Lifeway Solar Devices Pvt Ltd, Kochi, Kerala in association with IIT Madras developed the country’s first solar poultry incubator in 2007. The portable device weighing 10 kg can hatch 28 chicken or 80 quail or 14 goose eggs in 21 days. Promoted by Georgekutty Karlyanappally, the company also has three other first-of-its-kind innovations—solar canoe, solar cow milking machine and solar massage oil heating machine.

Vijaya Ghose
Editor, Limca Book of Records
Lifeway Solar Poultry Incubators are designed to create employment for unemployed women living in rural India where there is no consistent Electrical power supply. In 2007 Lifeway Solar incubators are tested by I I T Madras. Approved and field tested in Namakkal Agri. University under the guidance of Dr. Mohan, Programe Co ordinator of KVK, Namakkal. In 2014 again it has been sent to Acharya N G Ranga Agri. University in Anathapur, Andhra Pradesh to test under the guidance of the Principal Scientist Dr. Sahadeva Reddy. They have certified this incubator as 85% to 90% efficient after hatching Chicken Eggs in their farm.

Solar Poultry Incubators are built with weather proof materials and insulated to sustain temperature for hours. DC/AC motors and DC/AC heaters are fitted according to the size of the machine. German brand Solar Inverter PHOCOS is given to control the power input with Maximum Power point Tracking System (MPPT) system.

We are manufacture 40 to 500 nos. Eggs capacity machines in DC as well as in AC depends on the size. Smaller Machines are Semi Automatic having automatic heat control and manual egg turning. This machine can be powered through 3 power sources. First option is Solar power with 24V/ 250 Wp Photo voltaic Module. Then 12V/200 Ah battery is provided to charge and reserve power. Second option is Grid in which we have given an Swicth Mode Power Supply (SMPS) option for AC/DC conversion, and the third is Battery when input grid power or solar power fails.

100 Eggs to 500 Eggs Capacity Solar Poultry Incubators are fully automatic and need to keep clean water inside the machine in the given water bowl. Minimum 50% humidity is required for eggs hatching with 38 Degree Centigrade or 100 Degree Fahrenheit. Auto turning mechanism will turn eggs in every one hour.

While installing and hatching eggs in this Solar Incubators, please follow these steps.

**STEP 1**

Keep the machine in Closed Room and on a Table top then Clean the inner part of the machine with a wet clean Cloth. Never leave/install the incubator on floor or in dusty area.

**STEP 2**

In a small plastic bowl pour 20 ML Formaldehdye Solution and put one tea spoon of Potassium permagnate in to it. Keep the bowl inside the incubator and close the door for half hour. Then open the door and let the odour goes off for 1 hour.
**STEP 3**
Freshly collected eggs without dirt on shell keep on the tray. If you need to mark any kind of identification on egg then write with pencil only. Don’t use marker pen. While selecting eggs we have to take the maximum care. because the eggs must be 100% fertiled. The ratio is for very 5 hen there must be one cock in the cage.

**STEP 4**
Fill boiled clean water or Distilled drinking water in a given plastic bowl. Make sure the water level is sufficient to develop 50% humidity/Moisture inside the incubator during setting time (18 Days) Please remember Hatching time is remaining 3-4 days more. Keep a watch on the chicks coming out during 20th and 21st days.

**STEP 5**
After 18 days take eggs from the rolling platform and keep it in the Plastic tray given inside the box. Please spread a paper sheet to get grip for the new born chicks, Otherwise deformation of leg is possible. Maintain temperature and humidity for 21 days inside the machine. Once the chicks started to come out please remove the chicks from the incubator and keep it in a dry place surrounded with cardboard. A 40 Watt bulb can light up and hang inside the cardboard but it should not touch the chick’s head.

**STEP 6**
Clean water and broken rice/wheat /Corn grain etc. can give as food. Vaccine after 7 days in nose or eyes. Then vaccine required usually after 15 days only.

**Technical Specification of 100 Eggs Capacity Solar Poultry Incubator**
> 240V/ 100 Watt Heater Coil ,, 12 V/ 20 Watt fan -2nos.
> 6 Core mm Copper cable, 24V/ 250 Wp Solar Photovoltaic Module
> 12V/ 200 Ah Solar Tubular Tower Battery C10 Type
> 12V to 24V/ 450 VA Solar Inverter German Brand PHOCOS with MPPT