

# Livelihoods of smallholder farmers engaged in floriculture in Tamil Nadu



## A SITUATION ASSESSMENT & RECOMMENDATIONS

**Overview:** The small-scale production of loose flowers such as jasmine, chrysanthemum, marigold, crossandra, nerium, tuberose and rose is the main cash crop in the farming system of smallholder farmers in many parts of Tamil Nadu. There are about 32,400 hectares under these crops and production of 4,82,500 MT in 2017-18<sup>1</sup>. Tamil Nadu is the major producer of loose flowers, contributing to about 25 per cent of the national production.

For the remaining crops, the market is largely within the state and neighboring states in few cases.

MSSRF Policy Brief

<sup>1</sup> Source: Horticultural Statistics at a Glance, 2018

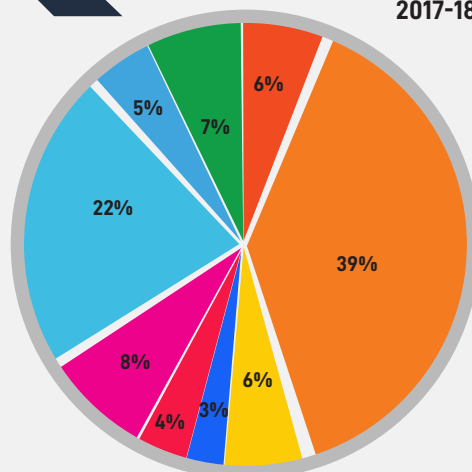
On an average, the area under flower cultivation by farmers ranges from 200 sq.m to 4,000 sq.m (0.02 to 0.4 ha) with the area being decided based on the availability of family labour, choice of the crop, and access to irrigation. In a few places, wage labour is also engaged, especially women on part-time basis for plucking, either in the early morning or late evening, based on the market and price. Loose flowers are a source of continuous weekly income, making it a prime component in a small farm holder's cropping system that offers financial resilience to the household.

**2.COVID-19 measures:** The lockdown from the evening of March 24, 2020 has meant closure of entire flower markets and no procurement from farmers. The entire supply chain is disrupted due to closure of transport as well as lack of demand from public following stoppage of religious functions and restriction on private ceremonies. Jasmine and marigold flowers are also processed for their chemical constituents, but the closure of the processing units has affected demand from that end also. Further, the availability and capacity of these processing units is not sufficient to procure and convert the large volume of production into value added products that can be stored for future trade. All these factors put together has brought both organized and unorganized supply chain for loose flowers to a standstill.

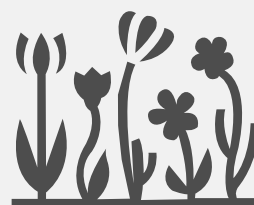
**3.Impact:** Besides immediate loss of income and employment, there are issues relating to field conditions, plant health and indebtedness:

**3.1) Loss of Income and employment:** Farmers, largely small holders have incurred huge loss of income due to the disruption in the whole supply chain; this is the peak flowering stage and also coincides with key festivals during which there is high demand and farmers command a higher price.

Share of loose flowers production in Tamil Nadu 2017-18



■ Rose  
■ Jasminum sambac  
■ J. auriculatum  
■ J. grandiflorum  
■ Crossandra  
■ Chrysanthemum  
■ Marigold  
■ Nerium  
■ Tube rose



March to June is the peak flowering season for all the crops. This is except tuberose, which comes to flowering in Aug- Sept and rose that comes to flowering in two seasons. As soon as the peak flowering season is over, farmers do field management as well as pruning of existing plants to promote fresh growth of branches.



Decline in the plant productivity and field sanitation



Farmers faces huge loss in income and agriculture workers lost employment in the field farmers received credits from market agents are facing difficult situations



Lock down of transports, markets, closure of temple and restrictions on mass gathering



Complete closure of whole supply chain of the flowers including the processing units



Farmers could not harvest and market the flowers, as it is the peak flowering period coincide with temple festivals (usually have more demand)

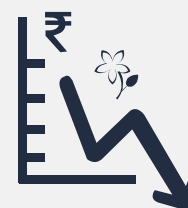
Table 1 presents an estimation of the productivity (flower yield), price, and possible yield loss, under a 30-day lockdown period, which is also the peak flowering season and monetary loss incurred.

Table 1: Estimated loss incurred by major loose flower crops during 30 days of Lockdown

	Average yield kg /ha during one season / year	Per cent yield normally realized during peak season coinciding with 30-day lockdown period	Yield during 30-day lockdown period kg /ha	Flower price Rs. /kg	Monetary loss from 1 ha during 30-day lockdown
Jasmine	12000	35	4200	100	420000
Nerium	25000	35	8750	30	262500
Tube rose	14000	15	2100	30	63000
Marigold	15000	40	6000	30	180000
Rose	1000000	20	200000	40	80000
Crossandra	2500	30	750	200	150000
Chrysanthemum	20000	40	8000	30	240000

A farmer with 0.02 hectare under jasmine for instance will incur a loss of Rs.8400 and a chrysanthemum farmer would have a loss of Rs.4800/- for the 30 days lock down period. The figures are based on a rapid assessment worked out in consultation with farmers and only gives a rough estimate; it is not inclusive of other catastrophic effects to the crop that may occur in due course of time. In addition, there is also the loss in employment in the village economy, as the peak flowering season activity provides considerable number of days of work to women in the area.

Poor field sanitation and plant health: Jasmine, nerium, crossandra, tuberose, and rose are semi-perennial crops; farmers maintain the crop for more than two years while other crops such as marigold and chrysanthemum are annual shorter duration crops. In the face of the current crisis, many farmers have left the field unattended, leading to poor field sanitation, this will encourage the buildup of pests and diseases like Jasmine bud worm, blight, Eriophyid mite in jasmine, wilt and root rot, nematode attack in crossandra, root rot and nematode in tube rose, rust and scales in rose, root rot in marigold and chrysanthemum. Also, the bud formation will be reduced due to hormonal disorder/ deficiency. Normally farmers prune the jasmine crop in June. But, now to maintain the plant health, many farmers have started pruning. This condition will result in income loss of farmers for the whole plucking season till June 2020 and farmers stand to continuously lose income for 30 to



Estimated average income loss from 1 ha of loose flowers cultivated will amount to around INR 2 lakh.



With about 32,400 ha area under loose flowers cultivation in the state, the income loss to the state as a whole could be as much as INR 64,800 lakhs. Tamil Nadu contributes to 25 per cent of the loose flower production in the country.



45 days. In addition, in case of crossandra, when the flowers are not plucked on time, it affects the seed setting; normally farmers depend on seeds for the next planting from the previous crop, but now they will be forced to depend on the market for seeds. All semi perennial open field flower crops follow continuous cycles, i.e. there is no prescribed production-off system as like that of bending practices followed under greenhouse rose production.

**Informal Credit:** Farmers who received advance or credit from market agents with assurance of repayment after selling flowers are severely affected, they are facing conditions like not being allowed to change the flower crop without prior intimation to market agents and having to pay interest on the amount borrowed.

**Affected Regions:** Jasmine is cultivated throughout the state except in hill zones, while Nerium is cultivated only in the Madurai and Dindigul zones. Crossandra and marigold are largely cultivated in Chennai, Trichy, Madurai and Coimbatore regions and chrysanthemum in Hosur, Coimbatore and hilly regions.

## 4.Recommendations:

Small farmers who cultivate loose flower crops are the worst affected; they have lost the income of almost one whole season, and it is the main cash crop in their farming systems. Besides the psychological stress from loss, this will have an impact on their investment on the next crop cultivation. As a special case therefore:

- I. It is essential to urgently undertake appropriate assessment of loss incurred by farmers across different regions and crops immediately and work out compensation protocols and payment structure to rebuild the confidence of farmers
- II. Provide necessary agro-advisories to maintain good field conditions and plant health, so that productivity is maintained
- III. Ensure the availability of good quality seeds/seedlings/ cuttings in the coming season based on local need.
- IV. Support promotion of intercrop/ mixed crop like short duration vegetable crop inside flower crops like jasmine
- V. Establish essential oil extraction units/value addition units at decentralized level in loose flower hubs where Jasmine, tube rose and marigold are predominant



Prof M S Swaminathan: "At this present time of the corona crisis, small farmers In Tamil Nadu and India cultivating perishable commodities are suffering the most from market availability and variability. In the case of floriculture, we need to ensure that small farmers have access to good quality seeds and technologies for the coming kharif season, provide special attention to the participation of women, technological and economic and provide suitable equipment like oil extraction machinery for jasmine for value addition."