

WATER STEWARDSHIP

Report on Water Performance of the Philip Morris
(Pakistan) Limited (PMPKL), Mardan



LAST UPDATE 10/2025



Water scarcity, the lack of sufficient available water to meet demands, is recognized by the World Economic Forum as the largest global risk in terms of potential impact for both humanity and the environment. Growing populations, economies, water-related risks as well as climate change have provoked an increase in demand, competition and conflicts over freshwater resources, that are becoming ever more limited.

Philip Morris (Pakistan) Limited (“PMPKL”) is an affiliate of Philip Morris International (“PMI”). PMPKL is public listed company incorporated under applicable laws with its Head Office in Karachi, a cigarette manufacturing factory in Sahiwal and green leaf threshing unit in Mardan. As part of PMI’s commitment to implement the Alliance for Water Stewardship (AWS), PMPKL is working to adopt a more sustainable water use both on-site and in the territorial context in which it operates. PMPKL’s GLT factory in Mardan is working towards achieving the Core Level of the AWS Certification: PMPKL Mardan will become the second Site in the Pakistan to receive this important recognition and have formalized its commitment to water stewardship principles and outcomes.

By implementing the AWS Standard, PMPKL Mardan is working towards offering a credible, globally-applicable framework for other major water users and Stakeholders in the catchment, with the scope of encouraging their understanding of water use, impacts and shared water-related risks. The long-term aim is to join forces and set fundamental stepping stones for synergic and meaningful collaborations towards sustainable water management practices within the local territory in which we all live and operate.

Over the upcoming years, PMPKL Mardan aims to progressively implement, improve ameliorate and grow its commitment as a water steward. PMPKL Mardan’s scope is to raise awareness on shared water-related challenges, such as degrading surface water quality, provision of safe Water, Sanitation and Hygiene (WASH), flashfloods and baseline water stress, and actively contribute to addressing these risks with projects, actions and campaigns in collaboration with relevant Stakeholders of the local territory.

Dealing with a shared resource, such as water, requires working in a transparent, collaborative and synergic way with relevant figures in a catchment area: actions and projects cannot be limited to a site’s physical boundary alone.

PMPKL Mardan factory is proud of this journey that it is undertaking and, although the path to build a sustainable future is still ongoing, the AWS Certification and related actions have and will continue to make a significant change in the management and perception of the water resource in Pakistan.

**The PMPKL Mardan Pakistan AWS
TEAM**

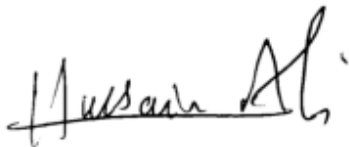
PMPKL Mardan's Commitment to water stewardship and AWS outcomes, signed by **Hussain Ali** - **Director Manufacturing Pakistan**, is illustrated below and available both in English and Urdu.

22nd July, 2024

PMPKL Water Stewardship Commitment

Philip Morris Pakistan Limited ("PMPKL"), as a result of its commitment to good water stewardship , undertakes to implement following measures at its Green Leaf Threshing plant situated at 22nd KM Mardan Swabi Road-Mardan:

1. Endorse, sustain and support the Alliance for Water Stewardship ("AWS") principles and 5 outcomes: i) good water governance, ii) sustainable water balance, iii) good water quality, iv) good conservation of important areas related to water, and v) safe water, sanitation and hygiene;
2. Engage and involve stakeholders in an open and transparent way;
3. Comply with any legal and regulatory requirements related to water;
4. Respect water-related rights, including ensuring appropriate access to safe water, sanitation, and hygiene for all persons at Site;
5. Support and coordinate with stakeholders (internal and external) for implementation of plans and policies, including working together to meet the right to water and sanitation;
6. Implement the AWS standard in alignment with existing catchment sustainability plans
7. Improve and continually adapt the actions and plans for water stewardship of the Site in order to mitigate shared water related risks;
8. Implement and disclose-progress on water stewardship programs to achieve improvements in AWS water stewardship outcomes
9. Maintain the organizational capacity required to successfully implement the AWS Standard, through necessary resources required to accomplish the implementation and maintenance of requirements of the AWS Standard i.e., improving water quality, water sanitation and hygiene, reduce water wastage, etc.
10. Disclose relevant information related to water.



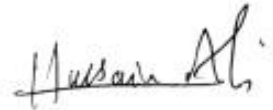
Director Manufacturing, Pakistan
Hussain Ali

22 جولائی 2024

پی ایم پی کے ایل واٹر اسٹیورڈشپ کا عزم

فلپ مورس پاکستان لمیٹڈ ("پی ایم پی کے ایل") پانی کی اچھی دیکھ بھال کے عزم کے نتیجے میں، 22 ویں کلومیٹر مردان صوابی روڈ۔ مردان میں واقع اپنے گرین لیف تھرسنگ پلانٹ میں مندرجہ ذیل اقدامات پر عمل درآمد کا عہد کرتا ہے:

- الائنس فار واٹر اسٹیورڈشپ ("ایے ڈبلیو ایس") کے اصولوں اور 5 نتائج کی توثیق، برقرار اور حمایت: (1) اچھی پانی کی حکمرانی، (2) پائیدار پانی کا توازن، (3) پانی کا اچھا معیار، (4) پانی سے متعلق اہم علاقوں کا اچھا تحفظ، اور (5) صاف پانی، صفائی ستھرائی اور حفظان صحت؛
- اسٹیک ہولڈرز کو کھلے اور شفاف طریقے سے شامل کریں اور شامل کریں۔
- پانی سے متعلق کسی بھی قانونی اور ریگولیٹری تقاضوں کی تعمیل کریں۔
- پانی سے متعلق حقوق کا احترام کریں، بشمول سائٹ پر تمام افراد کے لئے محفوظ پانی، صفائی ستھرائی اور حفظان صحت تک مناسب رسائی کو یقینی بنانا۔
- منصوبوں اور پالیسیوں کے نفاذ کے لئے اسٹیک ہولڈرز (اندرونی اور بیرونی) کے ساتھ تعاون اور، بشمول پانی اور صفائی ستھرائی کے حق کو پورا کرنے کے لئے مل کر کام کرنا؛
- موجودہ کیچمنٹ پائیداری کے منصوبوں کے مطابق ایے ڈبلیو ایس معیار کو نافذ کریں
- مشترکہ پانی سے متعلق خطرات کو کم کرنے کے لئے سائٹ کے پانی کی دیکھ بھال کے لئے اقدامات اور منصوبوں کو بہتر بنانا اور مسلسل ڈھالنا؛
- ایے ڈبلیو ایس واٹر اسٹورڈشپ کے نتائج میں بہتری حاصل کرنے کے لئے واٹر اسٹیورڈشپ پروگراموں پر پیش رفت پر ایک رپورٹ شائع کریں اور شائع کریں۔
- ایے ڈبلیو ایس اسٹینڈرڈ کے نفاذ اور ضروریات کی دیکھ بھال کے لئے ضروری وسائل کے ذریعے ایے ڈبلیو ایس اسٹینڈرڈ کو کامیابی سے نافذ کرنے کے لئے درکار تنظیمی صلاحیت کو برقرار رکھنا یعنی پانی کے معیار کو بہتر بنانا، پانی کی صفائی اور حفظان صحت کو بہتر بنانا، پانی کے ضیاع کو کم کرنا وغیرہ۔
- پانی سے متعلق متعلقہ معلومات کا انکشاف کریں۔



ڈائریکٹر مینوفیکچرنگ، پاکستان

حسین علی

فلپ مورس (پاکستان) لمیٹڈ

22nd کے ایم مردان صوابی روڈ۔ مردان

www.philipmorrispakistan.com.pk

Water-related internal governance

Organizational chart



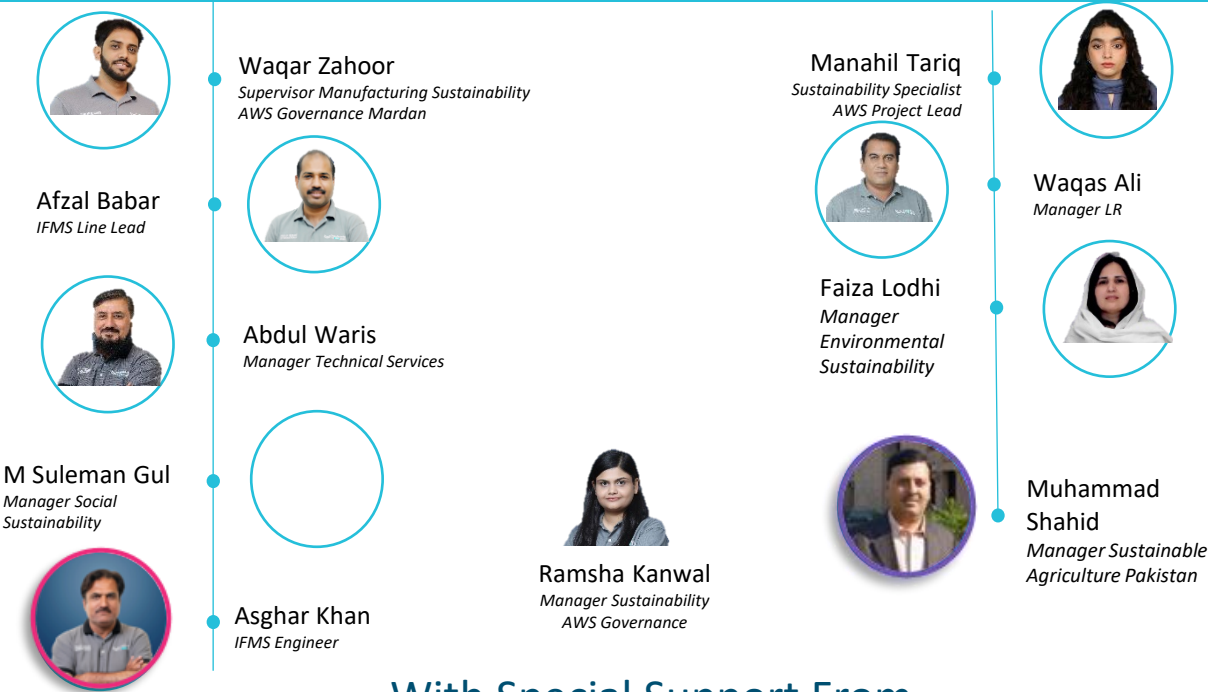
In Philip Morris Pakistan Limited (Mardan plant), the **internal governance** for **water management** involves several key positions **responsible** and **accountable** for water management activities as well as compliance obligations with **water-related laws** and **regulations** within our premises.

Our water-related internal governance team is committed to ensuring responsible and sustainable use of our water resources, compliance with relevant standards, laws and regulations, as well as mitigation and prevention of potential water-related risks within our premises.

The **organizational chart** of the water-related internal governance team well as their **roles** and **responsibilities** are illustrated below:

Hussain Ali
Director Manufacturing

PMPKL GLT Mardan



With Special Support From

Kulsum Khan
Legal Counsel

Chiara Rizzi
Manager Global AWS Certification
& Env.

Pinto Irene
Director Global EHS

WE CARE

WE ARE BETTER TOGETHER

WE ARE GAME CHANGERS

Water-related internal governance and stewardship

Roles and responsibilities



<i>Director Manufacturing</i>	• Ensures implementation of AWS procedure and prompt response to complaints • Ensures that AWS Commitment is in place • Sponsor of the project
<i>Manager Sustainability</i>	• Ensures Environment, Health and Safety compliance and governance within the organization • Main sponsor of sustainability projects • Promotion of sustainability best practices within the organization • Share water challenges with site leadership team
<i>Sustainability Specialist</i>	• Leads Alliance for Water Stewardship Team • Consolidation of gathered evidence and preparation for Audit • Development, review and evaluation of WSP • Ensures compliance with legal, PMI requirements and AWS Standard Requirements • Ensures that water balance, KPIs are in place • Liaises with regulators, internal and external stakeholders • Reports disclosure • Identifies opportunities for improvement and initiatives targeting 5 main outcomes • Identifies and ensure that water related improvements and initiatives are done as per WSP • Ensures that any water related incident are investigated and actions are taken to mitigate and prevent recurrence • Coordinates the preparation of water related meetings and workshops • Sites that are allowed to - Interacts with institutional stakeholders for water related project in the catchment area
<i>IFMS Engineer</i>	• Executes site water balance and identifies WEI/KPIs • Ensures legal compliance (work permit, drinking water sampling, etc.) • Ensures that the wastewater treatment plant and /or other water related infrastructures are running effectively and efficiently • Leads investigation of water and wastewater related non-conformities • Works with the all departments to identify water-related improvement actions • Cooperates with the Sustainability Department in the water glidepath preparation

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Water-related internal governance and stewardship

Roles and responsibilities



<i>Project Engineer / IFMS Engineer / LEAF (IFMS or LEAF are responsible where Project Engineer is not established)</i>	• <i>Prepares project business case</i> • <i>Prioritizes projects and ensures budget approval</i> • <i>Leads project execution to be within the agreed schedule</i> • <i>Coordinates contractor activities</i>
<i>Internal Communications</i>	• <i>Leads internal communications masterplan</i> • <i>Coordinates with Sustainability and Project department in the preparation of water related internal communications, campaigns and events</i>
<i>External Affairs</i>	• <i>Leads External Communication with key stakeholders (industrial & institutional)</i> • <i>Support the preparation of water related webinars and external workshops</i> • <i>Engages institutional stakeholders for water-related project in the catchment area</i> • <i>Liaises with regulators and external stakeholders (industrial and institutional) - EA actively collaborates with EHS (communication to the authorities, charity contribution, social contribution, etc.)</i> • <i>Coordinates external communication activities through socials and corporate website</i>
<i>Manufacturing Representative</i>	• <i>Ensures that Manufacturing process water consumption is under control</i> • <i>Leads water related overconsumptions investigation and prepares dedicated action plan</i> • <i>Identifies water-related improvement actions in Manufacturing processes</i> • <i>Define Manufacturing Equipment Water settings and ensure to be under control</i> • <i>Support water related improvement actions in Manufacturing processes</i> • <i>Collaborates with IFMS and Sustainability department regarding water-related topics (consumption, overconsumption, leakages, incidents, etc.)</i>
<i>Corporate Digital Executive (optional)</i>	• <i>Coordinates external communication activities through socials and corporate website</i>

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Water-related internal governance and stewardship

Roles and responsibilities



This document must be reviewed annually or in any case of change.

Version	Responsible	Effective date	Reason of revision
1.0	Jovan Piljevic	June 2025	Document creation
1.1	Manahil Tariq	September 2025	Document Application on PMPKL with R&R for site

WE CARE

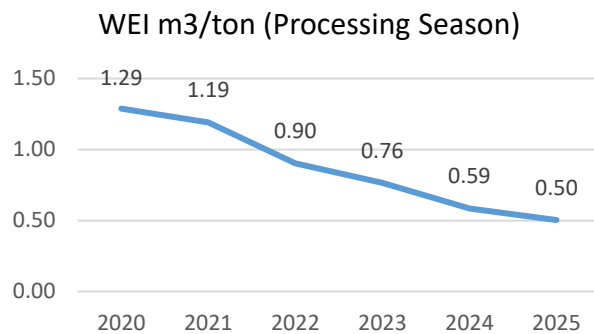
WE ARE BETTER TOGETHER

WE ARE GAME CHANGERS

The progressive and on-going AWS Standard implementation in PMPKL Mardan is leading to the implementation of two types of initiatives:

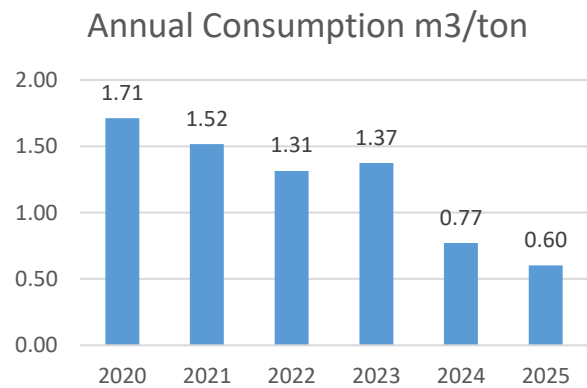
- **Social actions**, which include participation in synergic community-based projects, gathering water-related data to assess water risk hotspots and prioritize mitigation actions, as well as engagement activities with local Stakeholders, such as the execution of awareness workshops, best-practice sharing and feedback requests
- **Technological actions**, which include implementation of water saving technologies, settings and related best practices, which resulted in an immediate benefit due to the reduction of the amount of potable groundwater removed from the catchment territory

In PMPKL Mardan, improvements in water-saving performances are traced and tracked via a water-dedicated KPI, based on **m³ per ton of packed tobacco** and WEI water efficiency index



As illustrated above, from 2020 to 2025 PMPKL Mardan has **reduced its WEI from 1.3 to 0.50 m³/ton packed (Processing Season)**.

This accounts for a water consumption reduction of approximately 0.28 m³/ton in 2023 vs 2024 and 0.09 m³/ton from 2024 to 2025 in terms of water consumed per ton of packed tobacco.



It is evident from the figure shown that substantial water savings are done by implementing innovative solutions ie like Condensate recovery, closure of redundant water points and leakages, installing sub flow meters for better governance, locking system of water taps at lawns, rain harvestors to name a few. This has resulted in further reduction in water consumption from 2024, after sustaining the advancements made from 2023 onwards.

WATER RISK ASSESSMENT



PMPKL Mardan conducted a detailed water-risk assessment by use of both global and local data sets in order to identify the main water-related challenges that the factory is subjected to, as well as those shared by catchment stakeholders.

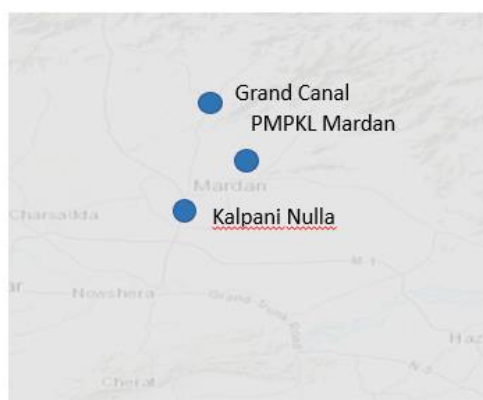
The higher ranking risks in the catchment territory are directly linked to **surface water quality deterioration, increase in flashfloods** and **lack of adequate WASH availability**.

In the next few pages of this report, PMPKL Mardan will share some of the best practice actions, campaigns and projects that are aiming to make a difference.

Flood Occurrence



Drought occurrence



Water Quality



The scope was to develop a reliable and integrated water stewardship strategy plan by:

- identifying water-related risk hotspots
- focusing responsive actions to address higher water risks
- anticipating, when possible, trends and impacts

Higher and more cataclysmic water risks for PMPKL Mardan and its catchment context appeared to be related to flooding and predicted increase as well as degrading freshwater quality.

AWS Performance Update - Social

Water-related actions in PMFTC Marikina are focused on the 5 AWS outcomes of the AWS Standard:



GOOD WATER
GOVERNANCE



SUSTAINABLE
WATER
BALANCE



GOOD WATER
QUALITY
STATUS



IMPORTANT
WATER-RELATED
AREAS



SAFE WATER,
SANITATION
AND HYGIENE
FOR ALL (WASH)



Water Quality Tests – Catchment:

1. Drinking water at Local Hospital (Al-Khidmat)
2. Discharge sites (Kalpani Nulla & Stepa Canal)

Monitoring of critical parameters such as pH and microbial count – year on year analysis.



Clean up activity at important IWRAs

Ensuring safeguarding, maintaining and cleaning of important water resources through collaborating with stakeholders such as Al-Khidmat Hospital, WSSCM, Rescue 1122 and local community.

An awareness session was held with local population near Stepa Canal. Fixed waste bins and board was installed to spread awareness on waste disposal and cleanliness.



1. Stepa Cleaning Drive - 19th May 2025
2. Kabul River Cleaning Drive - 20th May 2025
3. Kalpani Cleaning Drive - 20th May 2025
4. Stepa and Kabul River Clean up activity - 8th Sept 2025 – Post flooding assessment



Before



After



AWS Performance Update - Social



Engagements with Farmer Community

Land Leveler – Combating Water Scarcity: 881 hec land covered (618 Farmers)

Total Water saved: 514017 m³ (Basis: 430 m³/hec)

Laser Land Levelers were provided to tobacco growers in Swabi region in Mardan TGA to level their lands and better distribute soil moisture leading to more efficient irrigation, more water saving and increase in crop production.



Sapling provision to woodlot farmers: 737 Farmers (200k Saplings in Feb and March)

Planting indigenous tree species at farmer premises to prevent flooding, ensure sustainable water balance and increase self sufficiency considering forest cuttings for fuel wood.



Fruit Trees Plantations: 10,144 fruit trees

The Fruit Tree Distribution project aims to boost agricultural diversity, promote environmental sustainability, and uplift farmer livelihoods with additional income sources and reducing carbon emissions.



AWS Performance Update - Social

Waste collection & disposal: Incineration certificate: 5724 tons

Waste was identified as a catchment risk in polluting water bodies. Collection, segregation and disposal off hazardous & nonhazardous waste from farmer premises.



WASH at farmer premises:

WASH facilities (Wash basins, Water bores, Water Filtration units, Washroom accessories, Wash tanks_ installed at farmer premises to improve hygiene and sanitation, good water governance in coordination with local community, Al Khidmat, WSSCM, irrigation and AWS team.



Access to farmer families – Health Hygiene and Water Governance:

Targets women household members of the contracted farmers and their workers, with the aim to raise awareness among them on key sustainability topics including *safe use of water* and water conservation, health and hygiene, child labor, workers rights and other ALP principles. Targets 100% contracted farmers. Program run from Feb 2025 to August 2025.



AWS Performance Update - Social

Women's Skill center:

Engagement with local women and adolescents in farmer families in Swabi, Mardan, Charsadda, Layyah and DAC areas to equip them with skills other than tobacco farming to improve their livelihoods. 450 women targeted in 32 centers.



Hygiene Day: October 2025

To improve safe water, sanitation and hygiene for all (WASH) and equip local women with the necessary sanitary products to prevent the spread of contagious diseases



Engagements with Farmers – Water Saving campaign:

As part of raising awareness on Agriculture Labor Practices ("ALP") of PMPKL contracted tobacco farmers were also made part of several water related campaigns particularly targeting reduction.



Awareness session at Shergarh



Sensitization and Mobilization Activity for water saving at Shergarh



Sensitization and Mobilization Activity for water saving at Jamal Garhi



Sensitization and Mobilization Activity for water saving at Sarderi

AWS Performance Update - Social



Awareness sessions & engagements with farmers - Waste collection campaign for plastic reduction:

NTRM (plastics and other waste) is a major pollutant in water bodies and tobacco. Several awareness sessions, community engagements and waste collection campaigns were carried out with farmers.



NTRM removal from tobacco fields



NTRM Collection at Turlandi Charbagh



Community walk Charbagh



NTRM removal from Tobacco Barn inside homes



Session on NTRM Removal at Shahmansor Ambar



Session Waste Collection and disposal



Water Governance and Challenges Connect - Stakeholders:

Stakeholder exercise and engagement carried out in October at PMI factory to promote good water governance as a vital step toward sustainable water balance.



Meet & Greet

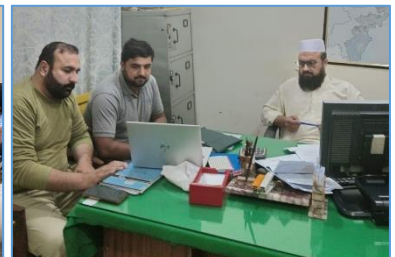
Introduction & Awareness Session on AWS, its 5 outcomes

Risks & shared Challenges, collaboration on initiatives

Feedback Survey & Performance feedback

Discussion on the Government Projects done or planned

Sessions conducted on 7th & 9th of October 2025



AWS Performance Update - Social



Tree Plantation at IWRAs - Karamir Forest: May 2025

Engagement with local farmer community, village organizations, WSSCM, Al-Khidmat, irrigation department and AWS team to curb the effects of deforestation and improve soil water content.



Rainwater harvesting for gardening:

Made operational in 2025. Rain from the roofs of warehouses is collected in intermediate tanks which is then transferred to the main storage tank (87000 liters). Water stored is used for gardening, reducing dependence on ground water. Improves water governance.



Intermediate tanks



Old furnace oil tank – Rainwater storage

AWS Performance Update - Social

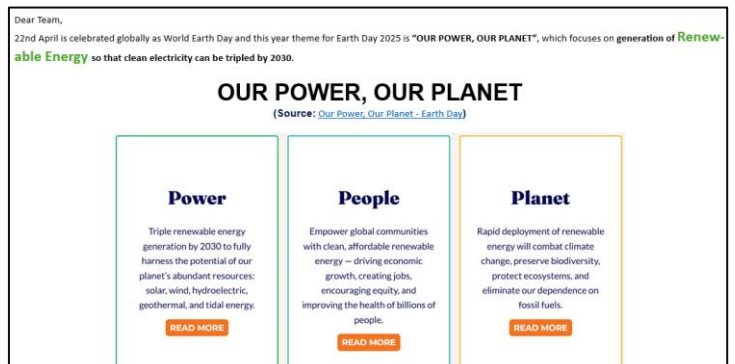
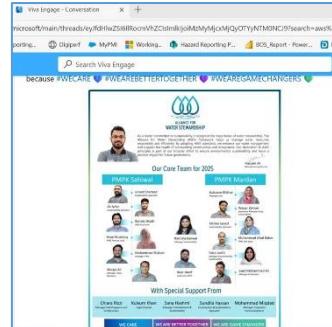


Water Related Campaigns with Employees

PMPKL Mardan conducted several internal awareness campaigns on water-related themes in relation to their water stewardship Commitment and AWS Certification journey. Employees were engaged in numerous activities:

- Water-related information sharing via email, posters and dedicated posts on internal communication channels
- Collection of water-saving best practices and amelioration proposals.
- **World Water Day – March 2025**
- Dedicated workshops/meetings and water-related information request to outsource service providers, infrastructural agencies
- Water conservation art contest for employee children
- **World Earth Day – April 2025**
- Focus on Plastic Pollution, Water Pollution, Afforestation and Sanitation
- Sessions with Stakeholders on Indirect water usage.

The scope was to disclose water-related challenges and increase employee sensibilization and responsibility regarding water-related themes, both at home and in their workplace.



AWS Performance Update - Social



Water Related Campaigns with Employees

Environment day – 25th August:

- AWS and water conservation session conducted with GLT team.
- A quiz was held on AWS training, winners were distributed with gifts containing sustainable products (water bottles to eliminate single use plastics)
- Plantation booth set up - 500+ seeds and 100+ plants handed out for self plantation
- World environment day pouches in reusable tote bags
- Pledge cards signed

DAY 1: ENVIRONMENT DAY	
Khyber room	9:30 - 11:00
• Safety Week Training (AWS + Technical Safety) • Kahoot	
Zen Zone	12:30 - 2:00
• Team games: Minute to win it challenges • Pushup challenge (Dept wise) and Prizes • Plantation pouches	

World Environment Day '25



Goody Bags



Self-plantation



I Pledge

Water Saving Campaign:

Carried out in June-July – peak water consumption months.

Site visualization improved, better WASH for all.

Improvement in water saving and addressing leakages on site.



AWS Performance Update - Social



Flood, Storm and Rain Management with Infrastructure agency – 1122 drills and training – September 2025

PMPKL collaborated with infrastructure agencies (1122) to arrange an On-Site Training for Flood, Storm and Heavy Rain Management. 1122 is a key stakeholder that address challenges related to public and community.

1122 also provided trainings on First Aid, Fire fighting. Site shared its water stewardship plan and disclosed the progress on water performance, taking valuable feedback from a key stakeholder.



Awareness sessions with 3P workers, seasonal staff, service providers, suppliers and vendors

Session covered:

- AWS and its 5 outcomes
- AWS policy and commitment
- WASH
- Anti littering, keeping environment & water areas clean
- Importance of safe and clean water for a healthy life
- Good practices to save water
- Water usage by service providers, Water KPIs & mitigation measures



AWS Performance Update – Social/Technical



WASH improvements at site

- Upgradation of worker washroom
- Upgradation of office washrooms
- Upgradation of ablution area
- New ladies common room and attached washroom for ladies

Canteen – Wash basin revamp



Male washroom revamp



Water cooler with greater capacity



Ladies washroom in common room



Upgradation of ablution area



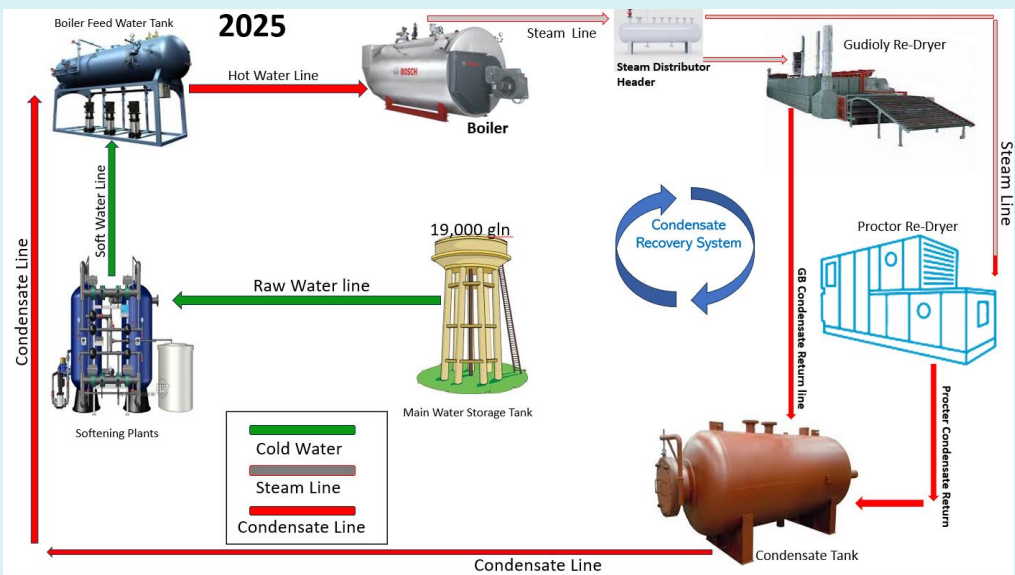
Upgradation of worker washroom



AWS Performance Update - Technical

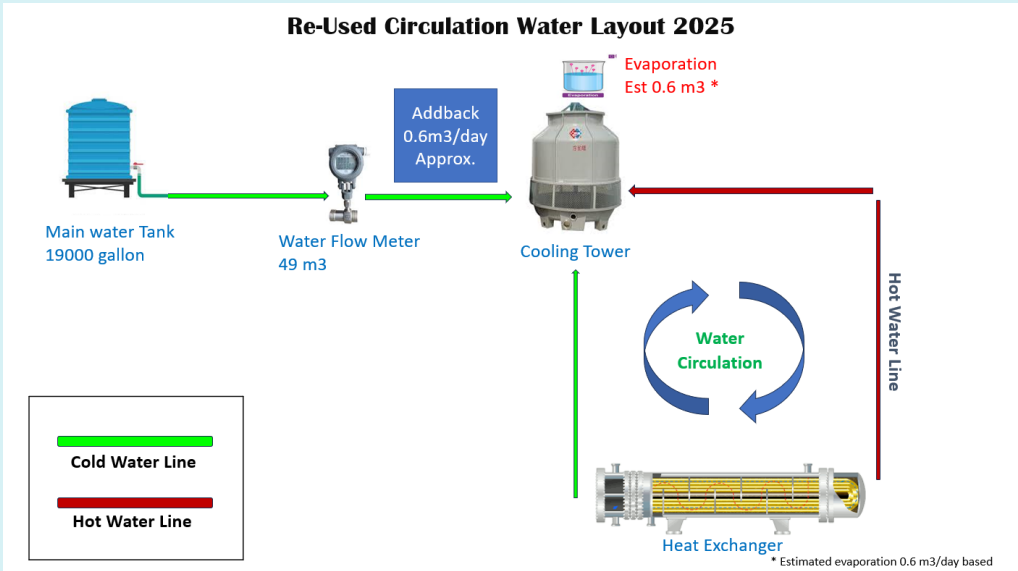


Steam Condensate Return Layout for GB & Proctor Re-Dryer:
40% water recycled as recovered condensate.



Closed Circuit Water Circulation: Hydraulic Press Heat Exchanger to Cooling tower

Addition of cooling water to circuit leads to less water wastage as water can be recycled back to heat exchanger after cooling.



AWS Performance Update - Technical



Installation of new water flow meters:

Improvement in addressing water balance inconsistencies.



Old meters



Main meter



Tubewell 1 meter

Further technological solutions to reduce water consumption:

- Promptly identified and rectified water leakage points in washrooms (office blocks, staff toilets) canteen wash basin, ablution area
- Close redundant/extra water consumption points
- Locking System of Water Taps
- Extra water lines removed from main header and lawn 1 lines
- Washroom flush tanks water storage capacity reduced

New Projects Proposed for 2026:

- Feasibility of not in use water well to be converted to charging well to utilize rainwater for effective ground water table recharge & watering lawn and in case of heavy rain
- Piping infrastructure upgrade in lawns by installing sprinklers to minimize freshwater usage
- Water filtration unit installation in collaboration with PHED at local hospital/GLT front wall (For Local Community)
- Washrooms accessories installation to support in adequacy of WASH in schools and community
- Feasibility study of WWTP installation at GLT
- Recycled wastewater mapping to be carried out
- Drain Integrity test of GLT & surrounding drains, tanks, pipelines
- Ablution water storage and reuse for gardening purpose on site
- Auto trap installation at Godiali redryer condensate line

We hope you enjoyed a piece of our water stewardship
journey towards a more sustainable future in Mardan,
Pakistan

