

National Interpretation Guidelines (NIGs) for Sustainable Rice Platform in Pakistan



Version 1
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Developed By

National Task Force on NIG Development Pakistan

Convened by SRP National Chapter Pakistan, Helvetas and Pakistan Basmati Heritage Foundation (PBHF)

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- Helvetas Swiss Intercooperation

The National Interpretation Guidelines include a list of contributors at the end of the document for a reference. Their contribution is sincerely acknowledged.

Pakistan's rice sector plays a critical role in food security, rural livelihoods, export earnings, and climate resilience. As sustainability expectations continue to evolve globally, there is a growing need to align rice production systems with internationally recognized standards while ensuring relevance to local farming realities.

The Sustainable Rice Platform (SRP) Standard provides a globally recognized framework for sustainable rice cultivation. However, implementation of the standard requires contextual interpretation that reflects Pakistan's unique agroecological conditions, policy frameworks, institutional arrangements, and farmer practices. These National Interpretation Guidelines (NIGs) have been developed to support the practical implementation of the SRP Standard for Sustainable Rice Cultivation within Pakistan.

The NIGs are the result of a participatory and multi-stakeholder consultation process led by the SRP National Chapter Pakistan in collaboration with government institutions, private sector actors, research & academia, civil society organizations, farmer representatives, international partners, and development organizations. The process included national consultations and technical working sessions conducted during 2025, where stakeholders reviewed existing policies, implementation mechanisms, field realities, and sustainability challenges relevant to Pakistan's rice sector.

These guidelines are intended to:

- Support farmers, implementers and value chain actors in understanding and applying SRP requirements within Pakistan's context.
- Align SRP implementation with national and provincial agricultural, environmental, labour, and water management policies and realities.
- Promote climate-smart, resource-efficient, and socially responsible rice production practices.
- Strengthen Pakistan's position in international markets by improving sustainability performance and traceability.
- Encourage continuous improvement through practical, locally adapted, efficient, and appropriate solutions.

The NIGs should be used as a reference and guidance document alongside the officially approved SRP normative documents. In case of any inconsistency, the officially approved version of the SRP Standard, assurance requirements, and governance decisions shall prevail.

The **SRP National Chapter Pakistan** extends sincere appreciation to all institutions and individuals who contributed to the development of these guidelines, including the Asian Development Bank (ADB), Helvetas Switzerland, Faisalabad Agriculture University, provincial Agriculture departments of Punjab and Sind, and Pakistan Agriculture Research Council for supporting the consultation process and technical engagement. In addition, the technical support extended by EU financed project – Capacity Development for Socially Diligent Agribusinesses (CSDA) and its partners – is also acknowledged in elaborating social aspects of NIGs.

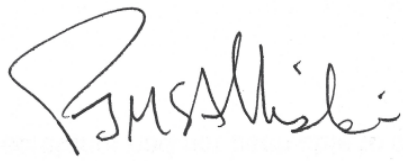


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National Interpretation Guidelines (NIG) provide local SRP tools to implement the SRP Standard in particular host country. SRP acknowledges the Pakistan National Interpretation Guideline (NIG), version 1.0, dated March 2026, as a reference and guidance for rice cultivation in Pakistan.

The NIG is intended to support local understanding, adaptation, and implementation of SRP-aligned sustainable rice cultivation practices within the Pakistan's context, including for training activities, development initiatives, and climate finance-related programs. For further reference please refer to the SRP normative documents for SRP assurance, verification, audit, or compliance assessment purposes.

NIG will remain a dynamic process to remain contextually relevant. Whenever there is revision to the SRP normative documents or national policies in Pakistan, the content of an NIG may also require revision to maintain future alignment with formally approved SRP requirements. In the event of any inconsistency, officially approved SRP normative documents and governance decisions shall prevail. For further information on SRP Standard and assurance practices, contact info@srpglobal.org.

A handwritten signature in black ink, which appears to read "Peter McAllister". The signature is written in a cursive, flowing style.

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Background

The Sustainable Rice Platform (SRP) is a global multi-stakeholder alliance co-convened by the United Nations Environment Programme (UNEP) and the International Rice Research Institute (IRRI). The SRP promotes sustainable rice cultivation practices that improve productivity, profitability, environmental sustainability, and social responsibility.

In Pakistan, the process for developing National Interpretation Guidelines (NIGs) began following the launch of the SRP National Chapter in 2023 and subsequent stakeholder consultations involving representatives from government agencies, research institutions, private sector companies, development organizations, academia, and farmer groups.

The consultations reviewed Pakistan's national and provincial policies, implementation mechanisms, and local farming practices in relation to the revised SRP Standard Version 3.0. The process identified key implementation gaps and developed locally relevant interpretation guidance and monitoring indicators for each SRP requirement.

Purpose of the NIGs

The purpose of these National Interpretation Guidelines is to:

1. Facilitate consistent interpretation of SRP requirements in Pakistan.
2. Provide practical and contextually fit guidance for implementation under local farming conditions.
3. Improve alignment with Pakistan's laws, regulations, and sectoral policies.
4. Support training, farmer capacity building, monitoring, and climate-smart, and efficient agriculture initiatives.
5. Enable scalable adoption of sustainable rice cultivation practices among smallholder and commercial rice farmers.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
Theme: Farm Management					
1. Planting Calendar	A written annual crop calendar is developed in advance for each cropping season. - This calendar should provide a comprehensive schedule, including expected implementation dates to guide farmers through all stages of rice cultivation. - The actual implementation should be recorded in farmer record as per requirement #2. - The calendar should be flexible and updated as needed to account for changing circumstances such as weather conditions or pest problems. The planting calendar should include the following key components: - Timely scheduling key activities such as land preparation, planting plot, planting date, harvest date and crop management activities. - Management of rice fertilizer application (e.g., division) and water management (e.g., irrigation). - Regular monitoring of pest threats and damage levels, including activities like surveying rice fields to identify and count pest species. - Planning for hiring labour or agricultural services such as agricultural machinery to ensure timely completion of tasks. - Incorporate plans for crop diversification (such as integrating legumes or implementing rice-fish systems). This promotes soil fertility, pest management, and farm resilience, aligning with multiple SRP Performance Indicators.	- The Punjab Agricultural Pests Ordinance 1959 and Rules 1960, Rule 4(1): prohibits sowing of rice nursery before 20th May. - Punjab Agriculture Policy 2018: Emphasizes planned crop management. - Sindh Agriculture Policy 2018–2030: Promotes improved cropping systems, especially under climate stress.	- Most smallholders do not maintain written calendars; they rely on tradition and memory. - Crop diversification, especially rice-fish integration or legume intercropping, is not commonly practiced in Pakistan's rice-producing regions. - Lack of templates and awareness about the benefits of structured calendars.	- Farmers shall prepare a locally adapted, flexible rice crop calendar for each season, either individually or with the support of agricultural extension services or IMS (Internal Management System) Staff, ensuring updates in response to changing climatic conditions, pest outbreaks, or irrigation availability. - The calendar shall be developed in simple written, pictorial or digital formats (in Urdu or regional languages). - Where rice-fish systems are not viable, diversification may be encouraged through crop rotation or alternate crops suited to local agroecological conditions. Actual implementation should be documented in farmer recordkeeping tools.	- Availability of written or digital crop calendar at farm level. - Calendar includes key activities: sowing, input use, harvest, pest control. - Evidence of updates made in response to weather or pest changes. - Diversification practices included (where feasible). - Linkage to farmer recordkeeping under Requirement #2.

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2. Recording and Preserving Information	Maintain records of rice growing activities for each season, including the actual implementation date of each activity. These records should include both basic information that is easily collected by farmers and include data at the intermediate information level which may require collection by IMS or external partners for more detailed data collection. The introduction of digital tools for data recording is encouraged but should be adapted to the local context to avoid exacerbating digital literacy gaps. Basic information (if applicable): 1. Size of farming area (in local units) 2. Seed variety 3. Production costs (including land, labour, seed, agrochemicals, water, services) 4. Number of irrigations during and after land preparation 5. Fertilizer applied (number of times applied, amount applied, synthetic or organic) 6. Pesticide applied (number of times applied, active ingredient, amount of pesticide per area, timing of application) 7. Amount of paddy harvested 8. Sales price of paddy Intermediate Information (if applicable): 1. Basic quantitative information should be converted to international units (SI system or units accepted by the SI system), such as hectares for area, kilograms for weight, litres for volume, and US dollars for expenses. 2. Basic quantitative data must be recorded with gender disaggregation. This enables	• Punjab Agriculture Policy 2018: Promotes data-driven decision-making and crop monitoring systems. • Sindh Agriculture Policy 2018–2030: Encourages farmer recordkeeping and digitization of agricultural services. • Khyber Pakhtunkhwa Agriculture Policy 2015 • Balochistan Agriculture Policy draft 2022	• Most smallholders do not formally document crop activities. • Farmers often lack exposure to farm diaries or recording templates. • Use of digital tools is minimal due to low digital literacy and lack of infrastructure in rural areas. • Data such as irrigation volume or organic input amounts are difficult to measure accurately. However, farmers can maintain record of water depth at different growing stages, which can be matched with recommended water depths. • Gender-disaggregated recordkeeping is rare. • Soil health analysis and systematic pest tracking are not practiced regularly.	• Farmers should be encouraged to maintain seasonal records of their rice cultivation practices using simple, locally adapted tools. These may include paper-based farm diaries, pictorial formats, or offline-enabled mobile applications, where feasible. Initial efforts should focus on capturing basic data, such as seed variety, area planted, number of irrigations, input use, yield, and sales. • Recordkeeping should be supported by IMS staff, especially where farmers face literacy or capacity constraints. Where intermediate or advanced information is required (e.g., gender-disaggregated cost data, estimated irrigation volumes), approximate estimates may be acceptable in the initial stages. • For soil health, if scientific testing is not affordable or accessible, farmers may be guided to record simple observations (e.g., soil color, texture, or organic content). Similarly, pest and nutrient management records may focus on the number of applications, active ingredients, and timing, with more technical indicators introduced over time through training and extension support.	• Availability of basic farm records per season (paper or digital). • Evidence of farmer training or support provided for recordkeeping. • Partial or full completion of recommended data points (basic/intermediate). • Gender-disaggregated entries (where applicable). • Farmer summaries of irrigation /fertilizer /pesticide application practices. • Record of adjustments made in response to prevailing weather conditions and extension advisories for justifying deviations from crop calendar, if any.

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	organizations to better understand the unique contributions and challenges of each gender within the production process, supporting more targeted and equitable interventions. In-depth Information for Analysis of Sustainable Practices (all items below must be recorded): • Water management: Recording irrigation water volume, total rainfall, the number of days of flooding, number, and duration of dry-down events. • Nutrient management: Including nitrogen (N) and phosphorus (P) analysis of fertilizers applied, and the amount of organic material incorporated into the soil. • Pest management: Recording pest damage data and the application of pest control products. • Training on separate washing for pesticide-contaminated clothing and awareness of chemical use guidelines is essential for wise pesticide use. • Soil Health: Farmers are encouraged to conduct scientific soil health assessments from certified labs, focusing on physical, biological, and chemical parameters. Points may be allocated to farmers who report on soil health assessments. • Other Topics: Any other relevant data that supports sustainable rice farming practices.			• Farmers should be encouraged to prepare at least a seasonal summary of their practices, even if daily logs are not feasible. As capacity grows, recordkeeping systems can evolve to capture more detailed, disaggregated, and standardized data, aligned with SRP monitoring needs.	
3. Training	The training plan should be gender inclusive, developed based on assessment results, including internal and external assessments, and tailored to farmers' needs while considering SRP compliance challenges.	• Agriculture Transformation Plan 2021–25 (Federal): Calls for upskilling of farmers and improving extension services.	• Training sessions are often supply-driven, not tailored to local SRP compliance gaps. • Gender-inclusive training is limited, especially for female workers and women farmers.	• SRP compliance requires that training be conducted by SRP Authorized Trainers. Where possible, for sessions on technical topics such as Integrated Pest Management	• Trainings conducted by SRP Authorized Trainers or domain experts under their supervision. • Training records maintained, including

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	A structured training plan must be in place, with training provided at least every three years to ensure calibration and refresh farmers' knowledge. To ensure quality and consistency, training must be delivered by SRP Authorized Trainers. Farmers are expected to apply the knowledge gained from these sessions in their farming practices. Training records must be maintained and made accessible for audits		• SRP Authorized Trainers are few, and many trainings are delivered by non-authorized facilitators. • Content on advanced practices (e.g., IPM, AWD, nutrient management) requires domain-specific trainers, which may not always be available locally. • Training recordkeeping is inconsistent.	(IPM), Alternate Wetting and Drying (AWD), nutrient management, or soil health, it is recommended that subject matter specialists be SRP Authorized Trainers from within the implementing company or organization. • If such trainers are not available, these sessions may be delivered by external domain experts (e.g., from the national chapter extension services, academia, research institutions, or NGOs) under the supervision or validation of an SRP Authorized Trainer to ensure quality and consistency. • Training programs must be based on assessed needs (both internal and external assessments) and tailored to address local SRP compliance gaps. The training plan must be gender-responsive, with adapted modules, flexible scheduling, and safe access for female farmers and workers, including provision of female facilitators where culturally necessary. • All training sessions must be recorded using simple, standardized formats. Records should include participant names, trainer details, topics covered, and date of training, and must be accessible for	participant names, gender, topics, dates, and trainer credentials. • Evidence of gender-inclusive training, such as separate sessions or female facilitation. • Farmers demonstrate application of knowledge in field practices, observed or self-reported.

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				SRP audits and internal monitoring.	
4. Innovative Climate Change Mitigation Technology / solution	Producers who implement and demonstrate the effectiveness of innovative technologies or methods that reduce greenhouse gas (GHG) emissions shall be recognized and rewarded. Eligible technologies or practices need to be: 1) not already included in the Standard. 2) has been approved by the SRP Technical committee (based on the data provided). 3) reduce GHG emissions and/or enhance carbon sequestration such as but are not limited to, improved water management, low-emission fertilizers, renewable energy sources, use of methanotrophs or other sustainable practices. For pre-approved technology, must provide verifiable data on specific technology or products and demonstrate the application as per solution provider/ government recommended protocol to address the climate change in accordance with SRP standards. This data must be made available for verification by auditors.	• Pakistan National Climate Change Policy 2021 • Punjab Climate Change Action Plan 2024 • Sindh Climate Change Policy 2022 These policies promote climate-smart agriculture, GHG mitigation, and innovation at the farm level.	• Adoption of innovative climate change mitigation technologies such as Alternate wetting and drying (AWD), low-emission fertilizer, etc. are emerging but still limited to pilots or donor-funded projects. • Farmers often lack access to financing and technical support for these innovations. • Monitoring of GHG outcomes is not integrated into regular extension or farm practice. • Most farmers are unaware of methane emission reduction practices.	Farmers should be encouraged to adopt and pilot innovative climate-smart practices that are not already covered under the core SRP requirements but have potential to reduce GHG emissions or enhance carbon sequestration. Examples include but are not limited to Alternate Wetting and Drying (AWD) with digital or manual tools, low-emission fertilizers, methanotrophs, , biochar and indigenous composting techniques. To be eligible for bonus recognition, such practices must either: • Be approved by the SRP Technical Committee, or • Be pre-approved practices for which the farmer or supporting organization provides verifiable implementation data following the protocol of the technology provider or relevant government recommendations. • Since many farmers may lack the technical capacity to collect or report detailed GHG data, implementation should be supported by IMS staff, third-party service providers, or technical partners. Baseline and follow-up data (e.g., photos, simple monitoring logs, observed changes in	• Documentation of innovative practice adopted. • Verifiable data submitted for SRP audit or third-party validation. • Farmers demonstrate understanding of climate impact and purpose of innovation. • Presence of recognition system or support mechanisms (where applicable).

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				water/fertilizer use) should be maintained and made available for verification. Where feasible, farmers using more than one innovative GHG-reducing practice may be awarded additional recognition points. For example: One bonus point may be awarded per verified climate-smart innovation.	
Theme: Pre-planting					
5. Food safety: heavy Metals	Farmers, farmer groups or business partners should assess the risk of soil contamination from heavy metals such as arsenic, cadmium, chromium, mercury, and lead. Milled grain shall be safe from heavy metals. Milled grain is safe when there are no detectable levels of heavy metals in the milled grain as set by international authorities on food safety, or by national law or regulations (whichever is stricter). In the presence of (risk of) soil contamination from heavy metals: 1. A group level soil analysis is conducted in contaminated areas at least every 5 years. 2. Soil remediation techniques are implemented	• Pakistan Food Safety Act 2011 • Punjab Pure Food Rules 2011 • Punjab Pure Food Regulations 2018 • Punjab Food Authority Act 2011 These laws regulate contamination thresholds for food, including metals such as arsenic and lead.	• Farmers do not routinely test for heavy metals in soil or rice. • Awareness of heavy metal risks is very limited, especially among smallholders. • Testing services exist but are underutilized. • Risk assessments and soil remediation protocols are not commonly practiced.	In locations where there is no known risk of heavy metal contamination, a group-level risk assessment shall be conducted at least once every five years. This assessment may include reviewing land history, water sources (e.g., canal vs. sewage), proximity to industrial zones, and any prior contamination reports. The assessment should be led by the IMS and documented for reference during audits. • In areas where a risk of contamination exists, such as fields located near industrial areas, tanneries, mining operations, or sewage-fed irrigation systems in peri-urban areas, targeted soil and/or grain testing should be conducted using government-approved or accredited laboratories. To support implementation:	• Group-level risk assessments conducted and updated every 5 years. • Soil or grain test reports available for high-risk areas. • Record of identified contaminated plots and remediation actions taken. • Farmer/IMS awareness materials distributed and used. • Existence of a contamination risk map maintained by IMS. • Audit records show compliance with national/international food safety limits.

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				- SRP implementers should collaborate with universities, agriculture departments, or food safety labs to offer low-cost or subsidized testing. - Where contamination is confirmed, soil remediation practices should be promoted, such as: - Organic matter incorporation - Bioremediation techniques - Field rotation or crop substitution: - Guidance materials in Urdu and regional languages should be provided to IMS and farmers to: Identify contamination risks: - Understand safe levels as per Pakistan Food Safety Act or Codex Alimentarius - Understand testing and remediation procedures: - SRP implementers should also develop and update a contamination risk map for the operational area, using available data from environmental authorities and field observations.	
6. Soil salinity	Farmers, farmer groups or business partners should assess risk of soil salinity The soil should have a salinity of not more than 3 dS m⁻¹, and the water should have a salinity of not more than 5 g L⁻¹.	- The Punjab Soil Reclamation Act 1952 - Punjab Water Act 2019 - Sindh Agriculture Policy 2018–2030 (addresses salt-affected soils and groundwater quality)	- Farmers often practice basic soil reclamation methods but lack awareness of modern techniques. - Salinity monitoring is infrequent or missing.	Farmers should assess the risk of soil and water salinity through periodic testing and field-level observation. As per SRP standards: The preferred soil salinity threshold is ≤ 3 dS m⁻¹	1. Group-level soil salinity assessment conducted at least once every 3 to 5 years, with documented EC values in dS/m.

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	In the case that the analysis results exceed the specified values, measures must be taken to reduce or adapt include: • Selection of salinity-tolerant varieties. • Monitoring of salinity in field water. • Management of salinity through maintained water pressure in the field • Management of inflow/outflow in quantity and timing to minimize salinity. • Expert advice and subsequent action.	• National Water Policy 2018: Promotes sustainable use of water resources and soil health restoration	• Auger hole technology, crop rotation, and controlled irrigation are not widely promoted. • Soil and water testing is rare, especially in smallholder regions. • Many farmers operate in salt-affected zones without using salt-tolerant varieties.	• The preferred water salinity $\leq 5 \text{ g L}^{-1}$. However, in Pakistan's irrigated rice-growing zones, particularly in parts of Punjab and Sindh, rice is often cultivated in soils with salinity up to 4 dS m^{-1}, which is considered acceptable under national agronomic guidance. Therefore, SRP implementers may allow a locally adapted threshold of $\leq 4 \text{ dS m}^{-1}$ provided: • There is no visible impact on plant health or yield. • Farmers are aware of long-term salinity risks. • Supporting documentation (e.g., yield data, soil test results, or advice from extension services) is maintained. • Group-level soil salinity testing should be conducted every 3 to 5 years, or more frequently in salt-affected areas. Where high salinity is detected, implementers should promote and document salinity mitigation or adaptation practices, such as: • Use of salinity-tolerant rice varieties. • Improved water management (timing, quantity, field water pressure). • Application of gypsum or organic amendments.	2. Water salinity testing conducted in areas with suspected saline irrigation sources; results recorded in g L^{-1}. 3. Records or maps showing identification of salt-affected areas within the project boundary. 4. Where salinity exceeds 3 dS m^{-1} but is below 4 dS m^{-1}, supporting justification (e.g., yield data, advisory notes, absence of visible crop impact) is documented. 5. Evidence of amelioration or adaptation practices in use, such as: • Use of salt-tolerant varieties • Gypsum or organic amendment application • Field drainage or water management improvements 6. Distribution or display of local language guidance materials on soil salinity and mitigation. 7. Records of training or awareness sessions conducted on salinity identification and management.

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				• Use of auger holes or controlled drainage to manage salt leaching. • Local partners, including extension services or soil testing labs, should support training, awareness, and provision of inputs for reclamation. • Awareness materials in Urdu/regional languages should be distributed to help farmers understand salinity thresholds, risks, and solutions.	
7. Land conversion and Biodiversity	Rice growing areas established after 2009 must not impact the environment by causing conversion within proposed native ecosystem sites, protected areas, Ramsar Sites (wetlands), primary forests, or secondary forests (native). • At the field level, producer or producer group must maintain and/or enhance site specific biodiversity elements, including In-field habitat / refuge • Field margins • Non-cropped area • Plant species which host beneficial natural enemies • Trees (replanted if harvested or felled, in the same catchment) There has been no conversion of described areas after 2009, and farming practices maintain and/or enhance site specific biodiversity and ecosystem services. In the case of individual large producer, must conduct an independent formal identification	• National Biodiversity Strategy and Action Plan 2015. • Punjab Environmental Protection Act 1997. • Punjab Community-Based Conservancy Rules 2023 • Sindh Environmental Protection Act 2014 These policies prohibit conversion of ecologically sensitive areas and promote biodiversity protection in agricultural landscapes	Farmers often lack understanding of biodiversity benefits. - Misconceptions persist, such as trees reducing yields, which leads to deforestation. - Tenants or short-term land users often clear non-cropped areas to maximize planting space. - No formal biodiversity assessments are conducted at the farm level. - Farmers rarely replant trees that are cut, and beneficial insect habitats are often destroyed.	Farmers and producer groups must ensure that no land used for rice cultivation has been converted from natural ecosystems, protected areas, wetlands (Ramsar Sites), or forests after Jan. 1, 2009. Verification should be based on land records, remote sensing, or farmer declarations cross-checked by IMS. To comply with SRP requirements, rice fields must be managed in a way that maintains or enhances biodiversity, including: • Preserving in-field refuges, field margins, non-cropped areas, and tree cover • Encouraging the presence of plant species that host natural enemies of pests	Evidence of no land conversion after Jan. 1, 2009, within protected areas, primary/secondary forests, Ramsar sites, or other native ecosystems (e.g., land ownership records, satellite imagery, farmer declarations). 1. Presence of a biodiversity checklist or monitoring form used by IMS or field officers to assess: • In-field refuges and uncultivated areas • Field margins and border vegetation • Presence of beneficial host plants

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	and risk assessment before the first soil systematization for rice production; and conduct a formal stakeholder consultation in accordance with Annex Bix, process to support the identification and risk assessment. In the case of group administrators of large producers, must adhere to the same rules as the individual large farms.			- Replanting trees when felled, especially within the same catchment area To support implementation: - Develop and use a simple biodiversity checklist for IMS and field officers to assess the presence of beneficial features (e.g., trees, hedgerows, native flora). - Conduct awareness sessions to counter local misconceptions, such as trees reducing crop yields. - For larger producers or land conversion projects, conduct a formal biodiversity risk assessment and stakeholder consultation in accordance with SRP Annex Bix and relevant environmental laws. - Encourage biodiversity-enhancing practices like intercropping, wildlife-friendly field boundaries, and tree planting initiatives, in collaboration with forest departments or NGOs. - Where farmers rent land or have short-term tenure, group administrators should ensure biodiversity protection commitments are included in lease arrangements or producer codes of conduct	- Existing tree cover and replanting (if trees were cut). - Records of training or awareness sessions conducted for farmers on biodiversity conservation (e.g., tree planting, habitat protection). - For large producers or land-use change projects: - Documentation of biodiversity risk assessment and stakeholder consultations, as per SRP Annex Bix. - Photographic evidence or field maps showing biodiversity elements (trees, margins, non-cropped zones). - Proportion of farms maintaining at least one biodiversity-enhancing feature (e.g., tree row, non-cropped strip, native vegetation patch). - Record of tree replanting activities, if applicable, with location and species noted

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8. Invasive species	No invasive species (e.g., water hyacinth, golden apple snail) have been introduced intentionally by the farmer or group since 2009. In the presence of invasive species, farmers or groups of farmers must manage to limit invasive species and protect local species.	- National Biodiversity Strategy and Action Plan 2015 - Pakistan Plant Quarantine Act 1976 - Punjab Invasive Species Rules (drafted under Environmental Protection Act) These frameworks provide guidance on invasive species control, plant protection, and monitoring of alien species.	- Invasive species like Parthenium, water hyacinth, and congress grass are spreading rapidly in rice-growing regions. - Farmers are aware of some common weeds, but overall knowledge of invasive species management is limited. - No formal removal or containment protocols exist at the field level. - Mechanical removal or chemical spraying is done inconsistently and without guidance.	Farmers and producer groups must ensure that no invasive species (e.g., water hyacinth, golden apple snail, Parthenium, or congress grass) have been intentionally introduced into rice fields, irrigation canals, or surrounding landscapes since January 1, 2009. Farmers must be rewarded with bonus points where invasive species were not intentionally introduced but they are actively managing to avoid spread of invasive species. Where invasive species are already present, farmers and groups must take active steps to manage and reduce their spread to protect biodiversity, crop health, and local ecosystems. These steps may include: - Mechanical removal (e.g., uprooting or cutting) - Controlled and safe chemical spraying, where appropriate and approved. - Community-level eradication efforts (especially for aquatic species) - To support awareness and compliance: - Develop and disseminate visual identification guides in Urdu and local languages, showing images of common invasive species in Pakistan's rice landscapes.	- Farmer declaration forms or group-level records confirm no intentional introduction of invasive species since January 1, 2009. - IMS or field facilitators maintain records of invasive species presence in fields or irrigation channels (e.g., Parthenium, water hyacinth). Visual identification materials (in Urdu/local languages) have been distributed to farmers and IMS teams. Evidence of invasive species control activities, such as: - Mechanical removal (e.g., logs, photos) - Chemical control with safety measures - Community-level clean-up campaigns - IMS monitoring templates include a section on invasive species and are regularly updated. - Documentation of training sessions or awareness meetings on invasive species recognition and control.

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				- Prohibit the intentional planting, rearing, or introduction of exotic or invasive species under any circumstances. - Integrate invasive species monitoring into IMS recordkeeping formats and track infestation areas over time. - Promote early detection and rapid response (EDRR) strategies at the group level, enabling collective action before spread becomes unmanageable. - Collaborate with agriculture and environment departments for technical guidance and disposal protocols. In case of high infestation, IMS should consult with plant protection departments or research institutes to develop localized management strategies.	- Early detection and rapid response (EDRR) actions recorded (e.g., reporting and control within a defined timeframe after detection). - Percentage of fields with visible reduction or containment of invasive species over time (if previously identified).
9. Levelling	Rice Cultivated on Flat Land or on Terraces: - If laser levelling is used, the land or terraces are levelled up to 1/1000 within-plot slope. - If laser levelling is not used, visual observation confirms that the field does not have high and low spots when filled with water (i.e., no undulating) and crop stand is uniform in height Rice Cultivated on Sloping Land without Terraces	- Punjab Agriculture Mechanization Policy (draft, 2020) - Sindh Agriculture Policy 2018–2030: Promotes resource-efficient mechanization, including laser levelling - Government-led subsidies and support programs are available in Punjab for laser land levelling equipment	- Laser land levelling is already practiced in many areas of Punjab and Sindh, particularly where subsidized machinery is accessible. - Smallholders often rely on traditional levelling, which may be imprecise. - Farmers may not fully understand the impact of poor levelling on water losses and uneven yields.	Rice Cultivated on Flat Land or Terraces: - Where laser land leveling is available, farmers should be encouraged to achieve a within-plot slope of $\leq 1/1000$, as per SRP standards. - In areas where laser leveling is not accessible (especially among smallholders), visual field inspections should confirm that fields are uniformly leveled with no	Rice Cultivated on Flat Land or on Terraces - Documentation of laser leveling use (e.g., service receipts, logbook entries, or photos of leveled fields). - Visual confirmation by IMS or field officer of no undulating spots when fields are flooded.

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	- Use physical methods to conserve soil such as planting rice across slopes (contour farming), creating lines to prevent soil erosion) - Utilize cultural soil conservation practices, such as non-invasive cover cropping and mulching, alongside horticultural methods like planting cover crops without invasive alien species and using mulch. These approaches work together to effectively conserve soil. Rice Cultivated on Rainfed Land - No levelling is required, but in the case of sloping land either physical (e.g., contour farming) or cultural (e.g., mulching) soil conservation practices are used.		Field depressions may persist where levelling is done hastily or without machinery.	visible undulations and with a uniform crop stand when the field is flooded. Farmers should be trained to identify high/low spots and improve manual leveling through traditional or mechanical tools. Rice Cultivated on Sloping Land without Terraces: For sloping land, soil conservation practices must be adopted. These include: Physical methods: Contour farming, bunds, contour lines, or small check dams to reduce runoff and erosion. Cultural practices: Non-invasive cover crops, mulching, and other low-impact vegetative soil protection methods. SRP implementers should ensure that invasive species are not used as ground cover. Farmers may be supported through demonstrations or with advice from agricultural extension officers. Rice Cultivated under Rainfed Conditions: On rainfed land, leveling is not required. However, if the land is sloping, either physical (e.g., contour bunds) or cultural (e.g., mulching, vegetative cover) soil conservation practices must be	- Uniform crop stand observed during early crop stages. - Farmers trained on manual or mechanical leveling techniques where laser leveling is not accessible. - Evidence of access to rental services or subsidy programs for laser leveling equipment (if applicable). Rice Cultivated on Sloping Land without Terraces - Field-level evidence of physical soil conservation measures, such as: - Contour planting - Bund construction - Contour lines - Use of non-invasive cover crops or mulching documented through field observations or farmer records. - IMS monitoring forms include a section on soil conservation on sloping land. - Farmers oriented or trained on slope-specific conservation practices. - No presence of invasive species used as ground cover.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
				used to reduce erosion and maintain soil health. To support adoption: Promote laser leveling through cooperatives or rental schemes, especially in Punjab where government subsidies are available. Field officers or IMS should check and document leveling quality during pre-season visits. Promote leveling + bunding as a combined package in SRP compliance training to reduce water loss, improve fertilizer distribution, and support even crop establishment.	Rice Cultivated on Rainfed Land: - Confirmation that no leveling is practiced on rainfed fields unless required. On sloping rainfed land: - Evidence of physical or cultural soil conservation measures (e.g., bunding, mulching, vegetative cover). - IMS records note type of erosion control method used by rainfed farmers. - Farmers trained or advised on rainfed land management practices through SRP sessions or extension support.
10. Quality rice seeds	Pure quality seeds are free of weeds seeds, pests, and diseases. Seeds must meet the following criteria based on their type: - Certified seeds must comply with applicable national law/regulation or the regulation of the destination market. - Non-certified seeds with quality control (not certified) must meet criteria for varietal purity, be free of weed seeds, pass germination testing, and be stored safely with fungal control. Self-saved seeds with quality control must meet criteria including safe storage, rouging (removal of all off-types or mixtures of plants) in the field before harvest, and others. The practice	- Seed Act 1976 - Seed (Amendment) Act 2015 - Pakistan Seed Rules 1987 - National Seed Policy 2015 These provide guidelines on seed certification, quality control, and regulation of seed production and distribution across Pakistan.	- Many farmers use certified seed, especially when linked with millers or exporters. - However, some rely on self-saved seeds due to cost or availability — often reused for more than 3 cycles, with variable quality. - Practices like rouging and germination testing are not common at the field level. - Seed storage conditions are often suboptimal, especially in high-humidity areas.	Farmers must use pure and high-quality rice seed that is free from weed seeds, pests, and diseases. Seed sources fall into three categories with specific quality requirements: Certified seeds must comply with the Pakistan Seed Act (1976), the Seed (Amendment) Act (2015), and the relevant rules. For export-oriented production, destination market regulations must also be met. Farmers should retain seed supplier tags or receipts as proof.	- Records confirming the type of seed used (certified, non-certified with quality control, or self-saved), maintained by IMS or producer group. - For certified seed users: Retention of seed tags, packaging, or purchase receipts from registered dealers. - For non-certified seed: - Evidence of germination testing (e.g., photos,

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	of self-saving seeds should not exceed 3 crop cycles.			Non-certified seeds with quality control must meet minimum standards for varietal purity, be free from weed seeds, pass basic germination testing, and be stored safely to prevent fungal or pest infestation. IMS and field officers should train farmers on simple germination tests (e.g., wet towel method) and proper seed storage practices. Self-saved seeds are allowed for a maximum of three crop cycles. These seeds must be rouged in the field before harvest, properly cleaned, dried, and stored in moisture- and pest-protected containers. Farmers using self-saved seed should be encouraged to renew their seed stock regularly and keep basic records. IMS and SRP implementers should promote awareness on seed quality standards and facilitate farmer access to certified or quality-assured seed through linkages with seed companies, public institutions, or millers. In case of sourcing rice nursery, ensure that the seedlings are healthy and nursery was raised using certified seeds.	field records, or farmer logs). - Visual or documented verification that seed is stored properly (dry, pest-free, ventilated space). 4. For self-saved seeds: - Confirmation that seed is used for no more than 3 crop cycles. - Field observation or IMS record of rouging practices prior to harvest. - Visual inspection or farmer report of storage conditions (container type, location). 5. Records of training or awareness sessions on seed quality, germination testing, and proper storage. 6. IMS monitoring forms include a section for seed source classification and handling practices. 7. Proportion of farmers shifting from self-saved to certified or improved non-certified seed over time (where applicable).

Theme: Water use

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
11. Water Management	Rainfed Production System: Farmers follow measures to increase efficiency in water use and management as follows: 1. Start planting at the right time with regular rain according to local climate. 2. Direct seeding or effective puddling, and strong bunds 3. Use of varieties suitable for local climate (e.g., short or medium- duration varieties). Provision of rainwater storage facility in the area for irrigation. Irrigated Production System – Flood-Prone Farmers follow measures to increase water use efficiency and reduce risks as follows: 1. Adjust the rice planting schedule to avoid submergence damage during anticipated flooding periods. 2. At least one dry-down event (i.e., midseason drainage of 7 days drained period/aeration), if possible. 3. Land levelling to improve the drainage. 4. Use rice varieties that are tolerant to flooding. Irrigated Production System: Not Flood-Prone farmers follow measures to increase efficiency in water use and management as follows: 1. One dry tillage before flooding if soil is cracked. 2. Levelling and strong bunds. 3. Dry seeding, a puddled system (wet seeding or transplanting), where soaking, puddling, and tillage completed within 1 week. 4. Alternate wetting and drying 5. Use of short or medium duration varieties with similar yield potential as long duration varieties.	• National Water Policy 2018 • Punjab Water Act 2019 • Sindh Agriculture Policy 2018–2030 These promote sustainable irrigation, water productivity, and introduction of water-saving technologies (e.g., AWD, irrigation scheduling, water user associations).	Single drainage/dry-down is already practiced by some farmers, especially in Punjab. • However, systematic AWD adoption is very limited and not well understood. • Farmers lack access and not trained to field water tubes, irrigation scheduling tools, and training on methane reduction benefits. • Canal water timing often doesn't align with SRP's suggested practices; solar tubewell use is rising, increasing extraction and depleting groundwater quickly	Rainfed Production System: Farmers in rainfed systems should optimize planting and water conservation by: • Aligning planting with the onset of regular rainfall based on local agro-climatic calendars. • Using direct seeding or effective puddling and constructing strong bunds to retain moisture. • Selecting short- or medium-duration varieties suitable for unpredictable rainfall. • Promoting the establishment of community-based rainwater storage or small-scale catchment ponds, where feasible, to support supplemental irrigation during dry spells. IMS and field staff should support farmers in using local rain forecasting, promote bund maintenance, and encourage varietal planning adapted to rainfall variability. Irrigated Production System – Flood-Prone: Farmers in flood-prone irrigated areas must adopt risk-reducing and water-efficient practices, including: • Adjusting planting schedules to avoid peak flood periods. • Implementing at least one mid-season dry-down (7 days) where feasible, for improved	Rainfed Production System • Records or farmer interviews confirm planting aligned with rainfall patterns. • Field observations show use of bunding, puddling, or direct seeding techniques. • Documentation of variety type used (short or medium duration) in farm records or IMS logs. • Presence of community-based rainwater storage systems or catchment ponds (if applicable). • IMS checklists confirm moisture conservation practices in rainfed areas. • Farmers trained on climate-adaptive seed selection and rainfed planting strategies. Irrigated Production System – Flood-Prone • Planting dates recorded and adjusted to avoid expected flood periods. • Documentation or field logs confirming at least one dry-down event during crop season (where feasible). • Field checks show proper land leveling and

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	6. Termination of irrigation at least 10- 15 days before harvesting.			root health and methane reduction. - Ensuring proper land leveling to improve drainage and prevent waterlogging. - Selecting flood-tolerant rice varieties to minimize crop loss during unexpected submergence. - The choice of variety should be according to sowing time or weather advisory. SRP implementers should support the identification of flood periods through historical patterns and advise on varietal selection accordingly. Mid-season drainage can be demonstrated in controlled conditions to show benefits. Irrigated Production System – Not Flood-Prone: In non-flood-prone irrigated systems, farmers should follow water-saving practices such as: - Conduct dry tillage before flooding if soil is cracked. - Ensuring field leveling and bunding to minimize water loss. - Completing soaking, puddling, and tillage within one week, whether using dry seeding, wet seeding, or transplanting. - Adopting Alternate Wetting and Drying (AWD) using digitally smart or manual water	functional drainage structures. - Variety records confirm use of flood-tolerant rice varieties in vulnerable zones. - Training records or farmer awareness materials on flood mitigation and water use efficiency. - IMS or field facilitators maintain records of water management practices for high-risk areas. Irrigated Production System – Not Flood-Prone - Field records confirm dry tillage before flooding where applicable. - Observation or farmer records verify leveling and bunding in place. - Documentation of planting methods and timeline showing that soaking, puddling, and tillage were completed within one week. - AWD field water tubes (manual or digitally smart) installed on demo or operational fields (where feasible).

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				tubes to schedule irrigation efficiently. - Choosing short- or medium-duration varieties that offer yields comparable to long-duration types. - Terminating irrigation 10–15 days before harvest to reduce unnecessary water use and methane emissions. Where AWD is not feasible due to canal scheduling or infrastructure, other water-smart practices like bunding, early irrigation cut-off, and varietal selection should be emphasized.	- Farmers record or report use of short/medium duration varieties. - Irrigation cut-off dates are documented, ideally 10–15 days before harvest. - IMS monitoring tools include irrigation schedule tracking and bunding status. - Training sessions conducted on AWD, water-saving practices (bed furrow transplanting), and methane emission reduction.
12. Irrigation system at Community level	The irrigation system under command of the farmer or group (supplied by surface and/or ground water) complies with the following criteria: - The command area has sufficient internal canals for supply and drainage. - There are no leakages in dikes. - Water gates (if any) are functioning well. There is stakeholder involvement in decision making on the irrigation system	- Canal and Drainage (Amendment) Act 2006 - Punjab Irrigation, Drainage and Rivers Act 2023 - Punjab Water Act 2019 - National Water Policy 2018 These promote participatory irrigation management, rehabilitation of irrigation infrastructure, and efficient use of water at the community level.	- Many areas have functional community systems, but suffer from leaky canals, broken outlets, water thefts, and poor drainage. - Stakeholder participation in water management is limited, often dominated by powerful farmers or watercourse associations. - Lack of clarity on responsibilities for infrastructure repair or governance. - Water disputes are common due to inequitable distribution during canal rotations.	Farmers, farmer groups, or community-based organizations should ensure that the irrigation infrastructure within the command area (supplied by surface or groundwater) is maintained in functional condition, enabling efficient and equitable water distribution. This includes: - Regular inspection and repair of internal canals, ensuring proper lining and removal of obstructions for effective supply and drainage. - Timely maintenance to prevent dike leakages or breaches that cause water loss or disputes. - Ensuring water gates and outlets are operational and	- MS or field staff conduct and document annual assessments of irrigation infrastructure condition, including: - Internal canal availability and flow - Leakages in dikes or bunds - Functionality of water gates/outlets - Presence of a Water User Association (WUA), water committee, or any community-level group managing irrigation. - Meeting records or community agreements documenting stakeholder involvement

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				well-managed to regulate water flow. - Community governance and participation by introducing digitally monitoring mechanism are essential to maintain fairness and functionality: - Encourage the formation or strengthening of Water User Associations (WUAs) or farmer water committees where possible. - Facilitate regular community meetings prior to the irrigation season to plan canal rotations, schedules, and responsibilities. - For areas without formal irrigation governance, IMS or local leaders should initiate informal participatory systems for decision-making, dispute resolution, and collective maintenance. - Promote awareness of legal rights and responsibilities under relevant acts (e.g., Punjab Irrigation and Drainage laws) to improve transparency and equity in water allocation.	in seasonal irrigation planning and water allocation. - Evidence of collective action for maintenance, such as repairs to canals, desilting, or fixing broken outlets. - Documentation of conflict resolution mechanisms for water disputes (formal or informal). - Proportion of fields within the command area receiving equitable and timely water supply during the irrigation cycle. - Photos, IMS reports, or local leader attestations confirming that no major infrastructure damage (e.g., broken gates, severe leaks) persists unaddressed during the season.
13. Inbound water quality	Inbound water is obtained from clean sources that are free of biological, saline, and heavy metal contamination. Farmers need to provide a test report confirming that inbound water is free of biological and saline contamination. In addition, farmer should also demonstrate inbound water is free from heavy metal contamination or, alternatively, provide the proof that grains are free from heavy metals.	- Punjab Water Act 2019 - National Water Policy 2018 - Punjab Pure Food Rules 2011 These include provisions for managing water quality for	Farmers rarely test irrigation water for biological or chemical contamination. Water from canals, tubewells, or sewage-influenced sources is often used without quality checks.	Farmers or producer groups must ensure that inbound irrigation water is obtained from clean and safe sources, free from biological contamination, salinity, and heavy metals. A risk-based approach is recommended for water quality	Water quality test reports (biological, salinity, and/or heavy metals) are available for high-risk farms or groups (e.g., those near industrial, urban, or

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	In the presence of (risks of) contaminated water, a minimum water quality test must be conducted or based on the test results, corrective measures must be taken, such as, installation of a filtration system or selection of alternative varieties if available.	agriculture and ensuring food safety.	• Awareness is low, especially about biological or heavy metal risks. • Water testing facilities are limited, and biological testing is rarely available in most districts.	testing, especially where water is sourced from: • Canals near industrial areas or sewage outlets • Tubewells with shallow or brackish groundwater • Wastewater-influenced irrigation channels • Where contamination risk exists: • Farmers must conduct at least one water quality test (biological and/or chemical) every 3–5 years or as advised. • If heavy metal water testing is not feasible, grain testing may be accepted as an alternative to confirm food safety. • For salinity, basic EC meters may be used by IMS or farmer groups to check for safe thresholds (≤ 5 g/L). Corrective measures must be taken based on test results. These may include: • Switching to alternative water sources • Installing basic filtration or sedimentation tanks • Selecting salt-tolerant or stress-resilient rice varieties SRP implementers should collaborate with local laboratories, universities, or government food/water authorities to enable low-cost or subsidized testing. Guidance materials in local languages should be provided to	sewage-fed water sources). • In cases where water testing is not feasible, grain-level heavy metal test reports are available and confirm food safety. • Documentation of salinity checks using EC meters by IMS or field teams (e.g., readings recorded in logs). • Risk assessment records maintained by IMS identifying water sources and potential contamination risks. • Records of corrective actions taken based on test results (e.g., switching source, installing filters, using tolerant varieties). • Collaboration with recognized labs or authorities for testing is documented (e.g., MOU, referral log). • Farmers and IMS trained in basic water quality awareness, including when to test and what to do if water is unsafe. • Visual materials or decision trees shared in Urdu/local languages to guide water testing decisions.

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				IMS and farmers to identify when and how testing should be done.	
14. Groundwater Extraction	Groundwater extraction is legal and sustainable. Sustainable groundwater extraction avoids depletion of water resources beyond the watershed recharge capacity and balances the competition for its use.	• Punjab Water Act 2019 • Sindh Water Management Ordinance 2002 • National Water Policy 2018 These promote licensing of groundwater abstraction, monitoring recharge rates, and protection of shared aquifers from overuse.	• Groundwater extraction is largely unregulated at the farm level. • The use of solar-powered tubewells has increased water pumping, often with no monitoring of volume or frequency. • Awareness of legal provisions is low, and farmers extract water based on immediate crop needs. • There is no groundwater metering or recharge management at smallholder level.	Farmers and producer groups must ensure that groundwater extraction is both legal and sustainable, avoiding overuse beyond the natural recharge capacity of the watershed and minimizing competition among users. SRP implementers should be promoted: • Awareness of provincial water laws, including the Punjab Water Act 2019 and Sindh Water Management Ordinance 2002, which regulate groundwater abstraction and promote aquifer protection. • Identification and mapping of high-extraction areas by IMS or extension teams to target water-saving interventions. Adoption of rotation-based irrigation planning at group level to reduce pressure on aquifers. Where solar-powered tubewells are used, encourage: • Efficiency audits (e.g., run-time assessments, nozzle/pump adjustments) to reduce excessive water withdrawal. • Install digitally monitoring water meters / prepaid cards to avoid unnecessary water extractions in case of solarized tubewells.	1. Farmer declaration or documentation confirming groundwater source (e.g., tubewell, solar pump, dug well). 2. IMS or field teams maintain a map of groundwater use zones, identifying high-extraction areas or aquifer-stressed regions. 3. Where available, records of groundwater licenses or registration with provincial authorities (e.g., under Punjab Water Act 2019). 4. Use of proxy indicators to estimate groundwater extraction, such as: • Pump run-time logs. • Irrigation frequency records • Estimated volume based on flow rate × duration. 5. Evidence of awareness-raising activities or training on groundwater sustainability and legal compliance. 6. Documentation of group-level water planning to promote rotation and

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				Use of proxy indicators to estimate groundwater use, such as hours of pumping, irrigation frequency, or estimated discharge per session, where metering is not available.	shared use in high-use zones. 7. In areas with solar tubewells: Records of efficiency assessments (e.g., pump output checks, adjustments) 8. -Presence of recharge (in heavy rainfall areas) measures, such as infiltration pits, rainwater harvesting, or seasonal recharge canals (if applicable). 9. IMS monitors and flags farms showing signs of over-extraction or poor water management.
15. Drainage	Intentional surface (sideways) drainage after surface application of agrochemicals is sufficiently delayed by avoiding contamination from agrochemical runoff, or according to the product label to avoid contamination that can have negative effect on biodiversity or the environment in natural water sources (e.g. waterways and waterbodies).	- Punjab Irrigation and Drainage Act 2023 - National Water Policy 2018 - Canal and Drainage Act (Amendment) 2006 These recognize the importance of drainage in maintaining soil productivity, particularly in areas with intensive irrigation or high groundwater tables.	Farmers often lack awareness of long-term impacts of poor drainage (e.g., rising salinity, reduced yields). <i>Field-level drainage is usually unplanned, relying on natural runoff.</i> <i>Community drainage channels (e.g., waste canals) are often clogged, encroached, or broken.</i> <i>Drainage responsibilities are unclear in most areas between individual farmers, landlords, or government.</i>	Farmers must avoid immediate surface drainage after applying agrochemicals to prevent contamination of natural water bodies (e.g., canals, ponds, and wetlands). Surface runoff should be delayed as per product label instructions, or at minimum, allowing enough time for chemical absorption to reduce risks to biodiversity and aquatic ecosystems. To support this: Farmers should receive guidance on minimum wait periods before allowing field drainage post-agrochemical application, based on product	1. Field-level inspection records confirm that surface drainage pathways exist and are functional. 2. Evidence that agrochemical application timing and field drainage are coordinated, with drainage delayed post-application (e.g., through farmer interviews or IMS checklists). 3. Drainage layout or slope design incorporated into land preparation

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				type and local weather conditions (e.g., rain forecasts). • During land preparation, field-level drainage should be planned to include gentle slope gradients or shallow ditches that control water movement and reduce uncontrolled runoff. • IMS or extension officers should inspect field drainage pathways and proximity to water bodies during pre-season visits. • In shared canal command areas, farmers should be encouraged to coordinate drainage management and participate in collective clean-up of blocked or damaged drainage channels before the irrigation or monsoon season. • Where feasible, integrate drainage efforts with salinity management (e.g., ensuring excess salts can exit the field). • Clear assignment of drainage responsibility whether at individual, group, or community level—should be facilitated by IMS or local leaders. • Excess drain water can be utilize to recharge groundwater by digging small bore at the farm levels.	practices (e.g., shallow ditches, field gradient). 4. Product label instructions are followed for safe interval before allowing runoff, as observed or recorded by IMS. 5. IMS or extension staff monitor and document field visits, including potential runoff risks to adjacent natural water bodies. 6. Documentation of community or group-led drainage maintenance activities, such as seasonal cleanup drives. 7. -Training records show farmer awareness sessions on drainage impacts, waterway protection, and agrochemical runoff risks. 8. In areas with salinity issues, field drainage is linked to salinity control practices, with observations or notes in IMS logs. 9. Proportion of farms with no evidence of chemical runoff entering natural water bodies, based on visual checks or local reports.

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Theme: Nutrient management					
16. Nutrient management (inorganic and/or Organic)	Efficient and site-specific nutrient management is applied and documented. Measures for efficient nutrient management include: • Apply fertilizer (inorganic and/or organic; N, P and K) at the appropriate rate and intervals according to the growth stage and needs of the rice plants. Follow the locally adapted recommendations for each area or according to the instructions on the label (if any). • Improve the soil fertility using other management practices (e.g., crop rotation, intercropping, and/or non-invasive cover cropping).	• National Fertilizer Policy (Draft) • Punjab Soil Fertility Atlas • National Climate Change Policy 2021 These promote balanced fertilization, use of bio-fertilizers, and practices that enhance soil health while reducing nutrient losses.	Majority of farmers apply nitrogenous and phosphatic fertilizers without following crop-specific needs and existing nutrient status. • Soil testing is rare, and nutrient decisions are mostly based on tradition or dealer recommendations • FYM and compost are used where available but in low quantities. • Farmers have limited awareness of how fertilizer mismanagement contributes to emissions or runoff.	1. Farmers must implement site-specific and efficient nutrient management practices, using both inorganic and/or organic fertilizers, tailored to rice crop stages and soil fertility levels. 2. Where formal soil testing is unavailable, nutrient planning should be based on: • Local agronomic recommendations • Farmer field experience or yield targets. Observation of rice plant needs at different growth stages. Key practices include: 3. Split nitrogen application (e.g., 2–3 applications) based on growth stages to improve uptake and reduce loss. 4. Applying P and K fertilizers based on local recommendations, prior cropping history, or visible soil deficiencies. 5. Avoiding early excessive N application, which can lead to nutrient losses and GHG emissions. 6. Promoting organic sources such as FYM, compost, and green manure where available. To improve long-term soil health and nutrient efficiency: 7. Promote crop rotation, non-invasive cover cropping, and	Farmers or IMS maintain records of fertilizer type, timing, and quantity applied during the season. • Split application of nitrogen is practiced and recorded, based on crop growth stages. • Nutrient application is aligned with local recommendations or yield targets, not just tradition. • Use of organic fertilizers such as FYM, compost, or green manure is documented or visually confirmed. • Field visits by IMS verify timing of application (for example, after soil moistening, at tillering or panicle stage) • Where soil testing is not available, farmers use color charts or visual soil indicators to guide decisions. • IMS staff with the help of technical persons conduct training on balanced fertilization and environmental risks of overuse such as nitrogen runoff and greenhouse gas emissions.

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				intercropping, particularly with legumes. 8. Facilitate community-based soil health awareness, such as using soil color charts or visual guides to support farmers in nutrient decisions. Where feasible, encourage the use of digital nutrient management tools, especially through extension programs or cooperatives. IMS should ensure that nutrient management practices are documented in farmer diaries or seasonal records, with reference to timing, quantity, and method of application.	• Introduction or demonstration of digital nutrient management tools (where feasible) is recorded. • Intercropping, crop rotation, or cover cropping for soil fertility improvement is promoted and tracked.
17. Organic fertilizer Choice	Organic material (e.g., animal manure, green manure, rice straw, microbes, biochar, compost) is used as fertilizer/crop stimulant if the conditions are favourable. Favourable conditions include: 1. Use organic materials that are partially decomposed, stabilised or composted. 2. There is sufficient time for its decomposition prior to flooding. To minimise transportations emissions, use of organic materials found in the near vicinity (approximately within 50 km radius) should be preferred and used in the appropriate amount.	• National Fertilizer Policy (Draft) • Punjab Soil Fertility Atlas • National Climate Change Policy 2021 These policies emphasize soil organic matter improvement, integrated nutrient management, and climate mitigation through reduced synthetic fertilizer dependency.	Organic fertilizers are used inconsistently; often applied in raw form (manures) without proper decomposition. • Farmers lack guidance on how often and how much organic fertilizer to use. • Limited awareness of the GHG mitigation benefits of organic amendments.	Farmers should be encouraged to apply organic fertilizer (e.g., FYM, compost, green manure, biochar, crop residues) at least once every 3 years to maintain or enhance soil organic matter. • Recommend application of organic inputs (e.g., 5–10 tons/ha of decomposed FYM or compost) in non-rice crops within the rotation cycle (e.g., wheat, vegetables) to further contribute to GHG reduction. • The clause “within 50 km radius” should be replaced with actionable guidance on material suitability, quantity, and frequency.	• Farmers apply organic fertilizers at least once every three years. • Organic material used is partially decomposed or applied with sufficient time before field flooding. • Organic inputs are applied primarily in non-rice crop cycles (e.g., wheat, vegetables) within the rotation. • Recommended quantities (e.g., 5–10 tons/ha of FYM or compost) are promoted through IMS or field guidance.

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				- Promote safe storage, decomposition, and proper field application methods to avoid pests, weed seeds, or emissions from raw FYM. - Raise awareness on how organic materials improve soil structure and reduce dependence on synthetic nitrogen.	- The source of organic material is practical and locally available, even if beyond the original 50 km reference. - Field observations confirm proper composting or decomposition before application. - IMS or technical staff provide training on safe storage and field application of organic fertilizers. - Awareness materials shared with farmers highlight soil health and GHG mitigation benefits of organic amendments. - Documentation of organic input use is maintained in farmer records or seasonal plans.
18. Inorganic fertilizer Choice	Inorganic fertilizers (chemical fertilizers) can be used only if they are registered and come from a non-counterfeit source.	- Fertilizer Control Order (FCO) under the Fertilizer Act 1973 - Punjab Agricultural Inputs Quality Control Act 2018 - Sindh Fertilizer (Control) Act - National Climate Change Policy 2021 (calls for minimizing synthetic nitrogen-related emissions) These laws govern registration, inspection, sale,	Farmers predominantly apply nitrogen (urea) and phosphorus (DAP), often in excess. - Potassium and zinc are under-applied despite known deficiencies in major rice-producing areas. - Knowledge about balanced fertilization and the benefits of micronutrients is limited. - Fake or expired products are occasionally sold by informal dealers.	- Promote balanced fertilizer use by including K and Zn based on local deficiency maps (e.g., Punjab Soil Fertility Atlas). - Encourage substitution of part of urea with coated or stabilized nitrogen products to reduce GHG emissions. - Farmers should purchase only from registered dealers, verifying label, expiry, and seal.	- Farmers purchase fertilizers from registered and verified dealers. - Product labels, packaging seals, and expiry dates are checked and recorded by IMS or field staff. - Use of balanced fertilizer blends that include N, P and K or micronutrients such as Zn is

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		and labelling of fertilizers and regulate against adulterated or hazardous products.	Awareness of environmental impact of excessive N is low.	- IMS or extension staff should conduct field demonstrations and group sessions to guide proper product selection. - Collaborate with input companies and cooperatives to improve access to balanced blends.	documented or observed. - Field demonstrations or group training are conducted on proper fertilizer selection, handling, and storage. - IMS records confirm that coated or stabilized nitrogen products are introduced where available. - Reports or observations identify and discourage the use of fake, expired, or unregistered products. - Collaboration with input suppliers or cooperatives is documented to improve access to quality fertilizers. - Farmers are trained on the environmental risks of excessive N use and benefits of balanced fertilization. - Visual checks or records confirm that urea is not used excessively and is supplemented with other nutrients where appropriate.
Theme: Integrated Pest Management (IPM)					

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
19.1Weed Management	Preventative weed control methods can include: 1. Good soil preparation and good water management 2. Use of certified seeds 3. Crop rotation 4. Controlling water retention in the rice fields (if water is abundant) 5. There is no use of fire for weed control Farmer follows IPM principles and the following criteria: 1. Preventative weed control methods are used, before considering curative methods. 2. Herbicide is used only if other curative methods (e.g., manual and mechanical weeding) are ineffective on their own and severity of the weeds cause significant damage or loss. 3. Selected herbicide should be registered for use in rice, comes from a non-counterfeit source, and it is not an HHP including on any of the following international lists: ✓ Persistent Organic Pollutants in the Stockholm Convention ✓ 1A or 1B under World Health Organization classification ✓ Annex III of the Rotterdam Convention 4. Herbicide selection and use responds to the target weed species, consider using them during the time when the rice plants are growing and the leaves are not yet covering the area, and consider information about weed resistance in the area (for efficiency of use). Application of pre-emergence or early post emergence	• Agricultural Pesticides Ordinance 1971 (Amended 1997) • Punjab Agriculture Policy 2018 • Sindh Environmental Protection Act 2014 These laws regulate herbicide registration, usage, and environmental impact. Punjab's policy promotes integrated weed management and judicious use of agrochemicals.	Heavy reliance on chemical herbicides, especially during early crop stages • Non-compliance with dosage, timing, and mixing instructions is common • Manual and mechanical weeding is labour-intensive and often skipped due to rising labour costs • Limited access to protective equipment during application and low awareness of drift/runoff risks	• Encourage use of non-chemical methods (hand weeding, mechanical tools, timely water management) especially in smallholder systems • Provide practical guidance on safe herbicide use: correct dosage, timing, protective gear, and calibration • Promote stale seedbed technique or crop rotation to reduce weed pressure • IMS or extension staff should verify method used and provide corrective advice • Train farmers to identify common weed types and thresholds	• Field-level observation or farmer records confirm use of at least one preventive weed control method before resorting to herbicides. • Herbicide use is recorded with product name, registration status, dosage, timing, and target weed species. • Evidence that herbicides are sourced from registered dealers and are non-counterfeit. • IMS checklists confirm that pre-harvest intervals and label instructions are followed. • Visual confirmation that no burning is used for weed control. • Proportion of farmers trained on safe herbicide application and weed resistance management.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	herbicides will support higher crop yield potential. 5. Herbicide application is targeted to avoid non-application zones. Herbicide application method is according to the product label instructions, follows specified preharvest interval, and does not exceed specified dosage (for worker safety and food safety).				
19.2 Insect Management	Preventative insect control methods can include: 1. Balanced nutrient application (e.g., avoid excessive application of nitrogen) 2. Promotion of beneficial natural enemies (e.g., insects, spiders) and increasing habitat diversity around rice fields 3. Synchronized planting 4. Use of resistant/tolerant varieties 5. Promotion of other predators (e.g., birds, bats, frogs) 6. Crop rotation or extended fallow period 7. Use of light traps 8. Use of yellow sticky traps for the control of rice leafhopper and plant hoppers Farmer follows IPM principles and the following criteria: 1. Preventative insect control methods are used, before considering curative methods. 2. Insecticide is used only if other curative methods (e.g., insect pheromones, biological control agents) are ineffective on their own, the action thresholds are exceeded, and the presence of a specific insect cause significant damage or loss.	• Agricultural Pesticides Ordinance 1971 (Amended 1997) • Punjab Agriculture Policy 2018 • National Integrated Pest Management Policy (Draft)	• <i>Farmers heavily rely on chemical pesticides, often applied prophylactically rather than based on pest monitoring.</i> • <i>Beneficial insects are often harmed due to broad-spectrum pesticide use.</i> • <i>Pest scouting is infrequent, and decision-making is based on visual symptoms rather than thresholds.</i> • <i>Access to biocontrol agents is very limited</i>	Promote regular field scouting and use of economic threshold levels (ETLs) to guide insecticide application. • Train farmers on identification of beneficial vs harmful insects. • Encourage habitat management practices such as flowering borders or refuges. • Chemical application should follow label instructions and be supported by proper training and safety gear. • Promote farmer field schools and IPM clubs for knowledge-sharing.	• IMS or farmer scouting records show pest monitoring conducted, and action thresholds applied before insecticide use. • Insecticide use records confirm compliance with SRP restrictions (e.g., no broad-spectrum products in first 40 days, non-HHP status). • Farmers can identify at least two beneficial insects during verification interviews or field checks. • Evidence of habitat features or biodiversity elements (e.g., flowering strips, refuges) maintained to support natural enemies. • Field verification of correct application method, dosage, and targeted use zones.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	3. Broad spectrum insecticide is not used within the first 40 days after planting in the production field 4. Selected insecticide should be registered for use in rice, comes from a non-counterfeit source, and it is not an HHP16 including on any of the following international lists: ✓ Persistent Organic Pollutants in the Stockholm Convention ✓ 1A or 1B under World Health Organization classification ✓ Annex III of the Rotterdam Convention 5. Don't use any pesticide which may cause the issue of pesticide residues in rice produce. Avoid the application of insecticides recently banned by the Govt. of Pakistan 6. Insecticide selection and use responds to the target insect species, considers optimum timing for the target species, and considers local information on insecticide-resistant insects (for efficiency of use). 7. Insecticide application is targeted to avoid non-application zones. 8. Insecticide application method is according to the product label instructions, follows specified preharvest interval, and does not exceed specified dosage (for worker safety and food safety).				

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
19.3Disease Management	Preventative disease control methods can include (effective for fungal, bacterial, and viral diseases): - Balanced nutrient application (e.g., avoid excessive application of nitrogen) - Planting at optimum densities - Use of resistant varieties - Synchronized planting - Removal of host plants (e.g., weeds on bunds, rice stubble, volunteer rice) - Managing the environment between soil and plant canopy through better water management practice (either dry or moist) depending on the type of disease. Farmer follows IPM principles and the following criteria: - Preventative disease control methods are used, before considering curative methods. - Fungicide is used only if other curative methods (e.g., biological control agents) are ineffective on their own and severity of the disease is expected to cause significant damage or loss. - Selected fungicide should be registered for use in rice, comes from a non-counterfeit source, and it is not an HHP¹⁶ including on any of the following international lists: ✓ Persistent Organic Pollutants in the Stockholm Convention ✓ 1A or 1B under World Health Organization classification ✓ Annex III of the Rotterdam Convention - Fungicide application is targeted to avoid non-application zones.	- Agricultural Pesticides Ordinance 1971 (Amended 1997) - Punjab Agriculture Policy 2018 - National IPM Policy (Draft)	Farmers often misidentify disease symptoms and rely on broad-spectrum fungicides without diagnosis. - Crop rotation is rarely practiced. - Preventive techniques such as field sanitation or resistant varieties are underused. - Climate-induced disease patterns are poorly understood at the farm level.	Promote training on common rice diseases and symptom differentiation. - Encourage early disease detection and use of preventive methods (resistant seed, spacing, drainage). - Recommend fungicides based on threshold levels and correct diagnosis. - Rotate crops to reduce pathogen buildup. - Link field schools and IMS to seasonal disease alerts and control strategies.	- Field inspections confirm adoption of at least one preventive measure (e.g., resistant varieties, proper spacing, drainage management). - Fungicide application records include product details, registration status, dosage, timing, and target disease. - Verification that fungicides used are non-HHP and not applied within 30 days of harvest unless pre-harvest interval allows. - Evidence of farmer training on disease identification and differentiation from nutrient deficiencies. - IMS records show use of crop rotation or stubble/volunteer plant removal where feasible.

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	5. Fungicide application method is according to the product label instructions, follows the specified preharvest interval or is at least 30 days before harvest (if preharvest interval is not available), and does not exceed specified dosage (for worker safety and food safety). Fungicide responds to the target disease type, considers recent history of fungal disease and predicted weather patterns, and considers local information on fungicide-resistant diseases (for efficiency of use). Fungicides should be applied in a timely manner and correct dose so as not to exceed maximum residue limits as indicated by label instructions.				
19.4Mollusc Management	Preventative mollusc control methods can include: • Physical control (e.g., destruction of egg masses) • Reduction of water level to prevent infestation of Golden Apple Snails during the most vulnerable phase (i.e., early growth phase) • Promotion of predators (e.g., wild birds, ducks, fish) • Use of sturdier seedlings during transplanting by sowing low-density nursery beds and planting older seedlings • Crop rotation or extended dry fallow period Farmer follows IPM principles and the following criteria: 1. Preventative mollusc control methods are used, before considering curative methods.	• Agricultural Pesticides Ordinance 1971 (Amended)	Not Relevant in local Context	Not Relevant in local Context	

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	2. Molluscicide is used only if other curative methods (e.g., collection) are ineffective on their own and severity of the mollusc cause significant damage or loss. 3. Selected molluscicide should registered for use in rice, comes from a non-counterfeit source, and it is not an HHP16 including on any of the following international lists: ✓ Persistent Organic Pollutants in the Stockholm Convention ✓ 1A or 1B under World Health Organization classification ✓ Annex III of the Rotterdam Convention¹⁷ 4. Molluscicide application is targeted to avoid non-application zones. 5. Molluscicide application method is according to the product label instructions, is not used before manual transplanting, follows specified preharvest interval, and does not exceed specified dosage (for worker safety and food safety). Molluscicide responds to target mollusk species and is used only within the first 3 weeks after crop establishment (for efficiency of use).				
19.5 Rodent Management	Preventative rodent control methods can include: • Community rodent management (e.g., rat eradication campaigns, trap crops) • Synchronized planting • Use of narrow bunds (to minimize rodent habitat) • Promotion of predators (e.g., birds of prey, snakes)	• Punjab Plant Protection Act • Agricultural Pesticides Ordinance 1971 • National IPM Policy (Draft)	Rodent infestations are common, especially near harvest time. • Farmers typically rely on poisoned baits without coordinated or preventive strategies. • Little awareness exists about alternative non-chemical methods such as trapping or natural predators.	Promote integrated rodent management using physical traps, habitat modification, and biological controls such as predators. • Use rodenticides only when rodent pressure is high and other methods have failed. • Ensure safe placement of bait stations away from children and animals.	• Farmer or group-level rodent monitoring records exist, with notes on observed damage and control measures taken. • Evidence of non-chemical methods used (e.g., traps, habitat modification) before rodenticides.

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	Farmer follows IPM principles and the following criteria: 1. Preventative rodent control methods are used, before considering curative methods. 2. Rodenticide is used only if other curative methods (e.g., trapping, hunting) are not effective on their own, if there is historical evidence of rodent problems, and if severity of the rodent cause significant damage or loss. 3. Selected rodenticide should be registered for use in rice, comes from a non-counterfeit source, and it is not an HHP including on any of the following international lists: ✓ Persistent Organic Pollutants in the Stockholm Convention ✓ 1A or 1B under World Health Organization classification ✓ Annex III of the Rotterdam Convention 4. Rodenticide application is targeted to avoid non-application zones. 5. Rodenticide application method is according to the product label instructions, follows specified preharvest interval, and does not exceed specified dosage (for worker safety and food safety). Rodenticide responds to target rodent species, is used before the reproductive growth phase of the crop to avoid an outbreak during grain filling, and is placed under protective cover (e.g., bamboo tubes, coconut husks) where not easily accessible to birds or exposed to rainfall (for efficiency of use).		• No group-level rodent control plans are in place.	• IMS or group leaders should coordinate community-wide control efforts. • Recordkeeping of rodent damage and control measures should be included in the IMS monitoring checklist. • To deal with the bait shyness issue of acute rodenticides (e.g. Zinc Phosphide), the food materials to be used for bait preparation should be applied near rodent burrows to get the maximum results of bait application of acute rodenticides. • Anticoagulant type rodenticides should be used if acute rodenticides are not giving good result.	• Rodenticide records confirm product registration, safe placement, and compliance with dosage and timing requirements. • Documentation of coordinated rodent control campaigns at community or group level. • IMS field checks confirm bait stations are protected from non-target animals and children.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
19.6 Bird Management	Non-lethal bird control methods can include: • Synchronized planting • Scare/deterrent devices • Promotion of predators (e.g., birds of prey, shrikes) Chemical repellents that do not kill birds and without negative side- effects	• Punjab Wildlife (Protection, Preservation, Conservation and Management) Act 1974 • Sindh Wildlife Protection Ordinance 1972 • National Biodiversity Strategy and Action Plan 2015	Bird damage (e.g., from sparrows, parrots) is common at grain-filling stage: • Farmers frequently use scare tactics such as noise or scarecrows, though effectiveness declines over time. • Lethal methods such as poisoning or shooting are occasionally used but may harm non-target species and are often illegal.	• Promote non-lethal methods such as rotating scare devices, reflective materials, bird nets, and community vigilance. • Raise awareness among farmers about the ecological role of birds and legal restrictions on killing wildlife. • Encourage collective bird control actions in high-pressure zones. - IMS should monitor bird damage, methods used and ensure compliance with national wildlife laws. - Lethal control must only be used as a last resort and with documented justification and legal approval.	• Field observation confirms use of at least one non-lethal bird deterrent method (e.g., scare devices, nets, reflective materials). • IMS records show no evidence of illegal killing or harmful chemical repellents. • Evidence of collective bird control activities in high-pressure areas. • Farmers can identify at least one beneficial bird predator. • Training or awareness session records on legal and ecological aspects of bird management are available.
Theme: Harvest and Post Harvest					
20 Time of Harvest	Paddy is harvested at the appropriate time to optimize grain quality General indications of appropriate timing of harvest are: 1. When 80% to 85% of the grains per panicle are mature. 2. When moisture content for mechanized harvesting is between 21% and 24%, while for manual harvesting less than 20%. 3. Between 28 and 35 days after heading in dry season, or between 32 and 38 days after heading in wet season. 4. Between 130 and 136 days after sowing for late, 113 and 125 for medium, and 110 days for early maturing varieties.	• Punjab Agricultural Marketing Regulatory Authority Act 2018 • Sindh Agriculture Policy 2018–2030	• Many farmers delay harvesting due to labour shortages or machinery unavailability. • Shattering losses and fungal contamination are common due to overripe harvesting. • Harvest is often done manually using sickles with little attention to height or moisture levels. • Moisture content is assessed visually rather than with equipments such as Digital Grain Moisture Meter.	• Promote harvesting at physiological maturity using simple field methods or low-cost moisture meters. • Encourage timely harvesting through farmer awareness and coordination of harvest equipment. • Demonstrate proper equipment use and cutting height. • IMS should verify harvest timing and check for signs of shattering, Mold, or over-drying during inspections.	• Field logs (or IMS register) recording harvest date, % panicle maturity, and measured grain moisture at harvest (target ranges per system). • Spot-checks by IMS: visual verification of ≤10% green grains and absence of widespread shattering. • Evidence of moisture measurement (moisture-meter readings, shared device log, or

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	5. Grains in the lower parts of the panicle should be in the “hard dough” stage (firm but not brittle); grains that stick to your hand are too wet.			Promote shared access to rice harvesters s where feasible.	- cooperative service slips). - Corrective-action notes where over-ripe harvest, Mold, or shattering loss was observed.
21. Harvest Equipment	Paddy is harvested with clean tools/machines to prevent contamination and mixing of varieties. Machines (if used) are adjusted to optimum settings and operated according to the crop and field conditions resulting in minimum quality and shattering loss.	Punjab Agricultural Mechanization Policy (Draft 2020)	- Most smallholders use manual tools like sickles that are poorly maintained. - Mechanized harvesting is growing but machines are often not cleaned or calibrated. - Worn cutter bar of combine harvester and speed of the machine causes grain loss. - Tool sharing is common, but cleaning between uses is rare.	- Promote training on safe use and regular maintenance of harvest tools and machines. - Demonstrate cleaning and sharpening methods for manual tools. - For mechanical harvesters, promote calibration and cleaning before use. - Proper training of operator of the harvester. - IMS or field officers should inspect tools before and during harvest period and provide corrective feedback. - Promote group ownership or rental of properly maintained equipment.	- Cleaning logs for sickles/harvesters showing “before first use” and “between plots/varieties.” - Calibration/setting records for combine harvesters (drum speed, concave clearance, fan/cleaner settings) dated for the season. - IMS inspection checklist with observed cutting height and estimated field losses, photo evidence where relevant. - Proof of access to maintained tools (e.g., rental/co-op records) and sharpening/ maintenance records.
22 Drying Time	Paddy drying on-farm starts within 24 hours after harvest. The final moisture content is documented and depends on the further use of the paddy: For mechanize harvesting is between 21% and 24%, while for hand harvest less than	- Punjab Pure Food Regulations 2018 - FAO Code of Hygienic Practice for Rice	Grain is often dried on bare ground, roadside, or contaminated surfaces. Moisture content is estimated visually, not measured.	- Promote use of clean, elevated, or tarpaulin-covered surfaces for sun drying. - Train farmers on optimal drying duration and safe moisture levels (~13–14%).	Harvest-to-drying interval recorded (start of drying within 24h); if off-farm drying, transport time ≤12h evidenced by gate pass/receipt.

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	20% for direct selling, for sale within 3 days. • 16% or less moisture content for sale within 1 week. • 14% moisture content or less for storing grains longer than 1 week. • 12% moisture content or less for storing seeds Within a batch, the moisture content of a grain is not more than 1% after drying compared with the average moisture content (i.e., moisture gradient). If paddy is not dried on-farm (e.g., at farmer's concrete yard), it is transported to a drying (e.g., miller) or processing facility within 12 hours after harvest.	• Punjab Food Authority Storage and Handling Guidelines	• Delays in drying lead to fungal growth and aflatoxin risk. • Access to mechanical dryers is limited to large farms or exporters.	• Where feasible, promote access to mechanical drying services via cooperatives or millers. • IMS should assess drying hygiene and moisture levels during inspections. • Encourage use of simple moisture meters or grain bite/crack tests.	• Moisture logs showing final moisture per intended use ($\leq 16\%$ for ≤ 1 week; $\leq 14\%$ for >1 week; $\leq 12\%$ for seed); batch averages and gradients ($\leq 1\%$). • IMS spot readings with handheld meter (or cooperative service records) attached to inspection forms. • Corrective notes where delays or visible fungal growth were found
23. Drying Technique	Paddy is dried by using sustainable drying techniques. For sun drying: 1. Layer thickness is 2-4 cm. 2. Paddy is turned periodically. 3. Paddy is protected from rain and dew. 4. Paddy is protected from direct contact with soil, animals, and people (e.g., on nets, mats, or canvas). For mechanical drying: 5. Use of quality dryers certified to produce optimum grain quality (no discoloration, smell, and minimized amount of broken rice). Set dryer at a maximum temperature of 43°C for flat-bed batch dryers and 55°C for re-circulating batch dryers.	• Punjab Pure Food Regulations 2018 • FAO Code of Hygienic Practice for Rice • Punjab Food Authority Guidelines on Post-Harvest Practices	Drying is often uneven due to direct sun exposure without rotation. • Grain is sometimes over-dried, leading to cracking and breakage. • Practices like thin-layer drying or mechanical drying are rarely applied. • Farmers often lack awareness of how uneven drying affects milling yield and quality.	Promote turning of grain during sun drying to ensure even exposure. • Train farmers on safe drying rates and indicators of over/under-drying. • Encourage use of elevated drying platforms, mats, or solar dryers where feasible. • IMS to assess drying technique and provide guidance on improving uniformity and reducing grain stress. • Demonstrate mechanical drying methods where available, especially for farmer groups or cooperatives.	• IMS observations confirming sun-drying layer thickness 2–4 cm, periodic turning, and protection from rain/dew/soil contact (mats/tarpaulins). • For mechanical dryers: dryer make/model documented; batch temperature logs (≤ 43 °C flat-bed; ≤ 55 °C recirculating). • Hygiene check of drying surfaces (elevated/covered, away from traffic/animals). Records of farmer training on even drying and crack/bite tests; reduction in broken grain rates where tracked.

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24 Rice Storage	Paddy/rice is safely stored to maintain its quality, through the following measures (e.g. hermetic storage, mechanical silos etc.): 1. Prevent contamination with hazardous substances, such as agrochemicals. 2. Maintain 14% moisture content or less. At high moisture contents, there are chances of fungal growth, which ultimately produce the aflatoxins in rice. 3. Prevent rewetting by preventing the entry of air from oversight by making the warehouse airtight during rainy days. 4. Reduced risk recommended insecticides should be applied on the walls and floor of the warehouse before storage. 5. Use new packing materials. Old packing material may carry the larvae of khapra beetle (a quarantine pest). 6. Never apply insecticide directly on the stored commodity if infested by insect pests. 7. If commodity is infested by insects, then do fumigation by making the warehouse airtight by application of recommended fumigant like Aluminum phosphide, etc. 8. Storage structure should be closed by making it airtight at least for 14 days. Paddy/rice is cleaned before storage (removal of dirt, weeds, and insects).	• Punjab Food Authority Act 2011 • Punjab Pure Food Regulations 2018 • FAO Code of Hygienic Practice for Rice	Rice is often stored in jute or reused fertilizer bags without proper cleaning. • Storage areas are poorly ventilated and prone to moisture buildup and pest infestations. • Rodent control and stacking practices are weak. • Most smallholders store grain in homes or small sheds without structured pest management.	• Promote use of clean, dry, and well-ventilated storage areas away from moisture sources. • Encourage use of food-grade bags or bins with proper labelling and stacking. • Train farmers and cooperatives in moisture control, fumigation, and rodent-proofing. • IMS should assess storage conditions post-harvest and guide corrective measures. • Promote shared or community storage infrastructure with basic safety and hygiene standards.	• Storage inspection sheets: clean, dry, ventilated area; segregation from food/fuel/agrochemicals; pallets/raised platforms; labelled stacks. • In-storage moisture checks ($\leq 14\%$) at intake and monthly thereafter; documented mould / insect checks. • Evidence of hermetic/food-grade bags/bins; FIFO practice and lot identification. • Preventive pest management records (screens/traps/sealing); no routine fumigation—if exceptional fumigation occurs, justification + licensed operator record. • IMS post-harvest visit reports with photos of stacking/aisles/rodent control.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
25. Rice Stubble	Rice stubble is managed in a sustainable way to mitigate greenhouse gas emissions, minimize environmental impacts, and retain or improve soil quality Rice stubble is: -Not burned. Allowed sufficient time (at least 3 weeks) for aerobic decomposition before wetting.	• <i>Punjab Environmental Protection Act 1997</i> • <i>National Climate Change Policy 2021</i> • <i>Punjab Smog Action Plan</i> • <i>Crop Residue Management Guidelines (EPA, 2022)</i>	Farmers commonly burn standing stubble (rooted stalks) after harvest to clear fields quickly. • Alternatives such as mechanical incorporation or shallow tillage are rarely adopted. • Low awareness of stubble's role in GHG emissions and soil degradation. • Machines like rotavators and mulchers are unavailable to most smallholders. • It is an easy and fast method to get rid of stubbles.	Promote use of mechanical incorporation machines (e.g., Rotavator, Super seeder) to manage stubble in situ. • Discourage stubble burning through training, peer learning, and community pledges. • Raise awareness of legal restrictions and environmental harm caused by stubble burning. • IMS should track and report any burning events and promote locally feasible alternatives. • Explore linkages to carbon finance or subsidy programs for equipment support.	• Zero-burn declaration/pledge at group level; IMS incident log of any burning events (date, location, action taken). • Field verification/photos of in-situ incorporation or shallow tillage; machine service slips (e.g., super seeder/rotavator) where applicable. • Awareness attendance sheets on air-quality laws and smog action plan; referral to subsidy/equipment schemes recorded.
26. Rice Straw	Rice straw is managed in a sustainable way to mitigate greenhouse gas emissions, minimize environmental impacts, and retain or improve soil quality. Rice straw is: 1. Not burned. 2. Allowed sufficient time (at least 2 weeks) for aerobic decomposition if rice straw is left on the field or ploughed under. Collected, used as livestock feed and animal manure is returned to the field. Or collected, composted, , or anaerobically digested and returned to the field	• <i>Punjab Environmental Protection Act 1997</i> • <i>National Climate Change Policy 2021</i> • <i>Crop Residue Management Guidelines (EPA 2022)</i> • <i>Punjab Smog Action Plan</i>	Open burning of rice straw is common after harvesting due to labour shortages and lack of usage of disposal alternatives. • Few farmers compost or reuse straw. • Limited knowledge or access to straw collection for fodder, composting, or industrial use. • Infrastructure for straw aggregation or off-farm sales is underdeveloped.	Raise farmer awareness on environmental and health risks of straw burning. • Promote straw use through composting, anaerobic digestion, mulching, mushroom cultivation, and animal feed. • Encourage partnerships with biomass industries and service providers for straw collection. • IMS should document straw handling methods and encourage adoption of sustainable practices. • Advocate for incentives or cost-sharing schemes for straw management innovations.	• Field checks confirming no open burning of collected straw. • Records of straw end-use: quantities to fodder, composting, mulching, mushroom substrate, or off-farm sale (buyer slips if any). • Composting records (pile dates/turning) or return of manure to fields. • IMS monitoring notes on storage/collection points and partnerships with biomass users.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
Theme: Health and Safety					
27Safety Instructions and First Aid	To ensure the safety and health of workers, including household members involved in farming activities, it is essential to provide comprehensive training and resources related to chemical risk reduction and first aid measures. The following criteria outline the key requirements: 1) Workers, including household members, must receive training on chemicals (pesticides) risk reduction. This training should cover Integrated Pest Management (IPM) alternatives, safe application procedures, awareness of health hazards, safe handling, calibration, risks of mixing, equipment washing, storage, and disposal. Special attention should be given to women. 2)The first aid kit should be well-labelled, well-equipped for emergencies, not expired, have sufficient stock available, and be accessible either on-farm or at a designated medical centre known by and easily accessible to farmers in the group. 3)Workers must be provided with informational material in the local language that they can refer to at home. This material should include first aid instructions for pesticide poisoning. Note: The SRP definition of pesticides applies to all following requirements referring to “pesticides” and “agricultural hazardous substances.	• <i>Punjab Occupational Safety and Health Act (Draft)</i> • <i>Factories Act 1934</i> • <i>ILO Convention 155 on Occupational Safety and Health</i>	Most smallholder farms lack any posted safety instructions. • Workers are not briefed on chemical handling or machinery safety. • First aid kits are rarely available or maintained. • Female workers face greater risk due to lack of dedicated sanitation and safety protocols.	Require display of basic safety instructions in local languages at common gathering points (e.g., tool shed, entry gate). • Provide safety briefings during worker onboarding or seasonal orientation. • Ensure each worksite or group has access to a basic first aid kit and someone trained in its use. • IMS must check for safety signage and functioning first aid materials during field monitoring. • Promote low-cost training partnerships with local health workers or Red Crescent clinics.	• Safety/first-aid posters in Urdu/Sindhi/Punjabi posted at common points; IMS photo verification. • First-aid kit checklist (contents, expiry checks, replenishment dates); designated focal person identified. • Attendance records for pesticide risk-reduction briefings; distribution of home reference leaflets (acknowledgment sheets). • Spot interviews with women workers confirming access to sanitation/safety information.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
28. Tools and Equipment	Adequate tools and equipment for farm operations and postharvest processes are available, working, and efficient in use by regular and proper maintenance and calibration. Special attention is paid to ensure availability to women and farm workers and training on safe use. Tools are adequately stored. Pesticide application equipment (if pesticide(s) is (are) applied) is maintained and calibrated to prevent leakage or contamination.	• <i>Punjab Agriculture Mechanization Policy (Draft 2020)</i> • <i>Agricultural Pesticides Ordinance 1971</i>	Tools are often damaged, rusty, or uncalibrated. • Sprayers are reused season after season without checking for leakage. • Farmers lack awareness on tool calibration or safe storage. • Women farm workers usually have limited access to equipment safety training.	Promote periodic calibration of pesticide sprayers and mechanical tools at least once per year. • Encourage training on proper tool handling and maintenance, with special outreach to women. • Ensure that hand tools and pesticide application equipment are safely stored, labelled, and maintained. • IMS to verify that equipment is functional, safe, and maintained at farmer and group level. • Where possible, establish group-based calibration support or shared tool maintenance units.	• Annual (or pre-season) calibration certificates/logs for sprayers and key tools; leak-check records. • Maintenance logs (sharpening, repair dates, responsible person); safe storage verification by IMS. • Training attendance for safe tool handling with female participation noted. • IMS inspection results on tool condition and accessibility for women workers.
29. Training of Pesticide Applicators	A Risk Assessment for Pesticides has been conducted by contracting body for individual farm or by IMS for producer group. See Risk Assessment Check List in Annex C. Pesticide applicators, in particular ensuring women and smallholders receive training and apply good practices on the safe handling and use of pesticides, including: 1. An explanation of the names, toxicity, health risks, storage/ disposal, washing and other relevant information related to all substances to be applied. 2. Techniques for correct handling of substances and equipment. 3. Preventive measures for reducing possible damage to health and the environment caused by substances.	• <i>Agricultural Pesticides Ordinance 1971</i> • <i>Punjab Occupational Safety and Health Act (Draft)</i> • <i>FAO Code of Conduct on Pesticide Management</i>	Most pesticide applicators are untrained and apply chemicals without PPE or awareness of risks. • There is limited access to first aid or emergency protocols in poisoning cases. • Risk Assessments are not conducted at farm level. • Women involved in spraying rarely receive formal training or safety guidance.	• IMS or producer groups must conduct Risk Assessments every 5 years and provide refresher training on hazard identification, PPE use, and emergency response. • Promote consent forms and health checkups for applicators on large farms. • Encourage use of visual materials in local languages for training smallholders. • Monitor implementation of practices such as PPE usage, correct mixing, labelling, and washing procedures. • Establish a training register and ensure records of risk	• Documentaries in local languages and local conditions • Farm/group pesticide Risk Assessment on file (reviewed ≤5 years); applicator training register with topics (labels, mixing, washing, storage, emergency). • Consent forms (large farms) and annual health-check records where applicable; incident/near-miss log maintained. • Practical observation records (PPE use, label

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	4. Emergency procedures for cases involving poisoning or undue contact with substances. Below are extra criteria applicable and mandatory only for large farms/ groups: 5. Applicators sign consent forms acknowledging they understand the risks and will follow safe practices. 6. Applicators receive one free health checkup annually. 7. There is a process for Applicators to report incidents (equipment malfunction, poisoning, etc.).			mitigation efforts are maintained.	adherence, correct mixing and cleaning) during IMS visits.
30. Personal Protective Equipment (PPE)	Pesticide applicators use functional and good-quality PPE as recommended on the product label, including: 1. Chemical-resistant gloves 2. Chemical protection masks 3. Dermal protection (e.g., long- sleeved shirt, long-trouser legs) 4. Boots 5. Chemical safety googles during mixing and application. PPE must be available in varied sizes to accommodate both men and women.	• <i>Agricultural Pesticides Ordinance 1971</i> • <i>Punjab Occupational Safety and Health Act (Draft)</i> • <i>FAO Code of Conduct on Pesticide Management</i>	Most applicators do not wear full PPE kits. • Gloves and masks are reused or shared. • PPE fitted for women is rarely available. • Retailers often do not supply certified PP	• SRP implementers must promote full PPE use, especially during spraying and mixing. • IMS to inspect for availability and condition of required PPE items. • Encourage collective PPE procurement through farmer groups. • Promote availability of PPE in varied sizes to ensure gender inclusion. • Partner with suppliers and agri-input dealers to ensure local access to certified gear. • Awareness materials should reflect correct usage and cleaning practices.	• PPE issuance/stock registers (gloves, mask/respirator, goggles, boots, long-sleeve/leg clothing) with size range for men/women. • Condition checks and replacement schedule; cleaning/drying practices verified. • IMS observation of PPE uses during mixing/spraying; non-compliance triggers CAPA. • Supplier invoices or evidence of certified gear availability via dealer partnerships.

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31 Washing and changing	Designated areas for washing of PPE, bathing, and changing must be available for workers i.e. transplanter and pesticide applicators after finishing the application. The following conditions must be met: • All PPE worn during pesticide application is washed after use and does not enter housing. • Designated washing areas must be separated from household laundry areas. • Clothes and containers are not washed by pregnant or lactating women or by children below 18 years. • Facilities must be divided by gender and ensure the safety and privacy of vulnerable groups by providing well-lit and lockable spaces. • Safe spaces with safeguarding measures for workers must be in place.	• <i>Punjab Occupational Safety and Health Act (Draft)</i> • <i>Factories Act 1934</i> • <i>ILO Convention 170 on Chemical Safety</i>	• No designated washing or changing areas are available on most farms. • PPE and work clothes are washed at home, often by women or children. • Gender-sensitive facilities do not exist for most labourers. • Awareness of pesticide contamination risks from clothing is minimal.	Promote the setup of basic designated washing stations near the fields, even using low-cost materials. • Conduct awareness sessions for families and workers on safe laundry practices. • Prohibit pregnant/lactating women and children from washing PPE. • IMS should verify availability of separate areas and observe worker compliance. • For larger farms, promote gender-sensitive infrastructure with safe, private changing areas.	• Presence of designated separate washing /changing areas (not household laundry), with gender-segregated, lit, and lockable spaces—IMS photo check. • Signage prohibiting washing of PPE by pregnant/lactating women or children <18; interviews confirm practice. • Wastewater disposal away from drinking sources; cleaning roster for facilities. • Worker orientation records on decontamination steps after application.
32 Applicator Restrictions	Pesticides, especially Highly Hazardous Pesticides (HHPs) are not applied by pregnant or lactating women, by persons below 18 years, or by persons who suffer from chronic or respiratory diseases	• <i>Agricultural Pesticides Ordinance 1971</i> • <i>Employment of Children Act 1991</i> • <i>ILO Convention 184 on Safety and Health in Agriculture</i>	• On smallholder farms, pesticide application is sometimes done by underage boys or adult workers with pre-existing health issues. • Pregnant and lactating women may unknowingly participate in spraying due to lack of awareness. • No medical screening is performed to assess applicator fitness.	• Conduct regular awareness sessions with farm owners and workers on the health risks associated with pesticide exposure. • IMS must ensure age and health criteria are verified before assigning pesticide application tasks. • Promote the use of applicator consent forms and medical self-declarations. • Engage female community leaders and health workers to raise awareness about restrictions for women of reproductive age.	• Worker age/health screening before assigning spraying: CNIC/Smart Card age records and self-declaration of respiratory/chronic conditions. • IMS assignment log confirming no <18 or pregnant/lactating women engaged in application. • Consent forms/medical self-declarations retained (where used).

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					Community health worker outreach records targeting women of reproductive age.
33 Re-entry Time	Re-entry time after the use of pesticides: - Follows the recommendation on the product label, or after 48 hours if the label does not give a recommendation. - Communicate to the community the times when entry into rice fields is prohibited by posting warning sign. [Verbal warnings are not sufficient]. - Farmers are issued easily visible warning signs to post in their fields, when entry is prohibited.	<i>Agricultural Pesticides Ordinance 1971</i> <i>FAO Code of Conduct on Pesticide Management</i> <i>Punjab Occupational Safety and Health Act (Draft)</i>	- Most farmers rely on verbal warnings; signs are rarely used. - Workers often re-enter fields within hours of spraying, unaware of risks. - No structured communication system is in place. - Illiterate or non-family labourers are not informed of re-entry risks.	Provide farmers with durable, easily visible warning signs to post at field entry points after spraying. - IMS should check label instructions and verify signposting. - Educate farmers on the importance of adhering to re-entry intervals for family and worker health. - Encourage community-wide awareness campaigns to establish norms around re-entry waiting periods.	- Field-edge warning signs posted immediately after spraying; IMS verifies presence and label-based interval (or ≥ 48h if unspecified). - Re-entry log (date/time of application; earliest safe entry time); worker briefings documented. - Interviews confirm labourers (incl. non-family) were informed of restrictions.
34.Storage of Agricultural Hazardous Substances and Chemicals	Pesticides and inorganic fertilizers (including partly empty containers) are: - Labelled. - Stored in a locked place that is separate from fuel, food, and rice and which is out of children's reach.	<i>Agricultural Pesticides Ordinance 1971</i> <i>Punjab Fertilizer and Agricultural Inputs Quality Control Act 2018</i> <i>FAO Guidelines on Pesticide Storage and Handling</i>	- Pesticides and fertilizers are often stored in homes or kitchens. - Labels fade or are removed; reused containers are common. - Few farms have dedicated, locked storage areas. - Children may unknowingly come into contact with hazardous substances.	- Promote awareness of the risks of unsafe chemical storage and train farmers on proper labelling and segregation. - IMS should verify the presence and condition of labelled, locked storage areas during routine inspections. - Encourage low-cost solutions such as metal boxes or lockers where separate rooms are not available. - Emphasize that no chemical storage is allowed near food, water sources, or living quarters.	- Locked, labelled chemical storage (separate from food/fuel/rice; out of children's reach) verified by IMS; signage present. - Inventory log (product name, registration, batch, expiry); segregation of fertilizers and pesticides. - Evidence of no storage in living areas; corrective actions where needed. - Spill kit availability and basic handling instructions posted.

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35. Agricultural Hazardous Substance Disposal	Empty pesticide containers, surplus pesticides, and obsolete pesticides (e.g., past shelf life or banned) are disposed of properly, through a collection, return, or disposal service, or through good practices in pesticide disposal. Good practices in pesticide disposal include: 1. Incentive or reward-based programs in place for waste collection and disposal. 2. Empty containers are water rinsed 3 times. Surplus spray and wash water is applied over an unmanaged part of the farm, away from water bodies. 3. Containers are made unusable by crushing or puncturing before burying them on-farm. 4. Containers are buried in a designated area at least 50 meters away from a water body. However, if space is limited, they may be buried as close as 20 meters, provided the area is not in a water flow line. For farmers with small land plots, it's important to ensure the burial site does not risk contaminating water sources and are not accessible to children or unauthorized persons. Obsolete pesticides are returned to the dealers or, if not possible, disposed of in a manner that minimizes exposure to humans and the environment.	• <i>Agricultural Pesticides Ordinance 1971</i> • <i>Punjab Environmental Protection Act 1997</i> • <i>FAO Guidelines on Pesticide Disposal</i>	• Most empty containers are discarded in fields, reused for water or food, or burnt. • Surplus pesticide is stored indefinitely or dumped near irrigation canals. • No formal collection or return system is available for most smallholders. • Awareness of triple rinsing and puncturing is extremely low.	• Raise awareness on pesticide container hazards and promote triple rinsing, puncturing, and safe disposal. • Collaborate with agri-dealers or local authorities to pilot container return schemes. • IMS should monitor on-farm disposal sites and educate farmers on 20–50 m burial distances where needed. • Include container handling and disposal in all pesticide training curricula. • Engage with municipalities for long-term solutions for agrochemical waste.	• Triple-rinsing demonstrated; punctured/crushed containers recorded and stored for return or burial per distance rules (20–50 m, off flow lines). • Dealers' return slips or municipal pilot scheme receipts where available. • On-farm disposal map (designated pit location) and IMS inspection notes. • Training records covering container handling and obsolete stocks.
Theme: Labour and Human Rights					
36. Child Labor	Children up to 18 years are not engaged as workers. Family members up to 18 years of age living on family farms may participate in farming activities that consist of light, age-appropriate	• <i>Employment of Children Act 1991</i> • <i>Punjab Restriction on Employment of Children Act 2016</i> • <i>National Child Labour Policy (draft)</i>	• Widespread engagement of children below 18 in field work during peak seasons. • Age documentation is rarely practiced or verified. • Economic pressures compel families to involve children,	• Clear distinction must be made between child labour and child participation under supervision in light duties on family farms. • SRP implementers should educate farmers on legal age	• Workers' registers with age verified via CNIC/Smart Card; zero workers <18 recorded. • Household/family participation log for light duties: hours ≤14/week;

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	duties that give them an opportunity to develop skills, only if activities are: - Activities that are not harmful to health and development - Activities that do not disturb study time and leisure time - Activities under adult supervision - Not more than 14 hours a week. Age of workers is always verified and documented through CNIC/ Smart Card.	<i>ILO Convention 138 & 182 (ratified by Pakistan)</i> <i>Constitution of Pakistan Article 11 (prohibits child labour)</i>	especially in cotton picking and transplanting. - Many workers are unaware of legal restrictions or the impact of child labour on development. - Child participation is often excessive and unmonitored.	limits and support CNIC/Smart Card verification. - IMS must record and verify age of all farm workers. - Awareness sessions must target families, emphasizing that child labour jeopardizes education and future opportunities. - Gender-sensitive messaging is needed, as girls are often more vulnerable to hidden child labour.	does not affect schooling/leisure; adult supervision noted. IMS interview notes with workers/parents; targeted awareness session attendance (with gender-sensitive messaging).
37. Hazardous Work	All workers follow applicable safety rules at work (for example going indoors in case of risk of lightning). Children below 18 years are not assigned to work which is harmful to their safety and health including their physical, mental, or moral wellbeing. Tasks that should not be assigned include: - Work in dangerous locations. - Work with dangerous machinery, equipment, and tools (as defined by national laws and regulations). - Work that involves carrying heavy loads. - Work that involves hazardous substances - Work that must be done during the night. The name, age, sex, CNIC/ Smart Card and contact details of workers must always be verified and recorded.	<i>Employment of Children Act 1991</i> <i>Punjab Restriction on Employment of Children Act 2016</i> <i>National Policy on Child Labor (Draft)</i> <i>ILO Convention 138 & 182 (ratified)</i> <i>Occupational Safety and Health (OSH) Act (draft)</i> <i>Pakistan Factories Act, 1934 (applicable to formal sector)</i>	- Hazardous work is often performed by adolescents on family farms, particularly during peak labour demand (e.g. pesticide spraying, harvesting at night, lifting rice sacks). - Most farms do not enforce safety protocols or provide protective equipment. - No formal system to track worker age or safety compliance. - Documentation of CNICs and maintaining worker registers is limited or non-existent, especially for casual labour.	- No person under 18 should be assigned tasks involving chemicals, machinery, heavy loads, night shifts, or unsafe work areas. - All farm employers must verify age using CNIC/Smart Card and maintain a register of workers including age, sex, and contact information. - Training must be provided to supervisors and family members on the definition of hazardous work. - IMS must conduct periodic safety checks and ensure young workers (above 15) involved in permissible light work are excluded from any listed hazardous activities. Promote gender-sensitive safety assessments as girls often perform tasks in isolation or indoors.	- Task assignment matrix excluding <18s from listed hazardous tasks (chemicals, machinery, heavy loads, night work, dangerous locations). - CNIC-based worker register (name /age /sex /contact) maintained and spot-checked. - Periodic IMS safety audits and CAPA where adolescents are found in risky tasks; supervisor training records on hazardous work definition.

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38. Education	Farmers arrange for children under compulsory education to go to school throughout the school year. If they are unable to go to school, efforts must be made to provide education.	- Article 25-A of the Constitution of Pakistan (Right to Free and Compulsory Education) - Punjab Free and Compulsory Education Act 2014 - Sindh Right of Children to Free and Compulsory Education Act 2013 - KP Free Compulsory Primary and Secondary Education Act 2017 - National Education Policy 2017 (Draft)	- Children of farm workers often miss school during peak labour seasons. - Girls are more likely to drop out due to household responsibilities or cultural norms. - Many tenant or migrant workers lack permanent residence, disrupting children's schooling. - In rural areas, farmers may not feel obligated to ensure education for non-family worker children. - No system exists to track or report farm children's school enrolment.	- Farmers must ensure school-age children living on the farm attend full-year school. - Seasonal workers' children must be enrolled in temporary or mobile schools if needed. - Where education access is limited (e.g., distance, gender barriers), farmers must actively coordinate with local education departments or NGOs to facilitate access. - Girls' education must be prioritized by providing safe routes or support from female facilitators.	- Confirmation that all school-age children living on-farm are enrolled (copies of enrolment slips or school contact verification). - For seasonal/migrant workers: records of linkage to temporary/mobile schooling or coordination with local education dept/NGO. - IMS interviews with caregivers (with attention to girls' attendance/safe routes).
39. Forced Labor	There is no forced, compulsory, or slave labour used, including trafficked and bonded labour, labour by prisoners, or the use of extortion, debt, threats, fines or penalties. The following criteria are met: - No withholding of (part of) the worker's salary, benefits, property, or documents (e.g., identity cards and travel documents) in order to force such worker to continue to work. - Workers are not charged recruiting or hiring fees that require them to be indebted to the farm (or recruiting agency). - Workers are allowed to leave the farm's premises at the end of their shifts. - Regular working hours of workers do not exceed 48 hours per week, with at least one full day of rest for every six	- Bonded Labour System (Abolition) Act, 1992 - Constitution of Pakistan, Article 11 (prohibits slavery, trafficking, and forced labour) - Punjab Restriction on Employment of Children Act, 2016 - Sindh Bonded Labour System (Abolition) Act, 2015 - Pakistan Penal Code (trafficking, coercion) - ILO Conventions 29 & 105 (ratified by Pakistan)	- Debt bondage and coercion through wage withholding persist in informal rice labour arrangements. - Recruitment agents or landlords sometimes deduct fees or hold ID cards to restrict worker exit. - No formal grievance mechanisms exist on farms. - No written contracts are issued; long hours and limited rest are common. - Women and children are occasionally forced to support male family members on farms without pay or consent.	- Farmers must provide clear terms of work including working hours, rest periods, and freedom to leave at shift end. - All workers must receive timely, full payment and retain possession of their documents. - Labour recruitment should be free of coercion or fees. - Establish informal grievance systems where formal ones are not feasible (e.g., a feedback box or trusted focal person). - Women must have separate restrooms and secure spaces. - No child of a contracted worker shall be involved in farm tasks.	- Worker interviews confirming freedom to leave after shifts; no document withholding; no recruitment fees. - Payroll or verbal verification of timely full wage payment; rest days and breaks as per criteria; grievance channel functioning (logbook/box and resolution notes). - Separate safe spaces for women verified; zero involvement of spouses/children without consent and pay.

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	consecutive days worked. Workers are permitted breaks every few hours for water, shade, rest, hygiene • Spouses and children of contracted workers are not forced to work on the farm. • Do not participate or consent to human trafficking. • Safe spaces are created in particular for women (washing, rest, health & hygiene etc.) and workers are treated with dignity. • Community Feedback Mechanism established and functional or complaint logbook with addressal mechanisms are in place.			• Verbal agreements must at least be explained to workers and documented if possible.	• Any lodged complaints and follow-up recorded by IMS.
40. Discrimination	There is no discrimination or disrespectful treatment of workers, including working household members. The following criteria are met: 1. No discrimination based on gender, ethnic background, national origin, religion, disability, sexual orientation, pregnancy, worker organization membership, or political affiliation. 2. No distinction, exclusion, or preference to harm equality of opportunity regarding hiring, training, task assignment, benefits, remuneration, advancement, termination, retirement, or other employment-related decision. 3. No job-related medical testing as a condition of employment (except lawful drug testing). 4. No behaviour, gesture, language, or physical contact that is sexually abusive, coercive, or threatening.	• <i>Constitution of Pakistan, Article 25: All citizens are equal before law</i> • <i>Punjab Minimum Wages Act (amended 2019) prohibits wage discrimination</i> • <i>Protection Against Harassment of Women at the Workplace Act, 2010</i> • <i>ILO Conventions 100 and 111 (ratified)</i> • <i>National Gender Policy Framework (2022)</i> • <i>Industrial Relations Acts (provincial) prohibit discrimination and support worker associations</i>	• Women and minority workers often face task restrictions and unequal pay • Social norms discourage grievance filing; complaint boxes rarely used or monitored • Physical abuse and verbal harassment sometimes occur but go undocumented • Lack of awareness among farmers on rights of workers, especially gender and disability inclusion	• All farm workers must be treated equally regardless of gender, ethnicity, or religion in terms of hiring, task assignment, pay, and advancement. • Zero tolerance policy should be adopted against harassment, coercion, or bullying in any form. • No pregnancy or HIV tests as hiring conditions. • Establish a basic but functional complaint system (even a locked complaint box reviewed by a trusted neutral person monthly). • Training should be provided on workplace respect and non-discrimination, especially for supervisors.	• Hiring/pay/task assignment records showing equal treatment; sample payslip checks for equal remuneration by gender for same work. • Training records on anti-harassment and non-discrimination (especially for supervisors). • Complaint/feedback mechanism functional: entries, referral actions, and outcomes tracked; no retaliation notes.

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	5. No bullying or physical punishment. Complaint Feedback Mechanism is functional, complaint log maintained, and referral mechanism exists.				
41. Freedom of Association	Workers have the right to establish and/or join an association of their choice without interference and take part in collective bargaining on working conditions The following criteria are met: - Workers can freely establish and join workers' organizations, both internal (e.g., workers' representations) and external (e.g., trade unions), and take part in collective bargaining on working conditions. - Labor organizations are allowed to conduct activities on-farm. - Effective functioning of labour organizations is not blocked, and representatives of such organizations are not discriminated against. - Farmer complies with collective bargaining agreements.	<i>Constitution of Pakistan, Article 17(1): Citizens have the right to form associations or unions</i> <i>Industrial Relations Act 2012 (federal and provincial variants): Recognizes trade union rights, worker representation, collective bargaining</i> <i>ILO Conventions 87 & 98 (ratified) on freedom of association and collective bargaining.</i>	- Most agricultural workers are informal and unaware of their rights. - Trade union presence is nearly absent in rural farm settings. - Landowners often resist organizing by workers. - No systems in place to recognize worker committees or deal with collective concerns. - Female workers especially lack representation due to social norms and low literacy.	- Workers must be allowed to organize themselves for representation (e.g., worker groups or informal committees, especially in absence of trade unions). - Farmers should not retaliate against workers who raise concerns collectively or join external labour bodies. - Female representation in worker groups should be encouraged. - Even informal cooperatives or village-level associations should be recognized.	- Evidence of worker representation (committee minutes, member lists) or freedom to join external bodies; non-interference statement communicated. - No adverse actions against representatives recorded; IMS interviews with workers to confirm. - Inclusion of women in worker groups documented.
42. Wages	The following criteria are met: Wages of workers meet or exceed the legal minimum wage required under local or national laws and regulations. If wages are negotiated voluntarily between employers and workers' associations, the negotiated wage amount(s) apply to all workers covered under the negotiated agreement. This	<i>Minimum Wages Ordinance 1961</i> <i>Provincial Minimum Wage Boards (e.g., Punjab Minimum Wages Act 2019)</i> <i>Constitution of Pakistan Article 38 (promotion of social and economic well-</i>	- Many agricultural workers are paid below legal minimum wage, especially casual and seasonal workers - Payments are often in-kind (wheat, rice, fodder), not in legal currency - No written contracts or clear payment schedules	- Farmers must pay at least the notified provincial minimum wage to all hired workers - Wage payments should be in legal currency or via mobile money where feasible; in-kind payments must not substitute legal wage	- Wage verification (payslips, mobile-money proof, or worker interviews) showing $\geq$ provincial minimum wage and equal pay for equal work. - Payment frequency and timeliness recorded;

Requirement	Description of Requirement	Relevant National /provincial Policy	Local Practices and Gaps	Interpretation Guideline	Monitoring Indicators
	includes providing equal pay to men and women for work of equal value. 2. Wages are paid in a timely manner and on a regular basis. 3. Wages are paid in a legal currency, or in another form acceptable to workers without creating any form of dependency. Overtime is voluntary and is paid at the rate required by local or national laws and regulations, or as collectively negotiated	<i>being and equitable remuneration)</i> • <i>ILO Conventions 100 (Equal Remuneration) and 111 (Discrimination)</i>	• Wage discrimination by gender is prevalent • Overwork is common during peak seasons without compensation • Illiteracy and informal employment status hinder enforcement	• Timely and regular payments must be documented or verbally verified during interviews • Equal wages must be paid to men and women for the same work • Overtime must be voluntary and paid as per provincial wage board guidelines or collective agreements • For smallholders or informal farms, evidence can be verbal confirmation from workers and community representatives; awareness-raising is essential to gradually formalize wage practices	overtime voluntary and paid per provincial rules or agreements. • For informal settings: IMS triangulation (worker/community interviews) + progressive formalization plan noted.

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