Spate Irrigation: Milk Churners
Introduction

• Milk Churner is an electrical tool used in dairy production such as, butter and butter milk

• **Why is it useful?**
  • Electrical churners are affordable (US $15-20)
  • Have the same principles as traditional churning
  • Easy to operate and handle
  • Reduces workload
  • Improves hygiene
  • Improves food production outputs and economic outcomes
Traditional Milk Churners

- Milk churner having single blade but holes into it – European old model
- Wooden traditional milk churner – European old model
- Traditional Wooden Milk Churner, India
Indian: Electrical Milk Churner

- Has vertical blades
- This model is popular in some parts of India
- Vertical blades ensure maximum mixing and rotation of yogurt, are made of steel, easy to clean and don’t smell
- Length of shaft can be adjusted through lid based adjusters
- Blades and shaft can be detached
- Spare parts are easily available and repair is economical
Pakistani: Electrical Milk Churner

• Has horizontal blades – prevents utensil’s bottom from being scratched accidently

• Shaft is adjusted in length according to utensil and blades can be separately replaced when required

• Weight of devices is enough to stabilize the rotation and function of churner

• The lid can be replaced/attached according to diameter of utensil

• It is shock proof and blades are made of plastic

• Blades need careful cleaning immediately after use otherwise become smelly

• Spare parts are available and repair can be done locally
Best Practices: Sudan

- Freeing up time for education and care of children
- Takes now 20 minutes to produce butter from 1 liter of milk
- Reduced workload
- Side product – Ghee sold at an attractive price in the market
- Link on Milk Churners: [http://spate-irrigation.org/special-projects/equipment-for-rural-women/](http://spate-irrigation.org/special-projects/equipment-for-rural-women/)

Using Milk Churner in Kassala, Sudan

Cream from the milk churner
Few options to meet the local demand of churner:

- Churner can be imported under the project (IFAD or other) in order to avoid strict and complicated import rules;
- Churner can be imported by Ethiopian business sector and then marketed; and
- Churner can be manufactured by local Ethiopian manufacturers using the same design.