



# PROJECT PROPOSAL

## PART A SUMMARY INFORMATION

**Project Title:** Train and change lives of 1000 Young Women in Port Moresby for smart micro-entrepreneurship

**Name of organization :** People's Action For Rural Development (PARD)

**Contact Name and Title :** Mr. Joseph Pumai, Executive Director

**Postal Address:** Vision City, P.O. Box 163, Waigani, NCD

**Telephone/fax numbers:** (675) 542,1053 or 71448620

**E-mail address:** jppard16@gmail.com

**Location of proposed project**

Province(s): **NATIONAL CAPITAL DISTRICT**

District(s): Port Moresby

4 LLGs within the selected district.

LLG(s) or Selected Wards:

Estimated project duration 12 Months.

Mr Joseph Pumai  
PARD Programs Director  
Phone: 71448620  
Email: jppard16@gmail.com

## **1. PROJECT BACKGROUND**

### **1.1. Women and Girls Entrepreneurial Ability and Behavior Development for Smart Micro-entrepreneurship and Poverty in Port Moresby**

Over 20,000 young women and girls are struggling to survive in Port Moresby, Papua New Guinea (PNG). Most of these women and girls are illiterate and/ or have low formal education. They are formally unemployed and are engaged in informal income generating activities, including working as sex workers and also searching for food in the dumps. The Melanesian society culturally conditioned women and girls to occupy sub-ordinate position and are not allowed to make political and economic decision also restricted from giving public speeches. The bride price payment culture creates the perception that husband bought the wife and owns it as a property. This perception had led to sexual violence and abuses of women and girls rights. The cultural barriers push more women and girls to try find ways of surviving as they are not given for formal education and parents thought they would be sold for bride price.

Women are important economic agents at the household level and contribute more labour effort to agricultural production than men. 85% of 7.6 million people in PNG are engaged in its dual economy for sustaining their livelihoods through subsistence and semi-subsistence life style making product to sell for cash. Women pursue many cash generating activities, both agricultural and non-agricultural, to support the livelihoods of their families. Young women in Port Moresby, pursue formal and informal income generating activities for survival. Urban migration to Port Moresby and other towns increases the number of unemployed young women in the city. Young women comprise a segment of the population where they encounter extreme poverty and hardship in their livelihood strategies. Turning to sex work is an alternative income generation activity which PARD aims at preventing. Hunger is a casual effect of poverty. PARD stands on the perspective that young women with adequate capacity can become successful entrepreneurs and progress out of poverty. Entrepreneurship is the key to poverty alleviation and economic growth. A well planned entrepreneurial ability development and behavior change program can change young women's approaches to improving their livelihoods. Young women upon development of their capacities should have easy access to seed funds to start profit-oriented micro- and small enterprises.

#### **1.1.1 Entrepreneurship**

Private sector development is a famous objective of governments in developing countries as they see as one of the development strategies to facilitate and stimulate entrepreneurship revealed by, for example, Minniti (2008a), as cited by (Naude, 2009). 'Entrepreneurship' is the key to economic growth at the local, provincial and national levels. Dejardin (2000:2), as cited by Naude (2009) stated that because as 'entrepreneurship is the main vehicle to economic growth and development' (Anokhin et al. 2008:117); 'the

more the entrepreneurs in an economy, the faster it will grow.' Naude reviewed Holcombe's (1998:60) premise of 'the engine of economic growth in the entrepreneur.' The definitions of entrepreneur, entrepreneurship and self-employed are important to comprehend what is actually happening in a country. The scholars have given varied definitions of entrepreneurship, but we adopt the collective definition (Ahmad and Seymour, 2008, pp.5), integrating all the other definitions:

"Entrepreneurship is the phenomenon associated with the entrepreneurial activity, i.e. the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets." (Ahmad & Seymour, 2008).

Or, entrepreneurship is just about "the discovery and exploitation of business opportunities" (Shane and Venkataraman, 2000). It is narrowly stated that entrepreneurship is the "act of starting and continuously expanding new businesses" (Hart, 2003:5), as cited by Gries & Naude, 2009).

### **1.1.2 Young Women Entrepreneurs and Poverty Alleviation**

Entrepreneurs are people who start new businesses to improve quality of goods and services in the existing markets, or create new products for new markets. In PNG, the benchmark is the subsistence food crops and livestock production. Entrepreneurs are those that register a business name or company to start providing goods and services aimed at a new market or existing market. Young women can become entrepreneurs and create employment opportunities for other less talented people. 10% of a given population is said to have entrepreneurial ability and the right kind of behavior for starting and managing a business, not everyone in the population. Entrepreneurs create employment opportunities for those who are not entrepreneurs.

### **1.1.3 Young Women and Innovation**

Schumpeter (1934) defined six different types of innovative activity: new products, new services, new methods of production, opening new markets, new sources of supply, and new ways of organization. Process innovation, product innovation and business concept/practice (new ways of doing business). Due to high illiteracy and low formal education in PNG, the indigenous people need capacity building to capability strengthening to find new ways of doing things rather than the traditional life of gardening, hunting and fishing. PARD views capacity building as highly important for innovation and adaptability.

### **1.1.4 Lack of Financial Development**

Financial development occurs in a district when an increasing number of self-employed one-man business operators, particularly, in agricultural production progressed to starting new formal business due to access to credits. Talented entrepreneurs are constrained from starting a new business when they are not able to access credit services. Financial development pushes more talented entrepreneurs to new businesses. As more formal

businesses are created, the level of employment opportunities increases, thus talented entrepreneurs prefer to work for wage, thus more poor self-employed become entrepreneurs. As more talented entrepreneurs shift to formally paid jobs, more poor agricultural self-employed, one-man business owners become entrepreneurs, thus the lenders now have more quality borrowers to lend. Financial development has a direct relationship with access to financial services, entrepreneurial ability development, employment of skilled workers, and more self-employed people in the agricultural sector start new formal businesses. Small entrepreneurs commonly encounter the following problems: 1) have no scale of economies in both input and output, 2) disadvantaged in gaining access to tangible and intangible resources, 3) do not have access to scientific knowledge, 4) have poor management skills, and 5) do not know how to develop strategies to counteract on adverse situation for survival of businesses.

### **1.1.5 Microfinance, Women and Poverty Alleviation**

Microfinance is a poverty alleviation tool for poorest people to access credits and save small amounts of money. The women's village bank methodology was first developed during the 1980s in Bolivia by John Hatch, Rupert Scoffed, and Aquiles Lano (Hatch, 1987). Hatch subsequently established the FINCA in 1984, to expand the village banking model to rest of the Latin America. The model was adapted in different local economic, social, and cultural systems all over the world. In PNG, FINCA's village bank methodology was modified and applied after a visit by the managing director of PNGBC to FINCA in Uganda (John D. Connoy, 2009). The Village Finance Ltd (VFL) was established as a subsidiary of the PNGBC to extend micro-financial services to the informal sector population which comprised 85% of the country's population. Concurrently, the BPNG relaxed the regulatory policies for the VFL such as licensed for all domestic banking services, a complete control on its own deposits and interest rates, and further not regulated on reserve requirements (John D. Connoy, 2009). It was reported that PNGBC admitted the difficulties encountered and said was unable to achieve the objectives. John D Connoy (2009) analyzed the work of the early savings and loans societies, PNGBC and the National Development Bank, found that a major de-banking process occurred where the number of branches in the main towns and rural stations closed. PNG Development Strategic Plan 2010-2030, stated despite numerous attempts by the national government and various international development organizations (AusAID, UNDP, ADB), but none managed to close the gap. Later many micro-credit programs and micro-financial institutions had evolved to serve poor women as the major target group for income generating activities which can lead to death. The target segment of the population comprises of unemployed street vendors and sex workers in Port Moresby. The project will initially trial 500 women and girls who meet the criteria to go through the microfinance and poverty alleviation.

## 2.0. Project Definition and Scope

This project aims at identifying young women affected by poverty and are in dangerous situations in informal entrepreneurial ability development and behavioural change training program. The learning outcomes include financial literacy, entrepreneurial ability development and behavioural change education, small business planning and management. The participants who have completed the training program graduate and are certified to have completed the courses. They are eligible for initial seed fund and savings investment funds. The initial fund helps to start a micro-enterprise. The savings investment is an amount of money, about US\$50.00 invested in a money market collectively. The project duration is 12 months. Young women in critical poverty situations are locked into poverty and their children can inherit poverty for generations. The project models a poverty alleviation approach that change disadvantaged poor young women to increase their intellectual ability to fight poverty. Smart entrepreneurship is a forward for economic development and poverty alleviation. From an initial 1000 young women trialing, the program will reach up to 100,000 women and girls in Papua New Guinea, Solomon Island, and East Timor.

## 2.0 Description of proposed activities

The project activities are linked to the budget and further specify outputs and outcomes to be achieved which to determines whether the projects have been achieved or not. The activities programmed and the prior activities should be completed and the outcomes evaluated to progress to the next phase of the project. The activities are basically training and educating young women removed of dangerous social systems to change their behavior and capacity to become smart micro-entrepreneurs and change their lives to live a life without poverty or struggling in poverty. The project activities are to be implemented in Port Moresby, the capital city of Papua New Guinea.

The core project activities are:

- i) Observing and identifying young women in poverty and dangerous situation. Facilitate a counseling process to restore affected young women to prepare for their participation in the education and training program for smart micro-entrepreneurship.
- ii) Conducting financial literacy to help young and girls understand family budgets, income and expenditures, savings plan and savings monitoring, and investment planning.
- iii) Train the selected young women to learn skills and attitudes which are suitable for smart micro-entrepreneurship.
- iv) Guide the participants to development a business plan and manage its implementation.
- v) Plan affiliation to member owned organization leading savings investment in the formal money markets.

## 3. Project Objectives

### 3.1. Project Objectives

**Objective 1:** Identify 1000 young women in dangerous situations and provide counseling for restoring their life.

**Objective 2:** Train 1000 young women for smart and effective micro-entrepreneurship.

**Objective 3:** Help the participant save money in formal money markets, for long term financial security.

### **3.2. Specific Milestones**

The specific milestones which will indicate successful completion of each phase leading to the overall completion of the project are:

1. 1000 young women in dangerous situations identified, registered and counseled to enter the entrepreneurial ability development and behavior change education.
2. 1000 young women counseled to restore psychological disturbances.
3. 1000 women and girls trained in financial literacy.
4. 1000 women and girls complete entrepreneurial ability development and behavior change education.
5. 1000 women and girls complete micro-enterprise planning and management training.
6. 1000 women and girls graduate with certificate.
7. 1000 micro-business plan completed by the participants and approved for initial seed fund support.
8. Each micro-entrepreneur gets US\$90.00 for initial seed fund.
9. Each micro-entrepreneur gets US\$20.00 for savings investment.
10. Project completion report submission.

PEOPLE'S ACTION FOR RURAL DEVELOPMENT :

#### 4. Project objectives and outputs

<b>Project objectives</b> <i>(Objectives to be achievable in the timeframe of the project)</i>	<b>Outputs</b> <i>(measurable, specific and achievable)</i>
<b>Objective 1:</b> Identify 1000 young women in dangerous situations and provide counseling for restoring their life.	Output 1.1: 1000 young women removed from dangerous situations and counseled.
	Output 1.2: 1000 young women sign agreement to participate in the entrepreneurship development program.
	Output 1.3: Case of the participants in the past five years.
<b>Objective 2:</b> Train 1000 young women for smart and effective micro-entrepreneurship.	Output 2.1: 1000 women trained in financial literacy training.
	Output 2.2: 1000 women trained in entrepreneurial ability development and behavior change education.
	Output 2.3: 1000 young women trained in micro-enterprises planning and management.
<b>Objective 3:</b> Help the participants save money in formal money markets, for long term financial security.	Output 3.1: 1000 women and girls affiliate to PARD for savings facility access and investment.
	Output 3.2: 1000 women and girls assisted to make initial savings for interest earning.

## 5.0 Project Activity Plan

Objectives	List all Outputs that correspond to each objective	List all Activities that correspond to each output	Resources to implement activities (to help you develop the budget)	Responsible group (for delivery of activities)	Timeframe (anticipated month from – to)
<b>Objective 1:</b> Identify 1000 young women in dangerous situations and provide counseling for restoring their life.	Output 1.1: 1000 young women removed from dangerous situations and counseled.	1.1.1. Use participant observation and identify women and girls in dangerous situations.	➤ Vehicle to travel around city to observe young women. ➤ Stationery and computer to process information. ➤ Meeting cost per head. ➤ MIS.	PARD officers.	1 month
	Output 1.2: 1000 young women sign agreement to participate in the entrepreneurship development program.	1.1.2. Mobilize participants and them in groups of 50.  1.1.3. Create file for each participant in an information system.	➤ Personnel for typing and printing costs.		1 month
	Output 1.3: Four restoration centres established in each district to process and train identified young women.	1.2.1. Each participant signs an agreement with PARD to affiliate and access products and services delivered.  1.2.2. Register for each participant for training, seed fund access, and initial savings investment product access.	➤ Forms printing cost.		Two weeks.
		1.3.1. District 1 1.3.2. District 2 1.3.3. District 3 1.3.4. District 4	National Capital District Commission supports PARD with four district processing and training in each district of 250,000 people.	NCDC officers delegated responsibilities to this project.	12 months.



<b>Objective 2:</b> Train 1000 young women for smart and effective micro-entrepreneurship.	Output 2.1: 1000 women trained in financial literacy training.	2.1.1. Prepare training materials.	Training materials.	PARD trainers	3 months
	Output 2.2: 1000 women trained in entrepreneurial ability development and behavior change education.	2.1.2. Train 50 young women per training.	Evaluation forms.	PARD trainers	3 months
		2.1.3. Evaluate training.		PARD trainers	
		2.2.1. Prepare training materials.	Training materials	PARD trainers	
	Output 2.3: 1000 young women trained in micro-enterprises planning and management.	2.2.2. Train 50 young women per training.		PARD trainers	3 months
		2.2.3. Evaluate training.		PARD trainers	
		2.3.1. Prepare training materials and communicate for training.	Evaluation forms	PARD trainers	
		2.3.2. Train 50 young women per training.	Training materials	PARD trainers	
		2.3.3. 1000 micro-enterprises plan completed for evaluation.		PARD trainers	
		2.3.4. Training evaluation.	Micro-enterprise plan	PARD trainers	Developed during training.
			Evaluation forms	PARD trainers	After training.

<b>Objective 3:</b> Help the participants save money in formal money markets for long term financial security.	Output 3.1: 1000 women and girls affiliate to PARD for savings facility access and investment.	3.1.1. Awareness meeting for affiliation.	Awareness brochures	PARD officers	1 month
		3.1.2. Affiliation form filled and signed.	Affiliation forms printed.	PARD officers	1 month
		3.1.3. Initial savings fund deposited into the participant's account.	Initial savings investment made available.	PARD officers	1 month
	Output 3.2: 1000 young women develop savings investment plan.	3.2.1. Affiliates develop savings and monitor interest returns over time.	Savings plans and interests monitoring .	PARD officers//Partners	6 months

## 6.0. Performance Evaluation

The key performance indicators (KPIs) of this project which will direct monitoring and evaluation to measure the achievement of the objectives and outcomes are outlined in the table below.

Objective	Indicators  Things you can measure to show progress towards the objective.	Methods of data collection How will you gather indicator information	When will this occur?	Who will lead this activity?	How will the information be used or shared with others?
<b>Objective 1:</b> Identify 1000 young women in dangerous situations and provide counseling for restoring their life.	<p>Output 1.1: 1000 young women removed from dangerous situations and counseled.</p> <p><b>Indicators:</b></p> <p>Output 1.2: 1000 young women sign agreement to participate in the entrepreneurship development program.</p> <p>Output 1.3: Four restoration centres established in each district to process and train identified young women.</p> <p>a) Increased knowledge of and ability to identify income, do family budget, and do savings plans for future need.</p> <p>b) Completed family or personal budget and further completed savings plan.</p> <p>b) Passed simple character test.</p> <p>c) Passed simple entrepreneurial ability test.</p>	<p>Conduct interviews, pre- and post- tests (e.g. knowledge survey)</p> <p>Identify interview young women found to be in dangerous positions.</p> <p>Counsel and conduct written surveys.</p> <p>Collect data on number of affected young women in the district.</p> <p>Use family budgets and savings to assess their economic status.</p> <p>Changes in character observed and recorded.</p> <p>1000 young women show their competency.</p>	<p>First month of the project implementation.</p> <p>Second month of the project implementation.</p> <p>When the participants pass through the training and education program.</p>	<p>The Project Manager, ALSs, government officers and PARD trainers.</p>	<p>Publish articles, project report, and journals.</p> <p>Simple booklets.</p>

<b>Objective 2:</b> Train 1000 young women for smart and effective micro-entrepreneurship.	Output 2.2: 1000 women trained in entrepreneurial ability development and behavior change education.  <b>Indicators:</b>  a) Right entrepreneurial ability and behavior applied in micro-enterprises. b) 1000 women completed micro-enterprises plans. c) 1000 family or personal budgets and savings plans completed.	Knowledge and skills level assessment prior to training and education of the projects.	After completion of financial literacy and entrepreneurial behavior change training.	PARD trainers, business development officers from the Government, the ALSs and the Project Manager.	Sample business plan, cash flow forecast format, and cash book templates.
	Output 2.3: 1000 young women trained in micro-enterprises planning and management.  <b>Indicators:</b>  <i>a) 1000 micro-enterprises plans completed.</i>  b) 1000 cash flow forecasts completed.  c) 1000 cash book templates completed.	Young women trained to competently design business plans, cash flow forecasts and cash book systems.	After completion of the micro-enterprises planning and management training.  Micro-business plans, cash flow forecasts, and cash book format trialed and approved.	As above.	Replication of the project made to reach 100,000 young women.

<p><b>Objective 3:</b> Help the participants save money in formal money markets for long term financial security.</p>	<p>Output 3.1: 1000 women and girls affiliate to PARD for savings facility access and investment.</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>a) 1000 young women affiliate and make savings investments of small amounts.</li> <li>b) 1000 X US\$50.00 = US\$50,000.00 (initial assisted savings).</li> <li>c) Monthly interest generated.</li> </ul> <p>Output 3.2: 1000 young women develop savings investment plan</p> <p><b>Indicators:</b></p> <ul style="list-style-type: none"> <li>a) 1000 young women have a savings investment plans.</li> <li>b) Investment made at 60% of the participants.</li> <li>c) Interest channeled to the investors.</li> </ul>	<p>Young women understand how they make savings investments and earn interest.</p>	<p>When the micro-enterprises plans are implemented and Performance measured.</p>		<p>Savings investment plans replicated to 100,000 thousand women after the pilot test.</p>
---	---	--	---	--	--

## 7.0.Risk Analysis and Management

Risk is an event if it occurs can cause negative or positive effects that can lead to project failure or create new opportunities for new products and services creating new markets. In this project, the following risks are identified which need analysis to prevent or minimize the likelihood of the risk event occurring which would be detrimental and can cause project failure. The major risks which may affect the success of this project are identified and listed in the below. The risk management strategy is outlined to ensure the risks do not cause any failure of the project.

Code	Risk Factor	Description of adverse effect	Likelihood	Mitigation Strategy
1	Divorced wives	Feel ashamed to expose themselves to social programs.	medium	Counsel and direct them to learn knowledge and skills for long term survival.
2	Sex workers	Compare income generated and may decide continue.	high	Counsel and emphasize the dangers of living this kind of life.
3	Dropping out	May not quickly adapt to smart entrepreneurship.	medium	May drop as they are not able to quickly. Supervise quickly.
4	HIV/AIDS patients	Discrimination and stigmatization	high	People are reluctant to buy their products. Use another family member to help.
5	Unemployed college graduates	College without employment may go into dangerous activities.	medium	Provide guidance and support for smart entrepreneurs.
6	Current income level better	May feel that being an entrepreneur consumes more time.	low	Develop and educate the entrepreneurs to think differently and work harder.
7	Current activity easier to earn money	Subjects may feel current income generating activity easier to earn money.	medium	Counsel and mentor the participants of becoming successful entrepreneurs.
8	Illiterate young women	May not be effective then literates.	high	Quick learning programs adapted.

## 8. Long Term Impacts

Each young woman who passed through the entrepreneurial ability development and behavior change education program would be more intellectually competent and should be smart entrepreneurs who have the capacity to plan and manage micro-enterprises effectively and thus generate profits and accumulate wealth, leading to poverty alleviation. The beneficiaries are key people in leading poor families out of poverty. The participants are agents of change in their communities and help other women to become smart entrepreneurs and progress out of poverty and hunger. As more women and girls entrepreneurs are led to be successful in generating profits in various industries, this approach can achieve economic development, leading to the achievements of the Sustainable Development Goals

(SDGs). Poverty alleviation , women protection and empowerment, children's rights protection, gender equality and gender equity, and economic development in environmentally sustainable ways.

## **9.Sustainability**

The project outcomes create changes which give rise social and economic impacts which are solutions to the problems or issues the project aims to achieve. Young women and girls who got out of poverty and became smart entrepreneurs generate profits and interests from their savings investments such that create employment for other women and girls who are less talented. The financial sustainability and growth of their micro and small enterprises should be lay foundation for their families to become middle income earning such poverty does not inflict sufferings anymore.

## 10. Project Budget

NAME OF Applicant Organisation: PEOPLE'S ACTION FOR RURAL DEVELOPMENT								
Project Title :								
Last Updated: 24/02/2018								
Description of Resources by Output	Type of Unit (eg day, month, person day,	Cost per unit	Total Budget Required	Donations contribution (A)	Beneficiary contribution (B) cash and/or in-kind	Applicant organisation's contribution © cash and/or in-kind	Contributions from other sources (D) cash and/or	Total contributions (A+B+C+D)
<b>Output 1.1 District DSIP Project Management</b>								
1.1.1: 1 Project office at monthly lease payment (12)	Month	1,204	14,448	14,448				14,448
1.1.2: Wages for the new personnel recruited : 1	Month	261	3,132	3,132		-		3,132
1.1.3.Project/Program Manager (12)	Month	522	6,264	6,264				6,264
1.1.4: Entrepreneurial development Ability Trainer (1) x 12	Month	391,3	4,696	4,696				4,696
1.1.5: Project Finance Officer (1 X 12)	Month	422	5,064	5,064				5,064
<b>Sub Total</b>			<b>33,604</b>	<b>33,604</b>		-		<b>33,604</b>
<b>Output 1.2: 500 potential young women entrepreneurs trained</b>								
1.2.1. Identify and remove poor young women from dangerous situations.	Meeting (34)	181	6,154	6,154				6,154
1.2.2. Educate and counsel for restoration.	Counseling X 1000	5	5,000	5,000				5,000
1.2.3. Financial literacy and income sources planning.	Training 1 X 1000 participants	10	10,000	10,000				10,000
1.2.4. Entrepreneurial ability development and behavioral change training,	Training 2 X 1000 participants	15	15,000	15,000				15,000
1.2.5.Micro- and small business planning and management training	Training 3 X 1000 participants	20	20,000	20,000				20,000
1.2.6. Business plan registration for seed fund	Document X 1000	50	50,000	50,000				50,000
1.2.7. Participants graduate as entrepreneurs.	Graduation	4	4,000	4,000				4,000
1.2.8. The ALs provide monthly monitoring reports (12 ).	Month	5	60	60				60
<b>Sub-total:</b>			<b>110,214</b>	<b>110,214</b>				<b>110,214</b>
<b>Output 1.3: Young women's micro-enterprises plan financed and supervised.</b>								



1.3.1. Supervised and completed micro-enterprise plan	Plan X 1000	5	5,000	5000				5,000
1.3.2: Micro-entrepreneurs operate their micro-businesses and supervision.	Micro-enterprise X 1000	5	5,000	5,000				5,000
1.3: 3, Profitability and growth assessed.	Report X 1000	5	5,000	5,000				5,000
1.3.4. Printing and internet access cost.	Month	100	1200	1200				1200
<b>Sub Total:</b>			16,200	16,200				16,200
<b>Output 1.4: Poor young women helped to do savings investment</b>								
1.4.1. Participants attend savings meetings.	Meeting 20	150	3,000	3,000				3,000
1.4.2. Savings return plan signed by the applicant.	Plan X 1000	2	2,000	4000				4,000
1.4.3. Saving voluntarily X 1,000	Month	5	60,000	60,000				60,000
1.4.4 . Interest paid on monthly basis.	month	.						
1.4.5. Monthly monitoring report.	month	5	60	60				60
Sub-total:			67,060	67,060				67,060
<b>Total Project Cost (US\$):</b>			<b>227,078</b>	<b>227,078</b>				<b>227,078</b>

## 11. Activity Plan

**Last Updated: 18/2/2018**

[illegible]