

BUKTI KORESPONDENSI

Judul Naskah : Effectiveness of Self-Help Groups in the Implementation of Livelihood Improvement Programs and Food Security In Lampung, Indonesia

Penulis : K Rangga, DT Gultom, T Hasanuddin, B Viantimala

Nama Jurnal : Journal of Sustainability Science and Management

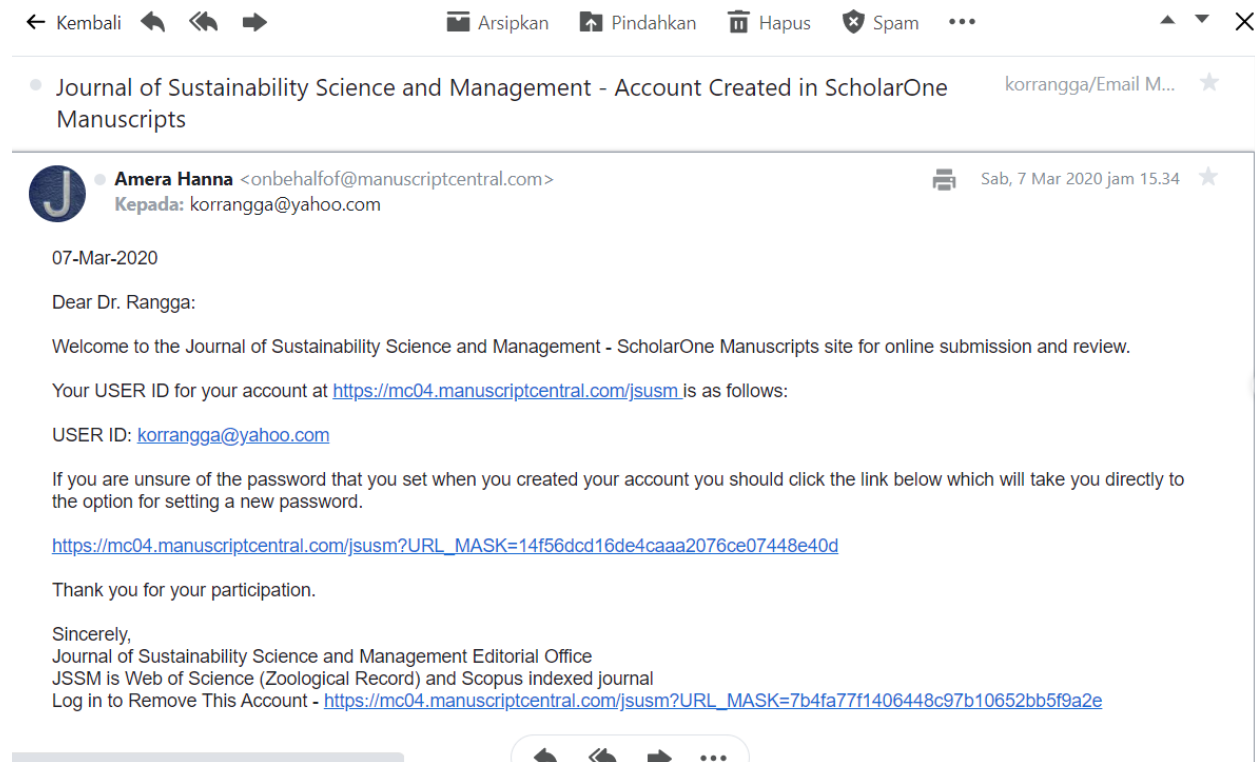
No, Vol, dan Tahun : 16 (4), 149-161. 2021

Penerbit : Universiti Malaysia Terengganu, Malaysia

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1. Pembuatan Akun untuk submit naskah pada manuscriptcentral.com (7 Maret 2020)



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• Journal of Sustainability Science and Management - Account Created in ScholarOne Manuscripts korrangga/Email M... ★

J • **Amara Hanna** <onbehalf@manuscriptcentral.com> 📧 Sab, 7 Mar 2020 jam 15.34 ★
Kepada: korrangga@yahoo.com

07-Mar-2020

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Welcome to the Journal of Sustainability Science and Management - ScholarOne Manuscripts site for online submission and review.

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USER ID: korrangga@yahoo.com

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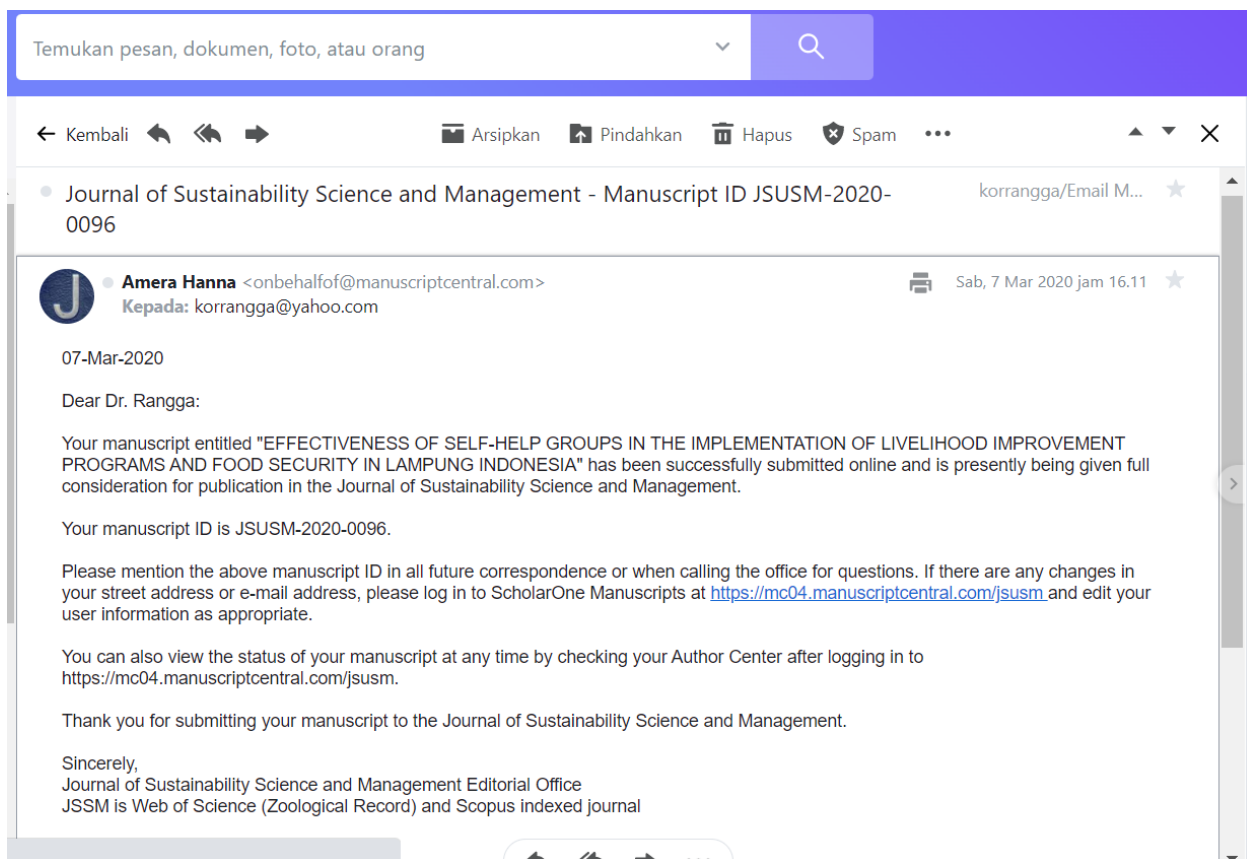
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2. Submit naskah pada JSSM (7 Maret 2021)



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Journal of Sustainability Science and Management - Manuscript ID JSUSM-2020-0096 korrangga/Email M... ★

J Amera Hanna <onbehalf@manuscriptcentral.com> Sab, 7 Mar 2020 jam 16.11 ★
Kepada: korrangga@yahoo.com

07-Mar-2020

Dear Dr. Rangga:

Your manuscript entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Sustainability Science and Management.

Your manuscript ID is JSUSM-2020-0096.

Please mention the above manuscript ID in all future correspondence or when calling the office for questions. If there are any changes in your street address or e-mail address, please log in to ScholarOne Manuscripts at <https://mc04.manuscriptcentral.com/jsusm> and edit your user information as appropriate.

You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc04.manuscriptcentral.com/jsusm>.

Thank you for submitting your manuscript to the Journal of Sustainability Science and Management.


Sincerely,
Journal of Sustainability Science and Management Editorial Office
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3. Perbaikan pertama terkait kesalahan sitasi (8 Maret 2020)

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• Journal of Sustainability Science and Management - JSUSM-2020-0096 has been unsubmitted 2 korrangga/Email M... ★

 • **Amera Hanna** <onbehalf@manuscriptcentral.com> 🖨️ Min, 8 Mar 2020 jam 08:15 ★
Kepada: korrangga@yahoo.com

07-Mar-2020

Dear Dr. Rangga:

Your manuscript, JSUSM-2020-0096, entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA" has been unsubmitted to the Journal of Sustainability Science and Management.

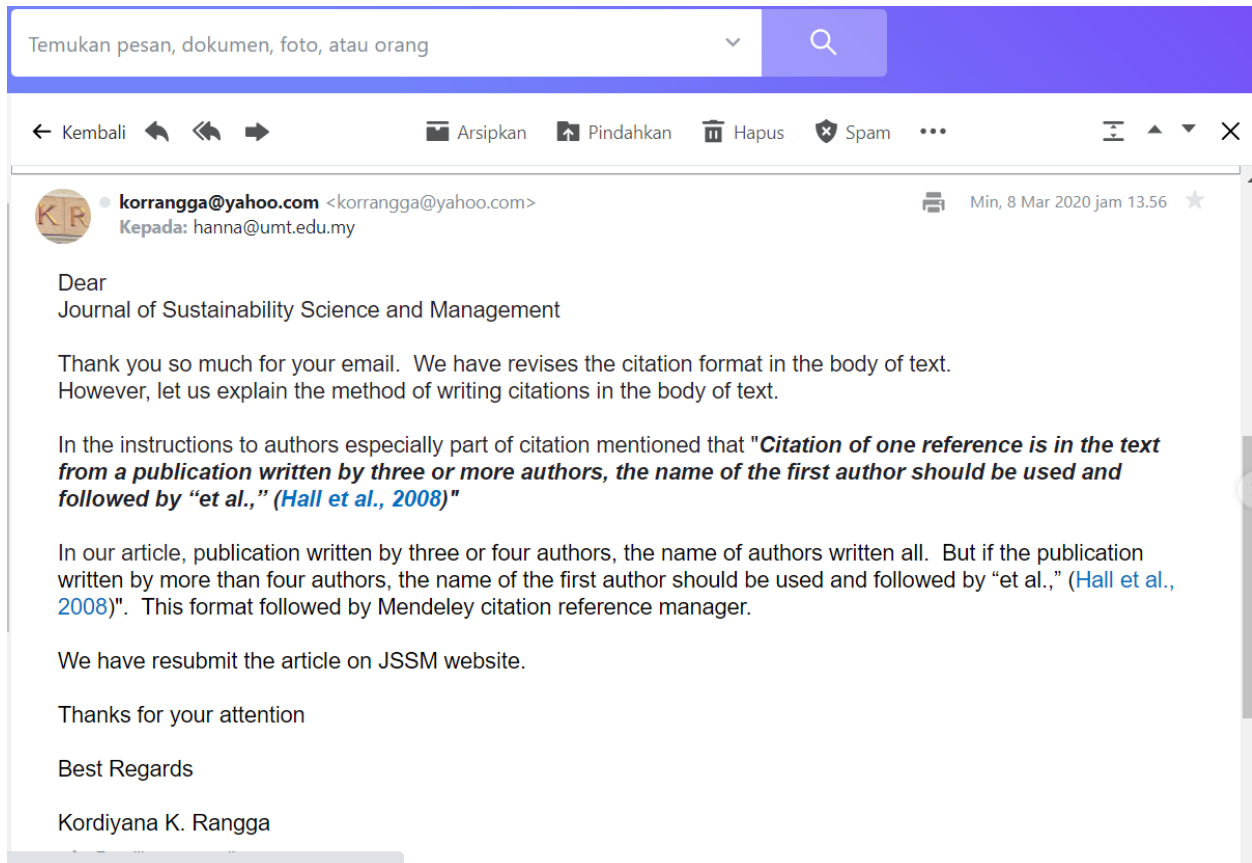
wrong format for citation in the body text

Please visit the instructions to authors to complete your submission and re-submit the manuscript for consideration of publication. You may contact the Editorial Office if you have further questions.

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4. Respon kepada jurnal terkait revisi sitasi (8 Maret 2020)



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 **korrangga@yahoo.com** <korrangga@yahoo.com> Min, 8 Mar 2020 jam 13.56 ★
Kepada: hanna@umt.edu.my

Dear
Journal of Sustainability Science and Management

Thank you so much for your email. We have revises the citation format in the body of text.
However, let us explain the method of writing citations in the body of text.

In the instructions to authors especially part of citation mentioned that "***Citation of one reference is in the text from a publication written by three or more authors, the name of the first author should be used and followed by "et al.," (Hall et al., 2008)***"

In our article, publication written by three or four authors, the name of authors written all. But if the publication written by more than four authors, the name of the first author should be used and followed by "et al.," (Hall et al., 2008)". This format followed by Mendeley citation reference manager.

We have resubmit the article on JSSM website.

Thanks for your attention

Best Regards

Kordiyana K. Rangga

5. Komentar Reviewer untuk Perbaikan Naskah (2 Juni 2020)



Mhd Ikhwanuddin <onbehalf@manuscriptcentral.com>
Kepada: korrangga@yahoo.com

Rab, 3 Jun 2020 jam 10:34

02-Jun-2020

Dear Dr. Rangga:

Manuscript ID JSUSM-2020-0096 entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA" which you submitted to the Journal of Sustainability Science and Management, has been reviewed. The comments of the reviewer(s) are included at the bottom of this letter.

The reviewer(s) have recommended publication, but also suggest some minor revisions to your manuscript. Therefore, I invite you to respond to the reviewer(s)' comments and revise your manuscript.

To revise your manuscript, log into <https://mc04.manuscriptcentral.com/jsusm> and enter your Author Center, where you will find your manuscript title listed under "Manuscripts with Decisions." Under "Actions," click on "Create a Revision." Your manuscript number has been appended to denote a revision.

You may also click the below link to start the revision process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts.

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You will be unable to make your revisions on the originally submitted version of the manuscript. Instead, revise your manuscript using a word processing program and save it on your computer. Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.

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When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) in the space provided. You can use this space to document any changes you make to the original manuscript. In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s).

IMPORTANT: Your original files are available to you when you upload your revised manuscript. Please delete any redundant files before completing the submission.

Because we are trying to facilitate timely publication of manuscripts submitted to the Journal of Sustainability Science and Management, your revised manuscript should be submitted by 02-Jul-2020. If it is not possible for you to submit your revision by this date, we may have to consider your paper as a new submission.

Once again, thank you for submitting your manuscript to the Journal of Sustainability Science and Management and I look forward to receiving your revision.

Sincerely,
Prof. Mhd Ikhwanuddin
Editor-in-Chief, Journal of Sustainability Science and Management
ikhwanuddin@umt.edu.my
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Once again, thank you for submitting your manuscript to the Journal of Sustainability Science and Management and I look forward to receiving your revision.

Sincerely,
Prof. Mhd Ikhwanuddin
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ikhwanuddin@umt.edu.my
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Associate Editor Comments to Author:

Associate Editor
Comments to the Author:
Accept with minor revision.

Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author
In general, Research on Self-help groups and food security is interesting research in developing countries because of so many problems regarding food security and poverty.

Comments

1. Part of Introduction: AuthorS needs to explain in detail and specifics problem of this research. Why this research is carried out and what are the expectations of this research.
2. In the introduction, the authors have explained the novelty of this study, but the authors must try to add and explain more specific and detail the novelty of this research.
3. Authors need to briefly explain the history/story of PPMK program (when it starts, type of program, focus, problems, and others) in the first part of Results and Discussion
4. In the conclusions section, connect and discuss the conclusions/research findings with the current phenomenon about food security.
5. The author needs to improve English to make it better.

Reviewer: 2

Comments to the Author
Please modify the articles following comment in the text

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6. Perbaiki naskah dan Submit naskah yang telah diperbaiki sesuai saran reviewer (15 Juni 2020)

Journal of Sustainability Science and Management - Manuscript ID JSUSM-2020-0096.R1 korrangga/Email M... ★

J • **Amera Hanna** <onbehalfof@manuscriptcentral.com> Sen, 15 Jun 2020 jam 20.47 ★
 Kepada: korrangga@yahoo.com

15-Jun-2020

Dear Dr. Rangga:

Your manuscript entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Sustainability Science and Management.

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Journal of Sustainability Science and Management - JSUSM-2020-0096.R1 has been unsubmitted 2 korrangga/Email M... ★

J • **Amera Hanna** 15-Jun-2020 Dear Dr. Rangga: Your manuscript, JSUSM-2020-0096.R1, entitled "EFFECTI" Sel, 16 Jun 2020 jam 08.39 ★

KR • **korrangga@yahoo.com** <korrangga@yahoo.com> Kam, 25 Jun 2020 jam 13.28 ★
 Kepada: hanna@umt.edu.my

Dear
 Journal of Sustainability Science and Management Editorial Office

Thank you so much for your information.

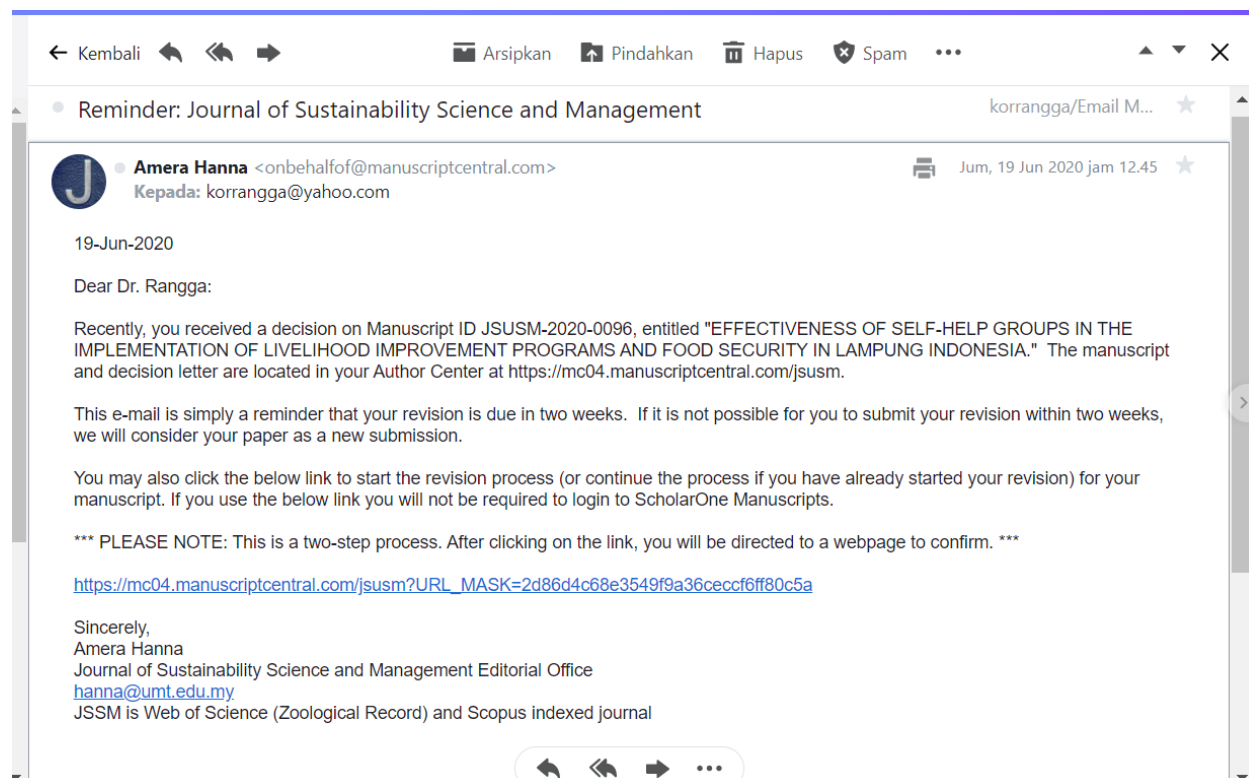
We apologize for the previous error, I have wrongly uploaded the file. I am fully responsible for that.

We have upload the article and revise the format for citation using Mendeley citation manager.

Best Regards
 Kordiyana K. Rangga

> Tampilkan pesan asli

7. Pemberitahuan proses pemberian “decision” (19 Juni 2020)



The image shows a screenshot of an email interface. At the top, there are navigation icons for 'Kembali', 'Arsipkan', 'Pindahkan', 'Hapus', and 'Spam'. The email title is 'Reminder: Journal of Sustainability Science and Management' from 'korrangga/Email M...'. The sender is 'Amara Hanna <onbehalfof@manuscriptcentral.com>' with the recipient 'Kepada: korrangga@yahoo.com'. The date is 'Jum, 19 Jun 2020 jam 12.45'. The email content includes a date '19-Jun-2020', a salutation 'Dear Dr. Rangga:', and a paragraph stating that a decision has been received on Manuscript ID JSUSM-2020-0096, titled 'EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA'. It mentions that the manuscript and decision letter are in the Author Center at <https://mc04.manuscriptcentral.com/jsusm>. A second paragraph states that the email is a reminder that the revision is due in two weeks. A third paragraph offers a link to start the revision process. A note follows: '*** PLEASE NOTE: This is a two-step process. After clicking on the link, you will be directed to a webpage to confirm. ***'. The link is https://mc04.manuscriptcentral.com/jsusm?URL_MASK=2d86d4c68e3549f9a36ceccf6ff80c5a. The email concludes with a signature: 'Sincerely, Amara Hanna, Journal of Sustainability Science and Management Editorial Office, hanna@umt.edu.my, JSSM is Web of Science (Zoological Record) and Scopus indexed journal'. Navigation icons are visible at the bottom of the email content area.

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Reminder: Journal of Sustainability Science and Management korrangga/Email M... ★

J ● Amara Hanna <onbehalfof@manuscriptcentral.com> 📧 Jum, 19 Jun 2020 jam 12.45 ★
Kepada: korrangga@yahoo.com

19-Jun-2020

Dear Dr. Rangga:

Recently, you received a decision on Manuscript ID JSUSM-2020-0096, entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA." The manuscript and decision letter are located in your Author Center at <https://mc04.manuscriptcentral.com/jsusm>.

This e-mail is simply a reminder that your revision is due in two weeks. If it is not possible for you to submit your revision within two weeks, we will consider your paper as a new submission.

You may also click the below link to start the revision process (or continue the process if you have already started your revision) for your manuscript. If you use the below link you will not be required to login to ScholarOne Manuscripts.

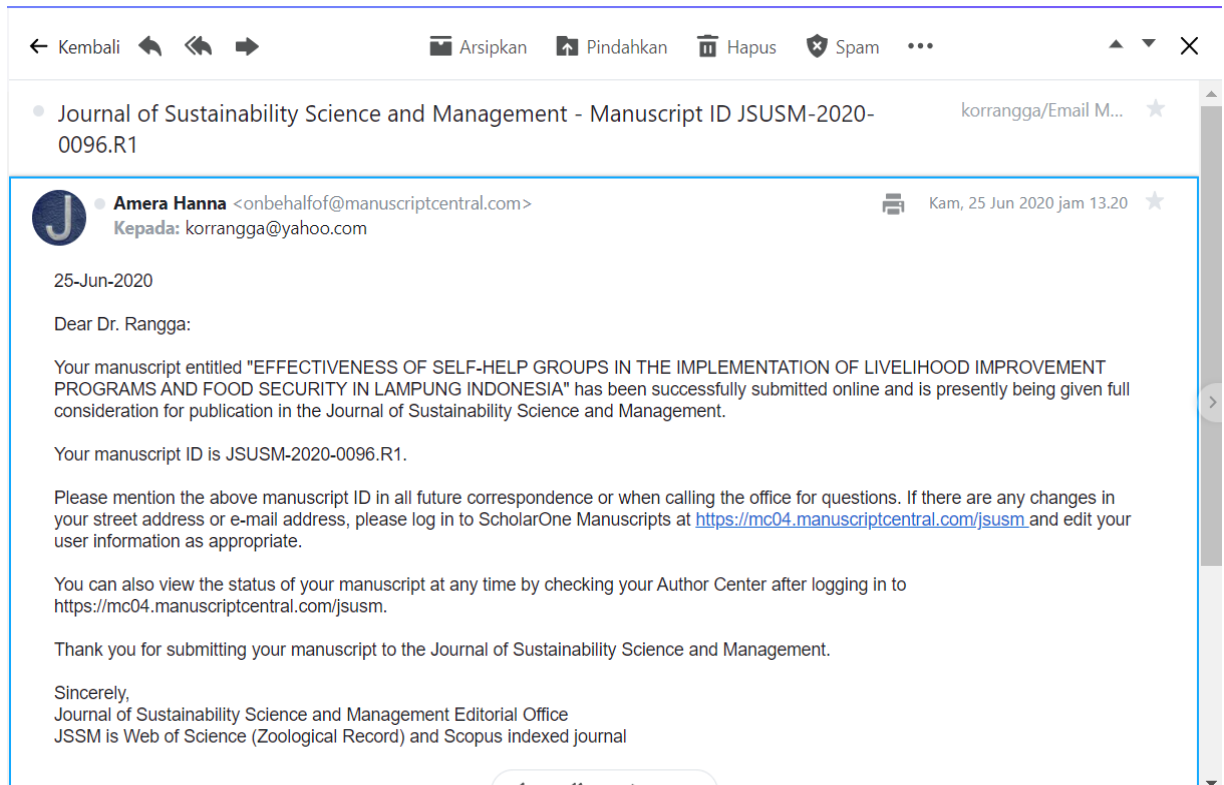
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https://mc04.manuscriptcentral.com/jsusm?URL_MASK=2d86d4c68e3549f9a36ceccf6ff80c5a

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Amara Hanna
Journal of Sustainability Science and Management Editorial Office
hanna@umt.edu.my
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⏪ ⏩ ⋮

8. Submit Ulang perbaikan naskah dan proses pengecekan naskah oleh editor (25 Juni 2020)



The image shows a screenshot of an email interface. At the top, there is a navigation bar with icons for 'Kembali', 'Arsipkan', 'Pindahkan', 'Hapus', and 'Spam'. The email subject is 'Journal of Sustainability Science and Management - Manuscript ID JSUSM-2020-0096.R1'. The sender is 'Amara Hanna <onbehalf@manuscriptcentral.com>' and the recipient is 'korrangga@yahoo.com'. The email is dated 'Kam, 25 Jun 2020 jam 13.20'. The body of the email contains the following text:

25-Jun-2020

Dear Dr. Rangga:

Your manuscript entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA" has been successfully submitted online and is presently being given full consideration for publication in the Journal of Sustainability Science and Management.

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You can also view the status of your manuscript at any time by checking your Author Center after logging in to <https://mc04.manuscriptcentral.com/jsusm>.

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Sincerely,
Journal of Sustainability Science and Management Editorial Office
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9. Proses Review Kedua oleh Reviewer (17 Agustus 2020)

Temukan pesan, dokumen, foto, atau orang

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• Journal of Sustainability Science and Management - Decision on Manuscript ID JSUSM-2020-0096.R1 korrangga/Email M... ★

J • **Mhd Ikhwanuddin** <onbehalf@manuscriptcentral.com> 📄 Sel, 18 Agu 2020 jam 06.40 ★
Kepada: korrangga@yahoo.com
Cc: zaleha.m@umt.edu.my, aaziz@umt.edu.my

17-Aug-2020

Dear Dr. Rangga:

It is a pleasure to accept your manuscript entitled "EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA" in its current form for publication in the Journal of Sustainability Science and Management. The comments of the reviewer(s) who reviewed your manuscript are included at the foot of this letter.

Thank you for your fine contribution. On behalf of the Editors of the Journal of Sustainability Science and Management, we look forward to your continued contributions to the Journal.

Sincerely,
 Prof. Mhd Ikhwanuddin
 Editor-in-Chief, Journal of Sustainability Science and Management
ikhwanuddin@umt.edu.my
 JSSM is Web of Science (Zoological Record) and Scopus indexed journal

Associate Editor Comments to Author:

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Reviewer(s)' Comments to Author:

Reviewer: 1

Comments to the Author

My previous comments (First round)

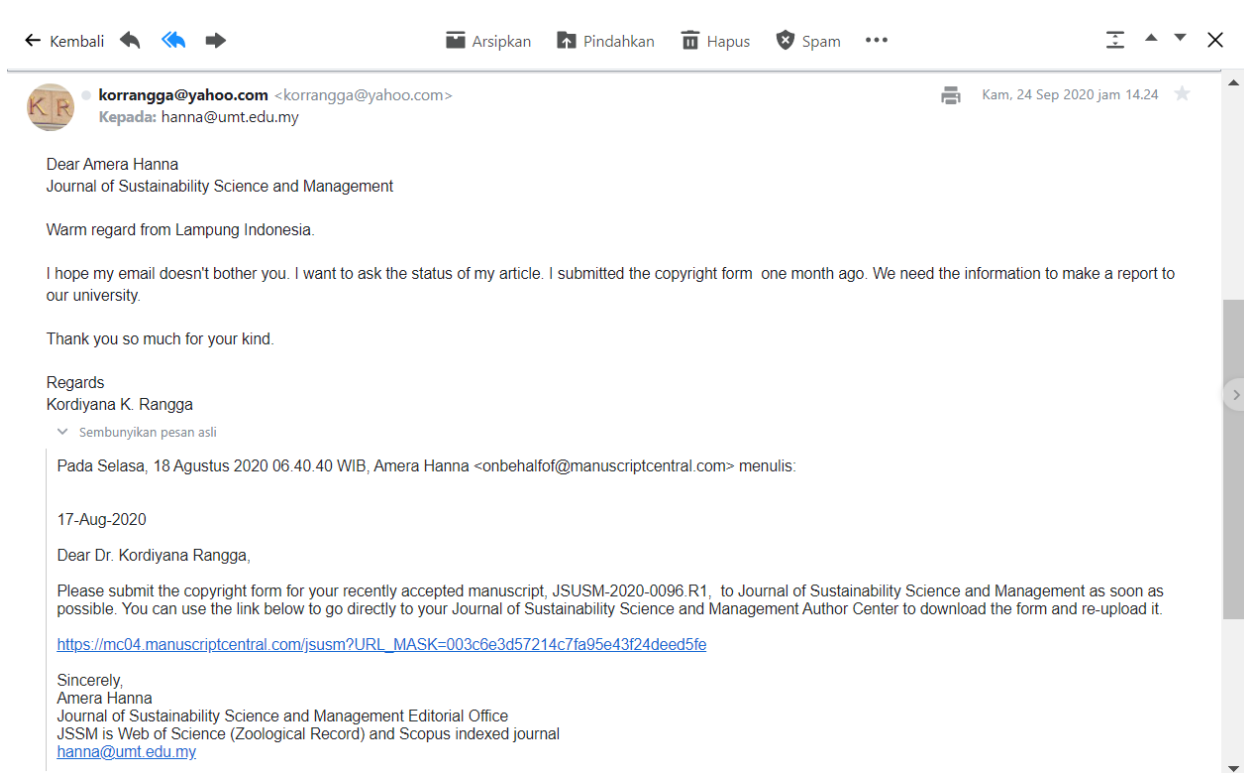
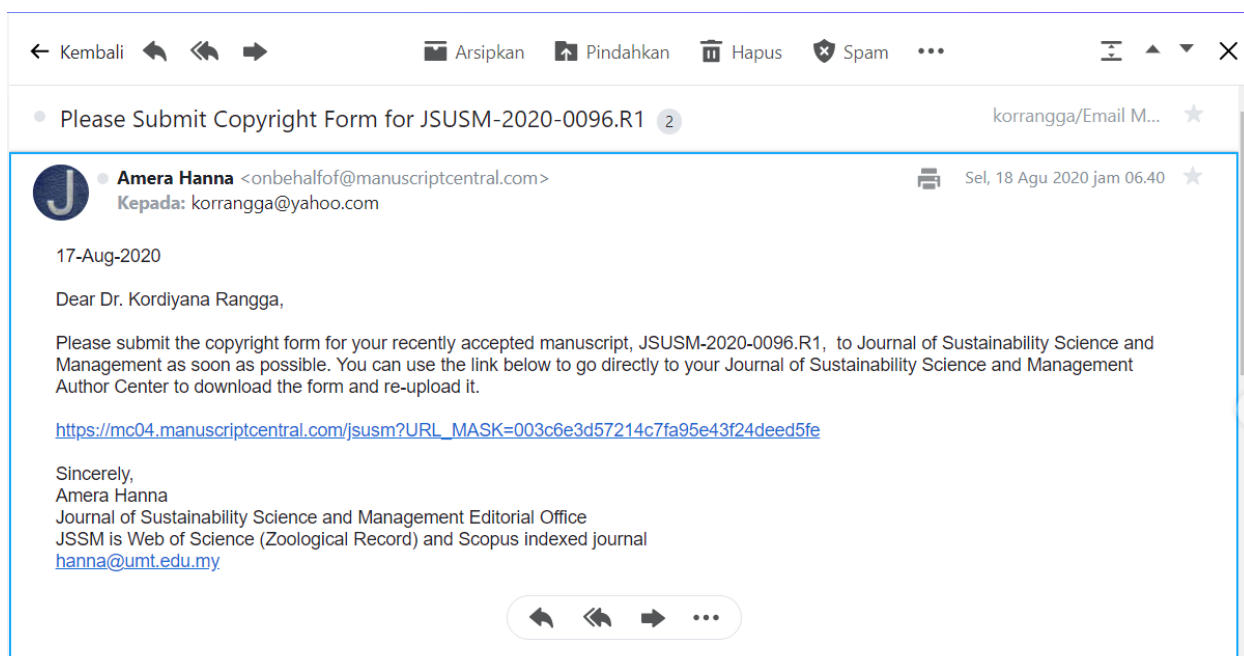
In general, Research on Self-help groups and food security is interesting research in developing countries because of so many problems regarding food security and poverty.

Comments

1. Part of Introduction: Authors needs to explain in detail and specifics problem of this research. Why this research is carried out and what are the expectations of this research (The author has revised the manuscript on page 3 from line 33 to line 47)
2. In the introduction, the authors have explained the novelty of this study, but the authors must try to add and explain more specific and detail the novelty of this research (The author has revised the manuscript on page 3 from line 49 to line 59, and page 4 from line 3 to line 10).
3. Authors need to briefly explain the history/story of PPMK program (when it starts, type of program, focus, problems, and others) in the first part of Results and Discussion(The author has revised the manuscript on page 6 from line 48 to line 60, and page 7 from line 3 to line 17)
4. In the conclusions section, connect and discuss the conclusions/research findings with the current phenomenon about food security (The author has revised the manuscript on page 16 from line 17 to line 29)
5. The author needs to improve English to make it better.

↶ ↷ ➡ ⋮

10. Permintaan submit “Copyright form” dari Editor (18 Agustus 2020)



11. Artikel telah diterima dan diskusi jadwal terbit naskah (27 September -19 Oktober 2020)

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Journal of Sustainability Science and Management JSUSM-2020-0096.R1 5 korrangga/Email M... ★

- Amera Hanna** 27-Sep-2020 JSUSM-2020-0096.R1 - EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVE Min. 27 Sep 2020 jam 16.31 ★
- korrangga@yahoo.com** Dear Ms. Amera Hanna Journal of Sustainability Science and Management Thank you so much for the Rab. 30 Sep 2020 jam 10.09 ★
- korrangga@yahoo.com** Dear Ms. Amera Hanna Journal of Sustainability Science and Management Regarding my manuscript Jun. 16 Okt 2020 jam 15.58 ★
- AMERA HANNA MOHD TAJUDDIN** Dear author, Kindly wait until after November 9 as the JOurnal Technical Committee will n Min. 18 Okt 2020 jam 03.45 ★
- korrangga@yahoo.com** <korrangga@yahoo.com> Kepada: AMERA HANNA MOHD TAJUDDIN Sen. 19 Okt 2020 jam 11.41 ★

Dear Editor of JSSM

Thank you so much for your help and kindness

Best Regards
Kordiyana K Rangga

> Tampilkan pesan asli

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Journal of Sustainability Science and Management JSUSM-2020-0096.R1 5 korrangga/Email M... ★

Amera Hanna <onbehalf@manuscriptcentral.com> Min. 27 Sep 2020 jam 16.31 ★
Kepada: korrangga@yahoo.com

27-Sep-2020

JSUSM-2020-0096 R1 - EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA

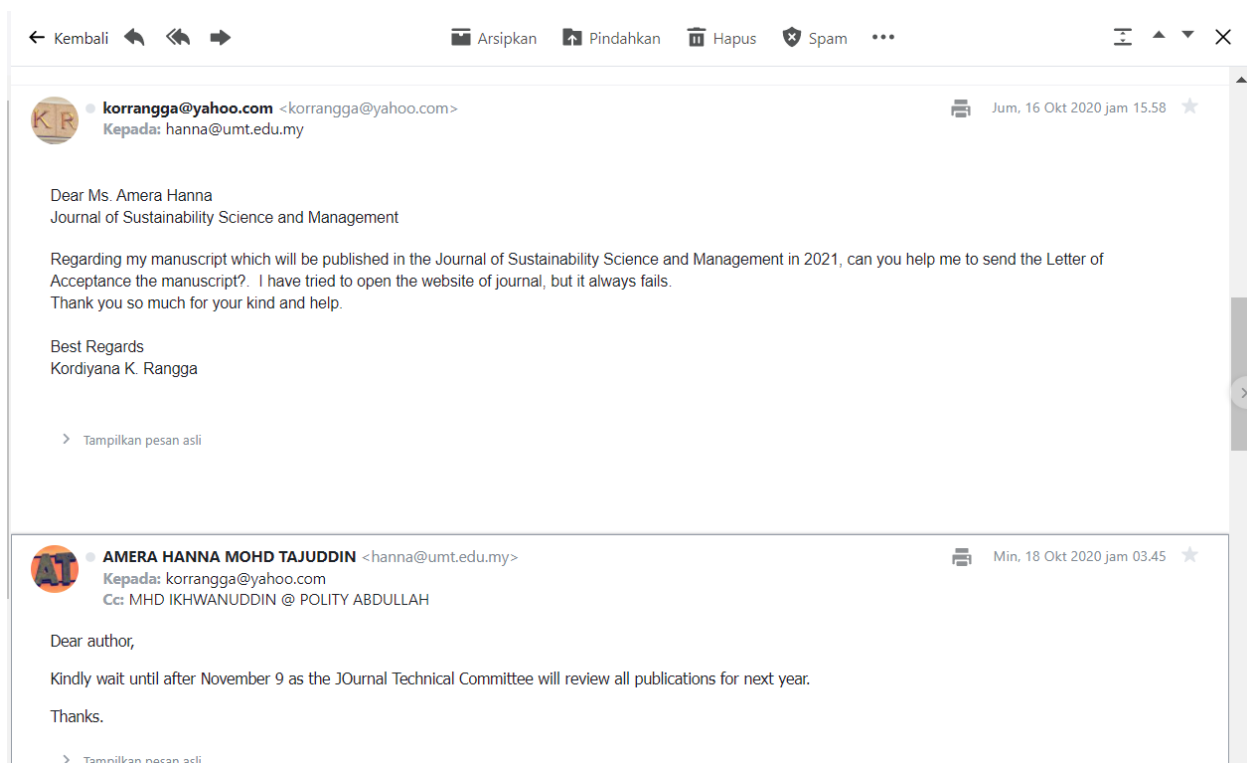
Dear Dr. Rangga:

The article can only be published next year as the articles are filled to December 2020 this year.

Thanks.

Sincerely,
Ms. Amera Hanna
Journal of Sustainability Science and Management
JSSM is Web of Science (Zoological Record) and Scopus indexed journal

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12. Pemberitahuan Naskah akan diterbitkan pada Vol 16 No. 4 tahun 2021 (14 Maret 2021)

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Journal of Sustainability Science and Management 3 korrangga/Email M... ☆

Amera Hanna <onbehalf@manuscriptcentral.com> 📄 Min, 14 Mar 2021 jam 07.05 ☆
Kepada: korrangga@yahoo.com

13-Mar-2021

JSUSM-2020-0096.R1 - EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA

Dear Dr. Rangga:

It will be in JSSM Vol. 16 No. 4. Thanks.

Sincerely,
Ms. Amera Hanna
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JSSM is Web of Science (Zoological Record) and Scopus indexed journal

korrangga@yahoo.com <korrangga@yahoo.com> 📄 Jun, 26 Mar 2021 jam 15.04 ☆
Kepada: hanna@umt.edu.my

Dear Ms. Amera Hanna

Thank you so much for the information. We will for further information from the editor.

Best Regards
Rangga

13. Pemberitahuan “Acceptance Letter dan Payment: (19 dan 20 April 2021)”

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ARTICLE 6 3

J ● **Journal of Sustainability Science and Management** <jssm@umt.edu.my> Sen, 19 Apr 2021 jam 14.40 ☆
Kepada: korrangga@yahoo.com

Assalamualaikum wbt dan Selamat sejahtera,
Y. bhg. Dato'/Prof. /Prof. Madya/Dr./Tuan/Puan
Dear author,
Trust this email finds you in the best of health.
Please find attached the acceptance letter for your article in JSSM Vol. 16 No. 4, May 2021 issue.

**Effectiveness of Self-Help Groups in the implementation of Livelihood Improvement Programs and Food Security in Lampung,
Indonesia**

Kindly make the payment of **USD150 (RM632) at the latest on 22 April 2020** through this link <https://www.billplz.com/APC> and respond to this email with the **proof of payment for the article**.



The galley proof will be emailed to you soon together with the author declaration form, while the receipt will be sent via registered mail/internal mail to your address listed on the manuscript.

Thank you.
With kind regards,
Hanna
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Selamat Siang dan Salam hangat dari Lampung Indonesia.
Thank you for the information about payment. We hereby attach proof of journal payment via Bank Transfer. Thank you for your kindness and help.
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14. Pemberitahuan Pengiriman Galley Proof (21 April 2021)

The screenshot shows an email client interface. At the top, there are navigation icons: 'Kembali', 'Arsipkan', 'Pindahkan', 'Hapus', and 'Spam'. Below the navigation bar, there are two email entries. The first entry is from 'korrangga@yahoo.com' with the subject 'Assalamualaikum Wr Wb. Kepada Yth. Journal of Sustainability Science and Management (JSSM)' and a timestamp of 'Sel, 20 Apr 2021 jam 15.08'. The second entry is from 'Journal of Sustainability Science and Management <jssm@umt.edu.my>' with the subject 'Kepada: korrangga@yahoo.com' and a timestamp of 'Rab, 21 Apr 2021 jam 07.37'. The main body of the email contains the following text:

Assalamualaikum wbt dan Selamat sejahtera,
Y. bhg. Dato'/Prof. /Prof. Madya/Dr.
Received with thanks. The galley proof will be emailed next month.

With kind regards,
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15. Finalisasi Galley Proof dan Agreement (25 Juni 2021)

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• GALLEY PROOF AND AGREEMENT: JSSM VOL. 16 NUMBER 4 JUNE 2021-ARTICLE 13 korrangga/Email M... ☆

J • **Journal of Sustainability Science and Management** <jssm@umt.edu.my>
Kepada: korrangga@yahoo.com Jun, 25 Jun 2021 jam 13.46 ☆


Assalamualaikum wbt dan Selamat sejahtera,
Dear author,
Please find attached the galley proof and agreement for your review.
Please return back the author publishing agreement (signed by all authors or on behalf) and if there are any amendments with the galley proof, kindly revert to us the latest on **27 June 2021, Sunday before 1 pm (Malaysia time)** or else, if there is no response from the authors, we will proceed with the finalised online publication.
Please take note, the article was sent for English editing and proofreading. The DOI number will only be finalized by next week as well.
Thank you.
With kind regards,
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K R • **korrangga@yahoo.com** <korrangga@yahoo.com>
Kepada: Journal of Sustainability Science and Management Sab, 26 Jun 2021 jam 22.43 ☆

Assalamualikum WR WB, Salam Hangat dari Lampung Indonesia.
Dear Admin Editor
Journal of Sustainability Science and Management (JSSM)
Thank you for the notification about the publication of our manuscript. We have checked the manuscript and all parts are correct.
We hereby send a Letter of Agreement, but one author (Begem Viantimala) was unable to sign it because she had passed away due to Covid-19 in early 2021.
Thank you for your help and kindness.
Best Regards
Kordiyana K. Rangga

> Tampilkan pesan asli

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16. Manajemen Naskah dalam system Jurnal

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Manuscripts with Decisions

ACTION	STATUS	ID	TITLE	SUBMITTED	DECISIONED
Copyright Form Completion submitted (17-Aug-2020) - view	ADM: Hanna, Amera ADM: Ahmad, Aziz Accept (17-Aug-2020) Archiving completed on 29-Nov-2021 view decision letter Contact Journal	JSUSM-2020-0096.R1	EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA <i>Files Archived</i>	25-Jun-2020	17-Aug-2020
a revision has been submitted (JSUSM-2020-0096.R1)	ADM: Hanna, Amera ADM: Ahmad, Aziz Minor Revision (02-Jun-2020) a revision has been submitted Archiving completed on 29-Nov-2021 view decision letter	JSUSM-2020-0096	EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG INDONESIA <i>Files Archived</i>	28-Mar-2020	02-Jun-2020

17. Manuscript Awal Submit (7 Maret 2020)

Submission in ScholarOne

EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG, INDONESIA

Abstract: The Community-Based Livelihood Improvement Program (PPMK) program implemented through Self-Help Groups (SHG) and expected to improve the livelihoods of the poor people. The study was aimed to analyze: 1) the effectiveness of SHG in the implementation of PPMK program, 2) food security of SHG member households, and 3) the relationship between the effectiveness of PPMK program implementation and SHG member food security. The study was conducted in Margodadi Village of Metro City and held in October-December 2018. The research method was carried out by a survey with a quantitative approach. Respondents were 25 SHG members who were recipients of the PPMK program with saturation sampling techniques. Descriptive analysis method was used to answer the first and second objectives, while the nonparametric statistic of Spearman's Rank correlation was used to answer the third objective. The results showed that: 1) the effectiveness of SHG members in the PPMK program was in good category, the overall program objectives were achieved, both increasing the income of SHG member households, strengthening SHG institutional capacity, and the ability of SHG members to expand their business; 2) the food security level of household members of SHG in Margodadi Village objectively and subjectively showed that the majority of households were in high category; and 3) the effectiveness of SHG in the PPMK program was significantly different from the level of household food security.

Keywords: group effectiveness, program, food security, household

Abbreviations: [Effectiveness of Self-Help Groups in Lampung Indonesia].

Introduction

Poverty is a problem that is still faced by developing countries including in Indonesia (Suryahadi, Suryadarma, & Sumarto, 2009; Alatas, Banerjee, Hanna, Olken, & Tobias, 2012; Sumner & Edward, 2014). Many factors cause poverty, among others: natural resources, human resources, low education, and the lack of available jobs (Siwar *et al.*, 2016; Sri & Suliswanto, 2010). This condition causes helplessness of the community in facing economic problems, such as the weakness of the small and medium business sector (Dartanto, 2013; K. Ranga & Syarief, 2018).

One of the community empowerment programs used to alleviate poverty and expand employment opportunities in urban areas is the National Urban Independent Community Empowerment Program (PNPM-MP) (Fatriadi, Asteriani, & Cahyaningsih, 2017; Soesanta, 2013). This National Program aims to support the government's efforts to reduce the number of poor people in Indonesia and is expected to improve the welfare of the Indonesian community according to the mandate of the UUD'45. The strategy is carried out through strengthening community institutions and involving elements of the community, starting from the planning, implementation, and monitoring and evaluation stages (Mufid, 2014; Mubarak, 2010; Yamsul & Salim, 2013).

There are 3 programs run by PNPM-MP namely physical, economic and social development programs (Soesanta, 2013). Revolving economic loan assistance given to the poor people is a form of program in the economic field. Revolving loans are provided to assist productive activities in order to create business opportunities and employment opportunities, and can also be used to start new businesses in order to improve community welfare (Fatriadi *et al.*, 2017). Revolving fund loans to the poor are given directly to the community through Non-

Governmental Organization (NGO) in each village in various regions including Metro City of Lampung Province. NGO is an institution established to expedite the running of the PNPM-MP program. Through the Financial Management Unit (UPK) (which is found in the NGO section), it will be considered feasible or not for the community to get a loan.

Metro City is a city with a large number of NGO, yet Metro City has 22 units of NGO that are slightly fewer compared to other regions which have two NGO units that have the status of being civilized, which is the highest status, and is selected to get the Community-Based Livelihood Improvement Program (PPMK). The Program for Increasing Community-Based Livelihoods is an Urban Independent intervention program (PNPM) which is devoted to the development of productive activities that have previously loaned revolving economic funds with a return of 98 percent. The PPMK program has the same loan principle as revolving economic loans, the difference is only in the amount of loaned funds that are higher than revolving economic loans, and the period of repayment of loans is also longer.

Through a mentoring approach to Self-Help Groups (SHG), the PPMK program is expected to improve the livelihoods of the poor people, particularly it can affect the income level of members which ultimately impacts the level of household food security (Meilia, Zakaria, & Prasmatiwi, 2014; K. K. Rangga, Darsono, Anantanyu, & Wijaya, 2014). However, if a program that aims to prosper the community is not adopted and accommodated properly by the target who will receive it, it is feared that it will cause various problems such as misuse of the program, and inappropriate implementation. Based on this background, it is necessary to conduct research to analyze: (1) the effectiveness of SHG in the implementation of the PPMK program in Margodadi Village of Metro City, (2) the food security of SHG member households, and (3) the relationship between effectiveness of SHG and food security of SHG members.

This research in general has similarities with the research that has been carried out by Sundaram (2012) and Sharma *et al.*, (2014) regarding effectiveness and impact of the Self-help Group for the community, but this research is very different. Sundaram (2014) discusses the Impact of Self-help Groups in Socio-economic development, but does not discuss how SHG impacts on food security. Then with the research of Sharma *et al.*, (2014), it discusses the effectiveness of the SHG program and gender development. This study does not examine the role of gender in the effectiveness of the SHG program. This research is very interesting because it links the success of the SHG program in supporting food security in supporting community welfare according to the development goals stated in the Sustainable development Goals.

Materials and Methods

The research site was Margodadi Village, Metro City of Lampung Province, Indonesia. This site was determined using a purposive sampling method with the consideration that Margodadi Village was the only village with the best NGO in Metro City that received PNPM Award from the Mayor of Metro City. Data collection and research were conducted in October-December 2018.

The sampling technique in the study used saturation sampling technique. Saturation sampling is a sample determination technique using population members as samples. The study population came from members of the Non-Governmental Organization in LKM of Metro City who were recipients of the PPMK program. The method of analysis was carried out using descriptive analysis and nonparametric statistics. Descriptive analysis was used to answer the first and second objectives, while the third objective was obtained by using nonparametric analysis of Spearman's rank correlation (Fujita, Takahashi, & Patriota, 2014; Nichols & Holmes, 2007; Henseler, 2012).

The effectiveness of SHG in the PPMK program can be seen from the large increase in the income of SHG members, the improvement of institutional capacity, and the ability to expand the business. The level of household food security is known by using objective and subjective measures. Objective measure is performed by comparing the amount of food expenditure and total household expenditure. If the share rate of food expenditure in household is $<60\%$, then the household is said to have food security, and if the share rate of food expenditure is $\geq 60\%$, then the household is said not to have food security (Sapar, Jahi, Ilham, & Bonar, 2007).

The subjective food security of SHG member households in this study was seen from the opinions, views, attitudes or arguments of SHG member households on their food situation, namely the availability of food for SHG household members, household food distribution, and consumption of food items to meet the food needs of its members from time to time in order to live a healthy life and be able to carry out their daily activities.

Results and Discussion

Responden Identity

The majority of SHG members (68%) are women. The results of field observations revealed that the types of businesses pursued by SHG members (72%) were mostly various foods (various chips: bananas, cassava), and stall that were easy and widely run by women (mothers), while things related to fisheries business, namely fish spawning and catfish farming activities which are carried out by men (fathers).

The productive age allows respondents to have high morale and good understanding of the material. This condition is one of the potential to increase the active role of SHG members to get involved in the PPMK program. The results of this study are in line with the opinion of (Nurhardjo,

2012; Sapar, Yusuf, & Haedar, 2014) that the higher a person's age, the better his performance will be (Mutolib, Yonariza, Mahdi, & Ismono, 2016). This shows a maturity owned by each individual in order to determine the decision making and concrete steps in the future in doing a business. The detail identity of respondents in this study is presented in Table 1.

Table 1: Identity of Self-Help Groups (SHG) based on age, formal education, and number of dependent family members

No	Variable	Number (Person)	Percentage (%)
1	Gender		
	Male	8	32.00
	Female	17	68.00
	Total	25	100.00
2	Age (years)		
	(1) Young (28—41)	13	52.00
	(2) Adult (42—55)	9	36.00
	(3) Old (56—66)	3	12.00
	Total	25	100.00
3	Formal Education		
	(1) Elementary School	6	24.00
	(2) Junior-Senior High School	18	72.00
	(3) Diploma	1	4.00
	Total	25	100.00
4	Number of dependent family members (person)		
	(1) 2	5	20.00
	(2) 3	8	32.00
	(3) 4	12	48.00
	Total	25	100.00
5	Type of business		
	(1) Fisheries	7	28.00
	(2) Various foods	13	52.00
	(3) Stall	5	20.00
	Total	25	100.00

Effectiveness of SHG Members in the Implementation of the PPMK Program

The effectiveness of SHG in the PPMK program is the magnitude of the success in achieving the goals of the PPMK program conducted by SHG, which includes: increasing the income of SHG members after participating in the PPMK program, increasing institutional capacity, and the ability

of SHG members to expand their business activities. The results of the study related to the effectiveness of SHG in the PPMK program displayed in Table 2. From Table 2, information was obtained that most respondents considered the PPMK program capable of increasing member income (52.0%), strengthening institutional capacity (44.00%), and able to increase the ability of members to expand their business activities (36.00%).

Table 2: Effectiveness of SHG Members in the Implementation of the PPMK Program

No	Variable (Score)	Number (Person)	Percentage (%)
1	Increase in income of SHG members		
	2,000–3,325 (Less increased)	6	24.00
	3,326–4,651 (Quite increased)	6	24.00
	4,652–5,975 (Increased)	13	52.00
	Total	25	100.00
	Average: 4,560 (Quite increased)		
2	Strengthening institutional capacity		
	8,400-- 12,306 (Bad)	7	28.00
	12,307--16,213 (Fairly good)	11	44.00
	16,214--20,120 (Good)	7	28.00
	Total	25	100.00
	Average: 14.513 (Fairly good)		
3	The ability of members to expand business activities		
	2,000–3,255 (Less capable)	8	32.00
	3,256–4,511 (Quite capable)	8	32.00
	4,512–5,767 (Capable)	9	68.00
	Total	25	100.00
	Average: 4.005 (Quite capable)		

Increasing of SHG Members income

There was an increase in the total income of SHG members after participating in the PPMK program (See Table 3). The highest percentage of income was obtained by SHG Sembada members, amounting to 211 percent. SHG Sembada is one of the SHG that is engaged in fish hatchery business. This significant increase in income is due to SHG Sembada having a business that always runs smoothly (continuous production), a large initial capital from SHG members, a

demand for catfish seeds that always increases every season, and the availability of PPMK loans, thus SHG Sembada could increase capital business and expand its marketing activities.

The lowest income compared to other SHGs was obtained by SHG Kenanga. This is because SHG Kenanga is a SHG with the majority of its members working as small traders (self-employed) who do not require large capital. The efforts made by this SHG include selling raw/cooked vegetables, various chips, market snacks, and grocery stores. After a loan from the PPMK program, SHG members can increase their income > 50 percent. The percentage of increased revenue in detail can be seen in the following Table. 3.

Table 3: Average income and increased income of SHG members before and after participating in the PPMK program.

No.	Name of SHG	Average income of SHG members (Rupiah per Month)		Percentage of increase in income of SHG members (%)
		Before	After	
1	Matahari	1.290.000	2.614.000	102
2	Sembada	1.700.000	5.292.800	211
3	Tunas Karya	1.000.000	2.020.000	102
4	Kenanga	1.300.000	2.150.000	65
5	Kenari	1.290.000	2.300.000	78
Total		6.580.000	14.376.800	

Strengthening SHG Institutional Capacity

Strengthening institutional capacity of SHG in question is an increase in the ability of groups to understand the rules and carry out development in a broad sense sustainably, which consists of norms/regulations implemented as well as facilities and technology owned by SHG members. Strengthening institutional capacity of SHG includes: 1) utilization of loan capital, 2) loan installment method, 3) appropriateness of installment payment time, 4) reporting on the utilization of loan funds, 5) ownership of facilities and technology, 6) computer use in SHG administration management, and 7) internet use in accessing information. Institutional capacity strengthening of

SHG members (44%) is in a fairly good category. The results showed that in the use of loan capital, SHG members were quite cooperative, most of which used loan capital only for businesses, not used for other purposes outside the business.

Ability of SHG Members to Expand Business Activities

The level of ability of SHG members to expand business activities is seen from: the increase in the type of business of SHG members and the increase in business volume. The level of ability of SHG members in expanding their business activities was mostly (68%) in the category of capable, yet the average level of ability of SHG members was in the category of quite capable. The ability of SHG members to expand their business activities in detail can be seen in Table 4.

Table 4: Expansion of SHG member business activities per person

No	Name of Self-Help Group	Expansion of SHG Member Business Activities Per Person					
		Increase in type business			Increase in business volume		
		1 type	2 type	> 2 type	Not increased	Increased	Highly increased
1	Matahari	2	0	3	0	1	4
2	Sembada	5	0	0	0	0	5
3	Tunas karya	0	4	1	0	2	3
4	Kenari	0	3	2	0	3	2
5	Kenanga	2	1	2	0	4	1
	Total	9	8	8	0	10	15

The increase in the type of business carried out by SHG members showed that 9 people decide to continue to have one type of business, because they wanted to focus on developing the business. All SHG members who only carried out one type of business, namely SHG Sembada with catfish hatchery business, sought to increase the number of business volumes, even though the type of business owned was only one type. Unlike members of SHG Kenanga, Tunas Karya, and Kenari, those who are entrepreneurs as traders wish to add more than one type of business. All SHG members experience increased business volume from time to time, where the average

business volume increase was more than 50 percent. This is due to the many demands. This condition explains that NGO has been effective in the PPMK program, by increasing members' income, strengthening institutional capacity, and the ability of SHG members to expand their businesses; and as a signal that the overall program objectives have been well achieved.

Household Food Security of SHG Members

Food Security according to Law no. 18 of 2012 is the condition of the fulfillment of food for the State up to individuals and reflected in the availability of sufficient food both in quantity and quality, safe, diverse, nutritious, evenly distributed and affordable and not in conflict with the religion, beliefs and culture of the community in order to be able to live healthy, active and productive in a sustainable manner.

Subjective food security is measured based on the views, opinions, attitudes or arguments of people on the food situation seen from 3 indicators, namely the level of food availability, the level of food distribution, and the level of food consumption. While objectively, food security is based on the amount of food in general, energy consumption, per-capita food availability, the share of household food expenditure on total household expenditure and household ability to deal with shocks.

Level of Household Food Security of SHG Members Objectively

The level of food security objectively can be seen from the share of household food expenditure. Household expenditure is a number of costs incurred by a household to fulfill their living needs. Household expenditure is divided into expenditures for food and non-food expenditure. Household expenditure of SHG members was dominated by non-food expenditure, with average of IDR1,918,186 per month (66.35%), while the remaining 33.64 percent was spent for food

expenditure. Food expenditure of SHG member households is generally used to meet basic food needs, while non-food expenditure was dominated by expenses for home furniture, education amount, and fuel. The share of low food expenditure indicates that objectively most households (96%) had food security.

Table 5: Expenditure for food and non-food stuff of SHG members household in Margodadi Village of 2016.

Types of Food Expenditure	Average Expenditure (IDR/month)	Percentage (%)
Flour and grains	268.120	9.28
Cassava	14.360	0.50
Oil and fat	32.880	1.14
Animal food	133.300	4.61
Vegetable food	72.460	2.51
Fruit /oily seeds	26.860	0.93
Nuts	18.740	0.65
Sugar	36.560	1.26
Colored vegetables	113.960	3.94
Colorless vegetables	12.380	0.43
Fruit vegetables	161.587,5	5.59
Fruit	66.460	2.30
Seasonings	21.840	0.76
Beverage	25.220	0.87
Amount of food expenditure	972.527,5	33.64
Expenditure Type	Average Expenditure (IDR/month)	Percentage (%)
Non-Food		
Health	22.840	0.79
Education	232.580	8.05
Electricity	98.496	3.41
Phone/cellphone	69.800	2.41
Home Furniture	895.792	30.99
House reparation	19.800	0.68
Clothes	151.880	5.25
Goods and services	116.200	4.02
Fuel	178.400	6.17
Transportation	5.200	0.06
Social	5.200	0.18
Tax	24.354	0.84
Body cleanliness	40.836	1.41
Cosmetics	62.008	2.15
Amount of Non-Food Expenditure	1.918.186	66.35
Amount of Household Expenditures	2.890.713,5	100,00

Household income was in the high category (Table 6). This is in accordance with Engel's law submitted by Ilham and Sinaga (Sapar *et al.*, 2007), which explains that the share of food expenditure on total household expenditure will decrease with increase of the income, so that the higher the income, the lower the share of food expenditures incurred. Share Rate of food expenditure for SHG member households in Margodadi Village displayed in Table 6.

Table 6: Share rate of food expenditure of SHG member households in Margodadi Village

Share Rate of Expenditure	Classification	Number	Percentage (%)
RT<60%	Have Food Security	24	96.00
RT≥60%	Does Not Have Food Security	1	4.00
Number		25	100.00

Level of Household Food Security of SHG Members in Margodadi Village Subjectively

There are three aspects that are used in the food security of SHG member households subjectively, namely: aspect of household food availability, aspect of household food distribution, and aspect of household food consumption (see Table 7).

Table 7. The level of household food security of SHG members subjectively of 2017.

No	Sub-variable (Score)	Number (person)	Percentage (%)
1	Food Availability Level		
	7.431–9,926 (Low)	8	32.00
	3.326–4,651 (Medium)	10	40.00
	12.423–14.916 (High)	7	28.00
	Total	25	100.00
	Average: 11.121 (Medium)		
2	Food Distribution Level		
	10.193 – 12.498 (Low)	10	40.00
	12.499 – 14.804 (Medium)	8	32.00
	14.805 – 17.108 (High)	7	28.00
	Total	25	100.00

Average: 13.415 (Medium)		
3	Food consumption level	
	13.477 – 17.014 (Low)	6
	17.015 – 20.552 (Medium)	12
	20.553 – 24.089 (High)	7
	Total	25
	Average: 18.725 (Medium)	
4.	Recapitulation of Food Security Subjectively	
	31.476 – 38.092 (Low)	2
	38.093 – 44.709 (Medium)	15
	44.710 – 51.324 (High)	8
	Total	
	Average = 43.260 (Medium)	

a. Aspect of Household Food Availability of SHG Members

The food security level of SHG member households in Margodadi Village based on the aspect of food availability was in the medium category with an average value of 11,121, which means that the SHG member households food is sufficiently available to fulfill their household food needs. Based on the conditions that occur in the field, it can be concluded that the conditions of food availability of SHG member households mostly tend to be fairly good and the availability of food can meet the food needs of all SHG member households.

b. Aspect of Household Food Distribution of SHG Members

The household food distribution was in the medium category, with an average value of 13.415, which means that the distribution of food in SHG member households is fairly good. Based on the situation in the field, it is known that the accessibility/affordability of SHG member households in obtaining food is quite easy to access. This is because a small portion of food needed by SHG member households is self-produced, but most of it is purchased by themselves.

c. Aspects of Household Food Consumption of SHG Members

The food security level of SHG member households from the aspect of household food consumption of SHG members is in the medium category with an average value of 18,725. The results of field observations showed that the knowledge of SHG members regarding the food needed by the body was in the right composition and all types of food consumed were fairly good for body health, however, the majority of SHG members still did not consider the quality of food consumed. Generally SHG members only consume food as it is and what suits their taste without any particular considerations regarding their food quality.

The result of the recapitulation and observation of the food security of SHG member households in Margodadi Village was in the Medium category with an average value of 43,260, which means that SHG member households in Margodadi Village have sufficient food security. This is because the aspect of food availability of SHG member households and aspects of food distribution of SHG member households were in the Medium category.

The relationship between the effectiveness of SHG in the PPMK program and the level of household food security of SHG members

The relationship between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households using the Spearman's Rank correlation analysis showed a significance value of 0.017. This value was smaller than the α value of 0.05 or at confidence level of 95%, which means that there is a significant difference between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households in Margodadi Village.

Based on the results of the research above, it can be concluded that the more effective SHG in the PPMK program, the higher the level of food security of SHG members in Margodadi Village. This result is in line with (Agus, Rangga, & Viantimala, 2017) that performance level of SHG members of the pineapple farmer group in Astomulyo Village is positively correlated to the level of household food security. The success of the community-based PPMK program is supported by

many factors such as ongoing assistance, and social capital that has been owned by the community (willingness and commitment of the target community). In other regions, the implementation of PPMK may not be the same as the PPMK program in Metro City because it is influenced by several factors. The scope of this research is small, namely at the village level, but the success of the PPMK program in Metro City is an indication that this program has the potential to be replicated in other regions to realize food security and community-based independence. The food security program is very important, especially in the poor communities where the level of food security is low.

Conclusion

The effectiveness of SHG members in the PPMK program was in the good category. The overall objective of the program was achieved, namely the increase in the income of SHG member households was increased (Medium), the strengthening of institutional capacity of SHG was fairly good (Medium), and the ability of SHG members to expand their business was quite capable (Medium). The level of household food security of SHG members in Margodadi Village objectively shows that the majority of households were in high level of food security. The effectiveness of SHG in the PPMK program was significantly different from the level of household food security, with a correlation coefficient of 0.017 and a confidence level of 95%. This result indicates that the more effective the program runs, the higher the level of household food security of SHG members.

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EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG, INDONESIA

Abstract: The Community-Based Livelihood Improvement Program (PPMK) program implemented through Self-Help Groups (SHG) and expected to improve the livelihoods of the poor people. The study was aimed to analyze: 1) the effectiveness of SHG in the implementations of PPMK program, 2) food security of SHG member households, and 3) the relationships between the effectiveness of PPMK program implementation and SHG member food security. The study was conducted in Margodadi Village of Metro City and held in October-December 2018. The research method was carried out by a survey with a quantitative approach. Respondents were 25 SHG members who were recipients of the PPMK program with saturation sampling techniques. Descriptive analysis method was used to answer the first and second objectives, while the nonparametric statistic of Spearman's Rank correlations was used to answer the third objective. The results showed that: 1) the effectiveness of SHG members in the PPMK program was in good category, the overall program objectives were achieved, both increasing the income of SHG member households, strengthening SHG institutional capacity, and the ability of SHG members to expand their business; 2) the food security level of household members of SHG in Margodadi Village objectively and subjectively showed that the majority of households were in high category; and 3) The relationship between the effectiveness of SHG in the PPMK program and the level of food security showed a significance value of 0.017. This value was smaller than the α value of 0.05 or at confidence level of 95%, which means that there is a significant difference between the

effectiveness of SHG in the PPMK program and the level of food security of SHG member households.

Keywords: group effectiveness, program, food security, household

Abbreviations: [Effectiveness of Self-Help Groups in Lampung Indonesia].

Introduction

Poverty is a problem that is still faced by developing countries including in Indonesia (Suryahadi, Suryadarma, & Sumarto, 2009; Alatas, Banerjee, Hanna, Olken, & Tobias, 2012; & Edward, 2014). Many factors cause poverty, among others: natural resources (Hassan, Zaman, & Gul, 2015), human resources (Roca-puig, Beltrán-martín, & García-juan, 2019), low education (Buck & Deutsch, 2014; Mihai & Manea, 2015), and the lack of available jobs (Siwar *et al.*, 2016; Sri & Suliswanto, 2010). This condition causes helplessness of the community in facing economic problems, such as the weakness of the small and medium business sector (Dartanto, 2013; Rangga & Syarief, 2018).

One of the community empowerment programs used to alleviate poverty and expand employment opportunities in urban areas is the National Urban Independent Community Empowerment Program (PNPM-MP) (Fatriadi, Asteriani, & Cahyaningsih, 2017; Soesanta, 2013). This National Program aims to support the government's efforts to reduce the number of poor people in Indonesia and is expected to improve the welfare of the Indonesian community according to the mandate of the UUD'45. The strategy is carried out through strengthening community institutions and involving elements of the community, starting from the planning, implementation, and monitoring and evaluation stages (Mubarak, 2010; Yamsul & Salim, 2013; Mufid, 2014; Yanfika, Listiana, Mutolib, & Rahmat, 2019).

There are three programs run by PNPM-MP namely physical, economic and social development programs (Soesanta, 2013; Munawar, 2017). Revolving economic loan assistance given to the poor people is a form of program in the economic field (Matridi *et al.*, 2015; Rahjuni, Badriah, & Rafinda, 2019). Revolving loans are provided to assist productive activities in order to create business opportunities and employment opportunities, and can also be used to start new businesses in order to improve community welfare (Fatriadi *et al.*, 2017). Revolving fund loans to the poor are given directly to the community through Non-Governmental Organization (NGO) in each village in various regions including Metro City of Lampung Province. NGO is an institution established to expedite the running of the PNPM-MP program. Through the Financial Management Unit (UPK) (which is found in the NGO section), it will be considered feasible or not for the community to get a loan.

Metro City is a city with a large number of NGO, yet Metro City has 22 units of NGO that are slightly fewer compared to other regions which have two NGO units that have the status of being civilized, which is the highest status, and is selected to get the Community-Based Livelihood Improvement Program (PPMK). The Program for Increasing Community-Based Livelihoods is an Urban Independent intervention program (PNPM) which is devoted to the development of productive activities that have previously loaned revolving economic funds with a return of 98 %. The PPMK program has the same loan principle as revolving economic loans, the difference is only in the amount of loaned funds that are higher than revolving economic loans, and the period of repayment of loans is also longer.

Through a mentoring approach to Self-Help Groups (SHG), the PPMK program is expected to improve the livelihoods of the poor people, particularly it can affect the income level of members which ultimately impacts the level of household food security (Meilia, Zakaria, &

Prasmatiwi, 2014; Rangga, Darsono, Anantanyu, & Wijaya, 2014). However, if a program that aims to prosper the community is not adopted and accommodated properly by the target who will receive it, it is feared that it will cause various problems such as misuse of the program, and inappropriate implementation.

This research that regarding effectiveness and impact of the Self-help Group for the community has been researched and proven to have a good impact on society (Mehta, Mishra, & Singh, 2011; Maheshwari & Goyal, 2014; Gugerty; Biscaye & Anderson, 2018; Daswati & Hattab, 2018; Nimisha & Arumugam, 2019). However, research on the relationship between SHG and household food security has not been studied. This research is very interesting and expected to provide the new findings on efforts to improve food security, especially for the poor in both urban and urban areas. The success of the SHG program expected to support the food security enhancement and Sustainable Development Goals in Indonesia. Based on this background, it is necessary to research to analyse: 1) the effectiveness of SHG in the implementation of the PPMK program in Margodadi Village of Metro City, 2) the food security of SHG member households, and 3) the relationship between the effectiveness of SHG and the food security of SHG members.

Materials and Methods

The research site was Margodadi Village, Metro City of Lampung Province, Indonesia. This site was determined using a purposive sampling method with the consideration that Margodadi Village was the only village with the best NGO in Metro City that received PNPM Award from the Mayor of Metro City. Data collection and research were conducted in October-December 2018.

The sampling technique in the study used saturation sampling technique. Saturation sampling is a sample determination technique using population members as samples. The study population came from members of the Non-Governmental Organization in Metro City who were

recipients of the PPMK program. The method of analysis was carried out using descriptive analysis and nonparametric statistics. Descriptive analysis was used to answer the first and second objectives, while the third objective was obtained by using nonparametric analysis of Spearman's rank correlation (Nichols & Holmes, 2007; Henseler, 2012; Fujita, Takahashi, & Patriota, 2014).

The effectiveness of SHG in the PPMK program can be seen from the large increase in the income of SHG members, the improvement of institutional capacity, and the ability to expand the business. The level of household food security is known by using objective and subjective measures. Objective measure is performed by comparing the amount of food expenditure and total household expenditure. If the share rate of food expenditure in household is $<60\%$, then the household is said to have food security, and if the share rate of food expenditure is $\geq 60\%$, then the household is said not to have food security (Sapar, Jahi, Ilham, & Bonar, 2007).

The subjective food security of SHG member households in this study was seen from the opinions, views, attitudes or arguments of SHG member households on their food situation, namely the availability of food for SHG household members, household food distribution, and consumption of food items to meet the food needs of its members from time to time in order to live a healthy life and be able to carry out their daily activities.

Results and Discussion

Responden Identity

The majority of SHG members (68%) are women. The results of field observations revealed that the types of businesses pursued by SHG members (72%) were mostly various foods (various chips: bananas, cassava), and stall that were easy and widely run by women (mothers), while things

related to fisheries business, namely fish spawning and catfish farming activities which are carried out by men (fathers).

The productive age allows respondents to have high morale and good understanding of the material. This condition is one of the potential to increase the active role of SHG members to get involved in the PPMK program. The higher a person's age, the better his performance will be (Nurhardjo, 2012; Sapar, Yusuf, & Haedar, 2014; Mutolib, Yonariza, Mahdi, & Ismono, 2016). This shows a maturity owned by each individual in order to determine the decision making and concrete steps in the future in doing a business. The detail identity of respondents in this study is presented in Table 1.

Table 1: Identity of Self-Help Groups (SHG) based on age, formal education, and number of dependent family members

No	Variable	Number (Person)	Percentage (%)
1	Gender		
	Male	8	32.00
	Female	17	68.00
	Total	25	100.00
2	Age (years)		
	(4) Young (28—41)	13	52.00
	(5) Adult (42—55)	9	36.00
	(6) Old (56—66)	3	12.00
	Total	25	100.00
3	Formal Education		
	(4) Elementary School	6	24.00
	(5) Junior-Senior High School	18	72.00
	(6) Diploma	1	4.00
	Total	25	100.00
4	Number of dependent family members(person)		
	(4) 2	5	20.00
	(5) 3	8	32.00
	(6) 4	12	48.00
	Total	25	100.00
5	Type of business		
	(4) Fisheries	7	28.00

(5) Various foods	13	52.00
(6) Stall	5	20.00
Total	25	100.00

An Overview of PPMK and SHG

PPMK is the intervention program of PNPM-MP established by the Ministry of Public Works of the Republic of Indonesia, to develop productive activities. The PPMK program aims to strengthen SHG institutional and business activities independently and sustainably, which are oriented to improving the livelihoods of the poor (sustainable livelihood) with a group assistance approach (Ministry of Public Works, 2007). SHG are groups of people who voluntarily unite in groups because of a unifying bond with the same vision, interests, and needs. The group has the same goals to be achieved together (Ministry of Public Works, 2014). The PPMK program in Metro City began on August 6, 2014, at KSM (Community Self-Reliance Institution) of Margodadi Jaya. The program stage consists of the preparation, planning, disbursement, and utilization stages, as well as the strengthening and development stages. Before the program runs, KSM, SHG, as well as city facilitators meet at the preparation stage of the program and continue with meetings between LKM and SHG with the number of meetings required as much as eight times from the preparation stage to the planning stage.

Effectiveness of SHG Members in the Implementation of the PPMK Program

The effectiveness of SHG in the PPMK program is the magnitude of the success in achieving the goals of the PPMK program conducted by SHG, which includes: increasing the income of SHG members after participating in the PPMK program, increasing institutional capacity, and the ability of SHG members to expand their business activities. The results of the study related to the effectiveness of SHG in the PPMK program displayed in Table 2. From Table 2, information was

obtained that most respondents considered the PPMK program capable of increasing member income (52.00%), strengthening institutional capacity (44.00%), and able to increase the ability of members to expand their business activities (36.00%).

Table 2: Effectiveness of SHG Members in the Implementation of the PPMK Program

No	Variable (Score)	Number (Person)	Percentage (%)
1	Increase in income of SHG members		
	2,000–3,325 (Less increased)	6	24.00
	3,326–4,651 (Quite increased)	6	24.00
	4,652–5,975 (Increased)	13	52.00
	Total	25	100.00
	Average: 4,560 (Quite increased)		
2	Strengthening institutional capacity		
	8,400-- 12,306 (Bad)	7	28.00
	12,307--16,213 (Fairly good)	11	44.00
	16,214--20,120 (Good)	7	28.00
	Total	25	100.00
	Average: 14.513 (Fairly good)		
3	The ability of members to expand business activities		
	2,000–3,255 (Less capable)	8	32.00
	3,256–4,511 (Quite capable)	8	32.00
	4,512–5,767 (Capable)	9	68.00
	Total	25	100.00
	Average: 4.005 (Quite capable)		

Increasing of SHG Members income

There was an increase in the total income of SHG members after participating in the PPMK program (Table 3). The highest percentage of income was obtained by SHG Sembada members, amounting to 211%. SHG Sembada is one of the SHG that is engaged in fish hatchery business. This significant increase in income is due to SHG Sembada having a business that always runs smoothly (continuous production), a large initial capital from SHG members, a demand for catfish seeds that always increases every season, and the availability of PPMK loans, thus SHG Sembada could increase capital business and expand its marketing activities.

The lowest income compared to other SHGs was obtained by SHG Kenanga. This is because SHG Kenanga is a SHG with the majority of its members working as small traders (self-employed) who do not require large capital. The efforts made by this SHG include selling raw/cooked vegetables, various chips, market snacks, and grocery stores. After a loan from the PPMK program, SHG members can increase their income > 50 %. The percentage of increased revenue in detail can be seen in the following Table. 3.

Table 3: Average income and increased income of SHG members before and after participating in the PPMK program.

No.	Name of SHG	Average income of SHG members (Rupiah per Month)		Percentage of increase in income of SHG members (%)
		Before	After	
1	Matahari	1.290.000	2.614.000	102
2	Sembada	1.700.000	5.292.800	211
3	Tunas Karya	1.000.000	2.020.000	102
4	Kenanga	1.300.000	2.150.000	65
5	Kenari	1.290.000	2.300.000	78
Total		6.580.000	14.376.800	

Strengthening SHG Institutional Capacity

Strengthening institutional capacity of SHG in question is an increase in the ability of groups to understand the rules and carry out development in a broad sense sustainably, which consists of norms/regulations implemented as well as facilities and technology owned by SHG members. Strengthening institutional capacity of SHG includes: 1) utilization of loan capital, 2) loan installment method, 3) appropriateness of installment payment time, 4) reporting on the utilization of loan funds, 5) ownership of facilities and technology, 6) computer use in SHG administration management, and 7) internet use in accessing information. Institutional capacity strengthening of SHG members (44%) is in a fairly good category. The results showed that in the use of loan capital,

SHG members were quite cooperative, most of which used loan capital only for businesses, not used for other purposes outside the business.

Ability of SHG Members to Expand Business Activities

The level of ability of SHG members to expand business activities is seen from: the increase in the type of business of SHG members and the increase in business volume. The level of ability of SHG members in expanding their business activities was mostly (68%) in the category of capable, yet the average level of ability of SHG members was in the category of quite capable. The ability of SHG members to expand their business activities in detail can be seen in Table 4.

Table 4: Expansion of SHG member business activities per person

No	Name of Self-Help Group	Expansion of SHG Member Business Activities Per Person					
		Increase in type business			Increase in business volume		
		1 type	2 type	> 2 type	Not increased	Increased	Highly increased
1	Matahari	2	0	3	0	1	4
2	Sembada	5	0	0	0	0	5
3	Tunas karya	0	4	1	0	2	3
4	Kenari	0	3	2	0	3	2
5	Kenanga	2	1	2	0	4	1
	Total	9	8	8	0	10	15

The increase in the type of business carried out by SHG members showed that 9 people decide to continue to have one type of business, because they wanted to focus on developing the business. All SHG members who only carried out one type of business, namely SHG Sembada with catfish hatchery business, sought to increase the number of business volumes, even though the type of business owned was only one type. Unlike members of SHG Kenanga, Tunas Karya,

and Kenari, those who are entrepreneurs as traders wish to add more than one type of business. All SHG members experience increased business volume from time to time, where the average business volume increase was more than 50 %. This is due to the many demands. This condition explains that NGO has been effective in the PPMK program, by increasing members' income, strengthening institutional capacity, and the ability of SHG members to expand their businesses; and as a signal that the overall program objectives have been well achieved.

Household Food Security of SHG Members

Food Security according to Law no. 18 of 2012 is the condition of the fulfillment of food for the State up to individuals and reflected in the availability of sufficient food both in quantity and quality, safe, diverse, nutritious, evenly distributed and affordable and not in conflict with the religion, beliefs and culture of the community in order to be able to live healthy, active and productive in a sustainable manner.

Subjective food security is measured based on the views, opinions, attitudes or arguments of people on the food situation seen from 3 indicators, namely the level of food availability, the level of food distribution, and the level of food consumption. While objectively, food security is based on the amount of food in general, energy consumption, per-capita food availability, the share of household food expenditure on total household expenditure and household ability to deal with shocks.

Level of Household Food Security of SHG Members Objectively

The level of food security objectively can be seen from the share of household food expenditure. Household expenditure is a number of costs incurred by a household to fulfill their living needs. Household expenditure is divided into expenditures for food and non-food expenditure. Household

expenditure of SHG members was dominated by non-food expenditure, with average of IDR1,918,186 per month (66.35%), while the remaining 33.64% was spent for food expenditure. Food expenditure of SHG member households is generally used to meet basic food needs, while non-food expenditure was dominated by expenses for home furniture, education amount, and fuel. The share of low food expenditure indicates that objectively most households (96%) had food security.

Table 5: Expenditure for food and non-food stuff of SHG members household in Margodadi Village of 2016.

Types of Food Expenditure	Average Expenditure (IDR/month)	Percentage (%)
Flour and grains	268.120	9.28
Cassava	14.360	0.50
Oil and fat	32.880	1.14
Animal food	133.300	4.61
Vegetable food	72.460	2.51
Fruit /oily seeds	26.860	0.93
Nuts	18.740	0.65
Sugar	36.560	1.26
Colored vegetables	113.960	3.94
Colorless vegetables	12.380	0.43
Fruit vegetables	161.587,5	5.59
Fruit	66.460	2.30
Seasonings	21.840	0.76
Beverage	25.220	0.87
Amount of food expenditure	972.527,5	33.64
Expenditure Type	Average Expenditure (IDR/month)	Percentage (%)
Non-Food		
Health	22.840	0.79
Education	232.580	8.05
Electricity	98.496	3.41
Phone/cellphone	69.800	2.41
Home Furniture	895.792	30.99
House reparation	19.800	0.68
Clothes	151.880	5.25
Goods and services	116.200	4.02
Fuel	178.400	6.17
Transportation	5.200	0.06
Social	5.200	0.18
Tax	24.354	0.84

Body cleanliness	40.836	1.41
Cosmetics	62.008	2.15
Amount of Non-Food Expenditure	1.918.186	66.35
Amount of Household Expenditures	2.890.713,5	100,00

Household income was in the high category (Table 6). This is in accordance with Engel's law which explains that the share of food expenditure on total household expenditure will decrease with increase of the income (Sapar *et al.*, 2007), so that the higher the income, the lower the share of food expenditures incurred. Share Rate of food expenditure for SHG member households in Margodadi Village displayed in Table 6.

Table 6: Share rate of food expenditure of SHG member households in Margodadi Village

Share Rate of Expenditure	Classification	Number	Percentage (%)
RT<60%	Have Food Security	24	96.00
RT \geq 60%	Does Not Have Food Security	1	4.00
Number		25	100.00

Level of Household Food Security of SHG Members in Margodadi Village Subjectively

There are three aspects that are used in the food security of SHG member households subjectively, namely: aspect of household food availability, aspect of household food distribution, and aspect of household food consumption (Table 7).

Table 7. The level of household food security of SHG members subjectively of 2017.

No	Sub-variable (Score)	Number (person)	Percentage (%)
1	Food Availability Level		
	7.431–9,926 (Low)	8	32.00
	3.326–4,651 (Medium)	10	40.00
	12.423–14.916 (High)	7	28.00
	Total	25	100.00
	Average: 11.121 (Medium)		
2	Food Distribution Level		

	10.193 – 12.498 (Low)	10	40.00
	12.499 – 14.804 (Medium)	8	32.00
	14.805 – 17.108 (High)	7	28.00
	Total	25	100.00
	Average: 13.415 (Medium)		
3	Food consumption level		
	13.477 – 17.014 (Low)	6	24.00
	17.015 – 20.552 (Medium)	12	48.00
	20.553 – 24.089 (High)	7	28.00
	Total	25	100.00
	Average: 18.725 (Medium)		
4.	Recapitulation of Food Security Subjectively		
	31.476 – 38.092 (Low)	2	8.00
	38.093 – 44.709 (Medium)	15	60.00
	44.710 – 51.324 (High)	8	32.00
	Total		100.00
	Average = 43.260 (Medium)		

d. Aspect of Household Food Availability of SHG Members

The food security level of SHG member households in Margodadi Village based on the aspect of food availability was in the medium category with an average value of 11,121, which means that the SHG member households food is sufficiently available to fulfill their household food needs. Based on the conditions that occur in the field, it can be concluded that the conditions of food availability of SHG member households mostly tend to be fairly good and the availability of food can meet the food needs of all SHG memberhouseholds.

e. Aspect of Household Food Distribution of SHG Members

The household food distribution was in the medium category, with an average value of 13.415, which means that the distribution of food in SHG member households is fairly good. Based on the situation in the field, it is known that the accessibility/affordability of SHG member households in obtaining food is quite easy to access. This is because a small portion of food needed by SHG member households is self-produced, but most of it is purchased by themselves.

f. Aspects of Household Food Consumption of SHG Members

The food security level of SHG member households from the aspect of household food consumption of SHG members is in the medium category with an average value of 18,725. The results of field observations showed that the knowledge of SHG members regarding the food needed by the body was in the right composition and all types of food consumed were fairly good for body health, however, the majority of SHG members still did not consider the quality of food consumed. Generally SHG members only consume food as it is and what suits their taste without any particular considerations regarding their food quality.

The result of the recapitulation and observation of the food security of SHG member households in Margodadi Village was in the Mediumcategory with an average value of 43,260, which means that SHG member households in Margodadi Village have sufficient food security. This is because the aspect of food availability of SHG member households and aspects of food distribution of SHG member households were in the Mediumcategory.

The relationship between the effectiveness of SHG in the PPMK program and the level of household food security of SHG members

The relationship between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households using the Sperman's Rank correlation analysis showed a significance value of 0.017. This value was smaller than the α value of 0.05 or at confidence level of 95%, which means that there is a significant difference between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households in Margodadi Village.

Based on the results of the research above, it can be concluded that the more effective SHG in the PPMK program, the higher the level of food security of SHG members in Margodadi Village. The success of the community-based PPMK program is supported by many factors such as ongoing assistance, and social capital that has been owned by the community (willingness and commitment of the target community). In other regions, the implementation of PPMK may not be

the same as the PPMK program in Metro City because it is influenced by several factors. The scope of this research is small, namely at the village level, but the success of the PPMK program in Metro City is an indication that this program has the potential to be replicated in other regions to realize food security and community-based independence. The food security program is very important, especially in the poor communities where the level of food security is low.

Conclusion

The effectiveness of SHG members in the PPMK program was in the good category. The overall objective of the program was achieved, namely the increase in the income of SHG member households was increased (Medium), the strengthening of institutional capacity of SHG was fairly good (Medium), and the ability of SHG members to expand their business was quite capable (Medium). The level of household food security of SHG members in Margodadi Village objectively shows that the majority of households were in high level of food security. The effectiveness of SHG in the PPMK program was significantly different from the level of household food security, with a correlation coefficient of 0.017 and a confidence level of 95%. This result indicates that the more effective the program runs, the higher the level of household food security of SHG members.

Based on the Global Food Security Index assessment in 2018, Indonesia is in the 65th position out of 113 countries. In 2019, the number of poor people in Indonesia was 24.79 million people. This research provides positive findings to improve food security and reduce poverty in Indonesia. Increasing food security and poverty alleviation must be following the capacity and character of the community. Therefore the approach through SHG is considered appropriate to overcome the problem of food security and poverty.

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19. Manuscript Perbaikan 2 (23 Juni 2020)

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EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG, INDONESIA

Abstract: The Community-Based Livelihood Improvement Program (PPMK) program implemented through Self-Help Groups (SHG) and expected to improve the livelihoods of the poor people. The study was aimed to analyze: 1) the effectiveness of SHG in the implementation of PPMK program, 2) food security of SHG member households, and 3) the relationship between the effectiveness of PPMK program implementation and SHG member food security. The study was conducted in Margodadi Village of Metro City and held in October-December 2018. The research method was carried out by a survey with a quantitative approach. Respondents were 25 SHG members who were recipients of the PPMK program with saturation sampling techniques. Descriptive analysis method was used to answer the first and second objectives, while the nonparametric statistic of Spearman's Rank correlation was used to answer the third objective. The results showed that: 1) the effectiveness of SHG members in the PPMK program was in good category, the overall program objectives were achieved, both increasing the income of SHG member households, strengthening SHG institutional capacity, and the ability of SHG members to expand their business; 2) the food security level of household members of SHG in Margodadi Village objectively and subjectively showed that the majority of households were in high category; and 3) the effectiveness of SHG in the PPMK program was significantly different from the level of household food security.

Keywords: group effectiveness, program, food security, household

Abbreviations: [Effectiveness of Self-Help Groups in Lampung Indonesia].

Introduction

Poverty is a problem that is still faced by developing countries including in Indonesia (Suryahadi, Suryadarma, & Sumarto, 2009; Alatas, Banerjee, Hanna, Olken, & Tobias, 2012; & Edward, 2014). Many factors cause poverty, among others: natural resources (Hassan, Zaman, & Gul, 2015), human resources (Roca-puig, Beltrán-martín, & García-juan, 2019), low education (Buck & Deutsch, 2014; Mihai & Manea, 2015), and the lack of available jobs (Siwar *et al.*, 2016; Sri & Suliswanto, 2010). This condition causes helplessness of the community in facing economic problems, such as the weakness of the small and medium business sector (Dartanto, 2013; Rangga & Syarief, 2018).

One of the community empowerment programs used to alleviate poverty and expand employment opportunities in urban areas is the National Urban Independent Community Empowerment Program (PNPM-MP) (Fatriadi, Asteriani, & Cahyaningsih, 2017; Soesanta, 2013). This National Program aims to support the government's efforts to reduce the number of poor people in Indonesia and is expected to improve the welfare of the Indonesian community according to the mandate of the UUD'45. The strategy is carried out through strengthening community institutions and involving elements of the community, starting from the planning, implementation, and monitoring and evaluation stages (Mubarak, 2010; Yamsul & Salim, 2013; Mufid, 2014; Yanfika, Listiana, Mutolib, & Rahmat, 2019).

There are three programs run by PNPM-MP namely physical, economic and social development programs (Soesanta, 2013; Munawar, 2017). Revolving economic loan assistance given to the poor people is a form of program in the economic field (Matridi *et al.*, 2015; Rahjuni, Badriah, & Rafinda, 2019). Revolving loans are provided to assist productive activities in order

to create business opportunities and employment opportunities, and can also be used to start new businesses in order to improve community welfare (Fatriadi *et al.*, 2017). Revolving fund loans to the poor are given directly to the community through Non-Governmental Organization (NGO) in each village in various regions including Metro City of Lampung Province. NGO is an institution established to expedite the running of the PNPM-MP program. Through the Financial Management Unit (UPK) (which is found in the NGO section), it will be considered feasible or not for the community to get a loan.

Metro City is a city with a large number of NGO, yet Metro City has 22 units of NGO that are slightly fewer compared to other regions which have two NGO units that have the status of being civilized, which is the highest status, and is selected to get the Community-Based Livelihood Improvement Program (PPMK). The Program for Increasing Community-Based Livelihoods is an Urban Independent intervention program (PNPM) which is devoted to the development of productive activities that have previously loaned revolving economic funds with a return of 98 %. The PPMK program has the same loan principle as revolving economic loans, the difference is only in the amount of loaned funds that are higher than revolving economic loans, and the period of repayment of loans is also longer.

Through a mentoring approach to Self-Help Groups (SHG), the PPMK program is expected to improve the livelihoods of the poor people, particularly it can affect the income level of members which ultimately impacts the level of household food security (Meilia, Zakaria, & Prasmatiwi, 2014; Ranga, Darsono, Anantanyu, & Wijaya, 2014). However, if a program that aims to prosper the community is not adopted and accommodated properly by the target who will receive it, it is feared that it will cause various problems such as misuse of the program, and inappropriate implementation.

This research that regarding effectiveness and impact of the Self-help Group for the community has been researched and proven to have a good impact on society (Mehta, Mishra, & Singh, 2011; Maheshwari & Goyal, 2014; Gugerty; Biscaye & Anderson, 2018; Daswati & Hattab, 2018; Nimisha & Arumugam, 2019). However, research on the relationship between SHG and household food security has not been studied. This research is very interesting and expected to provide the new findings on efforts to improve food security, especially for the poor in both urban and urban areas. The success of the SHG program expected to support the food security enhancement and Sustainable Development Goals in Indonesia. Based on this background, it is necessary to research to analyse: 1) the effectiveness of SHG in the implementation of the PPMK program in Margodadi Village of Metro City, 2) the food security of SHG member households, and 3) the relationship between the effectiveness of SHG and the food security of SHG members.

Materials and Methods

The research site was Margodadi Village, Metro City of Lampung Province, Indonesia. This site was determined using a purposive sampling method with the consideration that Margodadi Village was the only village with the best NGO in Metro City that received PNPM Award from the Mayor of Metro City. Data collection and research were conducted in October-December 2018.

The sampling technique in the study used saturation sampling technique. Saturation sampling is a sample determination technique using population members as samples. The study population came from members of the Non-Governmental Organization in LKM of Metro City who were recipients of the PPMK program. The method of analysis was carried out using descriptive analysis and nonparametric statistics. Descriptive analysis was used to answer the first and second objectives, while the third objective was obtained by using nonparametric analysis of

Spearman's rank correlation (Nichols & Holmes, 2007; Henseler, 2012; Fujita, Takahashi, & Patriota, 2014).

The effectiveness of SHG in the PPMK program can be seen from the large increase in the income of SHG members, the improvement of institutional capacity, and the ability to expand the business. The level of household food security is known by using objective and subjective measures. Objective measure is performed by comparing the amount of food expenditure and total household expenditure. If the share rate of food expenditure in household is $<60\%$, then the household is said to have food security, and if the share rate of food expenditure is $\geq 60\%$, then the household is said not to have food security (Sapar, Jahi, Ilham, & Bonar, 2007).

The subjective food security of SHG member households in this study was seen from the opinions, views, attitudes or arguments of SHG member households on their food situation, namely the availability of food for SHG household members, household food distribution, and consumption of food items to meet the food needs of its members from time to time in order to live a healthy life and be able to carry out their daily activities.

Results and Discussion

Responden Identity

The majority of SHG members (68%) are women. The results of field observations revealed that the types of businesses pursued by SHG members (72%) were mostly various foods (various chips: bananas, cassava), and stall that were easy and widely run by women (mothers), while things related to fisheries business, namely fish spawning and catfish farming activities which are carried out by men (fathers).

The productive age allows respondents to have high morale and good understanding of the material. This condition is one of the potential to increase the active role of SHG members to get involved in the PPMK program. The higher a person's age, the better his performance will be (Nurhardjo, 2012; Sapar, Yusuf, & Haedar, 2014; Mutolib, Yonariza, Mahdi, & Ismono, 2016). This shows a maturity owned by each individual in order to determine the decision making and concrete steps in the future in doing a business. The detail identity of respondents in this study is presented in Table 1.

Table 1: Identity of Self-Help Groups (SHG) based on age, formal education, and number of dependent family members

No	Variable	Number (Person)	Percentag e(%)
1	Gender		
	Male	8	32.00
	Female	17	68.00
	Total	25	100.00
2	Age (years)		
	(7) Young (28—41)	13	52.00
	(8) Adult (42—55)	9	36.00
	(9) Old (56—66)	3	12.00
	Total	25	100.00
3	Formal Education		
	(7) Elementary School	6	24.00
	(8) Junior-Senior High School	18	72.00
	(9) Diploma	1	4.00
	Total	25	100.00
4	Number of dependent family members(person)		
	(7) 2	5	20.00
	(8) 3	8	32.00
	(9) 4	12	48.00
	Total	25	100.00
5	Type of business		
	(7) Fisheries	7	28.00
	(8) Various foods	13	52.00
	(9) Stall	5	20.00
	Total	25	100.00

An Overview of PPMK and SHG

PPMK is the intervention program of PNPM-MP established by the Ministry of Public Works of the Republic of Indonesia, to develop productive activities. The PPMK program aims to strengthen SHG institutional and business activities independently and sustainably, which are oriented to improving the livelihoods of the poor (sustainable livelihood) with a group assistance approach (Ministry of Public Works, 2007). SHG are groups of people who voluntarily unite in groups because of a unifying bond with the same vision, interests, and needs. The group has the same goals to be achieved together (Ministry of Public Works, 2014). The PPMK program in Metro City began on August 6, 2014, at KSM (Community Self-Reliance Institution) of Margodadi Jaya. The program stage consists of the preparation, planning, disbursement, and utilization stages, as well as the strengthening and development stages. Before the program runs, KSM, SHG, as well as city facilitators meet at the preparation stage of the program and continue with meetings between LKM and SHG with the number of meetings required as much as eight times from the preparation stage to the planning stage.

Effectiveness of SHG Members in the Implementation of the PPMK Program

The effectiveness of SHG in the PPMK program is the magnitude of the success in achieving the goals of the PPMK program conducted by SHG, which includes: increasing the income of SHG members after participating in the PPMK program, increasing institutional capacity, and the ability of SHG members to expand their business activities. The results of the study related to the effectiveness of SHG in the PPMK program displayed in Table 2. From Table 2, information was obtained that most respondents considered the PPMK program capable of increasing member

income (52.00%), strengthening institutional capacity (44.00%), and able to increase the ability of members to expand their business activities (36.00%).

Table 2: Effectiveness of SHG Members in the Implementation of the PPMK Program

No	Variable (Score)	Number (Person)	Percentage (%)
1	Increase in income of SHG members		
	2,000–3,325 (Less increased)	6	24.00
	3,326–4,651 (Quite increased)	6	24.00
	4,652–5,975 (Increased)	13	52.00
	Total	25	100.00
	Average: 4,560 (Quite increased)		
2	Strengthening institutional capacity		
	8,400-- 12,306 (Bad)	7	28.00
	12,307--16,213 (Fairly good)	11	44.00
	16,214--20,120 (Good)	7	28.00
	Total	25	100.00
	Average: 14.513 (Fairly good)		
3	The ability of members to expand business activities		
	2,000–3,255 (Less capable)	8	32.00
	3,256–4,511 (Quite capable)	8	32.00
	4,512–5,767 (Capable)	9	68.00
	Total	25	100.00
	Average: 4.005 (Quite capable)		

Increasing of SHG Members income

There was an increase in the total income of SHG members after participating in the PPMK program (Table 3). The highest percentage of income was obtained by SHG Sembada members, amounting to 211 percent. SHG Sembada is one of the SHG that is engaged in fish hatchery business. This significant increase in income is due to SHG Sembada having a business that always runs smoothly (continuous production), a large initial capital from SHG members, a demand for catfish seeds that always increases every season, and the availability of PPMK loans, thus SHG Sembada could increase capital business and expand its marketing activities.

The lowest income compared to other SHGs was obtained by SHG Kenanga. This is because SHG Kenanga is a SHG with the majority of its members working as small traders (self-employed) who do not require large capital. The efforts made by this SHG include selling raw/cooked vegetables, various chips, market snacks, and grocery stores. After a loan from the PPMK program, SHG members can increase their income > 50 percent. The percentage of increased revenue in detail can be seen in the following Table. 3.

Table 3: Average income and increased income of SHG members before and after participating in the PPMK program.

No.	Name of SHG	Average income of SHG members (Rupiah per Month)		Percentage of increase in income of SHG members (%)
		Before	After	
1	Matahari	1.290.000	2.614.000	102
2	Sembada	1.700.000	5.292.800	211
3	Tunas Karya	1.000.000	2.020.000	102
4	Kenanga	1.300.000	2.150.000	65
5	Kenari	1.290.000	2.300.000	78
Total		6.580.000	14.376.800	

Strengthening SHG Institutional Capacity

Strengthening institutional capacity of SHG in question is an increase in the ability of groups to understand the rules and carry out development in a broad sense sustainably, which consists of norms/regulations implemented as well as facilities and technology owned by SHG members. Strengthening institutional capacity of SHG includes: 1) utilization of loan capital, 2) loan installment method, 3) appropriateness of installment payment time, 4) reporting on the utilization of loan funds, 5) ownership of facilities and technology, 6) computer use in SHG administration management, and 7) internet use in accessing information. Institutional capacity strengthening of SHG members (44%) is in a fairly good category. The results showed that in the use of loan capital,

SHG members were quite cooperative, most of which used loan capital only for businesses, not used for other purposes outside the business.

Ability of SHG Members to Expand Business Activities

The level of ability of SHG members to expand business activities is seen from: the increase in the type of business of SHG members and the increase in business volume. The level of ability of SHG members in expanding their business activities was mostly (68%) in the category of capable, yet the average level of ability of SHG members was in the category of quite capable. The ability of SHG members to expand their business activities in detail can be seen in Table 4.

Table 4: Expansion of SHG member business activities per person

No	Name of Self-Help Group	Expansion of SHG Member Business Activities Per Person					
		Increase in type business			Increase in business volume		
		1 type	2 type	> 2 type	Not increased	Increased	Highly increased
1	Matahari	2	0	3	0	1	4
2	Sembada	5	0	0	0	0	5
3	Tunas karya	0	4	1	0	2	3
4	Kenari	0	3	2	0	3	2
5	Kenanga	2	1	2	0	4	1
	Total	9	8	8	0	10	15

The increase in the type of business carried out by SHG members showed that 9 people decide to continue to have one type of business, because they wanted to focus on developing the business. All SHG members who only carried out one type of business, namely SHG Sembada with catfish hatchery business, sought to increase the number of business volumes, even though the type of business owned was only one type. Unlike members of SHG Kenanga, Tunas Karya, and Kenari, those who are entrepreneurs as traders wish to add more than one type of business. All

SHG members experience increased business volume from time to time, where the average business volume increase was more than 50 percent. This is due to the many demands. This condition explains that NGO has been effective in the PPMK program, by increasing members' income, strengthening institutional capacity, and the ability of SHG members to expand their businesses; and as a signal that the overall program objectives have been well achieved.

Household Food Security of SHG Members

Food Security according to Law no. 18 of 2012 is the condition of the fulfillment of food for the State up to individuals and reflected in the availability of sufficient food both in quantity and quality, safe, diverse, nutritious, evenly distributed and affordable and not in conflict with the religion, beliefs and culture of the community in order to be able to live healthy, active and productive in a sustainable manner.

Subjective food security is measured based on the views, opinions, attitudes or arguments of people on the food situation seen from 3 indicators, namely the level of food availability, the level of food distribution, and the level of food consumption. While objectively, food security is based on the amount of food in general, energy consumption, per-capita food availability, the share of household food expenditure on total household expenditure and household ability to deal with shocks.

Level of Household Food Security of SHG Members Objectively

The level of food security objectively can be seen from the share of household food expenditure. Household expenditure is a number of costs incurred by a household to fulfill their living needs. Household expenditure is divided into expenditures for food and non-food expenditure. Household

expenditure of SHG members was dominated by non-food expenditure, with average of IDR1,918,186 per month (66.35%), while the remaining 33.64 percent was spent for food expenditure. Food expenditure of SHG member households is generally used to meet basic food needs, while non-food expenditure was dominated by expenses for home furniture, education amount, and fuel. The share of low food expenditure indicates that objectively most households (96%) had food security.

Table 5: Expenditure for food and non-food stuff of SHG members household in Margodadi Village of 2016.

Types of Food Expenditure	Average Expenditure (IDR/month)	Percentage (%)
Flour and grains	268.120	9.28
Cassava	14.360	0.50
Oil and fat	32.880	1.14
Animal food	133.300	4.61
Vegetable food	72.460	2.51
Fruit /oily seeds	26.860	0.93
Nuts	18.740	0.65
Sugar	36.560	1.26
Colored vegetables	113.960	3.94
Colorless vegetables	12.380	0.43
Fruit vegetables	161.587,5	5.59
Fruit	66.460	2.30
Seasonings	21.840	0.76
Beverage	25.220	0.87
Amount of food expenditure	972.527,5	33.64
Expenditure Type	Average Expenditure (IDR/month)	Percentage (%)
Non-Food		
Health	22.840	0.79
Education	232.580	8.05
Electricity	98.496	3.41
Phone/cell phone	69.800	2.41
Home Furniture	895.792	30.99
House reparation	19.800	0.68
Clothes	151.880	5.25
Goods and services	116.200	4.02
Fuel	178.400	6.17
Transportation	5.200	0.06

Social	5.200	0.18
Tax	24.354	0.84
Body cleanliness	40.836	1.41
Cosmetics	62.008	2.15
Amount of Non-Food Expenditure	1.918.186	66.35
Amount of Household Expenditures	2.890.713,5	100,00

Household income was in the high category (Table 6). This is in accordance with Engel's law which explains that the share of food expenditure on total household expenditure will decrease with increase of the income (Sapar *et al.*, 2007), so that the higher the income, the lower the share of food expenditures incurred. Share Rate of food expenditure for SHG member households in Margodadi Village displayed in Table 6.

Table 6: Share rate of food expenditure of SHG member households in Margodadi Village

Share Rate of Expenditure	Classification	Number	Percentage (%)
RT<60%	Have Food Security	24	96.00
RT≥60%	Does Not Have Food Security	1	4.00
Number		25	100.00

Level of Household Food Security of SHG Members in Margodadi Village Subjectively

There are three aspects that are used in the food security of SHG member households subjectively, namely: aspect of household food availability, aspect of household food distribution, and aspect of household food consumption (Table 7).

Table 7: The level of household food security of SHG members subjectively of 2017.

No	Sub-variable (Score)	Number (person)	Percentage (%)
1	Food Availability Level		
	7.431–9,926 (Low)	8	32.00
	3.326–4,651 (Medium)	10	40.00

	12.423–14.916 (High)	7	28.00
	Total	25	100.00
	Average: 11.121 (Medium)		
2	Food Distribution Level		
	10.193 – 12.498 (Low)	10	40.00
	12.499 – 14.804 (Medium)	8	32.00
	14.805 – 17.108 (High)	7	28.00
	Total	25	100.00
	Average: 13.415 (Medium)		
3	Food consumption level		
	13.477 – 17.014 (Low)	6	24.00
	17.015 – 20.552 (Medium)	12	48.00
	20.553 – 24.089 (High)	7	28.00
	Total	25	100.00
	Average: 18.725 (Medium)		
4.	Recapitulation of Food Security Subjectively		
	31.476 – 38.092 (Low)	2	8.00
	38.093 – 44.709 (Medium)	15	60.00
	44.710 – 51.324 (High)	8	32.00
	Total		100.00
	Average = 43.260 (Medium)		

g. Aspect of Household Food Availability of SHG Members

The food security level of SHG member households in Margodadi Village based on the aspect of food availability was in the medium category with an average value of 11,121, which means that the SHG member households food is sufficiently available to fulfill their household food needs. Based on the conditions that occur in the field, it can be concluded that the conditions of food availability of SHG member households mostly tend to be fairly good and the availability of food can meet the food needs of all SHG memberhouseholds.

h. Aspect of Household Food Distribution of SHG Members

The household food distribution was in the medium category, with an average value of 13.415, which means that the distribution of food in SHG member households is fairly good. Based on the situation in the field, it is known that the accessibility/affordability of SHG member households

in obtaining food is quite easy to access. This is because a small portion of food needed by SHG member households is self-produced, but most of it is purchased by themselves.

i. Aspects of Household Food Consumption of SHG Members

The food security level of SHG member households from the aspect of household food consumption of SHG members is in the medium category with an average value of 18,725. The results of field observations showed that the knowledge of SHG members regarding the food needed by the body was in the right composition and all types of food consumed were fairly good for body health, however, the majority of SHG members still did not consider the quality of food consumed. Generally SHG members only consume food as it is and what suits their taste without any particular considerations regarding their food quality.

The result of the recapitulation and observation of the food security of SHG member households in Margodadi Village was in the Mediumcategory with an average value of 43,260, which means that SHG member households in Margodadi Village have sufficient food security. This is because the aspect of food availability of SHG member households and aspects of food distribution of SHG member households were in the Mediumcategory.

The relationship between the effectiveness of SHG in the PPMK program and the level of household food security of SHG members

The relationship between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households using the Sperman's Rank correlation analysis showed a significance value of 0.017. This value was smaller than the α value of 0.05 or at confidence level of 95%, which means that there is a significant difference between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households in Margodadi Village.

Based on the results of the research above, it can be concluded that the more effective SHG in the PPMK program, the higher the level of food security of SHG members in Margodadi Village. The success of the community-based PPMK program is supported by many factors such as ongoing assistance, and social capital that has been owned by the community (willingness and commitment of the target community). In other regions, the implementation of PPMK may not be the same as the PPMK program in Metro City because it is influenced by several factors. The scope of this research is small, namely at the village level, but the success of the PPMK program in Metro City is an indication that this program has the potential to be replicated in other regions to realize food security and community-based independence. The food security program is very important, especially in the poor communities where the level of food security is low.

Conclusion

The effectiveness of SHG members in the PPMK program was in the good category. The overall objective of the program was achieved, namely the increase in the income of SHG member households was increased (Medium), the strengthening of institutional capacity of SHG was fairly good (Medium), and the ability of SHG members to expand their business was quite capable (Medium). The level of household food security of SHG members in Margodadi Village objectively shows that the majority of households were in high level of food security. The effectiveness of SHG in the PPMK program was significantly different from the level of household food security, with a correlation coefficient of 0.017 and a confidence level of 95%. This result indicates that the more effective the program runs, the higher the level of household food security of SHG members.

Based on the Global Food Security Index assessment in 2018, Indonesia is in the 65th position out of 113 countries. In 2019, the number of poor people in Indonesia was 24.79 million people. This research provides positive findings to improve food security and reduce poverty in Indonesia. Increasing food security and poverty alleviation must be following the capacity and character of the community. Therefore the approach through SHG is considered appropriate to overcome the problem of food security and poverty.

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20. Manuscript final untuk Publikasi

Submission in ScholarOne

EFFECTIVENESS OF SELF-HELP GROUPS IN THE IMPLEMENTATION OF LIVELIHOOD IMPROVEMENT PROGRAMS AND FOOD SECURITY IN LAMPUNG, INDONESIA

Abstract: The Community-Based Livelihood Improvement Program (PPMK) program implemented through Self-Help Groups (SHG) and expected to improve the livelihoods of the poor people. The study was aimed to analyze: 1) the effectiveness of SHG in the implementations of PPMK program, 2) food security of SHG member households, and 3) the relationships between the effectiveness of PPMK program implementation and SHG member food security. The study was conducted in Margodadi Village of Metro City and held in October-December 2018. The research method was carried out by a survey with a quantitative approach. Respondents were 25 SHG members who were recipients of the PPMK program with saturation sampling techniques. Descriptive analysis method was used to answer the first and second objectives, while the nonparametric statistic of Spearman's Rank correlations was used to answer the third objective. The results showed that: 1) the effectiveness of SHG members in the PPMK program was in good category, the overall program objectives were achieved, both increasing the income of SHG member households, strengthening SHG institutional capacity, and the ability of SHG members to expand their business; 2) the food security level of household members of SHG in Margodadi Village objectively and subjectively showed that the majority of households were in high category; and 3) the effectiveness of SHG in the PPMK program was significantly different from the level of household food security.

Keywords: group effectiveness, program, food security, household

Abbreviations: [Effectiveness of Self-Help Groups in Lampung Indonesia].

Introduction

Poverty is a problem that is still faced by developing countries including in Indonesia (Suryahadi, Suryadarma, & Sumarto, 2009; Alatas, Banerjee, Hanna, Olken, & Tobias, 2012; Sumner & Edward, 2014). Many factors cause poverty, among others: natural resources (Hassan, Zaman, & Gul, 2015), human resources (Roca-puig, Beltrán-martín, & García-juan, 2019), low education (Buck & Deutsch, 2014; Mihai & Manea, 2015), and the lack of available jobs (Siwar *et al.*, 2016; Sri & Suliswanto, 2010). This condition causes helplessness of the community in facing economic problems, such as the weakness of the small and medium business sector (Dartanto, 2013; Rangga & Syarief, 2018).

One of the community empowerment programs used to alleviate poverty and expand employment opportunities in urban areas is the National Urban Independent Community Empowerment Program (PNPM-MP) (Fatriadi, Asteriani, & Cahyaningsih, 2017; Soesanta, 2013). This National Program aims to support the government's efforts to reduce the number of poor people in Indonesia and is expected to improve the welfare of the Indonesian community according to the mandate of the UUD'45. The strategy is carried out through strengthening community institutions and involving elements of the community, starting from the planning, implementation, and monitoring and evaluation stages (Mubarak, 2010; Yamsul & Salim, 2013; Mufid, 2014; Yanfika, Listiana, Mutolib, & Rahmat, 2019).

There are three programs run by PNPM-MP namely physical, economic and social development programs (Soesanta, 2013; Munawar, 2017). Revolving economic loan assistance given to the poor people is a form of program in the economic field (Matridi *et al.*, 2015; Rahjuni, Badriah, & Rafinda, 2019) Revolving loans are provided to assist productive activities in order to

create business opportunities and employment opportunities, and can also be used to start new businesses in order to improve community welfare (Fatriadi *et al.*, 2017). Revolving fund loans to the poor are given directly to the community through Non-Non-Governmental Organization (NGO) in each village in various regions including Metro City of Lampung Province. NGO is an institution established to expedite the running of the PNPM-MP program. Through the Financial Management Unit (UPK) (which is found in the NGO section), it will be considered feasible or not for the community to get a loan.

Metro City is a city with a large number of NGO, yet Metro City has 22 units of NGO that are slightly fewer compared to other regions which have two NGO units that have the status of being civilized, which is the highest status, and is selected to get the Community-Based Livelihood Improvement Program (PPMK). The Program for Increasing Community-Based Livelihoods is an Urban Independent Empowerment program (PNPM) which is devoted to the development of productive activities that have previously loaned revolving economic funds with a return of 98 %. The PPMK program has the same loan principle as revolving economic loans, the difference is only in the amount of loaned funds that are higher than revolving economic loans, and the period of repayment of loans is also longer.

Through a mentoring approach to Self-Help Groups (SHG), the PPMK program is expected to improve the livelihoods of the poor people, particularly it can affect the income level of members which ultimately impacts the level of household food security (Meilia, Zakaria, & Prasmatiwi, 2014; Rangga, Darsono, Anantanyu, & Wijaya, 2014). However, if a program that aims to prosper the community is not adopted and accommodated properly by the target who will receive it, it is feared that it will cause various problems such as misuse of the program, and inappropriate implementation.

This research that regarding effectiveness and impact of the Self-help Group for the community has been researched and proven to have a good impact on society (Mehta, Mishra, & Amrinder Singh, 2011; Hartina et al., 2017; Gugerty, Biscaye, & Anderson, 2018; Nimisha & Arumugam, 2019). However, research on the relationship between SHG and household food security has not been studied. This research is very interesting and expected to provide the new findings on efforts to improve food security, especially for the poor in both urban and urban areas. The success of the SHG program expected to support the food security enhancement and Sustainable Development Goals in Indonesia. Based on this background, it is necessary to research to analyse: 1) the effectiveness of SHG in the implementation of the PPMK program in Margodadi Village of Metro City, 2) the food security of SHG member households, and 3) the relationship between the effectiveness of SHG and the food security of SHG members.

Materials and Methods

The research site was Margodadi Village, Metro City of Lampung Province, Indonesia. This site was determined using a purposive sampling method with the consideration that Margodadi Village was the only village with the best NGO in Metro City that received PNPM Award from the Mayor of Metro City. Data collection and research were conducted in October-December 2018.

The sampling technique in the study used saturation sampling technique. Saturation sampling is a sample determination technique using population members as samples. The study population came from members of the Non-Governmental Organization in LKM (Community Self-help Organization) of Metro City who were recipients of the PPMK program. The method of analysis was carried out using descriptive analysis and nonparametric statistics. Descriptive analysis was used to answer the first and second objectives, while the third objective was obtained

by using nonparametric analysis of Spearman's rank correlation (Nichols & Holmes, 2007; Henseler, 2012; Fujita, Takahashi, & Patriota, 2014).

The effectiveness of SHG in the PPMK program can be seen from the large increase in the income of SHG members, the improvement of institutional capacity, and the ability to expand the business. The level of household food security is known by using objective and subjective measures. Objective measure is performed by comparing the amount of food expenditure and total household expenditure. If the share rate of food expenditure in household is $<60\%$, then the household is said to have food security, and if the share rate of food expenditure is $\geq 60\%$, then the household is said not to have food security (Sapar, Jahi, Ilham, & Bonar, 2007).

The subjective food security of SHG member households in this study was seen from the opinions, views, attitudes or arguments of SHG member households on their food situation, namely the availability of food for SHG household members, household food distribution, and consumption of food items to meet the food needs of its members from time to time in order to live a healthy life and be able to carry out their daily activities.

Results and Discussion

Responden Identity

The majority of SHG members (68%) are women. The results of field observations revealed that the types of businesses pursued by SHG members (72%) were mostly various foods (various chips: bananas, cassava), and stall that were easy and widely run by women (mothers), while things related to fisheries business, namely fish spawning and catfish farming activities which are carried out by men (fathers).

The productive age allows respondents to have high morale and good understanding of the material. This condition is one of the potential to increase the active role of SHG members to get involved in the PPMK program. The higher a person's age, the better his performance will be (Nurhardjo, 2012; Sapar, Yusuf, & Haedar, 2014; Mutolib, Yonariza, Mahdi, & Ismono, 2016). This shows a maturity owned by each individual in order to determine the decision making and concrete steps in the future in doing a business. The detail identity of respondents in this study is presented in Table 1.

Table 1: Identity of Self-Help Groups (SHG) based on age, formal education, and number of dependent family members

No	Variable	Number (Person)	Percentage(%)
1	Gender		
	Male	8	32.00
	Female	17	68.00
	Total	25	100.00
2	Age (years)		
	(10) Young (28—41)	13	52.00
	(11) Adult (42—55)	9	36.00
	(12) Old (56—66)	3	12.00
	Total	25	100.00
3	Formal Education		
	(10) Elementary School	6	24.00
	(11) Junior-Senior High School	18	72.00
	(12) Diploma	1	4.00
	Total	25	100.00
4	Number of dependent family members(person)		
	(10) 2	5	20.00
	(11) 3	8	32.00
	(12) 4	12	48.00
	Total	25	100.00
5	Type of business		
	(10) Fisheries	7	28.00
	(11) Various foods	13	52.00
	(12) Stall	5	20.00
	Total	25	100.00

An Overview of PPMK and SHG

PPMK is the intervention program of PNPM-MP established by the Ministry of Public Works of the Republic of Indonesia, to develop productive activities. The PPMK program aims to strengthen SHG institutional and business activities independently and sustainably, which are oriented to improving the livelihoods of the poor (sustainable livelihood) with a group assistance approach. SHG are groups of people who voluntarily unite in groups because of a unifying bond with the same vision, interests, and needs. The group has the same goals to be achieved together. The PPMK program in Metro City began on August 6, 2014, at KSM (Community Self-Reliance Institution) of Margodadi Jaya. The program stage consists of the preparation, planning, disbursement, and utilization stages, as well as the strengthening and development stages. Before the program runs, among KSM, SHG, and city facilitators meet at the preparation stage of the program and continue with meetings between LKM and SHG with the number of meetings required as much as eight times from the preparation stage to the planning stage.

Effectiveness of SHG Members in the Implementation of the PPMK Program

The effectiveness of SHG in the PPMK program is the magnitude of the success in achieving the goals of the PPMK program conducted by SHG, which includes: increasing the income of SHG members after participating in the PPMK program, increasing institutional capacity, and the ability of SHG members to expand their business activities. The results of the study related to the effectiveness of SHG in the PPMK program displayed in Table 2. From Table 2, information was obtained that most respondents considered the PPMK program capable of increasing member

income (52.00%), strengthening institutional capacity (44.00%), and able to increase the ability of members to expand their business activities (36.00%).

Table 2: Effectiveness of SHG Members in the Implementation of the PPMK Program

No	Variable (Score)	Number (Person)	Percentage (%)
1	Increase in income of SHG members		
	2,000–3,325 (Less increased)	6	24.00
	3,326–4,651 (Quite increased)	6	24.00
	4,652–5,975 (Increased)	13	52.00
	Total	25	100.00
	Average: 4,560 (Quite increased)		
2	Strengthening institutional capacity		
	8,400-- 12,306 (Bad)	7	28.00
	12,307--16,213 (Fairly good)	11	44.00
	16,214--20,120 (Good)	7	28.00
	Total	25	100.00
	Average: 14.513 (Fairly good)		
3	The ability of members to expand business activities		
	2,000–3,255 (Less capable)	8	32.00
	3,256–4,511 (Quite capable)	8	32.00
	4,512–5,767 (Capable)	9	68.00
	Total	25	100.00
	Average: 4.005 (Quite capable)		

Increasing of SHG Members income

There was an increase in the total income of SHG members after participating in the PPMK program (Table 3). The highest percentage of income was obtained by SHG Sembada members, amounting to 211 percent. SHG Sembada is one of the SHG that is engaged in fish hatchery business. This significant increase in income is due to SHG Sembada having a business that always runs smoothly (continuous production), a large initial capital from SHG members, a demand for catfish seeds that always increases every season, and the availability of PPMK loans, thus SHG Sembada could increase capital business and expand its marketing activities.

The lowest income compared to other SHGs was obtained by SHG Kenanga. This is because SHG Kenanga is a SHG with the majority of its members working as small traders (self-employed) who do not require large capital. The efforts made by this SHG include selling raw/cooked vegetables, various chips, market snacks, and grocery stores. After a loan from the PPMK program, SHG members can increase their income > 50 percent. The percentage of increased revenue in detail can be seen in the following Table. 3.

Table 3: Average income and increased income of SHG members before and after participating in the PPMK program.

No.	Name of SHG	Average income of SHG members (Rupiah per Month)		Percentage of increase in income of SHG members (%)
		Before	After	
1	Matahari	1.290.000	2.614.000	102
2	Sembada	1.700.000	5.292.800	211
3	Tunas Karya	1.000.000	2.020.000	102
4	Kenanga	1.300.000	2.150.000	65
5	Kenari	1.290.000	2.300.000	78
Total		6.580.000	14.376.800	

Strengthening SHG Institutional Capacity

Strengthening institutional capacity of SHG in question is an increase in the ability of groups to understand the rules and carry out development in a broad sense sustainably, which consists of norms/regulations implemented as well as facilities and technology owned by SHG members. Strengthening institutional capacity of SHG includes: 1) utilization of loan capital, 2) loan installment method, 3) appropriateness of installment payment time, 4) reporting on the utilization of loan funds, 5) ownership of facilities and technology, 6) computer use in SHG administration management, and 7) internet use in accessing information. Institutional capacity strengthening of SHG members (44%) is in a fairly good category. The results showed that in the use of loan capital,

SHG members were quite cooperative, most of which used loan capital only for businesses, not used for other purposes outside the business.

Ability of SHG Members to Expand Business Activities

The level of ability of SHG members to expand business activities is seen from: the increase in the type of business of SHG members and the increase in business volume. The level of ability of SHG members in expanding their business activities was mostly (68%) in the category of capable, yet the average level of ability of SHG members was in the category of quite capable. The ability of SHG members to expand their business activities in detail can be seen in Table 4.

Table 4: Expansion of SHG member business activities per person

No	Name of Self-Help Group	Expansion of SHG Member Business Activities Per Person					
		Increase in type business			Increase in business volume		
		1 type	2 type	> 2 type	Not increased	Increased	Highly increased
1	Matahari	2	0	3	0	1	4
2	Sembada	5	0	0	0	0	5
3	Tunas karya	0	4	1	0	2	3
4	Kenari	0	3	2	0	3	2
5	Kenanga	2	1	2	0	4	1
	Total	9	8	8	0	10	15

The increase in the type of business carried out by SHG members showed that 9 people decide to continue to have one type of business, because they wanted to focus on developing the business. All SHG members who only carried out one type of business, namely SHG Sembada with catfish hatchery business, sought to increase the number of business volumes, even though

the type of business owned was only one type. Unlike members of SHG Kenanga, Tunas Karya, and Kenari, those who are entrepreneurs as traders wish to add more than one type of business. All SHG members experience increased business volume from time to time, where the average business volume increase was more than 50 percent. This is due to the many demands. This condition explains that NGO has been effective in the PPMK program, by increasing members' income, strengthening institutional capacity, and the ability of SHG members to expand their businesses; and as a signal that the overall program objectives have been well achieved.

Household Food Security of SHG Members

Food Security according to Law no. 18 of 2012 is the condition of the fulfillment of food for the State up to individuals and reflected in the availability of sufficient food both in quantity and quality, safe, diverse, nutritious, evenly distributed and affordable and not in conflict with the religion, beliefs and culture of the community in order to be able to live healthy, active and productive in a sustainable manner.

Subjective food security is measured based on the views, opinions, attitudes or arguments of people on the food situation seen from 3 indicators, namely the level of food availability, the level of food distribution, and the level of food consumption. While objectively, food security is based on the amount of food in general, energy consumption, per-capita food availability, the share of household food expenditure on total household expenditure and household ability to deal with shocks.

Level of Household Food Security of SHG Members Objectively

The level of food security objectively can be seen from the share of household food expenditure. Household expenditure is a number of costs incurred by a household to fulfill their living needs. Household expenditure is divided into expenditures for food and non-food expenditure. Household expenditure of SHG members was dominated by non-food expenditure, with average of IDR1,918,186 per month (66.35%), while the remaining 33.64 percent was spent for food expenditure. Food expenditure of SHG member households is generally used to meet basic food needs, while non-food expenditure was dominated by expenses for home furniture, education amount, and fuel. The share of low food expenditure indicates that objectively most households (96%) had food security.

Table 5: Expenditure for food and non-food stuff of SHG members household in Margodadi Village of 2016.

Types of Food Expenditure	Average Expenditure (IDR/month)	Percentage (%)
Flour and grains	268.120	9.28
Cassava	14.360	0.50
Oil and fat	32.880	1.14
Animal food	133.300	4.61
Vegetable food	72.460	2.51
Fruit /oily seeds	26.860	0.93
Nuts	18.740	0.65
Sugar	36.560	1.26
Colored vegetables	113.960	3.94
Colorless vegetables	12.380	0.43
Fruit vegetables	161.587,5	5.59
Fruit	66.460	2.30
Seasonings	21.840	0.76
Beverage	25.220	0.87
Amount of food expenditure	972.527,5	33.64
Expenditure Type	Average Expenditure (IDR/month)	Percentage (%)
Non-Food		
Health	22.840	0.79
Education	232.580	8.05

Electricity	98.496	3.41
Phone/cellphone	69.800	2.41
Home Furniture	895.792	30.99
House reparation	19.800	0.68
Clothes	151.880	5.25
Goods and services	116.200	4.02
Fuel	178.400	6.17
Transportation	5.200	0.06
Social	5.200	0.18
Tax	24.354	0.84
Body cleanliness	40.836	1.41
Cosmetics	62.008	2.15
Amount of Non-Food Expenditure	1.918.186	66.35
Amount of Household Expenditures	2.890.713,5	100,00

Household income was in the high category (Table 6). This is in accordance with Engel's law which explains that the share of food expenditure on total household expenditure will decrease with increase of the income (Sapar *et al.*, 2007), so that the higher the income, the lower the share of food expenditures incurred. Share Rate of food expenditure for SHG member households in Margodadi Village displayed in Table 6.

Table 6: Share rate of food expenditure of SHG member households in Margodadi Village

Share Rate of Expenditure	Classification	Number	Percentage (%)
RT<60%	Have Food Security	24	96.00
RT≥60%	Does Not Have Food Security	1	4.00
Number		25	100.00

Level of Household Food Security of SHG Members in Margodadi Village Subjectively

There are three aspects that are used in the food security of SHG member households subjectively, namely: aspect of household food availability, aspect of household food distribution, and aspect of household food consumption (Table 7).

Table 7: The level of household food security of SHG members subjectively of 2017.

No	Sub-variable (Score)	Number (person)	Percentage (%)
1	Food Availability Level		
	7.431–9,926 (Low)	8	32.00
	3.326–4,651 (Medium)	10	40.00
	12.423–14.916 (High)	7	28.00
	Total	25	100.00
	Average: 11.121 (Medium)		
2	Food Distribution Level		
	10.193 – 12.498 (Low)	10	40.00
	12.499 – 14.804 (Medium)	8	32.00
	14.805 – 17.108 (High)	7	28.00
	Total	25	100.00
	Average: 13.415 (Medium)		
3	Food consumption level		
	13.477 – 17.014 (Low)	6	24.00
	17.015 – 20.552 (Medium)	12	48.00
	20.553 – 24.089 (High)	7	28.00
	Total	25	100.00
	Average: 18.725 (Medium)		
4.	Recapitulation of Food Security Subjectively		
	31.476 – 38.092 (Low)	2	8.00
	38.093 – 44.709 (Medium)	15	60.00
	44.710 – 51.324 (High)	8	32.00
	Total		100.00
	Average = 43.260 (Medium)		

j. Aspect of Household Food Availability of SHG Members

The food security level of SHG member households in Margodadi Village based on the aspect of food availability was in the medium category with an average value of 11,121, which means that the SHG member households food is sufficiently available to fulfill their household food needs. Based on the conditions that occur in the field, it can be concluded that the conditions of food availability of SHG member households mostly tend to be fairly good and the availability of food can meet the food needs of all SHG memberhouseholds.

k. Aspect of Household Food Distribution of SHG Members

The household food distribution was in the medium category, with an average value of 13.415, which means that the distribution of food in SHG member households is fairly good. Based on the situation in the field, it is known that the accessibility/affordability of SHG member households in obtaining food is quite easy to access. This is because a small portion of food needed by SHG member households is self-produced, but most of it is purchased by themselves.

l. Aspects of Household Food Consumption of SHG Members

The food security level of SHG member households from the aspect of household food consumption of SHG members is in the medium category with an average value of 18,725. The results of field observations showed that the knowledge of SHG members regarding the food needed by the body was in the right composition and all types of food consumed were fairly good for body health, however, the majority of SHG members still did not consider the quality of food consumed. Generally SHG members only consume food as it is and what suits their taste without any particular considerations regarding their food quality.

The result of the recapitulation and observation of the food security of SHG member households in Margodadi Village was in the Medium category with an average value of 43,260, which means that SHG member households in Margodadi Village have sufficient food security. This is because the aspect of food availability of SHG member households and aspects of food distribution of SHG member households were in the Medium category.

The relationship between the effectiveness of SHG in the PPMK program and the level of household food security of SHG members

The relationship between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households using the Spearman's Rank correlation analysis showed a

significance value of 0.017. This value was smaller than the α value of 0.05 or at confidence level of 95%, which means that there is a significant difference between the effectiveness of SHG in the PPMK program and the level of food security of SHG member households in Margodadi Village.

Based on the results of the research above, it can be concluded that the more effective SHG in the PPMK program, the higher the level of food security of SHG members in Margodadi Village. The success of the community-based PPMK program is supported by many factors such as ongoing assistance, and social capital that has been owned by the community (willingness and commitment of the target community). In other regions, the implementation of PPMK may not be the same as the PPMK program in Metro City because it is influenced by several factors. The scope of this research is small, namely at the village level, but the success of the PPMK program in Metro City is an indication that this program has the potential to be replicated in other regions to realize food security and community-based independence. The food security program is very important, especially in the poor communities where the level of food security is low.

Conclusion

The effectiveness of SHG members in the PPMK program was in the good category. The overall objective of the program was achieved, namely the increase in the income of SHG member households was increased (Medium), the strengthening of institutional capacity of SHG was fairly good (Medium), and the ability of SHG members to expand their business was quite capable (Medium). The level of household food security of SHG members in Margodadi Village objectively shows that the majority of households were in high level of food security. The effectiveness of SHG in the PPMK program was significantly different from the level of household food security, with a correlation coefficient of 0.017 and a confidence level of 95%. This result

indicates that the more effective the program runs, the higher the level of household food security of SHG members.

Based on the Global Food Security Index assessment in 2018, Indonesia is in the 65th position out of 113 countries. In 2019, the number of poor people in Indonesia was 24.79 million people. This research provides positive findings to improve food security and reduce poverty in Indonesia. Increasing food security and poverty alleviation must be following the capacity and character of the community. Therefore the approach through SHG is considered appropriate to overcome the problem of food security and poverty.

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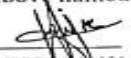
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