Force Field Analysis in Adoption of Water Saving Technology of Rice in India

Sreenivasa Rao, Illuri, Punna Rao, Parisa, and Gidda Reddy, Pesaladinne, ANGR Agricultural University, Hyderabad, India

Introduction  Force Field Analysis (FFA) is a technique to visually identify and analyse forces affecting a problem situation so as to plan a positive change. Kurt Lewin (1951) is credited with the development of FFA. FFA is widely used as a potential tool for identifying the driving forces and restraining forces affecting a problem situation and to these forces weights can be assigned according to the clientele perceived impact on the problem. In India, adoption of water saving technology i.e. System of Rice Intensification (SRI) is of recent origin and adopted from Madagascar in the year 2003 (wet season). Now SRI is considered to be a slow moving technology even though its potential is widely accepted. Now it is high time to identify the driving and restraining forces of SRI with the help of Force Field Analysis.

Purpose  To identify the driving forces and restraining forces of SRI from conventional cultivation of Rice by applying Force Field Analysis (These forces can be depicted with the help of balloons and stones method in the poster).

Information  The study was conducted in Andhra Pradesh State of India by selecting 200 SRI adopted farmers and were asked to rank the driving forces and restraining forces in SRI which were already collected from the 50 SRI farmers who were not part of the study with the help of Participatory Rural Appraisal by adopting FFA and listed in the survey instrument. The Rank Based Quotient was calculated for each force for determining importance and magnitude of the force.

In the study the items were perceived as driving forces in SRI to adopt were Water Saving (83.0%), Higher Grain Yield (81.5%), Low seed rate (80.7%), Low Cost of cultivation (80.0%), More number of productive tillers (79.5%), Reduced pest & disease load (76.8%), More grain weight (46.9%) and Good quality grain (29.2%), whereas the items viz: Drudgery in weeding (81.7%), Drudgery in maintaining 25 x 25 cm spacing (76.5%), Difficulty in transplanting of young seedlings (60.8%), Practice of alternate wetting and drying the field (56.5%), Non-availability of organic manures (53.8%), Requires skilled labor (48.5%) and No suitable agricultural implements for SRI (40.0%) were perceived as restraining forces in adopting SRI in India.

Conclusion  The experience of SRI farmers has clearly shown that SRI has got several advantages which have direct bearing on Socio-economic impact on Rice growers may be popularized for large scale adoption by weakening the restraining forces.

Educational Importance  The magnitude of restraining forces can be reduced by addressing them to the Rice Scientists for further research and refinement. Water is a scarce commodity in the present and future years. In view of this formulating a Government policy for propagation of SRI entire country for higher water saving is given prime importance.