



3. Public Wi-Fi Hotspots
 - SDG 9: Industry, Innovation, and Infrastructure
 - Providing access to public Wi-Fi enables digital inclusion, improves communication, and enhances the island's technological infrastructure.
 - SDG 4: Quality Education
 - Expanding Wi-Fi access helps facilitate e-learning and vocational training, making education more accessible to residents, especially in rural areas.
4. Solar Panel Installation and Energy Efficiency
 - SDG 7: Affordable and Clean Energy
 - Installing solar panels will increase the share of renewable energy on the island and reduce dependence on imported fossil fuels, supporting clean energy access for all.
 - SDG 13: Climate Action
 - The project will mitigate climate change by reducing greenhouse gas emissions through the adoption of renewable energy.
5. Rainwater Harvesting and Smart Water Meters
 - SDG 6: Clean Water and Sanitation
 - Implementing rainwater harvesting will contribute to sustainable water resource management and ensure clean water availability for the island's residents.
 - SDG 13: Climate Action
 - Efficient water usage through smart meters contributes to resilience in the face of climate change, particularly in regions prone to water scarcity.
6. Telemedicine and Health Monitoring Integration
 - SDG 3: Good Health and Well-being
 - Expanding telemedicine services and integrating health data into the Vaarugey Portal will ensure that residents have access to essential health services and improve the island's capacity to manage medical emergencies.
 - SDG 10: Reduced Inequalities
 - By providing remote healthcare access, the project reduces geographic and socioeconomic disparities in healthcare provision.
7. Smart Classrooms and E-Learning Platforms
 - SDG 4: Quality Education
 - Smart classrooms and e-learning platforms will promote inclusive and equitable quality education for all, regardless of location, fostering lifelong learning opportunities for residents.
 - SDG 8: Decent Work and Economic Growth
 - Vocational training and digital education will empower the local workforce with the skills needed to thrive in emerging industries, contributing to economic growth.

8. Local Tourism Promotion and Eco-Tourism





Each complaint will receive a guaranteed response within hours, if not minutes, fostering a culture of responsiveness and accountability. The portal will include features such as tracking service requests, providing status updates, and accessing frequently asked questions (FAQs) to help residents navigate the services more easily.

- **Council Website:** The official council website will serve as a comprehensive resource hub, offering updates on council decisions, island developments, and upcoming events. It will also provide important documents for download, allow online form submissions, and feature community news to keep residents informed and engaged.
- **Mobile App:** A dedicated mobile application will enhance accessibility by allowing residents to track the status of their requests in real time, receive notifications from the council, and access various council services on-the-go. The app will include a user-friendly interface that makes it easy for residents to report issues, check service updates, and stay informed about council initiatives.

Expected Outcomes:

- **Efficient Service Delivery:** The integration of these digital tools will enable faster and more efficient service delivery. Residents will benefit from reduced wait times for requests and services, ensuring their needs are addressed promptly.
- **Greater Transparency and Accountability:** By providing residents with direct access to information and services, the Vaarugy Portal, council website, and mobile app will promote greater transparency in governance. The council’s responsiveness to complaints and requests will foster trust within the community, enhancing the overall relationship between residents and the council.
- **Improved Community Engagement:** These digital governance tools will facilitate more active participation from residents in local decision-making processes. With streamlined communication channels, residents can more easily share their opinions, suggestions, and feedback on council initiatives.

4.2. Smart Energy

The Smart Hoandedhdhoo Project prioritizes sustainability through the adoption of renewable energy sources and the implementation of energy-efficient technologies. By reducing reliance on fossil fuels and enhancing energy self-sufficiency, the island aims to minimize its carbon footprint and promote a greener future for its residents.

Key Initiatives:

Solar Panels:

- **Installation on Public Buildings:** Solar panels will be installed on key public facilities, such as the council building, health center, and community centers, to harness solar energy for local consumption.



By focusing on smart energy solutions, Hoandedhdhoo aims to lead by example in sustainable practices, ensuring a cleaner and more resilient future for its residents.

4.3. Enhanced Security

The Smart Hoandedhdhoo Project aims to improve public safety and emergency responsiveness through the integration of smart technologies. By enhancing surveillance, lighting, and emergency communication systems, the project seeks to provide residents with a greater sense of security and assurance.

Key Initiatives:

Surveillance Cameras:

- **Strategic Installation:** Surveillance cameras will be strategically placed in key public areas such as the harbor, waste management center, health center, and high-traffic public parks. These locations have been chosen to ensure maximum coverage and to deter potential criminal activities.
- **Real-Time Monitoring:** The surveillance system will allow for real-time monitoring by local authorities, providing immediate access to footage in case of incidents. This capability will enable quick response actions and investigations, enhancing overall public safety.
- **Data Security:** Measures will be implemented to ensure that the footage collected is stored securely and accessed only by authorized personnel to protect residents' privacy.

Smart Lighting:

- **Adaptive Street Lighting:** Smart streetlights will feature motion sensors that automatically adjust brightness based on pedestrian and vehicle activity. During low-traffic periods, lights will dim to conserve energy, while brightening when motion is detected to improve visibility and safety.
- **Integration with Surveillance:** The smart lighting system will be integrated with surveillance cameras to enhance visibility in monitored areas during nighttime, ensuring that potential threats can be easily detected.

Emergency Response System:

- **Digital Reporting System:** A digital emergency response system will be established, allowing residents to report emergencies or suspicious activities quickly and easily through a mobile app. This system will ensure that alerts reach local authorities immediately, facilitating prompt action.
- **Community Alerts:** The system will also include a feature for sending out alerts and updates to residents regarding emergencies, safety tips, and community safety events, fostering a proactive approach to public safety.

Expected Outcomes:

- **Increased Public Safety:** The integration of surveillance cameras in crowded areas, such as public parks, harbors, and government buildings, will act as a deterrent to crime and provide residents with





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- **Incentive Programs:** The council may introduce incentive programs to reward residents who actively participate in recycling initiatives. This could include discounts on council services or recognition programs for community members who contribute significantly to waste reduction.

Waste Monitoring System:

- **Smart Sensors in Waste Bins:** Sensors will be installed in waste bins to monitor waste levels in real time. This data will allow the council to optimize collection routes and schedules, reducing fuel consumption and operational costs associated with waste collection.
- **Data Recording and Reporting:** The waste monitoring system will digitally record and analyze data related to waste collection, recycling rates, and composting efforts. This information will be invaluable for assessing the effectiveness of current waste management strategies and identifying areas for improvement.

Expected Outcomes:

- **Reduced Waste Generation:** By promoting composting and recycling, the project aims to significantly reduce the amount of waste generated on the island. This shift toward a circular economy will lessen the environmental impact and promote the responsible use of resources.
- **Optimized Waste Collection:** The integration of smart sensors will ensure that waste collection is conducted efficiently, only when bins are full. This will minimize unnecessary trips, reduce fuel usage, and lower greenhouse gas emissions associated with waste collection vehicles.
- **Improved Community Engagement:** By involving residents in waste management practices through education and incentive programs, the council will foster a stronger sense of community and environmental stewardship. Residents will feel empowered to take an active role in maintaining a clean and sustainable environment.
- **Enhanced Data-Driven Decision Making:** The digital monitoring system will provide valuable insights into waste generation patterns and recycling trends. This data will enable the council to make informed decisions regarding future waste management policies and practices, ensuring that they remain effective and responsive to community needs.
- **Promoting Eco-Friendly Practices:** By implementing greener practices in the existing waste management center and focusing on digital monitoring, the council will demonstrate its commitment to sustainability. This initiative aligns with global efforts to combat climate change and promote environmentally friendly practices at the local level.

This project will transform waste management practices on the island, leading to a cleaner environment, enhanced community participation, and a sustainable future.

4.5. Nature Preservation and Mangrove Protection

The Smart Hoandedhdhoo Project recognizes the critical importance of preserving the island's natural mangrove reserves and promoting environmental sustainability. Mangroves serve as vital ecosystems that support biodiversity, protect coastlines, and enhance the overall health of the environment. The project



aims to implement robust conservation strategies while engaging residents in stewardship of their natural resources, from heritage sites to mangrove forests.

Key Initiatives:

Mangrove Conservation Programs:

- **Protection and Rehabilitation:** The council will launch programs focused on protecting existing mangrove areas and rehabilitating degraded sites. This may involve replanting efforts, monitoring of mangrove health, and establishing protective measures to prevent encroachment and degradation from human activities.
- **Community Involvement:** Residents will be invited to participate in mangrove planting days and conservation activities, fostering a sense of ownership and responsibility for the preservation of these crucial ecosystems.

Eco-Tourism and Education:

- **Nature-Friendly Tourism:** The council will promote eco-tourism initiatives that highlight the beauty and ecological significance of the mangrove ecosystems. This could include guided tours, nature walks, and kayaking opportunities that allow visitors to experience and appreciate the natural surroundings without causing harm.
- **Educational Programs:** Awareness sessions will be organized for residents to educate them about the importance of mangroves in maintaining biodiversity, protecting coastal areas, and providing ecosystem services. Topics may include the role of mangroves in carbon sequestration, habitat for marine life, and their cultural significance.

Community Stewardship Initiatives:

- **Adoption Programs:** The council can implement "adopt-a-mangrove" programs, where individuals or groups take responsibility for specific areas of mangrove forests. This initiative will encourage long-term care and monitoring, ensuring that residents remain engaged in preservation efforts.
- **Awareness Campaigns:** Regular campaigns will be conducted to highlight the importance of protecting mangroves and other natural resources. This could include posters, social media outreach, and community events that celebrate local heritage and biodiversity.

Expected Outcomes:

- **Preservation of Biodiversity and Natural Resources:** By actively engaging the community in conservation efforts, the project will contribute to the preservation of various species that rely on mangrove habitats, ultimately enhancing local biodiversity and ensuring sustainable use of natural resources.
- **Strengthened Ecosystem Resilience:** Healthy mangrove ecosystems play a crucial role in protecting coastlines from erosion, reducing the impact of storm surges, and mitigating climate change effects.



Health Monitoring Apps:

- **Integration with National Systems:** The existing national health monitoring initiative, "Aasandha," will be incorporated into the Vaarugey Portal. This integration will allow residents to seamlessly access their health records, manage chronic illnesses, and receive personalized health recommendations without navigating multiple platforms. By centralizing health data, the council aims to empower residents to take control of their health and wellness.
- **User-Friendly Access:** The Vaarugey Portal will feature a dedicated section for health management, where residents can track their medical history, medication schedules, and upcoming appointments, ensuring they are well-informed about their health status.

Emergency Response Beepers:

- **Distribution to Vulnerable Groups:** Emergency response beepers or pagers will be distributed to targeted groups within the community, such as the elderly or those with chronic health conditions. These devices will ensure that residents can quickly alert healthcare providers in case of emergencies, significantly reducing response times.
- **Coordination with Local Health Center:** The council will provide the health center with backend access to the Vaarugey Portal, allowing them to receive and respond to emergency calls promptly. This arrangement will be formalized through a Memorandum of Understanding (MOU) between the council and the health center, establishing clear protocols for emergency responses and record-keeping.
- **Real-Time Communication:** When a resident activates their emergency beeper, the council will maintain a record of the call, while the health center will receive immediate notification to dispatch medical assistance. This dual-layer communication ensures that all emergency incidents are documented and managed effectively.

Expected Outcomes:

- **Increased Access to Healthcare Services:** By offering telemedicine options and integrating health monitoring systems, residents will have improved access to healthcare services, reducing barriers such as travel and waiting times.
- **More Efficient Management of Medical Emergencies:** The implementation of emergency response beepers will facilitate quicker reactions to health crises, potentially saving lives and improving health outcomes for vulnerable populations.
- **Enhanced Data Utilization:** The Vaarugey Portal will serve as a centralized hub for health information, enabling residents to easily track their health records and progress. This will also help healthcare providers better understand community health trends and needs, leading to improved service delivery.
- **Strengthened Collaboration:** The partnership between the council and the local health center will create a more cohesive healthcare framework, ensuring that resources are effectively utilized, and health services are tailored to meet the unique needs of the community.





Key Initiatives:

Free Wi-Fi Hotspots for Council Services:

- In the initial phase, the council will install free Wi-Fi access points at key public locations such as the Council Building and Community Parks. The primary purpose of this service will be to enable residents to browse the council's official website and access the Vaarugey Portal.
- Through the portal, residents can easily request and receive services such as lodging complaints, tracking applications, and accessing updates on council decisions. This will streamline the communication between the council and the public, promoting efficiency and reducing in-person visits.
- By offering free access to these essential digital platforms, the council aims to increase engagement with its services and ensure that all residents, regardless of their internet access at home, can participate in the Smart Governance framework.

Long-Term Wi-Fi Expansion:

- In the long-term plan (10-15 years), the council aims to expand the scope of this initiative to provide free public Wi-Fi across the entire island. This expansion will shift from providing limited access to the council's website and portal to offering full internet browsing capabilities via strategically placed Wi-Fi hotspots.
- The long-term vision includes setting up hotspots in public locations, such as harbors, community centers, educational institutions, and residential areas, to ensure that all residents can enjoy consistent, high-quality internet access. This would also allow residents to access broader online resources for education, business, healthcare, and entertainment.

Expected Outcomes:

- **Increased Access to Council Services:** By offering free Wi-Fi access to the council's digital platforms, more residents will be empowered to interact with the council online. This initiative will help streamline service requests, increase transparency, and enhance the overall efficiency of governance on the island. In the long run, providing full access to the internet will allow residents to explore additional services, from educational opportunities to career development resources.
- **Improved Digital Literacy:** As more residents engage with the council's online platforms, there will be an opportunity to foster digital literacy within the community. This initiative will serve as a gateway for residents to develop the skills necessary to navigate online resources and digital tools. The eventual expansion of Wi-Fi across the island will create an environment where digital tools become integral to daily life, helping residents adapt to an increasingly digital world and boosting their proficiency in utilizing online services.
- **Community Connectivity and Engagement:** Providing free Wi-Fi will also increase social connectivity among residents, offering spaces for interaction, sharing information, and staying updated on





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Hoandedhdhoo, Republic of Maldives

community news. It will help build a more connected and informed community where residents feel engaged with both the council and each other.

- **Supporting Economic Development:** Expanding access to the internet will open up new opportunities for residents to explore e-commerce, remote work, and online learning, contributing to the long-term economic development of Hoandedhdhoo. The availability of internet access can also attract digital nomads or eco-conscious travelers interested in staying connected while enjoying the island's serene environment.

In conclusion, this initiative aims to provide accessible internet services for all residents, supporting digital governance and fostering a more connected, informed, and digitally literate community in Hoandedhdhoo. The council's proactive role in implementing these Wi-Fi access points will ensure long-term benefits for the island's residents and visitors.

5. Implementation Plan (10-Year Plan)

The Smart Hoandedhdhoo Project will be implemented over a 10-year period, with each phase designed to prioritize the most pressing needs and build gradually on the foundation established in earlier phases. The timeline for implementation will be flexible, depending on the availability of funds and resources. Funding will be sought from a range of sources, including international organizations, foreign embassies based in the Maldives, government agencies, and private companies through partnerships, grants, and investments. The timeline also takes into account the council's existing capacity and limitations, ensuring the plan remain feasible while targeting gradual but sustained growth.

Phase 1: Digital Infrastructure Development (Years 1-2)

The first phase will focus on establishing the necessary digital infrastructure to support the Smart Hoandedhdhoo Project, laying the foundation for further advancements in governance, security, and waste management.

Key Actions:

Development of Digital Platforms:

- Design, launch, and promote the Vaarugey Portal, allowing residents to access council services, file complaints, and request assistance online.
- Develop the council's official website to communicate council decisions, publish event updates, and share forms for public services.
- Launch a mobile app that enables real-time tracking of resident service requests, alerts, and notifications.

Surveillance and Security:

- Install surveillance cameras in key public areas such as the harbor, waste management center, health center, public parks, and government buildings. This will enhance public safety and help monitor critical infrastructure.





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Hoandedhdhoo, Republic of Maldives

Smart Lighting and Energy Efficiency:

- Install smart streetlights that adjust brightness based on movement and environmental conditions, optimizing energy use and enhancing nighttime safety.

Smart Waste Management System:

- Set up waste monitoring systems with sensors in waste bins to optimize waste collection routes, reduce fuel consumption, and improve cleanliness.

Funding and Resource Needs:

This phase will focus on smaller-scale projects with manageable costs, which can be financed through local council funds or by seeking early-stage grants from international organizations such as UNDP or World Bank, and potentially engaging corporate sponsors for initial support.

Expected Outcomes (Years 1-2):

- Efficient and transparent digital governance with streamlined service delivery.
- Increased public safety and better crime prevention through surveillance and smart lighting.
- Optimized waste management, improving overall cleanliness and environmental sustainability.

Phase 2: Renewable Energy and Water Management (Years 1-5)

In the second phase, the focus will shift towards achieving energy self-sufficiency and sustainable water management. This will lay the groundwork for a greener Hoandedhdhoo, reducing its dependence on imported fuel and promoting eco-friendly practices.

Key Actions:

Installation of Solar Panels:

- Install solar panels on public buildings (council office, health center, schools) to generate renewable energy and reduce reliance on non-renewable sources.
- Explore partnerships with international donors and agencies promoting green energy, such as IRENA (International Renewable Energy Agency) or ADB (Asian Development Bank), to support solar energy installation projects.

Introduction of Smart Water Management:

- Install smart water meters in public buildings and homes to monitor usage and reduce water waste. This will include educating residents about water conservation and efficient use of resources.
- Promote rainwater harvesting systems on public buildings, such as schools and government offices, to supplement the freshwater supply.





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Hoandedhdhoo, Republic of Maldives

Funding and Resource Needs:

- Apply for renewable energy grants and green technology funds through organizations like GCF (Green Climate Fund) or USAID.
- Engage private sector partners in the renewable energy space to assist with funding and technical support.

Expected Outcomes (Years 1-5):

- Reduced energy costs and increased reliance on renewable energy sources. Enhanced water conservation efforts, with a more self-sufficient water management system for public use.

Phase 3: Healthcare, Education, and Agriculture (Years 1-10)

The third phase will focus on improving healthcare, education, and agricultural practices through smart technologies, enhancing the well-being of residents and promoting self-sufficiency.

Key Actions:

Healthcare Solutions:

- Expand telemedicine services at the local health center, allowing residents to consult doctors remotely. This will involve upgrading the existing health infrastructure and potentially providing financial assistance for additional equipment.
- Integrate national health systems (e.g., Aasandha health records) into the Vaarugey Portal, allowing resident's easy access to their medical data through the council platform.
- Distribute emergency response beepers to vulnerable groups, with real-time connection to the health center via the Vaarugey Portal, ensuring timely assistance in emergencies.

Smart Education Solutions:

- Support the Hoandedhdhoo School with funding for smart classrooms, providing digital tools such as interactive whiteboards and e-learning platforms.
- Launch vocational training programs and career guidance sessions for youth, focusing on skill development in fields like ICT, hospitality, and renewable energy.
- Introduce a remote e-learning platform to give residents access to higher education and training without needing to relocate to Male' or other islands.





Agriculture Development:

- Implement hydroponic farming systems in collaboration with the local farming community, promoting modern agricultural techniques and ensuring food security.

Funding and Resource Needs:

Seek funding from healthcare-focused NGOs and education technology providers. Partner with international organizations such as WHO, UNICEF, and FAO (Food and Agriculture Organization) for healthcare, education, and agriculture-related initiatives.

Expected Outcomes (Years 1-10):

- Improved healthcare accessibility and more efficient emergency response systems.
- Enhanced educational opportunities and better-prepared residents for the future job market.
- More sustainable and modern agriculture practices, reducing the island's reliance on imported food.

Phase 4: Full System Integration and Tourism Promotion (Years 2-10)

The final phase will integrate all smart systems under a cohesive platform and focus on promoting local tourism as a driver for economic development.

Key Actions:

Full Integration of Smart Platforms:

- Integrate all smart systems (governance, security, waste management, healthcare, education) into a single, cohesive platform accessible via the Vaarugey Portal and mobile app, ensuring seamless communication and service delivery.

Tourism Board and Promotion:

- Establish a Tourism Board within the council to develop a strategy for promoting local guesthouses, eco-tourism activities, and the mangrove reserves.
- Conduct promotional campaigns at national and international tourism fairs to market Hoandedhdhoo as a premier destination in the Huvadhu Atoll.
- Introduce a visitor regulation system, including a tourist tax to be collected per tourist per night, similar to the Green Tax initiative, with funds reinvested into local tourism infrastructure.

Funding and Resource Needs:

- Secure funding for tourism promotion and digital platform integration through government tourism funds, private sector partnerships, and international tourism development grants.

Expected Outcomes (Years 2-10):

