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Impact Assessment of Nomadic Education Extension Programme on Income 1 of Nomads in

2 Adamawa State Nigeria

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4 ABSTRACT:

5 The study assessed the impact of nomadic education extension programme co-ordinated by
6 the National Commission For Nomadic Education on income of nomads in Adamawa state,
7 Nigeria. Data for the study were obtained from 360 respondents using multi-stage sampling
8 procedures. Descriptive and inferential statistics used for data analysis were percentage, chi-
squares

(x²) and two samples t-test. The result of the study indicated that there was positive
10 impact of the programme (NEEP) on income and income generating activities of the nomads.
11 The nomads who participated in the programme had higher income than those that did not.
12 Also those who participated were divided/classified into diversified income generating
activities than those that
13 did not. Both chi-square analysis and test of means on income revealed that the programme
14 had impact on the income of the nomads. The study recommended that if milk processing
machines and industries are provided for the processing of their livestock products by Nigerian
Government,
the income of the nomads will be enhanced.

Key: Nomads, Income, Income generating, Participating, Non participating, Intervention
Communities.

15 1.0 INTRODUCTION

16 The nomadic pastoralist are people that wander from one place to another according to the
17 dictates of the season. Ezeomah (1987) classified the nomadic pastoralist into two groups
based

18 on their mode of settlement. This group was the split movement groups (FulbeWuro) and
total

19 movement group (FulbeNa'ai, Boroje). The pastoralist in Nigeria according to Tahir (1998) are
made up of

20 the Fulani with estimated population of 5.3 million, the Shuwa 1.0 million, the Baduman 35,
21 000 and the fishermen 2.8 million.

22 Nomads are valuable national human resources. Livestock production and breeding in
23 Nigeria is predominantly in the hands of nomadic pastoralist who constitute a major socio-
24 economic group in the country's estimated 15.2 million cattle, 23 million sheep and 28 million
25 goats with substantial holdings of other livestock species (FAO, 2006). Mohammed and Ardo
26 (2010) opined that one of the operational strategies of nomadic education Extension
27 programme is the provision of functional adult education programme for men and women
28 involving income generating activities aimed at alleviating poverty among nomads.

29 The economic base of pastoralist according to Ardo (2000) depends on group herds, sale of

30 milk and processed products. He revealed that the sell of milk and dairy products are expended on family needs and that
31 Cattle from time to time are sold to take care of financial needs beyond subsistence such as
32 medical bills, taxes, ceremonial expenses and clothing.
33 Despite the above enormous contribution of nomads to national building, their
34 participation in the existing formal and non-formal education were abysmally low with literacy
35 rate ranging between 0.2% and 2.9% (Muhammad and Ardo 2010). In order to meet the
36 educational needs of nomads, the Federal Government of Nigeria set up the National

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Commission for Nomadic Education (NCNE) in 1989. The aim of the commission 37 was to educate
38 the nomads in all ramification of life and to improve their standards of living through
39 establishment of nomadic school and provision of extension services. The actual intervention of
40 NCNE in the provision of extension services according to Muhammad and Ardo (2010) began in
41 1996 to 1997. The nomadic education agents were posted to various nomadic communities to
42 educate and enlightened postural nomads on the acquisition of relevant skills for the
43 improvement of livestock production, provides practical lessons on animal health and
44 husbandry, provide training for nomadic adult in numeracy on livestock number, ability to read
45 labels and direction on drugs, encourage nomads to engage in self help projects, form co46
operative societies and assist pastoralist to acquire appropriate skills, abilities and competence
47 to contribute to development.
48 The impact of nomadic extension agents can be felt by assisting nomads to identify appropriate
49 income generating activities through formation of cooperative society and encourage nomads
50 to participate in poverty alleviation, food security and rural development activities (Saidu
51 2000). The commendable work of nomadic extension agents towards increasing income of
52 nomads was seen through formation of 88 pastoralist cooperative societies and 10 of them
53 benefited from FEAP loan across the country (Tahir 1999). The activities of nomadic extension
54 cannot be achieved without education. Ezeomah (1982) contended that it is only through
55 education that the live style and productive activities of nomads can be improved. The study
56 therefore was designed to determine the impact of nomadic education programme activities on
57 income of nomads in nomadic communities in Adamawa State Nigeria.

58

59 1.0 RESEARCH METHODOLOGY

60 A well-structured questionnaire which was pre-tested for validity and reliability using test61
retest method were administered to the respondents. The validity and reliability test of the
62 items on the questionnaire were carried out in nomadic community in DigilMubi North Local
63 Government Area of Adamawa State. The result of the pre-test showed that the coefficient
of
64 reliability test was high ($r=0.84$) meaning that the items on the questionnaires were valid and
65 reliable to measure the variables.
66 Purposive and multi-stage random samplings were employed for the study. The purposive
67 sampling was used to select three Local Government Area in Adamawa state, namely
Song, Girei
68 and Yola south where nomadic extension programme started as a pilot project. The multi
stage
69 sampling techniques was used to select nomadic communities and respondents in the
selected
70 local government areas. In the first stage, three communities were selected from each of the
71 three local Government Areas giving a total of nine (9) communities used for the study. The

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second stage was the selection of twenty respondents who were participants 72 of nomadic
73 extension programme from each of the nine communities using simple random sampling.
The
74 comprehensive list of the participating nomads were obtained from the nomadic extension
75 agents in the study areas and used as the sampling frame. In the third stage, three
communities
76 were selected from non participating areas in each of the three Local Government Areas
used
77 for the study giving nine (9) communities. Twenty respondents were selected from each of
the
78 nine non-participating communities the total number of respondents used for the study was
79 360 i.e. 180 participants of nomadic education extension programme and 180 non
participants.
80 The data obtained was analyzed using descriptive and inferential statistics namely
percentage,
chi-square (χ^2) and two sample t-test.

82 3.0 RESULT AND DISCUSSION

83 Table 1. Indicated the income of the respondents. 51 percent of the respondents that
received
84 the intervention had income of N 80,000 and above per annum as against 27.21 percent in
nonparticipating
communities. There are more respondents (27.78%) in non participating
86 communities whose income was below N 80,000 than participating communities. The
difference in income earning between the both groups indicates a change that could

beattributable to the impacts of participating in theprogramme as the group that participated seems to earn higher than the other group.

87

88 programme activities.

89 **Table 1. Distribution of Respondents Based on income per Annum.**

90 **EARNING INCOME PARTICIPATING NON PARTICIPATING**

91 **F % F %**

92 Yes 180 100 180 100

93 No 0 0

94 **Income**

95 <20.000 15 8.33 30 16.67

96 20,000-39,000 59 32.78 71 39.44

97 40,000-59.000 12 6.67 18 6.67

98 60,000-79.000 4 2.22 12 6.67

99 80,000-99.000 5 2.78 20 11.11

100 100,000 and above 85 48.22 29 16.1

101 **Source: Field Survey, 2011**

102

103 **Table 2.** Signified that nomads under the nomadic education extension programme were more

104 into diverse income generating activities than in communities without the programme.

About

20.19% and 18.89% for instance, were engaged in crop production and other activities in nomadic communities, while 5.24% and 0.5% were engaged in crop production and other activities in non participating communities. This result, therefore, indicated that there were more respondents in communities that participated with diverse income generating activities

109 than in communities that did not. This difference could be attributed to the activities of

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nomadic extension agents of the NCNE who advises farmers to embrace diversified income generating activities. Crop production is gaining high acceptance by nomads in communities that had opportunities of coming in contact with nomadic extension agents.

113

114 **Table 2. Distribution of Respondents Based on Income Generating Activities**

115 **Income Generating Participating Non Participating**

116 **Activities F % F %**

117

118 Animal Fattening 45 8.87 38 9.47

119 Cattle Production 146 27.55 110 27.43

120 Sheep Production 80 15.09 60 14.96

121 Goat Production 61 11.51 45 11.22

122 Poultry Production 54 10.19 36 8.98

123 Crop Production 107 20.19 21 5.24

124 Milk Production 25 4.72 89 22.19

125 Others 10 1.89 2 0.5

126 **Source: Field Survey, 2011**

127

128 **Table 3.** Showed that there was **an** increase in earnings of nomads under nomadic education

129 extension programme than in communities that did not. There were increase in income of participating nomads by 8.62% fattening, 8.14 sales of cattle, 21.8 %, sales of sheep 24 %130 % sales of poultry, 15.23 % sales of crops and 47.02 %131 % in other income generating activities over

132 the income of those that did not participate. Apart from traditional sales of animals such as 133 cattle, sheep, goat, and poultry, it was observed that nomads were also engaged in processing

134 products such as cheese, (Mai Shanu), processed maize, sorghum and millet (Fura and Dambu).

135 The nomads also **engage** in weaving traditional caps and other traditional attires. These other

136 activities add to their income. The difference in income from income generating activities could

137 be as a result of advice by nomadic extension agents in the communities on the need to 138 diversify their sources of income.

139 **Table 3. Income from Income-Generating Activities in Naira**

140 **Income Generating Participation Non Difference Percentage% Difference**

141 **Activities participation**

142

143 Fattening 1,095.000 921,270 173,700 8.62

144 Sales of cattle 14,481.010 12,301.510 2,179,500 8.14

145 Sales of sheep 1,400,000 989,210 501,398 21.81

146 Sales of Goat 441,000 383,210 57,790 7.01

147 Sales of poultry 177.000 165.880 11,120 3.24

148 Sales of Crop 2,675.200 1,968,200 707,000 15.23

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Sales of milk 61,380 60,820 560 149 0.46

150 Others 77,700 28,000 49,700 47.02

151 **Source: Field Survey, 2011**

152 **Table 4.** Showed a difference in income of the two groups. There were higher income from 153 income generating activities in participating communities than in those that did not. For 154 instance, while nomads that receive the intervention had mean income of N6083.3 In animal

155 fattening, the control group, had N 5118.2 as their mean income. The mean differences in 156 income from income generating activities were all positive. This difference could be attributed

157 to the activities of nomadic extension agents posted to such communities. This result
 agreed
 158 with that of Bello et al (2011) who concluded in his study that nomadic education extension
 159 programme had positive impact on the pastoralist who gained knowledge and were actively
 160 involved in livestock related income generating activities through cooperative society and
 161 management.

162 **Table 4. Mean Income from Income Generating Activities.**

163

164 **Income Generating Mean income Mean income of Difference in**
 165 **Activities of Participation (N) Non participation (N) Mean**

166

167 Animal Fattening 6083.3 5118.2 965.17

168 Sales of cattle 80450 68342 12108

169 Sales of sheep 10413 5495.6 4917.7

170 Sales of Goat 2450 2128.9 321.06

171 Sales of poultry 983.33 919.61 63.722

172 Sales of Crop 14626 11406 3580.7

173 Sales of milk 354.56 341 13.556

174 Others 431.67 155.56 276.11

175 **Source: Field Survey, 2011**

Table 5.The summary of the Chi-square (χ^2) analysis of the relationship between
 participation

177 in nomadic education extension programme and income level. It revealed that there is
 178 significant relationship between participation in Nomadic Education Extension Programme
 and

179 level of income of the nomads. This means that Nomads who participated in Nomadic
 180 Education Extension Programme had income level higher than those that did not.

Participation

181 in Nomadic Education Extension Programme increase income and hence changes in income
 level, as a result of knowledge gained from change agents. Also the Chi-square (χ^2) analyses
 on

183 the relationship between participation and income generating activities showed a
 significant

184 relationship. In (Table 5), the nomads who participated in Nomadic Education Extension

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Programme were more into different income generating activities than those 185 that did not.
 The

186 major reason of change in income level was as a result of extension activities which
 improve

187 the income of nomads. The nomadic extension agents educated nomads, on the need to

188 participate in diversified income generating activities to boost their income.

189 **Table 5. The Relationship between Participation in Nomadic Education**
190 **Extension Programme**
191 **and Income.**

Income df X² Cal X² 191 Tab Remarks

192 Income Level 4 17.81 13.81 Significant

193 Income

194 Generation activities 7 97.94 24.32 Significant

195 At 0.01

196 **Source: Field Survey, 2011**

197

198 The two sample t-test as shown in table 6 revealed that there were statistical significant
199 difference in means between participating and non-participating in the sales of sheep and
200 crops. The P-value for the sales and crops were less than the critical P value of 0.05. Also
the T

201 cal for sheep (4.13) and crops (2.04) were greater than T critical (1.96). Since P value < P
critical

202 and T cal > T critical, it means that there were mean difference in sales of sheep and crops in
the

203 two communities. Though all other income generating activities had positive means
difference,

204 they were not statistically significant. This result therefore signified that nomadic education
205 extension programme had impact on sales of sheep and crops but the impact was not yet
felt in

206 fattening, sales of goats, sales of poultry and other income generating activities. This
suggests

207 that extension agents **need** to advice nomads on marketing of their animals.

208 **Table 6. Test of Means of Income from Income Generating Activities.**

209 **95% CI for Difference**

210

211 INCOME MEAN MEAN INCOME

212 GENERATING INCOME NON

213 ACTIVITIES PARTICIPATING

214 PARTICIPATING DIFFERENCE DF T P LOWER UPPER

215 Fattening 6083.3 5118.2 965.17 353.5 0.89 0.373 -1165.3 3095.6

216 Sales of cattle 80450 68342 12108 357.1 1.38 0.1694 -518512 29402

217 Sales of sheep 10413 5495.6 4917.7 317.9 4.13 0.0000 2573.3 7263.1

218 Sales of Goat 2450 2128.9 321.06 333.6 0.64 0.5254 -672.42 1314.5

219 Sales of poultry 983.33 919.61 63.722 351.7 0.031 0.7605 -347.13 474.57

220 Sales of Crop 14626 11406 3580.7 332.7 2.04 0.0422 127.64 7033.7

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Sales of milk 354.54 341 13.554 349.7 0.26 0.7955 -116.35 89.23221 9

222 others 431.67 155.54 276.11 340.3 14.44 0.1518 -101.97 654.19

223 **Source: Field Survey, 2011**

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226

227 **CONCLUSIONS:**

228 The findings reported in this paper suggest that it is through education that the income
229 of nomads could be improved. Nomadic education extension programme had positive and
230 significant impact on the income and the income generating activities of the nomads.

However,

231 since the nomads constitute an important sector of Nigerian economy, their integration
into

232 the main economy through more development programme provide a good thresh hold for
233 them to actualize their income generating potential.

RECOMMENDATION

Based on the findings of the study, the following recommendations are made:

- It was observed that the nomads had no modern facilities to process their animal products hence it affects their income generating activities. The nomads need to be encourage by granting them loans to buy milk processing machines or open up industries where they could sell their livestock products.
- Nomadic extension agents should intensify efforts in forming more cooperative societies to attract incentives at subsidized rates from Government and non Governmental organization which will boost their income.

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