### **Participatory Mapping Survey**

| **1.1 Primary Information** | |
| --- | --- |
| *1.1.0* Interviewer name |  |
| *1.1.1* Date |  |
| *1.1.2* Survey time start |  |
| *1.1.3* Survey time end |  |
| *1.1.4* Shehia |  |
| *1.1.5* Born in Shehia | Yes No |
| *1.1.6* [*If no above*]  Years in Shehia |  |
| *1.1.7* Age |  |
| *1.1.8* Sex |  |
| *1.1.9* Village |  |
| *1.1.10* Education |  |
| *1.1.11* Primary Profession | Farming Government Fishing Business |
| *1.1.12* Participant ID |  |

| **1.2 Participatory Mapping Data** | |
| --- | --- |
| *1.2.0* Total number of grid squares |  |
| *1.2.1* Number of mangroves squares indicated |  |
| *1.2.2* Number of unknown squares indicated |  |
| *1.2.3* Number of mangrove squares increasing cover |  |
| *1.2.4* Number of mangrove squares decreasing cover |  |
| *1.2.5* Number of mangrove squares unsure of cover change |  |

| **2.1 Perceptions of Resource Function** | |
| --- | --- |
| *2.1.0*  How many years after an area of mangrove is planted will the vegetation be so thick that you can no longer see through the area? |  |
| *2.1.1*  How many years after a mangrove seed is planted will the plant produce fruits and flowers? |  |
| *2.1.2*  How many years after a mangrove seed is planted will the plant reach 2 meters? |  |
| *2.1.3*  How many years after a mangrove seed is planted will the plant reach 5 meters? |  |
| *2.1.4*  In your community, has the area that seawater reaches during high tide changed compared to 5 years ago? (circle one) | Higher Same Lower |
| *2.1.5*  [*If ‘higher’ above*]  How many meters higher up shore does the seawater now come compared to 5 years ago? | 0-5 6-10 11 or more |
| *2.1.6*  [*If ‘higher’ 2.1.4*]  To what extent is this change caused by mangrove destruction? (circle one) | Not at all  Somewhat  Completely |

| **2.2 Exposure to Conservation Institutions** |  |
| --- | --- |
| *2.2.0* In your community, are there one or more mangrove conservation areas where people are not allowed to cut trees, firewood, or pegs for pinning down seaweed? | Yes No |
| *2.2.1* [*If yes above*]  Who created the largest of these areas? (circle one) | 1. Community members (i.e. SCC) 2. Local Pemban organization (e.g. CFP) 3. Government (e.g. DFNRNR) 4. Outside organization |
| *2.2.2* [*If yes 2.2.0*]  Are there clear boundaries to these areas that are recognized by members of this community and individuals from other communities? | Yes No |
| *2.2.3* [*If yes 2.2.0*]  Should the size of these areas be increased or decreased? (circle one) | Increased Decreased |
| *2.2.4* Have you ever participated in monitoring patrols to protect these areas? (circle one) | Yes No |
| *2.2.5* [*If yes above*]  Have you participated in monitoring patrols in the last month to protect these areas? (circle one) | Yes No |
| *2.2.6* [*If yes above*]  How many times have you patrolled these areas in the last month? |  |
| *2.2.7* Have you ever seen mangrove theft from a conservation area in your community with your own eyes? (circle one) | Yes No |
| *2.2.8* If a member of **this shehia** is caught cutting mangroves for one bundle of firewood in a conservation area for the first time, how many mangrove seeds do you think they should have to plant as punishment? |  |
| *2.2.9* If a member of a **different shehia** is caught cutting mangroves for one bundle of firewood in a conservation area for the first time, how many mangrove seeds do you think they should have to plant as punishment? |  |
| *2.2.10* Are there mangrove replanting events in your community? (circle one) | Yes No |
| *2.2.11* [*If yes above*]  Who hosts these events? (circle one) | 1. Community members (i.e. SCC) 2. Local Pemban organization (e.g. CFP) 3. Government (e.g. DFNRNR) 4. Non-Pemban organization 5. TSAF |
| *2.2.12* [*If yes 2.2.10*]  How many times a year do these events happen? |  |
| *2.2.13* [*If yes 2.2.10*]  How many times in the last year have you participated in these events? |  |
| *2.2.14* Is there a shehia conservation committee (SCC) in your community? (circle one) | Yes No |
| *2.2.15* [*If yes above*]  Are you a member of the SCC? (circle one) | Yes No |
| *2.2.16* Is there a village conservation committee in this village? | Yes No |
| *2.2.17* [*If yes above*]  Are you a member of this village conservation committee? | Yes No |

| **2.3 Perceptions of Mangrove Theft** |  |
| --- | --- |
| *2.3.0* In the last year, have people from other shehia traveled to your community to cut mangroves from your community forests? (circle one) | Yes No |
| *2.3.1* [*If yes above*] How many people from other shehia come here to cut mangroves each week? |  |
| *2.3.2* [*If yes* *2.3.0*]  Do you know what shehia these outsiders come from? (circle one) | Yes No |
| *2.3.3* [*If yes above*]  How many different shehia do these outsiders come from? |  |
| *2.3.4*  Can you give the names of the shehia referenced above? |  |
| *2.3.5* [*If yes 2.3.2*]  To the best of your knowledge, how many of these shehia have mangrove conservation areas where community members and outsiders are not permitted to cut mangroves? |  |
| *2.3.6*  Can you give the names of the shehia referenced above? |  |

| **2.4 Willingness to Limit In-Group Harvest** |  |
| --- | --- |
| *2.4.0* How many bundles of firewood should a household of 6 people (2 adults & 4 kids) be able to collect each month from the mangroves? |  |
| *2.4.1* During one seaweed farming period, how many pegs should a seaweed farmer be able to collect from the mangroves? |  |
| *2.4.2* Should community members be allowed to cut live mangrove **branches** for firewood, charcoal, or pegs for seaweed farming? (circle one) | Yes No |
| *2.4.3* Should community members be allowed to cut live mangrove **roots** for firewood, charcoal, or pegs for seaweed farming? (circle one) | Yes No |
| *2.4.4* Should there be a group of people who have the right to enforce community-made rules regarding mangrove harvesting, either through fines or forced mangrove replanting? (circle one) | Yes No |
| *2.4.5* [*If yes above*]  Who should have the right to do this? (circle one) | 1. Community members (i.e. SCC) 2. Local Pemban organization (e.g. CFP) 3. Government (e.g. DFNRNR) 4. Outside organization |

## \*This survey tool was designed as part of a research project through Boise State University, Human-Environment Research Center. IRB # XXX-XXX. Your participation in this survey is completely voluntary. All data will be kept completely anonymous. If you have any questions regarding this project or the survey tool specifically, please contact Vicken Hillis at Vickenhillis@boisestate.edu or +1 415 812 6846.

## Thank you for your participation!