Modern Contraceptive Use, Developing Countries

Percent of Married Women 15 to 49 Using Modern Methods, Around 2005

<table>
<thead>
<tr>
<th>Country</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colombia</td>
<td>68%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>68%</td>
</tr>
<tr>
<td>Egypt</td>
<td>58%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>57%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>48%</td>
</tr>
<tr>
<td>Philippines</td>
<td>34%</td>
</tr>
<tr>
<td>Kenya</td>
<td>32%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>32%</td>
</tr>
<tr>
<td>Nigeria</td>
<td>9%</td>
</tr>
<tr>
<td>Congo, Dem. Republic</td>
<td>6%</td>
</tr>
</tbody>
</table>

SE Asia Region = 53%

Philippines - High Unmet FP Need

- Cultural traditions that favor large families and religious opposition to the use of “artificial methods” have, historically, deterred Filipino women from using contraceptives.

- Access constraints to health services and FP commodities further compound the situation, particularly in rural areas where unmet need is greatest.
Between 1960 and 2000, the number of young Filipinos grew three times (from 5m to 15 m).

‘Youth bulge’ has important implications for future population growth, environmental sustainability and national security.

Population momentum will drive 65% of future growth (Herrin & Costello, 1998).

East West Center (2011) Asia’s Changing Youth Population
**Integrated Population and Coastal Resource Management**

**I POPCORM’s Central Hypothesis**

Integrated approaches to RH/FP and CRM yield higher outcomes compared to sectorally-managed programs

**Operations Research Method**

Quasi-experimental design

Pre-project (2001) and post-project (2007) measurements of dependent variables gathered

Via community household surveys and parallel resource and ecological assessments (REA)
Experimental Sites & Intervention Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Description of the Interventions</th>
</tr>
</thead>
<tbody>
<tr>
<td>$X_1$</td>
<td>RH intervention (FP, ASRH, HIV/AIDS)</td>
</tr>
<tr>
<td>$X_2$</td>
<td>CRM intervention</td>
</tr>
<tr>
<td>$X_3$</td>
<td>RH+ CRM (IPOPCORM) intervention ($X_1 + X_2$)</td>
</tr>
</tbody>
</table>

Sampling:
- 3 municipalities
- 1200 households
- 1200 respondents
Over Fishing

“...Malthusian overfishing is a stark reality among the growing and impoverished population” (MERF 2002)

“Sometimes there is not enough food and the family goes hungry” (72% of HH respondents)

Source: 2002 Resource and Ecological Habitat Assessment of Island-ecosystems in N Palawan, Marine Environment and Research Foundation Inc. for IPOPCORM
Hunger

Pre-school children

Twice as likely to be malnourished if:

- Father = small scale fisher
- Mother = not currently using FP

Source: 2001 Population and Household Surveys, Northern Palawan, DRDF for POPCORM
Coastal Resource Management for Food Security – Entry Points for RH/FP Integration

1. Fisheries Management
2. Habitat Management
3. Coastal Zoning
4. Shoreline Management
5. Legal Arrangements & Institutional Development
6. Waste Management
7. Watershed Management
8. Enterprise and Livelihood Development
9. Eco-Tourism Management

Family Planning (FP) = strategic intervention to reduce fishing effort and to improve the sustainability of fisheries management gains.

Adolescent Sexual and Reproductive Health (ASRH) – youth encouraged to become “stewards” of the environment and their sexuality

Community Based Distribution (CBD) of contraceptives – to address access barriers and create alternative livelihood options for women, small entrepreneurs etc

AIDS prevention education to mitigate HIV risks associated with eco-tourism development
Creating Synergy

Population response  Environment response

Synergies

• **Linked Behavior Change Communication messaging**
  Peer educators and CBDs communicate about RH+CRM for improved food security

• **Target Groups engaged in both activities**
  PEs and CBDs involved in MPA establishment

• **Policy and Advocacy activities**
  Development plans include policies/budgets for both RH and CRM

• **One organization implementing both strategies**
  In a coordinated fashion
Operations Research - Variables

**RH Dependent**
- Parity (children/ woman)
- CPR among WRA
- CPR among youth (first and last sex)
- Sexual activity (youth)

**CRM Dependent**
- Biophysical indices (coral, mangrove, reef fish)

**Food Security (proxy)**
- Full-time fishers
- Use of dynamite/ cyanide
- Income poverty

**Independent Socio-Econ**
- Wealth index
- Age
- Education
- Tenure (length of residence)
- Working
- Married
- Household size
- Full-time fisher
## Difference-in-Difference (DID) Results

Multivariate regression analysis results for the effects of intervention and other independent variables on indicators in the pooled 2001 and 2007 surveys

□ = Statistically significant & desired trend

<table>
<thead>
<tr>
<th>Intervention</th>
<th>RH+CRM</th>
<th>RH</th>
<th>CRM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parity</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>CPR among WRA</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Contraceptive use by youth (first sex)</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Sexual activity among males (15-24 yr)</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Income poverty (15-24 yrs)</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Use of dynamite/cyanide in fishing</td>
<td>□□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Coral (benthos) index</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>Mangrove indices</td>
<td>□□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>Reef fish index</td>
<td>□</td>
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</table>
Conclusions

The integrated RH + CRM intervention (IPOPCORM) generated a greater impact on majority of the indicators used in study to measure improvements in human and ecosystem health, and at lower total cost.

Results support hypothesis and confirm that integrated projects can not only deliver on single-sector objectives but can contribute to the achievement of objectives in multiple sectors in a coordinated way.

Scaling Up

I POPCORM brought to scale in 12 provinces (>1,000 fishing hamlets) in S. Philippines

Sustained by integrating RH+CRM into village and municipal development plans

Declared a “Gold Standard” model for PHE integration (USAID 2007)

Adapted and applied in:
- Nepal (forestry ecosystems)
- Ethiopia (wetland/watershed)
- Tanzania and Ghana (coastal/fisheries)
- Zambia (wildlife park)
Knowledge Contribution

• For remote areas where sectoral management approaches to FP have *not* made a major impact.

• Working with communities to address multiple needs can make a difference.

• Integration of RH/FP into CRM helped to deflect criticism from conservative and religious groups and enabled a conducive environment for behavior change.

• FP enhances the sustainability of CRM gains and return on investment in conservation effort.