Opportunities and challenges of diversified in cropping and livestock systems in small scale farms at desert reclaimed lands, Egypt

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A farm survey was conducted in 2013/14, over 174 small-scale farms in the newly desert reclaimed lands of Egypt (1960-2010). Five zones have been investigated according to date of settlement: 1 Oold reclaimed lands (1960s), 2 Newly reclaimed lands (1990s) and 2 intermediary reclaimed lands( 1980s).

At settlement, farming systems were determined according to soil type, water availability, and experience among neighbors. The prevailed cropping system was cereal based (tradition); Large ruminants (LR) for milk (buffaloes & F cross) or for calves (native cattle), Small ruminants (SR) as cash flow and for social events.

- 46% graduates replaced traditional crops with fruit trees and livestock was the financial base; and then reducing livestock as labor intensive activity.
- Diversification through livestock was a major pillar of farm sustainability for common beneficiaries.
- Role of LR in providing more revenue, family needs and manure was highlighted and SR for cash flow.

At settlement

Figure 1: Localisation of studied desert reclaimed lands in West Delta, Egypt

Figure 2: Farming systems’ changes between settlement and 2013/14

Figure 3: Role of factors as opportunities and constraints in the NRL

Table 1: Reasons of changes of the farming systems in the NRL, Egypt

<table>
<thead>
<tr>
<th>Main reasons</th>
<th>Range (in %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land/ soil water</td>
<td>26-44</td>
</tr>
<tr>
<td>Experience</td>
<td>48-61</td>
</tr>
<tr>
<td>Economic</td>
<td>10-18</td>
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</tbody>
</table>

New reclaimed lands were a good opportunity for more than 90% of the settlers; where labor and marketing were the main constraints (80% and 77%, respectively).

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