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SMART patrols with coastal communities in Cambodia

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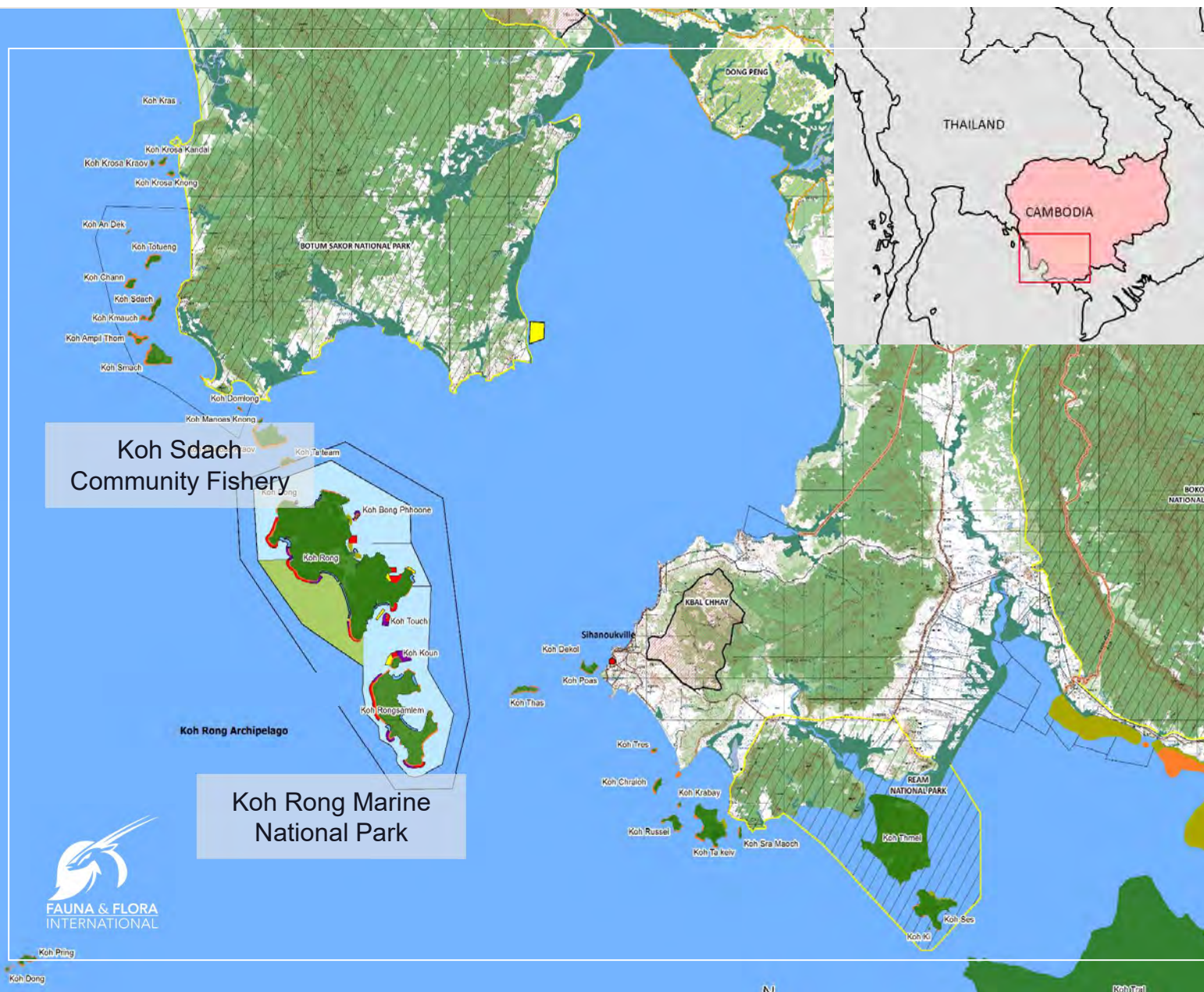@Marianne_Teoh   #TokoTelo

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GOAL

Protect marine biodiversity and
strengthen resilience of coastal ecosystems
and communities in Cambodia

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CREDIT: JEREMY HOLDEN / FFI

CONTEXT

- Tropical archipelago: reefs, seagrass, mangroves

- 980 island families predominantly fishers

- IUU / destructive fishing, unregulated coastal development

- Co-managed by four Community Fishery groups, gov, NGOs

Koh Sdach Community Fishery

Koh Rong Marine National Park

SMART Marine Patrols

WHY

- No vessel registration, AIS or VMS

- Limited gov funding / capacity

- Distant, island locations

- Existence of Community Fishery governance structure

- Local buy-in, support from local enforcement officers

4 ADAPT PATROLS, INFORM REGULATIONS

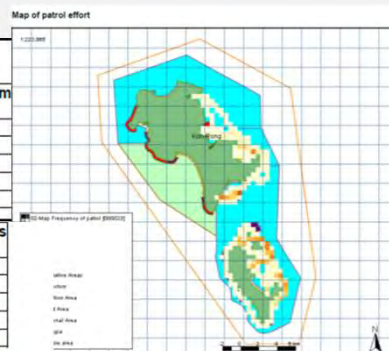**1** CONDUCT PATROLS AND COLLECT DATA

3 REPORT AND SHARE DATA

2 ENTER AND VISUALISE DATA

SMART

Summary of patrol effort

Stations	Number of Patrols	Distance (km
Daem Thkov	5	61.43
Koh Rong Samleom	5	129.27
Koh Toch	4	28.26
Prek Svay		
Total	14	218.95

Number of Nights	Number of Hours	Person - Hours
0	10.75	59.16
0	15.70	85.16
0	7.93	49.64
0	34.38	193.96

Map of patrol effort

CREDIT: ANDY BALL / FFI

SUCCESSES

- Simple, cheap (free tech), effective

- Evidence, transparency = increased support, financing

- Patrol strategies actively adapted and improved by communities

- Local pride and buy-in

- Enforcement officer support

- Replicated across coastline

CHALLENGES

- Small-scale enforcement only,

- Community team have other jobs

- Site seen as 'managed' (by community) so national gov may support other areas instead

- Khmer script hard to convert to smartphone apps and tools

- Regular training required, data management capacity low, reliant on NGO, national gov

Can triangulating SMART, social perceptions and satellite data help communities in marine management?

1. SMART PATROL DATA

- Cheap, provides transparency on effort, tracks threats and management effectiveness

- Empowering, community-led, communities can adapt and improve marine management

2. SOCIAL PERCEPTIONS

- Cheaper with additional info to improve local compliance (e.g. awareness)

- Participatory mapping of perceived patrol / illegal fishing informs community patrol strategies (e.g) randomization needs

3. SATELLITE DATA

- Very expensive, reveals new high risk areas esp. where communities need gov support

- Provides data at scale and removes patrol/location bias, but less trust and less engagement by community

LEARNING

- **SMART patrols** can empower communities in marine management

- **Additional effort and procedure still needed** to convert SMART data into learning, so communities can
    - adapt patrol strategy
    - alert higher-level enforcement teams

- **Social perceptions data and satellite data are useful** complements to SMART patrols and can improve marine management

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