Impact of TN-IAMP on Black Gram Growers in Madurai District of Tamil Nadu

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ABSTRACT

The World Bank Supported TN IAMP (Irrigated Agriculture Modernisation Project) is a follow up of IAMWARM (Irrigated Agriculture Modernisation and Water-Bodies Restoration and Management) Project. The interventions of this component are aimed at increasing productivity of mostly key crops, promoting diversification of agriculture production systems, enhancing resilience and improving farmer access to markets in project sub-basins. This study was undertaken in the Madurai district of Tamil Nadu state. Among the blocks in Madurai district, totally 8 villages were selected. The respondents of 120 TN-IAMP black gram beneficiaries were selected using purposive sampling method. It is inevitable to study the impact of any technology when it is used in the society and among the direct consequences increased income was observed in this study of (87.50 percent) of TN-IAMP beneficiaries on black gram cultivation and it was created a good impact among farmers, this might be initiation and create more adoption rate on future on this technologies. Also observed from indirect consequences of this study indicated that most of the beneficiaries made improvements in their existing land and also gone for diversified cropping.

Keywords: Impact, TN-IAMP, Consequences, Changes.

INTRODUCTION

The World Bank Supported TN IAM (Irrigated Agriculture Modernisation Project) is a follow up of IAMWARM (Irrigated Agriculture Modernisation and Water-Bodies Restoration and Management) Project which has made significant development impacts in the state by modernising irrigation infrastructure, improving water use efficiency, enhancing yields and productivity of agriculture in a climate resilient production systems, diversification towards high value crops, strengthening the institutional reforms through Participatory Irrigation Management (PIM) and Water Users Association (WUA). Tamil Nadu is one of the pioneer in water starved states in India endowed with only 3 percent of the water resources in India. The state located in the rain shadow region of the Western Ghats are receiving limited average annual rain fall of about 925 mm, lower than the national average 1200 mm.

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The interventions of this component are aimed at increasing productivity of mostly key crops, promoting diversification of agriculture production systems, enhancing resilience and improving farmer access to markets in project sub-basins. The project will adopt climate-resilient approaches that promotes sustainable use of land and water resources. The component consists of three sub-components,
1. Agricultural intensification and diversification,
2. Improving alternative livelihood sources through livestock and inland aquaculture, marketing, value-addition and post-harvest management.

MATERIALS AND METHODS
This study was undertaken in the Madurai district of Tamil Nadu state. Madurai District of Tamil Nadu was purposively selected for this study because, TN-IAMP was implemented under Tamil Nadu Agricultural University. In Madurai district, areas were covered with sirumalaiyar and sathaiyar sub-basin since it occupies a more ayacut area. Madurai district consists of 7 taluks, among these taluks, Alanganallur and Vadipatti blocks were selected for the study. Among these blocks totally 8 villages were selected based on TN-IAMP beneficiaries available. The respondents of 120 TN-IAMP black gram beneficiaries were selected using purposive sampling method as follows.

FINDINGS AND DISCUSSION
Impact of TN-IAMP on black gram growers
It is inevitable to study the impact of any technology when it is used in the society. Hence the impacts were studied and the findings were presented below. The impact was divided in to two broad categories namely direct and indirect consequences.

Table 1: Distribution of the respondents in the selected villages (n=120)

| S.No | Village         | No. of respondents selected |
|------|----------------|-----------------------------|
| 1.   | Thevaseri      | 17                          |
| 2.   | Muduvarpatti   | 17                          |
| 3.   | Sukkampatti    | 8                           |
| 4.   | Kutladampatti  | 19                          |
| 5.   | Semminipatti   | 30                          |
| 6.   | Katchaikatti   | 6                           |
| 7.   | Chokalingapuram| 9                           |
| 8.   | Poochampatti   | 14                          |
|      | Total          | 120                         |

Table 2: Distribution of the respondents according to their impact level of TN-IAMP beneficiaries (n=120)

| S.No | Consequences                                      | Impact level |
|------|---------------------------------------------------|--------------|
|      |                                                   | Number       | percent     |
| A.   | Direct consequences                               |              |             |
| 1.   | Increased income                                  | 105          | 87.50       |
| 2.   | Provide higher education for children             | 61           | 50.80       |
| 3.   | Increased investment on other enterprises         | 55           | 45.80       |
| 4.   | Increased standard of living                       | 52           | 43.30       |
| B.   | Indirect consequences                             |              |             |
| I.   | Changes in farm                                   |              |             |
| 5.   | Purchased new lands                               | 68           | 56.60       |
| 6.   | Improvement in the existing lands                 | 42           | 35.00       |
| 7.   | Deepened the existing well                        | 72           | 60.00       |
| 8.   | Dig new well                                      | 34           | 28.30       |
Shameer et al.  *Ind. J. Pure App. Biosci.* (2020) 8(5), 339-343  ISSN: 2582 – 2845

| 9.  | Purchased new implements tools/equipments | 63 | 52.50 |
|-----|------------------------------------------|----|------|
| 10. | Purchased additional livestock            | 28 | 23.80 |

**II. Material changes**

| 11. | Purchased new household appliances (New jewel, Vehicle, TV, Radio and Phone) | 103 | 85.80 |

**III. Economic changes**

| 12. | Repaid old loan | 68 | 56.60 |
| 13. | Increased savings / deposits | 42 | 35.00 |
| 14. | More money invested in farming | 67 | 55.80 |
| 15. | Diversified the cultivation to many crops | 31 | 25.80 |

**IV. Changes in home**

| 16. | Purchased new home | 12 | 10.00 |
| 17. | Modified the existing home | 51 | 42.50 |
| 18. | Spent more time for religious and other ceremonies | 53 | 44.10 |

**V. Social changes**

| 19. | Political participation | 54 | 45.00 |
| 20. | Increased organization participation | 43 | 35.80 |
| 21. | Increased opinion leadership quality | 87 | 72.50 |
| 22. | Migration from rural to urban | 18 | 15.00 |

**VI. Personal changes**

| 23. | Better extension contact | 98 | 81.60 |
| 24. | Emerged as a leader | 50 | 41.60 |
| 25. | Become an effective communicator | 84 | 70.00 |
| 26. | Increased opportunity to know about development activities | 59 | 49.10 |
| 27. | Increased media exposure | 89 | 74.10 |
| 28. | Increased consultation of fellow farmers | 66 | 55.00 |
| 29. | Subscribed for farm journal & publications | 26 | 21.60 |
| 30. | Got social recognition from others due to high yield and high income | 48 | 40.00 |

(Multiple response obtained)

**Direct consequences**

It is evident from the above Table 2 indicated that among the direct consequences was increased income was observed in this study of (87.50 percent) of TN-IAMP beneficiaries on black gram cultivation, which again create impact from increased income were providing higher education for children (50.80 percent) of beneficiaries able to upgrade their children to higher education.

Most of the beneficiaries possess impact from TN-IAMP were the increased the investment on other enterprises (45.80 percent) were invested their income on chit funds, even some of them started grocery on small level in their village may help in increasing the living standard, more than one-third of the beneficiaries (43.30 percent) opinioned that increased in standard of living because of adopting TN-IAMP technologies.

**Indirect consequences**

**Changes in farm**

It could be observed from the above Table 2 that majority of the beneficiaries (60.00 percent) were deepened the existing well on their farm and more or less equal beneficiaries (56.60 percent) were purchased the new lands for their additional production and purchased new implement tools or equipment’s (52.50 percent). Other farm changes are notably on improvement in the existing lands (35.00 percent), digging of new well for irrigation (28.30 percent) and purchased additional livestock for additional income (23.80 percent) with their increased income for black gram cultivation.

**Material changes**

It could be observed from above Table 2 indicated that material change possessed as purchasing new household appliances like jewels, vehicle, TV, radio and phone as majority of the beneficiaries (85.80 percent) for betterment of living from TN-IAMP.

**Economic changes**

It could be observed from above Table 2 that majority of the beneficiaries (56.60 percent) had repaid their old loan and maximum beneficiaries had invested their income on...
again farming (55.80 percent), nearly one-third of the beneficiaries (35.00 percent) shows that increasing savings / deposits from cultivation and one-fourth of the beneficiaries (25.80 percent) were diversified their cultivation to many crops.

**Changes in home**

It could be furnished from above Table 2 that nearly half of the beneficiaries (44.10 percent) were spent more time for religious and other ceremonies from their increased income, more than one-third percent of beneficiaries (42.50 percent) were modified their existing house from their income and very meagre percent (10.00 percent) of beneficiaries are purchased new home because of increased income from TN-IAMP.

**Social changes**

It could be observed from the above findings, increased social prestige value by changing in socially that majority of the beneficiaries (72.50 percent) opinioned their increased leadership quality because of attending trainings regularly, nearly half of the beneficiaries (45.00 percent) were opinioned political participation / involvement, one-third of the beneficiaries (35.80 percent) possess increased rate of organization participation and meagre percent of beneficiaries (15.00 percent) were migrated from rural to urban from increased income from TN-IAMP.

**Personal changes**

It could be observed from the table 2 that majority of the beneficiaries (81.60 percent) were experienced better extension contact on TN-IAMP, nearly three-fourth of the beneficiaries (74.10 percent) opinioned better media exposure, nearly (70.00 percent) of beneficiaries become an effective communicator, nearly (55.00 percent) of beneficiaries were increased to consultation with fellow farmers, nearly (49.10 percent) of beneficiaries were increased opportunity to know about development activities, nearly (41.60 percent) of beneficiaries were emerges as leader from TN-IAMP.

One-third (40.00 percent) of the beneficiaries were got social recognition from others due to high yield and high income and even meagre percent (21.60 percent) were subscribed the farm journals and publications from their increased income from TN-IAMP.

**CONCLUSION**

It could be furnished from above findings of direct consequences that the TN-IAMP of black gram cultivation created a good impact among farmers, this might be initiation and create more adoption rate on this technologies in future. So, it could be observed from indirect consequences of this study that most of the beneficiaries made improvements in their existing land and also gone for diversified cropping. They also even purchased additional livestock and new farm implements. Regarding the material changes majority of beneficiaries concentrated on purchase more household appliances.

It is also important to note that most of them cleared off their old loans and invested their increased income in different saving schemes and even some have extended their area on farming. The increased income also made them to spend more time in religious, ceremonies and majority of them even modified their existing house. Most of the beneficiaries gained opinion leadership and social prestige value and even this has increased their participation in social functions and other organizational activities.

Almost they were following TN-IAMP for another five years which had resulted in positive impact in different spheres of their life.

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