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Myth-shattering perceptions on nature, sanitation and well-being in shore-based Indonesian villages

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Summary

It is sometimes assumed that Indonesian village communities might not understand nor care about their natural environment. Our surveys prove that the opposite is true: Village people are intimately aware of the importance of the natural environment to their spiritual and economic well-being and are 100% ready to help preserve it.

At the same time, our surveys show that dignified sanitation is key to self-respect and well-being, and that policy-makers should hence elevate dignified sanitation into a key national priority.

Project background: dignified sanitation and mangrove rehabilitation

In the first quarter of 2025, UMRAH university started a nature and sanitation project in two small villages near Tanjung Pinang (Pulau Bintan), in the historically important region called Senggarang. We did so with our partners Witteveen + Bos and Safe Water Gardens/LooLa Adventure resort, in a project made possible by Singapore-based Magnuson Trust, which has an interest to support initiatives that focus on climate resilience and sustainable livelihoods.

As advised by the Lurah (chief) of the Senggarang area, a key challenge to development of this area was bad sanitation: many shore-based family still practice **OD** (Open Defecation). To be successful in our attempt to engage the villages in the rehabilitation of their nearby mangrove forests, it was decided that we had to address their most pressing need first. Thus, two small villages –Senggarang Besar and Tg Sebauk– were chosen, with the idea of making them ODF (Open Defecation Free).

We conducted a census survey in Jan 2025 which revealed a total number of 192 households (100 in Tg Sebauk, 92 in Senggarang Besar) and a staggering 93 families (close to 50%) on **OD** (76 families living above the water, and 26 land-based families). By March 2025, after a joint effort in which the Safe Water Gardens team trained the local community to install sanitation assets, we could declare the village ODF, and this was made official during a 25 March official ceremony, refer to banner next page.



Remarkable community survey results on the importance of the natural environment and WASH

Between January and March 2025, we conducted surveys to measure attitudes towards mangrove forest and well-being. We managed to interview 144 families, meaning 75%, so the survey results are statistically reliable. The survey questions and answers are listed in the appendix, but below you find the remarkable key conclusions.

Survey proof that villagers actively care about their natural environment

In view of the international character of our scientific survey, we also included questions often internationally believed to be important such as “Do mangrove forest have cultural meaning for you; are there any special stories or myths about the forests; are there any specific ceremonies around them?”.

All 144 recipient answered a resounding “No” to these questions. But when asked a question that villagers can relate to on an emotional level such as “Is it important to you that we keep the mangrove forests, also for your children?”, **95%** says yes!

- **97%** says mangroves are important for fish catching
- **100%** says that mangroves are important for protection against erosion
- **98%** believes mangroves are important for economic vitality of the community and that a damaged forest will impact their income.
- **99%** agrees that mangrove forests are full of marine animals they like to eat; 97% agrees that also adjacent to mangrove forest, you find more marine life such as fish
- **99%** is against removing a mangrove tree even if that tree is a personal hindrance
- **99%** is interested in making money from ecotourism activities associated with mangrove forests

- **99%** is interested to help plant and maintain the new mangroves, but they prefer *doing* rather than *talking*: 62% interested to listen to info sessions, 38% isn't
- This love of mangrove forests exists despite 6% reporting that they had spotted a crocodile in the mangroves.

Survey proof that WASH is a key determiner of dignity and self-respect

Less than 50% of the families feel respected: **33%** of people feel that the community does not respect them, while **22%** feels only a bit respected. Exactly the same percentages were measured in relation to confidence in inviting people to the house: **33%** feels their house is not suitable for receiving visitors, while **22%** says “it's OK to receive visitors but I do feel somewhat embarrassed”.

Similar to the outcomes of previous surveys conducted by UMRAH together with Safe Water Gardens, *with this survey we establish now a definite link between self-esteem and the presence of dignified WASH (Water Access, Sanitation, Hygiene)* because a full **100%** of respondents reports that if they had a washroom with ceramic tiles, they *will* feel good about receiving visitors!





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Mematahkan persepsi mitos tentang alam, sanitasi, dan kesejahteraan di desa-desa pesisir Indonesia

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Ringkasan

Kadang diasumsikan bahwa masyarakat desa di Indonesia mungkin tidak memahami atau peduli dengan lingkungan alam mereka. Survei kami membuktikan bahwa yang terjadi adalah sebaliknya: Masyarakat desa sangat menyadari pentingnya lingkungan alam bagi kesejahteraan spiritual dan ekonomi mereka dan 100% siap untuk membantu melestarikannya. Pada saat yang sama, survei kami menunjukkan bahwa sanitasi yang bermartabat adalah kunci untuk harga diri dan kesejahteraan, dan oleh karena itu para pembuat kebijakan harus mengangkat sanitasi yang bermartabat menjadi prioritas nasional yang utama.

Latar belakang proyek: sanitasi bermartabat dan rehabilitasi mangrove

Pada kuartal pertama tahun 2025, Universitas Maritim Raja Ali Haji (UMRAH) memulai proyek alam dan sanitasi di dua desa kecil dekat Tanjung Pinang (Pulau Bintan), di wilayah penting secara historis yang disebut Senggarang. Kami melakukannya dengan mitra kami Witteveen + Bos dan Safe Water Gardens/LooLa Adventure Resort, dalam sebuah proyek yang diwujudkan oleh Magnuson Trust yang berada di Singapura, yang berminat untuk mendukung inisiatif yang berfokus pada ketahanan iklim dan mata pencaharian berkelanjutan.

Seperti yang disarankan oleh Lurah Senggarang, tantangan utama bagi pengembangan wilayah ini adalah sanitasi yang buruk: banyak keluarga yang tinggal di pesisir masih melakukan OD (Buang Air Besar Sembarangan). Agar berjalan lancar dalam upaya kami untuk rehabilitasi hutan mangrove di Kawasan-kawasan sekitarnya, diputuskan bahwa kami harus mengatasi kebutuhan mereka yang paling mendesak terlebih dahulu. Oleh karena itu, dua Kawasan di Senggarang Besar dan Tanjung Sebauk dipilih, dengan tujuan untuk menjadikan mereka ODF (Bebas Buang Air Besar Sembarangan).

Kami melakukan survei sensus pada bulan Januari 2025 yang mengungkap jumlah total 192 rumah tangga (100 di Tg Sebauk, 92 di Senggarang Besar) dan 93 keluarga (hampir 50%) yang berada di OD (76 keluarga yang tinggal di atas air, dan 26 keluarga yang tinggal di daratan). Pada bulan Maret 2025, setelah upaya bersama tim Safe Water Gardens melatih masyarakat setempat untuk memasang aset sanitasi, kami



dapat mendeklarasikan kawasan ODF, dan ini diresmikan selama upacara resmi pada tanggal 25 Maret, lihat banner halaman berikutnya.

Hasil survei masyarakat yang luar biasa tentang pentingnya lingkungan alam dan WASH

Antara Januari dan Maret 2025, kami melakukan survei untuk mengukur sikap terhadap hutan mangrove dan kesejahteraan. Kami berhasil mewawancarai 144 keluarga, yang berarti 75%, sehingga hasil survei tersebut dapat diandalkan secara statistik. Pertanyaan dan jawaban survei tercantum dalam lampiran, tetapi di bawah ini Anda akan menemukan kesimpulan utama yang luar biasa.

Bukti survei bahwa masyarakat secara aktif peduli terhadap lingkungan alam mereka

Menampilkan gambaran internasional survei ilmiah kami, kami juga menyertakan pertanyaan yang sering dianggap penting secara internasional seperti "Apakah hutan mangrove memiliki makna budaya bagi Anda; apakah ada cerita atau mitos khusus tentang hutan; apakah ada upacara khusus di sekitarnya?".

Semua 144 penerima menjawab "Tidak" dengan tegas untuk pertanyaan-pertanyaan ini. Namun ketika ditanya pertanyaan yang dapat dipahami penduduk desa secara emosional seperti "Apakah penting bagi Anda agar kami menjaga hutan mangrove, juga untuk anak-anak Anda?", 95% mengatakan ya!

- **97%** mengatakan mangrove penting untuk menangkap ikan
- **100%** mengatakan bahwa mangrove penting untuk perlindungan terhadap erosi
- **98%** percaya bahwa mangrove penting untuk vitalitas ekonomi masyarakat dan bahwa hutan yang rusak akan memengaruhi pendapatan mereka.
- **99%** setuju bahwa hutan mangrove penuh dengan hewan laut yang mereka suka makan; **97%** setuju bahwa di sekitar hutan mangrove, Anda juga akan menemukan lebih banyak kehidupan laut seperti ikan
- **99%** menentang penebangan pohon mangrove, meskipun pohon tersebut mengganggu kehidupan pribadi
- **99%** tertarik untuk menghasilkan uang dari kegiatan ekowisata yang terkait dengan hutan mangrove

- **99%** responden tertarik untuk membantu menanam dan merawat hutan mangrove baru, tetapi mereka lebih suka melakukannya daripada berbicara: **62%** tertarik untuk mendengarkan sesi informasi, **38%** tidak
- Kecintaan terhadap hutan mangrove ini tetap ada meskipun **6%** responden melaporkan bahwa mereka melihat buaya di hutan mangrove.

Bukti survei bahwa WASH adalah kunci utama meningkatkan martabat dan harga diri

Kurang dari **50%** keluarga merasa dihormati: **33%** orang merasa bahwa masyarakat tidak menghormati mereka, sementara **22%** merasa hanya sedikit dihormati. Persentase yang sama diukur dalam kaitannya dengan kepercayaan diri dalam mengundang orang ke rumah: **33%** merasa rumah mereka tidak cocok untuk menerima tamu, sementara **22%** mengatakan "tidak apa-apa menerima tamu tetapi saya merasa agak malu".

Mirip dengan hasil survei sebelumnya yang dilakukan oleh UMRAH bersama Safe Water Gardens, dengan survei ini kita sekarang menetapkan hubungan yang pasti antara harga diri dan keberadaan WASH (Akses Air, Sanitasi, Kebersihan) yang bermartabat karena **100%** responden melaporkan bahwa jika mereka memiliki kamar mandi dengan ubin keramik, mereka akan merasa senang menerima pengunjung!



APPENDIX 1. Survey Questions

Google form link for the survey questions below in Bahasa: <https://forms.gle/AH4rUwoEUiPHC4fG8>

No	Question (<i>translation in Bahasa, see the response sheet in the Appendix</i>)	Answer
1	General questions about your village mangrove Forests	
1a	Do you know the difference mangrove forest and mainland forests?	Yes/No
1b	How often do you visit mangrove area per month?	
2	Cultural aspects of mangrove forests	
2a	Do mangrove forests have a special cultural or traditional meaning for your village ?	Yes/No
2b	Are there any special myths or folklore stories about mangrove forest ?	Yes/No
2c	Are there any specific activities or ceremonies involving mangrove forest ?	Yes/No
	Do you feel that mangrove forests are important to you on a personal/emotional level, meaning that you want to keep them for your children?	Yes/Neutral/No
3	Economic aspects of mangrove forests	
3a	Do you think the existence of mangrove forests affects the catch of fishermen in the village	Yes/No
3b	Apart from catching marine life, do you think that mangrove trees can be a source for other income	Yes/No
3c	If the mangrove forest is damaged, will it impact your income? If yes, please explain how	Yes/No
3d	Would you be interested in making money from ecotourism activities associated with mangrove forests	Yes/No
3e(i)	Have you ever considered making syrups, candy or other foodstuffs from Mangrove products?	Yes/No
3e(ii)	If no, would you like to learn how to make such products?	Yes/No
4	Environmental aspects of mangrove forests	
4a	Do you feel mangrove forests protect your village from strong winds, floods, or land erosion?	Yes/No
4b	Have you ever spotted an eagle in the mangroves?	Yes/No
4c	Have you ever spotted a crocodile in the mangroves?	Yes/No
4d	Have you ever seen a siamang/monkey/macaque in the mangrove forest of your village?	
4e	Are there any animals (crabs, fish, other) captured in the mangrove forests for food?	Yes/No
4f	Do you agree with this statement or not: If mangrove trees are in the way of my work, then I need to remove them	Agree/not agree
4g	Do you agree with this statement or not: close to the mangroves, there are more fish to catch	Agree/not agree

5	Condition and management of mangrove forests	
5a	What is the current condition of the mangrove forest in your village. Still good or already damaged?	Still good/Damaged
5b	If there is damage, why do you think it happened?	
5c	Have you seen a change in the area and health of your mangrove forests in the last 10 years?	Yes/No
5d	If yes, was the change good or bad?	
5e	are you aware of any previous activity to plant back mangroves?	Yes/No
6	Community Participation in mangrove forests	
6a	Were you or your family ever involved in activity plant or nurse mangrove forest ?	Yes/No
6b	If invited to guard or plant mangrove forest , are you willing ?	Yes/No
6c	Would you need financial support to monitor and guard mangrove forest ?	Yes/No
6d	If there is a training program or education about importance mangrove forest , are you interested to attend it?	Yes/No
7	Well-being questions in connection to sanitation situation	
7a	Do you feel that the community around you respects you?	Yes a lot/Yes a bit/ Not so much
7b	Do you feel that your house is suitable for receiving visitors right now?	Yes /OK but I feel a bit malu/No
7c	How many visitors do you have per month (approximately)	
7d	If you would receive a nice bathroom with ceramic tiles, would you feel more comfortable having visitors?	Yes/ No, makes no difference to me
7e	Approximately how many times in the year do you experience diarrhea?	