locations)** of the locations are in areas with an annual water supply of 10–30 cm, and this ratio is expected to remain at **68.3% (123 locations)** in **2050**. The proportion of locations in regions with higher water supply capacity remains limited (3.9% between 100–300 cm and 0.6% between 300–1000 cm as of 2050), and this situation indicates that the overall water availability remains balanced but at a sensitive level.

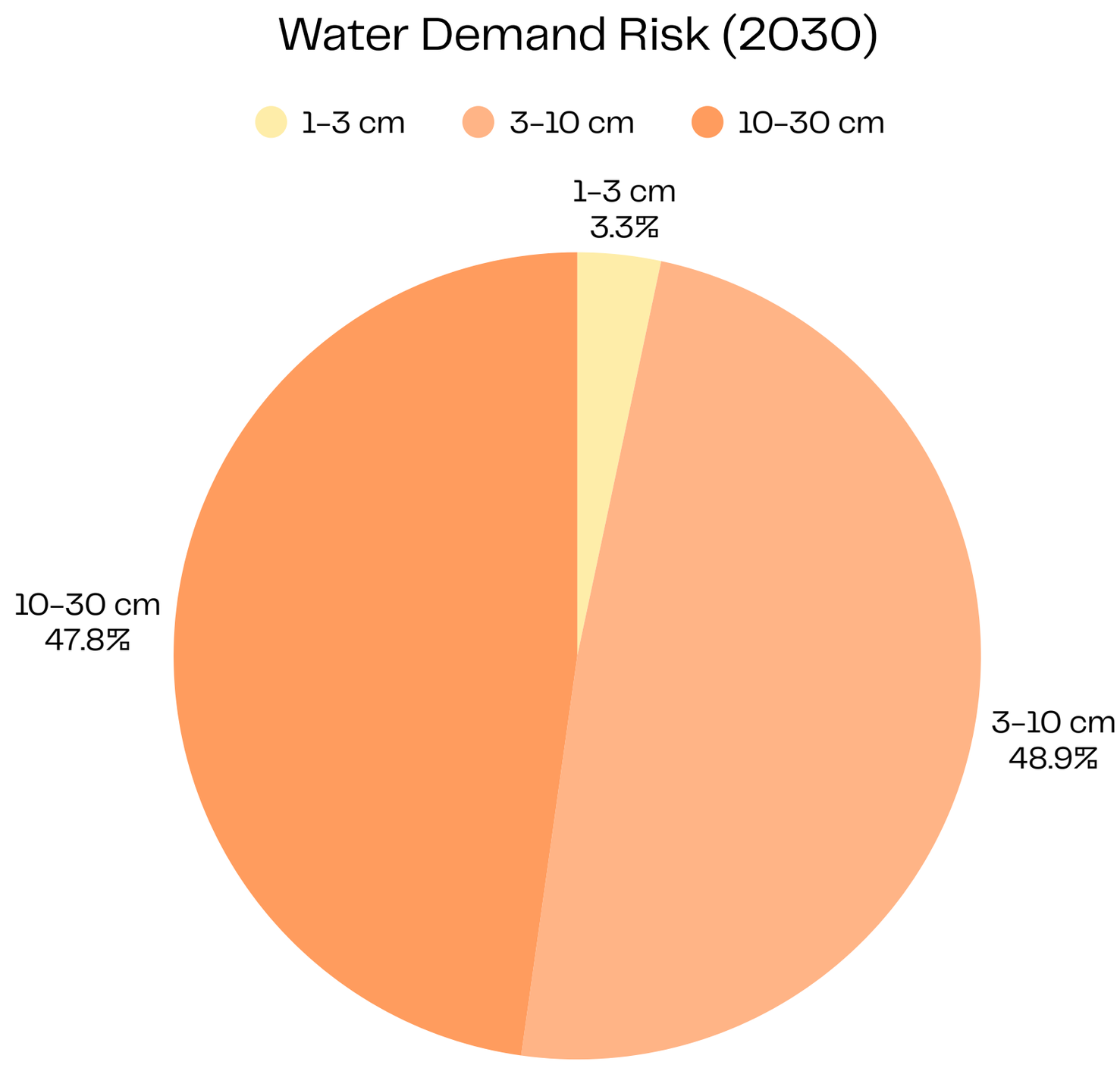
Water Supply Table	Number/Rate of Locations with Value			
Value	2030		2050	
3-10 cm	5	2.8%	10	5.6%
10-30 cm	125	69.4%	123	68.3%
30-100 cm	42	23.3%	40	22.2%
100-300 cm	7	3.9%	6	3.3%
300-1000 cm	1	0.6%	1	0.6%



Water Demand

According to the analysis results, the water demand levels of Teknosa's locations show a similar distribution in the 2030 and 2050 projections; however, it is observed that the demand tends to increase slightly over time. In **2030**, **48.9%** of the locations (**88 locations**) fall within the annual water demand range of 3–10 cm, while **47.8%** of the locations (**86 locations**) are within the 10–30 cm range. In the **2050** projection, the proportion of locations in the higher demand range increases to **57.8% (104 locations)**.

Water Demand Table	Number/Rate of Locations with Value			
Value	2030		2050	
1-3 cm	6	3.3%	1	0.6%
3-10 cm	88	48.9%	75	41.7%
10-30 cm	86	47.8%	104	57.8%



5. Conclusion and Evaluation

The results of the water risk analysis reveal that water-related risks across Teknosa's operational locations in Turkey show regional variations but are generally at a **high** level. Water stress and water depletion indicators, particularly in long-term (2050) projections, exhibit an increasing trend in risk levels; this suggests that climate change will likely intensify pressures on water resources over time. Although seasonal and annual water variability indicators generally remain at low-risk levels, the growing seasonal fluctuations emphasize the need for greater flexibility in water supply planning.

Indicators related to drought, flooding, and groundwater risk highlight that varying hydrological conditions across regions may have potential impacts on operational processes. In this context, regular monitoring of these risks and taking preventive or corrective actions in coordination with relevant departments, when necessary, are planned. Through this proactive approach to managing changes in water resources, the company aims to maintain operational continuity and strengthen its resilience to climatic conditions.

The total water withdrawals at store locations identified as being in high and very high water stress areas were evaluated, and their share in total water withdrawals was calculated. Within the scope of the analysis, Teknosa's total water withdrawal volume was determined as **32,948.99** m^3*. Considering approximately 5% losses due to cleaning, usage, evaporation, leakage, and other inefficiencies—excluding wastewater discharges the estimated water consumption was calculated as approximately **1,647.45** m^3.

Overall, this analysis enhances awareness of water management as a key component of Teknosa's sustainability strategy and provides a solid data foundation for strengthening climate resilience. The findings will guide future initiatives in climate adaptation, resource efficiency, and sustainable operations. Moreover, Teknosa regularly assesses physical climate risks and takes necessary actions and preventive measures when potential threats are identified, ensuring both operational continuity and environmental responsibility.

*Water consumption data for 180 locations have been estimated using assumptions. Reliable data on water consumption for stores located within shopping malls could not be obtained. Therefore, in the 2024 Integrated Report, only water consumption data from street stores have been considered, and the total water consumption has been reported as 10,659 m^3.

Trade Registry Information:

Trade Registry Number: 434426-0, Istanbul
Trade Name: Teknosa İç ve Dış Ticaret A.Ş.
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Disclaimer

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