Rice Fortification: Quality and Cost

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Fortified rice quality is critical to success

**Storage**

Stability during storage

**Preparation**

Limited losses during preparation: washing, cooking, discarding excess water

**Acceptability**

Acceptability to consumer: appearance (shape and colour), taste

**Absorption**

Availability for absorption by the body

**Impacted by:** choice of fortificant forms, choice of fortificant mixture, fortification technology

Effectiveness

Courtesy of Saskia de Pee, WFP, Rome
What should it cost to produce a fortified kernel?

Theoretical incremental cost increase of fortified rice.

At a 1:100 blend ratio $11.00/MT
At a 1:200 blend ratio $7.62/MT

Photo: Steve Evans/Flickr
Examples of the current costs of purchasing fortified kernels

<table>
<thead>
<tr>
<th>Country</th>
<th>Retail price of rice (USD/MT)</th>
<th>Increase in retail price of fortified rice compared to non-fortified rice (USD/MT)*</th>
<th>Percentage increase in retail price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bangladesh</td>
<td>$480-783</td>
<td>$22</td>
<td>2.7-4.4%</td>
</tr>
<tr>
<td>India</td>
<td>$530***</td>
<td>$9**</td>
<td>1.7%</td>
</tr>
<tr>
<td>Solomon Islands, A</td>
<td>$815-1000</td>
<td>$28</td>
<td>2.7-3.3%</td>
</tr>
<tr>
<td>Solomon Islands, B</td>
<td>$815-1000</td>
<td>$10</td>
<td>1-1.2%</td>
</tr>
</tbody>
</table>

**Legend**
- Yellow: vitamins and minerals plus vitamin A
- Red: 2-3 vitamins and/or minerals (basic formula)
- Green: vitamins and minerals

*Fortified kernel costs only, no blending
**India 2018 standards
***India retail price range $400-2,700 USD/MT