



ANNUAL REPORT 2014 - 2015

AVN

in Numbers

15 years of research and implementation in the service of an appropriate housing sector

5 countries and **13** regions of deployment in West Africa

51 employees

1,500 completed construction sites, representing **2,800** standard Nubian Vaults

68,000 m² of NV buildings

700 different localities with at least 1 NV building

380 qualified masons

300 apprentices in training

20,000 end-user beneficiaries

55,000 tonnes of CO₂ eq potentially spared (in construction and lifetime energy efficiency)

2 million euros of local economies generated (in basic structural works)

33% average annual growth of the market in NV construction over the last 10 years



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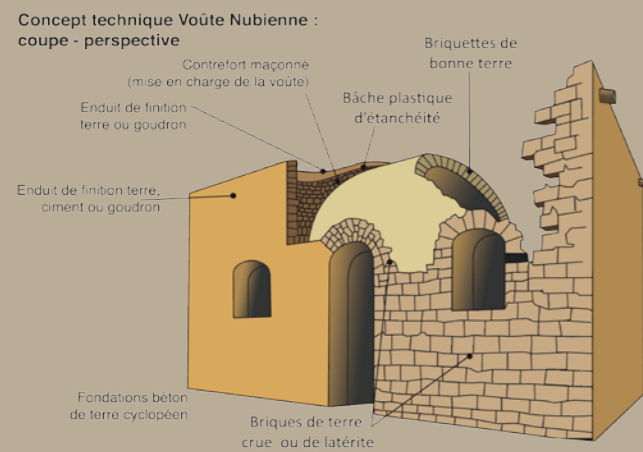
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ADG : association Aide au Développement Gembloux (Gembloux Development Assistance association)
AEDD : Agence Environnement et Développement Durable (Agency for Environment and Sustainable Development)
AFD : Agence Française de Développement (French Agency for Development)
AfDB : African Bank for Development
AKNGS : Association Kombi Naam de Gomponsom pour le Sahel (Kombi Naam Association of Gomponsom for the Sahel)
AOPP : Association des Organisations Professionnelles Paysannes (Association of Farmers' Organizations)
APFI-Burkina : Association de Promotion de la Finance Inclusive du Burkina (Association for the Promotion of Inclusive Finance in Burkina)
ARD : Agence Régionale de Développement (Regional Agency for Development)
AVN : Association le Voûte Nubienne (Nubian Vault Association)
CARI : Centre d'Actions et de Réalisations Internationales (Centre for International Actions and Achievements)
CFBTP : Centre de Formation Batiment Travaux Publics (Construction and Public Work Training Centre)
CFP : Centre de Formation Professionnelle (Vocational Training Centre)
CITET : Centre International des Technologies de l'Environnement de Tunis (International Environment Technologies Centre of Tunis)
CO2eq : Carbon equivalent
COP : Conference Of Parties
CSR : Corporate Social Responsibility
CVECA : Caisses Villageoises d'Épargne et de Crédit Auto-gérées (Self-managed Savings and Credit Village Banks)
DCA : Dubai Charity Association
F-Dyn : Formation Dynamisée (Boosted Training)
FFEM : Fond Français pour l'Environnement Mondial (French Facility for the Global Environment)
FRIO : Fonds de Renforcement Institutionnel et Organisationnel

(Institutional and Organization Reinforcement Fund)
GEF : Global Environment Facility
GERES : Groupe Énergies Renouvelables, Environnement et Solidarités (Renewable Energies, Environment and Solidarities Group)
GIZ : Gesellschaft für Internationale Zusammenarbeit (German development cooperation)
IDB : Islamic Development Bank
IFDD : Institut de la Francophonie pour le Développement Durable (Institute of the Francophone Organization for Sustainable Development)
INDC : Intended Nationally Determined Contributions
MBEP : Mud Bricks with Incrusted Pebbles
MENA : Middle East and North Africa
MFI : Micro Finance Institution
NV : Nubian Vault
OSS : Observatoire du Sahara et du Sahel (Sahara and Sahel Observatory)
PGRNCC : Projet de Gestion des Ressources Naturelles et Changements Climatiques (Natural Resources and Climate Change Management Project)
RHF : Réseau Habitat et Francophonie (Habitat and Francophonie Network)
TNB : Tinyenga Niyemba Burkina Association
UACT : Union des Agriculteurs du Cercle de Tominian (Farmer's Union of the Tominian Circle)
UBTEC : Union des Baoré Tradition d'Épargne et Crédit (Credit and Savings Baoré Tradition Union)
UGN-B : Naam Groups of Bousé Union
UGPCER-N : Union des Groupements des Producteurs de CERéales du Nayala (Nayala Cereal Producers Groups' Union)
UNFCCC : United Nation Framework Convention on Climate Change
VSI : Volontaire en Solidarité Internationale (International Solidarity Volunteer)

In the Sahel, millions of people lack access to decent housing:

wood or straw are no longer available (deforestation, demography)
imported materials are not adapted to economic and climatic realities



THE NUBIAN VAULT

An architectural alternative, using only locally available materials (rocks, earth, water)

The Nubian Vault Association Program in West Africa:
« A Roof + A Skill + A Market »



A ROOF

To kick-start the Nubian Vault market on a local and regional scale

Adapted to the socio-economic context of the Sahel
Improving the lives of as many people as possible

15 years of research and implementation
benefiting the housing sector



A SKILL

To strengthen the technical and entrepreneurial capacities of the Nubian Vault related jobs



Creating green jobs through on-site vocational training
Contributing to climate change adaptation and mitigation

Help as many people as possible, as soon as possible,
to obtain low-carbon, sustainable and quality housing

Allowing the construction of sustainable, comfortable and affordable buildings

Strengthening local economies



A MARKET

To strengthen the capacities of the actors of the Nubian Vault housing sector

A MESSAGE FROM THE FOUNDERS

Séri Youlou, Co-founder of The Nubian Vault Association and Programme Director, Africa

My name is Séri Youlou, I am a farmer in Burkina Faso, and I never had the opportunity to go to school. And yet I am today at the head of an internationally recognized programme. Thomas Granier and I began on such a small scale, riding our bicycles to raise awareness among local villagers, that I could never have imagined such a success. From the bicycle to the car to the airplane... we have grown so much!

Our programme is deployed in several Sahelian African countries: Burkina Faso where it started, then Mali, Senegal, Benin and Ghana. The traditional architecture in these countries, the architecture of our grandparents, was made of earth walls and wooden roofs. Today, there is no more

timber here in the Sahel: the Nubian Vault provided an answer to this problem with the solution of vaulted earth roofs, using neither wood nor corrugated iron.

We see now how fitting our intuition was then, observing today the clients' satisfaction, the readiness of masons to learn the technique and the local economic benefits generated.

I ask for all who read us, all who are touched by the housing problem, to support us so that **together we may reach our objective: to help provide the people of Sahelian Africa with the opportunity to access appropriate and affordable housing.**



Thomas Granier, Co-founder and General Director

The 2014-2015 year was characterized for AVN by both great strides in its development and a difficult season: an unprecedented growth (methodological, financial, geographic and human) for the programme, characterized by the expression of a real interest on behalf of public actors, but also a decrease in production in two countries and weaknesses observed in AVN's relationships with field partners. It has been a time of challenges for the teams, having to learn to develop an evolving programme without neglecting the fundamental mission.

Public and community actors must play their part in supporting the appropriate housing sector. The «Manifesto for appropriate and sustainable housing in Sahelian Africa» promoted by AVN was received with interest and has attracted numerous influential signatures. From advocacy to engagement, AVN will produce a Charter, committing development and cooperation actors in the North and their partners in the South who have signed the Manifesto to respond to this century's economic and environmental challenges.

The mobilization and training of field actors (farmers' organizations, grass-roots community and civil society organizations, etc.) are burdensome and often dispiriting tasks. However, it is imperative that AVN continues down this path as it is evident that the deployment of the programme requires their intervention; the small number of current high quality partnerships clearly demonstrate the value of making this effort.

The Senegalese context makes it difficult for the Programme to reach out to AVN's core target (the rural world), but it has created a strong interest from institutional actors and wealthier groups. This paradox is an asset in the development of a new dissemination strategy as it allows us to capitalize on the national and regional exemplarity of these specific clients.

In Burkina Faso the programme clearly suffered from the revolutionary upheaval at the end of 2014, which occurred just at the start of the NV construction season; for the very first time in the Programme's history, these events induced a negative growth rate! Hopefully, the ensuing revitalization of Burkinabe society will allow a swift return of NV production and accelerated results.

As for Mali, it has fully met expectations with significant production (over 30% annual growth rate), entirely at the service of our core target population - 99% of clients are rural farmers. These results validate on their own the adequacy of both the NV concept and the methodology we use to popularize it and raise awareness about the issues of housing for all in the Sahel.

The northern regions of Benin and Ghana, which illustrate the increasing international deployment of the Programme, show promising progress, in particular among institutional actors. AVN must ensure it continues to prioritize the quality and adequacy of its methods over the production of short-term results, in order to favour a faster (medium-term) and sustained development of the programme in these countries.

The 2014-2015 season therefore represented an opportunity for AVN to conduct a delicate exercise of balance and arbitration between growth and risk-taking.

Strongly solicited, internationally and locally recognized as a leading player for appropriate housing, equipped with a powerful and evolving methodology, our Association must develop the necessary capacities to guide, support and sustain this growth in the long-term, in order for our programme to continue enabling the improvement of living conditions for as many people as possible.

For all your respective commitments to this extraordinary "archi-culture" adventure, I thank you.

1 A RAPIDLY GROWING ORGANISATION

- Evolution of the intervention strategy
- Geographic growth, themes and new partnerships for the 2014–15 season
- Human resources and budgetary growth



Evolution of the intervention strategy

«Adapted housing as quickly as possible for as many as possible»

Since its very inception, AVN wanted to begin a process that would, in the medium and long term, solve the housing problem faced by African countries and regions of the Sudan-Sahel climate zone for as many people as possible.

This process was based on an ancestral architectural technique, the Nubian Vault. Innovative, replicable, low-carbon and fitting into the local economies, this technique is well-adapted. AVN started with the assumption that market distribution was the only way to prove the technical relevance of the concept and guarantee mass uptake by beneficiaries.

Launched in 2000, the «A Roof + A Skill + A Market» programme, which was initially aimed at a rural core target group, has undergone remarkable growth.

At first located in just one region of Burkina Faso (Boromo), it then expanded to new zones more and more rapidly, thus successfully implementing a strategy of increasing dissemination centres. This is a slow but steady race. Indeed, given the current difficulties in innovating (due to econo-

mic and cultural obstacles) and the burden that housing represents (investment, property perspective) to the target populations, promoting a broad, continual expansion was essential.

The first extension of the project was to Mali in 2009, followed by Senegal in 2011. It also expanded to other regions in Burkina Faso in 2012 and Mali in 2013. AVN is now deployed in fourteen regions and began working in two new countries, Benin and Ghana, this season.

In addition to this geographical expansion, we have also expanded our client base to urban populations who benefit from the architectural elements of the NV concept (flat roof terrace, upstairs level, etc.) and from its comfort, as well as to institutional and community owners for whom new types of housing also respond to other major issues (local economy, employment, environment and climate, etc.).

With average annual growth of more than 30% in the number of building sites opened, the NV concept and the Kickstart method it relies on have more than proven their worth in the countries concerned.



That being said, given the extent of existing needs and the current and future situation in Africa (in terms of demography and climate change), in which millions of families do and will not have access to decent, durable housing, AVN wants to increase this growth, reaching and maintaining an annual rate of more than 40% by 2020.

Starting in 2012, it was clear to AVN and its donors (in particular the FFEM and the AFD) that a change in scale would be required.

The geographical spread, client diversification and necessary increase in stakeholders (political actors, civil society bodies, development and cooperation actors, companies and technical operators, donors and investors, etc.) were all competing for the «adapted housing» sector in Africa.

The emergence and concentration of the sector will lead to a true change in scale for the programme.

Thus, while continuing its expansion efforts, AVN, strengthened by its expertise, results and credibility, must also focus on this aspect.

The development of the Nubian Vault market therefore no longer focuses only on strengthening the tools and capacities of all the actors involved in the «adapted housing» sector.

It also relies on:

- its integration into public, national, local and international policies
- the involvement of institutional actors and civil society
- funding models for stakeholders' actions
- the technical and entrepreneurial training of mason-artisans and companies
- the implementation of specific financial tools (loans, subsidies)
- the formalisation of part of the market.

AVN is therefore expanding its framework of intervention and is gradually starting to implement these new activities. The complete roll-out of this strategy of acceleration will, however, take several years. Time is required to develop the appropriate methodologies and implementation tools, as well as to develop the necessary internal skills and those needed by partners and beneficiaries.

1998 - 2000

Tests to revive, simplify and standardize the NV technique: the first NV are built

Technical trials in Burkina Faso
Standardization of the NV concept

1998
2000

Foundation of the French Association

2000 - 2005

Implementation of the NV popularization programme in a first pilot region in Burkina Faso (Boromo)

First client awareness-raising campaigns
First NV built and first generation of masons trained

2003

First public funding (Ministry of Foreign Affairs)

2005

Annual budget of 11,700 € and all activities carried out by volunteers

2006 - 2012

Development of the NV market initiation approach First salaried team First regional and international duplication tests

First community buildings in Mali in partnership with international NGOs

2006

First award:
Ashoka - Changemakers for affordable housing

First team for AVN Burkina Faso, in Boromo
First NV built in Senegal

2007

Tech Awards, in the Economic Development category

2008

First salaried employee for AVN-France
First corporate foundation funding

First AVN Mali team, based in Segou

2009

First International Volunteers to support ANV-BF and launch of AVN-Mali

Formalization of the Kickstart method in Burkina Faso and Mali, with a focus on the rural world

2010

World Bank prize «*Development Marketplace*»

Test constructions in Zambia, Rwanda and Madagascar

2011

SEED Awards for Entrepreneurship in Sustainable Development

Regional duplication in Koubri (Burkina Faso)
First popularization region in Senegal (Podor) with a cooperation partner

2012

Thomas Granier, co-founder is elected Social Entrepreneur of the Year 2012 by the Schwab Foundation

Annual budget: 366,000 €
20 salaried employees

Activities are refocused on West Africa

Regional duplication in Dedougou and Yako (Burkina Faso)

2013 - today

Scale change for the programme and evolution of the intervention strategy in order to accelerate the growth of the NV market

Regional duplication in Bama (Burkina Faso), Koutiala and Dioila (Mali)

2013

Financial support from the French Facility for the Global Environment for a multi-country pluri-annual programme

First AVN-Senegal team, based in Thiès

First housing micro-credit project in Dedougou (Burkina Faso)

Award for the 100 Innovations for Sustainable Development in Africa (Foreign Affairs Ministry) granted to Séri Youlou, co-founder

Dubai Award in the «Transmission» category

First collaborative partnerships with farmers' organizations

2014

Financial support from the French Agency for Development on a multi-country pluri-annual programme

First construction and training incentive measures

Thomas Granier receives the French National Order for Merit

Regional duplication in San (Mali)

First AVN Ghana team, based in Bolgatanga

First AVN Benin team, based in Djougou

First implementation of the Boosted Training programme

2015

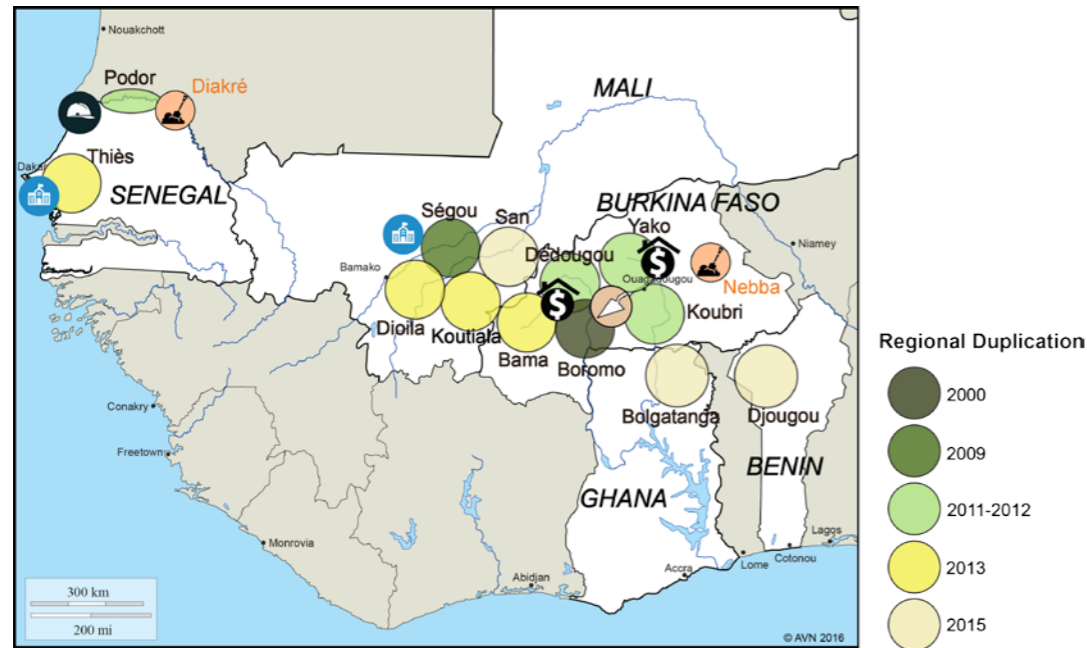
First funding from the MENA zone (DCA, Alwaleed Philanthropies)

UNFCCC Momentum for Change "Lighthouse Activities" Prize and invitation to the COP20 in Lima

First partnership with an African national entity: GEF project with the Ministry for the Environment of Senegal and UNEP

Annual budget: 850,000 €
51 salaried employees

Geographic growth, themes and new partnerships for the 2014-15 season



Geographic expansion

13 regions in 5 countries, including 1 new region and 2 new countries

- Ghana, based in Bolgatanga (Upper East region)
- Benin, based in Djougou (Atacora-Donga)

1 new region in Mali, based in San

Partners involved in private and institutional 'kickstarting'

7 partners, including 6 new ones

- 3 new partners in Burkina Faso (AKNGS, UGPCER, UGN-B)
- 1 new partner in Mali (AOPP)
- in Senegal, 1 partner since 2011 (Le Partenariat, an NGO) and 2 new partners (OPDAD, supported by ADG, a Belgian NGO, and Les Jaambars)

Formalisation of the sector

- The first formal company established in Senegal by a Burkinabé NV mason
- 3 construction companies in Senegal and Mali working on community or institutional building sites

Institutionalization

first 2 projects headed by national bodies

- in Senegal, by the Ministry for Environment and Sustainable Development, funded by the GEF and supervised by the UNEP
- in Mali, by the Agency for Environment and Sustainable Development (Ministry for Environment), funded by the World Bank

Donations and rehousing

2 ongoing projects, 1 of which is new this season

- 1 project in the Nebba region of Burkina Faso has been running since 2013, created by partner organisation Tinyenga Niyemba Burkina (TNB) and funded by donor foundation SELAVIP
- 1 new project in Diakré, Mauritania, implemented by NGO Le Partenariat and AVN-Senegal and funded by the Dubai Charity Association

Boosted Training

in Burkina Faso, creation of a methodology and tools

- selection of a first panel of Trainer Masons
- implementation of the first on-site workshops.

Micro-financing

2 ongoing projects in Burkina Faso, including 1 new one this season

- 1 partner MFI, APFI-B (formerly CVECA) in the Dédougou region; ongoing project since 2013
- 1 new MFI partner, UBTEC, in the Yako region

Human resources and budgetary growth

Due to geographical expansion and diversification of activities, 16 new recruits were needed, including all profiles and countries.

There were 51 employees at the end of the 2014–15 season.

The administrative and financial structures were improved, in order to strengthen the programme's financial management.

AVN faces significant turnover in some posts: some local African staff are in fact happy to accept job offers in administrative positions (job security), and VSI contracts are time-limited.

Given the programme's specificities and in order to guarantee that acquired experience is retained, AVN has a duty to ensure its managers' loyalty without over-inflating salaries compared to those on the local job market. This complex situation makes it difficult to fill management positions in Africa. AVN therefore prioritises hiring people who do not necessarily have much experience but who are highly likely to advance within the organisation.

In France, staff changes have occurred while also limiting the associated costs. Salaries are low but decent.

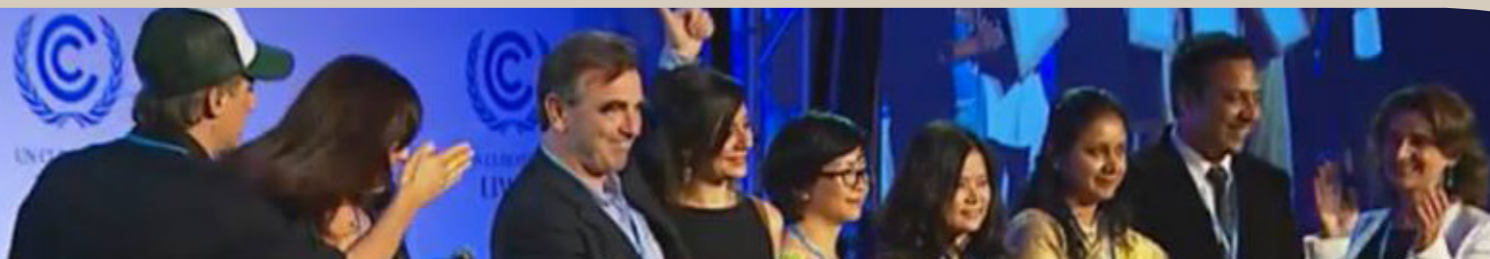
The programme also benefits from the involvement of consultants/experts:

- Antoine Horellou: relations with major partners, advocacy, institutions (since 2014)
- Baptiste Gerbier: relations with African institutions (since 2015)
- Bruno Jarno: monitoring-evaluation, mid-/long-term impact of NV on climate + agricultural use (since 2011)
- Mathieu Hardy: AVN methodology and technical baselines (since 2011)
- Abdellah Aboulharjan: in charge of development for the MENA zone (since 2013)

The annual budget, which supports the programme's general growth, increased by 42% this season thanks to a fundraising strategy based on a range of different types of donors. For example, the awareness-raising work carried out in the Gulf countries since 2013 led to the financial involvement of Alwaleed Philanthropies, a large Saudi Arabia-based foundation.



2 KEY EVENTS



September 2014

Internal AVN seminar

The AVN-France team, together with the expatriate volunteer staff, consultants, and Boubacar Ouly, AVN-Burkina National Coordinator representing local staff, met for a week from September 1st - 7th. Plans for the next season were prepared in the light of the previous season's results.

The Shamengo Prize award

Thomas Granier was elected «coup de coeur du jury» for the 2013 "Prix des 1000 pionniers qui changent le monde". This prize, jointly organised by Shamengo, Newmanity and the LH Forum, was awarded in Paris, and honours initiatives which contribute to profound changes in society, such as those brought about by the Nubian Vault Association. Following this award, AVN was invited to take part in the Positive Economy Forum (LH Forum) from September 24th- 26th.

December 2014

AVN attends 6th "BoP Sector Dialogue" in Berlin

AVN was invited to take part in the 6th BoP (Bottom of the Pyramid) Sector Dialogue, on the theme "My Home, Your Business - Affordable Housing Solutions for Low-Income Communities", organized by GIZ, on December 2nd - 3rd. This interactive workshop gave AVN the opportunity to meet other professionals in the housing sector and gave rise to the publication of a practical handbook which includes a case study of AVN entitled "Translating market gaps into business advantage"

AVN invited to COP 20 in Lima

AVN was honoured to be invited to the 20th meeting of the Conference of Parties (COP 20) organized by UNFCCC, December 1st - 12th, in Lima, Peru. AVN was awarded a prestigious 'Momentum for Change' prize, identifying 12 innovative projects promoting economic, social, and environmental solutions for climate change attenuation and adaptation. AVN was rewarded in the «Urban Poor» category for the excellence of its programme promoting the Nubian Vault concept.

October 2014

Country planning committees and opening congresses

AVN's regional and national teams met for a week in Boromo, Burkina Faso to share experiences and to further refine the annual strategy and help train the teams in the new elements of the program. Congresses on kickstarting the NV market, and for masons, were also organized in AVN's different regions in Burkina Faso, Mali and Senegal.

Opening of AVN programmes in Benin and Ghana

AVN has opened its development programmes in Benin (with a national office in Djougou) and Ghana (national office in Bolgatanga). AVN had been planning to formalise its activity in each of these countries for the past few years: this is now a reality, as from the 2014-2015 season.

January 2015

Dakar Green Trophy honours AVN Senegal

On December 26th, AVN's programme in Senegal was highlighted at the 1st Green Trophy event held at the Sorano Theatre, Dakar. Organised by Special Events Senegal, this occasion was endorsed by the President of the Conseil Economique Social et Environnemental, Mme Aminata Tall, for its relevance and innovative character. Altogether, some 20 projects concerning environmental protection and attenuation of climate change were honoured.

AVN film shoot in Burkina Faso and Senegal, financed by FFEM

A film crew led by Jean François Naud, member of the Board of Directors of AVN, visited Burkina Faso and Senegal in January and February to shoot sequences for a film about AVN. Financed by the FFEM (Fonds Français pour l'Environnement Mondial) for COP21, the film covers recent developments in AVN's programme, and includes interviews with AVN's collaborators and partners, as well as with clients, masons, and institutional actors involved in the developing market for NV construction.

November 2014

Visit of Nicolas Hulot and Monique Barbut to Senegal

On November 7th, Nicolas Hulot, the French President's special envoy on environmental matters, and Monique Barbut, Executive Secretary of the UN Convention against desertification, met Thomas Granier during a visit to a NV prayer room on the motorway service area of Cambérène, on the outskirts of Dakar. They both welcomed the relevance of the programme's ambitions, given the urgency of finding concrete solutions to the housing problem, and invited AVN to join the «Grande Muraille Verte» programme.

Start of the Academy workshops and first Boosted Training meeting with Trainer-Masons

Regional raining workshops were run in December for different groups involved in the AVN program (extension agents, key people / 'champions', C1-C2 apprentices, C3 masons, C4-C5 artisans / foremen and entrepreneurs). A review workshop on Boosted Training for Nubian Vault apprentices was also organized with 12 Trainer-Masons from Burkina Faso and Mali, run by the AVN team in charge of training.

February 2015

Workshop on the African housing market, Dakar

Organized in Dakar by UN-Habitat and the BAD (Banque Africaine de Développement), the workshop brought together representatives from various projects on social and mass housing. The discussions mainly focused on land rights, taxation, and housing finance, rather than on construction techniques for appropriate housing. AVN-Senegal presented its programme and invited participants to further meetings.

Launch by AVN of a Manifesto for Appropriate Housing in Sahelian Africa

This Manifesto reviews the fundamental role of housing for human well-being, and the specific issue of housing for the rising populations of the Sahel and the negative impacts of climate change on this situation. It urges those actively involved in global and sustainable development to introduce this issue as a priority in national and international debates, promoting a positive and measurable transformation and an eventual resolution of this issue.

March 2015

AVN participates in the Dubai International Humanitarian Aid & Development Conference and Exhibition

For the second year running, AVN took part in the in the DIHAD meeting in Dubai, from March 24th - 26th. Under the patronage of the Emir of Dubai, this event brings together the main UN agencies, government organizations, NGO's, foundations, media, and innovators in the fields of international solidarity and humanitarian aid.

NV masons' skills honoured at the Foire de l'Artisanat in Tambacounda, Senegal

The Chambre des Métiers of Tambacounda invited AVN-Senegal to the Foire Régionale de l'Artisanat, March 9th - 15th; an opportunity for the team to present its programme for appropriate housing in Senegal and to highlight the trade of the Nubian Vault artisan. The opening ceremony was presided over by M. Mamadou Talla, Minister for Professional Training, Artisanat and Apprenticeship of Senegal, and during his visit to the stand of AVN-Senegal, he exchanged views on the challenges facing the trade of NV masons and artisans in Senegal with AVN extension agent Ndiame Fall.

June 2015

Burkina Faso Planning Committee

A planning committee was held in June at the end of the construction season (end of the dry season) to review the year's progress and draw up the strategy for the next season. Congresses for masons, and on the kickstart market strategy, were also held with relevant actors to review the successes and difficulties encountered.

AVN at Désertif'actions 2015

Because of its involvement in actions to reduce desertification in the Sahel, AVN was invited to participate in the Désertif'Actions forum, held from June 10th - 13th in Montpellier. This international civil society forum concerning the fight against desertification and soil degra-

ation is organized by CARI, which also runs the Desertification Working Group of which AVN is a member.

AVN presents its climate change solution in Bonn

Representatives of the UNFCCC signatory countries met in Bonn July 1st - 11th for a session of intermediary negotiations to work on the draft of the future global agreement to be voted on at the International Climate Change Conference in December (COP21). AVN presented its innovatory programme at a side-event organized by Momentum for Change, an opportunity to continue its advocacy with African negotiators.

April 2015

International Conference on the Green Economy in Francophone Africa, Tunis

AVN was invited by ENERGIES 2050 to present its programme at the International Conference on the Green Economy in francophone Africa in Tunis, May 4th - 5th, organized by IFDD, the Senghor University of Alexandria, CITET and OSS. This conference was the occasion for the launch of the Green Economy Programme in Africa, aimed at promoting green policies in national and regional strategies.

48th RHF Conference: Social Housing and Climate Change, Rabat

At a time when climate change has become a global priority issue, the 48th Conference of the Réseau Habitat et Francophonie (RHF), held in Rabat April 28th - 30th, focused on the theme of social housing and the challenges of climate change. AVN was invited to present the Nubian Vault concept and its relevance to social housing.

July 2015

A second NV built in Benin

After a first NV building completed at the end of 2014 in Nagassega (zone of Tanguieta) for the German-Benin NGO Dassari Benefiz, a second building was completed in Barei (10 km from AVN-Benin's national office in Djougou). Built by masons from Burkina Faso, this project resulted in the training of an apprentice from Benin, and aroused much interest from neighbouring villages.

AVN in Ghana – from a chicken house to a royal palace!

AVN-Ghana's first and impressive 2104/15 season has resulted in the construction of six buildings by Nubian Vault masons and apprentices: a chicken-house, a dormitory, a computer lab in an eco-village, AVN-Ghana's office in Bolgatanga, and a new wing for the royal palace of the traditional king of Kazigo.

May 2015

The Nubian Vault, a climate solution recognized by civil society

AVN is one of 10 climate change solutions endorsed by popular vote during the 'My Positive Impact' campaign launched in France by the Nicolas Hulot Foundation. AVN was recognized as an innovatory, concrete, and operational initiative in the fight against climate change. As a result, the AVN programme gained increase visibility among potential investors and partners, through a promotional campaign prior to the Conference of the Parties (COP21) in December 2015 in Paris.

Thomas Granier invited to the Académie des savoir-faire sur la « TERRE ! »

During the Hermès Foundation's 2nd Académie des savoir-faire on earth construction, Thomas Granier was invited to speak on May 23rd, during a conference on 'Earth architecture: vernacular know-how and technical innovations'. The focus of his presentation was the re-discovery of traditional skills of earth construction.

August 2015

VSI working sessions

For 3 weeks in July and August, AVN's expatriate staff - VSI volunteers in the countries where AVN operates, as well as AVN's consultants on monitoring, evaluation and advocacy, met in the AVN-France office in Ganges for workshops on various key themes. This also provided a valuable opportunity to further develop AVN's development strategy with the national coordinators from Benin, Ghana, and Senegal, and with staff responsible for training and agricultural issues.

AVN Seminar

For 10 days, from August 24th - September 2nd, the AVN-France team met with the expatriate (VSI) staff, consultants, and a representative of the local teams, Francis Tiene, national production manager with AVN-Mali, to prepare the coming season in light of the previous season's results.



3 OUR COUNTRIES

THE SEASON'S OVERALL RESULTS

WEST AFRICA	2014-15 Season	Total
Countries (new/total)	2	5
Regions (new/total)	3	13
Building sites	310	1,546
Localities (new/total) with an NV	99	671
Trained masons (new/total)	50	380
Apprentices (new/total) having worked	187	808
Beneficiaries	2,817	20,286
Tons of CO2eq saved	7,554	55,358
Local savings generated (€)	284,753	2,041,553
Growth rate (of building sites)	-3%	33%*

* Average annual growth rate over the last ten years

For the first time in many seasons, there has actually been an overall decrease in production: the number of construction sites begun during the season is down by 3% compared to last season.

The results in Burkina Faso (-24%), affected by the political crisis at the end of 2014, are at the crux of this decrease, while the market in Mali grew by 28%. Nevertheless, most of the completed constructions are in Burkina Faso, our original country of deployment. The number of localities (hamlets, villages, towns, agglomerations) where NV have been built have progressed by 20%.

The main part of the market (85%) is in the rural sector and 74% of the NV clientele are from the programme's key target population (farmers, public servants, traders).

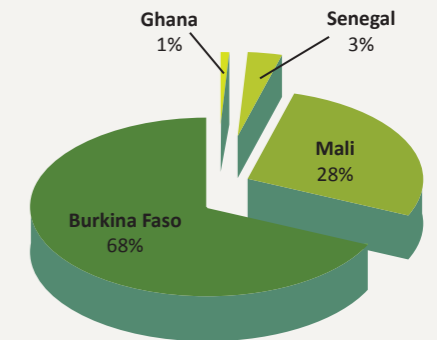
The proportion of community buildings has increased, particularly in Burkina Faso.

Awareness raising and advocacy among community and public agents have been reinforced in the five countries of intervention. Their involvement in the development of the adapted housing sector is a priority strategic axis for the programme.

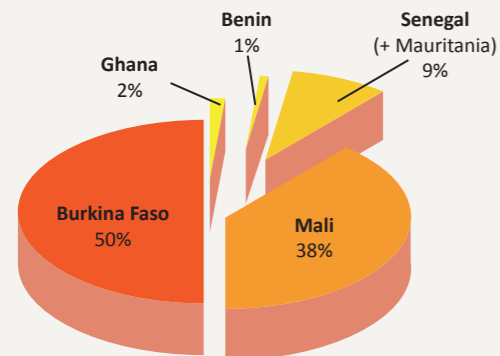


The overall number of qualified masons increased by only 14%, but with significant growth of 26% in Mali. Measures have been tested and put in place to optimise the recruitment and training of apprentices and masons: subventions for traditional masons, improved monitoring, Boosted Training ...etc. It should be noted that some Burkinabe and Malian masons are working in neighboring countries where there is insufficient qualified labor. This is the case in Ghana and Benin where the first apprentices have been trained during this first year of deployment, and in Senegal where the production capacity is largely inferior to the construction demands.

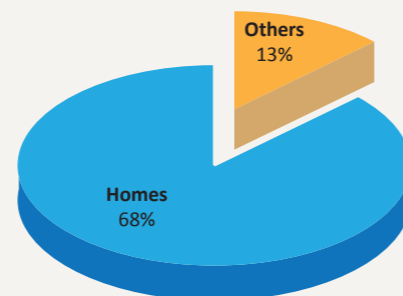
Distribution of qualified builders per country as of Sept 2015



Distribution of construction sites per country for the 2014-15 season



Types of construction sites for the 2014-15 season





Country summary

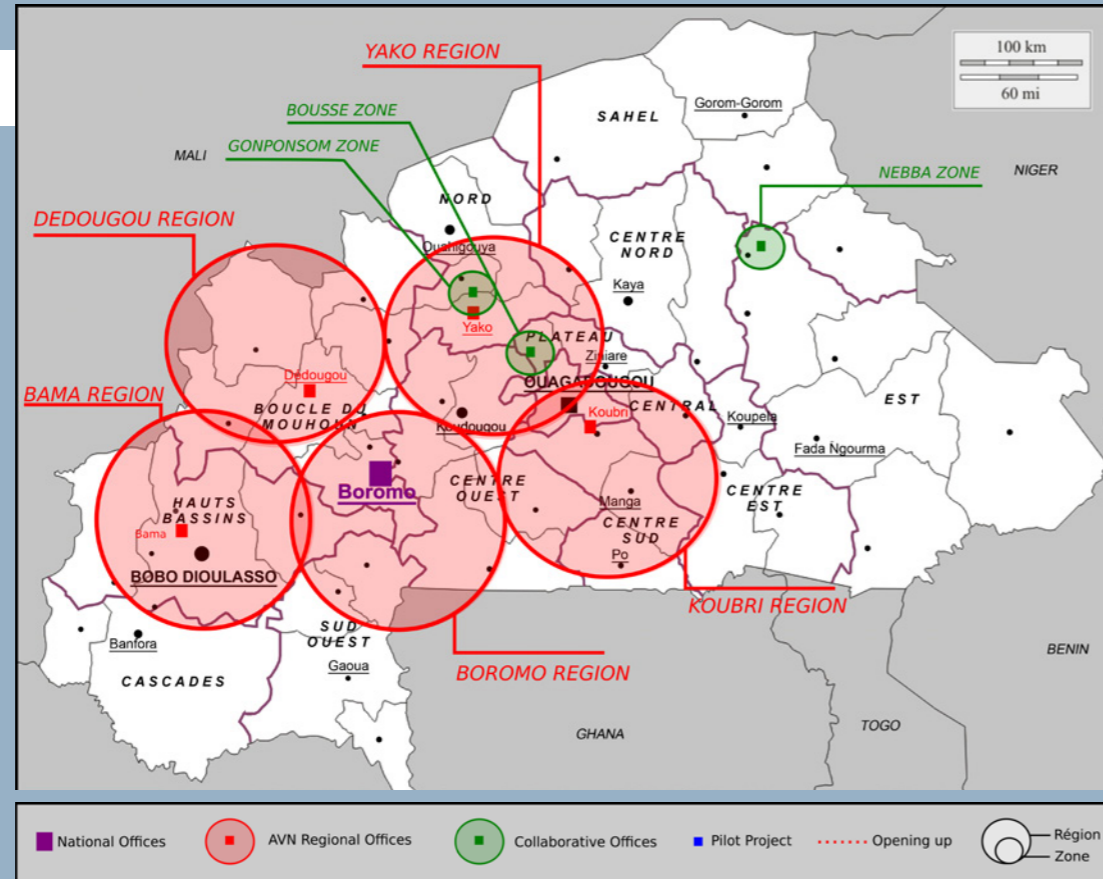
AVN begins work in the country in 1998

21 local employees and 1 VSI

1 national office and 5 regional offices

Collaborating partners: AKNGS, UGN-B, UGPCR, TNB

Technical micro-finance partners: APFI-B, UBTEC



The season's results

BURKINA FASO	2014–15 Season	Total
Building sites	156	1,007
Localities (new/total) with an NV	58	400
Trained masons(new/total)	29	259
Apprentices (new/total) having worked	104	548
Beneficiaries	1,376	10,888
Tons of CO2eq saved	3,955	34,945
Local savings generated (€)	131,694	1,175,849
Annual growth rate (of building sites)	-24 %	24%*

*average annual growth rate over the last ten years



Production was significantly affected by the political crisis

The political crisis at the end of 2014, which occurred just at the start of the NV construction season, had a major impact on production in Burkina Faso: **the number of worksites begun over the season fell by 24% compared to the previous season.**

Most building continued to be concentrated in rural areas (77%).

It is noteworthy that **a larger number of institutional and community buildings were built** this season, with the construction of classrooms / literacy centres and religious and medical sites. It is probably safe to assume that the community owners of those buildings were not significantly affected by the political crisis. The growth of the community NV market and the use of such buildings for community purposes is a good way to spread the NV concept.

Increased training to be promoted

The number of qualified masons grew by only 13%, a low figure despite test measures in favour of more qualifications: regionalising the monitoring of apprentices and masons, awareness-raising activities and incentives for traditional masons, initial testing of the Boosted Training method. The implementation of these measures and the general training process take a long-term view of things, and their effects will thus be analysed down the road.

Burkina Faso was also where **the Boosted Training (F-Dyn) methodology to strengthen on-site training** was drawn up and tested. This involved internal staff working specifically on this alongside a panel of NV artisan-mason trainers who were chosen for their technical and pedagogical skills.

Specific to Burkina Faso was **the spread of supply to other countries, which also had an impact on the growth of the NV market.** Indeed, of the 73 mason-artisans active this season, 21 worked outside of Burkina Faso, in Benin, Ghana and Senegal. It is therefore estimated that about 30 worksite requests were unable to be satisfied this year.

Historical summary

As the first country AVN worked in, Burkina Faso was home to many experiments: R&D on the NV concept and how to standardise it, first national team, first regional expansion, first time working with civil society actors (smallholder organisations, CBOs), first micro-loan offered to NV, etc. The programme is most developed in Burkina Faso, which now has the greatest number of trained masons and NVs built. These first generations of apprentices and mason-artisans led to expansion into other countries.

1998-2000 : technical work and construction of the first standard NVs

2000-2006 : first NVs built for private clients, first generation of NV masons trained

2003 :financial support from the French Ministry for Foreign Affairs

2007 : first local AVN-BF team put together

2011 : regional expansion to Koubri

2012 : regional expansion to Dédougou and Yako and first rehousing pilot project for the disaster-stricken population in Nebba

2013 : regional expansion to Bama and partnership agreement signed with an MFI, APFI (formerly CVECA)

2014 : first cooperative partnerships established with smallholder organisations

2015 : partnership signed with a second MFI, UBTEC; establishment of the Boosted Training (F-Dyn) methodology



Construction site of the psychiatric hospital of Bobo-Dioulasso

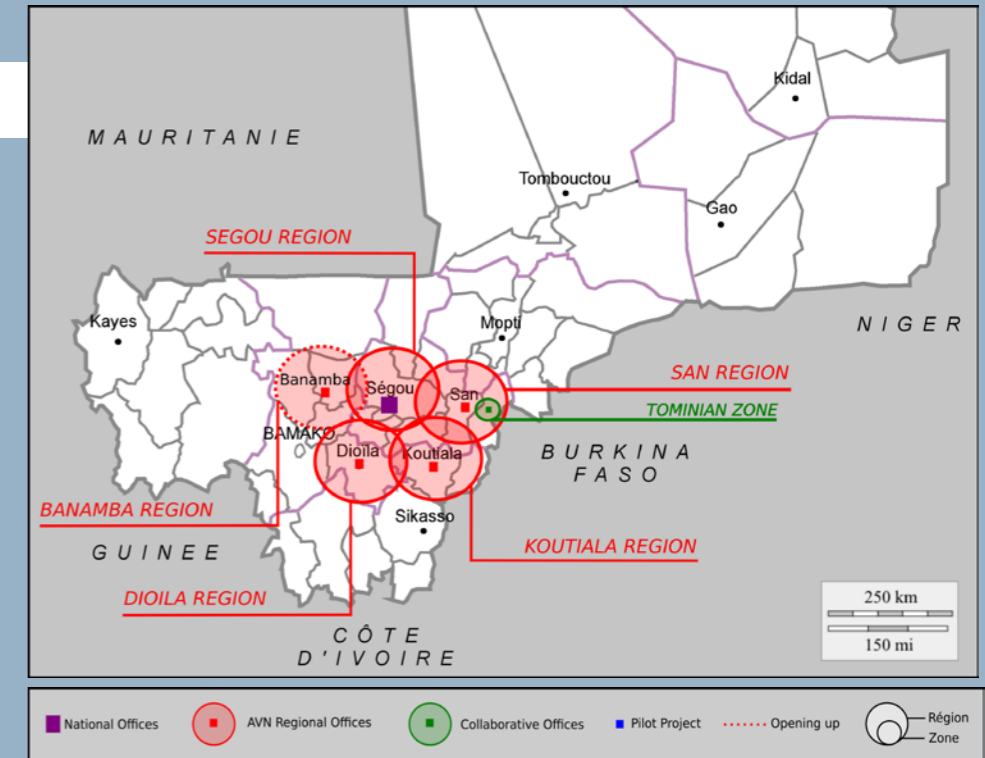


Country summary

Programme launched in 2007
15 employees

1 national office, 4 regional offices and one region undergoing expansion

Collaborating partners:
AOPP, UACT



Partnerships and pilot projects

Three partnerships with smallholder / farmer organisations were implemented for the first time this year with **mixed results, depending on the partners' ability or desire to be proactively involved.**

As for the partnership with smallholder organisation AKNGS, in the Yako region, the increase in activities and the creation of true cooperation were real and measurable. As for the other two partnerships, however (UGN-B and UGPCER-N), located in the Yako and Dédougou regions, a lack of commitment and maturity significantly limited what growth was possible.

The donations and rehousing project carried out in the **Nebba** region was implemented by partner Tinyenga Niyemba for the third season. Thirty-two buildings were built, allowing for continual training of apprentices and masons throughout the season.

The pilot project to implement micro-loans for NV housing, which had been underway since 2013 with MFI APFI-B in the Dédougou area, was strengthened by a new partnership with another MFI, UBTEC, which also involved the AKNGS community organisation in the Yako region. The results of these partnerships did not fulfil our expectations. Greater involvement of AVN (dedicated human resources) and of MFI's is essential.

The year's highlights

September

Agreement signed with UBTEC, an MFI, for an NV housing loan

October

Season-opening international Steering Committee meeting with all country teams

November

Partnership framework convention signed with the Eastern Regional Council

December

AVN booth at the Proclamation of Independence celebrations in Dédougou on 11 December

AVN participates at the Lune du Sahel Festival in Koumbri on 29–30 December

January

Construction work begins on the AVN-Bama regional office (in the Bobo-Dioulasso region)

February

Mid-season Steering Committee meeting with the teams from Burkina Faso, Benin and Ghana

AVN film made, co-funded by the FFEM

March

Training sessions on the new monitoring-evaluation tools for national production managers

May

Opening of the AVN-Bama office

The national team is interviewed for a radio show, La Marché Libre (The Free Market) for RTB (Radio Télévision du Burkina)

June

End-of-season international Steering Committee meeting with all country teams



Historical summary

The AVN programme was launched in Mali in 2007, thanks to partnerships with the Spanish NGO Intervida and the Italian NGO Africabougou focusing on the construction of community buildings. Centred on the Ségou region, the programme expanded to 3 other regions starting in the 2012–13 season.

The Malian NV market is focused almost exclusively on the rural population, which is the programme's core target and which represents 80% of the country's population. The country's cultural homogeneity (language, religion and culture) has undoubtedly facilitated the spread of the NV concept.

2006-2008 : construction of the first community buildings in partnership with local and international NGOs

2009 : the first local AVN team in Mali is set up, based in Ségou

2011 : AVN-Mali is registered, based in Ségou

2013 : expansion to the regions of Koutiala and Dioïla

2014 : expansion to the San-Tominian region



The season's results

MALI	2014–15 Season	Total
Building sites	119	436
Localities (new/total) with an NV	44	223
Trained masons(new/total)	17	108
Apprentices (new/total) having worked	60	201
Beneficiaries	996	7,035
Tons of CO2eq saved	2,378	14,587
Local savings generated (€)	73,224	495,732
Growth rate (of building sites)	28 %	45%*

*average annual growth rate over the last ten years



Growth of production and training

The Malian NV market is that which has grown the most this season:

- **the number of worksites increased by 28%:** the Kickstart method in rural areas is particularly efficient and well-adapted to the Malian context; 98% of the season's NV clients are rural farmers, who are AVN's core target.
- **the number of trained masons grew by 26%** and the increasing commitment of traditional masons (those who build with earth/metal roofing sheets and/or cement/metal roofing sheets) means we can expect this remarkable growth to continue.

A regional deployment supported by numerous partners

The opening of the San region, chosen in collaboration with the Ségou AOPP, means that AVN is now present in four regions in Mali.

The Ségou AOPP's position as a regional umbrella organisation, ill-adapted to the operational and local implementation of the programme, has called into question that partnership. The UACT, a member cooperative of the AOPP that works at zonal level, will take over the operational part of the partnership next season.

Hiring someone responsible for institutional advocacy (a French employee based in Bamako) in mid-season led to the implementation and strengthening of unequivocal advances in raising awareness vis-à-vis national institutional actors (cf. 4...).

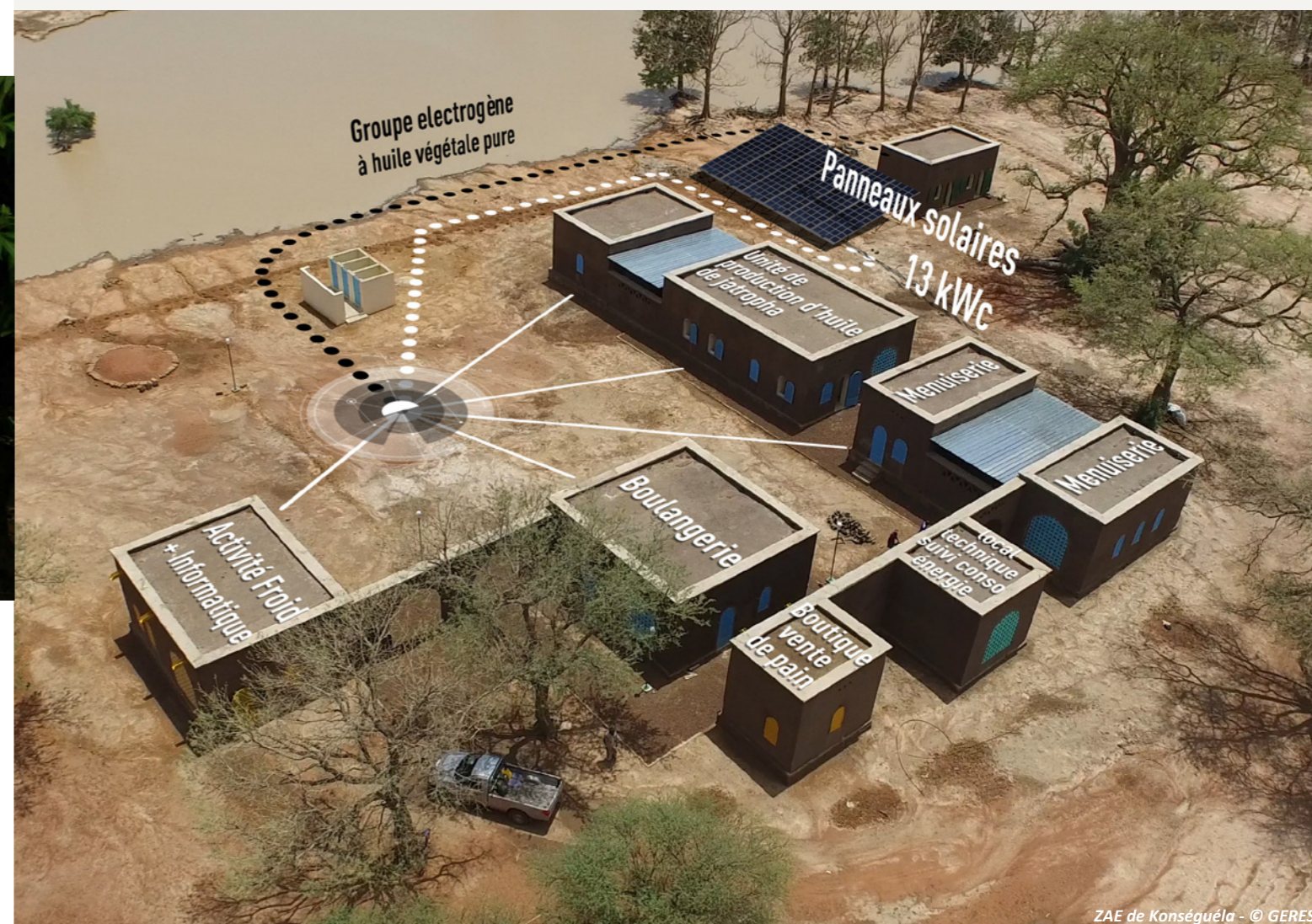
During this season, a plan to expand to three Cercles in the Kayes and Koulikoro regions was approved as part of the Natural Resources and Climate Change Management Project (PGRNCC), under the aegis of the Agency for Environment and Sustainable Development (AEDD) and funded by the World Bank. **It is noteworthy that this is the first time in Mali that a project has been led by a national institutional actor.** This season the four-year project focused on preparing activities, in particular the expansion to the Banamba region and the hiring of a local team.

The support from the Malian Minister of Economy and Finances vis-à-vis the Islamic Development Bank (IDB) has led to funding being granted, which will be allocated next season to strengthening professional training in the Cercle of Koutiala as part of a multi-partner approach (inter-communities, companies, etc.).

A project combining low carbon and energy

It is worth noting the rural electrification project (Zone d'Activités Électrifiée, ZAE) being carried out by GERES, an NGO, in the commune of Koneguela (Koutiala region); this will provide electricity to 14 NVs for a usable area of 340 m², and is with the participation of a company from Koutiala.

This exemplary project demonstrates the importance of cooperation between renewable/off-grid energy providers and AVN. Indeed, off-grid installations must be established as part of adapted architectural projects.



The year's highlights

October

Expansion to the San region

January

Activities in Tominian get underway as part of the AVN partnership with AOPP and UACT

February

Mid-season Steering Committee meeting at Ségou

April

The employee responsible for institutional advocacy begins lobbying

May

Management Mission

Meeting with Moussa Mara, the Malian prime minister and former minister for urban planning, signatory to the Manifesto

Reorientation of the AVN-AOPP partnership in Tominian and merger with the AVN-San team

June

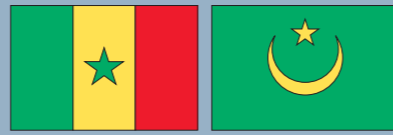
PGRNCC convention signed with the AEDD

Workshop to select projects submitted by Mali to the GEF (GEF-6)

July

Opening of Koutiala regional office

SENEGAL (including the Mauritania project)



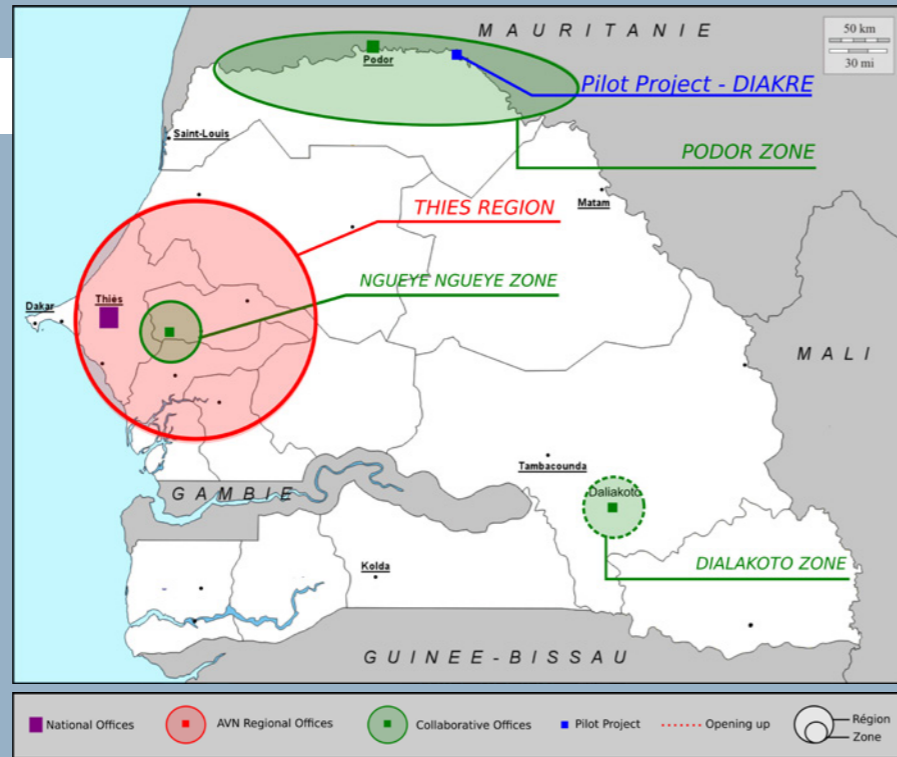
Country summary

Programme launched in 2010
2 employees and 1 VSI

1 national office and 1 regional partner office

Collaborating partners:
Le Partenariat, an NGO; Les Jaambar; OPDAD (supported by the Belgian NGO, ADG)

Technical partners:
Le Partenariat



Two vaults literacy centre in Déguembéré

Historical summary

The AVN programme in Senegal began in 2007 with the construction of the first NVs, built by Burkinabé masons. The programme's true start was really at the end of 2010, thanks to the partnership with the NGO Le Partenariat in the department of Podor. In 2013, a first AVN team was established in the Thiès region near Dakar. What distinguishes Senegal is its population (more pastoral than smallholders in the rural areas and with greater urban density), its geography (a coastal country with deltas that is not very familiar with earth-based architecture) and its political maturity.

2007-2010 : first NV buildings built, including the technical training centre (La Maison des Energies) in the Matam region

2011 : the programme begins operating in northern regions alongside NGO Le Partenariat

2013 : the programme begins operating in the Thiès region and an AVN team is established

2014 : implementation of a first institutional partnership with the Senegalese Ministry for Environment, for a project funded by the Global Environment Facility (GEF)

2015 : first partnerships established with smallholder organisations; refugee rehousing project in Mauritania on the Senegalese border

The season's results

SENEGAL (including Mauritania project)	2014-15 Season	Total
Building sites	28	88
Localities (new/total) with an NV	8	51
Trained masons(new/total)	2	11
Apprentices (new/total) having worked	4	36
Beneficiaries	382	2,167
Tons of CO2eq saved	1,087	5,267
Local savings generated (€)	76,887	355,762
Growth rate (of building sites)	33 %	22%*

* Average annual growth rate over the last nine years

Dominated by institutional and urban markets

The programme's fourth year of operations in Senegal and second year in the Thiès region confirmed the trends that have existed since the beginning: **the market in rural zones is struggling to emerge, both in terms of demand for NV buildings and in terms of apprentices' commitment to being trained in the NV concept.** This season, just one rural client (AVN's core target group) built an NV home, and the first full team of Senegalese-only NV masons was finally set up.

The institutional and urban markets, however, are gradually settling in, leading AVN to adapt its Kickstart strategy and seize upon related opportunities for involvement by institutions, for technical research and for market formalisation.

In urban areas, demand from the middle class is growing and concerns larger projects that call for specific amenities and finishing quality. Of exceptional craftsmanship, the completed buildings have made people realise the value of the NV concept and its use of earthen materials, thus profiting other customer bases, construction companies and contexts.



Visitor centre of the nature reserve of Tocc Tocc

In addition, **institutional actors across the country have demonstrated their interest in the NV concept:**

- communes: 4 community buildings were built for communes this season
- regional: promising exchanges were held with the Regional Agencies for Development (ARD) of Thiès, Diourbel and St. Louis, and with the Fatick Regional Council
- national: for the first time under the programme, a national body, the Ministry for Environment, has begun a multi-annual project using the NV concept; this project is in preparation, with GEF-5 funding.

These projects are particularly interesting because they are opening the way to **the institutionalisation and standardisation of the NV concept, as well as to the formalisation of part of the market:**

- several activities heralding the standardisation of the NV concept (standardisation of materials used for mud bricks and mortar, building energy efficiency standards) were carried out this season, in particular as part of a skills sponsorship programme with Artelia,
- 2 worksites involved formally established companies
- 1 Burkinabé NV mason-artisan established a company in Senegal.

In addition, **the necessary project management assistance for the institutional share of the market in the northern regions was taken on by Le Partenariat.** As a cooperating NGO working in the regions, Le Partenariat has been a perfect partner for AVN in Senegal since 2010. It carries out kickstarting activities vis-à-vis institutional actors in the zones it is involved in and works alongside formal companies. It also helps compile technical baselines for the different types of community and institutional buildings, which is essential for documents such as specifications and calls for tender that are intended for local communities in order to establish NV markets.

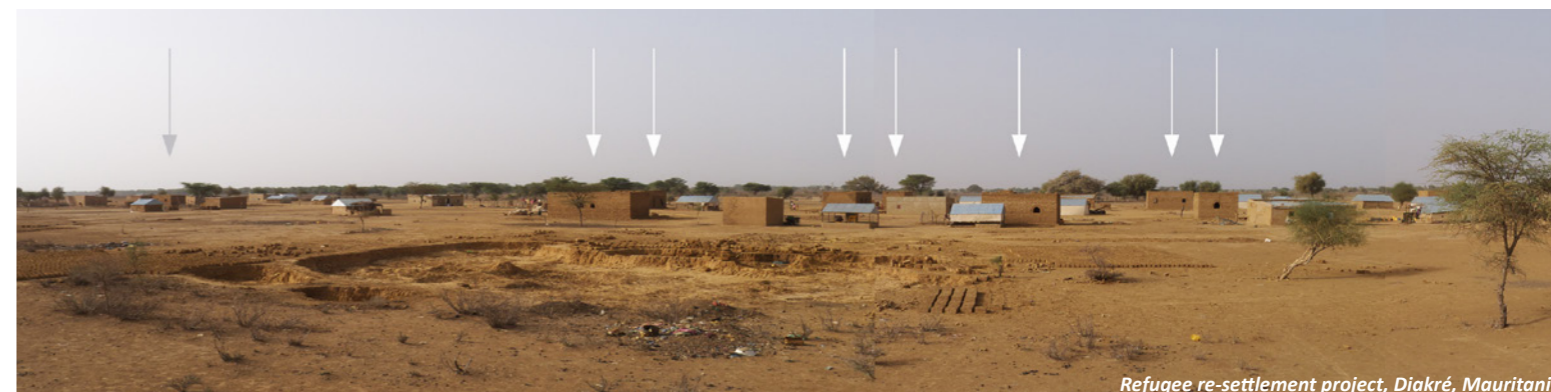


Eiffage Sénégal, the first company directly involved on the ground

The NV market in Senegal has benefited from direct support from Eiffage Sénégal, in addition to funding from the Foundation. **Since 2011, this support, which is part of the company's CSR policy, has taken various forms:** financial support, skills sponsorship, NV market opportunities (notably the prayer room in the motorway service area in Cambérène), local visibility and promotion (AVN invitation to events and production of a film), and networking, in particular with institutional actors and other Senegalese actors in the construction industry.

Rehousing project in Mauritania

AVN and the partner NGO it works with in the north, Le Partenariat, coordinated a rehousing project for refugees in Mauritania. **Funded by the Dubai Charity Association, this project will eventually take the form of 3 funding tranches, 51 NV houses and 3 community buildings.** The first tranche came through this season, allowing 18 houses to be built. Although AVN does not plan to launch a programme in Mauritania in the near future, this project is demonstrative and in Mauritania's interest.



Refugee re-settlement project, Diakré, Mauritania

The year's highlights

September

Seminar organised by the Réseau Habitat Francophonie (RHF) in Dakar

November

Inauguration of a Nubian Vault maternity ward in Guendar (in the department of Podor)
Nicolas Hulot and Monique Barbut, executive secretary of the UNCCD, visit an NV prayer room in the Cambérène motorway service area (Dakar suburbs)

December

The Trophées de l'Environnement (Trophées Verts) environmental trophies are awarded

January

FFEM film shot, notably involving the Minister for Environment, Mr Abdoulaye Baldé, a signatory to the Manifesto

February

A dynamic workshop on the housing market in Africa held in Dakar, organised by UN-Habitat and the African Development Bank

March

Regional artisans fair held in Tambacounda

June

AVN offices hold an open day for authorities from Thiès
Inauguration of an NV house for teachers in Nguéye-Nguéye, Senegal, as part of World Environment Day (WED)



Visitor centre of the nature reserve of Tocc Tocc

The Kickstart strategy on the Senegalese NV market targets institutional and urban clients; this does not, however, brush aside the core target group. Indeed, in the long term, the success of these buildings, which are visible and are visited and used by the public—in particular by rural populations—will stimulate demand for NV and thus boost the private market.

In addition, this strategy is also useful to other countries in the sub-region, which will benefit from this expertise in working alongside the institutional market and having it led by legitimate project managers.



Inauguration of teachers' accommodation in Nguéye Nguéye



Country summary

Programme begun in 2014

1 employee and 1 VSI

1 national office in Bolgatanga

Institutional partners:
Discussions ongoing with the Department for Community Development and the Department for Rural Housing for Upper East



Construction site of the first NV in Ghana

The season's results

GHANA	2014–15 Season
Building sites	6
Localities (new/total) with an NV	4
Trained masons(new/total)	2
Apprentices (new/total) having worked	10
Beneficiaries	60
Tons of CO2eq saved	125
Local savings generated (€)	5,000

In addition to establishing the necessary structure, during the programme's first season in Ghana activities focused on developing private and institutional markets and on training the first generation of Ghanaian masons.

There is already interest in the technique and demand is already emerging in rural and urban areas:

- Six NV buildings were built, ranging from a simple henhouse to the extension of a traditional chief's royal palace; a dormitory, computer room and AVN's national office in Bolgatanga were also completed.
- More than a dozen clients have also committed to a variety of buildings for next season (a private house, a barn, a classroom, a church, etc.)

Five NV masons from Burkina Faso began **training the first 12 Ghanaian apprentices**, thus overcoming the difficulties posed by different languages, units of measurement, construction techniques and currencies. Two recruits who were already traditional

masons also qualified as NV masons during this first year.

For the new countries in which the programme is operating—Ghana and Benin—institutional and political advocacy was launched at the same time as kickstarting efforts, in order **to establish mid- and long-term partnerships and to encourage political involvement as soon as possible.**

The reception, receptiveness of and opportunities created by the first institutional partners (District Head, Department for Community Development, Department for Rural Housing, Ghana Social Opportunity Programme, etc.) seem to presage an appropriation of the NV concept by local authorities, both due to its technical qualities and for the professional training it entails.

Initial exchanges with NGOs have also been positive and promising, although the discussions on possible partnerships with them is less advanced than those with institutional partners.

The year's highlights

September

First AVN-Ghana team is established in Bolgatanga

November

Official registration of AVN-Ghana with the Ghanaian authorities

January

The first NV worksite kicks off at Karimenga

February

Participation at the launch of a project to support local entrepreneurship and highly labour-intensive public works, organised by the Ghana Social Opportunity Programme

Inauguration of the first NV building in Ghana, the Eco-Tourism Guesthouse in Karimenga

March

Contract between AVN and the Department for Community Development signed

April:

First Boosted Training workshops held at the building site of the AVN-Ghana office

June

The basic structure of the AVN-Ghana office is completed
First conference of Ghanaian NV apprentices and masons held

Historical summary

Launching AVN in a new region is always a challenge, and this was all the more true of Ghana, the first English-speaking country targeted by AVN. A middle-income country, the level of socio-economic development varies between the economically dynamic south and the north, which is comparable to other Sahelian countries. Ghana's climate also varies drastically between the coastal, subtropical regions and the Sahelian north.

AVN therefore decided to focus its programme on the north, in the Upper East region on the border with Burkina Faso. The programme began at the end of 2014. There are significant housing needs in the region (cement and metal roofing sheets purchased from the south are the only available alternatives) and unemployment is high.

Launching the programme in an English-speaking country will allow for more involvement from international partners and donors, who are often pioneers on issues of social entrepreneurship. In addition, the training of AVN managers and NV mason-artisans who speak English will open the door to possible programmes in countries in eastern and southern Africa.

2012 : exploratory missions

2013 : national coordinator (VSI) hired and trained

2014 : AVN begins working in Ghana and a local manager is hired

2015 : building begins at first private and institutional sites, masons and apprentices are trained, institutional partnerships



First congress of NV masons and apprentices in Ghana



Country summary

Programme begun in 2014

1 employee and 1 VSI

1 national office in Djougou



Construction site of the first NV for a small farmer customer in Benin

The season's results

BENIN	2014–15 Season
Building sites	2
Localities (new/total) with an NV	2
Trained masons(new/total)	0
Apprentices (new/total) having worked	11
Beneficiaries	8
Tons of CO2eq saved	106
Local savings generated (€)	6,400

The AVN Benin team has set up its national office in Djougou, a northern cross roads town, and it is from here that the awareness-raising and promotional activities have been undertaken in this first year of deployment.

Despite the interest shown by several village communities, **only two NV buildings have been completed; nevertheless this was an opportunity to start the training of 11 local apprentices**, including 5 conventional builders. A number of commitments have been made for constructions next season, but we still need to explore the best ways of proceeding with the difficult initial phase of awareness raising among potential NV clients.

So as to accelerate the NV production offer in Benin, AVN will put the emphasis next season on Boosted Training and on promotional offers aimed at recruiting conventional builders.

There is clear institutional interest: AVN has received support from the Prime Minister and the Ministers of Environment and Housing, opening the way for discussions which should lead next season to the organisation of multi-sector workshops to draw up a common strategy for the deployment of the NV programme in the North.

Early discussions with various NGO's and potential technical partners have not so far led to any definite partnerships.

The year's highlights

October

The programme in Benin is officially launched and the AVN office is established in downtown Djougou

November

Mission to Cotonou to meet with institutional partners

December

Building gets underway for AVN's first client in Nagasséga (4 NVs)

January

Mission to Cotonou to meet with potential partners; advocacy vis-à-vis institutional actors

April

Building begins for AVN's first smallholder client

June

AVN activities are presented to the French "climate" ambassador

July

First national conference bringing together local champions and apprentices from Benin

Meeting with the focal points for the Green Climate Fund and the GEF



Construction site of the first NV at Nagassega for NGO Dassari Benefiz

Historical summary

Like Ghana, Benin's climate also varies drastically between the coastal, subtropical regions and the Sahelian north. Likewise, the economic performance in the north and the south varies.

The first activities in Benin began in 2011, at the request of AVN's first clients and partners (in particular the German-Beninese association Dassari-Benefiz, established in the department of Atacora). Several exploratory missions were then carried out by AVN to verify if the NV concept was a solution that could be adapted to the context and characteristics of the country.

At the end of 2014, AVN officially launched its programme in northern Benin, in the Atacora-Donga region, one of the country's poorest and most rural

areas; earthen architecture is widespread in the region and traditional roofs have been replaced by metal roofing sheets.

2011 : first NV building

2012 : exploratory mission

2013 : national coordinator (VSI) hired and trained

2014 : programme in Benin opens and a local manager is hired

2015 : building begins at first private and institutional sites, masons and apprentices are trained, institutional partnerships

4 OUR ACTIONS

THE KICKSTART METHODS

- 1 Opening Private Markets – our standard approach
- 2 Opening of Private Markets in Partnership with Farmers' Organizations
- 3 Opening of Public and Community Markets

REINFORCING NUBIAN VAULT PROFESSIONS

- 1 Technical and Entrepreneurial Training of Nubian Vault Masons and Construction Companies
- 2 Strengthening Technical Expertise
- 3 Technical Research and Studies

SCALING UP THE NUBIAN VAULT MARKET

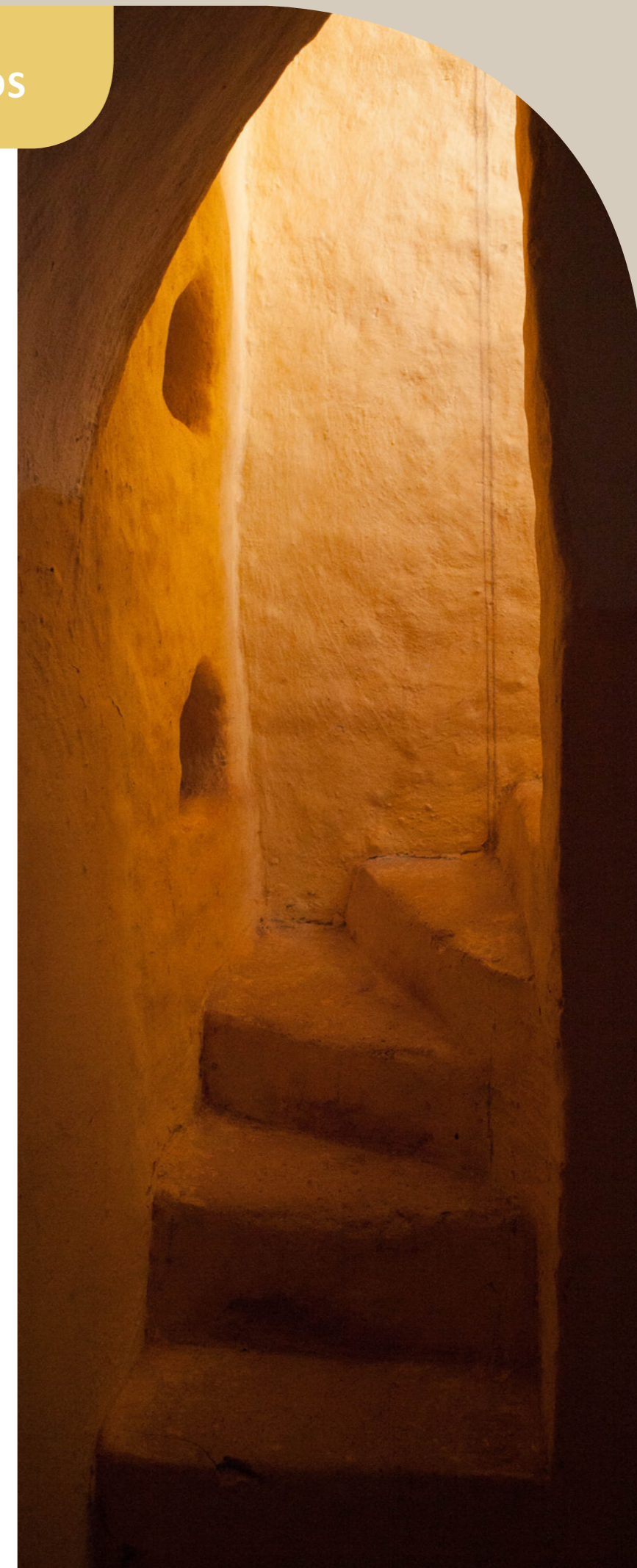
- 1 Institutionalization
- 2 International advocacy
- 3 Housing Micro-Finance

THE KICKSTART METHODS

The activities of this component represent historically AVN's principal vocation, and are led by the local AVN teams and eventual field partners (2).

Together they undertake awareness raising and advocacy among three target groups: the populations of rural and semi-rural zones, our core target group; urban populations, interested in the main features of the NV concept (passive energy efficiency, the ability to add a second storey and / or a roof terrace at a reasonable cost, with a small on-the-ground footprint) (1); and institutional and development actors, interested in the NV concept for their own community building projects and for an eventual involvement in the programme (3). As a result of these promotional and advocacy activities a demand for NV construction emerges, to which AVN responds, in particular by mediating relationships between clients and NV masons and builders. The NV construction technique is passed on by the experienced independent masons on the actual construction sites, through on-the-job training and supervision of their local apprentices.

This methodology leads to the eventual emergence of an autonomous market for NV construction.



1 Opening Private Markets – our standard approach

The Issues

The dissemination of a development solution such as the Nubian Vault must be promoted directly among the beneficiary population, in order to ensure its fast and sustained appropriation and its integration into local social and economic customs. **The market is the best vector for such deployment:** it substantiates the concept (increase in the demand), reaches all relevant persons (individual clients, public and private

actors) and develops an entire professional sector generating jobs (growth of the supply). Considering the populations with the lowest incomes, a market strategy must nevertheless be specifically tailored to their needs as well as their social and economic realities, in order to enable swift access by most to appropriate housing, that is at once decent, affordable and adapted to environmental realities.

The Solution

The Kickstart method developed by AVN at the onset of its activities creates a market for NV construction by simultaneously generating a know-how (supply) and a clientèle (demand) and enabling their direct commercial relationship.

This method consists in training and supporting extension agents to initiate markets in multiple pilot villages, zones and regions, with the help of a “key-person” or “champion” from the targeted community, convinced by the NV technique and locally convincing. Awareness raising activities prompt clients to have a NV built for themselves, and attract potential apprentices and masons to undergo training in the technique and acquire a marketable skill. Little by little, a complete chain of masons and businesses develops, capable of training in turn their own apprentices, such that the number of trained masons

increases until a real local market for NV construction emerges. AVN thus enables, progressively:

- a supported market (AVN initiates and directly supports the market, sensitizes clients and masons),
- a semi-autonomous market (AVN connects clients and masons)
- and an autonomous market (clients and masons come into contact on their own).

AVN strengthens its support of market growth by **specific promotional offers for conventional masons**, inciting them to train in and adopt the NV technique. **Two other financial incentives aim to support the market at its weakest moment**, the outset of the agricultural season: one targets masons (“7,500” offer), the other targets clients (“Wa Saba” offer), encouraging them to start NV construction between September and mid-January of every year.



Results

The territorial deployment of the Kickstart method continued this season, with the opening of a new region, San-Tominian in Mali, and two new countries, Benin and Ghana. This initiation method remains the basis of the NV market, as 69% of the constructions stem from awareness-raising campaigns in pilot villages.

Burkina Faso

This season, AVN focused its Kickstart actions on the most promising pilot villages, in order to prioritize the deployment of its teams in all five regions. With 69 active pilot villages, the production stands at 62% from the supported market (97 construction sites) and is essentially turned towards the rural world (77%) and the core target, smallholder farmer clients (68%). The “Wa Saba” incentive enabled 16 of these construction projects to take place early in the season.

The political crisis of the end of 2014, at the start of the NV construction season, evidently curbed the capacity for investment of NV clients, and therefore **stalled the production in the supported market (-10%), and even more significantly on the semi-autonomous (-31%) and autonomous markets (-53%).**

The increase in the number of NV masons was below the 20% target, with **29 newly trained masons and artisans (+13%)**, carrying the overall number to 259 masons, of whom 161 are active. The incentive promotional offer for conventional masons involved 24 of these on 18 construction sites.

This season again, several Burkinabe masons were mobilized in countries with insufficient production capacity (Senegal) or in their opening phase (Benin and Ghana).

One can reasonably assume that the revitalisation of Burinabe society, brought about by the political crisis at the end of 2014, will allow for a rapid return to increased and accelerated results for NV production next season.

- Key figures**
- 97 construction sites on the supported market
 - 801 beneficiaries
 - 29 newly qualified masons
 - 24 conventional masons in training
 - 104 new apprentices



Mali

In Mali, the biggest event was **the opening of the San-Tominian region**, chosen as part of the collaboration with the Segou AOPP. This opening brings to 4 the total number of deployments of the Kickstart method, efficient and well adapted to the Malian context. With 50 active pilot villages today (+22%), the largest share of the Malian market (92%) is deployed in this sector.

The production marks a 40% growth, with 109 constructions completed, almost exclusively in the rural core target sector (99%).

The special offer encouraging clients to build early in the season (Wa Saba offer) was awarded to 14 of these construction projects.

The number of Malian masons saw considerable growth, advancing by 26% with 22 new operational masons and artisans for a total of 108 (71 active).

This growth is due in particular to the enrolment of conventional masons, supported by the promotional offer tailored for them: 68 such apprentices were trained this season, on 32 construction projects.

Key figures

109 construction sites on the supported market

950 beneficiaries

22 newly qualified masons

68 conventional masons in training

60 new apprentices

Senegal

In Senegal, the private Kickstart method was implemented, for the second season, in the region of Thiès, with the same results as Podor between 2011 and 2014: here too, **the classical market initiation method targeting a private rural clientele does not seem directly compatible with the local context**. Senegalese rural populations do not have the same organizational capacities as the Burkinabe or the Malian ones, providing materials and unskilled labour themselves (lowering the costs of a NV house), nor do they have the financial resources to pay the full price of a NV structure.

However, **the Senegalese NV market is characterized by a stronger interest from institutional and wealthier urban clienteles**. Their construction projects require project ownership and management support, for which the NGO Le Partenariat is responsible in the region of Podor, but for which there is a vacuum in other AVN deployment zones in Senegal. AVN needs to internally strengthen its own capacities in this respect for the following seasons.

Regarding the NV offer, **the first 100% Senegalese team of masons and apprentices is now formed**, thanks to the training of a site manager during this season. This team will still require the assistance of an exogenous referent mason (Burkinabe or Malian) for the next season.

The enrolment of conventional masons destined to strengthen the Senegalese supply capacity was still under discussion this year, but should come to fruition during the next season.

Key figures

3 construction sites on the supported market

55 beneficiaries

2 newly qualified masons

4 new apprentices



Ghana

In this first year of deployment of the programme in Ghana, the implementation of the Kickstart method in the Bolgatanga region has shown **encouraging results, relating as much to the emergence of a demand as to the interest in the technique**:

- 6 constructions were achieved, mainly for community use, and nearly ten projects have been ordered for next season, for various types of buildings (private home, barn, classroom, church, etc.)

- 12 apprentices, enrolled from among conventional masons, have acquired a good level of training and have committed to pursue their training. Among them, two achieved the qualification of NV mason as of their first year

Key figures

6 construction sites in the first deployment region

60 beneficiaries

2 newly qualified masons

10 new apprentices

Benin

This first season of activity in the Djougou region involved the identification and opening of **6 pilot villages, the construction of 2 projects and the training of 11 apprentices** by Burkinabe masons. Considering the strong interest expressed by the target populations, the awareness raising activities led this year have brought in the first orders for next season.

From the 2015-2016 on, AVN will need to focus on the requirements for the earliest possible emergence of a first generation of Beninese masons, in particular the implementation of the first promotional offers geared towards conventional masons, best able to quickly learn the particularities of the NV technique and gain autonomy.

Key figures

2 construction sites on the supporting market

8 beneficiaries

11 new apprentices



Senegalese apprentice masons

2 Opening of Private Markets in Partnership with Farmers' Organizations

The Issues

An appropriate answer to a major issue, such as that of housing, must necessarily be multi-sectoral and integrate the direct beneficiaries of the programmes into concerted actions led by development actors and local civil society organizations (farmers' organizations, grass roots community organizations).

Indeed, the Nubian Vault Programme cannot be deployed without their involvement, for reasons of legitimacy (they are direct representatives of the beneficiaries), as much as for the leverage effect these organizations can provide.

However, the majority of grass roots community organizations have significant weaknesses: lack of financial and human resources, technical and organizational limits, etc. **Finding quality partners capable of grasping both the concept and the NV popularization strategy thus becomes a major issue**, requiring time and significant support for awareness raising, selection, and training

The Solution

AVN wishes to involve civil society organizations which will allow a speedier duplication of the programme in their own areas of intervention. The value of such partnerships resides in **the strong bond that exists between these field actors and the beneficiary populations they stem from and, through it, their capacity for stimulating the programme at the heart of the communities**. By their local deployment and their networks, their capacity to sensitize and mobilize their members, their potential need for community buildings (and the exemplarity and training these allow), these partners complement AVN's popularization methodology.

Taking account of the individual characteristics of these partners, and in a collaborative vein, various courses of action may be taken for each partnership: awareness raising, NV constructions, involvement in professional training, micro-finance, capitalization on lessons learned, etc. Due to the technical and organizational limits of some of these actors, AVN also implements **parallel capacity building actions**.



Results

Until 2013 AVN followed a partnership pattern based on the franchise system, transferring its popularization missions (the Kickstart method) onto partners in other deployment zones. However, these at-a-distance partnerships have proven incompatible with the specific aspects of AVN's activities and methods, and the need for constant support in mastering them.

During the 2013-2014 season, AVN moved towards a **more collaborative partnership model in which the partner, directly supported by AVN, implements the Programme's deployment methods**.

A considerable scouting and protocol drafting work led to the formalization of 6 new partnerships (3 in Burkina Faso, 1 in Mali and 2 in Senegal) with community organizations of varying sizes, from a regional leader to a local farmer's organization. The

2014-2015 season was the first year of implementation of these partnerships, and has shown uneven results, regarding either the capacity or the will for pro-active involvement by the partners. But these difficulties have not altered in the least AVN's wish to **implement collaborative capacity building and reinforcement** in the context of these field partnerships.

Again, AVN recognizes the need to modify and evolve its proposed models: in light of the individual position, particularities and capacities of each field partner, a precise (re)definition of operational processes will have to be devised, collaboratively. This additional consultation and dialogue activity should enable AVN to **better target and position its partners in the deployment of an appropriate housing sector from which they can directly benefit**.

Burkina Faso

The farmers' organization AKNGS, in the Yako region, shows promising partnership qualities. Involved in awareness raising and fund-raising for these actions, it has encouraged the signing of an additional partnership with its credit union UBTEC for the implementation of a NV Housing micro-finance project. In contrast, the partnerships with two others farmers' organizations UGN-B and UGPCER-N, in the Yako and Dedougou regions, were hampered by the lack of commitment of the members of these organizations and their executive officers' lack of maturity and probity.

TNB, a franchised partner between 2011 and 2014, then field operator of the relocation project for disaster-stricken populations in Nebba, on-going since 2013, is also actively involved in strengthening and monitoring the training of NV masons and the construction of community buildings.

4 partners
AKNGS
UGPCER-N
UGN-B
TNB



Two vaults literacy centre in Déguembéré (Senegal)

Mali

The arrangement for collaboration with the AOPP-Ségou, in Tominian (San region, opened this year) was called into question: its regional leadership role appeared incompatible with a local and operational implementation of the programme. **The UACT, a locally active AOPP member co-operative, will take over the operational aspects of this partnership in the next season.**

2 partners :
AOPP Ségou
UACT

Senegal

AVN's local partners, OPDAD (supported by the Belgian NGO ADG) and Les Jaambars, have not demonstrated sufficient capacity to act in a dynamic fashion in their own territories (Tambacounda and Diourbel). These partnerships will either require more time to be implemented or remain in a role of strong local key-person.

The NGO Le Partenariat, AVN's main technical partner in Senegal, involved in the institutional market initiation in the North, also coordinated during this season a refugee resettlement project in Mauritania, on the border with Senegal.

Negotiations are also under way with a Belgian NGO, Malem Auder, for their involvement in awareness raising activities in the region of Kaffrine (Center-West of Senegal, bordering the Thiès region).

3 partners :
OPDAD
Les Jaambars
Le Partenariat
Malem Auder (under negotiation)

In Ghana and Benin

Several leads for potential partnerships have been identified and next season AVN will pursue the discussions it has already begun

3 Opening of Public and Community Markets

The Issues

Today, few existing solutions for building human settlements are adapted to local social and economic realities, to needs for comfort and sustainability, or to the consequences of climate change. There is today a need to **sensitize local and regional project owners (institutional and civil society actors)** for them to adopt, in light of their existing needs, new building practices when implementing community construction projects.

These project owners, operating in a formal market, are in a position to be able to **encourage the involvement of artisans and businesses, and other actors of the appropriate housing sector** (see the section on support to NV professions) and to set the foundations for an **institutionalization and formalization of this sector** through tangible and replicable examples (see the section on NV market intensification).

The Solution

AVN supports the initiation of a public and/or community NV market through awareness raising among local and regional project owners (regional councils, town councils, NGOs, etc.) and support for their NV construction projects.

AVN drafts project proposals answering the requirements of this target group (according to comfort, social, ecological, aesthetic and sustainability criteria for NV constructions). These documents are tailored to each type of building (schools, health centres, agricultural barns, cultural centres, etc.) and help institutional actors to understand the potential of the NV

concept. Once the NV construction project is approved, AVN conducts occasional follow-up missions, monitoring the construction and the emergence of an institutional NV market.

These community construction projects serve AVN's programme well as, on the one hand, the majority of these buildings are for the use of AVN's target beneficiaries and, on the other hand **these exemplary buildings demonstrate the value of the NV concept to local populations, promoting the development of a private NV market.**

Results

This year, AVN further boosted its awareness raising campaigns among regional and local actors, leading to:

- **the signature of several agreements**, in particular in Burkina Faso with the Eastern Regional Council in September 2014, prior even to the installation of AVN in the region, and in Ghana with the Department for Community Development of the Upper-East region;
- **negotiations for agreements** with (i) in Mali, the Koutiala inter-communal authority, (ii) in Senegal the Regional Agencies for Development in Thiès, Diourbel, Matam and St Louis and the Regional Council of Fatick, (iii) in Burkina Faso the Regional Councils of the Mouhoun River Bend and the North, and the Town Councils of Koubri, Niou, Kayao and Pilimpikou (iv) and in Ghana, 11 Town Councils, led by Bongo Town Council.

However, in Burkina Faso all elected councils were dismissed following the events of the end of 2014, effectively stalling all partnership processes

AVN's main technical partner in Senegal, the NGO Le Partenariat, a decentralized cooperation agency, works towards initiating an institutional NV market

through the sensitization of local authorities in its regions of intervention. Encouraging them to make use of the NV concept for their own needs for community buildings, supporting them on project ownership issues and taking charge of project management tasks itself, this organization is a model for the initiation of an institutional market.

This season, **27 community buildings for public use** were completed, covering a surface of over 1,800 m², in particular:

- 2 literacy centres in Burkina Faso and Senegal,
- 3 health centres: 2 in Burkina Faso and 1 in Senegal (maternity clinic),
- 3 religious buildings: 2 in Burkina Faso and 1 in Mali,
- 10 offices or technical spaces: 3 in Senegal, 5 in Burkina Faso, 2 in Ghana.

No significant agricultural building was produced this year. Considering the needs of this sector, and the value of the NV technique for agricultural storage, AVN needs to develop its awareness raising work in the agricultural domain.

2 partners with signed conventions
Conseil Régional de l'Est (Burkina Faso)
Department for Community Development (Ghana)
+ many partnerships under negotiation

Key figures
27 community buildings completed :

- 2 educational buildings
- 3 health centers
- 3 religious buildings
- 10 offices or workshops



Literacy centre in Déguembéré (Senegal)

REINFORCING NUBIAN VAULT PROFESSIONS



The activities of this component are led by the AVN teams and their specific technical partners. AVN encourages various activities to reinforce the on-the-job training on NV construction sites: technical and entrepreneurship training of apprentices, masons, artisans, and construction firms (1), training in architectural design, project management, and contracting. AVN leads, in parallel, technical research studies.

1 Technical and Entrepreneurial Training of Nubian Vault Masons and Construction Companies

The Issues

For years, AVN's actions focused on publicizing the Nubian Vault concept so as to bring about a demand for Nubian Vault constructions. This request would allow a natural strengthening of the market supply (transmission of skills from the masons to their apprentices on actual construction sites). This strategy proved valid until today: in our original countries of intervention (Burkina Faso, Mali and Senegal), AVN has recorded an average annual growth in demand of over 30% in numbers of new construction sites opened.

Yet for several years, the supply capacity (production by masons and number of masons) has tended to grow more slowly than the demand. For example, 20% of construction demand for the 2013-2014 season has not been met. In addition, the development of institutional and urban markets requires a strengthening of technical and business skills of Nubian Vault masons and the involvement of formal businesses.

The challenge is now to remedy this lack of production capacity by **enhancing the technical and entrepreneurial training and integration of the Nubian Vault concept within the commercial offer of established enterprises.**

The Solution

Since September 2014, AVN has made this issue a priority for its development programme and is working to set up a **specific Boosted Training programme (Formation Dynamisée or "F-Dyn" in French), both technical and entrepreneurial.** This programme increases, accelerates and boosts the on-site training of apprentices and Nubian Vault masons, both in qualitative and quantitative terms, but is not intended to replace it.

On real construction sites, the "F-Dyn" is implemented by **selected Trainer Masons, who are supplied with special training kits and tools.** "F-Dyn" requires extra time on these sites for the establishment of thematic workshops, as well as dedicated financial resources.

"F-Dyn" is also taught in Academy workshops where trainer-masons meet learners for theoretical modules (technical and educational), training

courses focused on entrepreneurship (team management and activity, marketing) and the sharing of good practice.

Construction entrepreneurs must also be able to respond to formal tendering calls. Momentum is thus generated for the masons who wish to formalize their activity, as well as for the companies wanting to include the Nubian Vault in their commercial offer. This important dynamic nevertheless has modest ambitions as the market remains largely informal.

Given the training needs evoked by the programme, **AVN also looks to the players in vocational training centers,** both in schools and outdoor sites, to persuade them to get involved in the growth of the appropriate housing sector.

Results

Training workshops for masons and apprentices

Since 2012, **to strengthen the theoretical knowledge of masons and apprentices,** AVN has been offering training modules at the beginning of each season. These modular workshops are organised by level and in small groups for optimal learning. Nowadays, these workshops are organised at regional, rather than national level, so as to facilitate participation.

This season, **223 masons and apprentices (+52%) have taken part in training workshops organised in Burkina Faso, Mali and Senegal,** notably due to the active participation of conventional builders recruited in Mali and an increased mobilisation of target groups in Burkina Faso. These activities will be integrated into the general framework of Boosted Training currently in preparation.

Key figures

223 masons and apprentices have followed training modules:
137 in Burkina Faso
80 in Mali
6 in Senegal

Design of the Boosted Training ("F-Dyn") Method

This season was dedicated to **designing the Boosted Training methodology** thanks to the contribution of volunteers, the hiring of an operations officer, and the active participation of Trainer Masons, key actors in the implementation of this new programme. Concurrently with the first on-site tests in Burkina Faso and Ghana, AVN ran the following activities: consultation workshops gathering all stakeholders, description of the method and its monitoring and evaluation process, design of on-site teaching tools and of evaluation measures to monitor the learning curve of students.

In the next season, Boosted Training will be implemented in all 5 deployment countries, in particular on institutional and community construction projects. The method and its tools will be added to and made more effective, capitalizing on field experience, including suggestions and criticisms from Trainer Masons and learners alike.

Key figures

42 days of Boosted Training on 14 construction sites
11 trainer masons
20 learners



Boosted Training workshop - Marking out the site



Involvement of formal sector businesses

Despite the difficulties encountered in engaging the interest of actors of the formal construction sector, the appearance of a demand for institutional and community NV buildings, in Senegal in particular, is progressively convincing this target group to integrate the NV concept into its own production offer.

This season, in Mali and Senegal, three new construction businesses were involved in institutional NV construction projects, training alongside NV masons and exchanging their skills.

For the first time in Mali, in the region of Koutiala, a partner (GERES) implemented the full circle of a NV project for formal businesses: call for tender and project ownership, replies from interested enterprises, project management support and training.

Involving formal businesses can only truly happen if a demand emerges from the institutional and wealthier urban markets. AVN's work of awareness raising and support for institutional actors on the regional and national scale, should therefore soon enable them to position themselves as NV project owners, requiring a response from construction firms to implement their projects.

Key figure

3 registered construction firms involved (1 in Mali and 2 in Senegal)

Support for formalization of NV construction firms

The first NV construction firm in Senegal has been created with the support of the NGO Le Partenariat. Richard Somda, a NV Burkinabe mason, has founded the Entreprise Habitat Moderne and will undertake his first formal construction during the 2015-2016 season (Yvelines House, in the Matam region).

Key figure

1 NV construction firm registered in Senegal by a Burkinabe mason

Institutional actors for vocational training

The year 2014-2015 was also devoted to meeting with vocational training centres (CFBTP in Diamniadio, Senegal, and CFP in Nioro, Mali) in order to consider common projects.

The differences in AVN's approach (on-site, on the job training) and this type of partner's methods (formal qualifications-based training) will require mutual negotiation to determine appropriate operational practices.

Partners (under negotiation)

CFBTP (Senegal)

CFP (Mali)

2 Strengthening Technical Expertise

The Issues

Until recently, AVN assumed that the sectors of the industry would emerge spontaneously in response to market needs; AVN had no intention of becoming a construction company, and would not replace technical players in the industry (project managers, prime contractors, building technicians, consulting firms, etc.)

However, **many complex Nubian Vault buildings, either private or community, urban or rural, require technical Nubian Vault expertise** to meet the requirements of public project owners and the expectations of an urban middle class clientele.

The Solution

In order for these technical skills to be integrated into the appropriate housing sector, **AVN must provide its expertise and internally train managers and technicians able to support these activities.** Eventually, AVN will support the emergence of independent technical experts (project managers, prime contractors, design offices, architects, etc.).

These technical consultancy and advice must be able to support :

(1) project managers and their ability to manage Nubian Vault operations (scheduling, site studies, proposal draf-

ting, operational follow-up, construction control, etc.), (2) prime contractors and their ability to integrate the NV professional guidelines into their practice, both in architectural design and in monitoring of construction sites.

Their role will also be to convince various administrations' technical departments of the interest of the Nubian Vault concept and to involve them in its dissemination. They will also have to support the more complex components of the Boosted Training process aimed at NV masons and construction firms.





Contracting authority support by Le Partenariat in Senegal

3 Technical Research and Studies

The Issues

From the start, the Nubian Vault technique was deliberately normalized and standardized in a simple and replicable form, to ensure maximum appropriation (transfer of know-how) and prevention of malpractice. This approach is embedded in the cultural and architectural traditions of AVN's core rural target group.

However, **market developments have brought new clients, either private or public and urban or community, with new needs** and uses involving new types of building. For these clients, it is necessary to **propose technical innovations for maintenance**

of NV buildings, as public and urban clients tend not to ensure regular maintenance themselves. The Nubian Vault technique therefore needs to be adapted to the construction of complex buildings (types of flooring, bigger volumes, staircases, finishes), and to reduce or eliminate maintenance (resistance to erosion), and to ensure sustainability in urban areas (storm-water drainage, for example).

Note that these technical developments complement the premise of a simple and popular architecture without replacing it.

The Solution

In recent years, AVN and some of its partners have conducted research on complementary techniques to **enhance the resistance of earth architecture to adverse weather conditions by providing a wider choice of locally available materials**. AVN has also **optimized the qualities and architectural uses of the Nubian Vault concept for private developments in urban areas** and for public and community uses. For example, research has been conducted on earth-tar mortar coatings, on parapet walls and rammed earth foundations, and on earth bricks able to hold cement coatings.

Today, many of these technical solutions are ready to put into practice. It is now necessary to implement a dynamic training programme, to allow for their proper implementation by the Nubian Vault masons.

AVN also produces **performance study reports (architectural, hygrometric, thermal) and technical reports** for different building typologies and complexities.

Results

AVN has recently improved its understanding of the inherent ambitions and constraints of this issue, in particular in regard to the emergence of an institutional market, mainly in Senegal, and through the example of project management and support for project ownership undertaken by the NGO Le Partenariat in northern Senegal

In order to better manage the requirements of this market sector, a **pro bono skills sponsorship was proposed to Artélia for a general audit of the emergence of the formal market** (urban and institutional/community buildings) of the NV concept in Senegal. Mobilizing 2 building engineers, this sponsorship provided guidance and recommendations concerning:

- technical guidelines to be produced for all types of community buildings
- standard documents (terms of reference and calls

for tender) for local authorities to create a NV market,

- procedures for inducing changes in the legislative framework, in particular for the normalization of earth construction by the Senegal Norms Agency,
- organizational improvements, with the creation of an AVN technical hub to support project ownership and management.

All of these recommendations contribute to defining development strategies for the programme in the coming seasons.

Partners
Artélia (France)
Le Partenariat (France - Senegal)



Mud bricks with encrusted pebbles for cement renders to reduce maintenance

Results

Technical Testing

This season a variety of technical experiments were carried out on at least 11 buildings in Senegal and Mali, in order to progress the validation of new techniques and their transmission to NV masons. Not all these experiments have been recorded, as some were carried out independently by NV masons without providing feedback to AVN.

Today, **mud bricks with encrusted pebbles** have proven their worth for securing protective cement coatings.

Earth, sand and tar mortars and coatings were validated as erosion-proof coats for the roofs. Their use as protection for walls still requires validation.

New types of acroteria (parapets of cement blocks and slabs, reinforced concrete) were successfully tested and their implementation techniques refined.

The use of solid pre-cast concrete blocks to create arches replacing load-bearing walls was satisfactorily tested.

Compressed earth foundations, indispensable in areas devoid of rocks for the foundations, are systematically implemented in northern Senegal and the area around Ségou, Mali. This technique requires a perfect mastery of its implementation (high risk of defects) and the supervised training of all relevant NV artisans remains essential.

The majority of these techniques have been incorporated into technical guidelines available to NV masons and construction managers. In the coming years, Boosted Training workshops will also be designed on these topics in order to transmit them to masons and apprentices.

Key elements

At least 11 test buildings

Mud bricks with encrusted pebbles to secure cement renders

Earth-sand-tar render

Concrete parapets

Rammed earth foundations

Reinforced concrete posts and beams

Studies on thermal comfort and agricultural building

New campaigns of comparative hygro-thermal measurement were carried out in Burkina Faso (on private housing) and Senegal, as part of a study on quantification of greenhouse gas emissions during the life cycle of a NV building (see pp. 70-72).

The initial analysis of results confirms the thermal comfort qualities felt by NV clients. Cold discomfort (temperatures lower than 20°C) is weak or inexistent. Extreme hot discomfort (temperatures above 37°C) is significantly diminished compared to buildings with a metal or concrete slab roof. A comprehensive report on this data will be produced next season.

Sherbrooke University continued its comparative hygrometric measurement on NV onion storage houses in Yako, Burkina Faso. Data analysis, to be conducted

next season, will appraise the relevance of the NV solution for storage of this specific product, an essential food for African homes, sensitive to both humidity and temperature variations. These analyses will certainly be adapted for other agricultural produce.

In the second half of the season, AVN welcomed a volunteer architect who carried out **a study on the NV response to agricultural and cattle-raising needs, a first step in the technical and strategy report on "NV and Agriculture"**, to be produced in 2015-2016.

Partners:
Sherbrooke university
Tono Conseils

Technical guidelines

Starting this season, the involvement of an architect and of technicians from the NGO Le Partenariat made the collection of **technical guidelines for various types of community and institutional buildings possible.** Such documents are essential for the involvement of institutional project owners: their completion is a goal for next season.

Partners :
Le Partenariat
Architect, Mathieu Hardy



Construction of rammed earth foundations

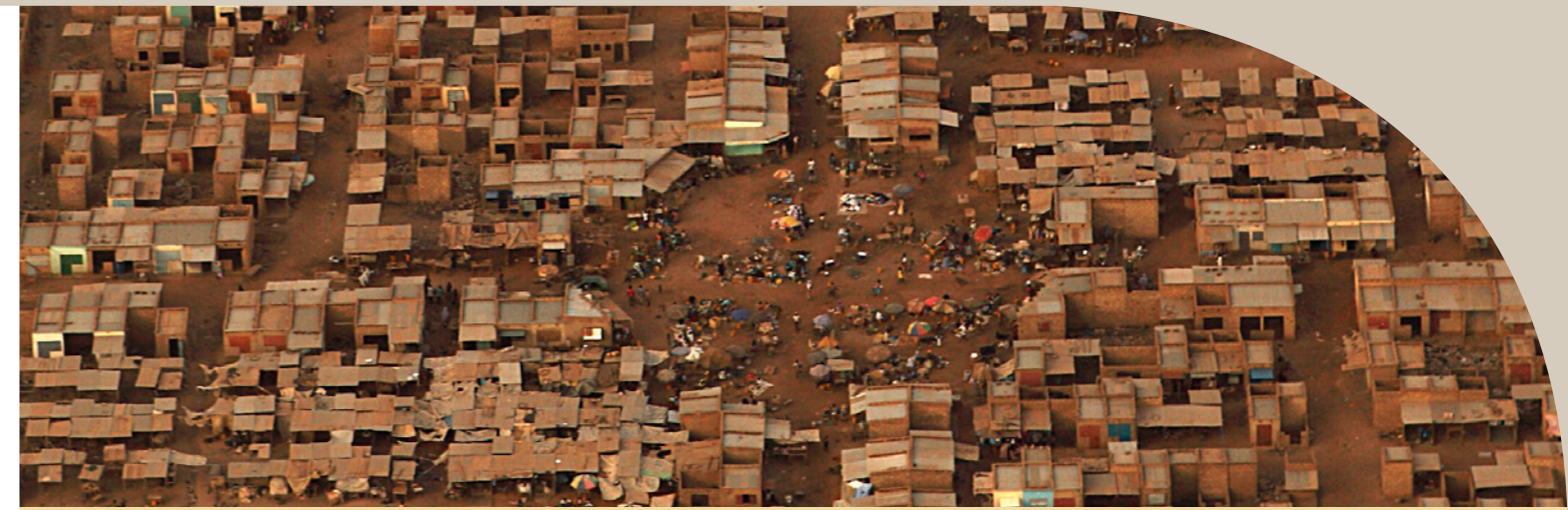


Cement rendering

SCALING UP THE NUBIAN VAULT MARKET

AVN promotes the opening of markets for NV construction at national and regional levels for various types of customers (rural / urban, private / community, formal / informal). Tools and methods are implemented to strengthen the appropriate housing sector. The ambition is to see the emergence of a dynamic and rapidly expanding market for NV construction.

Political support is essential for the Nubian Vault concept to be included in development planning and national construction programmes, while allowing for official recognition of the market. Financial tools such as home loans and various grants are also necessary, as well as advocacy involving international aid partners on mass housing issues.



1 Institutionalization

The Issues

The 30% annual growth of the Nubian Vault market is not sufficient to overcome the enormity of needs (the current state of the housing stock, demographic, environmental and climatic emergencies). **The involvement of politicians, initiating national and local actions for sustainable housing in Africa, is therefore both legitimate and essential.**

Mass housing issues are integral to economic or legislative policies concerning professional training and employment, environmental impacts and adaptation to climate change, and as such they concern policy makers and the administrations that serve them. Governments have an immediate interest in their populations' access to adequate and decent housing, and need to support the construction sector in bringing about the resolution of these issues.

The challenge of reversing the current problem of lack of decent housing for all cannot be met without the inclusion of the evolution of the housing construction sector in national strategic plans. If it is to succeed, such an evolution also requires a multi-sectoral approach (including housing, professional training, environment, but also agriculture, education, health, etc.).

Civil society and local business and sponsors must also take part in awareness raising and mobilization of the political actors to reinforce this evolution, as, collectively, they contribute to the development of these policies.

The Solution

AVN must therefore educate and involve political actors to take ownership of both the Nubian Vault technical concept and its popularization methods, and to become approved and legitimate contracting authorities.

With this aim in mind, AVN strengthens its advocacy and mobilization actions for institutional actors by joining think-tanks and seeking out convinced stakeholders (local champions). The Association is working on **the registration of the Nubian Vault technical concept for its formal institutional recognition, the inclusion of the Nubian Vault in development plans of local authorities and the emergence of a formal market support-**

ted by pre-existing construction needs of communities. AVN also assists States in seeking international dedicated funding, including major climate funds (GEF, Green Climate Fund, the Adaptation Fund, etc.).

The involvement of State institutions should guarantee a scaling up of the Programme. Its recognition by the authorities and the re-positioning of the Association (and its partners) as a development operator in the appropriate housing sector, mandated by official institutions, will mark a further stage in the Programme's development.

Results

AVN raises awareness among national institutions and relevant government departments (including Housing, Environment and Employment) of the potential of integrating the Nubian Vault concept into national development policies. **AVN thus undertook advocacy actions in its five operating countries, at all institutional levels, during the 2014-2015 season**, and in April 2015 recruited an advisor in charge of institutional advocacy, based in Mali, to support the activities of AVN's national teams in this respect.

In addition, following its participation in COP20 in Lima, and on the advice of Ms. Girardin's team, **AVN helped African State negotiators to integrate adapted housing issues into their Intended Nationally Determined Contributions (INDC)** expected in December 2015 for the COP21. This work was successful in the months that followed the end of the season, since both Burkina Faso and Senegal's INDCs explicitly mention the Nubian Vault as a sustainable development solution for their countries, while Benin and Ghana's INDCs consider the construction and housing sector as a key element of their strategy to control greenhouse gas emissions.

Senegal

AVN met with the following State or parastatal bodies :

- *Ministry of the Environment and Sustainable Development*: AVN met the Minister and he was the first signatory of the "Manifesto for Appropriate Housing in the Sahel" (see International Advocacy section below). A project involving the issue of appropriate housing backed by the Ministry and overseen by UNEP on GEF 5 funds is currently under appraisal.
- *National Agency for the Promotion of Youth Employment, Ministry of Labour*: a technical note offering leads for collaboration with AVN was submitted to the Agency.
- *Ecological Monitoring Centre*: a project was submitted to the Centre, with the aim of procuring a Green Climate Fund co-financing.
- *Minister of Vocational Training, Apprenticeship and Craft Trades*: the Minister was introduced to the programme during a regional fair.
- *Ministry of Urban Renewal, Housing and Living Conditions*
- *Directorate for School Constructions*
- *Ministry of National Education*
- *Public Works Execution Agency*
- *Project Coordination Unit for the Ministry Vocational Training, Apprenticeship and Craft Trades*

International sponsors :

- *GEF focal point*: Proposal submitted
- *Green Climate Fund focal point* : Proposal submitted
- *GIZ*: discussion underway concerning possible collaboration
- *KfW*: discussion underway concerning possible collaboration
- *UN-Habitat*: discussion underway concerning possible collaboration

Partner :
Ministère de l'Environnement et du Développement Durable

Mali

AVN met with the following State or parastatal bodies:

- *Agency for the Environment and Sustainable Development, Ministry for the Environment*: World Bank funding was obtained within the framework of the National Resources Management Project in Climate Change (PGRNCC) in three circles in the regions of Kayes and Koulikoro.
- *Executive Secretariat of the Ministry for the Environment*: AVN advocated for the inclusion of the NV propositions in Mali's INDC drafted for the COP21.
- *Ministry of Economy and Finance*: non-earmarked funding for the NV programme was awarded by the Islamic Development Bank (IDB Small Grants) following a request by the Minister of Economy and Finance.
- *Malian Housing Office*: a technical note presenting possible means for collaboration with AVN was submitted to the Housing Office.
- *Support Fund for Vocational Training and Craft Trades, Ministry of Labour*: a technical note presenting possible collaboration options with AVN was submitted to the Fund.
- *Agency for the Promotion of Youth Employment, Ministry of Labour*: a technical note presenting possible collaboration options with AVN was submitted to the Agency.
- *Ministry of Urban Planning and Housing*
- *Cabinet of the Minister for Urban Planning and Housing*: a technical note containing propositions for collaboration was submitted by AVN.
- *National Directorate for Rural Engineering, Ministry for Agriculture*.
- *Centre for the Strategic Framework Against Poverty, Ministry for Economy*: AVN advocated for the inclusion of the NV propositions into the new multi-annual strategic plan for development in Mali.
- *National Directorate for Professional Training, Ministry for Professional Training*.

International sponsors :

- *AfDB*: a project for strengthening rural resilience integrating NV proposals is underway with a possible grant from GEF 6
- *The French Embassy*: a project has been presented to the Fonds social de Développement of the Embassy and was on the point of being financed
- *GEF focal point*: Proposal submitted
- *Green Climate Fund focal point*: Proposal submitted
- *GIZ*: discussion underway concerning possible collaboration

Partner
Agence pour l'Environnement et le Développement Durable (AEDD)

Ghana

AVN met with the following State or parastatal bodies:

- *Ministry of Water Resources Works and Housing*: a partnership is being designed with the Regional Directorate of the Department for Rural Housing (DRH).
- *Ministry of Environment Science and Technological Innovation*: a partnership is being designed with the Environment Protection Agency, Ministry of Environment
- *Department for Community Development (DCD), Ministry of Local Government and Rural Development*: this Ministry provided the land for ANV-Ghana's national office. AVN and the Ministry are exchanging views on a possible partnership.

International sponsors:

- *GEF focal point*: Proposal submitted
- *Green Climate Fund focal point* - Proposal submitted
- *World Bank*: discussion underway concerning future collaboration
- *UN-Habitat*: discussion underway concerning future collaboration
- *European Union*: discussion underway concerning future collaboration

Partner

Department for Community Development

Burkina Faso

AVN met with the following State or parastatal bodies:

- *National Council for the Environment and Sustainable Housing*: a representative of the Council's Permanent Secretariat, also GEF Focal point, visited AVN's National HQ in Boromo.
- *Regional Directorate of the National Agency for Employment of Dedougou*
- *Vocational Training Centre of Somona*
- *Provincial Directorate for the Environment of Bâlés*. AVN has established few relationships with public institutions in Burkina Faso in the 2014-2015 season as it was a time of political transition in the country.

International sponsors:

- *GEF focal point*: Proposal submitted

Benin

AVN met with the following State or parastatal bodies:

- *Prime Minister's Office*: a meeting with Lionel Zinsou was scheduled in May 2015 when he was vetted as Prime Minister. This provided a brief opportunity for dialogue after his nomination relating to the possibilities of a transversal integration of the NV proposals in Beninese public policies.
- *Ministry for the Environment and Ministry for Housing*: discussions are opened for a partnership agreement between AVN-Benin and the Ministry
- *Ministry for Tourism*

International sponsors :

- *GEF focal point*: Proposal submitted
- *Green Climate Fund focal point*: Proposal submitted

2 International advocacy

The Issues

Access to decent housing is a priority for everyone, and especially so in Africa because of the recent high population growth. However, this major issue is significantly undervalued and therefore not sufficiently addressed by international actors, and often left out of programmes providing access to essential services. During the first half of 2015, the international community included the promotion of human settlements «open to all, safe, resilient and sustainable» as a Sustainable Development Goal (SDG). However, to date **there has been little truly international mobilization for housing – and especially rural housing - as a tool for social and economic development.** The focus on cities and urban centres is trying to solve problems related to rural migration and rapid urbanization, but fails to address the causes of this exodus, one of which is the lack of decent rural housing.

In these circumstances, it is necessary **to make international actors (multilateral organizations, states and local governments contributing to Official Development Assistance) aware of the importance of access to appropriate housing for as many people as possible.** Such awareness highlights how these actors would gain in getting involved, as this issue is linked to various transnational problems (migration, economics, climate) affecting them directly. One would expect that their involvement would lead to political mobilization, as well as financial and technical support.

The Solution

AVN invites political leaders, civil organizations and development actors to encourage a genuine international awareness of the critical issues related to mass housing, and to elevate the effective delivery of appropriate housing to the rank of a major cause. Introducing this priority into international discussions and commitments related to sustainable development, and to positive economic, environmental and climate (reduction and adaptation) issues would guarantee the sustainability of the affected communities.

AVN pleads in international spheres for the inclusion of the issue of appropriate housing in development programmes and their financing. AVN is now considered as an international reference on adapted housing issues in Sahelian Africa through its participation in major events and through its delivery of a comprehensive programme incorporating interrelated issues of housing, economic development, vocational training, micro-entrepreneurship, reduction and adaptation to climate change, and improvement of living and working conditions and access to basic services.



Thomas Granier presenting the AVN programme at the COP20 in Lima

Results

This season, AVN engaged in large-scale advocacy actions, aiming to bring the issues of appropriate and low carbon housing for all into international negotiations on today's environmental and climate issues, and into African States' development policies.

This expansion of advocacy activities mobilized increased human and financial resources, for:

1. The drafting and publication of a Manifesto for an Appropriate and Sustainable Response to the Challenge of Providing Quality Housing in Sahelian Africa. This manifesto was presented for signature to leading figures and development actors in the relevant countries prior to a larger diffusion. At the end of December 2015, it was signed, among others, by:

- Lionel Zinsou, Prime Minister, Benin
- Théophile Worou, Minister of the Environment and Climate Changes, Benin
- Noël Fonton, Minister of Urban Planning, Housing

and Sanitation, Benin

- Diène Farba Sarr, Minister of Urban Renewal, Housing and Living Conditions, Senegal
- Abdoulaye Baldé, Minister of the Environment and Sustainable Development, Senegal
- Haidar El Ali, Former Minister of the Environment, Senegal
- Moussa Mara, Former Prime Minister and former Minister of Urban Planning, Mali
- Nicolas Hulot, President of the Nicolas Hulot Foundation for Nature and Man, France
- Yann Arthus-Bertrand, Photographer and President of the Good Planet Foundation, France
- Monique Barbut, Executive Secretary of the United Nations Convention to Combat Desertification (UNCCD), France
- Pascal Canfin, Former Minister of Development, France
- Michel Rocard, Former Prime Minister, France



2. Approaches to several influential networks and active participation in advocacy actions led by the following networks:

- Coordination Humanitaire et Développement (CHD) and Coordination Sud (CSud), both joined by AVN in October 2014. AVN was especially active on the Climate and Development Commission working group within Coordination Sud in the preparation of the Paris Conference of Parties.
- Desertification Working Group animated by the Centre for International Actions and Achievements (CARI), which AVN joined early in 2015 on the advice of Monique Barbut, Executive Secretary of UNCCD.
- Housing and Francophonie Network, with which AVN participated in two events this year (in Senegal and Morocco)

3. Participation in numerous international events (alleviation and adaptation to climate change, fight against desertification, housing, African development, etc.), thanks to the engagement of AVN's Directorate in France and its International Advocacy Officer:

- Affordable Housing Solutions for Low-Income Communities, BOP Sector Dialogue, GIZ, Berlin, Germany

- Lima Conference of Parties, United Nations Framework Convention on Climate Change (UNFCCC), COP20, Lima, Peru, December 2014
- Social Housing facing Climate Changes, Housing and Francophonie Network conference, Rabat, Morocco, April 2015
- Green Economy in Africa Programme Conference, IFDD, OSS, CITET, and University of Senghor, Tunis, Tunisia, April 2015
- International Climate Conference, UNFCCC, Bonn, Germany, June 2015
- Désertif'Action Forum, CARI, Montpellier, France, June 2015

4. Targeted advocacy towards international organizations and international donors (Global Environment Facility, Green Climate Fund ...etc..). This contacts are also repeated in the different countries where AVN operates via the national focal points of these organisations.

In all these circles, AVN brings its message pleading for consideration of the issues around appropriate housing for the many, and the link to economic growth, environment and climate, offering technical proposals, promotional strategies and expertise.

Key elements

Dissemination of a Manifesto

6 international events

Advocacy towards major international organisations

Membership of three networks

Coordination Humanitaire et Développement (CHD)

Coordination Sud

Groupe de Travail Désertification (GTD)

3 Housing Micro-Finance

The Issues

Strengthening the adapted housing sector with micro-credit products for financing NV buildings is a major challenge. **A dynamic housing sector implies an equivalent dynamic credit.** However, rural populations of the Sahel, as in many developing countries, are rarely customers of traditional banks. These populations generally offer low financial viability (little available cash, low income, lack of tangible guarantees) and the banks' formalism is ill adapted to rural realities.

On the other hand, Micro-Finance Institutions (MFIs) specialize in meeting the needs (including credit) of these theoretically unprofitable groups. Their transaction and recovery costs are pooled and mixed by the

joint guarantee system (a group of borrowers in secured debt). Their risk is limited via the scheduled repayment of small amounts, for short periods, with high rates that allow them to cover their expenses.

To cover such amounts, MFI's usually seek income-generating activities, which are not directly relevant to the housing issue; when they do exist, micro-credit spent on housing is generally dedicated to improvements and rarely to the higher amounts needed for initial construction.

Yet for VN beneficiaries in rural areas, it is crucial to have access to credit to pay for the costs of skilled labour and finishes (doors, windows, etc.)

The Solution

Thanks to the contribution of unskilled labour and locally sourced raw materials by the NV beneficiaries, the cash contribution required to build in NV is much lower than for a conventional building, and is in the range of the credit practiced by MFIs.

Although a NV house is not directly revenue generating, durability and passive thermal performance allow the clients to save some available income, which they will be able to allocate to other purposes; in addition, the NV brings about major improvement in its beneficiaries' living conditions. Hence the consistency with MFIs' missions.

Many MFI's, mostly based on subsistence farmers' and smallholders' organizations, seek to develop and create new products to better meet the needs of their custo-

mers - the organized and productive rural population, AVN's core target group.

For all these reasons, it is essential and coherent for AVN to identify and set up partnerships and contractual arrangements with micro-finance providers, to apprise their staff of the specifics of the NV concept, and to support them in raising awareness of the NV among their networks of clients. MFI staff will also need to play a role in monitoring the relationships between NV clients and masons / entrepreneurs. AVN needs to be heavily involved in these processes during the development of micro-finance arrangements. Finally, it is necessary to get re-financing organizations involved who are able to assist the MFI's with these new loan products.



Thomas Granier & Cécilia Rinaudo receiving the Prize « Momentum for Change » at the COP20 in Lima

Results

At the moment, this activity is in a pilot project phase in Burkina Faso, and under preparation in Mali and Senegal.

In Burkina, the two current pilots with MFI's are an opportunity to test and refine the procedures for setting up this type of partnership, in particular the relationships with credit agencies, and the close collaboration required between the MFI's and AVN as jointly responsible for bringing the loan products to the end-users.

After the promising launch of a NV housing micro-finance product in February 2013, in the region of Dédougou, with APFI-B (ex-CVECA), its execution was delayed because of:

- communication problems among the MFI staff which delayed the mobilization of the credit agents

- in promoting the product,
- too great a delay in processing the loan requests leading in turn to delays in starting the NV building sites, to dates by which the NV masons were no longer available,
- inadequate monitoring of the pilot project by AVN and the MFI managers,
- the abandonment of the loans by the clients, or their use for other purposes, in particular prompted by the financial difficulties linked to the political crisis in the country; for the 13 loans agreed during the two seasons, only 8 NV buildings were completed.

Nevertheless, AVN and APFI-B, after analysis of the experience of this first phase of the pilot, are convinced of the relevance of the plan, and now need to develop together a more efficient delivery system for the micro-credit products.

Key figures

9 buildings completed since 2013
38 beneficiaries

Partners

APFI (Burkina Faso)
UBTEC (Burkina Faso)
IRIS (France)



Signing of the agreement between AVN and UBTEC

With the help of deployment partner AKNGS (Naam Group) in the region of Yako, a partnership was established at the start of the season with the savings bank UBTEC (Union des Baoré Tradition d'Épargne), with a focus in this first year on the briefing of the management and training staff of their credit agents. Even though only one NV building was completed, the partnership shows promise:

- the high level of interest of many of the staff involved,
- the coherence of the loan product with the UBTEC's strategy of encouraging products and projects concerned with environmental protection,
- the means proposed by UBTEC for setting up the loan product (making funds available, establishment of a focal point, recruitment of a dedicated staffer, involvement of credit agents etc.)

In addition, next season UBTEC plans to develop investment credits to help reinforce the productivity of NV masons and entrepreneurs.

In Mali and Senegal, several micro-finance institutions have been identified as future potential partners:

- in Mali, AVN has met with the FGHM (Fonds de Garantie Hypothécaire du Mali) to prepare a plan for collaborating in providing a guarantee to Malian MFI's prepared to provide NV housing loans. An agreement is due to be signed next season.
- In Senegal, proposals made to a bank (BICIS) and to a MFI (Caurie-MF) concerning NV housing credit programmes are currently under examination.

Furthermore, during this academic year a group of students from IRIS (Institut des Relations Internationales et Stratégiques), in Paris, have prepared a detailed document specifically on a NV housing credit programme.



NV construction site financed by NV Credit Habitat

5 OUR MEANS FOR ACTION



THE ASSOCIATION AND ITS VOLUNTEERS

An innovative proposal must be backed by collective commitment if it is to actually blossom and develop.

The active and voluntary involvement of AVN's founders and their friends and families made the programme's first few years possible: standardisation of the NV concept, development of the Kickstart method, draft operational guidelines, etc. The not-for-profit structure under French law was established in 2000.

The first external funding received and the hiring of managers made development of activities in the field possible; the Board of Directors' role therefore refocused on the moral and legal responsibilities pertaining to their functions.

Today, volunteers are more involved with the new strategic areas of focus and communications.

The members and directors

As of 31 August 2015, AVN had **31 active members, including a 7-person Board of Directors:**

- Benoît Lambert, President, Designer (retired)
- Anthony Kaye, Vice-president, University professor (retired)
- Jean-Marie Crombez, Treasurer, Retailer
- Jean-François Naud, Secretary, Documentary film maker
- Gérard Douchet, Administrator, Engineer
- Annelies Hollewand, Administrator, Trilingual secretary
- Nathalie Guillot, Administrator, Architect

Given the programme's growth, both strategic (diversification of activities) and in terms of resources (human and budgetary), the Board of Directors wants to **strengthen its expertise by inviting development actors and corporate and administrative representatives** to join its ranks.

Key Moments for AVN

The Board of Directors meets quarterly. Priorities and administrative decisions are approved based on specific indicators and on prior exchanges with the country coordinators and the team at the headquarters in France.

General Assemblies are held twice a year: once at the end of the calendar year to approve the annual accounts, and once at the beginning of the season to approve activity reports and look at prospects.

The start-of-season General Assembly takes place during the **annual seminar week held in France** at the end of August. The entire team from headquarters attends, as do members of the in-country teams, African managers and expatriate employees (VSIs). For about ten days, the operations team works to draft AVN's strategic priorities, using results and analyses to do so. They hold thematic workshops and other events on important projects for the coming season. These meetings are an opportunity to discuss the advances made by the programme with administrators, members and volunteers.



Volunteering: the «added value» of development basics

The first volunteers worthy of mention are the members of AVN's bureau. In addition to their responsibilities as administrators and representatives, they also take on one-off duties: communications in English, awareness raising vis-à-vis the diaspora population in Île de France, financial data entry for some activities, and support for media production.

Four other volunteers also merit recognition for their contribution to the 2014–15 season:

- Régis Binard, a professional photographer, provided beautiful photos of masons at work, worksites and NV buildings from his trip to Senegal,

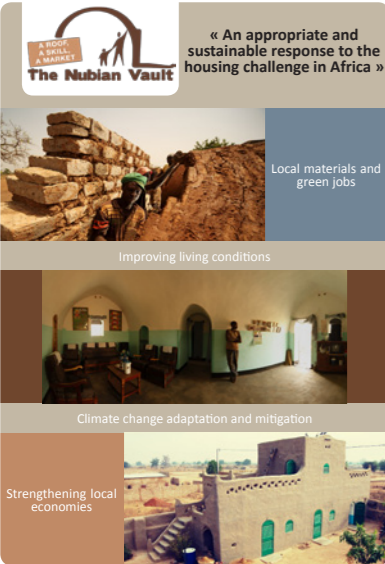
- Cloé Collet and Mathis Sandevair, an architect-in-training and a public works technician, respectively, spent seven months designing and implementing the Boosted Training method in Burkina Faso,
- Laure Marquez, a newly graduated architect, took over for them for four months, carrying out a study on the "Analysis of NV Responses to Agricultural and Livestock-Herding Needs". This was the first stage of the technical and strategic report («NV and Agriculture») which is to be published in 2015–16.

Finally, additional volunteer work by managers and service providers, who went far above and beyond their contractual duties, also deserves recognition.



A COMMUNICATION STRATEGY UNDERGOING RENEWAL

AVN strengthened its communication strategy to promote the programme and in particular its advocacy efforts in development of an adapted housing sector. External service providers and employees worked together to improve visual and written communications as part of this strategy. The programme's reputation also led to it being promoted by external media (radio, videos, etc.).



New written communication and advocacy materials produced

An introductory pamphlet providing an overview of AVN's intervention strategy, which, in addition to describing the basics of the programme, also offers ways for the different partners to get involved in various topics and projects.

A «Manifesto for an appropriate and sustainable response to the challenge of providing quality housing in Sahelian Africa» in support of international advocacy was offered for signature to key figures and development actors in the countries concerned. It was then released to a wider audience, notably at international events.



Production of two films introducing the programme

As part of the Momentum for Change Award, the UNFCCC produced a very short video (2'25»), filmed in Burkina Faso. In addition to presenting the problem and the technical concept, the video focuses on skills transfer from one mason to another, and the many benefits of a housing sector that is tailored to the African Sahel. This film was shown during the award ceremony at the COP20 in Lima, Peru, in December 2014.

A second film, co-financed by the FFEM and co-written by AVN, was filmed in Burkina Faso and Senegal at the beginning of 2015. This mixed beautiful images with numerous interviews, and portrayed the programme through the eye of stakeholders and beneficiaries (collaborators, partners, clients, masons, institutional partners). Completed at the beginning of the 2015–16 season in 10- and 14-minute versions, it was shown at the COP21.

The many remaining rushes will be used next season in short clips on specific topics (community buildings, different types of architecture, etc.).



Communications campaign: My Positive Impact

Winner of the contest launched by the Nicolas Hulot Foundation, AVN benefited from a communications campaign involving, among other things:

- material created by Havas, an advertising agency
- an invitation for Thomas Granier to present the technical Nubian Vault concept on the TV show Ushuaïa le Mag in June 2015 alongside Nicolas Hulot.



Radio shows and reports

Invited by Emanuelle Bastide to participate in the show *Seven billion neighbours: using micro-loans to build a house in southern countries* in June 2015, Thomas Granier presented the micro-finance pilot project for NV housing in Burkina Faso. François Perrot, responsible for Lafarge's affordable housing project, and Nelly Defo, the former head of investment and special products at Shelter Afrique, also participated.

RCF Radio also aired a show on AVN in April 2015, while France Info reported on AVN in Senegal as part of World Environment Day in June 2015.

In May 2015, the Burkina Faso national team was interviewed for a radio show, *Le Marché Libre (The Free Market)* for RTB (Radio Télévision du Burkina).

FOLLOW-UP AND EVALUATION

Improved monitoring and evaluation tools

AVN supports the management of its programme with a robust computerised monitoring and evaluation system. It is regularly updated to meet the overall strategy and the follow-up needs of the programme concerning territorial distribution or thematic monitoring.

Data collection, carried upward from regional to national to international levels, is recorded with IT tools, generating reports that:

- record the market developments,
- monitor the socio-economic and environmental impacts,
- anticipate necessary adjustments and accompanying actions.

These IT tools, designed to monitor and evaluate production and training are composed of three main fields: masons, customers and missions, and several subsidiary ones: localities, employees, etc.).

During the 2014-2015 season, they have been improved in terms of:

- data organization (sorting, filtering) and export (pdf, file)
- data sharing and centralization at regional, national and international level
- data input and summaries produced in relation to the strategic development of the program.

In March 2015, Bruno Jarno, a consultant to AVN, conducted a training mission on new follow-up IT tools for the national teams. These teams then, in their turn, trained the regional teams in their use.

The 2015-2016 season will be dedicated to adapting these tools to the new logical framework and to expanding the use of data to new applications: GPS, personalized monitoring of mason training, sms server, etc.

LISTE DES APPRENTIS ET MACONS

LINE	X	C	#	PAYS	REGION	ZONE	NOM	PRENOM	CONTACT ?	ACTIVITE VN ?	TYPE POSITION	POSITION ACTUELLE
0124		C4	BF_BOR_0084	BF	BOROMO		ZIDA	Thomas	EN CONTACT	ACTIVITE VN	TRAVAILLE	SN
0125		C4	BF_BOR_0085	BF	BOROMO		ZONGO	Seydou	EN CONTACT	ACTIVITE VN	LIBRE	
0126		C3	BF_BOR_0321	BF	HORS REGION		BAGAGNA	Athanase	EN CONTACT	ACTIVITE VN	TRAVAILLE	Ouaga
0127		C3	BF_BOR_0531	BF	BOF							
0128		C3	BF_BOR_0602	BF	BOF							
0129		C3	BF_DDG_0032	BF	DED							
0130		C3	BF_BOR_0703	BF	BOF							
0131		C3	BF_BOR_0104	BF	BOF							
0132		C3	BF_BOR_0105	BF	BOF							
0133		C3	BF_BOR_0328	BF	BOF							
0134		C3	BF_BOR_0187	BF	BOF							
0135		C3	BF_BOR_0665	BF	BOF							
0136		C3	BF_BOR_0694	BF	BOF							

FILTRE LA BASE DE DONNEES DES MACONS

Veuillez sélectionner ci-dessous les critères souhaités :

IDENTIFIANT :

NOM :

PRENOM :

CLASSE : Tous C1-C2 C3-C4-C5 C4-C5

C0 C1 C2 C3 C4 C5

CONTACT :

ACTIVITE :

POSITION :

PAYS :

REGION :

ZONE :

ANNULER FILTRER

MACON DPVP

MACON ZONAL

MACON CONSULTANT

MACON FORMATEUR

MACON TOLE

APPRENTANT FD

NOUVEAU

RETROGRADE

DANGER / RISQUE

Appliqué le filtre à : Colonne X Tous



Re-evaluation of the potential savings in CO2eq of a Nubian Vault building

A study¹ was conducted in early 2015 by Bruno Jarno, to re-evaluate the quantification of greenhouse gas emissions of a Nubian Vault building.

Performed by analyzing the life cycle (raw materials, manufacturing, transportation, use) over a period of 30 years, this study shows that a 25 sq m Nubian Vault house represents well over 20 tons of CO2eq potential savings, as compared to a cement cinderblock building with a concrete slab roof (equivalent to a NV building in terms of comfort and durability):

• 3.4 tonnes of CO2eq savings on construction and maintenance through the use of materials with low environmental impact (mud bricks and mortar); in earlier studies, AVN had only taken the construction phase into account, with an estimated 2 tonnes of CO2eq savings.

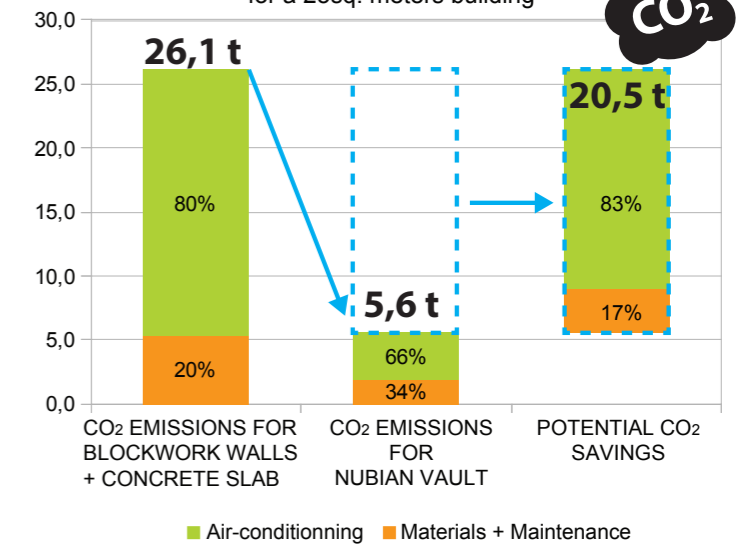
• Up to 17.1 tonnes of CO2eq potential savings on use of cooling energy (ventilation / air conditioning) to reach an acceptable level of thermal comfort (<32 ° C). The passive energy performance of Nubian Vault buildings limits the consumption of electricity in a context where infrastructure is struggling to cope with the growing demand for electricity; AVN did not previously integrate this gain in earlier calculations of greenhouse gas emissions.

This study confirms that the Nubian Vault is a low carbon bio-climatic housing solution, adapted to the socio-economic and environmental contexts of Sudano-Sahelian Africa and to the effects of future climate change.

¹ Life cycle analysis of raw materials, manufacture, transport, and use over a 30-year period

POTENTIAL CO2 SAVINGS

tons of CO2 eq over 30 years for a 25sq. meters building



Conclusions of an External Evaluation of the Programme

As part of the agreements signed with our State sponsors, the French World Environment Fund (FFEM) and the French Development Agency (AFD), an external evaluation was conducted by Urbaconsulting, between June and September 2015 (available on AVN's website). **Its findings highlight the obstacles in the program's development as described above, and confirmed the recent strategic shifts** (institutionalization, increased investment in masons' training and technical expertise, development of effective partnership models, etc.).

AVN has taken on board an important point raised by Urbaconsulting relating to the definition of the programme's overall evaluation. Measuring results, outcomes and impacts of the programme as required by French state sponsors FFEM and AFD seems too specifically based on indicators quantifying gross production (numbers of Nubian Vaults built, numbers of trained masons etc).

But it has become obvious that a large part of the effects and impacts of the programme are multiple and qualitative, their results being discernible only in the medium and long term.

For example the awareness and involvement of institutional and civil society actors, the transformational leverage of improvements in the housing sector and associated professional training activities, as well as related methodological trials induce results and effects that are difficult to measure in the short term. Yet these complex activities require resources.

It is therefore necessary to develop tools to evaluate the various long term and qualitative effects and impacts of the programme (economic, cultural, health, environmental), to supplement the previous more quantitative indicators of production.



6 FINANCIAL REPORT

Management of continued growth

The Nubian Vault Association is deeply concerned about providing reliable financial management. Since 2013, the annual accounts are audited by a state recognized auditor appointed by the Board of Directors of the association. Financial transaction control procedures have been implemented and are reinforced every year to ensure the conformity of the expenditures with the requirements of the various donors. Consolidating financial data is consistent with international accounting principles. Financial reporting and indicators compared to forecasts allow monitoring of the activity throughout the year. Local financial managers are regularly trained and monitored by the Headquarters team.

Development of adequate IT resources

Thanks to a French State fund (FRIO), the Association was provided at an early date with computer tools necessary for the monitoring of expenditures by country, project and donor. The implementation of the software SAGA has enabled AVN to manage different currencies, dedicated funds and specific projects. Local teams have mastered this tool for a standardized monitoring of their expenditure reports.

Working in partnership

The association has forged close relationships with partners allowing it to outsource some of its activities, particularly for construction of individual and community buildings, for example with Via Nebba in Eastern Burkina Faso for a relocation programme and with Le Partenariat for northern Senegal activities. This collaboration involves regular and reliable financial reports and mutual understanding of reporting procedures and requires monitoring by local teams and headquarters.



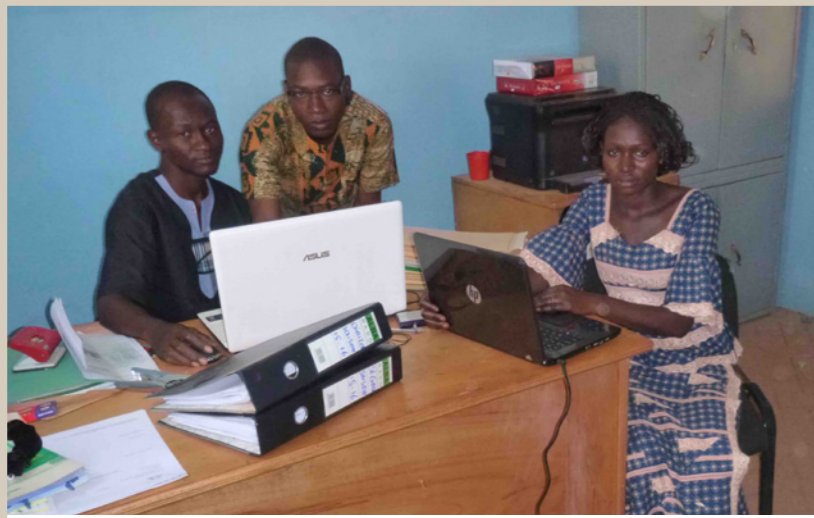
Burkina Faso's financial team
Maimouna Sawadogo, Finance Assistant- Boubacar Ouily, Coordinator - Pascaline Malo, Finance Manager

Management of increasing liquidities

The growth of program expenditures led to the need for increased performance of cash management and liquidity investment. The option was taken to place the funds received in interest-bearing accounts (at around 1%). The number of foreign donors subsidizing the programme in dollars has also required a tracking resource to ensure the adequacy of currency conversions based on the activity.

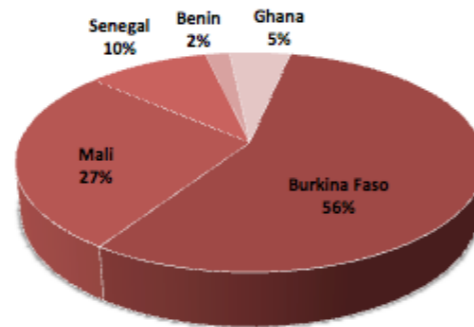
Equipment of local actors with performance management tools

The purpose of the Association is to enable local actors to emancipate themselves gradually from AVN control through sustained training and management of their developing activities. Financial management tools are mastered locally. Additionally, some donors pay their grants directly to local AVN accounts. This requires a local management of remittances, the allocation of expenses up to the establishment of specific financial reports, with an overall follow-up by the Headquarters.

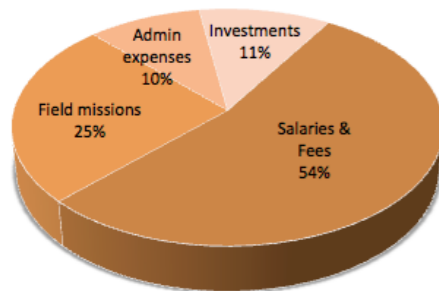


Mali's financial team -
 Drissa Traore, Finance Manager - Alexe Dembele,
 Coordinator - Coumba Bagayoko, Finance Assistant

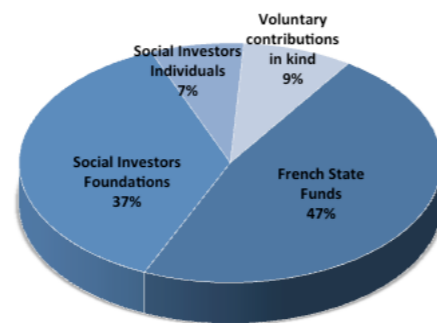
COUNTRY DISTRIBUTION



DISTRIBUTION OF EXPENSES



PROGRAMME SPONSORS



STATEMENT of REVENUE & EXPENSES

REVENUE in EUROS	2014-2015	2013-2014
French State Grants	440,000	350,687
Social Investors Foundations	346,973	191,627
Social Investors Individuals	66,771	56,631
Total Resources	853,744	598,945
Contributions in kind	78,448	50,038
Total General	932,192	648,983

EXPENSES in EUROS	2014-2015	2013-2014
Salaries & Fees	455,963	306,582
Field missions	214,475	162,896
Administrative expenses	82,202	75,173
Investments	96,200	38,614
Expenses related to previous period	802	14,092
Total Expenses	849,642	597,357
Excess	4,102	1,588
Contributions in kind	78,448	50,038
Total General	932,192	648,983

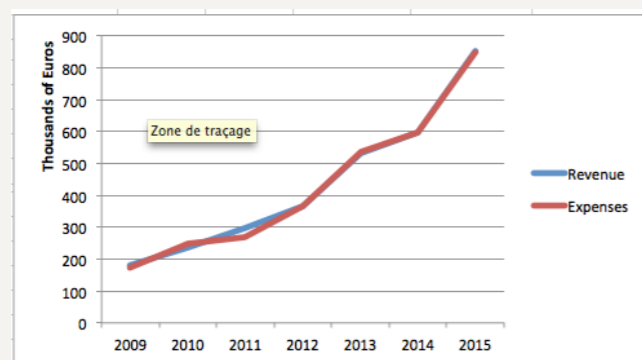
STATEMENT OF FINANCIAL POSITION AS AT

ASSETS in EUROS	31/08/15	31/08/14
Equipment	2,993	4,789
Other receivables	10,241	20,290
Accrued Revenue	57,400	7,750
Cash and cash equivalent	321,295	81,231
Total Assets	391,929	114,060

LIABILITIES in EUROS	31/08/15	31/08/14
Retained Earnings	22,409	20,821
Excess of the year	4,102	1,588
Allocated Revenue		9,624
Trade payables	47,984	6,262
Other payables	43,258	59,115
Deferred Revenue	274,176	16,650
Total Liabilities	391,929	114,060

PROGRESSION of REVENUE & EXPENSES in EUROS

	2009	2010	2011	2012	2013	2014	2015
Revenue	180,733	234,880	295,432	366,651	531,754	598,945	853,744
% increase p.a		30%	26%	24%	45%	13%	43%
Expenses	173,133	248,230	268,000	366,295	534,901	597,357	849,642
% increase p.a		43%	8%	37%	46%	12%	42%
Excess (Deficiency)	7,600	-13,350	27,432	356	-3,147	1,588	4,102



7 PARTNERS AND AWARDS

Financial partners who co-financed the 2014-15 season



AFD-DPO, France
The French Agency for Development has supported AVN's overall programme in Burkina Faso, Mali and Senegal since 2013.



Eiffage Sénégal, Senegal
Eiffage Sénégal has supported AVN's overall project in Senegal since 2014.



Alwaleed Philanthropies, Saudi Arabia
Alwaleed Philanthropies has supported AVN's overall programme in all five countries since 2015.



Brageac Foundation, France
The Brageac Foundation supported the programme to strengthen professional training in Burkina Faso in 2014.



Crédit Coopératif, France
AVN has received interest from Crédit Coopératif's «A comme Agir» savings accounts since 2013.



Île de France region, France
In 2014, the Île de France region supported the construction of an NV classroom in Senegal through its ARAMIS scheme.



Dubai Charity Association, United Arab Emirates
The Dubai Charity Association has supported the Mauritanian rehousing programme since 2014.



Yvelines Departmental Council, France
In 2014, the Yvelines Departmental Council supported the launch of AVN's programme in Benin through its international solidarity scheme. In 2015, it plans to build the Maison des Yvelines in Ourossogui, in the Matam department of Senegal.



FFEM, France
The French Facility for the Global Environment has supported AVN's overall programme in Burkina Faso, Mali and Senegal since 2012.



Un Monde Par Tous, France
The Un Monde Par Tous Foundation supported the kickstart programme for the NV market in Bama in 2014.



Air Liquide Foundation, France
The Air Liquide Foundation has supported AVN's R&D programme in Mali since 2012.



Regional Council of Brittany, France
The region of Brittany has supported the kickstart programme for the NV market in the Koubri region since 2013.



Artelia Foundation, France
The Artelia Foundation supported AVN's overall programme in all five countries in 2014.



SELAVIP, Chili
The SELAVIP Foundation has supported the project to rehouse disaster-stricken populations in Burkina Faso since 2012.



Eiffage Foundation, France
The Eiffage Foundation has renewed its support for AVN's overall programme in Senegal and has supported the launch of AVN's programme in Ghana since 2014.



Ensemble Foundation, France
The Ensemble Foundation has supported AVN's overall programme in Burkina Faso since 2012 as well as the launch of AVN's programme in Benin since 2013.



Hermès Foundation, France
The Hermès Foundation has supported AVN's overall programme in all five countries since 2008.



Solidarity Accor, France
The endowment fund has supported AVN in Senegal since 2013.

Partner networks



Coordination Humanitaire et Développement

In 2014, AVN joined Coordination Humanitaire et Développement (Humanitarian and Development Coordination, CHD). The CHD brings together 37 French organisations that work in the field of international solidarity, and it is a founding member of Coordination Sud. It has two areas of focus, humanitarian issues and development, each of which has its own area of outreach, an agenda, and external events.



Coordination Sud

In 2014, AVN, through its membership in CHD, joined Coordination Sud, the largest French development network, of which CHD is a member. Within that network, AVN became actively involved in the Climate and Development Committee, which works to strengthen activities combatting climate change in support of vulnerable populations. AVN prepared its participation at the Conference of the Parties on Climate Change in Paris (COP21) through this network.



Groupe de Travail Désertification (GTD), Cari

Since it is involved in issues related to desertification in the African Sahel, in 2015 AVN joined GTD, a desertification working group led by CARI (Centre for International Actions and Achievements). Within this network, AVN participated in particular in the Désertif'Actions forum, an international civil society forum involved in combatting desertification and soil degradation, lasting from 10 to 13 June in Montpellier.



Prizes and honours won during the season

My Positive Impact, Nicolas Hulot Fondation, 2015

AVN was one of the ten climate change solutions chosen by voters during the My Positive Impact campaign launched by the Nicolas Hulot Foundation in the run-up to the International Conference on Climate Change at the end of 2015 (COP21).



Lighthouse Activities, Momentum for Change, UNFCCC, 2014

In 2014, AVN won the prestigious UNFCCC Momentum for Change prize, awarded in 2014 to 12 innovative projects focusing on climate change mitigation and adaptation. AVN's programme was recognised in the «urban poor» category.



Semi-finalist, Buckminster Fuller Challenge, 2014

In 2012 and 2014, AVN was a semi-finalist for the Buckminster Fuller Challenge prize, organised by the Buckminster Fuller Institute in New York.



Other prizes and recognitions

Trophées du Mécénat pour l'Environnement et le Développement Durable (Sponsorship Trophy for the Environment and Sustainable Development), 2013

Sponsored by the Eiffage Foundation, AVN won the Ministry of Ecology, Sustainable Development and Energy's 2013 Sponsorship Trophy for the Environment and Sustainable Development.



Social Entrepreneur of the Year, Schwab Foundation, 2012

Thomas Granier was chosen as 2012's Entrepreneur of the Year for Africa at the World Economic Forum in Addis Ababa.



Dubai International Award for Best Practices, UN-Habitat and the city of Dubai, 2013

In 2013, AVN received the prize for best practices to improve the living environment in the «best practice transfer» category, in partnership with UN-Habitat and the city of Dubai.



Jury's Choice Award, Shamengo, Newmanity and LH Forum, 2013

AVN won the «Jury's Choice» prize under the «1000 pioneers who are changing the world» award, co-organised by Shamengo, Newmanity and the LH Forum.



100 Innovations for Sustainable Development, AFD and MAEE, 2013

In 2013, Seri Youlou, co-founder of AVN and director for Africa, was recognised for one of the «100 Innovations for Sustainable Development» in Africa, as part of a contest organised by the AFD and the MAEE.



Innovation Trophy, Salon des Solidarités, 2012

AVN won the Innovation Trophy under the «Building» category at the 2012 Salon des Solidarités in Paris.



SEED Awards, 2011

In 2011, AVN won a SEED award for its programme in Burkina Faso, under the category «consumption and sustainable production».



Social Enterprise Trophy, International Category, BNP Paribas, 2011

In 2011, AVN won the Social Enterprise Trophy in the international category, one of six entrepreneurs recognised for their commitment with Social Enterprise Trophies, organised by La Tribune and as part of a BNP Paribas contest.



Social Economy Initiative Award, Crédit Coopératif Foundation, 2010

AVN won the first-prize Best Social-Economy Initiative Trophy in 2010, awarded by the Crédit Coopératif Foundation.



Nomination, Aga Khan Award for Architecture, 2007 and 2010

In 2007 and 2010, AVN was nominated for the Aga Khan Award for Architecture.



Finalist, World Habitat Awards, 2009

In 2009, AVN was «one of 11 outstanding finalists» for the World Habitat Award, created by the Building and Social Housing Foundation, for its contribution to the UN's International Year of Shelter for the Homeless.



Climate Change Adaptation, Development Marketplace Competition, 2009

In 2009, AVN won the international «Development Marketplace Competition - Climate Change Adaptation» contest, which goes to the best innovations from around the world in the field of climate change adaptation and mitigation. This contest led to a partnership with this World Bank Institute agency which co-funded the pilot project in Burkina Faso from 2010 to 2011.



Social Business Plan, Ashoka Impacts, 2008

In 2008, AVN won the Ashoka Impact Social Business Plan contest.



Tech Award for Economic Development, 2007

In 2007, AVN won a Tech Award for Economic Development.



Probable success (based on figures from Burkina Faso): with the number of new building sites growing at 25% per year, by 2040, the programme should have completed around 200,000 buildings in total. A growth rate of more than 10 points (35%) would multiply that number by 6 (that is, 1,200,000 buildings), thus generating a more significant leverage effect.

It is the combination of stakeholders' commitment to a sector-based dynamic and the creation and implementation of dedicated tools and methods, therefore, that would lead to the macro-economic results needed (a growth rate of at least 35%) to reverse the housing problem in Africa for as many people as possible, and to also produce all the associated benefits.

AVN's role and the challenge it faces is to stimulate and strengthen these links between stakeholders and operational procedures.

Given the programme's expected change of scale, AVN's prospects for the coming seasons are based on several main assumptions:

Stakeholder involvement

National and local public authorities, to ensure the programme's legitimacy

International donors and cooperation actors, in order to support this approach and to include it in a comprehensive process

Civil society actors, the kingpins of local implementation and representatives of beneficiaries

Technical development operators, for their skills and because housing issues complement their own activities and objectives

The business world, driver of innovations, for its entrepreneurial spirit, expertise and resources, which will produce positive effects in niche markets

The simultaneous and coordinated involvement of all of these stakeholders will allow us to meet the challenges we face.

Including adapted housing in today's challenges

The fundamental problems of economic development, adaptation to demographic and migratory realities, and climate change and the environment cannot be solved without dealing with the issue of housing and human settlements for as many people as possible.

AVN must continue to serve as a reference in international advocacy, and other actors and operators must join AVN.

Mobilisation of financial resources

The cross-cutting nature of the programme allows for a broad spectrum of funding ranging from international to national funds, development funds to «for profit» funds, and public sector funds to private or corporate funds. The funding necessary for the sector's development should of course be granted in the form of specific subsidies that require results, effects and impacts, but should also involve:

- already allocated funding, for example funds dedicated to professional training or to building community structures
- investment funds that take a profit-based approach, such as those used in micro-financing
- non-cash considerations, such as how the carbon fund functions.

The diversification and perpetuation of different funding models must remain a fundamental objective for AVN and for many sectoral actors.

Strengthening the adapted housing supply

Today, demand is growing faster than supply. A continual effort must be made to achieve balanced growth in both supply and demand. As regards supply, there should be several focal points:

- increasing the number of producers (mason-artisans and companies),
- strengthening technical skills and entrepreneurial performance,
- broadening the range of actors involved in the construction sector (technicians, architects, research units, etc.),
- formalisation of a share of production.

AVN and its partners will split these into two essential divisions, one focusing on technical skills and the other on strengthening entrepreneurship.

Financial market incentives and facilitation

Truly overcoming the housing issue for as many people as possible will only be feasible if loans are available for clients and builders and if there are specific subsidies (interest rate subsidies, subsidies for construction projects, etc.). These are intended to facilitate client decision-making and to provide incentives for them to do so, as well as to give producers investment possibilities.

AVN and its partners will strengthen and increase the number of pilot projects to demonstrate the effectiveness of these financial tools.

Take-off and maintenance of AVN activities

The geographic and thematic changes in the scale of the programme will require stronger management and more production capacity, focusing mainly on:

- the mobilisation of the necessary human resources in order to deal with the diversification and specific nature of activities carried out,
- secure financial management, necessary to absorb the significant budget increase (+70% set for 2015–16),
- improvements to programming, steering, monitoring and information-exchange tools.

Consistency of AVN proposals and methods, expert and mature teams, and working with committed partners will allow this crucial phase of growth to be managed methodically, and will place it securely within the programme's overall vision and on track for success.





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