Work plan

Goal 1: Establishment and verification of ''Infection risk index''

Key Action Steps	Start Time	End Time	Expected Outcome	Data Source and	Person/Area Responsible	Comments
1. Data Collection -Gather data on dependent variables, e.g., number of mosquitoes collected, malaria infection status -Collect independent variables, including house-related, landscape/environmental, and larval habitat-related factors, using remote sensing technology,	4th Month	16th Month	Establishment of a reliable "Infection risk index" that incorporates both dependent and independent variables, improving the accuracy of HIRI.	1.Dependent variables: Data collection 2. Independent variables: Data collected using drones	1. Research and Technical Team 2. Drone-based data collection is in charge of SORA Technology	
2.Data Analysis - Apply Principal Component Analysis (PCA) to reduce the dimensions of independent variables and cluster houses based on dominant components. - Utilize Partial Least Squares (PLS) Regression to identify	4th Month	16th Month		3.PCA and PLS Regression: Analytical methods for data reduction and prediction.	Research and Technical Team	

Goal 2: Design Policy Implications

Key Action Steps	Start Time	End Time	Expected Outcome	Data Source and	Person/Area Responsible	Comments
1. Policy Discussion: - Evaluate how drone-based monitoring can improve the cost-effectiveness of vector control strategies (LLIN, IRS, and LSM) in Sierra Leone.	12th Month	16th Month	Policy recommendations on optimizing vector control strategies through drone-based monitoring.	Policy discussion and analysis.	Research Team and Policy Experts.	

Goal 3: Evaluation of Community Acceptance

Key Action Steps	Start Time	End Time	Expected Outcome	Data Source and	Person/Area Responsible	Comments
1. Community Engagement: -Conduct qualitative-based surveys and community meetings to understand local perceptions and acceptance of the "drone against malaria" project.	4th Month	16th Month	Deepened understanding of community acceptance and stakeholder engagement strategies to enhance project effectiveness and sustainability..	1. Qualitative surveys and community engagement.	Research Team	
2. Stakeholder Analysis: - Identify and categorize key stakeholders based on their influence and importance in the project. - Develop engagement strategies for different stakeholder groups.	4th Month	16th Month		2. Stakeholder analysis	Community Engagement Team and Stakeholder Engagement Team.	

Goal 4: Capacity Building and Training

Key Action Steps	Start Time	End Time	Expected Outcome	Data Source and	Person/Area Responsible	Comments
1. Training Programs -Develop and implement training programs for local technicians and healthcare workers	4th Month	16th Month	Enhance Local capacity and expertise in operating, Managing and maintaining drone-based interventions effeciely.	Assessment of training programs and skill development.	Training Team, Training Instructors & Program Coordinators. Training program of drone-based data collection will be provided by SORA Technology	
2. Hands-on Training - Provide practical, hands-on training for drone-based interventions	4th Month	16th Month				
3. Continuous Learning - Establish ongoing learning and skill development mechanisms	4th Month	16th Month				

Gnat Chart

Milestone	Key Activities/step	Timeline																	
		Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18
Overall Planning	Preparation and Planning of project activities	▓	▓	▓															
Establishment and verification of "Infection risk index"	Gather data on dependent variables, e.g., number of mosquitoes				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Collect independent variables, including house-related,				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Apply Principal Component Analysis (PCA) to reduce the				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Utilize Partial Least Squares (PLS) Regression to identify				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
Design Policy Implications																			
	Evaluate how drone-based monitoring can improve the cost-												▓	▓	▓	▓	▓	▓	▓
Evaluation of Community Acceptance																			
	Conduct qualitative-based surveys and community meetings to				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Identify and categorize key stakeholders based on their influence				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Develop engagement strategies for different stakeholder groups.																		
Capacity Building and Training																			
	Develop and implement training programs for local technicians				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Provide practical, hands-on training for drone-based interventions				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
	Establish ongoing learning and skill development mechanisms				▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓	▓		
Monitoring and Evaluation	Overall M&E of outlined activties/indicators , objectives and outcome of the project																	▓	▓