~ FISHERIES AND WILDLIFE (FW) STRATEGIC PLAN ~

Last revised May 1, 2021

~ Preface ~

The Strategic Plan for the Department of Fisheries and Wildlife is written for members of the Department, College of Agriculture and Natural Resources (CANR), and University (MSU). The time frame of the plan is approximately 5 years.

~ Who We Are ~

Mission: To build local, national, and international capacities to conserve ecosystems that support fish, wildlife, and society through integrated programs in research, education, and engagement.

Vision: To be a world-class, inclusive, and innovative research, education, and engagement community that promotes leadership in conservation of fisheries and wildlife resources.

The Department of Fisheries and Wildlife (FW) at Michigan State University (MSU) is an international leader in integrating research, teaching, and engagement to positively affect local, regional, national, and global outcomes in natural resources. Our work supports stakeholder efforts to conserve¹, sustain and value natural resources; improves natural resource sustainability; and expands understanding of basic science. By linking physical, biological, and social sciences to solve challenges related to the environment, terrestrial and aquatic organisms, and people, our department is unique within MSU and one of the top departments of its kind in the world.

People are the foundation of FW. Collectively, we share a vision for the future, a sense of responsibility to our mission, and a strong commitment to our individual, collaborative, and collective work. We are a diverse department across many dimensions, and we view this diversity as a unique strength. However, FW remains less demographically diverse than the society around us, and we aspire to better reflect global diversity of the human population.

For purposes of this strategic plan, "conserve" involves intentional, thoughtful, and ethical treatment of the environment, wild organisms, and people, sustained for current and future beneficiaries. Our efforts are informed by social and natural sciences, the arts and humanities, and multiple knowledges and experiences.

¹ Efforts to "conserve" consider a range of decisions and options for how humans interact with the environment. These decisions and options draw on evidence to meet the needs of societies worldwide. Stakeholders' strategies range from no direct human intervention to active management in support of their objectives. In FW, we pay particular attention to how these choices affect the needs of vulnerable people and communities.

The FW teaching program is strong, with approximately 200 undergraduate and 100 graduate students. Many of our faculty have joint university department appointments and contribute to teaching in other units across MSU. These joint appointments advance collaborations and partnerships across the University, contribute to the fabric of FW, and lead extensive interdisciplinary research, teaching, and engagement. We contribute to programs including the Environmental Science and Policy Program (ESPP), the Ecology, Evolution, and Behavior program (EBB), and MSU Extension. Some of us work directly with natural resource agencies such as the Michigan Department of Natural Resources, the Great Lakes Fishery Commission, and the U.S. Fish and Wildlife Service to address high priority research and engagement needs for the state, region, and country. We interact with hundreds of stakeholder groups across a spectrum of interests from around the globe.

We seek solutions to understand and protect organisms and their environments by studying molecules, populations, habitats, and ecosystems—including people and societies—from local to global scales and through many disciplinary lenses. Some of our faculty focus on conservation through sustainable hunting and fishing, while others focus on understanding and mitigating effects of large-scale stressors like human land use or changing climate. The FW faculty have expertise in understanding ways to minimize spread of invasive species and disease-causing organisms that threaten ecosystems as well as human health and livelihoods. Additionally, interactions and interdependencies among humans, societies, organisms, and habitats are paramount to our work.

The FW department recognizes that the natural world is changing, as are the ways humans interact with the natural world. We adapt to these changes, and some of our most impactful work occurs when FW faculty integrate knowledge across areas of expertise to address complex, emerging challenges. Our collaborations and our capacity to synergize the expertise of our diverse faculty are strengths.

Additional outcomes of our research, education, and engagement include creation and sharing of knowledge that informs wise policy and that contributes to urgent discussions about how animals, land, water, and air should be used, restored, and protected; how global changes factor in; and the central role of humans. We generate information that supports people who depend on natural resources for their livelihoods and their lives. We build capacity for effective public engagement, empowering publics locally and globally. As we strive to achieve these outcomes, we do so by focusing on teaching, learning, and mentoring that will develop the next generation of leaders and stewards. We value diversity and are committed to continually improving the culture within FW, the University, and beyond. We believe that to uphold our mission and vision, we must keep equity and inclusion at the forefront, letting those values guide our actions.

Like other systemic disturbances, the upheaval of the 2020 global pandemic is an evolving situation that has forced individuals, FW, and societies to reassess priorities and approaches. This extreme event requires flexibility, as will new challenges in the future. FW aspires to always be responsive to current and future such challenges.

FW strives for increasingly inclusive, positive influences on interdependent human-natural systems. Our integrated strategic plan calls for us to Evolve, Explore, Educate, Engage, and Elevate. These five interconnected components occur simultaneously. However, in the pages that follow, we describe them as numbered in the figure.

FW: Evolve, Explore, Educate, Engage, Elevate



~ 1. Evolve ~

Diversity, equity, and inclusion are core for charting FW's path forward.

The FW community is dedicated to leading the world in supporting stakeholder efforts to conserve, sustain, and value natural resources. We recognize that our priorities and corresponding efforts must evolve as the environment changes and as the interests, needs, and values of students, stakeholders, and societies respond to those changes. We must embrace new perspectives, new scientific questions, and new research tools to meet the rapidly changing social and environmental challenges of our world. We recognize that to strengthen FW's resilience and relevancy we need to more intentionally incorporate principles of diversity, equity, and inclusion (DEI) in our governance and our ongoing work. And we also recognize that FW is positioned to be a leader in DEI in scholarly communities that address natural resources.

We reaffirm our commitment to welcome and support a diversity of people and perspectives in equitable and inclusive ways and in forums that empower students, staff, research associates, faculty colleagues, and partners to learn and collaborate in dignity. We recognize that our traditions reflect power and privilege and choose to pursue a future built on respect and inclusion. We also recognize that the language we use, including concepts associated with identities, changes quickly and often does not account for contemporary understandings of identity concepts. We strive to improve the ways in which we understand and communicate about topics related to DEI.

Department members' interests in improving everyone's experiences and learning from others' successes and challenges lay the groundwork for dedicated expansion of our DEI efforts. Governance, the policies, and processes used for decision-making and the ways by which decisions are implemented (or not), is a crucial component of our efforts. We will advance FW's governance processes to fully integrate DEI into policies and practices, thereby improving resilience and relevancy. We will identify and address existing and future barriers to inclusive shared governance, particularly those related to decision-making. We prioritize accountability, transparency, responsiveness, efficiency, participation, and adherence to an established and agreed-upon set of policies and procedures. We have responsibility for including others' voices, exhibiting inclusive practices and behaviors, and acting as leaders of change. Finally, we will respond to changing opportunities and constraints across our research, teaching, and engagement missions driven by principles of diversity, equity, inclusion, and shared governance.

~ Evolve Goals & Objectives ~

Goal 1.1. Practices are in place to enhance diversity in our department and diversify the communities we serve.

- 1.1.1. Ensure that FW reflects diverse communities by increasing racial, ethnic, gender, and other forms of identity diversity in FW. Practices to ensure success include intentional recruiting efforts, as well as support, retention, and career advancement opportunities for all. This effort must correct ongoing racial disparities in our department and in the broader natural resource academic community.
- 1.1.2. Increase stakeholder outreach to diverse communities and expand partnerships with organizations committed to working with diverse populations.

Goal 1.2. Departmental culture and environment actively support equity and inclusion.

- 1.2.1. Implement effective, accessible, and equitable practices for addressing behaviors that undermine equity and inclusion in the department (implemented anonymously, if necessary).
- 1.2.2. Use inclusive approaches and content that reflect diverse resource user experiences in course offerings, research, and outreach activities.
- 1.2.3. Foster a more supportive and collaborative departmental culture, including constructive use of power and influence, as well as feedback mechanisms to recognize positive change and to support efforts that identify and address negative interactions or behaviors.
- 1.2.4. Develop understanding of current levels and types of diversity in FW, related fields, and academia more broadly, as well as an appreciation for the benefits of enhancing diversity in these fields, in the people and communities they serve, and among scientists and practitioners.
- 1.2.5. Employ mentoring practices that support department members across all roles.

Goal 1.3. Increase assessment and levels of diversity, equity, and inclusion in the department.

- 1.3.1. Implement ongoing tracking of all possible types of diversity across all roles in the department, with particular attention to the ongoing impacts of systemic injustices and biases on the composition of our community.
- 1.3.2. Implement measures for diversity, equity, and inclusion.
- 1.3.3. Identify and celebrate DEI successes on individual and department levels.
- 1.3.4. Determine access to, and quality of, educational and professional opportunities for all.
- 1.3.5. Implement ongoing assessment of department climate and culture.

Goal 1.4. Include faculty, staff, postdoctoral scholar, and student voices in department governance.

- 1.4.1. Foster inclusive committees that ensure that all views are considered in Departmental governance. 1.4.2. Ensure transparency about department decision-making and implications of such decisions for individuals within and beyond the department.
- 1.4.3. Increase awareness of FW, CANR, and MSU trends in policy, practice, and performance metrics (enrollment, publications, grants, budget) and be part of the conversation about how to infuse these with our DEI values.

~2. EXPLORE~

Generate new knowledge relevant to inclusive natural resource decisionmaking.

FW's historic strengths addressing challenges and opportunities facing Michigan's fish and wildlife resources have grown into research strengths across a growing diversity of disciplinary areas. Although our research occurs in nearly every one of Michigan's 83 counties and all the Great Lakes, we also tackle myriad environmental challenges that affect the well-being of wild organisms and humans at scales from local communities to continents and across temporal scales. Our research occurs throughout North America, and the international research footprint of FW spans six continents, all oceans, and dozens of countries.

A stronghold of our department is its ability to develop and sustain partnerships. Our research portfolio continues to benefit from the Partnership for Ecosystem Research and Management (PERM), which was established to work with stakeholders to identify challenges and opportunities facing ecosystems and conduct research that directly informs natural resource policy and management in Michigan and the Great Lakes basin, and indirectly throughout the world. Key PERM partners, for example the Michigan Department of Natural Resources and the Great Lakes Fishery Commission (among others), provide support for faculty salary, operations, and research projects that fund graduate students and centers such as the Quantitative Fisheries Center and the Boone & Crockett Quantitative Wildlife Center. Other important partners include Michigan Sea Grant, MSU AgBioResearch, and MSU Extension, all of which play vital roles in sustaining FW activities.

FW faculty engage in innovative research to explore and develop new ideas, methods, and technologies. To support such innovative research, FW faculty are competitive for external contracts and grants from other governmental and non-governmental organizations and private foundations. FW research is funded by a diversity of entities, such as the U.S. National Science Foundation, U.S. Department of Agriculture, U.S. Geological Survey, U.S. Department of Defense, U.S. Fish and Wildlife Service, National Aeronautics and Space Administration, U.S. State Department, National Institutes for Health, tribal entities, as well as private sources. The department frequently is considered one of the top five most highly funded, cited, and awarded departments among fisheries and wildlife departments in the U.S.

In addition to running their own highly productive labs, FW faculty also lead several renowned research <u>centers</u> that mirror the department's diverse research interests and increase our positive impacts. These collaborative centers formally bring together researchers across departments and disciplines, leveraging their expertise, experiences, and professional networks, and fostering the creative and synergistic collaborations required to tackle natural resource challenges. Current centers engage and partner with stakeholders to conduct translational research on quantitative assessment of fisheries and wildlife, water resources,

environmental contamination by per- and polyfluoroalkyl substances (PFAS), and to ensure ecological sustainability and resilience.

Much of FW's innovative research focuses on the vast benefits provided by the Earth's fish and wildlife resources. FW's research will be sustained by continually adapting to and diversifying the expertise needed to anticipate and resolve challenges that threaten the environment upon which fish, wildlife, and humans all depend.

~ Explore Goals & Objectives ~

Goal 2.1. FW research inclusively addresses natural resource challenges facing society.

- 2.1.1. Continually assess current and emerging natural resource challenges and opportunities across geographical and temporal scales and considering diverse anthropogenic interests.
- 2.1.2. Increase the number and topical breadth of translational research projects informed by and directly serving the needs of resource managers, diverse stakeholders, other decision makers, and society at large.
- 2.1.3. Attract and support diverse and high-quality faculty, post-doctoral fellows, staff, and students involved in research.

Goal 2.2. FW supports and encourages basic and applied research in its many forms (e.g., collaborative, multi/inter/transdisciplinary, translational).

- 2.2.1. Increase the number and topical breadth of inter/multi/transdisciplinary and translational research projects.
- 2.2.2. Improve the success of collaborative teams in obtaining support, completing research, and having positive impacts for society.
- 2.2.3. Enhance pre- and post-award support that facilitates extramural funding awards and aids grant management and operation.
- 2.2.4. Enhance the physical and personnel infrastructure to help FW compete for financial support needed for basic and applied research in its many forms.

Goal 2.3. FW conducts innovative research, i.e., research that develops and employs cuttingedge technologies and methodologies.

- 2.3.1. Increase the number and topical breadth of research projects recognized as innovative.
- 2.3.2. Enhance the physical and personnel infrastructure needed to obtain financial support needed for innovative research.
- 2.3.3. Enhance pre- and post-award support for securing extramural funding and managing innovative or otherwise higher-risk grants and operations.
- 2.3.4. Provide resources for students and post-doctoral fellows to develop skills and competencies to conduct innovative research.

Goal 2.4. FW engages stakeholders, students, researchers, and society in all aspects of the research enterprise.

- 2.4.1. Increase the quantity and quality of community engagement to identify society's needs and research gaps and prioritize research activities.
- 2.4.2. Develop and sustain relationships with stakeholders that maintain relevancy of FW research in basic and applied ways.
- 2.4.3. Increase and sustain projects that integrate undergraduate and graduate students in research.
- 2.4.4. Increase and sustain participatory research that includes stakeholders in all stages of research.

Goal 2.5. FW supports research across its mission and intertwines research with outreach and education.

- 2.5.1. Develop and sustain research about teaching and learning.
- 2.5.2. Develop and sustain research about outreach and engagement.
- 2.5.3. Increase the number of research projects that link two or more of FW's missions.

~3. EDUCATE~

Develop the next generation of FW scientists and managers and improve scientific literacy about natural resource systems.

In FW, we value teach, our academic programs, and our students. Consistent with these values, faculty regularly have been selected as teaching fellows in MSU programs, and both FW faculty and graduate students engage in a wide variety of professional development experiences related to teaching and learning, publish on the scholarship of teaching and learning, and receive a variety of teaching awards. Additionally, our teaching is linked to our research and outreach in critical ways. Because most of our faculty are engaged in at least two of the three FW missions, they are in a strong position to infuse the latest scholarship into course offerings, as well as use their classrooms as spaces for developing new ideas and asking new questions. Furthermore, our faculty's active research programs and outreach initiatives produce a tremendous diversity of opportunities for our students to directly participate in research and engagement, which inform policy development, management decisions, and citizen engagement. Here, we highlight some of the most notable features and trends of our academic programs and evidence of student success.

In our Graduate Program, total annual enrollment has averaged between 90 and 100 graduate students per year since 2000. These students are about equally split between MS and PhD programs and between male and female students. By many measures, our graduate program is a strong one, with higher-than-average proportions of students completing degrees, competitive time-to-degree metrics, and high placement rates. We receive high-quality applications, and we typically have several incoming students each year with competitive MSU and national fellowships.

Early in the 21st century, we developed a new undergraduate curriculum that includes six concentrations. In response, our undergraduate program grew from ~125 undergraduate FW majors to ~225 majors and has remained at this size since about 2010. These undergraduate students express high satisfaction with their program and of the teaching and advising they receive (SIRS scores and comments, and surveys of graduating students).

Our teaching mission is also directed towards non-majors, at both the graduate and undergraduate levels. At the undergraduate level, we reach students majoring in related disciplines (Integrative Biology, Lyman Briggs College, Animal Science, etc.) through their enrollment in our FW courses and the jointly led minor in Science, Technology, Environment and Public Policy. We also contribute to scientific literacy of non-science majors through the courses we teach in the Center for Integrative Studies—General Science, as well as our 100- and 200-level FW courses. At the graduate level, both FW and non-FW students enroll in our courses, and our students and our courses contribute to a variety of interdisciplinary efforts such as MSU's graduate programs in Ecology, Evolution, and Behavior and Environmental Science and Policy.

Although FW has a strong history and basis for our academic programs, there are important areas in which we seek to improve. Additionally, we anticipate that several issues will soon pose significant challenges to FW's reputation, capacity, and service to students.

- We need student-focused department-level DEI initiatives to meet the following concerns: our student body is primarily domestic and Caucasian and there is some evidence that there is a higher attrition rate of female graduate students as compared to males. Thus, we seek to diversify our student body, to deliver a more inclusive and supportive curriculum, and to ensure equity and voice for all our students.
- As of fall 2020, we have many faculty eligible to retire. We need to consider how these
 retirements and any other losses of faculty influence our teaching capacity as we
 prioritize new faculty positions and their role in teaching.
- We must remain robust and relevant amidst change, such as potential changing budget models at MSU that could place larger emphasis on student credit hours taught.
- Our graduate program has been particularly decentralized in terms of its administration and reaching faculty consensus on requirements for graduate student education has been difficult. The flexible requirements (i.e., allowing the graduate committee to define course expectations) accommodate a breadth of disciplinary research topics but may result in a lack of cohesive program identity.
- We seek to provide a more consistent student experience, such as funding and mentoring, for those in our graduate program.
- We seek to keep student health and well-being at the forefront of our academic programs. This need has become clearer as evidence regarding student mental health issues has mounted nationwide and the COVID-19 pandemic has impacted our students.

Our goals and objectives for education are intended to build on our strong foundation to address these challenges and desires for change. It is critical that we evolve to meet the needs

of our students. All goals and objectives pertain to Undergraduate and Graduate Programs, unless specified otherwise.

~ Educate Goals & Objectives ~

- Goal 3.1a. FW offers bachelors, masters, and doctoral degree opportunities supported by contemporary and inclusive curricula that position FW students to achieve established learning goals. Goal 3.1b. FW teaches courses that promote scientific literacy among undergraduates and that support degree programs of other departments at the undergraduate and graduate level.
- 3.1.1a. Annually evaluate student mastery of established learning goals for each academic degree, and as appropriate, adjust course content, degree requirements, and learning assessment approaches to ensure that student mastery of the goals is sustained or improved.
- 3.1.2a. Review, at least every other year, the learning goals for each academic degree to ensure they are professionally relevant, align with students' interests and career goals, and integrate current global challenges (e.g., climate, water pollution, disease).
- 3.1.3a-b. Implement periodic (every 5-10 years) comprehensive assessments of our academic offerings, potential students, and the evolving job market to inform decisions about new majors, concentrations, specializations, certificates, and courses.
- 3.1.4b. Provide undergraduate and graduate courses for non-FW students that contribute to the development of scientific literacy about natural resource systems.
- 3.1.5a-b. Provide inclusive classes and a variety of scholarly teaching approaches, so students with varied learning styles, life experiences, and career objectives can achieve academic success.

Goal 3.2. FW recruits, supports, retains, and graduates a diverse group of academically strong and passionate students who are prepared for the next step of their professional journey.

- 3.2.1. Develop a coordinated program to increase departmentally organized recruiting events aimed at diversifying our student body and heighten the awareness of our academic programs through directed communication with prospective students and their current/previous institutions and mentors, among others.
- 3.2.2. Increase financial support offered to incoming graduate students to be competitive with other nationally ranked programs in both stipend level and duration of support.
- 3.2.3. Ensure high retention rates and timely degree completion of students by annually tracking student degree progress, gathering student feedback, and establishing procedures to avoid major delays.
- 3.2.4. Implement a process for assessing students' sense of community and awareness of/need for physical, emotional, and mental support and resources.
- 3.2.5. Implement a process for tracking alumni employment and professional accomplishments over time.

Goal 3.3. FW supports and prioritizes excellence in teaching, mentoring, and advising that delivers high quality education to all students.

- 3.3.1. Continually ensure faculty collectively possess the expertise and teaching assignment capacity to successfully deliver our courses and academic programs, and effectively mentor and advise our students.
- 3.3.2. Annually provide incentives and recognition for faculty who promote effective and creative teaching, student learning, and engagement in academic programs, research, and/or outreach initiatives.
- 3.3.3. Increase faculty engagement in curricular discussions, reviews, and the learning outcomes assessment processes to ensure that courses flow logically throughout the curriculum and consistently address learning goals across sections.
- 3.3.4. Define best practices for creating inclusive environments for student learning and professional development and implement procedures that monitor/ensure application of best practices.
- 3.3.5. Define best practices for graduate and undergraduate student advising and mentoring and implement procedures that monitor/ensure application of best practices by faculty.

~ 4. Engage ~

Extend the value of our work beyond the academy; listen, learn, collaborate, and empower all.

The value of knowledge—its solutions, its promise, and even the path to achieve it—multiplies as it is shared. In FW, we engage audiences to create ways to make knowledge accessible, desirable, and, in its best form, inspiring across the state, the region, the nation, and the world. However, FW outreach and engagement encompasses more than just one-way sharing of information. We must listen, learn, collaborate, and empower others.

FW has a strong history as a crucial partner with stakeholders and individuals eager to appreciate, protect, and benefit from natural resources. We also look to engage new stakeholders who have not previously been aware of our programs. Our outreach and engagement portfolio is diverse. Our work spans the spectrum of public participation, from events that teach audiences about our science to long-term collaborations that improve natural resources management. Outreach and engagement activities connect and enhance academic work by creating pathways for positively affecting natural resources and humans. Outreach and engagement are also active and valued areas of scholarship in FW.

~ Engage Goals & Objectives ~

Goal 4.1. FW engages diverse audiences to increase stewardship of natural resources by all and inspire the next generation of scientists and managers.

- 4.1.1. Regularly inform public audiences and stakeholders about the relevance and application of the scientific principles of natural resources and how to be better stewards of natural resources.
- 4.1.2. Regularly host programs that engage children and young adults in learning more about FW disciplines and inspire youth to participate in natural resources science and management.
- 4.1.3. Increase discussions and interactions about the perceptions and concerns of how different groups value natural resources.
- 4.1.4. Increase the diversity of audiences we engage, including those audiences that are historically underrepresented in natural resources science and management.

Goal 4.2. FW advises and engages decision-makers to improve natural resources management.

- 4.2.1. Increase accessibility of FW science, skills, and perspectives to organizations/institutions and communities that need science-based input managing natural resources.
- 4.2.2. Strengthen and deepen existing relationships with organizations/institutions and communities that need science-based input managing natural resources.
- 4.2.3. Increase partnerships with agencies/organizations and communities that need science-based input managing natural resources.

Goal 4.3. FW prepares students for careers that require outreach and engagement skills.

- 4.3.1. Increase outreach, communication, and engagement training for undergraduate FW students.
- 4.3.2. Ensure our undergraduate and graduate curricula build student value of and capacity for outreach and engagement.
- 4.3.3. Increase networking opportunities for FW students to interact and connect with outreach and engagement professionals.

Goal 4.4. FW develops, applies, and studies best practices in outreach and engagement.

- 4.4.1. Build department and partner capacity to support outreach and engagement scholarship and scholarly practice.
- 4.4.2. Build department and partner capacity to serve and engage a diversity of groups.
- 4.4.3. Systematically collect information on FW's outreach and engagement activities.
- 4.4.4 Regularly evaluate the impact of FW outreach and engagement.

~5. ELEVATE~

Bring awareness and understanding of our work to all.

Communications tells the story of FW to a variety of audiences—stories of not just our work, but who does it and how, the potential and realized impacts of our work, and the reasons why we are passionate about natural resources. Communications to academic peers empower fellow scientists and increase the impact of academic work. Communications to various public audiences improve the perceived value and strengthen understanding of our sciences. We embrace the notion that good communication elevates our work, creates a record of accomplishment, and extends an invitation of curiosity to all.

~ Elevate Goals & Objectives ~

Goal 5.1. FW stories attract and support cohesive, strong, and diverse groups of students, faculty, and staff.

- 5.1.1. Build awareness of our people and their work both internally and beyond.
- 5.1.2. Clarify our individual and collective identity both internally and beyond.
- 5.1.3. Clearly and broadly communicate our identity, opportunities, and strengths to potential students and colleagues.

Goal 5.2. FW stories raise our profile, attract partners, and foster relationships across MSU, the state, the nation, and the world.

- 5.2.1. Implement a communications plan that raises the awareness and profile of FW, collectively and individually, at the College and University levels and beyond.
- 5.2.2. Implement a communications plan to build strong relationships with alumni, retirees, and those outside the FW community that enhance giving.
- 5.2.3. Implement a communications plan to attract partners in natural resource management and science.

Goal 5.3. FW provides access to communications tools and support.

- 5.3.1. Identify the capacity needed to tell our stories and meet our communications goals.
- 5.3.2. Hire a person with dedicated responsibilities to achieve our communications goals.
- 5.3.3. Develop and implement a plan to regularly evaluate the effectiveness of our communication efforts.
- 5.3.4. Implement and assess communication tools and support personnel.